IMISCOE Research Series

Mikolaj Stanek
Sol P. Juárez
Miguel Requena *Editors*

Multidisciplinary Perspectives on Immigrant Health

New Insights from Spain

IMISCOE

OPEN ACCESS

Springer

IMISCOE Research Series

This series is the official book series of IMISCOE, the largest network of excellence on migration and diversity in the world. It comprises publications which present empirical and theoretical research on different aspects of international migration. The authors are all specialists, and the publications a rich source of information for researchers and others involved in international migration studies. The series is published under the editorial supervision of the IMISCOE Editorial Committee which includes leading scholars from all over Europe. The series, which contains more than eighty titles already, is internationally peer reviewed which ensures that the book published in this series continue to present excellent academic standards and scholarly quality. Most of the books are available open access.

Mikolaj Stanek • Sol P. Juárez • Miguel Requena
Editors

Multidisciplinary Perspectives on Immigrant Health

New Insights from Spain

Springer

IMISCOE

Editors
Mikolaj Stanek
Department of Sociology
and Communication
University of Salamanca
Salamanca, Spain

Miguel Requena
Department of Sociology II
(Social Structure)
UNED
Madrid, Spain

Sol P. Juárez
Centre for Health Equity Studies
Stockholm University/Karolinska Institutet
Stockholm, Sweden

Department of Public Health Sciences
Stockholm University
Stockholm, Sweden

ISSN 2364-4087 ISSN 2364-4095 (electronic)
IMISCOE Research Series
ISBN 978-3-031-82351-0 ISBN 978-3-031-82352-7 (eBook)
https://doi.org/10.1007/978-3-031-82352-7

This work was supported by IMISCOE
This book was supported by the R&D project PID2021-128108OB-I00, funded by MCIN/AEI/ 10.13039/501100011033/ and FEDER, "A way of making Europe".

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

Being a migrant who moved from Spain 26 years ago has formed my life, and it is not a coincidence that I have being doing research in migration and health for nearly 20 years now. Most of my research has been conducted with Norway, where I live most of the time, as host country, but I have had the opportunity of working with dear colleagues using Spanish data. Therefore, it was a pleasure to be invited to write a prologue for this book focusing on migration and health in Spain.

First, the editors should be congratulated for gathering information on migration and health within a multidisciplinary approach, aiming to test the relevance of well-established frameworks and theories in public health, in particular the "healthy migrant paradox" and the "life-course perspective," in the Spanish context. This effort is especially valuable because without solid conceptual frameworks and hypothesis guiding the research in this politicized field, we are often directed in dangerous paths: those of "cherry-picking" in research, or just focusing on differences rather than commonalities (Kumar & Díez, 2019), and stereotyping of migrants, looking at "them" as vectors of infection or as a burden for health care services (Abubakar et al., 2018).

Further down the line, in the spirit of the "honest broker" (Pielke, 2012), the editors´ aim is to help policymakers to design well-informed interventions. Although this aim is noble, experience shows us that evidence is not always the base of decisions regarding migrants. As written by one of the authors in this book: "misconceptions and misinformation often appear based on clear ideological interests." However, lack of evidence will make the case even worse, so it is absolutely necessary to co-generate knowledge with communities and to communicate the complexities of the field to the different stakeholders.

Therefore, my first reaction when I got the kind invitation to write the prologue was to ask myself: Why write in English about Spanish immigrants and their health? For what public? When starting to read, I was curious to learn what specific Spanish challenges or lessons could be obtained that were worth writing for an international public. While reading the book I was reminded of some specific features of the Spanish context: the high percentage of immigrants that share the language with the non-migrant population, the transitory changes in the legal rights for undocumented

migrants a few years ago, and a highly medicalized Spanish culture—which should, in my opinion, be even more highlighted in research studies—give an specific context that can be considered as ground for quasi-experimental research and invites to comparative studies with other countries (Gimeno-Feliú et al., 2016).

However, very few of the results seem to me to be specific to Spain. The "healthy migrant paradox" and its complementary "exhausted migrant theory" (called in this book "unhealthy assimilation" or "acculturation paradox") are useful, but not for all groups and throughout life periods (Kumar & Díez, 2019). Theories on the social determinants of health remind us, time and again, that both the home and host country, the transit period and eventually the circulation of migratory processes all can have an impact in health that will vary depending on the person and the environment. A smile from your healthcare worker can change much when you are a foreigner (Haj-Younes et al., 2022). But the legal determinants of health seem to be universally important, although seldom included in our studies (Gostin et al., 2019). While none study alone can highlight all these issues, we should be aware of these complexities in Spain, as elsewhere. In the words of another author in this book studying use of health services: "other factors should also be investigated, such as socioeconomic factors, exclusion, fear, stigma, lack of familiarity with human rights, access barriers, housing situations, employment, or culture differences."

Ours is a complex research field at the very intersection of several disciplines and human behaviors that connect the global, national, and local levels. Thus, to create evidence and understand each other and the research field we need rigorous methods. As scholars form different disciplines collaborating in this common effort, we should discuss the consistency and appropriateness of the terms we use. Is the "migrant healthy paradox" a theory or is it a proven fact? Can we still talk about first and second generation or should we use terms like migrants and children of migrants (Johnson et al., 2019)? What is really a "native" and is a foreign born always considered a migrant? How are ethnicity and migration related? How do we categorize countries of origin? What is an "industrialized" or "developed" country, or what do we mean by "Western societies" if we think in terms of decolonization of research (Kumar et al., 2024)? Is the reason for migration more important than the wealth or geography of the origin country (Diaz et al., 2015)? How is migrant health for those who share the language versus those who do not? What are we talking about when we say something is "culturally related" (Vederhus et al., 2024)?

Yet, research is much more than variables that can be explained, and our own perspective is worth some lines. Many of the authors in this book are migrants themselves or collaborate closely with migrants. Some others are born in Spain, where they have lived their whole life and know the changing context well. As researchers, we like to think that we understand the field especially well because of these features. And we probably do, to some degree. But most of us live in a higher social stratum as compared to many other migrants. Allow me to share a personal experience that reminded me on this just a few days ago. While reading this book I was living in Lisbon for some months, on a research stay. We had hired a nice flat in an immigrant area of the city when one day four policemen, two lawyers, and one person from the Court knocked on our door and informed us that we must leave the flat

immediately. The owner of the apartment turned out to be a different person than the one renting us the apartment and we were (not knowingly) illegally in the flat. My husband and I had 45 min to pack our belongings and find a new place to live in a foreign country where we had been for 2 weeks. The food bought for the stay was left behind, an expensive hotel quickly booked, and the following hours were of chaos and uncertainty. Resilient and healthy as we are, we were again organized a few days later. We knew some people in the town, had social capital, understood the culture and the language (Portuguese and Spanish are not so different), and there were only a couple of nights when the scenes of being thrown out came back to our minds. The traumatic experience of not being wanted could then be processed. Now, I can write about this and have a story to tell. But reading this book at the time, the idea of any linear understanding of healthy migrants, resilience, and acculturation seemed too unreal. Is the paradox that we try to put every migrant, context, and situation in the same box? Can we learn something from the migrants and their sometimes chameleonic efforts to adapt to a changing world characterized by multicrises?

The editors have gathered an impressive number of complementary views on the field that give us some clues for understanding the research field in more depth. Their claim for multidisciplinary, context-sensitive, and life course approaches, within solid theoretical frameworks, and more available data of high quality resonate with the WHO Research Agenda on health and migration (World Health Organization, 2023) and set the ground for even more and better research in Spain. Migration flows and new arriving groups will have different health at arrival. The local contexts in Spain and the Global North seem to be going in a conservative political direction that will not necessarily increase access to welfare or targeted health interventions for migrants. Let us continue to use intersectional approaches, include life course perspectives in conjunction with intergenerational perspectives, and follow the migrants across countries when possible.

Esperanza Díaz

Department of Global Public Health
and Primary Care, University of Bergen
Bergen, Norway

Stockhoim, Sweden

Madrid, spain

References

Abubakar, I., Aldridge, R. W., Devakumar, D., Orcutt, M., Burns, R., Barreto, M. L., Dhavan, P., Fouad, F. M., Groce, N., Guo, Y., Hargreaves, S., Knipper, M., Miranda, J. J., Madise, N., Kumar, B., Mosca, D., McGovern, T., Rubenstein, L., Sammonds, P., Sawyer, S. M., Sheikh, K., Tollman, S., Spiegel, P., Zimmerman, C., & UCL–Lancet Commission on Migration and Health. (2018). The UCL-Lancet Commission on migration and health: The health of a world on the move. *Lancet, 392*(10164), 2606–2654. https://doi.org/10.1016/S0140-6736(18)32114-7

Diaz, E., Kumar, B. N., Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Poblador-Pou, B., & Prados-Torres, A. (2015). Multimorbidity among registered immigrants in Norway: The role of reason for migration and length of stay. *Tropical Medicine & International Health, 20*(12), 1805–1814. https://doi.org/10.1111/tmi.12615

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Prados-Torres, A., Revilla-López, C., & Diaz, E. (2016). Patterns of pharmaceutical use for immigrants to Spain and Norway: A comparative study of prescription databases in two European countries. *International Journal for Equity in Health, 15*, 32. https://doi.org/10.1186/s12939-016-0317-9

Gostin, L. O., Monahan, J. T., Kaldor, J., DeBartolo, M., Friedman, E. A., Gottschalk, K., Kim, S. C., Alwan, A., Binagwaho, A., Burci, G. L., Cabal, L., DeLand, K., Evans, T. G., Goosby, E., Hossain, S., Koh, H., Ooms, G., Roses Periago, M., Uprimny, R., & Yamin, A. E. (2019). The legal determinants of health: Harnessing the power of law for global health and sustainable development. *The Lancet, 393*(10183), 1857–1910. https://doi.org/10.1016/S0140-6736(19)30233-8

Haj-Younes, J., Abildsnes, E., Kumar, B., & Diaz, E. (2022). The road to equitable healthcare: A conceptual model developed from a qualitative study of Syrian refugees in Norway. *Social Science & Medicine, 292*, 114540. https://doi.org/10.1016/j.socscimed.2021.114540

Johnson, M., Bhopal, R., Ingleby, D., Gruer, L., & Petrova-Benedict, R. (2019). A glossary for the first world congress on migration, ethnicity, race and health. *Public Health, 172*, 85–89. https://doi.org/10.1016/j.puhe.2019.05.001

Kumar, B. N., & Diaz, E. (2019). *Migrant health: A primary care perspective*. CRC Press.

Kumar, R., Khosla, R., & McCoy, D. (2024). Decolonising global health research: Shifting power for transformative change. *PLOS Global Public Health, 4*(4), e0003141. https://doi.org/10.1371/journal.pgph.0003141

Pielke, R. A. (2012). *The honest broker. Making sense of science in policy and politics*. Cambridge University Press.

Vederhus, S., Myhre, E., Diaz, E., & Kvalvik, L. G. (2024). Cultural factors influencing COVID-19-related perceptions and behavior, seen from immigrants' own perspective: A qualitative study in Norway. *Archives of Public Health, 82*(1), 110. https://doi.org/10.1186/s13690-024-01327-z

World Health Organization. (2023). *Global research agenda on health, migration and displacement: Strengthening research and translating research priorities into policy and practice*. World Health Organization.

Contents

Contributors

Lola Aparicio Pareja Mental Health Migration Care Service (SATMI program), Parc Sanitari Sant Joan de Déu, Barcelona, Spain

Paula Cristóbal-Narváez Teaching, Research & Innovation Unit, Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Barcelona, Spain

Center for Biomedical Research on Mental Health (CIBERSAM), Madrid, Spain

Chiara Dello Iacono Department of Sociology and Communication, University of Salamanca, Salamanca, Spain

Cecilia Estrada Villaseñor Institute for Migration Studies, Universidad Pontificia Comillas, Madrid, Spain

Refugee and Forced Migrants, Universidad Pontificia Comillas, Madrid, Spain

Marcos Febas Fernandez Children and Youth Integration Area, Sant Joan de Déu Terres de Lleida, Lleida, Spain

Juan Manuel García-González Department of Sociology, University Pablo Olavide, Sevilla, Spain

Olaya García-Vázquez Quantitative Methods Department, Universidad Pontificia Comillas, Madrid, Spain

Luis Andrés Gimeno-Feliu San Pablo Health Centre, Zaragoza, Spain

EpiChron Research Group on Chronic Diseases, Aragon Health Sciences Institute (IACS), Aragon Health Research Institute (IIS Aragón), Miguel Servet University Hospital, Zaragoza, Spain

University of Zaragoza, Zaragoza, Spain

Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS) (RD24/0005/0013, RD21/0016/0019), Institute of Health Carlos III (ISCIII), Madrid, Spain

Rafael Grande Faculty of Social and Labour Studies, University of Malaga, Malaga, Spain

Sol P. Juárez Centre for Health Equity Studies, Stockholm University/Karolinska Institutet, Stockholm, Sweden

Department of Public Health Sciences, Stockholm University, Stockholm, Sweden

Carmen Meneses-Falcón Sociology Department and Social Work, Faculty of Humanities and Social Sciences, Universidad Pontificia Comillas, Madrid, Spain

Estrella Montes Department of Sociology and Communication, University of Salamanca, Salamanca, Spain

Francisco Javier Moreno Fuentes Institute for Public Goods and Policies, Spanish National Research Council (IPP-CSIC), Madrid, Spain

Aída Moreno-Juste EpiChron Research Group on Chronic Diseases, Aragon Health Sciences Institute (IACS), Aragon Health Research Institute (IIS Aragón), Miguel Servet University Hospital, Zaragoza, Spain

Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS) (RD24/0005/0013, RD21/0016/0019), Institute of Health Carlos III (ISCIII), Madrid, Spain

Roberta Perna Institute for Public Goods and Policies, Spanish National Research Council, Madrid, Spain

Miguel Requena Department of Sociology II (Social Structure), UNED, Madrid, Spain

Maria José Rueda Children and Youth Integration Area, Sant Joan de Déu Terres de Lleida, Lleida, Spain

Child Abuse Assessment Unit, Fundació Mercè Fontanilles, Lleida, Spain

Aïda Solé-Auró Department of Political and Social Sciences, Universitat Pompeu Fabra, Barcelona, Spain

Mikolaj Stanek Department of Sociology and Communication, University of Salamanca, Salamanca, Spain

Chapter 1
Challenges in Current Research on Immigrant Health: Insights from Spain

Mikolaj Stanek, Sol P. Juárez, and Miguel Requena

1.1 Introduction

International immigrants represent a growing share of the population of many countries. Despite the COVID-19 pandemic, 3.7 million individuals from countries that are not members of the Organization for Economic Co-operation and Development (OECD) established their permanent residence in an OECD country in 2020 (OECD, 2021), and this figure is expected to grow in the coming years. This migratory phenomenon presents challenges for both individuals and groups who engage in immigration as well as for receiving societies. On one hand, immigration and immigrants' attempts to integrate into and adapt to a new country represent factors of vulnerability that can result in social inequalities across various dimensions, including health (Castañeda et al., 2015). On the other hand, the arrival of immigrants creates several challenges for destination countries, as they must take action and address immigrants' needs to prevent marginalization and mitigate growing inequalities. Ensuring equitable treatment for immigrants within a country's healthcare system and promoting health equality among residents, regardless of their origin, is therefore a pressing issue faced by many receiving countries (Malmusi, 2014).

M. Stanek (✉)
Department of Sociology and Communication, University of Salamanca, Salamanca, Spain
e-mail: mstanek@usal.es

S. P. Juárez
Centre for Health Equity Studies, Stockholm University/Karolinska Institutet, Stockholm, Sweden

Department of Public Health Sciences, Stockholm University, Stockholm, Sweden
e-mail: sol.juarez@su.se

M. Requena
Department of Sociology II (Social Structure), UNED, Madrid, Spain
e-mail: mrequena@poli.uned.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*,
IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_1

The relationship between immigration and health is never simple. The prime example of this is the healthy immigrant paradox, which will be discussed in more detail later in this chapter, wherein certain immigrants demonstrate better health status than natives despite facing inferior socioeconomic conditions and healthcare access disparities (Markides & Rote, 2015; Solé-Auró & Crimmins, 2008). Moreover, differences exist not only between immigrants and the native population but also among various immigrant communities (Reynolds et al., 2016; Stanek et al., 2020).

Understanding and assessing the intricate factors associated with disparities between the health of natives and immigrants is theoretically, methodologically, and empirically challenging. Such factors include biological aspects (e.g., age, sex), social elements (e.g., socioeconomic status, gender, rights, values and culture) and psychological components (e.g., social support, resilience) (Ingleby, 2006; Low & Low, 2012; Wilkinson & Marmot, 2003). Empirical comparisons of the health of immigrants and native-born people, as well as comparisons between immigrant groups, are challenging due to the combined effects and reciprocal influences of these factors in various contexts. These factors not only shape immigrant health, but they also have the potential to create multiple sources of selection and compositional bias for researchers. This difficulty, in turn, raises a number of theoretical questions, such as whether immigration should be regarded as a social determinant of health on its own as opposed to being a category that reflects the differential effect of various social factors on health.

The field of immigration and health has long been driven by the ambition to establish regularities in health behaviors and outcomes between and within receiving countries. This interest has led to ongoing international debates on the topic, which in most cases are reduced to methodological discussions without clear societal relevance (Wickramage et al., 2018). Overall, the wide variation in immigrant origins across receiving countries, the enormous differences in receiving countries' approach to immigration, and the lack of harmonized data have been identified as the main limitations in evaluating the effect of receiving contexts on immigrant health (Goldenberg & Fischer, 2023; Hossin, 2020). These point to the urgent need to evaluate the health of immigrants in a context-sensitive manner as the starting point for a more productive discussion on immigration and health (Marmot, 2016). In other words, tackling the challenge of systematically addressing the intricate and multifaceted phenomenon of immigrant health necessitates an exploration of the diverse factors at play within a particular receiving country. This approach can improve understanding of the intricacies linked to the dynamics of arrivals and the social and institutional frameworks of immigrant reception in specific settings. Focusing on the examination of public policies, such as the peculiarities of the healthcare system and the regulations that control immigrants' access to it, is imperative. Due to the complex nature of immigrant health, a large volume of research continues to be produced by both medical and social science scholars, although this research does not often overlap. As a result, empirical evidence and theoretical reflections are still dispersed and organized along disciplinary and methodological lines. This highlights that, while collaborating across scientific disciplines to explore

specific aspects of social reality is inherently challenging, addressing immigration and health from a multidisciplinary or interdisciplinary perspective appears to be particularly arduous. Given these circumstances, the need to build bridges between fields, disciplines, and methodologies becomes increasingly evident, as demonstrated by practical experiences in addressing the health needs of immigrants (Elmore et al., 2019) and initiatives emerging within the research community (MacFarlane et al., 2023).

This edited book is an attempt to address the gaps in the analysis of the relationship between immigration and health emerged from the theoretical and methodological discussions that have taken place in the field in recent years. It explores immigrant health from a perspective that acknowledges the inherent complexities in the interplay of immigration, health, and destination country conditions while simultaneously aiming to bridge the gap between scholarly exploration and the need to provide systematic knowledge to enhance health interventions. This book aims to offer the reader a coherent and comprehensive body of knowledge on immigrant health, discussing several dimensions of health that, in one way or another, arrival countries must address. These issues include patterns of inequalities in immigrant health results and their determinants as well as the intersection between immigrant categories, life course stage, and health domain.

The focus of this book is on Spain, a country that in recent decades has become one of the most important immigrant-receiving societies in the world. Spain is therefore an ideal context in which to study the differences and similarities in health between immigrants and natives. Spain is also a country of particular interest due to the speed and intensity with which it has transformed into a nation experiencing massive immigration. This transformation has necessitated the adaptation of institutions to manage access to the labor market, education system, welfare state, and healthcare system for hundreds of thousands of immigrants. In this regard, Spain has served as a laboratory for the implementation of health policies concerning the immigrant population, drawing attention from scholars and policymakers alike (Bruquetas-Callejo & Perna, 2020).

In the remainder of this chapter, we lay the foundations that will guide the reader through the following chapters of this book. Specifically, we first discuss the relevance of immigrant health. This background is followed by a brief description of the recent migratory experience in Spain in the context of immigration and health research. Next, we introduce the conceptual framework that informs this book. Finally, we present the structure and the different components of this contribution.

1.2 Why Is Immigrant Health Important?

Health is a fundamental human right that is conditioned by and conditions other experiences, including life opportunities, social mobility, and social integration. The United Nations Sustainable Development Goals (SDGs) 2030 acknowledge that one of the major challenges modern society must tackle and prevent is

increasing health inequalities within and among countries (Goal 10) (Marmot & Bell, 2018). Considering the demographic weight of immigrants and their descendants, immigrants' role in shaping the health status of destination countries' populations is pivotal. Given that immigration is a potent driver of social and demographic change, the adage "no public health without migrant health" (Lancet Public Health, 2018: e259) remains pertinent.

The call to address health inequalities is rooted in one of the principles formulated by the World Health Organization (WHO) in its 1946 constitution, which recognizes that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition" (Office of the United Nations High Commissioner for Human Rights, 2008; WHO, 2020: 1). The recognition of this unconditional right to health has become embodied in the idea that protection against the risks of illness is one of the foundations of contemporary welfare regimes. Immigrants often leave their home countries due to conflict, persecution, economic hardship, or other challenging circumstances, and there are many who consider, from different ideological angles, that destination countries have a moral obligation to ensure that immigrants, regardless of their status, have access to adequate healthcare and other essential services.

Analytically, immigration has been considered to be one of the key social determinants of health (Castañeda et al., 2015). Immigration processes influence the health in complex ways, not only in countries of departure and destination but also throughout the immigration journey itself (Rote & Markides, 2015). The conditions in which migrants travel to and then work and live on arrival have the potential to alter their lifestyles. The social and community influences to which immigrants are subjected, the work situations they experience, and the socioeconomic, institutional, cultural, and environmental contexts to which they are exposed, including difficulties in accessing basic health services, can therefore crucially affect their physical and mental health (Davies et al., 2010). A proper understanding of the health of immigrant subpopulations requires a comprehensive examination of immigration processes and results to thoroughly assess these factors' impact on health.

Immigrant health is also important to destination countries for pragmatic reasons. First, the health of immigrants is closely linked to public health outcomes in destination countries. Infectious diseases, including emerging diseases, may spread more easily among immigrant populations that lack access to healthcare. Addressing the health needs of immigrants can contribute to disease prevention, early detection, and containment, improving the health and safety of the entire destination country population. Immigrant health is also important for destination countries because in an interconnected, increasingly globalized world, health issues transcend national borders. Immigrant populations may facilitate the spread of diseases across countries (Gushulak et al., 2010). By addressing the health needs of immigrants, countries can contribute to global health security and prevent the international spread of communicable diseases. Furthermore, from an economic standpoint, immigrant groups often contribute significantly to the economies of their destination countries through their labor and skills. Healthy immigrants can participate fully in the

workforce, contribute to economic growth, and support local economies. Conversely, immigrants unable to work due to health issues may strain social welfare systems and hinder economic development. Promoting the health and well-being of immigrants can also enhance social cohesion and integration within societies, because if immigrants have access to healthcare and other essential services, they are more likely to become active and engaged members of their communities. Finally, immigrants often face obstacles to accessing healthcare—language barriers, legal restrictions, and discriminatory practices—that may lead to inequalities in health compared with the general population. Mitigating or even eliminating these inequalities is crucial for achieving health equity and ensuring that all individuals, regardless of their background, have the opportunity to live healthy lives.

1.3 Why Is the Spanish Case Relevant?

Spain has emerged in recent years as an example of how immigration flows not only play an important role in social and demographic transformations but also how the impact of these flows can, under certain circumstances, occur with surprising speed. The rapid transformation of Spain from a country of emigration to a major recipient of immigration has garnered considerable attention from researchers and decision-makers in recent decades. Particular attention has been paid to the emergence of a distinct model of immigrant reception with a fundamental focus on inclusion in the healthcare system.

Spain primarily experienced emigration from the late nineteenth century until the 1980s. In the 1990s, a positive migratory balance emerged, but it was not until the early 2000s that immigration intensified significantly, peaking in 2007 when Spain became the leading European country in terms of inflows, accounting for over one third of the European Union (EU)-25 net migration (Izquierdo et al., 2016; Reher & Requena, 2009; Stanek et al., 2023). This period, described as a migration boom, saw a remarkable volume and intensity of inflows despite the global financial crisis from 2008 to 2014, which led to increased return migration and emigration of both immigrants and native Spaniards (González-Ferrer & Moreno Fuentes, 2017). The improvement in economic conditions that had occurred by 2014 contributed to an intensified inflow of immigrants into Spain. According to Spanish National Statistics Institute (INE), immigrant population peaked in 2019 with 873,842 new registrations of foreign-born individuals (INE, 2023). This second migratory boom halted temporarily during the strict COVID-19 lockdown in March 2020, causing a 40.1% drop in inflows during the most acute period of the crisis (Bayona-i-Carrasco & Domingo, 2023). Despite this setback, there has been a robust resurgence in immigrants settling in Spain after 2020 during the post-pandemic period and amid challenges in economic recovery.

This migrant influx has significantly impacted Spain's population growth, as the population increased from 40 to 48.6 million people between 2000 and 2024. Starting in 2015, Spain has experienced a negative natural growth rate, and

immigration has become pivotal to maintain and increase the country's population. In 2024, foreign born constituted 18.3% of the total resident population (INE, 2024). The ethnic composition of the country has also shifted dramatically, especially among the immigrant population. Latin Americans make up 43% of the foreign population, with Colombians, Venezuelans, and Ecuadorians constituting the largest groups at 6–7% each. Europeans account for 30% of immigrants to Spain, with Romanians making up the largest group at 7%. Africans constitute 18% of immigrants, with Moroccans making up the largest group at 13% (INE, 2023).

The demographic composition of Spain's immigrant population is very diverse in terms of origins, types of migration and sociodemographic characteristics. Economic migration from the Global South has been prevalent, complemented by lifestyle migration from wealthier Northern and Western European nations. Family migration, stemming from family reunification, gained prominence immediately after the initial wave of economic migrations in the early 2000s (González-Ferrer, 2014). Spain has also become a destination for people displaced due to humanitarian and political crises, although refugees and asylum seekers are far less numerous than economic immigrants. The immigrant population, influenced by economic migration, is notably younger than the native Spanish population. Age composition varies by origin, as immigrants from highly developed countries tend to be older. Recent trends show increased flows of both younger and older foreigners, attributed to growing family reunification processes (Mahía Casado, 2018; Sanz Gimeno & Blanco Iglesias, 2022).

While empirical evidence suggests that immigrants generally have a health advantage over native-born populations in Spain, variations exist based on specific immigrant characteristics and the health dimension being examined (Gotsens et al., 2015; Malmusi & Ortiz-Barreda, 2014). For instance, health outcomes related to birthweight, morbidity, cancer mortality, mental health, and chronic conditions differ by origin (Farré, 2016; Grande et al., 2023; Malmusi & Ortiz-Barreda, 2014; Rivera et al., 2016; Solé-Auró & Crimmins, 2008). Spain's immigrant health patterns differ from those in countries with longer migration traditions, such as the United States and Canada, but align with other European countries, showcasing the complex and highly heterogeneous relationships between immigration and health (Moullan & Jusot, 2014; Solé-Auró & Crimmins, 2008).

The arrival of immigrants in Spain has posed a challenge in the development of strategies and policies for the reception and integration of a continuously growing and highly diverse population. Spain's response to this challenge, particularly regarding public health policies, makes it an interesting case study.

A coherent model of integration policies comparable to those of countries with longer migration experiences has never been implemented in Spain (Cebolla Boado & González Ferrer, 2014). Nevertheless, several scholars have suggested that, albeit based on diffuse foundations, there is a Spanish idiosyncrasy in receiving and integrating immigrants, primarily anchored in the idea of ensuring social inclusion and maintaining social cohesion through a practical, bottom-up approach (Domingo et al., 2020; Finotelli, 2021). In essence, the Spanish approach to immigrant health unfolds within a complex framework defined by state law regulating the entry and

residence of foreigners in Spain, encompassing the basic rights of immigrants, including access to the healthcare system. There is also an integrated effort by the local and regional administrations responsible for ensuring effective integration across services, including healthcare, education, social assistance, labor, and housing (Bruquetas-Callejo et al., 2011).

This practical approach to integration is evident in access to the healthcare system, as national regulations have outlined a general framework for immigrants' access to health services. Specifically, although not without controversies or political debates, Spain pioneered the universalization of access to the healthcare system for immigrants through Law 4/2000 on the *Rights and Freedoms of Foreigners in Spain and Their Social Integration* (Moreno Fuentes, 2020). This access is granted without the need for a residence permit, positioning Spain as one of the most inclusive healthcare systems in the world (Petroff et al., 2021). Under this system, subnational administrations are primarily responsible for issuing policies aimed at ensuring access to services and mitigating potential quality-related issues in the provision of healthcare to a diverse population. A notable characteristic of this system is the involvement of various stakeholders, such as non-governmental organizations (NGOs), professional associations, and immigrant organizations, in the formulation of strategies and the development of activities aimed at both improving healthcare services and adapting them to the specific needs of particular population groups (Ledoux et al., 2018; Vázquez et al., 2013).

The uniqueness of the Spanish system was particularly evident in 2012 when, as a consequence of the Great Recession of 2008–2014, the central government significantly restricted access to healthcare for undocumented immigrants. The impact of this measure was mitigated by Spain's highly decentralized bureaucratic system, as some regional governments opted to continue ensuring medical services for immigrants without permits (Dalmau-Bueno et al., 2021; Pérez-Urdiales, 2021). In addition, regional grassroots opposition from various actors significantly opposed the 2012 reform. Following the reform's approval, a comprehensive social movement emerged, uniting a diverse range of non-governmental entities that advocated for the restoration of universalism (Bruquetas-Callejo & Perna, 2020). A new government formed by a left-wing coalition in 2018 removed most of these restrictions.

Although Spain has rapidly integrated immigrants into its healthcare system, several challenges persist. A major factor contributing to health inequalities is high labor market segregation, with a significant proportion of immigrants employed in low-skilled sectors characterized by precarious conditions, high instability, and informal employment (Alonso-Villar & del Río, 2013; Stanek & Requena, 2019). The 2008 economic crisis intensified problems of job loss and poverty, disproportionately impacting the immigrant population. The weakness of the welfare state and social protections, heavily reliant on contributory schemes, largely excludes the most vulnerable immigrants, particularly those in the informal sector (Moreno Fuentes, 2020). These structural and contextual conditions significantly impact immigrant health, particularly during economic crises (Sánchez-Moreno et al., 2016; Sousa et al., 2010).

In summary, Spain exhibits many characteristics of the migratory model in Southern Europe, marked by an intense and massive arrival of immigrants in a context with a labor market sensitive to economic shocks and a weaker welfare state than other European countries, although Spain is unique in the inclusivity of its healthcare system. This makes Spain a useful case study to improve our understanding of the complexity and heterogeneity of immigrant health patterns in the European context.

1.4 Conceptual Framework

Despite conceptualization efforts (e.g., Acevedo-Garcia et al., 2012; Ettman et al., 2022; Zimmerman et al., 2011), the research field of immigration and health is characterized by a large corpus of empirical evidence without a unified theory accounting for the complexity of the relationship between immigration and health. Some empirical generalizations, however, have served as cohesive elements when articulating most international debates in this field. The most prominent of these debates is perhaps the so-called healthy immigrant paradox, which refers to the observation that immigrants often exhibit relatively good (if not better) health outcomes than natives despite experiencing poorer socioeconomic conditions and more barriers to healthcare access. This paradox, originally observed in the 1980s among older Latina immigrants in the United States (Markides & Coreil, 1986), was soon after found among immigrants from other countries, other age groups, and across many destination contexts (Jasso et al., 2004). Thus, the healthy immigrant paradox has become a commonplace for those studying immigration and health.

The apparent universality of immigrants' health advantage has led scholars to search for general explanations in the immigration process. The healthy immigrant paradox has been hypothesized to be the expected consequence of positive self-selection at origin, often referred to as the healthy migrant effect (Razum et al., 2000). This hypothesis assumes that immigrants encompass a non-representative group of the population of the country of origin, a group that tends to have better socioeconomic conditions than the average population that is left behind. Given the strong correlation between health and socioeconomic conditions, it is assumed that immigrants represent a healthy group, able to display better health outcomes than the destination country population. The healthy migrant effect remains one of the most cited explanations for the healthy immigrant paradox, despite lacking empirical evidence and being highly contested by the observation that the health advantage holds after considering demographic and socioeconomic characteristics upon arrival (Palloni & Morenoff, 2001; Stanek et al., 2021).

The debate regarding the healthy immigrant paradox tends to primarily focus on (all-cause) mortality (Aldridge et al., 2018), which is regarded as a general measure of health at the population level. Thus, the mechanisms behind the health advantage have largely been discussed in the context of this particular outcome. In addition to the self-selection explanation and the healthy migrant effect, two alternative

hypotheses have been put forward to explain the healthy immigrant paradox, also focusing on the migration process. First, scholars have suggested that the health advantage of immigrants may artificially arise from a numerator–denominator mismatch produced by the under-registration of emigration (Weitoft et al., 1999). Second, researchers have identified a possible health-selective pattern associated with return migration wherein sick older immigrants return to their home country to receive care (the so-called salmon bias effect) (Markides & Eschbach, 2005; Palloni & Arias, 2004), thus leading to positive health selection among those who stay. Although these explanations have been widely proposed as ways to interpret findings, there is little empirical evidence to support them (Abraído-Lanza et al., 1999; Dunlavy et al., 2022; Weitoft et al., 1999). Additionally, these hypotheses have been proposed in the context of labor migration, but the mortality advantage has also been observed among refugee migrants (e.g., Juárez et al., 2018), for whom neither return migration nor healthcare provision in their country of origin is guaranteed.

Another empirical generalization is the observation that the healthy immigrant paradox does not operate continuously throughout the migration stay. Findings show that the health advantage displayed by immigrants upon arrival compared with natives tends to disappear or be reversed, i.e., a disadvantage develops with the duration of residence in the receiving context (the so-called unhealthy assimilation or acculturation paradox) (Antecol & Bedard, 2006).

Negative health changes correlated with immigrants' duration of residence have been primarily interpreted as an unintended consequence of immigrants adopting the norms and behaviors of the majority population in the receiving context, i.e., a side effect of the acculturation process (Juárez et al., 2022). Evidence of an association between the adoption of health risk behaviors and increasing levels of acculturation (Choi et al., 2008; Gerber et al., 2012; Juárez et al., 2023; Lui & Zamboanga, 2018; Sanou et al., 2014) has shaped most discussions concerning immigrants' loss of their health advantage over time. In fact, duration of residence is commonly regarded as a proxy for acculturation, although this lacks empirical support (Juárez et al., 2023).

The cultural interpretation around the health advantage loss has been challenged more recently from a health equity perspective. Scholars have pointed to the fact that immigrants tend to adopt health risk behaviors (such as smoking or sedentarism) that are socially patterned in the destination country, reflecting health inequalities (the so-called unequal assimilation) (Klöfvermark et al., 2019). As a consequence, the adoption of these behaviors (and the worsening health outcomes that occur with duration of residence) could be interpreted as an indication that immigrants assimilate into lower social levels in receiving societies. This interpretation is aligned with a more general explanation for the paradox, which posits that immigrants experience disadvantages associated with their nativity. These disadvantages may include discrimination and racism, which, endured over a long period, may represent a cumulative burden (allostatic load), leading to health deterioration (Geronimus et al., 2020; McEwen, 1998).

The adverse effects of the cumulative experiences of disadvantage or the acculturation paradox are perhaps most evident when considering age at arrival. Unlike

adult immigrants, individuals who arrived as children (also referred to as the 1.5 generation) (Rumbaut, 2004) usually exhibit similar or worse social and health outcomes later in life compared with natives of the destination country (Juárez et al., 2018). This evidence is puzzling given that the latter group is not expected to encounter difficulties with integration due to language barriers or a lack of recognition of the skills developed in their countries of origin.

The apparent universality of the healthy immigrant paradox and associated regularities (such as the acculturation paradox) has led scholars to try to find explanations that are both generally and universally applicable. Thus, these general patterns have long defined research on immigration and health, despite the overall absence of conceptual frameworks and theories. However, the universality of the healthy immigrant paradox has been increasingly called into question. For example, scholars have recognized that the health advantage of immigrants does not apply to all dimensions of health, as there is evidence that this health advantage is less clearly observed in mental health outcomes than in other outcomes (Close et al., 2016; Elshahat et al., 2022). In addition, a growing number of studies have shown that the healthy immigrant paradox is specific to country of birth, meaning that immigrants of different origins may not necessarily experience similar health patterns relative to natives.

Overall, the elements that have contributed to challenging the universality of the healthy immigrant paradox have also opened other lines of research that focus both on the migration process and on the conditions of the receiving country. This includes considering how the health of immigrants is dependent on the conditions of reception and on integration policies (Ikram et al., 2015; Juárez et al., 2019; Martinson & Reichman, 2016). Within this context, in-depth examinations of the situation of immigrants in specific contexts are much needed.

The definition of health has changed radically over time, moving from a biomedical definition (the absence of disease) to a biopsychosocial one (a state of complete physical, mental and social well-being) (Office of the United Nations High Commissioner for Human Rights, 2008; WHO, 2020: 1). In this context, the evaluation of the health of immigrant populations can no longer rely solely on general measures of health, such as all-cause mortality. The consideration of different health dimensions in an age–time line could offer a deeper understanding of the health of an immigrant population, including a robust identification of the risk factors and consequences of the population's health. Moreover, from a public health perspective, assessing different dimensions of health may be more appropriate to identify opportunities for intervention.

In addition, the definition of health has shifted from a static (health status) to a dynamic (life course) perspective, the latter of which involves a multidisciplinary understanding of health that evaluates how social and health exposures at a given age interact, giving rise to social and health risks later in life (Kuh et al., 2003). The adoption of a life course perspective on immigration and health research is challenging given the lack of information available from immigrants' countries of origin, including health information from an early age and the lack of longitudinal data following individuals over relatively long periods of time. However, considering

health from a life course perspective, even when it is not possible to apply life course methods, is much needed in this field. This perspective encompasses a dynamic and complex understanding of how health both determines and is determined by other areas of immigrants' lives. In this book, in sum, we add to recent efforts (Galea et al., 2022) to develop a multidisciplinary understanding of immigrant health across the life course. Aware of the lack of a unified theory that accounts for the many aspects of immigrant health, we recognize the usefulness of the so-called healthy immigrant paradox. We recognize this theory as a common ground for researchers of migration and health across disciplines. Moreover, evidence on the presence or absence of the health advantage has significant practical implications for both resource allocation and the perception of immigrants in society. We will therefore use it as a common thread in our book with the expectation that the Spanish case will shed some light on the mechanisms that set the paradox in motion.

1.5 This Book's Contribution and Content

The first and main contribution of this book is to offer a broad but integrated perspective on immigrant health, thereby contributing to the ongoing debate on immigrants' health advantage. The book uses the life course perspective, which looks at health and disease at all stages of life, from cradle to grave, to present this perspective to the reader in an intuitive and easily understandable way. The life course perspective is of great relevance to understanding the complexity of the relationship between immigration and health and it is crucial to revisit the universality of the healthy immigrant paradox. The consideration of age is crucial to examining the healthy immigrant paradox phenomenon across health dimensions and subpopulations (including age, in addition to origin and sex). First, this examination also has practical implications for policymakers, as it helps to identify specific immigrant subgroups at risk of developing poor health and for whom interventions are needed. Second, the adoption of a life course approach, in conjunction with an intergenerational perspective (for example, when examining reproductive health among women and their offspring's health at birth), helps to identify the ways in which health inequalities develop and reproduce in society beyond the initial immigrant–Spanish-born comparison. Third, although immigration is a relatively recent phenomenon in Spain compared with other countries, immigrants who arrived as young adults in the early 2000s are now aging and will represent a growing share of the older Spanish population in the coming years. Insofar as health inequalities increase among immigrant youth groups, they are expected to grow even larger at older ages as vulnerability increases. It is therefore necessary to examine the health of older immigrants to implement strategies to address inequalities today, to examine the health of immigrants at early ages, and to design preventive interventions in a timely fashion. By adopting a dynamic understanding of health vulnerabilities, this book advances knowledge on how to achieve a diverse and sustainable aging society. Finally, by adopting a life course approach in a book on immigrant health, we contribute to the

understanding of the intersection of two main SDGs. Specifically, in addition to the tenth goal ("reducing inequalities within and among countries"), this book contributes to achieving the third goal, which aims to "ensure healthy lives and promote well-being for all at all ages" (United Nations, 2015).

The life course perspective is applied in this book through the examination of different dimensions of health at given age stages, from cradle to grave (i.e., from perinatal health to premature mortality) as well as in the conceptual justification of each dimension of health at a given age within each chapter (see Fig. 1.1). Specifically, four chapters of the book (Chaps. 4, 5, 6, 8, and 9) focus on different dimensions of health linked to specific life stages. In Chap. 4, Juárez and Dello Iacono define perinatal health through intergenerational measures that allow for the identification of how inequalities in health (re)produce in society beyond the initial immigrant–Spanish-born comparison. Chapter 5, written by Cristóbal-Narváez et al., addresses the well-being and mental health needs of youth migrants, with a focus on the most vulnerable subgroup—unaccompanied migrant minors. In Chap. 6, Stanek et al. delve into the sexual and reproductive health of women in childbearing ages, exploring how compositional differences contribute to variations in abortion rates between native Spaniards and immigrant women. In Chap. 7, García-Vázquez et al. analyze the impact of the pandemic on immigrant young adults in vulnerable situations.

In Chap. 8, Grande and García-Gonzalez explore patterns of premature deaths, those occurring between the ages of 20 and 64 years, among immigrants. The exploration of distinct health dimensions across immigrants' life courses culminates in Chap. 9, in which Solé-Auró examines the potential impact of the destination country context in shaping immigrant health by considering health changes by duration of residence in Spain. Across these chapters, this book sheds light on the process through which societies become increasingly unequal and examines the role played in this inequality by immigration.

Due to the diversity of health and illness features as well as the heterogeneity of immigrant groups and types, the link between health and immigration is a dynamic

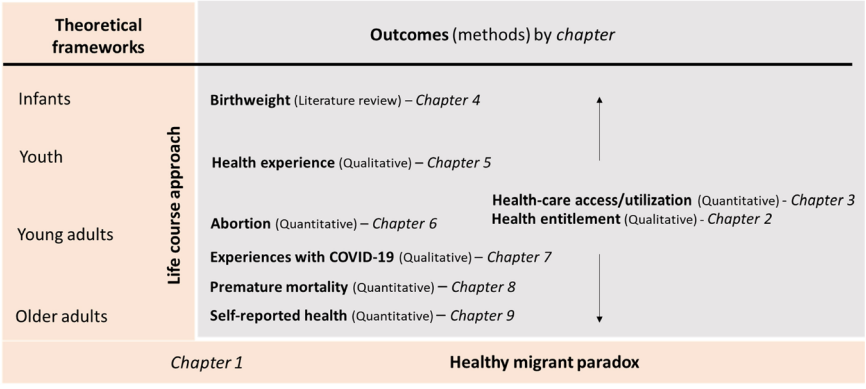

Fig. 1.1 Outline of the book

and complicated process. These elements make it extremely difficult to address the issue of immigrant health as a whole. Examining numerous health aspects from a life course perspective is one of the strategies we use to focus on the theme scope and improve thematic coherence within this book. However, the scope of issues discussed in this book is not constrained by the life course perspective. The book also covers additional topics that are pertinent from both theoretical and public policy perspectives. One of these topics is the role of public opinion on immigration issues and the involvement of different sectors of civil society. Thus, in Chap. 2, Perna and Moreno Fuentes offer an evaluation of how public discourses help to shape political decisions and attitudes toward the health entitlements of immigrants. Perceptions that immigrants use healthcare systems excessively has influenced political agendas worldwide, even when such views are not supported by empirical evidence, as Gimeno-Feliu and Moreno Juste demonstrate in Chap. 3. The concluding chapter, Chap. 10, written by the editors, synthesizes the key messages and recommendations. This chapter emphasizes how the research findings presented in the volume can assist in addressing challenges related to the health of immigrant populations and inequalities within highly diverse societies.

The second contribution of this book is to provide a rigorous, comprehensive, and up-to-date overview of the health of immigrants in Spain. To this end, the book uses contemporary Spanish society as a case study, analyzing the similarities and differences between immigrants and natives and establishing, where possible, appropriate comparisons with other migratory contexts. The book provides a comprehensive yet cohesive perspective on immigrant health. It identifies potential health issues specific to the immigrant population of Spain relevant for policymakers in designing informed interventions. Topics addressed in the volume vary in their levels of generality and by the immigrant categories under study. In some chapters, the approach is more comprehensive, encompassing well-being and health (or their absence) through a wide array of variables and indicators. For instance, Chap. 8 analyzes premature deaths, considering a broad range of causes of death. Similarly, Chap. 9 applies a total of 12 categories of chronic conditions and risks to measure the degree of health deterioration associated with aging. Chapter 4 explores perinatal health through various indicators, such as high and low birthweight and infant mortality.

The analyses in the book cover various categories of immigrants. While Chaps. 3, 7, and 8 encompass the entire immigrant population of Spain, Chaps. 4 and 6 focus solely on women, addressing specific issues related to reproductive and sexual health. The book also offers an analysis of distinct subgroups, including unaccompanied minors (Chap. 5) and undocumented immigrants (Chap. 7), who often remain unnoticed in records, survey data, and official statistics. Furthermore, in Chap. 7, García-Vázquez et al. examine the repercussions of the COVID-19 pandemic on subgroups that hold particular relevance in the context of this country, such as temporary agricultural laborers.

As indicated in this chapter, due to the complex nature of the topic, abundant research on immigration and health continues to be produced by both health and social science scholars. However, evidence in this area is still scattered and gathered

along disciplinary and methodological lines. The Edinburgh Declaration on Migration, Ethnicity, Race, and Health of 19 May 2018 advocates for an interdisciplinary approach to the study of migration and health (Edinburgh Declaration, 2018). This book's third contribution is to respond to this call by examining different facets of immigrant health through a multidisciplinary lens. To this end, the book's authors are involved in research across diverse disciplines within the health and social sciences, including public health, psychology, social work, sociology, anthropology, political science, and demography.

Each chapter tackles a specific aspect of immigrant health in Spain from the viewpoint of its respective discipline, using the methodological and analytical tools inherent to that field. As such, this book includes both quantitative and qualitative research, still a very uncommon practice in collective contributions, although it is increasingly encouraged in health research. Specifically, in Chap. 2, a qualitative content analysis is applied to examine policies and party discourses. Chapters 5 and 9 also contain qualitative analysis, focusing on results from in-depth interviews. Chapter 4 provides a literature review of quantitative research, a practice less commonly used in social sciences but that has proved useful for systematizing and identifying empirical regularities in health sciences. Additionally, several chapters leverage quantitative methods applied to survey, registry, and census data. Chapters 3, 7, and 8 use multivariate analysis based on various regression techniques. Chapter 6 employs the analysis of population rate decomposition, a commonly used method in the field of demography.

Overall, the purpose of this book is to explore key aspects of immigrant health, addressing both known and unknown factors in the field and providing knowledge essential for policymakers to design well-informed interventions. The book focuses on the Spanish context but contributes to global debates and addresses major societal challenges. The analysis also emphasizes the intricate relationship between immigration and health, influenced by public policies, characteristics of immigrant populations, and structural factors such as labor market structures and economic cycles. Additionally, the book highlights the importance of adopting a life course perspective in addressing health issues, recognizing the evolving challenges individuals face at different stages of their life trajectory. Lastly, the book underscores the value of a multidisciplinary approach in enhancing the understanding of health patterns and dynamics within increasingly diverse societies.

References

Abraído-Lanza, A. F., Dohrenwend, B. P., Ng-Mak, D. S., & Turner, J. B. (1999). The Latino mortality paradox: A test of the "salmon bias" and healthy migrant hypotheses. *American Journal of Public Health, 89*(10), 1543–1548. https://doi.org/10.2105/ajph.89.10.1543

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: A cross-national framework. *Social Science & Medicine, 75*(12), 2060–2068. https://doi.org/10.1016/j.socscimed.2012.04.040

Aldridge, R. W., Nellums, L. B., Bartlett, S., Barr, A. L., Patel, P., Burns, R., Hargreaves, S., Miranda, J. J., Tollman, S., Friedland, J. S., & Abubakar, I. (2018). Global patterns of mortality in international migrants: A systematic review and meta-analysis. *The Lancet, 392*(10164), 2553–2566. https://doi.org/10.1016/S0140-6736(18)32781-8

Alonso-Villar, O., & del Río, C. (2013). Occupational segregation in a country of recent mass immigration: Evidence from Spain. *Annals of Regional Science, 50*, 109–134. https://doi.org/10.1007/s00168-011-0480-2

Antecol, H., & Bedard, K. (2006). Unhealthy assimilation: Why do immigrants converge to American health status levels? *Demography, 43*(2), 337–360. https://doi.org/10.1353/dem.2006.0011

Bayona-i-Carrasco, J., & Domingo, A. (2023). Migratory flows and pandemic: An analysis of impacts on immigrants of foreign origin in Spain, *International Migration*, Advance online publication. https://doi.org/10.1111/imig.13197

Bruquetas-Callejo, M., & Perna, R. (2020). Migration and health-care reforms in Spain: Symbolic politics, converging outputs, oppositions from the field. *South European Society and Politics, 25*(1), 75–98. https://doi.org/10.1080/13608746.2020.1769342

Bruquetas-Callejo, M., Garcés-Mascareñas, B., Morén-Alegret, R., Penninx, R., & Ruiz-Vieytez, E. (2011). The case of Spain. In G. Zincone, R. Penninx, & M. Borkert (Eds.), *Migration policymaking in Europe: The dynamics of actors and contexts in past and present* (IMISCOE research) (pp. 291–323). Amsterdam University Press.

Castañeda, H., Holmes, S. M., Madrigal, D. S., De Trinidad Young, M.-E., Beyeler, N., & Quesada, J. (2015). Immigration as a social determinant of health. *Annual Review of Public Health, 36*(1), 375–392. https://doi.org/10.1146/annurev-publhealth-032013-182419

Cebolla Boado, H., & González Ferrer, A. (2014). *Inmigración. ≠integración sin modelo?* Alianza Editorial.

Choi, S., Rankin, S., Stewart, A., & Oka, R. (2008). Effects of acculturation on smoking behavior in Asian Americans: A meta-analysis. *Journal of Cardiovascular Nursing, 23*, 67–73. https://doi.org/10.1097/01.JCN.0000305057.96247.f2

Close, C., Kouvonen, A., Bosqui, T., et al. (2016). The mental health and wellbeing of first-generation migrants: A systematic-narrative review of reviews. *Globalization and Health, 12*(47). https://doi.org/10.1186/s12992-016-0187-3

Dalmau-Bueno, A., García-Altés, A., Vela, E., Clèries, M., Pérez, C. V., & Argimon, J. M. (2021). Frequency of health-care service use and severity of illness in undocumented migrants in Catalonia, Spain: A population-based, cross-sectional study. *Lancet Planet Health, 5*(5), e286–e296. https://doi.org/10.1016/S2542-5196(21)00036-X

Davies, A., Basten, A., & Frattini, C. (2010). *Migration: A social determinant of migrants' health* (Background paper). International Organization for Migration.

Domingo, A., Pinyol-Jiménez, G., & Zapata-Barrero, R. (2020). Spain: Multiple-governance and integration policies in diverse socio-demographic contexts. In M. Duszczyk, M. Pachocka, & D. Pszczółkowska (Eds.), *Relations between immigration and integration policies in Europe: Challenges, opportunities and perspectives in selected EU member states* (pp. 125–145). Routledge.

Dunlavy, A., Cederström, A., Katikireddi, V., Rostila, M., & Juárez, S. P. (2022). Investigating the salmon bias hypothesis among international immigrants in Sweden: A register-based cohort study. *European Journal of Public Health, 32*(2), 226–232. https://doi.org/10.1093/eurpub/ckab222

Edinburgh Declaration 19th May 2018 on *Migration, ethnicity, race and health*. http://www.merhcongress.com/welcome/edinburgh-declaration/

Elmore, C. E., Tingen, J. M., Fredgren, K., Dalrymple, S. N., Compton, R. M., Carpenter, E. L., Allen, C. W., & Hauck, F. R. (2019). Using an interprofessional team to provide refugee healthcare in an academic medical centre. *Family Medicine and Community Health, 7*, e000091. https://doi.org/10.1136/fmch-2018-000091

Elshahat, S., Moffat, T., & Newbold, K. B. (2022). Understanding the healthy immigrant effect in the context of mental health challenges: A systematic critical review. *Journal of Immigrant and Minority Health, 24*, 1564–1579. https://doi.org/10.1007/s10903-021-01313-5

Ettman, C. K., Zaman, M. H., & Galea, S. (2022). Chapter 2. Understanding migration and health: Social-ecological and lifecourse perspectives. In S. Galea, C. K. Ettman, & M. H. Zaman (Eds.), *Migration and health* (pp. 10–19). University of Chicago Press.

Farré, L. (2016). New evidence on the healthy immigrant effect. *Journal of Population Economics, 29*, 365–394. https://doi.org/10.1007/s00148-015-0578-4

Finotelli, C. (2021). Integration at work: Migrant health-care professionals in two Spanish hospitals. *Migration Studies, 9*(3), 922–940. https://doi.org/10.1093/migration/mnz050

Galea, S., Ettman, C. K., & Zaman, M. H. (Eds.). (2022). *Migration and health*. University of Chicago Press.

Gerber, M., Barker, D., & Pühse, U. (2012). Acculturation and physical activity among immigrants: A systematic review. *Journal of Public Health, 20*(3), 313–341. https://doi.org/10.1007/s10389-011-0443-1

Geronimus, A. T., Pearson, J. A., Linnenbringer, E., Eisenberg, A. K., Stokes, C., Hughes, L. D., & Schulz, A. J. (2020). Weathering in Detroit: Place, race, ethnicity, and poverty as conceptually fluctuating social constructs shaping variation in allostatic load. *The Milbank Quarterly, 98*(4), 1171–1218. https://doi.org/10.1111/1468-0009.12484

Goldenberg, S. M., & Fischer, F. (2023). Migration and health research: Past, present, and future. *BMC Public Health, 23*(1), 1425. https://doi.org/10.1186/s12889-023-16363-7

González-Ferrer, A. (2014). La inmigración por motivos familiares durante la crisis. In J. Arango, D. M. Malapeira, & J. Oliver (Eds.), *Anuario de la Inmigración en España 2013* (pp. 109–134). CIDOB.

González-Ferrer, A., & Moreno Fuentes, F. J. (2017). Back to the suitcase? Emigration during the great recession in Spain. *Comparative Migration Studies, 22*(4), 447–471. https://doi.org/10.1080/13608746.2017.1413051

Gotsens, M., Malmusi, D., Villarroel, N., Vives-Cases, C., Garcia-Subirats, I., Hernando, C., & Borrell, C. (2015). Health inequality between immigrants and natives in Spain: The loss of the healthy immigrant effect in times of economic crisis. *European Journal of Public Health, 25*(6), 923–929. https://doi.org/10.1093/eurpub/ckv126

Grande, R., García-González, J. M., & Stanek, M. (2023). Differences in the risk of premature cancer mortality between natives and immigrants in Spain. *European Journal of Public Health, 33*(5), 803–808. https://doi.org/10.1093/eurpub/ckad102

Gushulak, B., Weekers, J., & Macpherson, D. (2010). Migrants and emerging public health issues in a globalized world: Threats, risks, and challenges, an evidence-based framework. *Emerging Health Threats Journal, 2*, e10. https://doi.org/10.3134/ehtj.09.010

Hossin, M. Z. (2020). International migration and health: It is time to go beyond conventional theoretical frameworks. *BMJ Globalization and Health, 5*(2). https://doi.org/10.1136/bmjgh-2019-001938

Ikram, U. Z., Malmusi, D., Juel, K., Rey, G., & Kunst, A. E. (2015). Association between integration policies and Immigrants' mortality: An explorative study across three European countries. *PLoS One, 10*(6), e0129916. https://doi.org/10.1371/journal.pone.0129916

INE. (2023). *Population (Spaniards/foreigners) by country of birth, sex and year*. Available at: https://www.ine.es/jaxi/Tabla.htm?path=/t20/e245/p08/l0/&file=01006.px&L=0

INE. (2024). *Continuous population statistics (CPS) 1 April, 2024*. Available at: https://www.ine.es/dyngs/Prensa/en/ECP1T24.htm

Ingleby, D. (2006). Getting multicultural health care off the ground: Britain and The Netherlands compared. *International Journal of Migration, Health and Social Care, 2*(3/4), 4–15. https://doi.org/10.1108/17479894200600023

Izquierdo, M., Jimeno, J. F., & Lacuesta, A. (2016). Spain: From massive immigration to vast emigration? *IZA Journal of Migration, 5*, 10. https://doi.org/10.1186/s40176-016-0058-y

Jasso, G., Massey, D. S., Rosenzweig, M. R., & Smith, J. P. (2004). Immigrant health: Selectivity and acculturation. In N. B. Anderson, R. A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life* (pp. 227–266). National Academy Press.

Juárez, S., Drefahl, S., Dunlavy, A., & Rostila, M. (2018). All-cause mortality, age at arrival, and duration of residence among adult migrants in Sweden: A population-based longitudinal study. *SSM-Population Health, 6*, 16–25. https://doi.org/10.1016/j.ssmph.2018.07.007

Juárez, S., Honkaniemi, H., Dunlavy, A., Aldridge, R., Barreto, B., Katikireddi, S. V., & Rostila, M. (2019). Effects of non-health-related policies on migrant health: A systematic review and meta-analysis. *The Lancet Global Health, 7*(4), E420–E435. https://doi.org/10.1016/S2214-109X(18)30560-6

Juárez, S. P., Honkaniemi, H., Gustafsson, N.-K., Rostila, M., & Berg, L. (2022). Health risk behaviors among immigrants and changes by duration of residence: A systematic review and meta-analysis. *International Journal of Public Health, 67*, 1604437. https://doi.org/10.3389/ijph.2022.1604437

Juárez, S. P., Honkaniemi, H., Gustafsson, N.-K., & Berg, L. (2023). Is duration of residence a proxy for acculturation? The case of health risk behaviors among international immigrants. *Scandinavian Journal of Public Health*. Advance online publication. https://doi.org/10.1177/14034948231199534.

Klöfvermark, J., Hjern, A., & Juárez, S. (2019). Acculturation or unequal assimilation? Smoking during pregnancy and duration of residence among migrants in Sweden. *SSM-Population Health, 8*, 100416. https://doi.org/10.1016/j.ssmph.2019.100416

Kuh, D., Ben-Shlomo, Y., Lynch, J., Hallqvist, J., & Power, C. (2003). Life course epidemiology. *Journal of Epidemiology and Community Health, 57*(10), 778–783. https://doi.org/10.1136/jech.57.10.778

Ledoux, C., Pilot, E., Diaz, E., & Krafft, T. (2018). Migrants' access to health-care services within the European Union: A content analysis of policy documents in Ireland, Portugal, and Spain. *Globalization and Health, 14*(1), 57. https://doi.org/10.1186/s12992-018-0373-6

Low, M. D., & Low, B. J. (2012). Health determinants. In S. Loue & M. Sajatovic (Eds.), *Encyclopedia of immigrant health* (pp. 66–74). Springer.

Lui, P. P., & Zamboanga, B. L. (2018). A critical review and meta-analysis of the associations between acculturation and alcohol use outcomes among Hispanic Americans. *Alcoholism: Clinical and Experimental Research, 42*, 1841–1862. https://doi.org/10.1111/acer.13845

MacFarlane, A., Puthoopparambil, S. J., Waagensen, E., Sisti, L. G., Costanzo, G., Kayi, I., Osseiran, S., Sakarya, S., Severoni, S., & Hannigan, A. (2023). Framework for refugee and migrant health research in the WHO European region. *Tropical Medicine & International Health, 28*(2), 90–97. https://doi.org/10.1111/tmi.13845

Mahía Casado, R. (2018). Población extranjera residente en España: evolución, características e integración económica. In J. Arango, R. Mahía, D. Moya, & E. Sánchez-Montijano (Eds.), *Anuario CIDOB de la Inmigración* (pp. 80–113). CIDOB.

Malmusi, D. (2014). Immigrants' health and health inequality by type of integration policies in European countries. *European Journal of Public Health, 25*(2), 293–299. https://doi.org/10.1093/eurpub/cku156

Malmusi, D., & Ortiz-Barreda, G. (2014). Desigualdades sociales en salud en poblaciones inmigradas en España: revisión de la literatura. *Revista Española de Salud Pública, 88*(6), 687–701. https://doi.org/10.4321/S1135-57272014000600003

Markides, K. S., & Coreil, J. (1986). The health of Hispanics in the southwestern United States: An epidemiologic paradox. *Public Health Reports, 101*(4), 253–265.

Markides, K. S., & Eschbach, K. (2005). Aging, migration, and mortality: Current status of research on the Hispanic paradox. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 60*(Special Issue 2), S68–S75. https://doi.org/10.1093/geronb/60.Special_Issue_2.S68

Markides, K. S., & Rote, S. (2015). Immigrant health paradox. In R. Scott & S. Kosslyn (Eds.), *Emerging trends in the social and behavioral sciences* (pp. 1–15). Wiley.

Marmot, M. (2016). Society and health of migrants. *European Journal of Epidemiology, 31*(7), 639–641. https://doi.org/10.1007/s10654-016-0174-2

Marmot, M., & Bell, R. (2018). The sustainable development goals and health equity. *Epidemiology, 29*(1), 5–7. https://doi.org/10.1097/EDE.0000000000000773

Martinson, M. L., & Reichman, N. E. (2016). Socioeconomic inequalities in low birth weight in the United States, the United Kingdom, Canada, and Australia. *American Journal of Public Health, 106*(4), 748–754. https://doi.org/10.2105/AJPH.2015.303007

McEwen, B. S. (1998). Stress, adaptation, and disease: Allostasis and allostatic load. *Annals of the New York Academy of Sciences, 840*, 33–44. https://doi.org/10.1111/j.1749-6632.1998.tb09546.x

Moreno Fuentes, F. J. (2020). Migrants' access to social protection in Spain. In J. M. Lafleur & D. Vintila (Eds.), *Migration and social protection in Europe and beyond* (IMISCOE research series) (Vol. 1, pp. 405–420). Springer.

Moullan, Y., & Jusot, F. (2014). Why is the 'healthy immigrant effect' different between European countries? *European Journal of Public Health, 24*(suppl_1), 80–86. https://doi.org/10.1093/eurpub/cku112

OECD. (2021). *International migration outlook 2021*. OECD Publishing.

Office of the United Nations High Commissioner for Human Rights. (2008). *The right to health* (Fact Sheet No. 31). Office of the United Nations High Commissioner for Human Rights.

Palloni, A., & Arias, E. (2004). Paradox lost: Explaining the Hispanic adult mortality advantage. *Demography, 41*, 385–415. https://doi.org/10.1353/dem.2004.0024

Palloni, A., & Morenoff, J. D. (2001). Interpreting the paradoxical in the Hispanic paradox. *Annals of the New York Academy of Sciences, 954*, 140–174. https://doi.org/10.1111/j.1749-6632.2001.tb02751.x

Pérez-Urdiales, I. (2021). Undocumented immigrants' and immigrant women's access to healthcare services in the Basque Country (Spain). *Global Health Action, 14*(1), 1896659. https://doi.org/10.1080/16549716.2021.1896659

Petroff, A., Viladrich, A., & Parella, S. (2021). Framing inclusion: The media treatment of irregular immigrants' right to health care in Spain. *International Journal of Intercultural Relations, 82*, 135–134. https://doi.org/10.1016/j.ijintrel.2021.03.004

Razum, O., Zeeb, H., & Rohrmann, S. (2000). The 'healthy migrant effect'—Not merely a fallacy of inaccurate denominator figures. *International Journal of Epidemiology, 29*(1), 191–192. https://doi.org/10.1093/ije/29.1.191

Reher, D., & Requena, M. (Eds.). (2009). *Las múltiples caras de la inmigración en España*. Alianza.

Reynolds, M. M., Chernenko, A., & Read, J. N. G. (2016). Region of origin diversity in immigrant health: Moving beyond the Mexican case. *Social Science & Medicine, 166*, 102–109. https://doi.org/10.1016/j.socscimed.2016.07.018

Rivera, B., Casal, B., & Currais, L. (2016). The healthy immigrant effect on mental health: Determinants and implications for mental health policy in Spain. *Administration and Policy in Mental Health, 43*(4), 616–627. https://doi.org/10.1007/s10488-015-0668-3

Rote, S., & Markides, K. (2015). Migration and health. In J. D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences* (pp. 407–410). Elsevier.

Rumbaut, R. G. (2004). Ages, life stages, and generational cohorts: Decomposing the immigrant first and second generations in the United States. *International Migration Review, 38*(3), 1160–1205. https://doi.org/10.1111/j.1747-7379.2004.tb00232.x

Sánchez-Moreno, E., Gallardo-Peralta, L. P., Barrón, A., Arias-Astray, A., & de la Fuente-Roldán, I.-N. (2016). Employment status and health in Spain before and after the great recession. *Social Currents, 3*(4), 386–402. https://doi.org/10.1177/2329496516636402

Sanou, D., O'Reilly, E., Ngnie-Teta, I., et al. (2014). Acculturation and nutritional health of immigrants in Canada: A scoping review. *Journal of Immigrant and Minority Health, 16*, 24–34. https://doi.org/10.1007/s10903-013-9823-7

Sanz Gimeno, A., & Blanco Iglesias, J. (2022). La población infantil y adolescente en España. Dinámicas demográficas recientes. *Política y Sociedad, 59*(3), 79877. https://doi.org/10.5209/poso.79877

Solé-Auró, A., & Crimmins, E. M. (2008). Health of immigrants in European countries. *International Migration Review, 42*(4), 861–876. https://doi.org/10.1111/j.1747-7379.2008.00150.x

Sousa, E., Agudelo-Suárez, A., Benavides, F. G., Schenker, M., García, A. M., Benach, J., Delclos, C., López-Jacob, M. J., Ruiz-Frutos, C., Ronda-Pérez, E., & Porthé, V. (2010). Immigration, work and health in Spain: The influence of legal status and employment contract on reported health indicators. *International Journal of Public Health, 55*(5), 443–451. https://doi.org/10.1007/s00038-010-0141-8

Stanek, M., & Requena, M. (2019). Working apart together: The impact of immigration on the Spanish class structure. *Migration Letters, 16*(3), 441–449. https://doi.org/10.33182/ml.v16i3.647

Stanek, M., Requena, M., del Rey, A., & García-Gómez, J. (2020). Beyond the healthy immigrant paradox: Decomposing differences in birthweight among immigrants in Spain. *Globalization and Health, 16*(87), 1–12. https://doi.org/10.1186/s12992-020-00612-0

Stanek, M., Requena, M., & del Rey, A. (2021). Impact of socio-economic status on low birthweight: Decomposing the differences between natives and immigrants in Spain. *Journal of Immigrant and Minority Health, 23*(1), 71–78. https://doi.org/10.1007/s10903-020-01027-0

Stanek, M., Konstantinidou, A., & Vianello, F. A. (2023). Migration dynamics in southern Europe in the 20th and 21st centuries. In C. Arcila Calderón & A. Veglis (Eds.), *Migrants and refugees in southern Europe beyond the news stories: Photographs, hate, and journalists' perceptions* (pp. 11–36). Lexington Books.

The Lancet Public Health. (2018). No public health without migrant health. *Lancet Public Health, 3*(6), e259. https://doi.org/10.1016/S2468-2667(18)30101-4

United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. Resolution Adopted by the General Assembly on 25 September 2015, *42809*, 1–13. https://doi.org/10.1007/s13398-014-0173-7.2

Vázquez, M. L., Terraza-Núñez, R., S-Hernández, S., Vargas, I., Bosch, L., González, A., Pequeño, S., Cantos, R., Martínez, J. I., & López, L. A. (2013). Are migrants' health policies aimed at improving access to quality health-care? An analysis of Spanish policies. *Health Policy, 113*(3), 236–246. https://doi.org/10.1016/j.healthpol.2013.06.007

Weitoft, G. R., Gullberg, A., Hjern, A., & Rosén, M. (1999). Mortality statistics in immigrant research: Method for adjusting underestimation of mortality. *International Journal of Epidemiology, 28*(4), 756–763. https://doi.org/10.1093/ije/28.4.756

Wickramage, K., Vearey, J., Zwi, A. B., Robinson, C., & Knipper, M. (2018). Migration and health: A global public health research priority. *BMC Public Health, 18*(1), 987. https://doi.org/10.1186/s12889-018-5932-5

Wilkinson, R., & Marmot, M. (Eds.). (2003). *Social determinants of health: The solid facts* (2nd ed.). WHO International Centre for Health and Society.

World Health Organization. (2020). *Basic documents: Forty-ninth edition* (including amendments adopted up to 31 May 2019). World Health Organization.

Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: A framework for 21st century policy-making. *PLoS Medicine, 8*(5), e1001034. https://doi.org/10.1371/journal.pmed.1001034

Chapter 2
Caught Up in a Broader Struggle: Expansions and Restrictions of Migrants' Healthcare Entitlements in the Spanish Decentralised System

Roberta Perna and Francisco Javier Moreno Fuentes

2.1 Introduction

The entitlement to healthcare represents a key institutional determinant of immigrants' health status (Ingleby et al., 2012; Rechel et al., 2013). Research has shown that immigrants usually enjoy a better health status than the native-born population—as a consequence of the so-called healthy migrant effect (Lassetter & Callister, 2009). However, under the influence of a range of factors, this positive health status may begin to deteriorate to levels similar to or even worse than those of the native-born population (Domnich et al., 2012; Lebano et al., 2020). Among these factors, immigration and healthcare policies are of great importance. Immigration policies determine individuals' legal status and, consequently, their entitlements to social rights and living conditions in a destination country. As research has repeatedly demonstrated, restrictive immigration policies have detrimental impacts on immigrants' health status (Juárez et al., 2019). Healthcare policies, the degree of accessibility, availability, usability and quality of health services, and the presence of organisational, bureaucratic, cultural and linguistic barriers, all affect immigrants' concrete access to health services (Torres-Cantero et al., 2007).

Immigrants' entitlement to healthcare has been supported and legitimised from different moral perspectives and with various scientific rationales (e.g. human rights, humanitarianism, social justice, public health; Hall & Perrin, 2015). However, its recognition may conflict with states' attempts to limit 'unwanted immigration' and to link healthcare access to inclusion/exclusion criteria such as citizenship, residence or formal employment in the labour market (Ambrosini, 2015; Sainsbury, 2006).

R. Perna (✉) · F. J. Moreno Fuentes
Institute for Public Goods and Policies, Spanish National Research Council (IPP-CSIC), Madrid, Spain
e-mail: roberta.perna@csic.es; javier.moreno@cchs.csic.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*, IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_2

Moreover, the policies regulating immigrants' entitlement to public healthcare have increasingly become a sensitive issue in the last decade (Bruquetas-Callejo & Perna, 2020; Moreno Fuentes, 2015; Piccoli, 2019), particularly in relation to undocumented migrants (e.g. third-country nationals without recognised residency status, European Union (EU) migrant citizens who do not comply with the residency requirements set by EU laws, rejected asylum seekers). From this perspective, the definition of immigrants' entitlements to healthcare is revelatory of the tensions that can arise between potentially contradictory objectives that relate simultaneously to issues of migration control, social protection, national sovereignty and social membership (Bommes & Geddes, 2000).

This chapter provides an analysis of the evolution of the policy framework regulating immigrants' healthcare access in Spain, pointing out how entitlement principles and criteria have variously been extended and restricted over time within a broader political and institutional struggle for the definition of the basic entitlement logic of Spain's deeply decentralised National Healthcare System (SNS).

The next section provides an overview of the dynamics of politicisation of immigrants' access to healthcare in times of recurrent crises, thus building a bridge between migration and welfare research. After presenting the methodology in Sect. 2.3, Sect. 2.4 delves into the analysis of the evolution of the Spanish policy framework regulating immigrants' healthcare entitlements, the main findings of which are discussed in Sect. 2.5. Section 2.6 elaborates on the conclusions that can be extracted from the analysis of this case study.

2.2 Immigrants' Healthcare Entitlements: The Politicisation of a Fundamental Right

Healthcare is both a fundamental human right (Pace, 2013) and a right related to social membership (Beckfield et al., 2013). Consequently, a comprehensive provision of health services to immigrants may conflict with states' efforts to control migration and limit access to welfare provisions on the basis of insider–outsider criteria such as citizenship, lawful residence or regular employment in the labour market (Sainsbury, 2006). Accordingly, wide differences exist between countries of the EU regarding immigrants' healthcare entitlements compared with those of the native population, as well as across immigrant categories (e.g. legally residing third-country nationals, EU migrant citizens, asylum seekers, undocumented migrants). As several studies have indicated (Cuadra, 2012; IOM, 2016; Lebano et al., 2020; Rechel et al., 2013), no country grants unconditional healthcare entitlements to the immigrant population, and the more precarious the legal status, the lower the legal entitlement and the higher the administrative barriers to healthcare in the destination country (Spencer & Hughes, 2016).

In recent decades, this policy domain has turned into a politically contested topic in many countries. Although healthcare chauvinism and restrictive policies were

already on the rise (e.g. in the Netherlands, van der Leun, 2006; in the UK, Bragg & Feldman, 2011), it was in the aftermath of the 2008 economic crisis that immigrants' entitlements were scaled back and their public health coverage restricted in many EU countries (Ivanković Tamamović, 2015; Kentikelenis, 2018; Thomson et al., 2014), including countries in Southern Europe (Bonoli, 2001; Carney, 2017; Cimas et al., 2016; Eikemo et al., 2018; Fierlbeck & Palley, 2015; Greer, 2010; Padilla et al., 2022).

Together with worsening socio-economic conditions, these retrenchments in healthcare provision affected health equity and contributed to the deterioration of immigrants' health status (Gotsens et al., 2015; Lebano et al., 2020). More recently, the COVID-19 pandemic has widened pre-pandemic health inequalities. There is an increasing body of evidence that immigrant groups have faced a disproportionate burden from COVID-19, exacerbating pre-existing health and socio-economic vulnerabilities (Machado & Goldenberg, 2021; Marchi et al., 2022). Moreover, while the pandemic was spreading around the world, immigrants were frequently portrayed as 'vectors' of the disease, reviving one of the most recurrent stereotypes surrounding the health–migration nexus (Dionne & Turkmen, 2020; Li & Nicholson, 2021; Triandafyllidou, 2023).

Crises and the need to guarantee the financial sustainability of the public healthcare system have frequently represented the general framework to justify healthcare reforms and retrenchments (del Pino & Ramos, 2018; Jordan, 2011). Despite the differences in the nature and impact of the crises that have affected Europe in the last 15 years, a common thread seems to connect them: these critical events and their negative consequences (e.g. rising unemployment, retrenchments in public health expenditure and provision) have increasingly been framed and problematised in relation to race and migration.

Welfare retrenchments are both electorally risky and institutionally difficult (see, among others, Green-Pedersen & Haverland, 2002; Pierson, 1996; Starke, 2006) because European welfare states have expanded to the extent that they are seen as part of the status quo, creating commitments, expectations and interests that make any significant retreat unlikely. In addition to opposition from veto players, reform processes are path-dependent, shaped by policy legacies and pre-existing welfare structures that operate as institutional veto points hindering retrenchment.

Moreover, compared with cuts in other social policy areas, cutting healthcare costs and rights has been found to be more difficult and challenging for decision-makers. Healthcare policies enjoy a high level of public support across Europe (Jensen, 2012). According to the most recent available data from the European Social Survey (ESS4-2008), 80.8% of the respondents to the 2008 survey believed that governments are responsible for ensuring healthcare to the population, a percentage significantly higher than those of public support for other social policy domains (Jensen & Petersen, 2017; van der Aa et al., 2017). As Jensen and Petersen (2017) suggested, this broad consensus depends on the fact that, unlike other life course and social risks such as unemployment, sickness is implicitly seen as randomly caused, making sick people in need deserving of help. Consequently, the

public usually strongly opposes and reacts negatively to rationing and retrenchments in this policy domain (Fredriksson et al., 2019).

In avoiding the electoral risk of retrenching voters' healthcare rights, the use of arguments such as the 'abuse' of public resources and the need to put an end to the 'fraudulent use' of public healthcare by foreigners constitutes a well-known means of delegitimisation of (immigrants' access to) social protection, particularly in relation to universalistic programmes (Eick & Larsen, 2022; Ennser-Jedenastik, 2018; Moreno Fuentes, 2004; Schweitzer, 2020). By associating universalism (or the expected generosity of these programmes) with its supposed 'abusive' use by immigrants, consolidated social rights can be retrenched with the support of the native-born population. This is particularly so for groups that are usually deemed the least deserving of welfare solidarity: immigrants without regular residency status, either from EU or non-EU countries (Lafleur & Mescoli, 2018; Perna, 2018, 2019; Willen, 2012).

However, healthcare retrenchment is not only electorally but also institutionally difficult. Among all public policy domains, healthcare exhibits the highest level of power decentralisation to subnational governments (Costa-Font & Greer, 2012), which enjoy great autonomy in health regulation, financing and provision. Consequently, these actors may turn into powerful veto players that may mobilise against state-imposed retrenchments (Fierlbeck & Palley, 2015; Greer, 2010). In the specific domain of policies regulating immigrants' healthcare entitlement, research has demonstrated that even when restrictions on rights occur at the national level, regional and local authorities often carry out more or less visible strategies to counteract exclusionary policies (Ataç et al., 2020; Moreno Fuentes, 2015; Piccoli, 2020; Spencer, 2018).

Accordingly, authorities at the meso and local levels have stepped forward as independent actors in managing and governing immigrants' social integration in Europe, resulting in different approaches and policies that often diverge from national models (Adam & Caponio, 2019; Caponio & Borkert, 2010). However, these dynamics of 'decoupling' (Scholten, 2016) may inevitably open the door to territorial differences—and inequalities—across subnational policies regulating immigrants' healthcare access. Accordingly, specific local settings, the ideology of the party in power and its coincidence or divergence with that of the party in power at the central level may condition the direction of subnational policy decisions concerning the extent of coverage and the specific conditions to access public healthcare for the immigrant population (Cimas et al., 2016; Moreno Fuentes, 2015; Piccoli, 2020).

In other words, the policies regulating immigrants' entitlements to healthcare can turn into a battlefield between political and institutional actors operating in the healthcare and immigration domains. It is by analysing these conflicts that we can explain extensions, restrictions and territorial differences in the recognition of the health rights of the immigrant community.

2.3 Methods

This contribution presents an in-depth qualitative analysis of the policies and policymaking process regulating immigrants' entitlements to healthcare in Spain. This country is a highly representative case for analysing how the definition of immigrants' healthcare entitlements in decentralised systems may turn into a highly politicised and contested issue in the public and political arena, particularly in the context of permanent welfare retrenchment.

The approval of the General Healthcare Law in 1986 marked the beginning of the development of the Spanish SNS as a markedly decentralised system. Starting with seven regions (Autonomous Communities, ACs) in charge of their own healthcare responsibilities, this decentralisation process culminated in 2002, consolidating the SNS as a multilevel governance structure. The Health Ministry is in charge of defining a common healthcare framework (entitlement criteria, minimum health services to be provided by ACs) and the annual healthcare budget, while the 17 ACs are responsible for territorial healthcare planning, (a share of) financing and service provision.

In the specific domain of immigrants' healthcare entitlements, the 1986 Law explicitly stated its objective of establishing a universal healthcare system in the country. The range of coverage of the SNS was then gradually increased to include practically the entire population residing in the country, including undocumented migrants. However, as the following pages show, immigrants' entitlement principles and access criteria have variously been extended and restricted over time within a broader political and institutional struggle for the definition of the eligibility philosophy of the SNS.

Data collection relied on different qualitative sources: policy documents, press articles and semi-structured interviews with key stakeholders. Regarding the first of these sources, we collected relevant legislative texts, policy documents and administrative instructions regulating immigrants' healthcare entitlements issued during the 1986–2022 period at the national and regional levels. In addition to official policy documents, we relied on policy documents and reports produced by professional associations (e.g. SEMFYC, Spanish Medical College) and civil society organisations (e.g. REDER, Yo Si Sanidad Universal, Médicos del Mundo).

Moreover, we collected over 70 press articles from national newspapers with opposed ideological orientations (left-wing: *El País*; right-wing: *El Mundo*) published from 2012 to 2022. This second source of data was essential to address political parties' positioning on the issue, and particularly the statements from both the Partido Popular (right-wing party, PP) and the Partido Socialista Obrero Español (socialist party, PSOE), as these parties led the national governments responsible for the 2012 and 2018 reforms, respectively.

The collection of these documentary data was complemented by 31 semi-structured interviews with key stakeholders at the national and regional levels, including political decision-makers, representatives of regional health authorities,

civil servants and representatives of civil society organisations (CSOs) concerned with immigrants' health and healthcare rights.

After data collection, we chronologically reconstructed the content of policies regulating immigrants' entitlement to healthcare (criteria and procedural requirements, extent of coverage) and the parties' discourses and changes in positioning over time vis-à-vis immigrants' healthcare entitlements. In conducting the analysis, we relied on manual coding and focused on the following main dimensions: problem formulation and policy goal; arguments and justification; and proposed policy measures.

2.4 Evidence: Struggles over Immigrants' Healthcare Entitlements in Spain

2.4.1 From Gradual Inclusion to Sudden Exclusion: The 2012 Reform

After the approval of the General Health Law of 1986, the SNS gradually increased its range of coverage to include almost the entire population residing in the country. According to Article 1[2] of the 1986 Law, all Spanish and foreign citizens legally residing in the country (the latter at that moment representing less than 2% of the population) were entitled to public healthcare. On the contrary, access to public healthcare for undocumented migrants was limited to pregnancy and emergency care and the treatment of infectious diseases. Consequently, CSOs or individual health professionals often stepped in, ensuring follow-up of emergency treatments and providing primary and specialised care via informal and parallel structures of care (Moreno Fuentes, 2004).

At the end of the 1990s, however, efforts to change this exclusionary policy gained momentum. The bottom-up mobilisation of health professionals and CSOs, in concomitance with political debates on the need to define a coherent law on immigration, opened a window of opportunity to grant unconditional public healthcare coverage to undocumented migrants (Moreno Fuentes, 2015). Accordingly, Article 12 of the new Immigration Law 4/2000 gave every person with 'habitual residence' in the country entitlement to healthcare on equal grounds with Spanish nationals. Through the mechanism of *empadronamiento* (enrolment in the local register of each municipality), access to healthcare was established regardless of an individual's legal status and formalised through the issuance of a healthcare card (*tarjeta sanitaria*), suddenly turning the SNS into one of the most inclusive health systems in Europe for populations of immigrant origin, and notably for those with precarious administrative status.

Thanks to strong public support for extending the coverage of the SNS to the entire registered population, this inclusionary measure was approved against the willingness of the PP government, which considered it excessively onerous and

likely to generate a 'magnet effect' of irregular migration (Quílez, 2005). A few months after the adoption of Law 4/2000, the PP decided to mobilise the issue of undocumented migrants' healthcare entitlement as the great argument justifying an immediate reform of an immigration law that had barely entered into force. However, although the PP did proceed with the reform, the new legal text (Law 8/2000) left intact the provisions concerning immigrants' healthcare entitlements (Gonzaléz-Ferrer & Cebolla Boado, 2016).

Moreover, the definition of this right was accompanied with the progressive inclusion of programmes targeting the immigrant population in the national and regional health plans, as well as with the formulation of specific measures in the periodic immigrant integration plans aimed at adapting the SNS and health promotion programmes to the specific needs of the foreign population (Vázquez et al., 2011).

Through a process of gradually extending healthcare rights, the last step towards universalism took place in January 2012 with the entry into force of the General Public Health Law 33/2011. The new legal text sought to eliminate the last gaps through which certain groups (residents who did not contribute to the social security system and had incomes above a certain threshold) were not covered by the public system. With this step, and more than 25 years after the approval of the General Health Law of 1986, the objective of converting the SNS into a fully universalistic system based on the residency criterion was achieved.

A few months later, however, Royal-Decree Law (RDL) 16/2012 on 'urgent measures to guarantee the sustainability of the SNS' was adopted by the new elected PP government, representing a turning point in this gradual process of universalisation of the SNS. As the name of the reform suggests, the need to adopt austerity measures to deal with the harsh consequences of the 2008 economic crisis were cited to justify cuts in public healthcare spending,[1] the alleged 'urgency' of which was used to pass the reform without parliamentary debate. More importantly, the sustainability argument was invoked to introduce a radical shift in the process of healthcare universalisation. Although financing continued to be tax-based, the reform reintroduced the categories of 'insured persons' (workers, pensioners, unemployed receiving benefits and job seekers) and 'beneficiaries' (dependent relatives of insured persons under the age of 26) to define the groups fully covered by the SNS. The reintroduction of these categories turned healthcare into a contribution-based right, unveiling a different rhetoric of health deservingness: in the words of the PP Health Minister, '[healthcare must be] for the ones who truly work like us and pay their taxes' (Rincón et al., 2012, April 25).

Among the groups excluded from public coverage, undocumented migrants made up the targeted group par excellence, both in symbolic and practical terms. In practical terms, they were excluded from public healthcare (with the exception of

[1] During the 2007–2013 period, Spain's GDP decreased from 3.8% to −1.7% while unemployment increased from 8.2 to 26.1% (Eurostat database: Real GDP growth rate – volume [online code: tec00115] and Unemployment by sex and age – annual data [online code: une_rt_a]). Due to increasing public debt, Spain implemented drastic austerity measures targeting, among others, the healthcare sector. From 2010 to 2014, public healthcare spending decreased by 13%.

emergency, maternal and infant care) and their healthcare cards were withdrawn. In symbolic terms, framing undocumented migrants as abusers of scarce healthcare resources was key to legitimise the 2012 reform in the eyes of voters. Accordingly, justifications of the reform focused on abuses by non-Spanish citizens as a critical dimension of the problem. However, the analysis reveals discrepancies between the arguments used in the legislative text and those put forward by PP politicians in public and political debates.

The introduction of the legislative text explicitly referred to a Spanish Court of Audits' document (Tribunal de Cuentas, 2012), which stressed that Spain was providing services for persons who were already covered 'either by their social security institutions back home or by private insurances'. In so doing, it was creating a serious problem due to the 'impossibility of guaranteeing reimbursement for the expenses made through the provision of healthcare services to EU citizens' (RDL 16/2012, p. 5). Hence, the target was inefficiency derived from invoicing problems and poor coordination between Spain's and other member states' social security systems.

However, PP politicians publicly blamed undocumented migrants for abusing and misusing the system. Claiming that 'the universalistic healthcare system is not for the whole universe' (El País, 2012, August 13), the economic framing of the problem (financial unsustainability, poor EU coordination) merged with a vision of the SNS as a closed system, thus clearly delineating its deserving members. The ultimate goal of the PP's reform was to put a stop to 'Spain being a country where people enrol in the local register, with the sole goal of accessing healthcare and social services, when they don't even have a job' (El País, 2012, 13 August). Within this framework, they claimed credit for the 2012 reform as it made it possible to tackle abuses and stop fraudulent 'medical tourism' (Gaceta Médica, 2012, 22 April).

Scapegoating EU citizens and especially undocumented migrants for the system's deficits thus represented a key blame strategy to legitimise retrenchment in public health expenditure and entitlements, implementing a radical shift of paradigm that affected the whole population. For instance, residents with an annual income exceeding €100,000 and who did not contribute to the social security system, as well as unemployed residents older than 26 years and who were not receiving unemployment benefits, were also excluded from public healthcare, regardless of nationality or residency status (Royal Decree 1192/2012 regulating the condition of 'insured person').

2.4.2 Challenges to Retrenchment: Institutional Veto Players, Path-Dependency and Advocacy Coalitions

The decision taken by the central government to exclude the undocumented immigrant population from the SNS was intended to limit the range of healthcare coverage of the 17 Regional Health Services (SRS, by its Spanish acronym), leading to the withdrawal of some 910,000 health cards. However, the complex articulation of

political and financial responsibilities in the multi-level governance of the SNS resulted in a substantially unequal application of this measure. Retrenchment may be difficult to achieve in systems with a high degree of vertical fragmentation of power, due to the large number of veto players participating in the policymaking process whose agreement is necessary to change the status quo (Bonoli, 2001; Fierlbeck & Palley, 2015; Greer, 2010).

Indeed, the 2012 reform met with a great deal of resistance from Spain's ACs, although initial reactions were sharply heterogeneous (Cimas et al., 2016; Moreno Fuentes, 2015). Two regions continued to provide full healthcare access to undocumented migrants (Andalusia and Asturias, governed by PSOE), eight ACs extended state-defined coverage through 'complementary programmes' (Aragon, Cantabria, Canarias, Cataluña, Comunidad Valenciana, Extremadura, Galicia and País Vasco, the majority of which were governed by political parties other than PSOE or PP) and five ACs strictly implemented the reform but made some exceptions for undocumented migrants with chronic or mental diseases (Baleares, Castilla y Leon, La Rioja, Comunidad de Madrid and Murcia, all governed by PP). By the beginning of 2018, almost all ACs were relying on their margins for autonomy to circumvent the national law by means of procedural and administrative tools, converging towards the re-extension of healthcare entitlements at the regional level (Bruquetas-Callejo & Perna, 2020; Piccoli, 2020).

Beyond the ideology of the party in government and its degree of coincidence with that of the central government, the arguments put forward by regional governments to justify these measures revealed the deep roots of universalism among the SNS's institutional actors. As the General Secretary of the Andalusian Health Department affirmed, 'we [in Andalusia] have always guaranteed healthcare for all. Regardless of political competition, it is what we have always done, this is what our Statute of Autonomy affirms, that anyone living in Andalusia has a right to healthcare. And this is well before the political debate'. Significantly, similar path-dependency arguments were also mobilised by PP-run ACs. In the words of the then General Director of the Healthcare Department of Comunidad Valenciana, 'the truth is that you cannot change the way of looking at universalism and healthcare. There is an obligation, an ethics of health professionals and of the entire system to provide care to those in need. You cannot change this'.

In addition to path-dependent practices at the regional level, bottom-up opposition played a central role in frustrating the 2012 reform. Immediately after its approval, 'healthcare for all' (Suess et al., 2014) was proclaimed by a wide-ranging advocacy coalition that included professional associations, patients' organisations, trade unions, pro-migrant and immigrants' associations, grassroots movements and the Ombudsman at the national and regional levels. These actors developed various initiatives against the 2012 reform 'from below' (public opinion campaigns by CSOs and grassroots movements, such as REDER and 'Yo Sí Sanidad Universal'), 'from inside' (professionals who continued to provide healthcare to undocumented migrants on ethical and deontological grounds), and 'from outside' (denouncements

by the national and regional Ombudsmen, criticism from international organisations)[2] (Bruquetas-Callejo & Perna, 2020).

Confronted with such widespread opposition and the risk of electoral punishment,[3] the PP government began to show some willingness to modify its position. In March 2015, the Health Minister announced the government's intention to grant undocumented migrants access to primary care for 'public health reasons' and because 'it is more practical' to avoid crowding emergency rooms (Marín, 2015, March 31). Although this promise did not lead to concrete measures, it demonstrated the salience of this issue in Spanish political debate. It was no surprise, then, that one of the first actions of PSOE upon gaining power in 2018 was to repeal RDL 16/2012.

2.4.3 Universalism on Paper, Inequalities on the Ground: Blind Spots of the 2018 Counter-Reform

After bringing down the PP government in June 2018, one of PSOE's first actions was to repeal RDL 16/2012. The new RDL 7/2018 'on universal access to the SNS' introduced important changes to the 2012 reform, particularly with regard to healthcare entitlements ('every person who resides in the Spanish state') and the policy goal ('access to the SNS in conditions of equity and universality'). In the new text, the right to healthcare was understood as a human right ('inherent to every human being') and the equality of every person in the eyes of the SNS as a condition to be guaranteed (people were to have access to healthcare 'without any discrimination'). With this measure, the PSOE government struck a new blow, cutting short the drift towards the re-establishment of an insurance-based healthcare system.

However, RDL 7/2018 is still far from the policy framework that was in place prior to the approval of RDL 16/2012 (Bruquetas-Callejo & Perna, 2020). The new decree establishes that all Spanish residents, including foreigners who have legal and habitual residence in Spain, are entitled to the right to public healthcare.[4]

[2] In June 2013, the UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance recommended the revision of the exclusionary measures introduced by the 2012 reform to guarantee access to health care for migrants, regardless of administrative status (UN Human Rights Council, 2013). Likewise, the European Commission against Racism and Discrimination and the Council of Europe reminded Spain that the right to necessary health care should be guaranteed for all in national law, including undocumented migrants (ECRI, 2018).

[3] In CIS's (2016) National Health Survey, 64.8% of the respondents believed that undocumented migrants should receive the same healthcare treatment as Spanish citizens.

[4] Unless they are obliged to provide proof of mandatory healthcare coverage by another means. This is for instance the case of economically inactive EU citizens (e.g. students, retirees or rentiers), whose healthcare coverage must be guaranteed by their previous country of residence or by subscribing to a public or private insurance that guarantees full coverage in Spain, as set by Directive 2004/38/EC on the right of EU citizens and their families to move and reside freely within the EU.

Regarding undocumented migrants, RDL 7/2018 guarantees them the right to public healthcare under the same conditions as Spanish citizens provided that *(i)* they are not obliged to accredit mandatory healthcare coverage by another means (e.g. EU regulations or bilateral agreements); *(ii)* they are not able to export healthcare coverage from the country of origin; and *(iii)* there is no third party obliged to pay.

In addition, the text makes it explicit that healthcare coverage for undocumented migrants does not generate a right to export protection outside the Spanish territory. More importantly, it establishes that the ACs have competence over the definition of the procedure for the application and issuing of the document accrediting undocumented migrants' entitlement to healthcare, thus opening wide margins to the appearance of important territorial inequalities.

Indeed, after a year of uncertainty and heterogeneous application by the ACs, the Ministry of Health proposed a homogeneous procedure (Resolution of June 20 2019), indicating that undocumented migrants should submit, together with an identity document:

– An updated registration certificate (*empadronamiento*) or, in its absence, an official document from any state administration accrediting the effective residence of the person in Spain for a previous period of 3 months (if the person is in a vulnerable situation, she/he may have access to healthcare after a positive report from the local social services).
– Accreditation of not being able to export healthcare coverage from the country of origin; in the case of persons coming from another member state or from countries with which Spain has signed a bilateral social security agreement, an official certificate of non-exportability issued by the competent administration of that country is required.[5]
– Declaration about the absence of third parties obliged to pay (e.g. public or private entities that might have provided the person with compulsory health insurance in force and valid in Spain).

According to this resolution, in the event that the documentation provided is complete, the person will receive a provisional document valid for a maximum of 3 months, during which time the application and the fulfilment of the requirements will be validated by the Public Administration (Ministry of Health, National Institute of Social Security, INSS). In the event that such validation is rejected, any treatments provided to the person and covered by the SNS will be invoiced.

Despite the clarifying intentions of the 2019 regulations, the discretion granted by RDL 7/2018 to the ACs has resulted in a policy transposition with variable timings and contents throughout the national territory (Yo Sí Sanidad Universal, 2022). Organisations such as REDER and Médicos del Mundo documented more than 5000 cases of people excluded from the entry into force of RDL 7/2018 to mid-2022, with nearly half of these exclusions occurring in the context of the pandemic

[5]This requirement might be particularly difficult to prove, particularly for the most vulnerable groups. On many occasions, no administrative channels or digital procedures exist in the origin countries for the issuance of such a document.

(Sánchez, 2020). The main barriers reported were (in order of relevance) difficulty in receiving the COVID-19 vaccine; billing or refusal of healthcare in the emergency department; lack of healthcare for (1) minors, (2) refugees and asylum seekers, (3) pregnant women and (4) reunified elderly people; and the impossibility of accessing medicines.

Recognising the weaknesses of RDL 7/2018, the Council of Ministries was discussing a Draft Bill amending various regulations to consolidate the equity, universality and cohesion of the SNS just before the General Elections were called for 23 July 2023. This text explicitly included other groups among the holders of the right to healthcare in Spain (i.e. Spanish citizens residing abroad and temporarily displaced in Spain and their accompanying family members, applicants for international protection, victims of human trafficking). However, the requirements for undocumented migrants' access to healthcare remained unchanged. Similarly, although the preamble of the draft recognised the 'lack of homogeneity in the application of this RDL [7/2018], and that they visualize fissures in universal access to the SNS' (p. 3), it continued granting ACs the responsibility to establish the procedure for requesting and issuing the healthcare card for undocumented migrants, leaving ample room for the reproduction of significant inequalities in access to healthcare for the most vulnerable immigrant groups across regions.

2.5 Discussion

Times of crisis facilitate the introduction of reforms that should serve to improve the organisation and management of public policy programmes in order to optimise the use of inevitably limited resources. This relatively favourable situation for the introduction of reforms may also be used to effect more profound changes in the philosophy that underpins a policy domain. In the Spanish case, the measures introduced in the context of a severe economic crisis meant, among other radical transformations, the elimination of universalism in the SNS and the reintroduction of an insurance logic within the public healthcare system. These measures raised barriers between those who 'really deserved' to be cared for by the public healthcare system (the 'insured' who contribute to social security and their families) and the rest (most notably undocumented migrants). This distinction was introduced despite the social security system not being responsible for the financing of healthcare, which is funded through general taxation.

These measures, introduced without a rigorous analysis of their economic, social and health implications, constituted a 180° turn in the incrementalist trend in the range of SNS coverage and abruptly altered the objectives set by the 1986 LGS to build a public health system of universal coverage, free at the point of access and financed entirely via taxation. The reintroduction of an insurance logic led to citizen confusion over the relationship between the social security system and the SNS while introducing a recentralising turn into a deeply decentralised healthcare system (largely because of the role attributed to the INSS in defining the range of coverage

of the public healthcare system). At the same time, these measures facilitated the gradual evolution of the public healthcare system towards a system of basic public coverage, which should eventually evolve towards the emergence of individually contracted insurance schemes to cover the healthcare benefits not included in the service portfolio of the SNS.

To justify the healthcare exclusion of the undocumented immigrant population, the government used interchangeably and imprecisely the concepts of 'health tourism', 'abuse' of the system and 'illegitimate' access to healthcare by a population that is generally accused of not contributing to the maintenance of public services (incorrectly, given that any person present in the territory, regardless of his/her administrative status, pays indirect taxes and these constitute a significant component of the tax-mix of any society). Although the access of European citizens temporarily resident in Spain (often retired) did constitute a financial and regulatory challenge for the Spanish SNS, the response to the problem raised by this population should have been the adoption of measures to improve the management (and billing) mechanisms of the treatments received by these groups, and not the expulsion from the public healthcare system of a socially vulnerable group that was thus deprived of access to adequate and necessary healthcare.

As discussed above, the institutional structure of the SNS and its profoundly decentralised nature permitted the development of a wide range of reactions by regional governments to the decision by the central government to exclude undocumented migrants from the public healthcare system. This policy diversity is made even more complex by the salience of the potential discretion of street-level officials (nurses, doctors, administrative personnel) who are ultimately responsible for managing access to public healthcare system benefits on the ground. This discretion can operate in an expansive (extending the range of coverage beyond that stipulated by the regulations in force in each AC) and/or restrictive manner (denying access to benefits, even in cases where they should be guaranteed by the regulation in place). On a practical level, the gradual reappearance of informal healthcare schemes, such as those existing prior to the approval of Law 4/2000, can also be observed. In this context, although public hospitals are highly likely to end up treating patients who need it (either through emergency care or by establishing informal mechanisms based on voluntarism and the application of the code of ethics of healthcare professionals in collaboration with professional associations and third sector organisations), access to such treatments does not guarantee the necessary follow-up of post-operative and rehabilitation treatments, thus deteriorating the quality of care received by these vulnerable groups and potentially affecting the health status of patients excluded from the normal treatment channels of the healthcare system.

Following the restrictions of access to healthcare services for undocumented migrants, healthcare expenditure to attend this group is likely to have increased in the medium and long term as it is more expensive to provide emergency care and there are extra costs associated with the worsening of clinical conditions due to a lack of access in the early stages of the condition, a decline in medical follow-up and medical externalities. The government had not made a precise estimate of the savings it hoped to achieve by excluding this group from the healthcare system

when it introduced these measures, and anyhow the main benefits expected from this initiative were fundamentally political in nature (capitalising on any potential increase in attitudes of reticence towards the immigrant population in a context of a severe economic crisis that had particularly affected the most disadvantaged groups of Spanish society).

After the reintroduction of a universalistic logic in the Spanish SNS in 2018, undocumented migrants were once again allowed into the public healthcare system, placing Spain among the most comprehensive countries in Europe regarding healthcare entitlements. However, although some of the negative consequences derived from the exclusion introduced in 2012 were reverted by this inclusive measure, the politicisation of the use of the healthcare system by immigrant populations had already been activated and political parties mobilising the anti-immigrant card have continued to use this argument in their political campaigning. The end of what had been called 'Spanish exceptionalism', referring to the lack of a significant right-wing political party and the low profile of anti-immigrant rhetoric, was anticipated by the measures adopted in 2012 and has become a reality across all institutional levels in Spain as well as in the public discourse, with a more visible use of arguments blaming the immigrant population for 'abusing' the Spanish welfare system.

2.6 Conclusions

Migratory pressures are unlikely to decrease in the foreseeable future; meanwhile, the level of politicisation of immigration issues is quite likely to increase, and with it the social and political environment that policy-makers have managed to muddle through in recent years will be significantly transformed. In the middle of the significant migratory pressures experienced in Europe, the room for the appearance of xenophobic entrepreneurs mobilising anti-immigrant feelings and for parties of the extreme right directly capitalising on the issue of immigration (often using welfare arguments) has clearly expanded, most notably in countries with higher concentrations of immigrants or where asylum seekers are arriving in large numbers.

The emergence of extreme right-wing and populist political actors with a strong discourse of opposition to immigration may produce a reaction on the part of conservative parties, reinforce the cautious attitude of liberal and social democratic parties and increase the confusion of left-wing parties in relation to this area of policy. These developments have already appeared (in some cases simultaneously) in the political landscape of most European countries in recent years, and they have certainly conditioned the policy environment in which the access of populations of immigrant origin to healthcare has been defined.

Spain remains one of the countries with the most inclusive policies regulating immigrants' entitlement to healthcare in Europe, as the Health Strand of MIPEX indicates (IOM, 2016; Solano & Huddleston, 2020). However, inclusive policies 'on the book' may not translate into inclusive access to services (see Chap. 3 of this volume). Administrative-bureaucratic, economic, organisational, or cultural barriers

may limit the system's inclusiveness and responsiveness to the diverse needs of the immigrant population "in practice", thus raising inequalities in use and access within and across migrant groups.

Moreover, despite the existence of an inclusive policy framework regulating entitlements, we can already locate the emergence of politicisation dynamics linking welfare entitlements—and notably access to healthcare provided by the SNS—and immigration as a strategy to delegitimise social protection schemes and to weaken the level of public involvement in the domain of healthcare. These reforms have clearly increased the precariousness of the living conditions of the most vulnerable immigrant groups. Among the primary consequences of these measures was the risk of stigmatisation of the population of immigrant origin as a collective willing to exploit the weaknesses of the social protection system, which could contribute to a deterioration in the basis of coexistence between different groups of the population and thus make it more difficult to incorporate these groups into Spanish society.

Analysing the Spanish case also reveals the existence of significant veto players who may mobilise against state-imposed healthcare rights retrenchments. Bodies at different levels of multi-level governance structures, most notably regional and local health authorities, often carry strategies to counteract exclusionary policies and thus weaken the most negative effects of restrictive policy decisions. Similar attention must be paid to the discretion of street-level practitioners, who may greatly affect the actual impact of entitlement regulations in inclusive or exclusive directions.

The implications of the restrictions to healthcare access on the health status of the affected population may not be immediate but the relationship between material deprivation, budget cuts and population health in the medium and long term is clear and well established. With the specialised literature having amply accredited the pernicious effects of economic exclusion on people's state of health in the later stages of their life cycle, raising barriers to access to health services in a context of serious socio-economic precariousness (such as that induced by the severe economic and financial crisis of the early 2010s) can only contribute to aggravating the negative trends derived from this difficult situation.

Competing Interests The research on which this chapter is based was conducted during the development of the Project PID2019-109650RB-I00, funded by the Spanish Program for the Generation of Knowledge and Scientific research oriented towards Challenges of Society.

References

Adam, I., & Caponio, T. (2019). Research on the multi-level governance of migration and migrant integration: Reversed pyramids. In A. Weinar, S. Bonjour, & L. Zhyznomirska (Eds.), *The Routledge handbook on the politics of migration in Europe* (pp. 26–37). Routledge.

Ambrosini, M. (2015). NGOs and health services for irregular immigrants in Italy: When the protection of human rights challenges the laws. *Journal of Immigrant & Refugee Studies, 13*(2), 116–134. https://doi.org/10.1080/15562948.2015.1017631

Ataç, I., Schütze, T., & Reitter, V. (2020). Local responses in restrictive national policy contexts: Welfare provisions for non-removed rejected asylum seekers in Amsterdam, Stockholm and Vienna. *Ethnic and Racial Studies, 43*(16), 115–134. https://doi.org/10.1080/01419870.2020.1723671

Beckfield, J., Olafsdottir, S., & Sosnaud, B. (2013). Health-care systems in comparative perspective: Classification, convergence, institutions, inequalities, and five missed turns. *Annual Review of Sociology, 39*(1), 127–146. https://doi.org/10.1146/annurev-soc-071312-145609

Bommes, M., & Geddes, A. (Eds.). (2000). *Immigration and welfare. Challenging the borders of the welfare state*. Routledge.

Bonoli, G. (2001). Political institutions, veto points, and the process of welfare state adaptation. In P. Pierson (Ed.), *The new politics of the welfare state* (pp. 238–267). Oxford University Press.

Bragg, R., & Feldman, R. (2011). 'An increasingly uncomfortable environment': Access to health care for documented and undocumented migrants in the UK. In R. Sabates-Wheeler & R. Feldman (Eds.), *Social protection and migration. Claiming social rights beyond borders* (pp. 143–163). Palgrave.

Bruquetas-Callejo, M., & Perna, R. (2020). Migration and health-care reforms in Spain: Symbolic politics, converging outputs, oppositions from the field. *South European Society and Politics, 25*(1), 75–98. https://doi.org/10.1080/13608746.2020.1769342

Caponio, T., & Borkert, M. (Eds.). (2010). *The local dimension of migration policymaking* (IMISCOE research series). Amsterdam University Press.

Carney, M. A. (2017). "Sharing one's destiny": Effects of austerity on migrant health provisioning in the Mediterranean borderlands. *Social Science & Medicine, 187*, 251–258. https://doi.org/10.1016/j.socscimed.2017.02.041

Cimas, M., Gullon, P., Aguilera, E., Meyer, S., Freire, J. M., & Perez-Gomez, B. (2016). Healthcare coverage for undocumented migrants in Spain: Regional differences after Royal Decree Law 16/2012. *Health Policy, 120*(4), 384–395. https://doi.org/10.1016/j.healthpol.2016.02.005

CIS - Centro de Investigaciones Sociológicas. (2016). Barómetro sanitario 2016, Estudio nº 8816. March-October. https://www.mscbs.gob.es/estadEstudios/estadisticas/BarometroSanitario/Barom_Sanit_2016/BS2016_MAR.pdf

Costa-Font, J., & Greer, S. L. (2012). *Federalism and decentralization in European health and social care*. Palgrave Macmillan.

Cuadra, C. B. (2012). Right of access to health care for undocumented migrants in EU: A comparative study of national policies. *European Journal of Public Health, 22*(2), 267–271. https://doi.org/10.1093/eurpub/ckr049

del Pino, E., & Ramos, J. (2018). Is welfare retrenchment inevitable? Scope and drivers of healthcare reforms in five Spanish regions during the crisis. *Journal of Social Policy, 47*(4), 701–720. https://doi.org/10.1017/S0047279418000077

Dionne, K., & Turkmen, F. (2020). The politics of pandemic othering: Putting COVID-19 in global and historical context. *International Organization, 74*(s1), e213–e230. https://doi.org/10.1017/S0020818320000405

Domnich, A., Panatto, D., Gasparini, R., & Amicizia, D. (2012). The 'healthy immigrant' effect: Does it exist in Europe today? *Italian Journal of Public Health, 9*(3), e7532.1–e7532.7. https://doi.org/10.2427/7532

ECRI - European Commission against Racism and Intolerance. (2018). ECRI Report on Spain. Fifth monitoring cycle. CRI(2018)2, Strasbourg, 27 February. https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-56-Add-2_en.pdf

Eick, G. M., & Larsen, C. A. (2022). Welfare chauvinism across benefits and services. *Journal of European Social Policy, 32*(1), 19–32. https://doi.org/10.1177/09589287211023047

Eikemo, T. A., Avrami, L., Cavounidis, J., Mouriki, A., Gkiouleka, A., McNamara, C. L., & Stathopoulou, T. (2018). Health in crises. Migration, austerity and inequalities in Greece and Europe: Introduction to the supplement. *European Journal of Public Health, 28*(suppl_5), 1–4. https://doi.org/10.1093/eurpub/cky223

El País. (2012, August 13). El Partido Popular afirma que "la salud universal no es para todo el Universo". *El País*. https://elpais.com/ccaa/2012/08/13/andalucia/1344873261_250601.html

Ennser-Jedenastik, L. (2018). Welfare chauvinism in populist radical right platforms: The role of redistributive justice principles. *Social Policy & Administration, 52*, 293–314. https://doi.org/10.1111/spol.12325

Fierlbeck, K., & Palley, H. A. (2015). *Comparative health care federalism*. Routledge.

Fredriksson, M., Gustafsson, I.-B., & Winblad, U. (2019). Cuts without conflict: The use of political strategy in local health system retrenchment in Sweden. *Social Science & Medicine, 237*, 112464.

Gaceta Médica. (2012, August 3). El Gobierno aprueba el decreto que regula la prestación asistencial y evita el turismo sanitario. *Gaceta Médica*. https://gacetamedica.com/hemeroteca/el-gobierno-aprueba-el-decreto-que-regula-la-prestacion-asistencial-y-evita-el-turismo-sanitario-nylg_660418/

Gonzaléz-Ferrer, A., & Cebolla Boado, H. (2016, May 30). Sanidad, inmigración y opinión pública. *Piedras de Papel*, ElDiario.es. https://www.eldiario.es/piedrasdepapel/sanidad-inmigracion-opinion-publica_132_3972440.html

Gotsens, M., Malmusi, D., Villarroel, N., Vives-Cases, C., Garcia-Subirats, I., Hernando, C., & Borrell, C. (2015). Health inequality between immigrants and natives in Spain: The loss of the healthy immigrant effect in times of economic crisis. *European Journal of Public Health, 25*(6), 923–929. https://doi.org/10.1093/eurpub/ckv126

Green-Pedersen, C., & Haverland, M. (2002). Review essay: The new politics and scholarship of the welfare state. *Journal of European Social Policy, 12*(1), 43–51. https://doi.org/10.1177/0952872002012001562

Greer, S. L. (2010). How does decentralization affect the welfare state? Territorial politics and the welfare state in the UK and the US. *Journal of Social Policy, 39*(2), 181–201. https://doi.org/10.1017/S0047279409990407

Hall, M. A., & Perrin, J. (2015). Irregular migrant access to care: Mapping public policy rationales. *Public Health Ethics, 8*(2), 130–138. https://doi.org/10.1093/phe/phv016

Ingleby, D., Krasnik, A., Lorant, V., & Razum, O. (2012). *Health inequalities and risk factors among migrants and ethnic minorities* (COST series on health and diversity) (Vol. 1). Antwerp-Apeldoorn Garant Publishers.

International Organization for Migration (IOM). (2016). *Summary report on the MIPEX health strand and country reports* (IOM migration research series, 52). IOM. https://publications.iom.int/books/mrs-no-52-summary-report-mipex-health-strand-and-country-reports

Ivanković Tamamović, A. (2015). *The impact of the crisis on fundamental rights across member states of the EU. Comparative analysis*. European Parliament. https://www.europarl.europa.eu/RegData/etudes/STUD/2015/510021/IPOL_STU(2015)510021_EN.pdf

Jensen, C. (2012). Labour-market- versus life course-related social policies: Understanding cross-programme differences. *Journal of European Public Policy, 19*(2), 903–935. https://doi.org/10.1080/13501763.2011.599991

Jensen, C., & Petersen, M. B. (2017). The deservingness heuristic and the politics of health care. *American Journal of Political Science, 61*, 68–83. https://doi.org/10.1111/ajps.12251

Jordan, J. (2011). Health care politics in the age of retrenchment. *Journal of Social Policy, 40*(1), 113–134. https://doi.org/10.1017/S0047279410000528

Juárez, S., Honkaniemi, H., Dunlavy, A., Aldridge, R., Barreto, B., Katikireddi, S. V., & Rostila, M. (2019). Effects of non-health-related policies on migrant health: A systematic review and meta-analysis. *The Lancet Global Health, 7*(4), e420–e435. https://doi.org/10.1016/S2214-109X(18)30560-6

Kentikelenis, A. (2018). Intersecting crises: Migration, the economy and the right to health in Europe. *European Journal of Public Health, 28*(suppl_5), 61–62. https://doi.org/10.1093/eurpub/cky224

Lafleur, J.-M., & Mescoli, E. (2018). Creating undocumented EU migrants through welfare: A conceptualization of undeserving and precarious citizenship. *Sociology, 52*(3), 480–496. https://doi.org/10.1177/0038038518764615

Lassetter, J. H., & Callister, L. C. (2009). The impact of migration on the health of voluntary migrants in Western societies: A review of the literature. *Journal of Transcultural Nursing, 20*(1), 93–104. https://doi.org/10.1177/1043659608325841

Lebano, A., Hamed, S., Bradby, H., Gil-Salmerón, A., Durá-Ferrandis, E., Garcés-Ferrer, J., Azzedine, F., Riza, E., Karnaki, P., Zota, D., & Linos, A. (2020). Migrants' and refugees' health status and health-care in Europe: A scoping literature review. *BMC Public Health, 20*, 1039. https://doi.org/10.1186/s12889-020-08749-8

Li, Y., & Nicholson, H. L. (2021). When "model minorities" become "yellow peril" – Othering and the racialization of Asian Americans in the COVID-19. *Sociology Compass, 15*, e12849. https://doi.org/10.1111/soc4.12849

Machado, S., & Goldenberg, S. (2021). Sharpening our public health lens: Advancing im/migrant health equity during COVID-19 and beyond. *International Journal for Equity in Health, 20*, 57. https://doi.org/10.1186/s12939-021-01399-1

Marchi, M., Magarini, F. M., Chiarenza, A., et al. (2022). Experience of discrimination during COVID-19 pandemic: The impact of public health measures and psychological distress among refugees and other migrants in Europe. *BMC Public Health, 22*, 942. https://doi.org/10.1186/s12889-022-13370-y

Marín, C. (2015, March 31). Alonso enmienda a Mato: los inmigrantes irregulares volverán a tener atención sanitaria. *El Mundo*. https://www.elmundo.es/salud/2015/03/31/551a50f522601d677c8b4574.html

Moreno Fuentes, F. J. (2004). *Políticas sanitarias hacia las poblaciones de origen inmigrante en Europa*. Consejo Económico y Social.

Moreno Fuentes, F. J. (2015). El puzzle de la exclusión sanitaria de los inmigrantes indocumentados en España. In J. Arango, D. Moya Malapeira, J. Oliver Alonso, & E. Sánchez-Montijano (Eds.), *Anuario de la inmigración en España 2014 – Edición 2015* (pp. 278–299). CIDOB.

Pace, A. (2013). From the rights of citizen to the fundamental rights of man: The Italian experience. In R. Arnold (Ed.), *The universalism of human rights* (pp. 269–286). Springer.

Padilla, B., Castellani, S., & Rodrigues, V. (2022). Who cares? Civil society organizations as health-care life vest for migrants in post troika Portugal. *Journal of Ethnic and Migration Studies*. Online first. https://doi.org/10.1080/1369183X.2022.2157802

Perna, R. (2018). Re-bounding EU citizenship from below: Practices of health-care for '(il)legitimate EU migrants' in Italy. *Journal of Ethnic and Migration Studies, 44*(5), 829–848. https://doi.org/10.1080/1369183X.2017.1362977

Perna, R. (2019). Bound between care and control: Institutional contradictions and daily practices of health-care for migrants in an irregular situation in Italy. *Ethnic and Racial Studies, 42*(12), 2103–2122. https://doi.org/10.1080/01419870.2018.1533645

Piccoli, L. (2019). The regional battleground: Partisanship as a key driver of the subnational contestation of citizenship. *Ethnopolitics, 18*(4), 340–361. https://doi.org/10.1080/17449057.2019.1584494

Piccoli, L. (2020). Traditions of regional citizenship: Explaining subnational variation of the right to health-care for undocumented immigrants. *Regional Studies, 54*(11), 1498–1507. https://doi.org/10.1080/00343404.2019.1693530

Pierson, P. (1996). The new politics of the welfare state. *World Politics, 48*(2), 143–179. https://www.jstor.org/stable/25053959

Quílez, R. (2005). Inmigrantes – Cuatro reformas en cuatro años. *ElMundo.es*. https://www.elmundo.es/especiales/2005/02/sociedad/inmigracion/ley/ley3.html

Rechel, B., Mladovsky, P., Ingleby, D., Mackenbach, J. P., & McKee, M. (2013). Migration and health in an increasingly diverse Europe. *The Lancet, 381*(9873), 1235–1245. https://doi.org/10.1016/S0140-6736(12)62086-8

Rincón, R., Sevillando, E. G., & Sahuquillo, M. R. (2012, April 25). La salud para quien la cotiza. *El Pais*. https://elpais.com/sociedad/2012/04/24/actualidad/1335296371_047822.html

Sainsbury, D. (2006) Immigrants' social rights in comparative perspective: Welfare regimes forms in immigration and immigration policy regimes. *Journal of European Social Policy, 16*(3), 229–244. https://doi.org/10.1177/0958928706065594

Sánchez, G. (2020, October 5). La exclusión sanitaria de migrantes aumenta en Madrid durante la pandemia: Médicos del Mundo detecta 167 casos desde marzo. *ElDiario.es*. https://www.eldiario.es/desalambre/exclusion-sanitariamigrantes-aumenta-madrid-durante-pandemia-medicos-mundo-detecta-167-casosmarzo_1_6268895.html

Scholten, P. (2016). Between national models and multi-level decoupling: The pursuit of multi-level governance in Dutch and UK policies towards migrant incorporation. *Journal of International Migration & Integration, 17*, 973–994. https://doi.org/10.1007/s12134-015-0438-9

Schweitzer, R. (2020). How inclusive institutions enforce exclusive immigration rules: Mainstream public service provision and the implementation of a hostile environment for irregular migrants living in Britain. In S. Hinger & R. Schweitzer (Eds.), *Politics of (dis)integration* (IMISCOE research series) (pp. 121–140). Springer.

Solano, G., & Huddleston, T. (2020). *Migrant integration policy index 2020*. ISBN:978-84-92511-83-9. https://www.mipex.eu/health

Spencer, S. (2018). Multi-level governance of an intractable policy problem: Migrants with irregular status in Europe. *Journal of Ethnic and Migration Studies, 44*(12), 2034–2052. https://doi.org/10.1080/1369183X.2017.1341708

Spencer, S., & Hughes, V. (2016). Fundamental rights for irregular migrants: Legal entitlements to health-care and school education across the EU28. *European Human Rights Law Review, 6*, 604–616.

Suess, A., Ruiz Pérez, I., Ruiz Azarola, A., & March Cerdà, J. C. (2014). The right of access to health care for undocumented migrants: A revision of comparative analysis in the European context. *The European Journal of Public Health, 24*(5), 712–720. https://doi.org/10.1093/eurpub/cku036

Starke, P. (2006). The politics of welfare state retrenchment: A literature review. *Social Policy & Administration, 40*(1), 104–120. https://doi.org/10.1111/j.1467-9515.2006.00479.x

Thomson, S., Figueras, J., Evetovits, T., Jowett, M., Mladovsky, P., Maresso, A., Cylus, J., Karanikilos, M., & Kluge, H. (2014). *Economic crisis, health systems and health in Europe: Impact and implications for policy*. WHO Regional Office for Europe.

Torres-Cantero, A. M., Miguel, A. G., Gallardo, C., & Ippolito, S. (2007). Health-care provision for illegal migrants: May health policy make a difference? *European Journal of Public Health, 17*(5), 483–485. https://doi.org/10.1093/eurpub/ckl266

Triandafyllidou, A. (2023). Pandemic nationalisms. *Ethnicities*. Online first. https://doi.org/10.1177/14687968221149744

Tribunal de Cuentas. (2012). *Informe de fiscalización de la gestión de las prestaciones de asistencia sanitaria derivadas de la aplicación de los reglamentos comunitarios y convenios internacionales de la Seguridad Social*. Informe aprobado por el Pleno del Tribunal de Cuentas el 29 de marzo de 2012. Madrid. https://www.senado.es/web/expedientappendixblobservlet?legis=10&id1=5599&id2=1

UN Human Rights Council. (2013). Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, MutumaRuteere. Visit to Spain. A/HRC/23/56/Add.2, Geneva, 6 June. https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-56-Add-2_en.pdf

van der Aa, M., Hiligsmann, M., Paulus, A., & Evers, S. (2017). Health-care deservingness opinions of the general public and policymakers compared: A discrete choice experiment. In W. van Oorschot, F. Roosma, B. Meuleman, & T. Reeskens (Eds.), *The social legitimacy of targeted welfare: Attitudes to welfare deservingness* (pp. 241–260). Edward Elgar.

van der Leun, J. (2006). Excluding illegal migrants in The Netherlands: Between national policies and local implementation. *West European Politics, 29*(2), 310–326. https://doi.org/10.1080/01402380500512650

Vázquez, M. L., Terraza-Núñez, R., Vargas, I., Rodríguez, D., & Lizana, T. (2011). Health policies for migrant populations in three European countries: England, Italy and Spain. *Health Policy, 101*, 70–78. https://doi.org/10.1016/j.healthpol.2010.08.026

Willen, S. S. (2012). How is health-related "deservingness" reckoned? Perspectives from unauthorized im/migrants in Tel Aviv. *Social Science & Medicine, 74*(6), 812–821. https://doi.org/10.1016/j.socscimed.2011.06.033

Yo Sí Sanidad Universal (2022). El derecho a la asistencia sanitaria en las comunidades autónomas: Un derecho hecho pedazos. *REDER*. https://yosisanidaduniversal.net/materiales/informes/informe-derecho-asistencia-sanitaria-comunidades-autonomas

Chapter 3
Immigrant Healthcare Use in the Spanish Region of Aragon: What Can We Learn?

Luis Andrés Gimeno-Feliu and Aída Moreno-Juste

3.1 Introduction

While immigration is a long-standing social phenomenon, its influence on health policies in developed countries has increased in recent decades (Mladovsky et al. 2012a, b). In 2020, the European Union had the largest number of immigrants with 87 million foreign-born residents (United Nations Department of Economic and Social Affairs, Population Division, 2020). Immigrants account for 11.68% of the Spanish population, with 12.42% living in Aragon in 2022 (INE, 2023a). According to the World Health Organization (WHO), governments must ensure that immigrants are entitled to healthcare services, that these services are appropriate to their needs, and that information systems are in place to monitor their use and detect inequities (Mladovsky et al. 2012a, b; WHO/IOM, 2010). Access to the healthcare system is particularly difficult for undocumented immigrants who face a number of health risks. This term, undocumented migrants, is generally considered to refer to

L. A. Gimeno-Feliu (✉)
San Pablo Health Centre, Zaragoza, Spain

EpiChron Research Group on Chronic Diseases, Aragon Health Sciences Institute (IACS), Aragon Health Research Institute (IIS Aragón), Miguel Servet University Hospital, Zaragoza, Spain

University of Zaragoza, Zaragoza, Spain

Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS) (RD24/0005/0013, RD21/0016/0019), Institute of Health Carlos III (ISCIII), Madrid, Spain

A. Moreno-Juste
EpiChron Research Group on Chronic Diseases, Aragon Health Sciences Institute (IACS), Aragon Health Research Institute (IIS Aragón), Miguel Servet University Hospital, Zaragoza, Spain

Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS) (RD24/0005/0013, RD21/0016/0019), Institute of Health Carlos III (ISCIII), Madrid, Spain

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*, IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_3

third-country nationals without a valid permit authorizing them to reside in the country, which includes those who were unsuccessful in pursuing asylum procedures (i.e., rejected asylum seekers) or those who violated the terms of their visas (i.e., overstayers), as well as those who entered the country irregularly (Winters et al., 2018). The main reasons for their lower use of healthcare services are related to their precarious work status, exploitation by employers, fear of deportation, shame, lack of information, financial difficulties, better use of the healthcare system, and difficulties in communication, among other factors (Gimeno-Feliu et al., 2021).

Developed countries have made great efforts in recent years to measure the actual impact of immigration on healthcare systems (Gimeno-Feliu et al., 2016a; Ku, 2009; Nielsen et al., 2009; Norredam et al., 2010; Uiters et al., 2009; WHO/IOM, 2010), because ensuring that immigrants' health is adequately taken care of is a matter of human rights and essential when tackling health inequalities in society (De Jong et al., 2017). However, although the WHO has established a series of recommendations to improve universal coverage (Brolan et al., 2013; WHO/IOM, 2010), some of the world's richest countries have moved in the opposite direction to limit access to healthcare (McKee & Stuckler, 2011) for immigrants (Mladovsky et al., 2012a, b; O'Donnell et al., 2013; Rechel et al., 2013; Royo-Bordonada et al., 2013) and especially undocumented migrants.

As explained in Chap. 2, Spain adopted restrictive migratory policies due to the post-2008 economic crisis. Royal-Decree Law 16/2012 severely limited this right to healthcare for immigrants with irregular administrative status. Subsequently, as indicated in Chap. 2, RDL 7/2018 partially alleviated this situation, but did not ensure truly universal healthcare in Spain.

When looking more deeply into the health of immigrant populations, we must understand a fundamental interrelated aspect of the health system; that is, their access to healthcare services. Health and the health system are distinct but mutually influential aspects of this issue. On the one hand, health status or perceived health status is a key factor influencing health service seeking. On the other hand, healthcare services also modulate and influence the health of populations. Moreover, immigrants' use of healthcare services in many societies is a topic of intense debate where scientific data intersect with opinions and where misconceptions and misinformation often appear based on clear ideological interests. It is important to distinguish the differing lengths of time spent in the destination country (i.e., length of stay) because health problems and the use of healthcare services change as the length of stay increases (Gimeno-Feliu et al., 2016b; McDonald & Kennedy, 2004). The increased use of the healthcare system following an increase in the length of stay is related to the improvement in immigrants' knowledge of the healthcare system, the worsening of their health, the available resources, and how to access services (Gea-Sánchez et al., 2017; Gushulak et al., 2011).

It is important to highlight the need to study the child population's use of the healthcare system because most studies in the literature have not considered children, who are a vulnerable group. In addition, their health status has been shown to be an indicator of social inequality (De Jong et al., 2017).

Immigrants' use of the healthcare system is considered a determinant of their health; therefore, it is important to evaluate this issue in this book. In this chapter specifically, we use real-world data to analyze the global use of the healthcare system by immigrants living in Aragon, Spain, compared with Spanish-born and considering their demographic characteristics and morbidity levels. The use of healthcare services is categorized according to different levels of care: primary care, specialized care, hospitals, emergency rooms, and prescription drug use.

This chapter is structured as follows. In Sect. 3.2, we briefly present the theoretical framework. In Sect. 3.3 and 3.4, the methodology and evidence for the use of healthcare services in the autonomous community of Aragon, Spain, are described in detail. Finally, Sect. 3.5 discusses the evidence and conclusions drawn in this chapter.

3.2 Conceptual Framework

Migrant health and health matters associated with migration are crucial public health challenges faced by governments and societies (WHO/IOM, 2010). As the previous chapters explained, immigrants are healthy and young people who may benefit from the healthy immigrant paradox: that is, the health of immigrants immediately after migration is substantially better than that of individuals in the destination country (Gimeno-Feliu et al., 2015; Gushulak et al., 2011; McDonald & Kennedy, 2004; Razum & Twardella, 2002). However, immigrants' health worsens commensurate with their increasing length of stay in the destination country because of multiple conditions, such as poverty, stigma, discrimination, social exclusion, language barriers, cultural differences, separation from family, sociocultural norms, or administrative hurdles and legal status (WHO/IOM, 2010). Despite this grave situation, governments have not developed policies and strategies to reduce the health consequences for this population. In addition, health inequities, immigrant health factors, and barriers to accessing healthcare services have not been sufficiently studied. In 2010, the WHO published a report that identified four basic principles for public health approaches to address the health of immigrants and host communities: namely, avoiding disparities in health status and access to healthcare services between immigrants and the receiving population; ensuring immigrants' health rights; facilitating lifesaving interventions to reduce excess mortality and morbidity among immigrant populations; and minimizing the negative impact of the migration process on immigrants' health outcomes (WHO/IOM, 2010).

Immigration affects public opinion and triggers debates, often improperly informed, regarding the resulting pressure on public services, including healthcare. The changes in demographics, politics, and socioeconomics in society following immigration require analyses of healthcare service use (Sarría-Santamera et al., 2016). Moreover, the literature is inconsistent in describing immigrants' patterns of use of healthcare services (Villarroel & Artazcoz, 2016; Winters et al., 2018). Most studies have pointed to lower utilization rates among immigrants (Buron et al.,

2008; Diaz et al., 2015a, b; Gimeno-Feliu et al., 2009, 2013; Sarría-Santamera et al., 2016; Uiters et al., 2009), while other studies have shown contrary results (Norredam et al., 2010; Rué et al., 2008). Gimeno-Feliu et al. (2016a) studied the use of healthcare services in the EpiChron Cohort in 2011 and observed that immigrants' global use of healthcare services was lower than that of Spanish-borns, except for adult immigrants who used emergency room services more frequently than Spanish-borns. When comparing these studies, we must consider that the different terminologies used and incomparable or incomplete data make this comparison difficult (Winters et al., 2018). One of the main pitfalls of the literature on this topic is the inclusion of only one level of healthcare at a time or the study of selected or biased populations. Many studies have focused on immigrants' use of emergency room services (Cots et al., 2007), which limits our ability to gain a comprehensive understanding of their overall use of the healthcare system (Gimeno-Feliu et al., 2016a). Differences according to gender and origin have also been identified (Sarría-Santamera et al., 2016; Villarroel & Artazcoz, 2016). For example, Romanian men were less likely to use healthcare services at all levels than men from other countries, but Bolivian and Argentinean men reported more hospitalizations and emergency visits, respectively (Villarroel & Artazcoz, 2016). In addition, a meta-analysis of the international literature observed that undocumented immigrants used primary healthcare and specialized services less often than legal residents in most of the European Union (Winters et al., 2018).

These differences in the use of healthcare systems have been related to socioeconomic disparities across immigrant groups in different countries (Malmusi et al., 2010), sociocultural differences in the perception of illness (Calderón-Larrañaga et al., 2011; Gimeno-Feliu et al., 2016b), fear, lack of awareness of entitlements (Winters et al., 2018), differing barriers to access at the patient, provider, and system levels (Scheppers et al., 2006; Szczepura, 2005), structural integration, and length of stay (Villarroel & Artazcoz, 2016). These differences point to the missing links between official policies and real-world practices, that is, an implementation gap that arises from different factors, such as ambiguity between doctors and patients when the need for treatment may not be acute or inconsistencies between formal access and legislation (Winters et al., 2018).

In his proposed healthcare access model, Andersen (1995) considered that the three main determinants of healthcare use are predisposing factors, enabling factors, and needs. Predisposing factors include differences in gender, age, or other demographic characteristics, genetic differences, varying degrees of acculturation among immigrants, and/or different cultural traditions regarding treatment inherent to their country of origin. In terms of enabling factors, the existence and availability of healthcare services, education level, economic situation, and the ability to access different healthcare services can enable or disable individuals' efforts to purchase their prescribed medications. Finally, the population's different healthcare needs are influenced by the prevalence of different diseases in society, which explains the differences in drug consumption between immigrants and natives (Gimeno-Feliu et al., 2016b). Moreover, self-perceived health is a clear determinant of individuals' needs (Sarría-Santamera et al., 2016). Morbidity is also considered a useful factor for

detecting the possible imbalance between needs, availability, and utilization rates (Calderón-Larrañaga et al., 2011; Diaz et al., 2015a; Gimeno-Feliu et al., 2016a; Uiters et al., 2009).

The inclusion of data on clinical encounters, diagnoses, and prescriptions at the individual level in population-based studies is necessary to adjust use rates according to health needs and avoid selection and/or response bias (Gavrielov-Yusim & Friger, 2014; Gimeno-Feliu et al., 2016a).

3.3 Methodology

3.3.1 Patients and Variables

In response to this chapter's objective, we conducted a retrospective observational study in 2014 among the EpiChron Cohort in Aragon, northern Spain, which has a moderate population density. With 27.8 inhabitants per square kilometer in 2014, Aragon ranked fourth among the autonomous communities of Spain in terms of population density (Instituto Geográfico de Aragón, 2014). The population structure and the main characteristics of the Aragon Health Service are similar to those of Spain (García-Armesto et al., 2010). The Aragon Health Service is part of the Spanish National Health System (SNS), which is based on the principles of universality, equity, free access, and financing fairness, and is mainly funded by taxes. Therefore, the Aragon Health Service is a practically free system (Bernal et al., 2018). As shown in Chap. 2, health competencies are transferred to the 17 autonomous communities of Spain, while the national level is responsible for healthcare under the governance of the Interterritorial Council of the SNS. Primary care centers provide basic care and are distributed throughout Spain to guarantee adequate coverage. Ambulatory specialized care, hospitals, and emergency rooms comprise the secondary level of care. In addition, the prescription of medication to individuals over 65 years old requires a co-payment of 10% of the retail price (or less in the case of chronic medication), while the co-payment for individuals under 65 is 0–50% depending on their personal income (or less in the case of chronic medication) (Bernal et al., 2018; García-Armesto et al., 2010).

As indicated in Chap. 2, at the time our study was conducted, only immigrants with legal administrative status, immigrants under the age of 18, and pregnant women were guaranteed legal access to the same healthcare services as Spanish-born (Bernal et al., 2018; García-Armesto et al., 2010). Hence, immigrants with irregular administrative status could only receive care during emergency situations. In 2014, immigrants accounted for 13.2% of the Spanish population (12.6% in Aragon) and migrated to Spain primarily for economic reasons (INE, 2023b).

The data used in this chapter were obtained from the EpiChron Cohort, which was created to study chronic diseases and multimorbidity, defined as the coexistence of two or more chronic health conditions (Prados-Torres et al., 2018). At the

individual level and in a pseudonymized way, this chapter links general and demographic data, clinical and health outcomes, and healthcare service use and pharmaceutical data for all public healthcare system users in the Spanish region of Aragon. Hence, around 1,283,880 individuals of all ages were included. The data were collected from electronic health records from primary care, hospital healthcare, pharmacy billing records, and user databases. The EpiChron Cohort is a dynamic open cohort; therefore, new users are continuously included and the records are updated regularly. The EpiChron Cohort is not only an integration of clinical–administrative databases but is also a population cohort specifically formed to serve as a basis for research on the clinical epidemiology of chronic diseases. This cohort has been used in numerous research projects within the EpiChron Cohort Study, resulting in a number of findings and publications. The main strength of the EpiChron Cohort is that it is a population cohort representing almost the entire population of Aragon, which is also representative of the Spanish population in terms of age, gender, and immigration status (Prados-Torres et al., 2018).

The data used in this chapter were from January 1 to December 31, 2014.[1] Sociodemographic variables (i.e., age, gender, country of birth, rurality, and length of stay) were extracted from patients' health insurance cards and included in our study. Immigrants were defined according to their country of origin, regardless of their nationality or length of stay in Spain (Perruchoud & Redpath-Cross, 2011). Depending on the birth country of the included population, six areas of origin were created: namely, Spain, Asia, Africa, Eastern Europe, Latin America, and Western Europe and North America.

To assess the impact of multimorbidity, we used the morbidity burden as an index to differentially weight a range of conditions or diseases. The weights were based on mortality, severity, or likely resource use (Huntley et al., 2012). For this estimation, we extracted the different diagnoses of each patient from primary care electronic health records and from the Hospital Minimum Basic Dataset (Spanish acronym, CMBD). Diseases are registered in primary care according to the International Classification of Primary Care, Version 1 (ICPC-1) and in hospitals, the diagnoses are coded using the clinical modification of the ninth revision of the International Classification of Diseases (ICD-9-CM). All ICPC and ICD diagnostic codes were grouped using the John Hopkins Adjusted Clinical Groups (ACG) System® based on their duration, severity, diagnostic certainty, etiology, and specialty care involvement. Each individual was assigned to a unique ACG category based on their age, gender, and all diagnoses registered during the study period. Individuals within a given ACG category showed similar patterns of morbidity and resource utilization over a given year (Starfield et al., 1991). Individuals in ACG categories with a similar expected use of resources were aggregated into one of six resource utilization band (RUB) categories (RUB 0 = nonusers; RUB 1 = healthy users; RUB 2 = low morbidity; RUB 3 = moderate morbidity; RUB 4 = high

[1] The Clinical Research Ethics Committee of Aragon approved this study.

morbidity; and RUB 5 = very high morbidity) (Johns Hopkins Bloomberg School of Public Health, 2015).

Immigrants' use of primary care was measured as the number of visits to primary care doctors and nurses, including on-demand, scheduled, emergency, and home visits. The total number of visits to any specialist was used to measure specialized care use. Use of hospital care included planned and unplanned admissions and the total number of hospital days. The use of emergency room services was measured as the total number of visits and priority visits, which were identified based on the triage level established by the Aragon Health Service. Out of the five categories listed, levels 1–3 were assigned to priority visits. Finally, prescription drug use was estimated by total annual expenses based on recommended retail drug prices (Gimeno-Feliu et al., 2009, 2016a 2021).

3.3.2 Statistical Analysis

The mean number of visits to each level of care and average prescription drug use were calculated by area of origin. To ensure comparability between the different groups, all models were first adjusted for age and gender, and then for age, gender, and morbidity burden (using RUB categories), and were constructed by differentiating the age groups (i.e., ≤14 and >14 years) and by immigrants' length of stay in Spain (i.e., <5 and ≥5 years). The 5-year time cut-off was chosen based on the literature (Diaz et al., 2015a, b; Doamekpor & Dinwiddie, 2015; Salinero-Fort et al., 2012). A secondary analysis was conducted to characterize the use of healh-care services stratified by gender and four age groups (0–14, 15–44, 45–64 and ≥ 65 years). Different statistical regression tests were used depending on the studied variables. Incidence rate ratios (IRRs) and their 95% confidence intervals were represented graphically.

3.4 Evidence

We analyzed data from 1,283,880 persons/individuals (13% of whom were immigrants). Of these, 171,495 were children (8.2% immigrants).

Table 3.1 includes the demographic characteristics, morbidity burden, and rates of use of healthcare services for the whole population. The immigrant population was younger and had a lower morbidity burden than Spanish-born. In addition, immigrants used healthcare services less frequently than Spanish-born. A lower percentage of immigrants than natives visited primary care centers during the study period and the number of visits per year was also lower (e.g., immigrants' average visits to doctors and nurses were 3.9 and 1.2 times per year, respectively, but 5.8 and 3.1 times per year, respectively, for Spanish). Considering urgent primary care visits, the rates were higher for African immigrants than for Spanish-born. A lower

Table 3.1 Demographics, morbidity burden, and healthcare service use among natives and immigrants in Spain

	Spanish-born	Immigrants	Asia	Eastern Europe	Latin America	Africa	Western Europe and North America
N°	1,116,652	167,228	7745	56,653	52,664	38,218	11,948
Demographic information							
0–14 years, %	14.10	8.4	15.29	8.84	6.51	8.95	8.42
15–44 years, %	34.11	64.46	60.59	67.01	64.88	67.32	43.92
45–64 years, %	27.77	24.28	20.7	22.98	25.16	21.6	37.48
≥ 65 years, %	24.02	2.85	3.42	1.17	3.45	2.12	10.19
Women, %	51.00	49.76	47.42	51.83	58.57	35.47	48.32
Rural, %	39.56	37.95	24.18	49.22	24.55	40.99	42.84
Length of stay in Spain ≥5 years, %	–	83.34	68.02	82.34	84.99	84.53	86.88
Morbidity burden							
Healthy users/ nonusers, %	18.49	31.37	40.6	34.12	27.02	31.68	30.54
Low/moderate morbidity, %	71.29	63.5	55.28	61.43	67.74	62.63	62.73
High/very high morbidity, %	10.23	5.13	4.12	4.45	5.24	5.69	6.73
Use of primary care							
Visits to doctor, %	81.42	67.04	62.45	64.14	68.78	70.31	65.69
Visits to nurse, %	53.21	34.25	30.5	31.59	34.75	37.66	36.27
Mean (SD) N°. of visits to doctors, normal care	5.81 (7.30)	3.86 (5.72)	2.91 (4.52)	3.45 (5.57)	4.06 (5.60)	4.32 (6.06)	3.99 (6.29)
Mean (SD) N°. of visits to doctors, urgent care	0.51 (1.42)	0.47 (1.38)	0.32 (1.05)	0.48 (1.36)	0.30 (0.99)	0.75 (1.86)	0.35 (1.10)
Mean (SD) N°. of visits to nurses	3.11 (7.71)	1.21 (3.64)	0.97 (2.72)	1.09 (3.47)	1.12 (3.25)	1.45 (4.11)	1.60 (4.74)
Use of specialized care							
Visits, %	64.88	49.95	46.25	47.43	57.01	44.71	49.86

(continued)

Table 3.1 (continued)

	Spanish-born	Immigrants	Asia	Eastern Europe	Latin America	Africa	Western Europe and North America
Use of hospital care							
Mean (SD) N° of planned admissions/100 ind.	4.09 (25.51)	2.12 (19.48)	1.69 (20.67)	1.93 (17.30)	2.47 (19.41)	1.80 (2.24)	2.79 (18.83)
Mean (SD) N° of unplanned admissions/100 ind.	5.12 (28.03)	3.09 (19.95)	2.84 (18.31)	2.66 (1.84)	2.97 (19.5)	3.85 (22.32)	3.35 (21.74)
Mean (SD) hospital stay, days	8.11 (12.97)	5.45 (9.85)	4.89 (6.52)	5.13 (7.73)	5.17 (8.46)	5.97 (14.07)	6.42 (7.72)
Use of emergency care							
Visits, %	22.19	19.71	18.55	18.38	22.53	19.08	16.35
Mean (SD) N°. of visits/10 ind.	3.76 (10.22)	3.39 (9.18)	3.07 (8.47)	3.07 (8.52)	3.86 (9.45)	3.49 (10.20)	2.69 (7.80)
High priority visits, %	52.39	46.27	41.75	54.92	48.19	44.08	52.48
Pharmacy use							
Use, %	72.54	56.04	49.89	52.31	57.14	61.37	55.75
Mean (SD) cost, €	241.50 (561.63)	62.09 (257.82)	54.28 (282.72)	50.50 (217.75)	63.82 (240.68)	57.30 (274.58)	129.85 (389.68)

ind. individuals, *N°* number, *SD* standard deviation

percentage of immigrants attended specialized ambulatory care. In addition, they had a lower number of planned and unplanned hospitalizations with lower mean hospital stays than Spanish-born. Immigrants' emergency room visits were lower than those of Spanish-born. In addition, immigrants had fewer visits than Spanish-born on average, with the exception of Latin American immigrants. The triage system more frequently classified immigrants' emergency care visits as low priority, except for patients from Eastern Europe. Finally, the mean prescription drug cost per patient was higher for Spanish-born than for immigrants.

In another analysis, we studied the rates of use of healthcare services depending on gender and age (0–14, 15–44, 45–64 and ≥65 years), and we observed some differences of healthcare use. Greater use of primary care centers was observed in women than in men. The group of age with more primary care visits was the group of ≥65 years, following by 0–14 years, 45–64 and 14–44 years. However, the age group of women who had more visits to the doctor was 45–64 years old. Both native and immigrant women had more specialized assistance, and they also had more pharmacy use. By age group, the highest use of specialized care was in ≥65 years group, except for immigrant women, with more attendance in the 45–64 age group.

On the contrary, the days of hospital stay were longer in men than in women, both in natives and immigrants, and the length of stay increased with age. In terms of emergency department use, women were also attended more frequently, but the severity was higher in native men and immigrant women. By age group, natives of both genders, immigrant men 65 and women 15–44 were the most frequent attenders of the emergency department.

After describing the study population, we analyzed the risk of the use of healthcare services by immigrants compared to Spanish-born. Figure 3.1 shows IRRs for the use of healthcare services, adjusted first for age and gender, and then for age, gender, and morbidity burden. These adjustments have been made to compare the difference in the use of healthcare services between natives and immigrants, removing the influence that gender, age and morbidity burden may have on the use of services. In addition, they were calculated for children and adults separately and for length of stay. The immigrant population had an overall lower use of the healthcare system than the indigenous population, which was generally reduced after adjusting for disease burden. However, there were some exceptions. For example, immigrants with <5 years of residence in Aragon, Spain, showed a higher risk of unplanned admissions than Spanish-born after adjusting for age and gender, but this risk disappeared if we adjusted for morbidity burden. In addition, immigrants who had lived >5 years in Spain were at greater risk of using emergency care. When adjusting for morbidity burden, however, adult immigrants were at greater risk of using emergency care, regardless of their length of stay. Finally, immigrants living in Spain for <5 years had the lowest risk of pharmacy use.

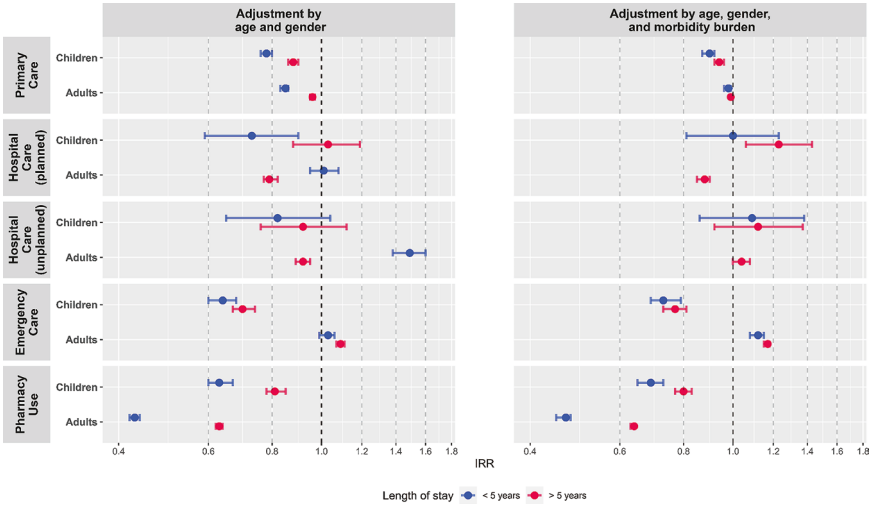

Fig. 3.1 Use of healthcare services (incidence rate ratios, IRRs). Results of standard or zero-inflated negative binomial regression models across Spanish-born and immigrantsSpanish-born were used as the corresponding reference categories

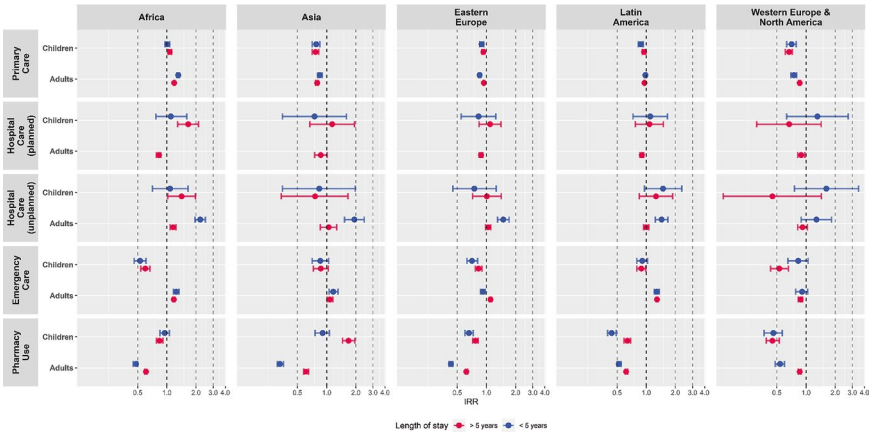

Fig. 3.2 Use of healthcare services (incidence rate ratios, IRRs). Results of standard or zero-inflated negative binomial regression models across immigrant groupsModels adjusted for age, gender, and morbidity burden. Spanish-born were used as the corresponding reference categories

Differences in the healthcare services use depending on the studied areas of origin are showed in Fig. 3.2. Immigrants from all countries had a lower risk of using primary care services than Spanish-born, except for African adults regardless of their length of stay and except for African children who had lived in Spain for >5 years. Immigrants from Asia and Western Europe/North America had the lowest rates of using primary care services. Considering hospitalization, we observed a higher risk among African children who had lived in Spain for >5 years than in other groups. As for the main differences between total admissions and unplanned admissions, more unplanned admissions were observed among all immigrants living in Spain for <5 years, especially among Asian and African adults. In addition, the use of emergency room services was lower for immigrant children than for their Spanish counterparts, although differences were observed across areas of origin. In contrast, immigrant adults from Africa, Asia, and Latin America had a higher use of emergency room services than Spanish-born. Finally, prescription drug use was lower among immigrants than among Spanish-born, regardless of their age, country of origin, or length of stay, with the exception of Asian children with ≥5 years in Spain.

Table 3.2 shows the IRRs for use of emergency care and unplanned admissions depending on the use of primary care. Immigrants who visited primary care services had significantly higher emergency room visit rates, while those not using primary care services had a lower risk of using the emergency care system. The only exception was Asian non-primary care users, who used the emergency room 52% more often than Spanish-born non-primary care users. This relevant result confirms that most immigrants who did not use primary care services did not use hospital emergency care either. In addition, immigrant primary care users were at greater risk of unplanned admissions than native primary care users. It was not possible to estimate the IRR of hospital use among non-primary care users after adjusting for age, gender, and morbidity burden due to the low number of cases observed.

Table 3.2 Use of emergency and hospital care (i.e., unplanned admissions) among primary care users and nonusers (incidence rate ratios, IRRs). Results of standard or zero-inflated negative binomial regression models[a] across immigrant groups

	Use of emergency care				Use of hospital care			
	Primary care users		Primary care nonusers		Primary care users		Primary care nonusers	
	Mean n°. of visits/10 ind.	IRRs	Mean n°. of visits/10 ind.	IRRs	Mean n°. of visits/100 ind.	IRRs	Mean n°. of visits/10 ind.	IRRs
Spanish-born	4.31	(ref.)	1.04	(ref.)	5.52	(ref.)	1.89	(ref.)
Immigrants	4.72	1.17**	0.60	0.81**	5.26	1.05*	0.64	[b]
Africa	4.96	1.13**	0.61	0.70**	6.16	1.18**	0.62	[b]
Asia	4.35	1.05	0.78	1.18*	5.18	1.12	0.28	[b]
Eastern Europe	4.41	1.09**	0.53	0.85**	4.71	1.01	0.30	[b]
Latin America	5.17	1.33**	0.61	0.84**	4.68	1.00	0.49	[b]
Western Europe and North America	4.22	0.97	0.57	0.53**	5.66	1.00	1.19	[b]

N° number, *ref.* reference
*$p < 0.05$, **$p < 0.001$
[a]In cases where the Vuong test was not statistically significant with large negative values, standard negative binomial models were used
[b]Could not be calculated because of the low number of individuals. All means were standardized by age and gender. Models adjusted for age, gender, and morbidity burden

Finally, Fig. 3.3 shows the differences between urban and rural areas in the use of healthcare services for all immigrants compared with Spanish-born. The use of hospital care could not be calculated in rural areas because of the low number of individuals after adjusting for age, gender, and morbidity burden. With the exception of emergency room use, immigrants living in urban areas had lower use rates than Spanish-born for all levels of care. Furthermore, immigrants living in urban areas had significantly higher use rates than those from rural areas, except for pharmacy use.

3.5 Conclusions

3.5.1 Discussion

Among immigrants residing in the autonomous community of Aragon, the global use of healthcare services and prescription drugs was significantly lower than that of Spanish-born. Even after adjusting for age, gender, and morbidity burden, immigrants were less likely to use healthcare services, except for emergency room

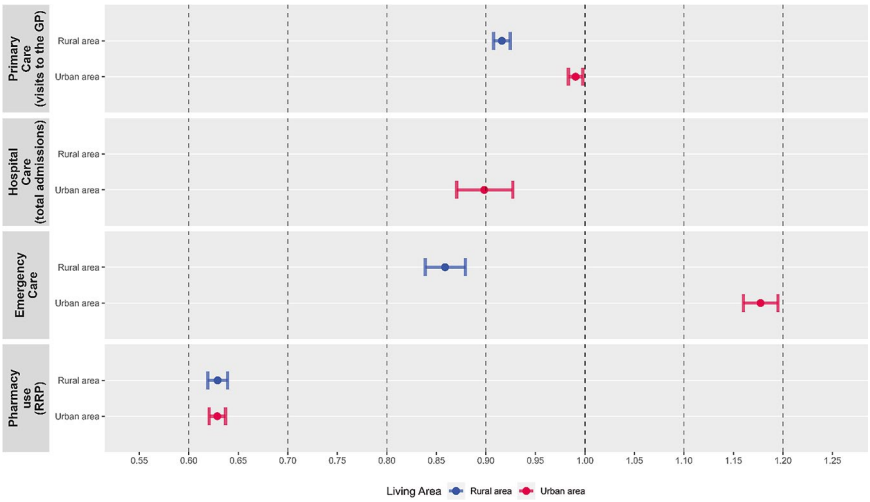

Fig. 3.3 Use of healthcare services by immigrants living in urban vs. rural areas (incidence rate ratios, IRRs, and 95% confidence intervals). Results of standard or zero-inflated negative binomial regression models[a]Models adjusted for age, gender, and morbidity burden. Spanish-born living in urban/rural areas are used as the corresponding reference categories. [a]In cases where the Vuong test was not statistically significant with large negative values, standard negative binomial models were used. *GP* general practitioner, *RRP* recommended retail drug prices

services and unplanned admissions. Previous studies have obtained similar results (Dalmau-Bueno et al., 2021; Diaz et al., 2015a, b; Gimeno-Feliu et al., 2016a, 202; Luo and Escalante, 2018; Villarroel & Artazcoz, 2016). Despite the lower use of the healthcare system by the immigrant population, as we have shown, contradictory policies were created in 2012, based on the assumption that this group used the healthcare system more often than Spanish-born, justifying their exclusion from healthcare expenditure (Villarroel & Artazcoz, 2016). In terms of differences between rural and urban areas of residence, immigrants living in rural areas had lower rates of healthcare service use than those in urban areas. In addition, immigrants in urban areas were less likely to use the healthcare system than Spanish-born, with the exception of emergency room use. Similar results were found in a study of the EpiChron Cohort from 2010 to 2011, where Gimeno-Feliu et al. (2016a) related cultural differences to the use of healthcare resources or problems accessing urban primary care services, even though Spain ensures geographical accessibility to the primary care system. In Catalonia, Spain, however, immigrants living in rural areas visited primary care services more often than Spanish-born because of fewer administrative barriers to obtaining a health card and better information, but they also had less access to specialized care (Gea-Sánchez et al., 2017).

Moreover, as Gimeno-Feliu et al. (2016a) observed, when analyzing immigrants' healthcare service use rates, non-primary care users did not indicate greater emergency room use or a higher rate of unplanned hospital admissions, except in the case of Asian adults who used emergency care more than other immigrants. These data

confirm that immigrants' low use of primary care services is not due to the fact that they instead use hospital emergency care.

Different healthcare service use patterns were observed depending on immigrants' country of origin. For example, Eastern European adults were less likely to use emergency rooms than Spanish-born, whereas other nationalities were more likely to use emergency rooms and Asian children aged >5 years had more pharmacy use. Previous studies have shown that patients from Western Europe and North America use healthcare less than Spanish-born, while African, Asian, and Latin American immigrants use some services much more often (Diaz et al., 2015a, b; Gimeno-Feliu et al., 2016a; Norredam et al., 2010). These differences in immigrants' use of the healthcare system might be explained by better health among these immigrants, barriers to their global use of healthcare services, and cultural differences in terms of healthcare sought for given conditions (Gushulak et al., 2011).

The differences observed between healthcare service use rates decreased after adjusting for morbidity burden, suggesting that some of these differences were related to immigrants' better health, but the remainder were due to other factors, such as accessibility or different health cultures (Gimeno-Feliu et al., 2016a, 2021). The lower use rates of prescription drugs in immigrant populations, regardless of age, nationality, length of stay, or urban/rural setting, may be due to inequities in healthcare provision or a lower tendency to seek medical solutions to health problems.

Villaroel et al. (2016) observed differences in healthcare use based on immigrants' gender. Women from Spain, Morocco, and Romania reported higher use of primary care services, hospitalizations, and emergency care services than men from their respective countries, which is related to social norms of traditional masculinity that inhibit emotional expression and make help-seeking among male immigrants more difficult, in addition to issues related to employment, marital status, and social support.

Different patterns of diseases, health status, and prescribed medications have been described depending on the migration phase, as migration is considered an independent determinant of health that interacts with other socioeconomic factors (Dalmau-Bueno et al., 2021). As explained earlier in this book, the so-called healthy migrant effect refers to the fact that immigrants' health immediately after migration is substantially better than that of individuals from the destination country (Dalmau-Bueno et al., 2021; Gimeno-Feliu et al., 2015; Gushulak et al., 2011; McDonald & Kennedy, 2004; Razum & Twardella, 2002). This is especially true for economic immigrants, who represent the majority of the immigrant population in Spain (Gimeno-Feliu et al., 2016a). In the EpiChron Cohort, being an immigrant was found to be a protective factor against multimorbidity, and newly arrived immigrants had lower multimorbidity rates than those having stayed >15 years in Aragon and even nonmigrants (Moreno-Juste et al., 2023). As immigrants' length of stay increases in the destination country, their health worsens (Gimeno-Feliu et al., 2019; Moreno-Juste et al., 2023) and a higher frequency of healthcare use is observed (McDonald & Kennedy, 2004). McDonald and Kennedy (2004) also suggested that this degraded quality of health was due to immigrants' better understanding of the

healthcare system in the destination country or acculturation in terms of seeking healthcare following increased time spent in the destination country (Gushulak et al., 2011). Although there is a popular belief that, by adjusting for morbidity, immigrants' use of the healthcare system may be higher than that of Spanish-born, this chapter, and many other published studies, show that this is not the case (Diaz et al., 2015a, b; Gimeno-Feliu et al., 2016b; Singh & Hiatt, 2006; Uiters et al., 2009). However, the healthy migrant effect does not necessarily mean that immigrants' lower healthcare service use is desirable. It is possible that some of these immigrants' healthcare needs are not being met and they may have undiagnosed diseases due to immigrant communities' vulnerability and barriers to accessing healthcare, resulting in high healthcare treatment costs in the future (Wilson et al., 2020). Therefore, further research is needed. For example, it is important to consider the influence of additional factors in healthcare service use rates (Diaz et al., 2015a, b; Gimeno-Feliu et al., 2016a). In Catalonia, although immigrants used specialized care less and emergency care more than natives, these differences often disappeared after adjusting for other confounders, such as their housing situation or employment status. A lower education level was associated with a significantly lower use of healthcare services, especially among the undocumented population (Dalmau-Bueno et al., 2021). Some researchers believe that this is an appropriate area for study because some related factors may explain the gap between health status and healthcare use among immigrants, such as gaps in their health literacy, lack of familiarity with their human rights, cultural barriers, direct and indirect discrimination, socioeconomic inequality, poor health system knowledge, a highly medicalized native Spanish culture (Agudelo-Suárez et al., 2010; Gushulak et al., 2011; Hart, 1971; Malmusi et al., 2010; McDonald & Kennedy, 2004; Rechel et al., 2013; Szczepura, 2005; Uiters et al., 2009), living conditions (Dalmau-Bueno et al., 2021; Nowak et al., 2022), poor employment conditions and the resulting difficulties in attending medical visits during work hours (Gea-Sánchez et al., 2017; Villarroel & Artazcoz, 2016), and even severe forms of exclusion, fear, and stigma (Dalmau-Bueno et al., 2021). Fear is described as a potential barrier to healthcare access because of the possibility of deportation from the country. While Spain prohibits deportation of immigrants, it happens in other countries; therefore, this fear may influence irregular immigrants (Gimeno-Feliu et al., 2021; Johnson et al., 2019).

Immigrants' legal status also influences their healthcare service use, such as among undocumented migrants, who used healthcare services less than documented migrants and even less than individuals categorized as having low or very low socioeconomic status. This result indicates that undocumented immigrants do access the healthcare system, but their lower usage may indicate barriers to access (Dalmau-Bueno et al., 2021). Refugees are also a group with a lower rate of access to healthcare services than other groups, which is related to information and language barriers that can lead to mistreatment, inadequate care provision, and underusage of services. When comparing the data before and after the 2015 refugee movement, the same care problems emerge, although the following care problems have long been well known: care restrictions, language and information barriers, lack of funding for interpreters, no adequate care pathways, and lack of culturally sensitive care

services (Nowak et al., 2022). Although language barriers have been considered a barrier to accessing the healthcare system (Gimeno-Feliu et al., 2016a, 2021; Villarroel & Artazcoz, 2016), we did not observe a greater use of healthcare services among the Latin American population compared with other countries of origin.

3.5.2 Conclusions

Immigrants' global use of healthcare services and prescription drugs was lower than that of natives in the Spanish healthcare system, which provides universal coverage. Even after adjusting for age, gender, and morbidity burden, immigrants were less likely to use healthcare services, with the exception of adults, who used emergency room services and had unplanned admissions. However, immigrants who did not use primary care services were less likely to use the emergency care system than Spanish-born, which confirms that most immigrants who did not attempt to obtain primary care services did not use hospital emergency care either. The area of residence also influenced immigrants' healthcare use: for example, immigrants living in rural areas had lower use rates than Spanish-born for all levels of care. With few exceptions, immigrants showed differences in their use patterns depending on their country of origin. There is a general trend among immigrants to increase their use of the healthcare system as their length of stay increases. This healthy migrant effect was observed in this study, which confirms, as described in the literature, that migration is a determinant of health that interacts with other socioeconomic factors.

Other scholars have shown similar results regarding the lower risk of healthcare use among recent immigrants, which confirms that different healthcare use patterns depend on the country of origin. The main difference observed in this study compared with other studies is the relationship between healthcare use and residential area, as some studies have shown that immigrants living in rural areas use primary care services more often, while other studies have obtained contrary results.

It is important to study differences in healthcare use between immigrants and natives because, although the results may be partly explained by the healthy migrant effect, other factors should also be investigated, such as socioeconomic factors, exclusion, fear, stigma, lack of familiarity with human rights, access barriers, housing situations, employment, or culture differences. Health policies that consider these factors could improve immigrants' access to the healthcare system and hence offer truly universal healthcare coverage.

Competing Interests This research was funded by the Carlos III Institute of Health, Ministry of Science and Innovation (Spain), through the Network for Research on Chronicity, Primary Care, and Health Promotion (RICAPPS) awarded on the call for the creation of Health Outcomes-Oriented Cooperative Research Networks (grant number RD21/0016/0019), and by Gobierno de Aragón (grant number B01_23R) and co-funded with European Union's NextGenerationEU funds.

References

Agudelo-Suárez, A. A., Benavides, F. G., Felt, E., Ronda-Pérez, E., Vives-Cases, C., & García, A. M. (2010). Sickness presenteeism in Spanish-born and immigrant workers in Spain. *BMC Public Health, 10*, 791. https://doi.org/10.1186/1471-2458-10-791

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior, 36*(1), 1–10. https://doi.org/10.2307/2137284

Bernal, E., Sandra, D., Juan, G.-A., Fernando, O., Sánchez Martínez, I., Ramón, J., Luz, R., Peña-Longobardo, M., Ridao-López, M., & Hernández-Quevedo, C. (2018). Spain health system review. *Health Systems in Transition, 20*(2). www.healthobservatory.eu

Brolan, C. E., Dagron, S., Forman, L., Hammonds, R., Latif, L. A., & Waris, A. (2013). Health rights in the post-2015 development agenda: Including non-nationals. *Bulletin of the World Health Organization, 91*(10), 719–719A. https://doi.org/10.2471/BLT.13.128173. World Health Organization.

Buron, A., Cots, F., Garcia, O., Vall, O., & Castells, X. (2008). Hospital emergency department utilisation rates among the immigrant population in Barcelona, Spain. *BMC Health Services Research, 8*, 51. https://doi.org/10.1186/1472-6963-8-51

Calderón-Larrañaga, A., Gimeno-Feliu, L. A., Macipe-Costa, R., Poblador-Plou, B., Bordonaba-Bosque, D., & Prados-Torres, A. (2011). Primary care utilisation patterns among an urban immigrant population in the Spanish National Health System. *BMC Public Health, 11*, 432. https://doi.org/10.1186/1471-2458-11-432

Cots, F., Castells, X., García, O., Riu, M., Felipe, A., & Vall, O. (2007). Impact of immigration on the cost of emergency visits in Barcelona (Spain). *BMC Health Services Research, 7*, 9. https://doi.org/10.1186/1472-6963-7-9

Dalmau-Bueno, A., García-Altés, A., Vela, E., Clèries, M., Pérez, C. V., & Argimon, J. M. (2021). Frequency of health-care service use and severity of illness in undocumented migrants in Catalonia, Spain: A population-based, cross-sectional study. *The Lancet Planetary Health, 5*(5), e286–e296. https://doi.org/10.1016/S2542-5196(21)00036-X

De Jong, L., Pavlova, M., Winters, M., & Rechel, B. (2017). A systematic literature review on the use and outcomes of maternal and child health-care services by undocumented migrants in Europe. *European Journal of Public Health, 27*(6), 990–997. https://doi.org/10.1093/eurpub/ckx181. Oxford University Press.

Diaz, E., Calderón-Larrañaga, A., Prados-Torres, A., Poblador-Plou, B., & Gimeno-Feliu, L.-A. (2015a). How do immigrants use primary health care services? A register-based study in Norway. *European Journal of Public Health, 25*(1), 72–78. https://doi.org/10.1093/eu.r

Diaz, E., Kumar, B. N., Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Poblador-Pou, B., & Prados-Torres, A. (2015b). Multimorbidity among registered immigrants in Norway: The role of reason for migration and length of stay. *Tropical Medicine and International Health, 20*(12), 1805–1814. https://doi.org/10.1111/tmi.12615

Doamekpor, L. A., & Dinwiddie, G. Y. (2015). Allostatic load in foreign-born and US-born blacks: Evidence from the 2001–2010 National Health and Nutrition Examination Survey. *American Journal of Public Health, 105*(3), 591–597. https://doi.org/10.2105/AJPH.2014.302285

García-Armesto, S., Begona-Abadia-Taira, M., Duran, A., Hernández-Quevedo, C., & Bernal-Delgado, E. (2010). Spain: Health system review. *Health Systems in Transition, 12*(4), 1–295. www.healthobservatory.eu

Gavrielov-Yusim, N., & Friger, M. (2014). Use of administrative medical databases in population-based research. *Journal of Epidemiology and Community Health, 68*(3), 283–287. https://doi.org/10.1136/JECH-2013-202744

Gea-Sánchez, M., Alconada-Romero, Á., Briones-Vozmediano, E., Pastells, R., Gastaldo, D., & Molina, F. (2017). Undocumented immigrant women in Spain: A scoping review on access to and utilization of health and social services. *Journal of Immigrant and Minority Health, 19*(1), 194–204. https://doi.org/10.1007/s10903-016-0356-8

Gimeno-Feliu, L. A., Armesto-Gómez, J., Macipe-Costa, R., & Magallón-Botaya, R. (2009). Comparative study of paediatric prescription drug utilization between the Spanish and immigrant population. *BMC Health Services Research, 9*, 225. https://doi.org/10.1186/1472-6963-9-225

Gimeno-Feliu, L. A., Magallón-Botaya, R., Macipe-Costa, R., Luzón-Oliver, L., Cañada-Millan, J., & Lasheras-Barrio, M. (2013). Differences in the use of primary care services between Spanish national and immigrant patients. *Journal of Immigrant and Minority Health, 15*, 584–590. https://doi.org/10.1007/s10903-012-9647-x

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Diaz, E., Poblador-Plou, B., Macipe-Costa, R., & Prados-Torres, A. (2015). The healthy migrant effect in primary care. *Gaceta Sanitaria, 29*(1), 15–20. https://doi.org/10.1016/J.GACETA.2014.07.007

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Diaz, E., Poblador-Plou, B., Macipe-Costa, R., & Prados-Torres, A. (2016a). Global health-care use by immigrants in Spain according to morbidity burden, area of origin, and length of stay. *BMC Public Health, 16*, 450. https://doi.org/10.1186/s12889-016-3127-5

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Prados-Torres, A., Revilla-López, C., & Diaz, E. (2016b). Patterns of pharmaceutical use for immigrants to Spain and Norway: A comparative study of prescription databases in two European countries. *International Journal for Equity in Health, 15*, 32. https://doi.org/10.1186/s12939-016-0317-9

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Diaz, E., Laguna-Berna, C., Poblador-Plou, B., Coscollar-Santaliestra, C., et al. (2019). The definition of immigrant status matters: Impact of nationality, country of origin, and length of stay in host country on mortality estimates. *BMC Public Health, 19*(1), 247.

Gimeno-Feliu, L. A., Pastor-Sanz, M., Poblador-Plou, B., Calderón-Larrañaga, A., Díaz, E., & Prados-Torres, A. (2021). Overuse or underuse? Use of health-care services among irregular migrants in a north-eastern Spanish region. *International Journal for Equity in Health, 20*(1), 41. https://doi.org/10.1186/s12939-020-01373-3

Gushulak, B. D., Pottie, K., Roberts, J. H., Torres, S., & DesMeules, M. (2011). Migration and health in Canada: Health in the global village. *CMAJ, 183*(12), E952–E958. https://doi.org/10.1503/cmaj.090287

Hart, J. (1971). The inverse care law. *The Lancet, 1*(7696), 405–412. https://doi.org/10.1016/S0140-6736(71)92410-X

Huntley, A. L., Johnson, R., Purdy, S., Valderas, J. M., & Salisbury, C. (2012). Measures of multimorbidity and morbidity burden for use in primary care and community settings: A systematic review and guide. *Annals of Family Medicine, 10*(2), 134–141. https://doi.org/10.1370/afm.1363

Instituto Geográfico de Aragón (Atlas de Aragón). (2014). *Densidad de población*. Retrieved June 23, 2023. Available from: https://idearagon.aragon.es/atlas/Aragon/info/poblacion/densidad-de-poblacion/densidad-de-poblacion

Johns Hopkins Bloomberg School of Public Health. (2015). *The Johns Hopkins ACG® system excerpt from version 11.0 technical reference guide*. The Johns Hopkins University. Retrieved July 22, 2023. Available from: https://www2.gov.bc.ca/assets/gov/health/conducting-health-research/data-access/johns-hopkins-acg-system-technical-reference-guide.pdf

Johnson, M. R. D., Bhopal, R. S., Ingleby, J. D., Gruer, L., & Petrova-Benedict, R. S. (2019). A glossary for the first world congress on migration, ethnicity, race and health. *Public Health, 172*, 85–88. https://doi.org/10.1016/j.puhe.2019.05.001

Ku, L. (2009). Health insurance coverage and medical expenditures of immigrants and native-born citizens in the United States. *American Journal of Public Health, 99*(7), 1322–1328. https://doi.org/10.2105/AJPH.2008.144733

Luo, T., & Escalante, C. L. (2018). Health care service utilization of documented and undocumented hired farmworkers in the U.S. *The European Journal of Health Economics, 19*(7):923–934. https://doi.org/10.1007/s10198-017-0939-x

Malmusi, D., Borrell, C., & Benach, J. (2010). Migration-related health inequalities: Showing the complex interactions between gender, social class and place of origin. *Social Science & Medicine, 71*(9), 1610–1619. https://doi.org/10.1016/J.SOCSCIMED.2010.07.043

McDonald, J. T., & Kennedy, S. (2004). Insights into the 'healthy immigrant effect': Health status and health service use of immigrants to Canada. *Social Science & Medicine, 59*(8), 1613–1627. https://doi.org/10.1016/J.SOCSCIMED.2004.02.004

McKee, M., & Stuckler, D. (2011). The assault on universalism: How to destroy the welfare state. *BMJ, 343*, d7973. https://doi.org/10.1136/BMJ.D7973

Mladovsky, P., Ingleby, D., McKedd, M., & Bernd, R. (2012a). Good practices in migrant health: The European experience. *Clinical Medicine, 12*(3), 248–252. https://doi.org/10.1093/eurpub/ckr049

Mladovsky, P., Rechel, B., Ingleby, D., & McKee, M. (2012b). Responding to diversity: An exploratory study of migrant health policies in Europe. *Health Policy, 105*(1), 1–9. https://doi.org/10.1016/J.HEALTHPOL.2012.01.007

Moreno-Juste, A., Gimeno-Miguel, A., Poblador-Plou, B., Calderón-Larrañaga, A., Cano del Pozo, M., Prados Torres, A., & Gimeno-Feliu, L. A. (2023). Multimorbidity, social determinants and intersectionality in chronic patients. Results from the EpiChron cohort. *Journal of Globalization and Health, 13*, 04014. https://doi.org/10.7189/jogh.13.04014

National Statistics Institute. (2023a). *Estadística del Padrón Continuo*; 2011. Retrieved October 6, 2023. Available from: https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736177012&menu=ultiDatos&idp=1254734710990

National Statistics Institute. (2023b). *Principales series de población desde 1998*. Retrieved July 7, 2023. Available from: https://www.ine.es/dynt3/inebase/es/index.htm?type=pcaxis&path=/t20/e245/p08/&file=pcaxis&dh=0&capsel=0

Nielsen, S. S., Krasnik, A., & Rosano, A. (2009). Registry data for cross-country comparisons of migrants' health-care utilization in the EU: A survey study of availability and content. *BMC Health Services Research, 9*, 210. https://doi.org/10.1186/1472-6963-9-210

Norredam, M., Nielsen, S. S., & Krasnik, A. (2010). Migrants' utilization of somatic health-care services in Europe – A systematic review. *European Journal of Public Health, 20*(5), 555–563. https://doi.org/10.1093/eurpub/ckp195

Nowak, A. C., Namer, Y., & Hornberg, C. (2022). Health care for refugees in Europe: A scoping review. *International Journal of Environmental Research and Public Health, 19*(3), MDPI. https://doi.org/10.3390/ijerph19031278

O'Donnell, C., Burns, N., Dowrick, C., Lionis, C., & MacFarlane, A. (2013). Health-care access for migrants in Europe. *Lancet, 382*(9890), 393. https://doi.org/10.1016/S0140-6736(13)61666-9

Perruchoud, R., & Redpath-Cross, J. (2011). *Glossary on migration* (2nd ed.). IOM. Available online: https://publications.iom.int/system/files/pdf/iml25_1.pdf. Accessed on 11 July 2023

Prados-Torres, A., Poblador-Plou, B., Gimeno-Miguel, A., Calderón-Larrañaga, A., Poncel-Falcó, A., Gimeno-Feliú, L. A., González-Rubio, F., Laguna-Berna, C., Marta-Moreno, J., Clerencia-Sierra, M., Aza-Pascual-Salcedo, M., Bandrés-Liso, A. C., Coscollar-Santaliestra, C., Pico-Soler, V., & Abad-Díez, J. M. (2018). Cohort profile: The epidemiology of chronic diseases and multimorbidity. The EpiChron Cohort Study. *International Journal of Epidemiology, 47*(2), 382–384f. https://doi.org/10.1093/ije/dyx259

Razum, O., & Twardella, D. (2002). Time travel with Oliver Twist – Towards an explanation for a paradoxically low mortality among recent immigrants. *Tropical Medicine and International Health, 7*(1), 4–10. https://doi.org/10.1046/J.1365-3156.2002.00833.X

Rechel, B., Mladovsky, P., Ingleby, D., Mackenbach, J. P., & McKee, M. (2013). Migration and health in an increasingly diverse Europe. *Lancet, 381*(9873), 1235–1245. https://doi.org/10.1016/S0140-6736(12)62086-8

Royal-Decree Law 16/2012. (2012). *Real Decreto Ley de 20 de abril, de medidas urgentes para garantizar la sostenibilidad del Sistema Nacional de Salud y mejorar la calidad y seguridad de sus prestaciones. Boletín Oficial del Estado núm 98, sec I;pag 31278*. Retrieved June 23, 2023, from http://www.boees/boe/dias/2012/04/24/

Royo-Bordonada, M. Á., Díez-Cornell, M., & Llorente, J. M. (2013). Health-care access for migrants in Europe: The case of Spain. *The Lancet, 382*(9890), 393–394. https://doi.org/10.1016/S0140-6736(13)61667-0

Rué, M., Cabré, X., Soler-González, J., Bosch, A., Almirall, M., & Serna, M. C. (2008). Emergency hospital services utilization in Lleida (Spain): A cross-sectional study of immigrant and Spanish-born populations. *BMC Health Services Research, 8*, 81. https://doi.org/10.1186/1472-6963-8-81/TABLES/3

Salinero-Fort, M. A., Jiménez-García, R., Del Otero-Sanz, L., De Burgos-Lunar, C., Chico-Moraleja, R. M., Martín-Madrazo, C., & Gómez-Campelo, P. (2012). Self-reported health status in primary health care: The influence of immigration and other associated factors. *PLoS One, 7*(6), e38462. https://doi.org/10.1371/journal.pone.0038462

Sarría-Santamera, A., Hijas-Gómez, A. I., Carmona, R., & Gimeno-Feliú, L. A. (2016). A systematic review of the use of health services by immigrants and native populations. *Public Health Reviews, 37*, 28. https://doi.org/10.1186/s40985-016-0042-3. BioMed Central Ltd.

Scheppers, E., van Dongen, E., Dekker, J., Geertzen, J., Dekker Scheppers, J. E., & van Dongen, E. (2006). Potential barriers to the use of health services among ethnic minorities: A review. *Family Practice, 23*(3), 325–348. https://doi.org/10.1093/fampra/cmi113

Singh, G. K., & Hiatt, R. A. (2006). Trends and disparities in socioeconomic and behavioural characteristics, life expectancy, and cause-specific mortality of native-born and foreign-born populations in the United States, 1979–2003. *International Journal of Epidemiology, 35*(4), 903–919. https://doi.org/10.1093/ije/dyl089

Starfield, B., Weiner, J., Mumford, L., & Steinwachs, D. (1991). Ambulatory care groups: A categorization of diagnoses for research and management. *Health Services Research, 26*(1), 53–74.

Szczepura, A. (2005). Access to health care for ethnic minority populations. *Postgraduate Medical Journal, 81*(953), 141–147. https://doi.org/10.1136/pgmj.2004.026237

Uiters, E., Devillé, W., Foets, M., Spreeuwenberg, P., & Groenewegen, P. P. (2009). Differences between immigrant and non-immigrant groups in the use of primary medical care; a systematic review. *BMC Health Services Research, 9*, 76. https://doi.org/10.1186/1472-6963-9-76

United Nations. Department of Economic and Social Affairs. Population Division. (2020). *International Migration 2020 Highlights* (ST/ESA/SER.A/452). United Nations.

Villarroel, N., & Artazcoz, L. (2016). Different patterns in health care use among immigrants in Spain. *Journal of Immigrant and Minority Health, 18*(2), 318–329. https://doi.org/10.1007/s10903-015

WHO/IOM. (2010). *Health of migrants – The way forward. Report of a Global consultation, 3–5 March 2010, Madrid, Spain*. World Health Organization.

Wilson, F. A., Zallman, L., Pagán, J. A., Ortega, A. N., Wang, Y., Tatar, M., & Stimpson, J. P. (2020). Comparison of use of health care services and spending for unauthorized immigrants vs authorized immigrants or US citizens using a machine learning model. *JAMA Network Open, 3*(12), e2029230. https://doi.org/10.1001/jamanetworkopen.2020.29230

Winters, M., Rechel, B., De Jong, L., & Pavlova, M. (2018). A systematic review on the use of health-care services by undocumented migrants in Europe. *BMC Health Services Research, 18*(1). https://doi.org/10.1186/s12913-018-2838-y. BioMed Central Ltd.

Chapter 4
For Life: Differences in Perinatal Health Between the Offspring of Immigrant and Spanish-Born Mothers

Sol P. Juárez and Chiara Dello Iacono

4.1 Introduction

Perinatal health, which encompasses the period around birth, has historically been examined in relation to social inequalities, as a mother's living conditions have been shown to affect the health of her children (Ward, 1993). In recent decades, interest in perinatal health outcomes has become even more important, as it is evident that conditions at birth exert a lasting influence on an individual's health throughout their life, thereby shaping their social opportunities. Consequently, health at birth has been posited as a key indicator for understanding how inequalities are perpetuated in society (Aradhya et al., 2022). In this sense, studying the perinatal health of socially vulnerable groups is particularly important (Joseph et al., 2023).

Immigrants are considered to be a socially vulnerable group because they experience several disadvantages relative to the receiving population, including increased job insecurity, racism, and discrimination (Quesada et al., 2011). This social profile, however, contrasts with their generally good health, particularly among newcomers, a phenomenon known as the healthy immigrant paradox (Markides & Coreil, 1986). This paradox challenges the assumption that social inequalities lead to health inequalities. This empirical observation presents a public health puzzle, as considering immigrants as a healthy group has implications for resource allocation and intervention strategies.

S. P. Juárez (✉)
Centre for Health Equity Studies, Stockholm University/Karolinska Institutet, Stockholm, Sweden

Department of Public Health Sciences, Stockholm University, Stockholm, Sweden
e-mail: sol.juarez@su.se

C. Dello Iacono
Department of Sociology and Communication, University of Salamanca, Salamanca, Spain
e-mail: chiaradi@usal.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*, IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_4

Perinatal health is not an exception in this regard, as studies have shown evidence of the healthy immigrant paradox in various countries (Guendelman et al., 1999; Racape et al., 2016), including Spain (e.g., Agudelo-Suárez et al., 2009; Domingo Puiggròs et al., 2008; Stanek et al., 2021). However, although empirical studies (Cebolla-Boado & Salazar, 2016; Juárez & Revuelta-Eugercios, 2014) and reviews (Juárez et al., 2017) in Spain have challenged this perinatal health advantage by exploring birth outcomes such as macrosomia, recent literature synthesis efforts to confirm the results and highlight future research opportunities are lacking.

In this chapter, we address the identified knowledge gap by summarizing peer-reviewed evidence on perinatal health among the offspring of immigrant mothers residing in Spain, with a focus on birthweight outcomes. We perform a systematized literature search and then conduct a narrative synthesis using the vote-counting method, which is a suitable approach to examine quantitative evidence and consider the directionality of effects (Popay et al., 2006; Verbeek et al., 2012). We thus examine whether the offspring of immigrants tends to exhibit better perinatal health outcomes than their Spanish counterparts. This comprehensive narrative review of all the studies published on the topic to date allows us to identify knowledge gaps and propose areas for future research.

The chapter is structured as follows. First, we explain the relevance of perinatal health for understanding inequalities in society from a life course perspective, particularly in the context of the immigrant–native comparison. Second, we outline the methodological approach and decisions made regarding inclusion/exclusion criteria. Third, we provide a summary of peer-reviewed empirical evidence collected in Spain on this topic. Finally, on the basis of this evidence, we offer some reflections to advance the understanding of migration and perinatal health research from a public health standpoint.

4.2 Conceptual Framework

Our study is grounded in public health science, an interdisciplinary domain largely characterized by empirical research but often lacking foundational and comprehensive theories (Gauffin & Dunlavy, 2021). Nevertheless, the empirical orientation of the field does not preclude the consideration of conceptual frameworks or engagement in theoretical debates.

From a public health perspective, the study of migration and perinatal health is currently situated within the life course perspective and is strongly connected to the debate surrounding the healthy immigrant paradox. In what follows, we introduce these components and align them with the empirical evidence that underpins our theoretical framework.

4.2.1 *Perinatal Health and Social Inequalities from a Life Course Perspective*

Social scientists have long investigated the impact of socioeconomic inequalities on child health. Historically, scholars have examined social variables in relation to mortality outcomes, such as infant and neonatal mortality. However, advancements in child survival coupled with increased data availability have expanded research to include other health measures, such as those derived from birthweight and gestational age (time since conception). Today, there is widespread recognition that perinatal health is strongly influenced not only by the mother's health and lifestyle but also by her social circumstances, which encompass factors such as limited education, weak labor market attachment, low income, and lack of social support (Cantarutti et al., 2017; Castro-Martín, 2010; Juárez & Revuelta, 2013; Ruiz et al., 2015).

In recent decades, perinatal health and birth outcomes in particular have gained even greater relevance in social and health research because of advances in life course epidemiology, which have illuminated the long-term consequences of health during the prenatal period (Kuh et al., 2003). For instance, studies have demonstrated that individuals born with low birthweight (LBW, defined as <2500 grams) are more likely to die at almost all ages (Juárez et al., 2016) and are prone to experience major health conditions in adulthood compared with those born with normal weight. Along these lines, a systematic review of the international literature concluded that lower birthweight is associated with an increased risk of all-cause mortality in adulthood, particularly due to cardiovascular diseases (Risnes et al., 2011). This observation aligns with numerous studies highlighting the association between LBW and cardiometabolic diseases (e.g., Barker et al., 1993a, b; Li et al., 2021).

The link between birthweight and cardiovascular disease played a key role in the formulation of the Developmental Origins of Health and Disease framework (Gluckman & Hanson, 2006), which serves as the basis for life course epidemiology research. More recently, comprehensive efforts to synthesize the long-term impacts of preterm births have yielded results that align with those concerning all-cause mortality in adulthood (around age 50), with underlying causes including respiratory, cardiovascular, and neurological disorders (Crump, 2020).

The long-term consequences of adverse perinatal outcomes extend beyond health, encompassing social outcomes. These include poor cognitive abilities and lower academic performance during childhood, which in turn influence future social opportunities. A systematic review of the international literature revealed a negative association between birthweight and cognitive abilities across the lifespan (from ages 4 to 26) irrespective of socioeconomic conditions (Gu et al., 2017). This implies that lower birthweight is associated with lower cognitive abilities. More recently, another literature review confirmed the link between LBW and lower cognitive abilities in older adults (Krishna et al., 2019). Similarly, a separate review highlighted that children born preterm are more likely to underperform in reading and mathematics at school (McBryde et al., 2020).

In conclusion, with the adoption of a life course approach, perinatal health emerges as a key health dimension for understanding how social inequalities in health develop and are perpetuated in society.

4.2.2 The Healthy Immigrant Paradox in Perinatal Health from an International Perspective

In the context of health inequalities, the association between perinatal health and mother's nativity is particularly significant. The foreign-born population (hereafter immigrants) has been recognized as a socially vulnerable group, as it experiences numerous disadvantages compared to the receiving population. Such disadvantages include job insecurity, entitlements to welfare benefits, and experiences of racism and discrimination (Quesada et al., 2011). In fact, migration can be regarded as a category of social stratification alongside social class and gender, and therefore as a social determinant of health (Castañeda et al., 2015).

Despite the observed social inequalities by mother's nativity, international studies have generally shown relatively good—and in some cases even better—perinatal health outcomes among the offspring of immigrants than among those of the receiving population. This finding, which is in line with the immigrant mortality advantage (Aldridge et al., 2018), has been commonly described in the literature as the healthy immigrant paradox (Markides & Coreil, 1986). A systematic review of the international literature on perinatal health by origin, published in 2009, encompassing LBW and being small for gestational age (a relative measure of birthweight by gestational age) concluded that immigrant mothers in industrialized countries generally exhibit positive outcomes (Gagnon et al., 2009). Another literature review published in 2010, specifically addressing LBW and preterm births, confirmed this result but also highlighted mixed findings contingent on both the mother's origin and the receiving context. The authors therefore concluded that, for instance, women from Sub-Saharan Africa, Latin America, and the Caribbean showed higher risks of LBW in Europe but not in the US. Conversely, women from South-Central Asia exhibited elevated risks in both contexts (Urquia et al., 2010).

Despite the substantial evidence showing birthweight differences by nativity, there have been limited efforts to elucidate the unexpectedly good perinatal outcomes among immigrants. In the literature, two explanations have been generally presented. First, it has been posited that advantages in perinatal health result from self-selection at the point of origin. As discussed in Chap. 1, it is well established that immigrants do not constitute a random subset of the population at their place of origin; rather, they tend to represent a selected group in terms of socioeconomic conditions. On average, they possess higher levels of education, have better income, and are younger than the populations who remain in the home countries (Riosmena et al., 2017). Given that these factors are typically associated with good health, it is therefore expected that immigrants constitute a relatively healthy group. However,

it is important to note that the selective explanation has primarily been formulated in the context of labor migration, and it may not necessarily apply to forced migrants. Nevertheless, studies have also shown perinatal health advantages among the offspring of asylum-seeking and refugee immigrant women (Malamitsi-Puchner et al., 1994), who, regardless of potential self-selection at origin, are well known to endure multiple types of adversity before, during, and after migration.

As an extension of the selective explanation, scholars have proposed that the overall health advantage, which encompasses perinatal health, can be attributed to the fact that, on average, immigrants tend to exhibit healthier behaviors than the population in the receiving country (Juárez et al., 2022). As described in Chap. 1, the adoption of unhealthy behaviors has been proposed as one of the main explanations for the observed health deterioration with increasing duration of residence, which is commonly referred to as unhealthy assimilation (Ceballos et al., 2018). For instance, in perinatal health research, the advantages observed in terms of birthweight among immigrants have frequently been linked to a lower prevalence of smoking during pregnancy.

Smoking during pregnancy is a major avoidable risk factor for LBW. Research has shown that expecting mothers who smoke heavily (>9 cigarettes/day) tend to have offspring who are, on average, around 200 grams lighter than the offspring of non-smoking mothers (Juárez and Merlo 2013). Some studies, particularly those focused on pregnant immigrants, suggest that immigrant women are more likely to adopt this unhealthy behavior as their time in the destination country increases. One such study conducted in Sweden, which included data from all mothers who gave birth in the country between 1991 and 2012, illustrates this pattern (Klöfvermark et al., 2019). However, the limited availability of smoking data at the population level in other countries makes it difficult to assess the generalizability of this finding. Furthermore, only a few studies have accounted for smoking when examining birthweight differences by nativity, which could help determine the extent to which smoking contributes to the immigrant health advantage. Nevertheless, in studies where smoking was included in the analyses, an advantage in LBW was still observed. This was noted, for example, in the case of immigrant women from Chile residing in Sweden (Juárez & Revuelta-Eugercios, 2016).

Qualitative research has also been undertaken to gain insights into perinatal health advantages, aiming to illuminate aspects that might not be captured by quantitative research. For instance, a study conducted in the US used a combination of qualitative methods, including focus group interviews, photo narratives, and documentation of local kin networks, to disentangle, through the experiences of Latino women, the birthweight paradox in comparison with US-born natives (Bender & Castro, 2000). The study concluded that improving economic circumstances (including the promise of a better future) and access to care, alongside the social support provided by the family and community, were some of the protective factors highlighted by women. Although the results cannot be generalized to the entire Latino population residing in the US, they do point toward crucial mechanisms of resilience that may underlie these unexpectedly good outcomes.

4.2.3 The Healthy Immigrant Paradox in Perinatal Health: Beyond Low Birthweight

In elucidating the healthy immigrant paradox in perinatal health in Spain, some authors have emphasized that LBW is not the sole adverse outcome stemming from the birthweight distribution that warrants attention (Juárez & Revuelta-Eugercios, 2014). Individuals with high birthweight or born with macrosomia (typically defined as >4000 or > 4500 grams, regardless of gestational age) also face higher risks of experiencing adverse health outcomes later in life (Barker, 1994; Hong & Lee, 2021). Despite being generally under-examined in perinatal research, macrosomia is a significant health concern because of the increasing prevalence of some of its major risk factors, such as advanced age, diabetes, and obesity (Hernandez-Rivas et al., 2013). Building on this observation, scholars have revisited the healthy immigrant paradox in terms of both LBW and macrosomia, revealing that the advantage is only observed among LBW newborns and not in relation to macrosomic infants, for whom all immigrant origins exhibited high risk (Cebolla-Boado & Salazar, 2016; Juárez and Revuelta-Eugercios 2014). This finding has also been confirmed in other European contexts, such as Germany (Milewski & Peters, 2014).

The fact that the offspring of immigrants have higher risks of macrosomia compared to those of Spanish mothers challenges not only the universality of the immigrant health advantage, but also the advantage itself. Scholars have proposed that immigrant and Spanish mothers may encounter different risk factors leading to distinct adverse outcomes. For example, they have argued that smoking (which is more prevalent among natives) might contribute to the higher risk of LBW among the offspring of Spanish mothers. Conversely, obesity (which is more prevalent among immigrants) could account for the higher risk of macrosomia among the latter (Juárez & Revuelta-Eugercios, 2014). However, the lack of information on the risk factors hinders the confirmation of this hypothesis. A literature review published in 2017 covering studies published between 1998 and 2014 supported the higher risk of macrosomia among the offspring of immigrant women residing in Spain (except for those originating from Asia) (Juárez et al., 2017). Nevertheless, further synthesis efforts are warranted, given the subsequent publication of more studies and the fact that the review considered only studies published in medical journals.

4.2.4 The Contribution of Birthweight to the Healthy Immigrant Paradox Debate

The healthy immigrant paradox has attracted the attention of international researchers across various disciplines, as it challenges the assumption that social inequalities inevitably lead to health inequalities. Therefore, there is a general interest in estimating health differences between immigrants and natives in the receiving country in relation to multiple outcomes in order to evaluate the scope of the healthy

immigrant paradox phenomenon. Simultaneously, ongoing efforts are being made to identify potential sources of bias (examples include Dunlavy et al., 2022; Juárez et al., 2014). In this context, birthweight is particularly important. Unlike many other health measures, it is widely accessible through national Vital Statistics, and it is not prone to issues of differential measurement error or underdiagnosis (Kramer, 1987; Wilcox, 2001). Differential measurement error can arise when the accuracy of the health indicator is compromised, particularly for one of the groups under study (immigrants or natives). This is the case for other perinatal outcomes, such as those derived from gestational age. The reliability of gestational age estimates is contingent on fetal size, making it strongly influenced by the timing of the first prenatal care visit, which on average tends to be later among immigrants (Juárez et al., 2021). Similarly, differential underdiagnosis occurs when one of the comparison groups is, on average, more likely to either underutilize healthcare services or face access barriers, as is often the case for immigrants (Bains et al., 2021). Underdiagnosis not only affects the correct assessment of health differences by origin using hospital records but also impacts survey data, as self-reported conditions hinge on individuals' awareness of their health status. Birthweight being unaffected by differential measurement error or underdiagnosis is thus expected to be reliable for both immigrants and natives in the receiving country.

In addition to the advantages mentioned above, there is another compelling reason why the study of birthweight is crucial for examining the healthy immigrant paradox phenomenon. Unlike all-cause mortality, another general measure of health that is unaffected by measurement error and underdiagnosis, birthweight is not susceptible to under-reporting of return migration to the authorities. In other words, birthweight information in the Vital Statistics provides an accurate account of the population at risk.

4.3 Methods

We conducted a literature review based on a systematic search for peer-reviewed studies published (with no date limit) on migration and birthweight outcomes as of March 2023. Given that the literature on this topic includes studies conducted in the areas of medicine and the social sciences, we used two electronic databases: PubMed (more suitable for medical studies) and Web of Science (more appropriate for social research). We retrieved quantitative studies written in English or Spanish that include (1) offspring of foreign-born women residing in Spain, (2) have comparison groups made up of the offspring of Spanish-born women, and (3) are related to birthweight outcomes. For this review, we excluded birthweight outcomes relative to gestational age, such as being small and large for gestational age, as studies have shown that the immigrant–native comparison is contingent on the method used to estimate gestational age (Juárez et al., 2021) and because misreporting birthweight and gestational age in the Spanish Vital Statistics compromises the quality of relative measures (Juárez, 2015). We retained the keywords in the search string to

ensure the identification of relevant outcomes. The search string (see Appendix) was developed following the PICO strategy. PICO, which stands for Population, Intervention, Comparison, and Outcome, allows for a structured organization of keywords. To develop the search string, we used a combination of MeSH (Medical Subject Headings) terms and keywords using Boolean operators (AND, OR).

Article titles and abstracts were retrieved from the search engines and exported into reference management software (Endnote), and duplicates were removed. One author (CdI) screened the titles and abstracts, retrieved the full texts, assessed the inclusion criteria, and extracted data under the supervision and assistance of the other author (SPJ).

The selected studies were incorporated (by CdI) into a template comprising the following information: (a) general characteristics, including authors, publication date, and national coverage, and (b) methodology, including study design, data source, data collection year, classification of country/region of origin, and birthweight outcome.

The analytical approach used in this review was a narrative synthesis of all the included studies using the vote-counting method. This method is used to evaluate quantitative evidence considering the directionality of the effects without conducting a meta-analysis. Each study is categorized into three possible groups: those supporting evidence in the expected direction according to the theory (in this case, in favor of the healthy immigrant paradox), those not showing evidence in the expected direction, and those not showing evidence in any particular direction. The vote-counting method consists of the narrative assessment of such evidence and describes the predominant direction observed across studies (Popay et al., 2006). To examine the healthy immigrant paradox, which encompasses the directionality of the effects relative to the Spanish population, we extracted estimates from statistical models and descriptive information including statistical tests (e.g., p-values), considering the country/region of birth and data sources (differentiating between Vital Statistics and other sources, such as hospital records). The estimations from the statistical models encompassed a range of metrics, including odds ratios, relative risk ratios, and incidence rate ratios. Unadjusted and adjusted estimations were extracted along with their corresponding confidence intervals or standard errors. In the absence of analytical model estimations, descriptive statistics were extracted, encompassing calculations of percentages along with their respective p-values. Given that the healthy immigrant paradox is defined as immigrants exhibiting similar or better health outcomes, the absence of statistical significance can arguably be viewed as supporting evidence in line with the paradox. However, as the level of significance is often contingent on the sample size and/or the controls included in adjusted statistical models, we also reported instances when point estimates were clearly against or in favor of the healthy immigrant paradox, albeit without reaching statistical significance. This information is available upon request.

Literature reviews have a long tradition in the medical sciences, and their use is proliferating in other disciplines today to offer a comprehensive summary and critical view of the evidence on a particular topic (Alajami, 2021; Van der Laan et al., 2011). Although systematic literature reviews of randomized clinical trials are

considered the gold standard of reviews, as they provide the highest level of evidence in medicine (Burns et al., 2011), other forms of reviews have been widely applied to synthesize empirical evidence in the medical and social sciences (see, for example, Close et al., 2016; Ghosh & Orchiston, 2022; Pritchard et al., 2019; Squiresn, 2020). Reviews that are less structured (such as systematized reviews) are also considered rigorous methods of synthesizing evidence (Grant & Booth, 2009) to present a transparent search strategy, as we do in this chapter.

It is important to acknowledge that our narrative literature review cannot be considered a systematic literature review because there are relevant steps that we did not follow. These include the registration of a protocol, a quality assessment of the included studies, independent data extraction by at least two independent reviewers, and the inclusion of a third reviewer to solve potential conflicts. Nevertheless, our review used a systematic search strategy that is transparent and reproducible, which are relevant qualities when conducting or reviewing quantitative research.

4.4 Evidence

4.4.1 Characteristics of the Selected Studies

The search identified 10,491 records. After removing duplicates (n = 762) and excluding articles from title and abstract screening (n = 9579), the remaining 150 full-text articles were assessed for eligibility. Of these, we excluded non-original works (n = 3), other publication type or outcome (n = 48), studies that did not include immigrants, that included other related categories (such as nationality or race and ethnicity) or that did not directly compare immigrants and Spanish natives (n = 71). Finally, 28 studies were included in this review.

Table 4.1 displays the characteristics of the studies included in the review. Of the 28 studies selected, 14 included national-level representative data from Vital Statistics and 14 included information from specific regions or cities drawn from either Vital Statistics or hospital records. All of the studies using Vital Statistics (n = 17) had a cross-sectional design. Most of the studies (n = 16) included information on births before 2007.

The most common birthweight outcome was LBW (n = 23 studies), followed by average birthweight (n = 6) and macrosomia (n = 6). Of the 28 studies, only four classified women according to whether they were born in Spain or abroad, and 16 classified them according to their country of origin and/or geographical area. Only 8 studies categorized women based on both nativity (foreign or Spanish-born) and country of birth.

Most of the studies (n = 22) included models adjusted for gestational age, typically classified into preterm (< 37 weeks), term (37–41 weeks), and post-term (> 42 weeks) births. Common adjustments were mainly socio-economic factors (marital status, mother's occupation and education, father's occupation, and education). Studies relying on hospital data also included risk factors such as smoking, maternal

Table 4.1 Descriptive overview of included studies

Authors and publication year	Country (City/Region)	Study design	Data source	Data collection	Study population	Birthweight outcome
Agudelo-Suárez et al. (2009)[1]	Spain	Cross-sectional	Vital Statistics	2001–2005	Immigrants Southern Europe Rest of Western countries Eastern Europe North Africa Sub-Saharan-Africa Central America & the Caribbean Latin America Asia Oceania	Low birthweight (<2.500 g)
Bernis and Varea (2013)[2]	Spain	Cross-sectional	Vital Statistics	2007–2010	Latin America Maghreb Eastern Europe	Low birthweight (<2.500 g)
Castelló et al. (2012)[3]	Spain (Almeria)	Cross-sectional	Hospital records	1997–2008	Immigrants Latin American Maghreb Eastern Europe Sub-Saharan Africa	Very low birthweight (500–1.500 g) Moderate low birthweight (1.500–2.499 g)
Cebolla-Boado and Salazar (2016)[4]	Spain	Cross-sectional	Vital Statistics	2013	Immigrants China Colombia Ecuador Maghreb Romania	Average birthweight Low birthweight (<2.500 g) Macrosomia (>4.000 g)
Dello Iacono et al. (2022)[5]	Spain	Cross-sectional	Vital Statistics	2011–2012	Immigrants	Low birthweight (<2.500)

Domingo Puiggròs et al. (2008)[6]	Spain (Barcelona)	Cross-sectional	Hospital records	2004	Immigrants (a) immigrant women, those from socio-economically deprived countries (Central & Latin America, Africa, Eastern European countries & China) (b) non-immigrant women, those coming from other countries (Spain, rest of Europe & others not included in the previous category)	Average birthweight[a] Low birthweight (<2.500 g)
Escartín et al. (2014)[7]	Spain (Aragón)	Cross-sectional	Hospital records	2009–2010	Immigrants	Average birthweight
Farré (2016)[8]	Spain	Cross-sectional	Vital Statistics	2001–2005	Ecuador Romania Bulgaria Colombia China	Average birthweight Low birthweight (<2.500 g)
Figueras et al. (2008)[9]	Spain (Barcelona)	Retrospective Cohort	Hospital records	2001–2005	Maghreb East-Asia Latin America	Average birthweight
Fuster et al. (2013)[10]	Spain	Cross-sectional	Vital Statistics	1980–2010	Immigrants	Low birthweight (<2.500 g)
García Andrés et al. (2016)[11]	Spain (Murcia)	Retrospective cohort	Hospital records	2014	Marruecos Ecuador/Bolivia	Average birthweight[a]
Garcia-Subirats et al. (2011)[12]	Spain (Barcelona)	Cross-sectional	Vital Statistics	1991–2005	Developed countries Central & Latin America Maghreb Eastern Europe Asia	Low birthweight (500–2.499 g)

(continued)

Table 4.1 (continued)

Authors and publication year	Country (City/Region)	Study design	Data source	Data collection	Study population	Birthweight outcome
Garcia-Subirats et al. (2012)[13]	Spain (Catalonia)	Cross-sectional	Vital Statistics	2000–2005	Developed countries Central & Latin America Maghreb Eastern Europe Asia	Low birthweight (500–2.499 g)
Hidalgo-Lopezosa et al. (2019)[14]	Spain	Cross-sectional	Vital Statistics	2015	Rest of Europe Africa America Asia-Oceania	Low birthweight (<2.500 g)
Juárez and Revuelta-Eugercios (2014)[15]	Spain	Cross-sectional	Vital Statistics	2009–2011	EU-15 EU-Extension Non-EU Europe North Africa Sub-Sahara Africa USA & Canada Central America & Mexico Caribbean Asia	Low birthweight (<2.500 g) Macrosomia (>4.200 g)
Juárez et al. (2014)[16]	Spain (Madrid)	Cross-sectional	Vital Statistics	2005–2006	Immigrants European Union & other rich countries North Africa Sub-Saharan Africa Mexico & Central America Latin America (Argentina, Chile, Brazil & Uruguay) Rest of Latin America Asia & Oceania Other non-EU27 European countries	Average birthweight Low birthweight (<2.500 g)

Luque Fernández et al. (2011)[17]	Spain	Cross-sectional	Vital Statistics	1996–2006	21 categories. Twenty of these corresponding to different countries, and one category was made up of 41 Sub-Saharan African countries that shared homogeneous development, socio-economic indicators and Human Development Index	Low birthweight (<2500)
Martín Ibáñez et al. (2006)[18]	Spain (Barcelona)	Prospective cohort	Hospital records	2003–2004	Immigrants Eastern Europe Rest of Europe Africa Asia Latin America	Low birthweight (<2.500 g) Macrosomia (>4.000 g)
Mur Sierra et al. (2010)[19]	Spain (Barcelona)	Prospective cohort	Hospital records	2003–2005 / 2007–2008	Immigrants Eastern Europe Rest of Europe Africa Asia Latin America & other regions Oceania, United States, etc.	Low birthweight (<2.500 g) Macrosomia (>4.000 g)
Paz-Zulueta et al. (2015)[20]	Spain (Cantabria)	Retrospective cohort	Hospital records	2007–2010	Sub-Saharan Africa North Africa Maghreb	Low birthweight (<2.500 g)

(continued)

Table 4.1 (continued)

Authors and publication year	Country (City/Region)	Study design	Data source	Data collection	Study population	Birthweight outcome
Pérez Cuadrado et al. (2004)[21]	Spain (Madrid)	Cross-seccional	Hospital records	2000–2001	Central-Latin America North Africa Europe (non-European Union) Asia Sub-Saharan Africa	Low birthweight (<2.500 g)[a] Very low birthweight (<1.500 g)[a]
Restrepo-Mesa et al. (2010)[22]	Spain	Cross-sectional	Vital Statistics	2001–2005	Colombia	Low birthweight (<2.500 g) Macrosomia (>4.000 g)
Restrepo-Mesa et al. (2015)[23]	Spain	Cross-sectional	Vital Statistics	2007–2008	Maghreb Romania Ecuador Bolivia Colombia	Low birthweight (<2.500 g) Macrosomia (>4.000 g)
Río et al. (2010)[24]	Spain (Catalonia and Valencia)	Cross-sectional	Hospital records	2005–2006	Immigrants Latin America Eastern Europe Maghreb Sub-Saharan Africa	Low birthweight (<2.500 g) Very Low birthweight (<1.500 g)

Speciale and Regidor (2011)[25]	Spain	Cross-sectional	Vital Statistics	2006	Sub-Saharan Africa North Africa Central America & Mexico Latin America Caribbean US & Canada Asia Middle East Rest of EU Europe Non-EU Europe	Low birthweight (<2.500 g)
Stanek et al. (2021)[26]	Spain	Cross-sectional	Vital Statistics	2011–2015	EU-15 & others high income countries Rest of Europe Africa Latin America	Low birthweight (<2.500 g)
Stanek et al. (2020)[27]	Spain	Cross-sectional	Vital Statistics	2007–2019	High income countries Non-high-income European countries Latin America Africa Asia	Average birthweight
Villalbí et al. (2007)[28]	Spain (Barcelona)	Cross-sectional	Hospital records	1994–2003	Immigrants	Low birthweight (<2.500 g)

Note: Superscript (e.g., 1, 2, 3) in the table correspond to studies referenced in the Evidence section
[a]Outcomes presented only with descriptive statistics accompanying statistical tests

weight, and/or diabetes. In addition, some studies (n = 6) included healthcare services, frequency of antenatal visits, type of delivery, and previous adverse obstetric outcomes.

4.4.2 Immigrants Versus Spanish Native Mothers

Twelve studies compared birthweight outcomes of immigrants and Spanish-born mothers, considering very low birthweight (VLBW) (n = 2), moderate low birthweight (n = 1), LBW (n = 10), macrosomia (n = 3), and average birthweight (n = 3); the total exceeds twelve because some studies investigated multiple outcomes.

Studies included in this review that compared LBW among the offspring of immigrants—regardless of their origin—and Spanish-born mothers, provided evidence supporting the healthy immigrant paradox. Evidence from most of the studies[1,5,6,10,16,18,19,24] indicated that the offspring of immigrant mothers had either a decreased risk of LBW or similar risks compared to their Spanish counterparts. However, evidence from five studies deviated from this general pattern, showing increased risks of both LBW[4,10,28] and VLBW.[3,24] One study,[10] using national data from Vital Statistics, stratified the analyses by maternal age, and revealed a higher risk of LBW among the offspring of immigrant women older than 40 years of age. The other two studies that found an excess risk of LBW or VLBW among the offspring of immigrant women were conducted with hospital records from Almeria[3] and Barcelona,[28] covering the periods from 1997 to 2008 and from 1994 to 2003, respectively. Evidence suggests that the healthy migrant paradox might vary depending on the age of the mother, the region of residence, and the data collected.[3,10,24,28]

In contrast, all of the studies examining macrosomia[4,18,19] indicated that the offspring of immigrant mothers had an increased risk and higher average birthweight than their Spanish counterparts.[6,7,16]

Regarding the data sources, evidence of the healthy immigrant paradox in LBW was predominantly observed among studies using Vital Statistics.[1,5,10,16] In contrast, studies using hospital records often reported mixed findings, showing a lower,[6,18,19,24] similar,[19] or higher[28] risk of LBW. Only two studies used hospital records to examine macrosomia, and both found increased risks.[18,19]

4.4.3 Immigrants by Region Versus Spanish Native Mothers

Twenty-one studies compared birthweight outcomes of immigrant and Spanish mothers examining VLBW (n = 3), LBW (n = 18), macrosomia (n = 5), and average birthweight (n = 4); the total exceeds twenty-one because some studies investigated multiple outcomes.

Studies that classified immigrant mothers based on their geographical regions of origin showed that the patterns described above for all immigrant origins were

consistently observed among offspring born to Latin America,[1,2,3,12,14,15,16,18,19,21,24,25,26] To a lesser extent, similar patterns were noted among those born to mothers from North Africa,[1,2,3,12,15,16,17,18,21,23,24,25] European and other high-income countries,[1,12,15,16,21,25,26] and other European countries.[1,2,3,12,14,15,16,18,24,25,26]

Among the 14 studies that compared the LBW of the offspring of Spanish and immigrant mothers from North Africa,[1,2,3,4,12,15,16,17,18,20,21,23,24,25] two showed evidence of a higher risk for the latter population.[4,20] One of these studies suggested an increased risk of LBW that reversed after adjustment for socioeconomic and prenatal care factors, although the results were not statistically significant.[20] Of the 16 studies considering the offspring of mothers from other European countries,[1,2,3,6,12,13,14,15,16,18,19,21,24,25,26,27] only one reported increased risks of LBW and macrosomia for the years 2003–2004 and 2007–2008, respectively, although these findings were not statistically significant,[19] and one study found an increased risk of VLBW.[24] In contrast to the general pattern observed for all of the other aforementioned origins, studies on the offspring of immigrant mothers from Sub-Saharan Africa consistently reported increased risks of LBW,[1,15,17,21,25] VLBW,[21,24] and macrosomia.[15] Interestingly, for this latter group, exceptions were found in four studies that reported similar risks (as opposed to increased risk), thereby supporting the healthy immigrant paradox.[3,16,20,24] These four studies used either hospital records or Vital Statistics[16] from specific cities or regions (Almeria, Cantabria, and Madrid).[3,16,20,24] Studies examining LBW and macrosomia among the offspring of immigrant mothers from Asia revealed no clear pattern.[1,6,9,12,14,15,16,18,19,21,25,26]

Regarding the data sources, the results were consistent for the offspring of women from Latin America, Europe and other high-income countries, North Africa, Sub-Saharan Africa, and to a lesser extent, other European countries. Some differences across the data sources were observed among women from Asia, suggesting worse outcomes when using hospital records.[6,9,19,21] The results for macrosomia were consistent among outcomes of mothers from Latin America and North Africa. However, no studies have examined macrosomia using hospital records for mothers from Europe and other high-income countries, Sub-Saharan Africa, or Asia.

4.4.4 Immigrants by Country of Birth Versus Spanish Native Mothers

Six studies compared birthweight outcomes of the offspring of immigrants and Spanish mothers focusing on LBW (n = 5), macrosomia (n = 3), and average birthweight (n = 2); the total exceeds six because some studies investigated multiple outcomes.

Studies classifying immigrant mothers by their country of birth reported mixed findings compared with broader regional categories. Specifically, relative to the offspring of Spanish-born mothers, those born to mothers from Bolivia and Ecuador showed either lower[4,17,23] or similar[8,17] risks of LBW along with higher risks of macrosomia[23] and higher average birthweight.[11] This pattern aligns with that observed

for the broad category of Latin American immigrants. Similarly, offspring born to women from Argentina, Brazil, Cuba, and Peru showed reduced or similar risks of LBW.[17] However, those from the Dominican Republic experienced an increased risk of LBW.[17] None of these studies, however, examined macrosomia. Additionally, immigrant women from Colombia showed mixed findings regarding both LBW and macrosomia.[4,8,11,17,22,23] In contrast to the general pattern observed in studies examining the broad category of European and other high-income countries, women from England and Portugal exhibited elevated risks of LBW.[17] Women from Romania showed mixed findings concerning LBW, deviating from the general pattern, and exhibited a higher risk of macrosomia.[23] Conversely, the results for women from France, Germany, Italy, Poland, Bulgaria, and Algeria were in alignment with the broad categories of European and other high-income countries, other European countries, and North Africa,[17] respectively. However, none of these studies examined macrosomia.

Women originating from China evidenced similar decreased risks of LBW[17] and increased risks of LBW,[4] in line with studies that examined the context of Asia and produced mixed findings concerning this outcome. In addition, one study suggested an increased risk of macrosomia[4] compared to those of native-born women.

Regarding the data sources, it was not possible to examine how the results compared because all of the studies relied solely on Vital Statistics.

4.5 Conclusions

One of the primary findings of this review is that immigrant mothers are more likely than Spanish mothers to deliver a newborn with macrosomia. This finding, consistent with the results of a previous review (Juárez et al., 2017), emphasizes the need for more efforts to disentangle the factors that contribute to this adverse perinatal outcome. The absence of national data with comprehensive medical information on relevant risk factors, such as gestational diabetes and obesity, remains a limitation to the advancement of knowledge in this area. A study conducted using hospital records from the Cantabria region concluded that the higher risk for LBW observed among African mothers in Spain could be attributed to inadequate prenatal care (Paz-Zulueta et al., 2015). While the study did not consider macrosomia or other immigrant origins, inadequate care could be a significant factor for macrosomia among various immigrant groups. This study is particularly relevant because our review highlights that women from Sub-Saharan Africa generally exhibit worse perinatal health outcomes than their Spanish counterparts.

Although the adverse effects associated with macrosomia are often overshadowed by those of LBW, literature reviews on macrosomia have consistently reported associations with complications during delivery for both the mother and the child. For instance, mothers who delivered newborns weighing more than 4500 grams were twice as likely to undergo an emergency caesarean section as those delivering infants of normal weight. Similarly, children with macrosomia were seven times more likely to experience shoulder dystocia (Rossi et al., 2013). Moreover,

macrosomia and being large for gestational age have been linked to childhood obesity (Gu et al., 2012) and various later-in-life adverse health outcomes, including specific types of hematological malignancies, such as leukemia and non-Hodgkin lymphoma, as well as autism and behavioral problems, hypertension, and type 1 and type 2 diabetes (Magnusson et al., 2021). The findings of our review, in conjunction with the evidence on the adverse long-term effects of macrosomia, raise questions about recent initiatives proposed by some scholars that focus exclusively on small vulnerable newborns (Ashorn et al., 2023) to promote healthy adulthood. This study underscores the need to advocate for a more comprehensive consideration of health at birth.

The observation that the risks of the offspring of immigrants and Spanish-born women are located in different parts of the birthweight distribution (macrosomia vs. LBW, respectively) has methodological implications. It implies that comparing the average birthweight by nativity in this country context may not be informative without considering the population at risk under the two distribution tails.

In addition, we identified several common characteristics in studies examining birthweight outcomes among immigrants and natives in Spain. First, although the societal relevance of birthweight extends beyond the health domain, the literature on this outcome primarily remains field-specific. Studies that acknowledge evidence from other fields (e.g., cross-field references) or that consider the social determinants of birthweight differences by nativity are scarce. Although the descriptive nature of research in this area is not unique to the Spanish context, there is potential for improvement through collaborative multidisciplinary efforts and the enhancement of data infrastructure to facilitate more analytical research approaches.

An important limitation related to data availability in Spain pertains to the absence of a dynamic approach to study perinatal health in general. This is particularly critical in migration research, as information prior to migration is usually unavailable. The inability to incorporate information such as age at arrival and time since migration (or duration of residence) from national registers, along with the absence of longitudinal datasets, limits the evaluation of the health of immigrants from a dynamic perspective.

This lack of dynamism has important consequences, especially when interpreting differences by origin in terms of race and ethnicity, which are often observed in medical research (Gill et al., 2005). Using the country of birth as a proxy for race and ethnicity poses challenges, particularly when these terms are considered (directly or not) as biologically fixed characteristics rather than as biological expressions of a social construct. This common interpretation, which applies to both medical and social research, has recently been highlighted as a concern in prestigious medical journals, such as *The New England Journal of Medicine* (Brett & Goodman, 2021) and *The Lancet* (Devakumar et al., 2022). Efforts to incorporate this caveat are needed in the Spanish context as well.

In conclusion, our literature review reveals that the offspring of immigrants and Spanish-born mothers experience different risks at birth, thus challenging the evidence supporting the healthy immigrant paradox. Our review also highlights the absence of data infrastructures to study perinatal outcomes by nativity, as

considering the simultaneous impacts of social and health-related factors is necessary to advance knowledge in this area.

Competing Interests Chiara Dello Iacono acknowledges funding from the Ministry of Science and Innovation (PRE2019-0899070). Sol P. Juárez acknowledges funding from the Swedish Research Council for Health, Working Life, and Social Welfare (FORTE) (grant numbers 2016–07128 and 2021–00271) and the Swedish Research Council (Vetenskapprådet) (grant number 2018–01825).

Appendix 4.1: Example of Search String for PubMed (English)

(((Emigrants and Immigrants[Mesh]) OR (Emigration and Immigration[Mesh]) OR (Transients and Migrants[Mesh]) OR (Refugees[Mesh]) OR (Racial groups[Mesh]) OR (Ethnicity[Mesh]))
OR
((country of birth[Title/Abstract]) OR (countries of birth[Title/Abstract]) OR (country of origin[Title/Abstract]) OR (countries of origin[Title/Abstract]) OR (foreign background*[Title/Abstract]) OR (foreignborn[Title/Abstract]) OR (foreign born[Title/Abstract]) OR (foreignborn[Title/Abstract]) OR (foreigner*[Title/Abstract]) OR (expat*[Title/Abstract]) OR (migrant*[Title/Abstract]) OR (immigrant*[Title/Abstract]) OR (emigra*[Title/Abstract]) OR (migrate*[Title/Abstract]) OR (migration*[Title/Abstract]) OR (asylum*[Title/Abstract]) OR (refugee*[Title/Abstract]) OR (displaced individual*[Title/Abstract]) OR (displaced people*[Title/Abstract]) OR (displaced person*[Title/Abstract]) OR (displaced population*[Title/Abstract]) OR (displaced women*[Title/Abstract]) OR (evacuated[Title/Abstract]) OR (evacuation*[Title/Abstract]) OR (evacuee*[Title/Abstract]) OR (race*[Title/Abstract]) OR (race*[Title/Abstract]))
AND
((Birth Weight[Mesh]) OR (Infant, Low Birth Weight[Mesh]) OR (Infant, Very Low Birth Weight [Mesh]) OR (Infant, Extremely Low Birth Weight [Mesh]) OR (Infant, Small for Gestational Age [Mesh]) OR (Premature Birth[Mesh]) OR (Infant, Extremely Premature[Mesh]) OR (Gestational Age[Mesh]) OR (Fetal Macrosomia[Mesh])
OR
((birthweight[Title/Abstract]) OR (*weight[Title/Abstract]) OR (small-for-gestational age[Title/Abstract]) OR (large-for-gestational age[Title/Abstract]) OR (high birth*[Title/Abstract]) OR (preterm[Title/Abstract]) OR (*term[Title/Abstract]) OR (post-term[Title/Abstract]) OR (postterm[Title/Abstract]))
AND
((SPAIN [Mesh])
OR
(Spain[Title/Abstract]))

References

Agudelo-Suárez, A. A., Ronda-Pérez, E., Gil-González, D., González-Zapata, L. I., & Regidor, E. (2009). Relación en España de la duración de la gestación y del peso al nacer con la nacionalidad de la madre durante el período 2001–2005 [Relationship in Spain of the length of the gestation and the birth weight with mother's nationality during the period 2001–2005]. *Revista Española de Salud Pública, 83*(2), 331–337. https://doi.org/10.1590/s1135-57272009000200015

Alajami, A. (2021). Critiquing the past for solidifying the future: Understanding the synthesizing facet of reviewing the social studies: Critical approach. *Current Research in Behavioral Sciences, 2*, 100047. https://doi.org/10.1016/j.crbeha.2021.100047

Aldridge, R. W., Nellums, L. B., Bartlett, S., Barr, A. L., Patel, P., Burns, R., et al. (2018). Global patterns of mortality in international migrants: A systematic review and meta-analysis. *The Lancet, 392*(10164), 2553–2566. https://doi.org/10.1016/S0140-6736(18)32781-8

Aradhya, S., Katikireddi, S. V., & Juárez, S. P. (2022). Immigrant ancestry and birthweight across two generations born in Sweden: An intergenerational Cohort study. *BMJ Global Health, 7*(4), e007341. https://doi.org/10.1136/bmjgh-2021-007341

Ashorn, P., Ashorn, U., Muthiani, Y., Aboubaker, S., Askari, S., Bahl, R., Black, R. E., Dalmiya, N., Duggan, C. P., Hofmeyr, G. J., Kennedy, S. H., Klein, N., Lawn, J. E., Shiffman, J., Simon, J., Temmerman, M., & UNICEF–WHO. (2023). Low Birthweight Estimates Group. Small vulnerable newborns-big potential for impact. *The Lancet, 401*(10389), 1692–1706. https://doi.org/10.1016/S0140-6736(23)00354-9

Bains, S., Skråning, S., Sundby, J., Vangen, S., Sørbye, I. K., & Lindskog, B. V. (2021). Challenges and barriers to optimal maternity care for recently migrated women-a mixed-method study in Norway. *BMC Pregnancy and Childbirth, 21*(1), 686. https://doi.org/10.1186/s12884-021-04131-7

Barker, D. (1994). The fetal origins of adult disease. *Fetal and Maternal Medicine Review, 6*(2):71-80. https://doi.org/10.1017/S0965539500001005

Barker, D. J., Hales, C. N., Fall, C. H., Osmond, C., Phipps, K., & Clark, P. M. (1993a). Type 2 (non- insulin-dependent) diabetes mellitus, hypertension and hyperlipidaemia (syndrome X): Relation to reduced fetal growth. *Diabetologia, 36*(1), 62–67. https://doi.org/10.1007/BF00399095

Barker, D. J., Gluckman, P. D., Godfrey, K. M., Harding, J. E., Owens, J. A., & Robinson, J. S. (1993b). Fetal nutrition and cardiovascular disease in adult life. *The Lancet, 341*(8850), 938–941. https://doi.org/10.1016/0140-6736(93)91224-a

Bender, D. E., & Castro, D. (2000). Explaining the birth weight paradox: Latina immigrants' perceptions of resilience and risk. *Journal of Immigrant Health, 2*, 155–173. https://doi.org/10.1023/A:1009513020506

Bernis, C., & Varea, C. (2013). Pregnancy outcome and delivery in Spanish and migrant women: An ecological approach. *Anthropological Review, 76*(2), 129–150. https://doi.org/10.2478/anre-2013-0006

Brett, A. S., & Goodman, C. W. (2021). First Impressions – Should We Include Race or Ethnicity at the Beginning of Clinical Case Presentations? *The New England Journal of Medicine, 385*(27), 2497–2499. https://doi.org/10.1056/NEJMp2112312

Burns, P. B., Rohrich, R. J., & Chung, K. C. (2011). The levels of evidence and their role in evidence-based medicine. *Plastic Surgery, 128*(1), 305–310. https://doi.org/10.1097/PRS.0b013e318219c171

Cantarutti, A., Franchi, M., Monzio Compagnoni, M., & Merlino, L. (2017). Mother's education and the risk of several neonatal outcomes: Evidence from an Italian population-based study. *BMC Pregnancy and Childbirth, 17*(1), 221. https://doi.org/10.1186/s12884-017-1418-1

Castañeda, H., Holmes, S. M., Madrigal, D. S., Young, M. E., Beyer, N., & Quesada, J. (2015). Immigration as a social determinant of health. *Annual Review of Public Health, 36*, 375–392. https://doi.org/10.1146/annurev-publhealth-032013-182419

Castelló, A., Río, I., Martinez, E., Rebagliato, M., Barona, C., Llácer, A., & Bolumar, F. (2012). Differences in preterm and low birth weight deliveries between Spanish and immigrant women: Influence of the prenatal care received. *Annals of Epidemiology, 22*(3), 175–182. https://doi.org/10.1016/j.annepidem.2011.12.005

Castro-Martín, T. (2010). Single motherhood and low birthweight in Spain: Narrowing social inequalities in health?. *Demographic Research, 22*(27), 863-890. https://doi.org/10.4054/DemRes.2010.22.27

Ceballos, M., Cantarero, A., & Sanchez, S. (2018). Disentangling the effects of acculturation and duration in the United States on Latina immigrant maternal overweight and macrosomia. *Journal of Health Disparities Research and Practice, 11*(3), 3. Available at: https://digitalscholarship.unlv.edu/jhdrp/vol11/iss3/3

Cebolla-Boado, H., & Salazar, L. (2016). Differences in perinatal health between immigrant and native-origin children: Evidence from differentials in birth weight in Spain. *Demographic Research, 35*, 67–200. https://doi.org/10.4054/DemRes.2016.35.7

Close, C., Kouvonen, A., Bosqui, T., et al. (2016). The mental health and wellbeing of first-generation migrants: A systematic-narrative review of reviews. *Globalization and Health, 12*, 47. https://doi.org/10.1186/s12992-016-0187-3

Crump, C. (2020). Preterm birth and mortality in adulthood: A systematic review. *Journal of Perinatology, 40*(6), 833–843. https://doi.org/10.1038/s41372-019-0563-y

Dello Iacono, C., Requena, M., & Stanek, M. (2022). Partnership, living arrangements, and low birth weight: Evidence from a population-based study on Spanish mothers. *BMC Pregnancy and Childbirth, 22*(1), 925. https://doi.org/10.1186/s12884-022-05263-0

Devakumar, D., Selvarajah, S., Abubakar, I., Kim, S. S., McKee, M., Sabharwal, N. S., Saini, A., Shannon, G., White, A. I. R., & Achiume, E. T. (2022). Racism, xenophobia, discrimination, and the determination of health. *The Lancet, 400*(10368), 2097–2108. https://doi.org/10.1016/S0140-6736(22)01972-9

Domingo Puiggròs, M., Figaró Voltà, C., Loverdos Eseverri, I., Costa Colomer, J., & Badia Barnusell, J. (2008). Gestante inmigrante y morbilidad neonatal [Immigrant pregnancy and neonatal morbidity]. *Anales de Pediatria, 68*(6), 596–601. https://doi.org/10.1157/13123292

Dunlavy, A., Cederström, A., Vittal Katikireddi, S., Rostila, M., & Juárez, S. P. (2022). Investigating the salmon bias effect among international immigrants in Sweden: A register-based open Cohort study. *European Journal of Public Health, 32*(2), 226–232. https://doi.org/10.1093/eurpub/ckab222

Escartín, L., Samper, M. P., Santabárbara, J., Labayen, I., Álvarez, M. L., Ayerza, A., Oves, B., Moreno, L. A., & Rodríguez, G. (2014). Determinants of birth size in Northeast Spain. *The Journal of Maternal-Fetal & Neonatal Medicine, 27*(7), 677–682. https://doi.org/10.3109/14767058.2013.829817

Farré, L. (2016). New evidence on the healthy immigrant effect. *Journal of Population Economics, 29*(2), 365–394. https://doi.org/10.1007/S00148-015-0578-4

Figueras, F., Meler, E., Iraola, A., Eixarch, E., Coll, O., Figueras, J., Francis, A., Gratacos, E., & Gardosi, J. (2008). Customized birthweight standards for a Spanish population. *European Journal of Obstetrics & Gynecology and Reproductive Biology, 136*(1), 20–24. https://doi.org/10.1016/j.ejogrb.2006.12.015

Fuster, V., Zuluaga, P., Colantonio, S. E., & Román-Busto, J. (2013). Factors determining the variation in birth weight in Spain (1980–2010). *Annals of Human Biology, 40*(3), 266–275. https://doi.org/10.3109/03014460.2013.765034

Gagnon, A. J., Zimbeck, M., Zeitlin, J., ROAM Collaboration, Alexander, S., Blondel, B., Buitendijk, S., Desmeules, M., Di Lallo, D., Gagnon, A., Gissler, M., Glazier, R., Heaman, M., Korfker, D., Macfarlane, A., Ng, E., Roth, C., Small, R., Stewart, D., Stray-Pederson, B., Urquia, M., Vangen, S., Zeitlin, J., & Zimbeck, M. (2009). Migration to western industrialized countries and perinatal health: A systematic review. *Social Science and Medicine, 69*(6), 934–946. https://doi.org/10.1016/j.socscimed.2009.06.027

García Andrés, R., Valerio Rodríguez, F. T., Casuscelli, L., Barón Mizzi, I., & García Moreno, M. (2016). Variabilidad del peso de los recién nacidos según el país de origen materno. [Variability of newborn birthweight according to maternal country of origin]. *Revista Pediátrica de Atención Primaria, 18*, 303–310.

Garcia-Subirats, I., Pérez, G., Rodríguez-Sanz, M., Salvador, J., & Jané, M. (2011). Recent immigration and adverse pregnancy outcomes in an urban setting in Spain. *Maternal and Child Health Journal, 15*(5), 561–569. https://doi.org/10.1007/s10995-010-0614-7

Garcia-Subirats, I., Pérez, G., Rodríguez-Sanz, M., Muñoz, D. R., & Salvador, J. (2012). Neighborhood inequalities in adverse pregnancy outcomes in an urban setting in Spain: A multilevel approach. *Journal of Urban Health, 89*(3), 447–463. https://doi.org/10.1007/s11524-011-9648-4

Gauffin, K., & Dunlavy, A. (2021). Finding common ground: How the development of theory in public health research can bring us together. *Social Theory & Health, 19*, 127–136. https://doi.org/10.1057/s41285-019-00119-8

Ghosh, R. C., & Orchiston, C. (2022). A systematic review of climate migration research: gaps in existing literature. *SN Social Sciences, 2*(47). https://doi.org/10.1007/s43545-022-00341-8

Gill, P S., Bhopal, R., Wild, S., & Kai, J. (2005). Limitations and potential of country of birth as proxy for ethnic group. *British Medical Journal, 330*(7484), 196. https://doi.org/10.1136/bmj.330.7484.196-a

Gluckman, P. D., & Hanson, M. A. (2006). *The developmental origins of health and disease: The breadth and importance of the concept*. Cambridge University Press. https://doi.org/10.1017/CBO978051

Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal, 26*(2), 91–108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

Gu, S., An, X., Fang, L., Zhang, X., Zhang, C., Wang, J., Liu, Q., Zhang, Y., Wei, Y., Hu, Z., Chen, F., & Shen, H. (2012). Risk factors and long-term health consequences of macrosomia: A prospective study in Jiangsu Province, China. *The Journal of Biomedical Research, 26*(4), 235–240. https://doi.org/10.7555/JBR.26.20120037

Gu, H., Wang, L., Liu, L., Luo, X., Wang, J., Hou, F., Nkomola, P. D., Li, J., Liu, G., Meng, H., Zhang, J., & Song, R. (2017). A gradient relationship between low birth weight and IQ: A meta-analysis. *Scientific Reports, 7*(1), 18035. https://doi.org/10.1038/s41598-017-18234-9

Guendelman, S., Buekens, P., Blondel, B., Kaminski, M., Notzon, F. C., & Masuy-Stroobant, G. (1999). Birth outcomes of immigrant women in the United States, France, and Belgium. *Maternal and Child Health Journal, 3*(4), 177–187. https://doi.org/10.1023/a:1022328020935

Hernandez-Rivas, E., Flores-Le Roux, J. A., Benaiges, D., Sagarra, E., Chillaron, J. J., Paya, A., Puig-de Dou, J., Goday, A., Lopez-Vilchez, M. A., & Pedro-Botet, J. (2013). Gestational diabetes in a multiethnic population of Spain: Clinical characteristics and perinatal outcomes. *Diabetes Research and Clinical Practice, 100*(2), 215–221. https://doi.org/10.1016/j.diabres.2013.01.030

Hidalgo-Lopezosa, P., Jiménez-Ruz, A., Carmona-Torres, J. M., Hidalgo-Maestre, M., Rodríguez-Borrego, M. A., & López-Soto, P. J. (2019). Sociodemographic factors associated with preterm birth and low birth weight: A cross-sectional study. *Women and Birth, 32*(6), e538–e543. https://doi.org/10.1016/j.wombi.2019.03.014

Hong, Y. H., & Lee, J. E. (2021). Large for Gestational Age and Obesity-Related Comorbidities. *Journal of Obesity and Metabolic Syndrome, 30*(2), 124–131. https://doi.org/10.7570/jomes20130

Joseph, N. T., Stanhope, K. K., Geary, F., McIntosh, M., Platner, M. H., Wichmann, H. K., & Boulet, S. L. (2023). Social determinants of health needs and perinatal risk in socially vulnerable pregnant patients. *Journal of Health Care for the Poor and Underserved, 34*(2), 685–702. https://doi.org/10.1353/hpu.2023.0058

Juárez, S. P. (2015). Calidad de los datos del Instituto Nacional de Estadística para la elaboración de los indicadores de salud perinatal: Pequeño y grande para su edad gestacional [Quality

of the Spanish Vital Statistics to Estimate Perinatal Health Outcomes: Small and Large for Gestational Age]. *Revista Española de Salud Pública, 89*(1), 85–91. https://doi.org/10.4321/S1135-57272015000100009

Juárez, S. P., & Merlo, J. (2013). Revisiting the effect of maternal smoking during pregnancy on offspring birthweight: A quasi-experimental sibling analysis in Sweden. *PLoS One, 8*(4), e61734. https://doi.org/10.1371/journal.pone.0061734

Juárez, S. P., & Revuelta, B. A. (2013). Socioeconomic differences in low birth weight: Revisiting epidemiological approaches. *Revista Española de Investigaciones Sociológicas, 144*, 73–95. https://doi.org/10.5477/cis/reis.144.73

Juárez, S. P., & Revuelta-Eugercios, B. A. (2014). Too heavy, too late: Investigating perinatal health outcomes in immigrants residing in Spain. A cross-sectional study (2009–2011). *Journal of Epidemiology and Community Health, 68*(9), 863–868. https://doi.org/10.1136/jech-2013-202917

Juárez, S. P., & Revuelta-Eugercios, B. A. (2016). Exploring the 'Healthy Migrant Paradox' in Sweden. A Cross Sectional Study Focused on Perinatal Outcomes. *Journal of Immigrant and Minority Health, 18*, 42–50. https://doi.org/10.1007/s10903-015-0157-5

Juárez, S. P., Ploubidis, G. B., & Clarke, L. (2014). Revisiting the 'Low BirthWeight paradox' using a model-based definition. *Gaceta Sanitaria, 28*(2), 160–162. https://doi.org/10.1016/j.gaceta.2013.08.001

Juárez, S. P., Goodman, A., & Koupil, I. (2016). From cradle to grave: tracking socioeconomic inequalities in mortality in a cohort of 11 868 men and women born in Uppsala, Sweden, 1915–1929. *Journal of Epidemiology and Community Health, 70*, 569–575. https://doi.org/10.1136/jech-2015-206547

Juárez, S. P., Ortíz Barreda, G., Agudelo-Suárez, A., & Ronda Pérez, E. (2017). Revisiting the healthy migrant paradox in perinatal health outcomes through a scoping review in a recent host country. *Journal of Immigrant and Minority Health, 19*(1), 205–214. https://doi.org/10.1007/s10903-015-0317-7

Juárez, S. P., Urquia, M. L., Mussino, E., Liu, C., Qiao, Y., & Hjern, A. (2021). Preterm disparities between foreign and Swedish born mothers depend on the method used to estimate gestational age. A Swedish population-based register study. *PLoS One, 16*(2), e0247138. https://doi.org/10.1371/journal.pone.0247138

Juárez, S. P., Honkaniemi, H., Gustafsson, N. K., Rostila, M., & Berg, L. (2022). Health Risk Behaviours by Immigrants' Duration of Residence: A Systematic Review and Meta-Analysis. *International Journal of Public Health, 5*(67), 1604437. https://doi.org/10.3389/ijph.2022.1604437

Klöfvermark, J., Hjern, A., & Juárez, S. P. (2019). Acculturation or unequal assimilation? Smoking during pregnancy and duration of residence among migrants in Sweden. *SSM-Population Health, 8*, 100416. https://doi.org/10.1016/j.ssmph.2019.100416

Kramer, M. S. (1987). Determinants of low birth weight: Methodological assessment and meta-analysis. *Bulletin of the World Health Organization, 65*(5), 663–737.

Krishna, M., Jones, S., Maden, M., Du, B., Mc, R., Kumaran, K., Karat, S. C., & Fall, C. H. D. (2019). Size at birth and cognitive ability in late life: A systematic review. *International Journal of Geriatric Psychiatry, 34*(8), 1139–1169. https://doi.org/10.1002/gps.5138

Kuh, D., Ben-Shlomo, Y., Lynch, J., Hallqvist, J., & Power, C. (2003). Life course epidemiology. *Journal of Epidemiology & Community Health, 57*(10), 778–783. https://doi.org/10.1136/jech.57.10.778

Li, X., Yang, R., Yang, W., Xu, H., Song, R., Qi, X., & Xu, W. (2021). Association of low birth weight with cardiometabolic diseases in Swedish twins: A population-based cohort study. *BMJ Open, 11*(6), e048030. https://doi.org/10.1136/bmjopen-2020-048030

Luque Fernández, M. A., Cavanillas, A. B., & De Mateo, S. (2011). Differences in the reproductive pattern and low birthweight by maternal country of origin in Spain, 1996–2006. *European Journal of Public Health, 21*(1), 104–108. https://doi.org/10.1093/eurpub/ckp224

Magnusson, Å., Laivuori, H., Loft, A., Oldereid, N. B., Pinborg, A., Petzold, M., Romundstad, L. B., Söderström-Anttila, V., & Bergh, C. (2021). The Association Between High Birth Weight and Long-Term Outcomes-Implications for Assisted Reproductive Technologies: A Systematic Review and Meta-Analysis. *Frontiers in Pediatrics, 23*(9), 675775. https://doi.org/10.3389/fped.2021.675775

Malamitsi-Puchner, A., Tzala, L., Minaretzis, D., Michalas, S., & Aravantinos, D. (1994). Preterm delivery and low birthweight among refugees in Greece. *Paediatric and Perinatal Epidemiology, 8*(4), 384–390. https://doi.org/10.1111/j.1365-3016.1994.tb00477.x

Markides, K. S., & Coreil, J. (1986). The health of Hispanics in the southwestern United State: An epidemiologic paradox. *Public Health Reports, 101*(3), 253–265.

Martín Ibáñez, I., López Vílchez, M. A., Lozano Blasco, J., & Mur Sierra, A. (2006). Resultados perinatales de las gestantes inmigrantes. [Perinatal outcomes in immigrant women]. *Anales de Pediatria, 64*(6), 550–556. https://doi.org/10.1157/13089920

McBryde, M., Fitzallen, G. C., Liley, H. G., Taylor, H. G., & Bora, S. (2020). Academic outcomes of school-aged children born preterm: A systematic review and meta-analysis. *JAMA Network Open, 3*(4), e202027. https://doi.org/10.1001/jamanetworkopen.2020.2027

Milewski, N., & Peters, F. (2014). Too low or too high? On birthweight differentials of immigrants in Germany. *Comparative Population Studies, 39*(1), 3–22. https://doi.org/10.12765/CPoS-2014-02en

Mur Sierra, A., Díaz, F., Castejón, E., López-Vilchez, M. A., Sanjuán, G., Martin, I., & Carreras, R. (2010). Repercusión neonatal de la inmigración: comparación de los periodos 2003–2004 y 2007–2008. [neonatal repercussions of immigration in Spain: comparison of periods 2003–2004 and 2007–2008]. *Medicina Clínica, 135*(12), 537–542. https://doi.org/10.1016/j.medcli.2010.02.028

Paz-Zulueta, M., Llorca, J., Sarabia-Lavín, R., Bolumar, F., Rioja, L., Delgado, A., & Santibáñez, M. (2015). The role of prenatal care and social risk factors in the relationship between immigrant status and neonatal mortality: A retrospective Cohort study. *PLoS One, 10*(3), e0120765. https://doi.org/10.1371/journal.pone.0120765

Pérez Cuadrado, S., Muñoz Avalos, N., Robledo Sánchez, A., Sánchez Fernández, Y., Pallás Alonso, C. R., & de la Cruz Bértolo, J. (2004). Characteristics of immigrant women and their neonates [Characteristics of immigrant women and their neonates]. *Anales de pediatría, 60*(1), 3–8. https://doi.org/10.1016/s1695-4033(04)78210-7

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., et al. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. *Prod ESRC Methods Programme Version, 1*, b92.

Pritchard, P., Maehler, D. B., Pötzschke, S., & Ramos, H. (2019). Integrating refugee children and youth: A scoping review of English and German literature. *Journal of Refugee Studies, 32*(1), i194–i208. https://doi.org/10.1093/jrs/fez024

Quesada, J., Hart, L. K., & Bourgois, P. (2011). Structural vulnerability and health: Latino migrant laborers in the United States. *Medical Anthropology, 30*(4), 339–362. https://doi.org/10.1080/01459740.2011.576725

Racape, J., Schoenborn, C., Sow, M., Alexander, S., & De Spiegelaere, M. (2016). Are all immigrant mothers really at risk of low birth weight and perinatal mortality? The crucial role of socio-economic status. *BMC Pregnancy and Childbirth, 16*, 75. https://doi.org/10.1186/s12884-016-0860-9

Restrepo-Mesa, S. L., Estrada-Restrepo, A., González-Zapata, L. I., Agudelo-Suarez, A. A., & Ronda-Pérez, E. (2010). Factors related to birth weight: a comparison of related factors between newborns of Spanish and Colombian immigrant women in Spain. [Factors related to birth weight: A comparison of related factors between newborns of Spanish and Colombian immigrant women in Spain]. *Archivos Latinoamericanos de Nutrición, 60*(1), 15–22.

Restrepo-Mesa, S. L., Estrada-Restrepo, A., González-Zapata, L. I., & Agudelo-Suárez, A. A. (2015). Newborn birth weights and related factors of native and immigrant residents of

Spain. *Journal of Immigrant and Minority Health, 17*(2), 339–348. https://doi.org/10.1007/s10903-014-0089-5

Río, I., Castelló, A., Jané, M., Prats, R., Barona, C., Más, R., Rebagliato, M., Zurriaga, O., & Bolúmar, F. (2010). Indicadores de salud reproductiva y perinatal en mujeres inmigrantes y autóctonas residentes en Cataluña y en la Comunitat Valenciana (2005–2006). [Reproductive and perinatal health indicators in immigrants and Spanish-born women in Catalonia and Valencia (2005–2006)]. *Gaceta Sanitaria, 24*(2), 123–127. https://doi.org/10.1016/j.gaceta.2009.09.014

Riosmena, F., Kuhn, R., & Jochem, W. C. (2017). Explaining the immigrant health advantage: Self-selection and protection in health-related factors among five major national-origin immigrant groups in the United States. *Demography, 54*(1), 175–200. https://doi.org/10.1007/s13524-016-0542-2

Risnes, K. R., Vatten, L. J., Baker, J. L., Jameson, K., Sovio, U., Kajantie, E., Osler, M., Morley, R., Jokela, M., Painter, R. C., Sundh, V., Jacobsen, G. W., Eriksson, J. G., Sørensen, T. I., & Bracken, M. B. (2011). Birthweight and mortality in adulthood: A systematic review and meta-analysis. *International Journal of Epidemiology, 40*(3), 647–661. https://doi.org/10.1093/ije/dyq267

Rossi, A. C., Mullin, P., & Prefumo, F. (2013). Prevention, management, and outcomes of macrosomia: A systematic review of literature and meta-analysis. *Obstetrical & Gynecological Survey, 68*(10), 702–709. https://doi.org/10.1097/01.ogx.0000435370.74455.a8

Ruiz, M., Goldblatt, P., Morrison, J., Kukla, L., Švancara, J., Riitta-Järvelin, M., et al. (2015). Mother's education and the risk of preterm and small for gestational age birth: A DRIVERS meta-analysis of 12 European cohorts. *Journal of Epidemiology and Community Health, 69*(9), 826–833. https://doi.org/10.1136/jech-2014-205387

Speciale, A. M., & Regidor, E. (2011). Understanding the universality of the immigrant health paradox: The Spanish perspective. *Journal of Immigrant and Minority Health, 13*(3), 518–525. https://doi.org/10.1007/s10903-010-9365-1

Squires, P. (2020). A scoping review of Australian studies of refugee integration: Popular definitions of integration in the Australian literature. *Migration Studies, 8*(1), 90–112. https://doi.org/10.1093/migration/mny032

Stanek, M., Requena, M., Del Rey, A., & García-Gómez, J. (2020). Beyond the healthy immigrant paradox: Decomposing differences in birthweight among immigrants in Spain. *Globalization and Health, 16*(1), 87. https://doi.org/10.1186/s12992-020-00612-0

Stanek, M., Requena, M., & Del Rey, A. (2021). Impact of socio-economic status on low birthweight: Decomposing the differences between natives and immigrants in Spain. *Journal of Immigrant and Minority Health, 23*(1), 71–78. https://doi.org/10.1007/s10903-020-01027-0

Urquia, M. L., Glazier, R. H., Blondel, B., Zeitlin, J., Gissler, M., Macfarlane, A., Ng, E., Heaman, M., Stray-Pedersen, B., Gagnon, A. J., & ROAM collaboration. (2010). International migration and adverse birth outcomes: Role of ethnicity, region of origin and destination. *Journal of Epidemiology and Community Health, 64*(3), 243–251. https://doi.org/10.1136/jech.2008.083535

Van der Laan, P., Smit, M., Busschers, I., & Aarten, P. (2011). Cross-border trafficking in human beings: Prevention and intervention strategies for reducing sexual exploitation. *Campbell Systematic Reviews, 7*(1), 1–50. https://doi.org/10.4073/csr.2011.9

Verbeek, J., Ruotsalainen, J., & Hoving, J. L. (2012). Synthesizing study results in a systematic review. *Scandinavian Journal of Work, Environment & Health, 38*(3), 282–290. https://doi.org/10.5271/sjweh.3201

Villalbí, J. R., Salvador, J., Cano-Serral, G., Rodríguez-Sanz, M. C., & Borrell, C. (2007). Maternal smoking, social class and outcomes of pregnancy. *Paediatric and Perinatal Epidemiology, 21*(5), 441–447. https://doi.org/10.1111/j.1365-3016.2007.00845.x

Ward, W. P. (1993). *Birthweight and economic growth*. University of Chicago Press.

Wilcox, A. J. (2001). On the importance—and the unimportance— of birthweight. *International Journal of Epidemiology, 30*(6), 1233–1241. https://doi.org/10.1093/ije/30.6.1233

Chapter 5
Invisible Youths? Future Health and Social Care Challenges of Unaccompanied Minor Migrants in Spain

Paula Cristóbal-Narváez, Marcos Febas Fernandez, Maria José Rueda, and Lola Aparicio Pareja

5.1 Introduction

Youth migrants make up a considerable proportion of the current populations in European societies (Delaruelle et al., 2021), whether they arrived as asylum seekers, were reunited with their families when one of the parents had emigrated previously, or were unaccompanied migrant minors (UMMs). Immigrant children encounter numerous risks during migration, including stress, uncertainty, exploitation, abuse, and discrimination (Derluyn & Broekaert, 2008). These factors, combined with their insufficient coping skills during critical stages of vulnerability, place children at risk in terms of their well-being and mental health (Andrade et al., 2023). The relationship between mental health and early-age migration is intricate and complex, as reflected by empirical evidence that is far from conclusive. Several studies have found a higher prevalence of mental health problems in young migrants than

P. Cristóbal-Narváez (✉)
Teaching, Research & Innovation Unit, Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Barcelona, Spain

Center for Biomedical Research on Mental Health (CIBERSAM), Madrid, Spain
e-mail: paula.cristobal@sjd.es

M. Febas Fernandez
Children and Youth Integration Area, Sant Joan de Déu Terres de Lleida, Lleida, Spain
e-mail: marcos.febas@sjd.es

M. J. Rueda
Children and Youth Integration Area, Sant Joan de Déu Terres de Lleida, Lleida, Spain

Child Abuse Assessment Unit, Fundació Mercè Fontanilles, Lleida, Spain
e-mail: mariajose.rueda@sjd.es

L. Aparicio Pareja
Mental Health Migration Care Service (SATMI program), Parc Sanitari Sant Joan de Déu, Barcelona, Spain
e-mail: dolores.aparicio@sjd.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*, IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_5

in their native peers (Dimitrova et al., 2016; Stevens & Vollebergh, 2008). However, some studies have reported the healthy immigrant paradox, finding that youth migrants have better mental health than native youth (Harker, 2001; Mood et al., 2016).

In general, UMMs' social and health needs are related to pre-migration factors as well as to conditions in transit and after arrival, and they are strongly influenced by adaptation and integration processes. A highly significant factor during the migration process is that the young person has to live without an adult present to accompany and protect them, which can result in loneliness and a severe risk of exclusion and helplessness (Palacín Bartroli et al., 2023). The lack of a support network is crucial to children's vulnerability when they migrate and integrate into a destination society (Derluyn & Broekaert, 2008). This is particularly the case for UMMs, who are usually defined as children or adolescents who travel across country borders without a legal guardian and who arrive in a new country in an irregular situation. They emigrate alone, separated from their parents and not under the care of any other adult (UN Refugee Agency, 2019).

Data and clinical experience have shown that UMMs suffer from the absence of the social support that their parents or families should provide, which exacerbates traumatic experiences, exploitation, and abuse and significantly impacts their well-being. This often leads to emotional and behavioral problems (Derluyn & Broekaert, 2008). Moreover, some UMMs are responsible for their migratory project and for meeting their family's needs and expectations when migrating. They carry emotional burdens, which can increase the difficulty of carrying out this process in the desired time. As Bargach argued (2009: 11–12):

> *Unfortunately, the family cannot always go beyond its biopsychosocial capacities without putting its stability and internal functioning at risk. It is at this moment that the family suffers from perversion. Then, the family, which should be a context of solidarity, love, protection, etc., will become a source of suffering and obligations for its members. A clear example is that of minors called 'badly or unaccompanied,' which is the expression of a failure of the parental system in a context of economic and cultural deficiencies. Parents constitute the primary axis for the functional socialisation of the kids. If they are not equipped to fulfil this task, the family system suffers from perversion, and the roles change. A child becomes the leader of his family and ensures the function of finding the solution to ensure the viability of his own family*"

This burden affects the well-being of a UMM who cannot meet the expectations and needs of their family, who depend on them for the results of their migration process. Not being able to achieve the objectives or waiting for such outcomes (such as having a job that enables them to support themselves and send money to their family) can generate feelings of frustration and failure in young people. Such a stressful situation may accompany them during the post-migration process.

The legal perspective toward these young migrants and consequent policies are clear (Derluyn & Broekaert, 2008). For example, if their status as a minor is emphasized and protection and care actions are provided, or, conversely, if the issue of being an irregular immigrant is prominent, it will affect whether they become visible or invisible regarding rights and opportunities to be part of society (work,

education and access to resources). Status as regular or irregular will significantly affect a young person's journey and experience, including whether they feel included in society and have access to equal resources and the labor market. Thus, legal status significantly impacts UMMs'quality of life and, therefore, their emotional well-being (Derluyn & Broekaert, 2008). However, as Derluyn and Broekaert (2008) pointed out, the legal perspective (considering only the question of being an immigrant) contrasts widely with the psychological perspective, as they often do not receive the care and support they need. It is also essential to understand UMMs' reality and how this situation impacts their health, particularly their mental health.

Against this background, individual, biographical, and contextual factors, such as the baggage that UMMs come with, their stressful experiences during and after their journey, and the challenges they face in the new environment, are considered potential predisposing and precipitating factors of symptomatology. The social approach to health has been addressed through the model of determinants of health posited by the World Health Organization (WHO, n.d.), which highlights the relevance of all of these social conditions on health outcomes with health promotion strategies and actions and, in a transcendental way, with health education (De La Guardia Gutiérrez & Ruvalcaba Ledezma, 2020).

Notably, UMMs' young age demands multidisciplinary efforts and greater support than migrant adults experiencing the same adversities. These prolonged contextual conditions that involve chronic stress can cause reactive psychopathological conditions, such as depressive and anxious symptoms, substance abuse, and behavioral problems. In the most severe cases, clinical symptoms on the psychosis spectrum may also appear. Although there is a lack of studies on the prevalence of mental health disorders, the few studies published to date have indicated that UMMs are more likely to suffer from anxiety and depression disorders than accompanied minors, young people, or the general population (Palacín Bartroli et al., 2023). For instance, one study in the Netherlands showed that unaccompanied refugee minors are at a significantly higher risk of developing psychopathology than refugee adolescents living with family members, immigrants, or native adolescents (Bean et al., 2007). Additionally, post-traumatic stress disorder (PTSD)—a mental health condition that is triggered by a terrifying event whether experienced or witnessed—was significantly higher among migrant children who had experienced traumatic events, such as exposure to violence or dangerous travel across borders (Mueller-Bamouh et al., 2016).

To the best of our knowledge, there is only one published systematic review (Kien et al., 2019), which included 47 studies and reported information on 24,786 refugee or asylum-seeking children and adolescents living in 14 European countries (Austria, Belgium, Croatia, Denmark, Finland, Germany, Greece, Italy, the Netherlands, Norway, Slovenia, Sweden, Turkey, and the United Kingdom) but did not include data for Spain. This study revealed that the prevalence of PTSD varied widely across studies, between 19.0% and 52.7%. In addition, depression was between 10.3% and 32.8%; anxiety disorders were between 8.7% and 31.6%; and emotional and behavioral problems were between 19.8% and 35.0%.

Although Spain has a large and vulnerable group of UMMs (especially in its child protection system since the 1990s), the literature on how risk-related migration factors affect their mental health and well-being is almost non-existent. Moreover, the generalization of the use of the term *MENA*, meaning Menores Extranjeros No Acompañados, in the public sphere has led to the dehumanization and criminalization of this group, creating a situation of discrimination and extreme vulnerability. This has increased the challenges to providing appropriate health and social interventions and has led to ethical debates in society (Save the Children, 2019).

Thus, to identify the relevant migration factors that diminish the well-being and mental health of UMMs in the Spanish context, the present chapter first contextualizes the specific situation of UMMs in Spain. It then examines relevant pre-migration, during-migration, and post-migration factors that impact their emotional well-being from UMMs' narrative perspective through an analysis of 15 in-depth individual qualitative interviews from the national Spanish research project Migrasalud of Parc Sanitari Sant Joan de Déu (Catalonia). This chapter comprises the following sections: conceptual framework, methodological aspects, evidence obtained from in-depth qualitative interviews, and conclusions, focusing on social and health challenges based on the evidence in Spain.

5.2 Conceptual Framework

There is an extensive literature on how the context and circumstances of migrants' lives affect their health. The conceptual approach of social determinants has the greatest consensus and is the primary reference used to study the relationship between health and migration (Piñones-Rivera et al., 2021). The most widely used definition of social determinants of health is the one proposed by the WHO: "the circumstances in which people are born, grow, live, work and age, including the health system. These circumstances result from the distribution of money, power and resources at global, national and local levels, depending on the policies adopted" (WHO, n.d.).

To identify the impact of social determinants on health, in the case of migrants, including UMMs, it is necessary to include in the analysis a critical variable: the theoretical outline of the migratory cycle (Piñones-Rivera et al., 2021). The context and circumstances in the country of origin determine health conditions and exit vulnerabilities. The migratory or transit trip can be difficult and traumatic, endangering the health of the immigrants, or it can be free of significant difficulties and risks. The destination, conditioned by multiple added variables (territory of arrival, knowledge of the language of the destination country, level of loneliness, discrimination and protection system), may have more or less significant potential stressors depending on the complex interaction of these variables that affect health outcomes. The migratory cycle may include a fourth moment, such as a return, corresponding to different goals for each person or a vital moment (Vearey et al., 2020).

The concatenation of all of the moments of the migratory cycle includes a multitude of social determinants that, in a dynamic process of great complexity, are constantly combined, shaping the life history of the migrant. Multiple factors inherent to migration that directly impact general health and psychosocial well-being have been identified. The intensity of these factors or their permanence can have consequences for migrants' emotional well-being and mental health (Manzani & Arnoso Martínez, 2014).

Furthermore, when focusing on UMMs—young people who have migrated alone—it is evident that the factor of adolescence, a vital period, requires specific consideration. Some authors have considered this period a risk factor for psychosocial well-being (Manzani & Arnoso Martínez, 2014). Adolescence involves rebellion, transgression, group pressure, and the search for identity (Oyanadel & Buela-Casal, 2011). However, among UMMs, it also includes the fear of reaching the age of 18 because of the risk that it entails—in some cases, the risk of losing the system's protection (Manzani & Arnoso Martínez, 2014).

Even though UMMs tend to be in good health and their vigor and youth provide them with better ability to cope with the difficulties of the migratory journey than other groups, the migration process encompasses much more than the journey (Jurado et al., 2017). The factors before, during, and after the migratory cycle can all affect the health and well-being of UMMs. However, little is known about the specific pre-migration, during-migration, and post-migration factors in the UMM population. Thus, one relevant challenge is to consider the specific stages of the migratory cycle in the UMM population from a person-centered approach.

Importantly, the conceptual framework adopted by the WHO Commission on Social Determinants of Health identifies structural social determinants: social position and sociopolitical and economic contexts. These determinants create or reinforce societal stratification and define the individual's socioeconomic position (Otero Puime & Zunzunegui, 2011). This model also describes the intermediate social determinants, which are between the structural determinants and inequalities in the health and well-being of the population. These are classified as (1) living conditions, (2) psychosocial context, (3) social cohesion, (4) lifestyle, (5) biological factors, and (6) health systems (De La Guardia Gutiérrez & Ruvalcaba Ledezma, 2020). The intermediate determinants influence mental health, particularly that of the UMM group.

Concerning living conditions, irregular status in the receiving country prevents migrants from accessing any services or obtaining legal employment. Therefore, to survive in the destination country, migrants must look for sources of income outside the law (Quiroga & Chagas, 2020). This leads them to work irregularly, often with long working hours, heavy efforts, low wages, insecurity, and various occupational risks to their health. These terrible conditions also lead to difficulties in accessing decent housing, and migrants' living conditions often include poor sanitation, overcrowding, insecurity, and exposure to stressful situations. In the most extreme cases, emotional problems or somatic disorders such as digestive, dermatological, bacterial, or viral infections can result from these working and living conditions. The problem of irregular status will worsen these disorders because they do not allow

the migrants to work, or they will continue to do so despite them, so it is to be expected that migrants with these disorders will have a worse prognosis and will feel anxiety, devaluation, and distress. This became evident during the COVID-19 pandemic, when many migrants hid their symptoms for fear of losing their jobs.

Regarding the psychosocial context, it is common for young people who begin a migration process, including UMMs, to abandon their educational itinerary for a prolonged period, for which they may be reprimanded in the destination country, depending on their disposition and the conditions and means the system makes available to them (Piñones-Rivera et al., 2021). Disconnection from schooling and community participation can lead to risk factors such as the need for social networks or the precariousness of social inclusion processes. Until they manage to become stable in a territory (they stay in a center run by the protection system of a competent administration or another type of stable residence), UMMs go through a journey that makes it difficult to consolidate a stable social network to replace the one that they abandoned in their country. Social networks allow them to contact their family and acquaintances, so possessing a mobile phone that keeps them connected is essential. Moreover, for people with emotional difficulties or mental disorders, this network, as Ibáñez stated, "exercises a reducing effect on stress" and "provides daily feedback about health deviations" (Ibáñez Allera, 2015: 50–51). The lack of social networks, which is common among UMMs, is considered a psychosocial risk factor (Manzani & Arnoso Martínez, 2014).

Notably, social integration or community ties are essential in preventing social exclusion. In the case of UMMs, high territorial mobility, a lack of language knowledge, a lack of adult references, or a lack of schooling imply difficulties in establishing stable community identity ties. As Bauman indicated, "no aggregate of human beings is experienced as a community if it is not closely interwoven from shared biographies over a long history and an even longer expectation of frequent and intense interaction" (Bauman, 2009: 42). The need to belong to a community is inherent to human beings, so the search for a group and identity and avoiding discrimination are critical for UMMs because of their condition as adolescents and uprooted migrants. As Ghayet (2016: 73) indicated, "young people are easy prey."

In addition, lifestyle habits (including physical exercise, diet, and substance use) can have a protective or a harmful influence on health. UMMs who carry out an immigration process may go through periods of precariousness that make it challenging to maintain healthy behaviors (Mood et al., 2016). During the migration process, some young people begin to consume alcohol or other addictive toxic substances, such as inhalants, which can severely affect their mental health.

UMMs' precarious situations often mean that aspects of lifestyle such as a healthy diet or sports take a backseat to more immediate and urgent needs. When UMMs enter the protection system with a toxic substance habit acquired in their country of origin (it is common for such habits to begin prior to the migration process, especially in the large cities of Morocco, in environments of exclusion, and in non-schooling contexts) (Ghayet, 2016), adaptation is more difficult, and their likelihood of educational success is diminished.

The healthy immigrant paradox suggests that the immigrant population obtains better health outcomes than the Spanish-born population. It has been commonly posited that people who decide to start a migration process are among the healthiest members of their population (Gimeno-Feliu et al., 2015). In such cases, the immigrant advantage may result from migrant health selectivity (Crimmins et al., 2007), whereby healthy people migrate into the country and unhealthy people leave naturally. Another theory that may explain this paradox is the return flow of the less healthy population to their places of origin, called the salmon bias. Cebolla-Boado and Salazar (2016) suggested that this selection favors the most resilient people and those who have experienced a more successful immigration process. Together, these two factors can explain the results of such studies and reflect better health data in the migrant population.

Thus, it can comprehensively understand migrant health by integrating the social determinants of the health model with the life course perspective and examining the healthy immigrant paradox. The social determinants of health framework provides a structural analysis of the factors impacting health. At the same time, the life course perspective adds a temporal dimension, considering how these factors interact over time. Together, they offer a dynamic understanding of how various social determinants impact health at different stages of the migratory cycle, focusing on the importance of context and circumstances at each stage—pre-migration, during migration, and post-migration factors. In UMM's case, their entire migration cycle is often in adolescence - a critical period of life development that implies the transition to adulthood and influences the formation of adult identity, attitudes, goals, and aspirations. Overall, the transition to adulthood for young people in European societies is fraught with challenges encompassing economic, educational, social, and mental health dimensions. Young people who have left their countries of origin and are transitioning to adulthood face the added challenge of undergoing micro-transitions (e.g., legal and administrative status, completing education, entering the labour market, forming families) within the migration cycle. This 'double transition' sets them apart from other migrants and may represent an increased vulnerability to mental health issues. Some studies have identified that social, economic and cultural post-migration challenges since arrival are considered risk factors for mental health in young migrants (Oliveira et al., 2024).

Notably, the healthy immigrant paradox introduces the concept of resilience, suggesting that migrants who succeed in their journey are more resilient and, therefore, healthier. This notion can be integrated with the life course perspective, where resilience factors are considered across different life stages, contributing to better health outcomes. It may be possible that the UMM for migrant health selectivity are healthier individuals with high levels of resilience and more likely to migrate. However, the accumulative effects of risk post-migration factors—entering the labour market, extended educational paths, financial barriers to securing independent housing- ultimately impact their mental health. Nonetheless, the transition to adulthood has become more complex, non-linear, and extended over time in UMM, so more longitudinal studies in this specific group need to be conducted to examine risk and protective factors for health over time.

Finally, it is necessary to distinguish between the accessibility and universality of public health services and knowledge of the resources and procedures. Often, migrants, including UMMs, do not use specialized services because of a lack of knowledge. Some studies have shown that migrants abuse emergency services but underuse relevant resources for their needs, such as general practitioners (Junyent et al., 2006). Institutionalized UMMs have professional support that guides and directs them in monitoring and complying with health-related processes, enabling them to access health services easily. However, young people outside the protection system or with intermittent connections do not comply with medical prescriptions or relevant recommendations.

However, in a mental health context, the lack of resources in the public health system is compounded by avoidance by many young people because of the cultural weight of stigma. This means that often, symptoms that are not detected in the initial stages can lead to more severe disorders and non-acceptance of diagnoses, which may also imply therapeutic abandonment (Manzani & Arnoso Martínez, 2014). Thus, relevant health challenges in the UMM population are the detection and prevention of mental health problems and the promotion of mental health. UMMs' access to mental health services and living conditions will determine their long-term mental health. There seems to be a consensus that UMMs who are in residential resources within a protection system have easier access to specialized mental health services. However, in many cases, the public system is dispensed with, as professionals from the residential resources provide care for UMMs directly.

Another critical variable in mental healthcare for UMMs is cultural differences (Senovilla, 2014). It is uncommon for professionals in public mental healthcare services to be trained in cross-cultural psychology and psychiatry, so there is a risk that they will make errors in diagnoses, not identify existing pathologies, or classify cultural habits as pathological behaviors (Zambri et al., 2020). Thus, to the challenge of promoting mental health in UMMs is added the even greater challenge of doing so from a cross-cultural psychology approach.

5.3 The Spanish Context

In Spain, the UMM phenomenon has been considerable in the last 25 years (Durán Ruiz, 2021). This phenomenon has been observed and documented since 1995, but in 2017, the figures showed unprecedented and exponential growth. In 2018, the number of UMMs arriving in Spain and the regional protection systems was still the highest in historical data. Although it is difficult to quantify exactly, estimates have suggested that there are more than 12,000 UMMs in Spain (Accem, 2019). Official reports from the Ministry of the Interior (2021) indicated a record of 9246 UMMs, representing 22% of migrants who entered Spain irregularly (Palacín Bartroli et al., 2023). Although this figure should be taken with caution because it does not account for all cases and arrival situations, it also serves as a point of reference for the challenge that migration presents for these young migrants. However, the disparity of

the records data with data provided by other protection entities (the Prosecutor's Office, the National Police, and the welfare departments of each autonomous community [regional divisions]) indicates the impossibility of knowing the exact number of minors under guardianship in each autonomous community (Defensor del Pueblo de España, 2020).

The UMM population consists mainly of adolescents between the ages of 15 and 17 from the Maghreb countries (primarily Morocco and Algeria) and countries in Sub-Saharan Africa (Quiroga et al., 2010). After the COVID-19 period in Spain, there have been considerable changes in the origins of UMMs, with substantial increases in UMMs from Sub-Saharan countries such as Ghana, Senegal, Mali, and Gambia and a considerable decrease in those from Morocco. For these minors, as largely for other age groups, it could be said that, directly or indirectly, each has experienced forced migration, as in reality, these children are forced to migrate because of poverty, violence, conflicts, war, or climate change.

UMM residential care has great territorial diversity in Spain, which is partly determined by the political priorities of each autonomous community and the geographic reality or demographic weight of the different territories (Quiroga et al., 2005). Each community has three common areas of need: reception resources and residential care, health facilities, and educational resources. Autonomous communities feature regulatory diversity and certain differences, but residential resources can also be grouped into three types: emergency care resources, traditional residential resources, and residential resources oriented toward autonomy, social integration, and employability. This complex context presented by these reports and center heterogeneity indicates the magnitude of the challenge of tackling the health status of the UMM population.

The official data from Spanish autonomous communities show enormous variability (Durán Ruiz, 2021), as some communities publish primary data on this group, but others may not publish any data on this group or may present unreliable data. In Catalonia, for example, reliable data on this group have been published since 2017. However, the General Directorate for Child and Adolescent Care does not collect or publish up-to-date official data on health. For example, in Sant Joan de Déu residential centers, the health data collected for 5 years for the UMM group (some 1500 young people have gone through these services) suggest that dental problems, substance abuse, and psychological distress are prevalent. In addition, cases of scabies among these young people have been identified, which can be attributed to the terrible sanitary conditions in which they lived during their migration process. Several cases of injuries sustained on boats and multiple medical problems of varying degrees of severity have also been reported.

In most cases, it is evident that psychopathological symptoms are a consequence of the stressful situations experienced in the migration process (Manzani & Arnoso Martínez, 2014). Some young migrants present PTSD symptoms focused on a specific event, such as the journey in a boat. Although on many occasions, this is a short process (the hours of waiting and uncertainty plus a night journey), there may also be events of significant impact, such as the death of friends or relatives, the breakdown of the boat, attacks, fear of arrest, or falls into the water. In these cases,

specialized attention may be required, which is usually effective quickly. Moreover, it has been shown that advances in the personal objectives of the migratory project (such as regularization of the legal situation and labor insertion) are a vital factor in the reduction of anxiety and depressive symptoms (Palacín Bartroli et al., 2023).

For Sub-Saharan Africans, many of whom have made a migratory journey of several months or even years, anxiety and depressive symptoms are present, and psychotic symptoms, pathological fears, dissociative episodes, and suicide attempts are more common. Serious traumatic episodes have been confirmed in these young people, such as torture—whether experienced or witnessed—extortion, exploitation, and sexual abuse (Amnesty International, 2020). As Jurado et al. (2017) mentioned, traumatic events before or during migration and the type of migration are factors related to psychological distress and mental disorders.

Cases of severe mental disorders or pathological grief generally account for a small percentage (Palacín Bartroli et al., 2023). However, as mentioned, severe emotional problems and mental health disorders are sometimes difficult to detect. UMMs tend to hide symptoms because of shame and cultural prejudices, and it can be challenging to identify psychopathological symptoms with a cross-cultural perspective on health. Therefore, multidisciplinary efforts by professionals are critical to identify or confirm cases of mental problems in Spain.

UMMs usually have no problem accessing the Spanish public health system if they are under the care of autonomous communities. However, there are few specialized cross-cultural mental health services in Spain. One is the SATMI program—*Programa de Atención a la Salud Mental de las Personas Inmigradas*—which aims to attend to patients from different cultures who need specialized psychological care in Barcelona (Catalonia). It provides for the mental health of immigrants and offers specialized support to their social and health networks. The program also features medical pluralism to learn about and collaborate with other therapeutic models and practices that can be effective in helping youth migrants. Concerning the UMM group, 124 attended in the last 5 years; of these, 94.4% were boys (n = 117), and only 5.6% were girls (n = 7). Although most were of Moroccan origin (83.6%; n = 107), over the years, particularly after COVID-19, their numbers have decreased compared with minors from Sub-Saharan Africa, whose numbers continue to increase. These data reflect what has been observed regarding the new migratory flows of migrant minors in Catalonia and probably in other communities.

Regarding specific diagnoses, the most prevalent was adjustment disorder (79.8%, n = 99), followed by depression, although this was much less prevalent (33.9% of cases; n = 42). Diagnoses of PTSD, which implies the suffering of trauma and the greater severity and repercussions of symptoms, are increasing. PTSD was diagnosed in 2% of cases in 2019 (n = 1 of 51 cases); 9% in 2020 (n = 3 of 32 cases); 26% in 2021 (n = 6 of 23 cases); 33% in 2022 (n = 4 of 12 cases); and 50% in the first half of 2023 (n = 3 of 6 cases). Possible explanations are that in SATMI services, given the high demand for care, the most affected cases are selected; that the network has had difficulty covering the increase in the population of Sub-Saharan origin, who often have long migratory itineraries and are loaded with traumatic

experiences; and that clinicians are becoming more aware of the effects of trauma and therefore more frequently diagnose PTSD. In any case, the number of UMMs attended suggests the need to prevent mental health problems using a cross-cultural approach and to adapt services to the UMM population, focusing on social and health needs from a holistic and person-centered approach in Spain.

5.4 Data and Methods

5.4.1 Data

The data considered in this chapter came from the national action-research Migrasalud project (Study Good Practices for Well-being and Health in the Migration Process: Stress and Perceived Discrimination; II IN 190517 EN 162 FA 01), which included the participation of newly arrived migrants in Barcelona, Madrid, and Valencia from February 2020 to November 2020 (MigraSalud, 2021). Ethical approval was provided by Parc Sanitari Sant Joan de Déu, Barcelona, Spain (PIC 41–168 20). All of the participants were thoroughly informed about the objectives and procedures of the study. Each participant had to provide written informed consent before participating. All documents, including informed consent forms, were available in Spanish and Arabic (for more detailed information about the study, see Gabarrell-Pascuet et al., 2023).

In the present chapter, because of the lack of data in the field, a subsample of 15 young migrants from foster care placements who arrived in Spain as minors was analyzed. The sample was composed of a majority of men (n = 14 vs. n = 1 woman) ranging from 18 to 20 years old from Morocco (n = 14) and Senegal (n = 1). All of the participants were from residential centers in Spain and arrived as minors (aged 15–17). A guide for the semi-structured interview was developed specifically for this research and used by the facilitators. Question topics included perceptions of pre-migration health, experience of the migration process, means of transport to Spain, reason for migration, expectations, difficulties in adaptation, experiences of discrimination, coping skills for discrimination, general balance of the migration process, and health and emotional well-being concerns post-migration. Because of the COVID-19 pandemic, the interviews were conducted by phone or using online video-call platforms, with data encryption ensured for security and privacy reasons. The interviews involved only the participant and the interviewer to avoid the influence of non-participants. The interviews lasted approximately 2 h and were conducted by native speakers, and open-ended, culturally appropriate questions were asked. Beforehand, the interviewers were provided with exhaustive training on how to conduct in-depth interviews. Training on confidentiality, transcription, and translation processes was also provided. Afterward, the interviewers transcribed the qualitative data in Arabic, and the data were also translated into Spanish. The participants were interviewed in their native language and by an interviewer from a

similar ethnic group, and they had no prior personal relationship with any of the participants. As participation was voluntary and each interview was performed in a single session, the study had no refusals or drop-outs.

Finally, the audio-recorded in-depth qualitative interviews were transcribed, translated from Arabic to Spanish, and analyzed through content analysis. Content analysis was performed because it allows flexibility in research by focusing on the text's content or context (Hsieh & Shannon, 2005). This methodology was essential to highlight the participants' emotions and worries and thus obtain a complete understanding of their experiences and perceptions. The information was analyzed using an open coding process, as available coding was used to match the concepts and dimensions of the data related to the conceptual framework adopted by the social determinants of health, focusing on pre-migration, during-migration, and post-migration factors.

5.4.2 Data Analysis

Two researchers who did not participate in the interviews or transcription independently analyzed the participants' responses. Through conventional content analysis, they gained information based on the participants' unique experiences without imposing preconceived categories or theoretical perspectives. Independently, the two coders read and reread the transcripts several times to understand the content of the interviews while writing observations and highlighting text relevant to the study's aim.

As they read, the researchers identified codes based on patterns, similarities, differences, and relationships. Reflective remarks were also used for the analysis. After independent open coding, the two coders met to discuss the preliminary codes until they reached a consensus. Code definitions were used as the central criteria for assigning codes. Then, the researchers continued to code, adding new codes when encountering data that did not fit an existing code. During the coding process, the coders had weekly meetings to discuss new codes and group them into categories and subcategories. In cases of doubt or a lack of context, the coders also met with the interviewers. Agreement and in-depth discussions between researchers ensured inter-coder reliability.

5.5 Evidence

As mentioned, the social determinants of health model emphasizes that the context and circumstances in the country of origin (pre-migration factors); the difficulty of the migratory or transit journey and the trauma involved (during-migration factors); and factors at the place of destination, such as the level of knowledge of the

language of the destination country, discrimination, and legal status (post-migration factors), affect health conditions.

5.5.1 Pre-migration Factors

In many cases, UMMs begin their migration process years before embarking on the journey. Seeking better living conditions and influenced by the information they receive about the destination countries through social networks and friends, they design their migratory project (often based on unrealistic expectations). This process, often begun in secret, will only end much later, when UMMs have achieved, if possible, their goals in the new country (Quote 1).

Quote 1: I didn't tell anyone, neither friends nor family. I had that possibility, and when I arrived in Spain, I called them on the phone to tell them that I was in Spain. [Participant 6]

Other times, their family knows about their intentions, although not always with their permission (Quote 2). However, the family sometimes supported them and helped them to start their journey (Quote 3). Thus, the decision to migrate was voluntary and sometimes supported by the family.

Quote 2: My parents did not let me because I only have sisters; I decided to migrate to improve my life, and my friends encouraged me and made everything very good for me. [Participant 5]

Quote 3: My family initially disagreed, but in the end, as they saw that I was very eager, they supported me. My friends supported me, and most were already here in Spain. [Participant 10]

The UMMs generally considered their families a source of strength and love. The UMMs reported childhoods with good family support, who educated them and offered emotional support (Quotes 4 and 5).

Quote 4: I lived my childhood in a small town, and everything was very good with all the friends from the town; we played and had a great time without problems and with the family too... When we were little, we were educated very well; the best education is that of our parents. We have lived a perfect childhood with our parents (alhamdulillah)... all the education and behavior that we have now, we have learned from our parents—as they say, respect, and they respect you. [Participant 1]

Quote 5: My relationship with my mother is great and full of love; my mother has a big heart. I always talk to her on the phone, and my mother is everything to me. It is the same with my father, but he is strict with us. [Participant 4]

All of the participants stated that the main reason for migration was to have a better future [Quotes 6 to 8]. In addition, some wanted to help their families [Quote 6].

Quote 6: My reasons for migrating are to help my family financially and have a future. [Participant 1]

Quote 7: I lived with my family, but I felt alone, uncomfortable, and useless; I decided to migrate to improve my life. [Participant 2]

Quote 8: In Morocco, there is no future, there is no work, and there is poverty, and I decided to try my luck [to try to] improve my life. [Participant 5]

Migrating to Spain was a dream that some of them had had for many years, and they often tried more than once (Quotes 9 and 10).

Quote 9: We had economic problems in Morocco, so I tried to cross several times before I came here. It is to help my family because we are poor and must look for a life to move forward and get a future. I also dream of playing football. [Participant 11]

Quote 10: My friends also want to come, and most of them push me to migrate. I have been trying since I was 14, but my friends tell me that you have to hold on until you are 16 and that you are still too young to risk your life. [Participant 9]

Moreover, the interviews showed that expectations before migrating were related to the UMMs' post-migration health. Most reported higher expectations than the post-migration reality [Quote 11] or unrealistic expectations [Quote 12]. Few reported met expectations [Quote 13].

Quote 11: I thought everything was easy in Spain, getting papers and then a job, but there is none of this. When you are younger, they accompany you, but when you are older, you have to do everything; it is difficult and complicated. [Participant 1]

Quote 12: I thought that Europe was much better than what I see; they got me a permit without work, which was totally the opposite of what I imagined and what they told me in Morocco. [Participant 5]

Quote 13: Spain is better than Morocco. In my case, it is the best thing I have ever done. [Participant 4]

All of the participants reported excellent perceptions of their health before migrating, and none reported psychological symptoms or health concerns before migrating (Quote 14).

Quote 14: Alhamdulillah (Thank God), my health was excellent. [Participant 1]

This aligns with the literature (Gimeno-Feliu et al., 2015) that has suggested that UMMs' health is optimal before migrating. Although young people with limitations or underlying pathologies sometimes undertake a migratory journey, it is rare. None of the participants in our sample presented a previous mental or physical disorder.

5.5.2 Factors During Migration

During the migratory journey, most UMMs arrived by boat (Quotes 15 to 17), and others arrived hidden in trucks (Quote 18 and 19). Most reported difficult experiences living with fear, stress, and suffering during migration, which affected their emotional well-being (Quote 20).

Quote 15: A lot of fear, stress ... we suffered it. [Participant 1]

Quote 16: The bosses of the boat (patera) insulted and forced us to get together; we had a horrible time and a lot of fear. We arrived very tired and dizzy. Nerves. [Participant 5]

Quote 17: Suffering on the high seas was messy but normal. Well, I was a little scared and dizzy, but it was normal. I lost my best friend during the boat trip; I will always remember it. [Participant 6]

Quote 18: I had many difficulties, especially in the port of Tangier, with mistreatment by the Moroccan police every time they passed me by the police station. I was like this for

5 months until I managed to sneak in. Throughout this time, I was living on the street, as we could… A lot of suffering. A trip under a truck, I was about to suffocate. [Participant 3]

Quote 19: In Beni Enzar at night, I tried to sneak into trucks or buses or in any way until I managed to risk myself under a truck. Not so many difficulties, normal. [Participant 9]

Quote 20: Very bad, especially with the small boat with a companion. It is difficult because you see that you are alone on the open sea. I was terrified, big waves and us alone, it was difficult with much suffering ... and apart from this fact, we paid 4000 euros for [passage on] the fishing boat. [Participant 14]

Thus, it seems that the migration experience impacts many aspects of health, which can be affected by travel conditions (length of the journey, means of transport) and traumatic experiences (death of a friend, Quote 17). Moreover, depending on their adaptation to the conditions in the receiving country (post-migration stage), UMMs' health status may worsen.

5.5.3 Post-migration Factors

Concerning post-migration health, although the majority of the participants reported no severe physical or mental health problems (Quotes 21 and 22), two reported some post-migration health difficulties due to the migration process (Quotes 23 and 24). They described negative emotions, anguish, and more serious concerns related to mental health during the migration process. However, they downplayed their symptoms, and their perception of a good state of health prevailed. This also supports the findings reported by professionals concerning the challenge of detecting mental health problems among UMMs. In addition, it is essential to highlight the relationship between health and spirituality (Koenig, 2015) using holistic and person-centered model and from a cross-cultural perspective (*alhamdulilah* = "Thank God"; Quotes 21 and 22) to provide care for the "whole person," recognizing that a young person is a human being with ambitions, family, relationships, and culture.

Quote 21: No, no, alhamdulilah (Thank God), I have no disease, I am very well. [Participant 13]

Quote 22: No, no problem, alhamdulilah (Thank God). [Participant 4]

Quote 23: Currently, I am a little nervous; they have given me some painkillers, but I do not want to abuse drugs... because they leave you very relaxed and I hardly do anything, and they make me sleepy... but without medication, I feel I feel more productive and calm; from taking pills, I feel complex, and I know that I have nothing serious; they are specific things. [Participant 11]

Quote 24: During the trip, [I had] some mental difficulties, but now I do not have them anymore; my head was gone because... I was with a guy who was a good friend of mine, but he passed away on the way... it affected me a lot. Currently, I have no problem. [Participant 15]

Regarding specific post-migration factors, the UMMs reported difficulties in documentation and employability but not education (Quotes 25 and 26). All of the

participants had been in residential centers, so they had support for their studies from center professionals [Quote 27].

Quote 25: The difficulty in Spain is getting documentation more than studies. [Participant 13]

Quote 26: It is really difficult; first, I have papers without work, and there is no work either; it is difficult. [Participant 4]

Quote 27: In my studies, I had some difficulties, but the educator helped me and accompanied me, and I do not have them now. In general, the truth is that not only the language but also getting around and looking for work... are a bit difficult [Participant 11].

Concerning social adaptation to a new country, it is critical to identify social factors such as belonging and experiences of discrimination due to UMMs' condition as adolescents and uprooted migrants (Manzani & Arnoso Martínez, 2014). To begin a stable personal project in destination, it is essential to establish new links and to have opportunities for participation in the host community (cultural activities, local festivities, inclusion in sports clubs) (Quotes 28 and 29).

Quote 28: I have a very good relationship with my teammates on the soccer team; there is trust between us. They leave things by my side and do not think anything bad, and everyone knows that I am from the residential center; on the contrary, they tell me that whatever I need, I can count on it …these colleagues have reduced my nervousness and stress. [Participant 11]

Quote 29: The athletics federation has supported me, and they have offered me training and participation in local competitions at the national level; I am winning. [Participant 12]

However, most UMMs experienced perceived discrimination due to culture, language, or origin in their daily life (Quotes 30 and 31).

Quote 30: They look at you badly. They think you are going to steal it. You are left hungry... they humiliate you... they call you Moor and [tell you to] go [back] to your country because there is no work for you here. [Participant 3]

Quote 31: Discrimination in public transport: people change places, hide their bags, walk away... the police stop us. My colleagues feel the same way. [Participant 4]

When a participant related a discriminatory experience, the interviewers inquired about their coping strategies to deal with it. Generally, the participants had their own distinct methods of dealing with discrimination, but parallel strategies were also identified. UMMs who felt extremely vulnerable used internal coping strategies (Quotes 32 to 34). Regarding internalized coping strategies, the participants mentioned "ignoring" or "not responding" and "engagement in leisure or sports activities" as distraction strategies to cope with discrimination. Reasons described included fear of having their legal documents revoked or not obtaining such documents because of accusations of uncivil behavior. Most of the interviewees also reported that being discriminated against increased their emotional distress (Quote 33).

Quote 32: If you do not know how to speak the language, and you are undocumented, it is better to ignore, and that is it. [Participant 2]

Quote 33: I feel more stressed and nervous… when I think about it, I just want to ignore everything. [Participant 11]

Quote 34: Hold on, let this inside me, and move on. I take a deep breath and move on from the topic. [Participant 8]

Often, behavioral changes occurred when the UMMs perceived unfair treatment or prejudice toward their migrant status, culture, or religion. Specifically, the participants repeatedly expressed a "sense of injustice" and "rage," including anger, a desire for revenge, or impotence, that was related to discrimination in public transport (Quote 35).

> *Quote 35: Once, some friends sneaked onto the subway because they did not have transportation tickets, so the subway security guards cursed us and asked for our documents, and they started saying, "These MENAS (a derogatory Spanish acronym for unaccompanied minors), they are criminals," and that is not true, and neither is the term "MENAS" fair ... and then I must keep quiet because if I speak without witnesses for the facts, I will not get anything. [Participant 7]*

Finally, almost all of the interviewees said that how they felt about themselves changed. Some of the most repeated feelings were "undervalued or inferior" (i.e., feeling worthless or that others did not value you as they should) and "vulnerable," which was mainly attributed to being undocumented and to the lack of institutional and social support (Quote 36).

> *Quote 36: I feel very bad because we do not have any relatives or acquaintances who can defend us. We do not have anyone who can help us denounce it. I am feeling bad and less valued. It causes me stress and nervousness. [Participant 8].*

Changes in behavior were mainly seen in individuals focused on being more accepted by the local community (Quote 37) through "Westernization or cultural assimilation" (i.e., by changing their lifestyle and their dress to look like a local and attract less attention) and by "creating a good image" of oneself and one's culture.

> *Quote 37: There are [migrants] who steal and others who do not, but [locals] see all of us the same... especially in the subway. I tell my colleagues that if someone stares at you badly, you ignore it to avoid problems. I also advise them to change the way they dress and their hairstyle because, unfortunately, people glance at you for your physical appearance instead of looking at you for your behavior or your sufferings in life. [Participant 7]*

As mentioned in previous studies (Manzani & Arnoso Martínez, 2014), when young migrants cope with persistent stressors that last over time, they are likely to develop emotional symptoms. Psychosocial consequences of stress risk factors include depressive symptoms (sadness, crying, low self-esteem, feelings of guilt and failure, a tendency to isolate), anxiety (tension, nervousness, excessive worries, anger), feelings of guilt and shame; effects on one's fundamental belief system (lack of self-esteem, loss of dignity, distrust in others, perception of the world as hostile).

Similarly, in the present study, the UMM participants disclosing discrimination-related stress ("feeling inferior" and "feeling undervalued") described mostly mental health-related concerns (problems related to mood and anxiety). The problems related to mood included codes such as "sadness," "feeling very bad," and "pain in the heart" (Quote 38). Although the participants did not use the word "anxiety" because this term was not culturally present, they used expressions such as "nervousness," "having nerves," or "headaches" (Quote 39). Problems related to anxiety were also operationalized, including overthinking and being overwhelmed (Quote 40).

Quote 38: I feel very inferior, and I feel very bad. I leave it all inside; it hurts in my heart until one day it explodes. [Participant 11]

Quote 39: I have felt inferior and less valued than others, and that hurts a lot and is not easy to forget. You feel very bad because you do not have family members who can defend you or acquaintances; we do not have anyone who can help us report it. I feel terrible, and that is it. It causes me stress and nervousness. I feel very bad and less valued [when you are looking for work and they tell you that the papers mean no work]. [Participant 8]

Quote 40: It hurt me a lot; I felt a lot of pain. I have had a bad time, and you feel overwhelmed. I think a lot about why these things happen. [Participant 6]

All of the participants were in residential centers, and they reported no problems accessing the public health system. They also obtained the support of professionals from centers when they needed it (Quotes 41 and 42).

Quote 41: During the first months, I did have a translator, but the center's professionals always accompanied us. [Participant 10]

Quote 42: The educators accompanied me, so it was not difficult to use the health services. [Participant 14]

Notably, in the vulnerable transition period from minor to adult, the UMMs perceived many difficulties and a lack of support (Quote 43). As mentioned, this is consistent with the fear of reaching the age of 18 related to the risk of losing the system's protection (Manzani & Arnoso Martínez, 2014). Also related to living conditions, irregular status in the receiving country, which accompanies migrants for a long time, prevents them from obtaining legal employment.

Quote 43: Some people reject you, consider you an immigrant, that you are worthless and that you are inferior, but some people welcome you very well and make you feel at home. The problem is that you have papers without work. I have left the center with nothing. It does not help for "extutelados." [Participant 5]

Finally, despite all the difficulties they encountered during the migratory experience and upon arrival, the participants reported that they would start their migration process again because they had no future in their countries of origin (Quote 44). However, in some cases, they would have changed how they arrived in Spain (Quote 45).

Quote 44: Yes, I would do it again; Morocco has no future. [Participant 2]

Quote 44: Yes, but in another way; in a boat, no, because it is hard. [Participant 5]

In short, despite the scarce data in the published literature on the mental health of UMMs, it can be assumed that, following the theoretical model of the social determinants of health, this group faces specific risk factors such as unrealistic pre-migration expectations, traumatic situations experienced throughout the migration process, and, most significantly, difficulties in the transition from minor to legal age and post-migration discrimination, leading to an emotional distress response. The combination of risk factors and protective factors in the three stages of the migratory cycle (before, during, and after migration) are decisive in the life process of UMMs who have chosen the difficult path of migration without adult references, creating situations that pose high risk to their mental health or that promote the development of resilient young people who can cope with these life challenges.

5.6 Conclusions

In line with the theory of the healthy immigrant paradox (Gimeno-Feliu et al., 2015), the findings underscore UMMs' positive health perceptions before the migration process. Moreover, according to social determinants of health models, they usually had unrealistic pre-migration expectations and suffered adverse experiences during the journey (particularly by boat). After arrival, they experienced the effects of numerous post-migration factors—in particular the transition from minor to adult (such as difficulties obtaining a job, legal status, and other relevant social context factors such as discrimination)—that negatively affected their emotional well-being and may diminish their mental health in the long term. Similar findings were reported by Crocker (2015), who found that emotional suffering was linked to stress, loneliness, fear, and trauma in migrants, which have been documented to contribute to mental health risk. The present study also suggests initial evidence of the complex interaction of pre-migration factors (particularly unrealistic expectations), factors during migration (traumatic and stressful experiences), and post-migration factors (discrimination) on mental health in the UMM population in Spain.

Notably, the UMMs interviewed experienced perceived discrimination because of culture, language, or origin in daily life. Moreover, when the interviewers analyzed the discrimination narratives, they identified a relation between discrimination-related stress and mental health problems. The UMMs reported that discrimination-related stress negatively impacted their well-being, increasing their emotional distress response and intensifying their feelings about themselves as undervalued or inferior and vulnerable. These concepts have been explained by Leary and Springer (2004) as the result of interactions that involve relational devaluation that often causes hurt feelings. This could also illustrate the results regarding the lack of social support perceived by the interviewed participants and the reaction of changing to a self-sufficient attitude as a coping mechanism for discriminatory contexts and events. The emotional distress response expressed by UMMs as a reaction to discrimination was also acknowledged by Wallace et al. (2016), who reported that migrants felt unsafe and were vigilant. Migrants also showed anticipatory stress of possible future racist encounters. Anticipatory stress increases the probability of avoiding spaces, which suggests that past exposure to racial discrimination or awareness of racial discrimination experienced by others can continue to affect an individual's mental health after they arrive in the destination country.

Concerning coping with discrimination, the participants reported using internalized coping strategies, such as ignoring or not responding for fear of having their legal documents revoked or of not obtaining them. Their behavioral changes often occurred once they perceived unfair treatment or prejudice because of their migrant status, culture, or religion. These changes were motivated by a desire to be accepted by the local community through Westernization or cultural assimilation and by creating a good image of oneself and one's culture. Importantly, these manifestations were also identified by Bhugra and Becker (2005), who studied how the individual's cultural identity may be lost during the assimilation process in a receiving society

that follows acculturation (Berry, 1997). Acculturation frequently results in stress, self-esteem problems (feeling undervalued), and, importantly, mental health damage (Choy et al., 2021).

As discussed throughout this chapter, mental healthcare for migrant minors is a complex issue that requires specific and multidisciplinary interventions. First, it is necessary to conduct an initial assessment of possible mental health problems in specific UMM populations. This assessment should be as comprehensive as possible and should consider the history of trauma and the culture, language, and experiences of young migrants. The first challenge is to provide a comprehensive assessment from a person-centered approach, focusing on risk and protective factors and considering the specific *stages of the migratory cycle* in the UMM population. Moreover, the development and application of cross-cultural measures adapted to this group is still lacking.

Regarding barriers to accessing mental healthcare, studies have suggested that migrant children deal with cultural, language, and structural barriers related to limited access to healthcare services in destination countries (Zambri et al., 2020). In our study, none of the UMM participants had problems accessing the public health system, and they obtained support from professionals from the centers when they needed it. However, youth migrants may have greater difficulty seeking mental healthcare because of cultural stigma and a lack of understanding of mental disorders in their home communities (Stevens & Walsh, 2019). Thus, a second challenge is promoting mental health in UMMs using a cross-cultural psychology approach.

A third relevant challenge is related to structural inequalities, which are added to the stressors generated by the migration process, generating a cluster of adverse and destabilizing circumstances—especially in youths undergoing the transition from minor to adult—that must be dealt with effectively before they evolve into severe symptoms. It is important to note that an irregular administrative situation, precarious social or labor conditions, culturally inadequate resources, difficulty in language communication, and different conceptions of health and illness are all barriers to access to mental health services, and they cannot be efficiently addressed in vulnerable groups such as UMMs using generalized strategies. Psychological support is critical for preventing mental health challenges, but legal aid must exist in a social justice-oriented form. A human rights-based perspective in clinical and social practice that supports the Declaration of Human Rights and the European Human Rights treaties will improve public health. Moreover, newly arrived migrants, in conjunction with local people, must empower themselves to identify different types of discrimination to create common synergies of respect, tolerance, and advocacy for social change (Gabarrell-Pascuet et al., 2023).

In summary, the data collected in this chapter highlight the need to address the mental health of youth migrants, particularly the most vulnerable group, UMMs, through various interdisciplinary and collaborative approaches. It was found that the lack of quantitative and qualitative data in Europe, as well as the heterogeneity of the populations of youth migrants, present challenges for research and intervention on the mental health of UMMs in Spain. Most of the studies reviewed in this chapter (including ours) are based on small and unrepresentative samples, limiting

the findings' generalizability. Furthermore, the need for greater consensus on critical health concepts, such as psychological distress and resilience across cultures, makes it difficult to compare results between studies. In addition, more longitudinal research is required to better understand the specific mental health needs of UMMs in the long term (Oliveira et al., 2024). Recognizing and addressing UMM's multifaceted challenges is essential for their successful transition to adulthood. By understanding the interplay of economic, cultural, social, and legal factors over time, stakeholders can develop comprehensive support systems that foster resilience and well-being among this vulnerable population. Effective policies and interventions must be tailored to meet the unique needs of these young migrants, ensuring they are equipped to navigate the complexities of adulthood in their new environments.

On the other hand, qualitative research can also find suitable answers for health and social care policy-makers and professionals. Specifically, the present research reaffirms that discrimination is connected to negative emotions, distress, and other mental health concerns. The present study and the data available today show that discrimination is becoming a significant public health problem (Devakumar et al., 2020). The findings have several important implications, such as the importance of identifying post-migration factors and the need to invest in the Spanish migrant population's mental well-being and promote mental healthcare access and resources within the community. Programs and policies need to be adapted specifically to different communities and be inclusive, and social needs must be considered, integrating the narratives and life stories of newly arrived migrants. In addition, specific public policies and intervention programs are needed to address the needs and cultural, linguistic, and structural barriers that prevent or hinder vulnerable populations such as UMMs from obtaining mental healthcare (El-Awad et al., 2017).

Competing Interests We want to express our special gratitude to all of the participants for their generous contributions that made this work possible. This work was supported by the project (II IN 190517 EN 162 FA 01), financed by the national program of Asylum, Migration and Integration Fund of the Spanish Ministry of Labour, Migrations and Social Security. PCN. work was supported by Sara Borell (CD20/00035) and financed by the Instituto de Salud Carlos III.

References

Accem. (2019). *Infancia y adolescencia migrante no acompañada*. https://www.accem.es/vulnerables/menores-extranjeros-no-acompanados-mena/

Amnesty International. (2020). *Libya: 'Between life and death': Refugees and migrants trapped in Libya's cycle of abuse*. https://www.amnesty.org/en/documents/mde19/3084/2020/en/

Andrade, A. S., Roca, J. S., & Pérez, S. R. (2023). Children's emotional and behavioural response following a migration: A scoping review. *Journal of Migration and Health, 7*, 100176. https://doi.org/10.1016/j.jmh.2023.100176

Bargach, A. (2009). La integración del menor migrante sin referente adulto en el país receptor. In A. Jiménez Hernández (Ed.), *Menores migrantes sin referentes familiares* (pp. 29–34). Grupo Editorial Universitario.

Bauman, Z. (2009). *Comunidad. En busca de seguridad en un mundo hostil*. Siglo XXI de España Editores.

Bean, T., Derluyn, I., Eurelings-Bontekoe, E., Broekaert, E., & Spinhoven, P. (2007). Comparing psychological distress, traumatic stress reactions, and experiences of unaccompanied refugee minors with experiences of adolescents accompanied by parents. *Journal of Nervous and Mental Disease, 195*(4), 288–297. https://doi.org/10.1097/01.nmd.0000243751.49499.93

Berry, J. W. (1997). Berry-1997-Applied_Psychology. *Applied Psychology: An International Review, 46*(1), 5–68.

Bhugra, D., & Becker, M. A. (2005). Migration, cultural bereavement and cultural identity. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA), 4*(1), 18–24.

Cebolla-Boado, H., & Salazar, L. (2016). La salud de los hijos de los inmigrantes en España: ¿realmente tienen ventaja? *Panorama Social, 24*, 9–21.

Choy, B., Arunachalam, K., Gupta, S., Taylor, M., & Lee, A. (2021). Systematic review: Acculturation strategies and their impact on the mental health of migrant populations. *Public Health in Practice, 2*, 100069. https://doi.org/10.1016/j.puhip.2020.100069

Crimmins, E., Kim, J., Alley, D., Karlamangla, A., & Seeman, T. (2007). Hispanic paradox in biological risk profiles. *American Journal of Public Health, 97*, 1305–1310.

Crocker, R. (2015). Emotional testimonies: An ethnographic study of emotional suffering related to migration from Mexico to Arizona. *Frontiers in Public Health, 3*, 1–11. https://doi.org/10.3389/fpubh.2015.00177

De La Guardia Gutiérrez, M. A., & Ruvalcaba Ledezma, J. C. (2020). Health and its determinants, health promotion and health education. *Journal of Negative & No Positive Results, 5*(1), 81–90. https://doi.org/10.19230/jonnpr.3215

Defensor del Pueblo de España. (2020). Los niños y los adolescentes en el informe anual del Defensor del Pueblo 2019. *Defensor del Pueblo.* https://www.defensordelpueblo.es/wp-content/uploads/2020/07/Los-i%C3%B1os-y-adolescentes-en-el-informe-2019-1.pdf

Delaruelle, K., Walsh, S. D., Dierckens, M., Deforche, B., Kern, M. R., Currie, C., Maldonado, C. M., Cosma, A., & Stevens, G. W. J. M. (2021). Mental health in adolescents with a migration background in 29 European countries: The buffering role of social capital. *Journal of Youth and Adolescence, 50*(5), 855–871. https://doi.org/10.1007/s10964-021-01423-1

Derluyn, I., & Broekaert, E. (2008). Unaccompanied refugee children and adolescents: The glaring contrast between a legal and a psychological perspective. *International Journal of Law and Psychiatry, 31*(4), 319–330. https://doi.org/10.1016/j.ijlp.2008.06.006

Devakumar, D., Selvarajah, S., Shannon, G., Muraya, K., Lasoye, S., Corona, S., Paradies, Y., Abubakar, I., & Tendayi Achiume, E. (2020). Racism, the public health crisis we can no longer ignore. *The Lancet, 395*(10242), e112–e113. https://doi.org/10.1016/S0140-6736(20)31371-4

Dimitrova, R., Chasiotis, A., & Van de Vijver, F. (2016). Adjustment outcomes of immigrant children and youth in Europe: A meta-analysis. *European Psychologist, 21*(2), 150–162. https://doi.org/10.1027/1016-9040/a000246

Durán Ruiz, F. J. (2021). 25 Años del fenómeno de la migración de menores extranjeros no acompañados en España. In E. Said Hung & F. J. Durán Ruiz (Eds.), *Menores, migrantes en tiempos de pandemia* (pp. 281–303). Comares.

El-Awad, U., Fathi, A., Petermann, F., & Reinelt, T. (2017). Promoting mental health in unaccompanied refugee minors: Recommendations for primary support programs. *Brain Sciences, 7*(11), 146. https://doi.org/10.3390/brainsci7110146

Gabarrell-Pascuet, A., Lloret-Pineda, A., Franch-Roca, M., Mellor-Marsá, B., Alós, M. C., He, Y., Hafi, R. E., Villalobos, F., Bayes-Marin, I., Aparicio, L., Bobo Álvarez, O., Cabeza Espinal, M., Osorio López, Y., Haro, J. M., & Cristóbal-Narváez, P. (2023). Impact of perceived discrimination and coping strategies on well-being and mental health in newly-arrived migrants in Spain. *Plos One, 18*, e0294295.

Ghayet, A. (2016). ¡No abandonemos la calle a la calle! In F. Mernisso (Ed.), *Reflexiones sobre la violencia de los jóvenes* (pp. 69–70). Icaria.

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Diaz, E., Poblador-Plou, B., Macipe-Costa, R., & Prados-Torres, A. (2015). The healthy migrant effect in primary care. *Gaceta Sanitaria, 29*(1), 15–20. https://doi.org/10.1016/j.gaceta.2014.07.007

Harker, K. (2001). Immigrant generation, assimilation, and adolescent psychological well-being. *Social Forces, 79*(3), 969–1004.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Ibáñez Allera, P. L. (2015). *La enfermedad mental en inmigrantes subsaharianos. Una mirada antropológica desde el sur de España*. Editorial Universidad de Almería.

Junyent, M., Miró, O., & Sánchez, M. (2006). Comparación de la utilización de los servicios de urgencias hospitalarios entre la población inmigrante y la población autóctona. *Emergencias, 18*(4), 232–235.

Jurado, D., Alarcón, R., Martínez-Ortega, J. M., Mendieta-Marichal, Y., Gutiérrez-Rojas, L., & Gupegui, M. (2017). Factors associated with psychological distress or common mental disorders in migrant populations across the world. *Journal of Psychiatry and Mental Health, 10*(1), 45–58.

Kien, C., Sommer, I., Faustmann, A., Gibson, L., Schneider, M., Krczal, E., Jank, R., Klerings, I., Szelag, M., Kerschner, B., Brattström, P., & Gartlehner, G. (2019). Prevalence of mental disorders in young refugees and asylum seekers in European countries: A systematic review. *European Child & Adolescent Psychiatry, 28*(10), 1295–1310. https://doi.org/10.1007/s00787-018-1215-z

Koenig, H. G. (2015). Religion, spirituality, and health: A review and update. *Advances Mind-Body Medicine, 29*(3), 19–26.

Leary, M. R., & Springer, C. A. (2004). Hurt feelings: The neglected emotion. In *Behaving badly: Aversive behaviors in interpersonal relationships* (pp. 151–175). American Psychological Association. https://doi.org/10.1037/10365-006

Manzani, L., & Arnoso Martínez, M. (2014). Psychosocial well-being in children and young immigrant without adult family referent: The risk and protective factors. *Norte de Salud Mental, 49*(12), 33–45.

MigraSalud. (2021). *MigraSalud - Study of Health and Wellbeing in the Migratory Process.* https://www.migrasalud.com/en/

Mood, C., Jonsson, J. O., & Låftman, S. B. (2016). Immigrant integration and youth mental health in four European countries. *European Sociological Review, 32*(6), 716–729.

Mueller-Bamouh, V., Ruf-Leuschner, M., Dohrmann, K., Schauer, M., & Elbert, T. (2016). Are experiences of family and organised violence predictors of aggression and violent behaviour? A study with unaccompanied refugee minors. *European Journal of Psychotraumatology, 7*. https://doi.org/10.3402/ejpt.v7.27856

Oliveira, J., Nienaber, B., Bissinger, J., Gilodi, A., Richard, C., & Albert, I. (2024). Double transition of young migrants in Luxembourg: Vulnerable, resilient and empowering integration trajectories in the period of youth. *Frontiers in Sociology, 9*, 1230567. https://doi.org/10.3389/fsoc.2024.1230567

Otero Puime, A., & Zunzunegui, M. V. (2011). Determinantes sociales de la salud y su influencia en la atención sanitaria. In A. M. Zurro & G. J. Solà (Eds.), *Atención familiar y salud comunitaria: conceptos y materiales para docentes y estudiantes* (pp. 87–99). Elsevier.

Oyanadel, C., & Buela-Casal, G. (2011). La Percepción del Tiempo: Influencias en la Salud Física y Mental. *Universitas Psychologica, 10*, 149–161.

Palacín Bartroli, C., Herrera-Gutierrez, M.-R., Montagud Mayor, X., & Velasco Vázquez, M. K. (2023). Piedras en la mochila: duelo y estrés en jóvenes migrantes sin acompañamiento. *Migraciones. Publicación Del Instituto Universitario de Estudios Sobre Migraciones, (57)*, 1–21. https://doi.org/10.14422/mig.2023.006.

Piñones-Rivera, C., Liberona, C. N., & Leiva Gómez, S. (2021). Perspectivas teóricas sobre salud y migración: deterrminantes sociales, transnacionalismo y vulnerabilidad estructural. *Saúde e Sociedade, 30*(1), e200310. https://doi.org/10.1590/S0104-12902021200310

Quiroga, V., & Chagas, E. (coord.) (2020). El sistema de protección a la infancia. Entre la condición de menor y de extranjero. Una mirada jurídica. Empuje y audacia. Migración transfronteriza de adolescentes y jóvenes no acompañados/as. (pp. 99–128), Siglo XXI España.

Quiroga, V., Alonso, A., & Armengol, C. (2005). *Rutas de pequeños sueños. Menores Migrantes No Acompañados en Europa*. Fundación Pere Tarrés.

Quiroga, V., Alonso, A., & Sòria, M. (2010). *Sueños de bolsillo. Los y las menores migrantes no acompañados/as en España*. UNICEF.

Save the Children. (2019). *MENAS es un estigma, son niños y niñas solos*. https://www.savethechildren.es/actualidad/menas-es-un-estigma-son-ninos-y-ninas-solos

Senovilla, D. (2014). Menores no acompañados y no protegidos: resultados de una investigación en cuatro estados europeos. *Revista Interdisciplinar da Mobilidade Humana, 42*, 81–96.

Stevens, G. W., & Vollebergh, W. A. (2008). Mental health in migrant children. *Journal of Child Psychology and Psychiatry, 49*(3), 276–294.

Stevens, G. W., & Walsh, S. D. (2019). Development in context. In P. F. Titzmann & P. Jugert (Eds.), *Youth in Superdiverse societies: Growing up with globalization, diversity, and acculturation*. Abingdon.

UN Refugee Agency. (2019). *Menores no acompañados que viajan solos*. https://eacnur.org/es/actualidad/noticias/emergencias/menas-menores-no-acompanados-riesgos-viajar-solos

Vearey, J., Hui, C., & Wickramage, K. (2020). Migration and health: Current issues, governance and knowledge gaps. *World migration report 2020 IOM*, 211–212.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American Journal of Public Health, 106*(7), 1294–1300. https://doi.org/10.2105/AJPH.2016.303121

World Health Organization (WHO) (n.d.). *Social Determinants of Health*. WHO. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

Zambri, F., Marchetti, F., Colaceci, S., Benelli, E., Serra, D., Canevelli, M., Vanacore, N., & Giusti, A. (2020). Taking care of minor migrants' health: The professionals' perception and training needs. *Annali Dell'Istituto Superiore Di Sanita, 56*(4), 470–477. https://doi.org/10.4415/ANN_20_04_09

Chapter 6
Agency or Composition? Socio-demographic Correlates of Abortion Among Immigrant Women in Spain

Mikolaj Stanek, Miguel Requena, and Estrella Montes

6.1 Introduction

Sexual and reproductive health (SRH) has attracted considerable attention from academics, healthcare and public health professionals, activists and the general public for several decades (Averitt Taylor, 2014; Tone, 2002). Although the World Health Organization (WHO) (2019) defines SRS as a state of physical, emotional, mental and social well-being related to sexuality, the issues that fall under this conceptual umbrella are broader and more complex. Specifically, SRH covers individuals' right to make decisions about their own reproductive health and well-being, the provision of high-quality family planning services and comprehensive sex education, the freedom to choose whether and when to have children, the availability of affordable contraception and safe abortion, the prevention of sexually transmitted infections and, finally, opportunities to raise children in a safe and healthy environment (Fathalla et al., 2006; Mitchell et al., 2021). This definition assumes that SRH outcomes are not only shaped by individual behaviours but also by the structural and contextual conditions that constitute the frameworks of opportunities and constraints within which individuals make decisions. Nevertheless, these conditions do not affect all individuals uniformly, creating a gradient in the quality of SRH among different subpopulations, defined in terms of social class, gender, race, sexual orientation and immigrant origin.

The SRH of immigrant women has attracted considerable attention from migration researchers in recent years. Two issues have emerged from recent studies and debates. First, there is a growing awareness that SRH is a core component of

M. Stanek (✉) · E. Montes
Department of Sociology and Communication, University of Salamanca, Salamanca, Spain
e-mail: mstanek@usal.es; estrellamontes@usal.es

M. Requena
Department of Sociology II (Social Structure), UNED, Madrid, Spain
e-mail: mrequena@poli.uned.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*,
IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_6

immigrant women's social integration. Specifically, having autonomy over one's reproduction and access to the necessities required for parenting are conditions for full participation in social life in receiving countries (Abji & Larios, 2021; Urpis, 2019). Second, immigrant women exhibit substantially different patterns of SRH from those of native-born women (Keygnaert et al., 2014). A vast body of empirical evidence shows that immigrant women tend to under-utilise gynaecological, prenatal and postnatal healthcare, along with family planning services and contraception, thereby increasing their risk of unintended pregnancies (Diaz et al., 2019; Fair et al., 2020; Hasstedt et al., 2018; Heino et al., 2020; Kessler et al., 2010; Paquier et al., 2020). Although induced abortion (IA) is a common gynaecological procedure, there is extensive evidence that immigrant women are significantly more likely to utilise this option of fertility control than native women (Heino et al., 2020; Helström et al., 2006; Tapales et al., 2018; Wanigaratne et al., 2020). Furthermore, immigrants are more likely than native-born women to undergo abortions at later gestational ages (after the 12th week) and to have multiple abortions throughout their reproductive life course (Makenzius et al., 2011; Picavet et al., 2013; Rodriguez-Alvarez et al., 2016; Zurriaga et al., 2009).

Understanding the factors influencing IA among immigrant women is essential not only for providing adequate health care but also for addressing structural barriers to health equity. Numerous studies have paid particular attention to structural inequalities, arguing that the disparities in IA practices between immigrant and native-born women reflect a stratification of rights, entitlements, opportunities and resources in preventing unwanted pregnancies (Agadjanian & Yoo, 2018; Fabi et al., 2021; Schmidt et al., 2018). Immigrant women's frequent use of IA as a means of fertility control highlights how their migration status embodies various dimensions of inequality in which they are immersed (Lonergan, 2012).

It has also been argued that examining differences in IA practices between immigrant and native-born women requires careful consideration of the particularities of these populations. Cultural norms and moral values surrounding the use of abortion may differ between these groups, which could influence their decision-making processes (Mengesha et al., 2016; Wilder, 2000). Meanwhile, unintended pregnancies and IA are more likely to occur in certain age groups and among women with lower socio-economic status and lower levels of education (Gil-Lacruz et al., 2012; Väisänen, 2015). The variability of distribution of these characteristics across immigrant groups might be a source of differences in abortion rates (Desai et al., 2019). Therefore, analysing the composition of groups in terms of key characteristics such as education and age may provide a more nuanced understanding of the differences between immigrant and native-born women.

As previously evidenced in several studies, immigrant women in Spain exhibit a higher likelihood of IA than their native counterparts (Acevedo, 2008; Colantonio et al., 2014; Pérez et al., 2013; Zurriaga et al., 2009). Studies conducted in Spain have confirmed that abortion decisions are shaped by socio-economic status, particularly educational attainment, along with age, family situation and employment (Font-Ribera et al., 2008; González-Rábago et al., 2017). However, there has been little research on how variability in the distribution of these traits among native and

immigrant populations affects abortion rates. In particular, the combined impacts of age structure and educational attainment on socio-demographic composition and the resulting differences in pregnancy termination rates between native-born and foreign-born women remain largely unexplored. Accordingly, in this chapter we explore the extent to which differences in abortion rates between Spaniards and immigrants depend on disparities in educational attainment and age structure distributions.

We use data from the Population Censuses of 2011 and 2021, as well as micro-data from the abortion register released by the Spanish Ministry of Health from 2011 to 2021. Combining these two sources of data allows for an in-depth analysis of the phenomenon, including the calculation of crude and specific abortion rates and the decomposition of differences between the abortion rates of Spanish-born and immigrant women using the Kitagawa (1955) technique.

The remainder of the chapter is organised as follows. The next section discusses conceptual frameworks that have been proposed to explain differences between immigrants and natives and within the immigrant population regarding the use of abortion as a method of fertility control. After introducing the data and analytical approach in Sect. 6.3, we present evidence for Spain in Sect. 6.4. We first examine the institutional and legal framework of abortion in Spain and briefly discuss the state-of-the-art empirical studies on abortion among immigrants in Spain. The subsequent subsections explore the primary patterns of abortion use within the Spanish-born population and among groups aggregated by origin. Following that, we present and discuss the results of the decomposition analysis to identify the contribution of compositional factors to disparities in abortion rates by origin. The final section provides a discussion of the results and conclusions.

6.2 Conceptual Framework

On an empirical level, IA is frequently operationalised as a singular event resulting from a woman's decision regarding the termination of an unwanted pregnancy (Dehlendorf et al., 2013; Rossier, 2003). This simplified approach arises from the fact that researchers rarely have access to data that allow them to explore the entire decision-making process leading up to an IA. Nevertheless, several scholars have put forward the idea that an abortion is the final stage of a trajectory or path (Coast et al., 2018; Ferrer Serret & Solsona Pairó, 2018; Rossier et al., 2007). This process comprises distinct stages such as consensual or non-consensual sexual activity, non-use of contraceptives or contraceptive failure, unintended pregnancy, decision-making, information-seeking, provider selection and finally undergoing the procedure (Väisänen & Batyra, 2021; Wanigaratne et al., 2020). Each stage is influenced by various individual, structural and contextual factors.

Migratory status significantly affects the likelihood of taking the path that ends in an IA. Specifically, the differences in abortion rates between native and immigrant women can be interpreted as an effect of the challenges that arise during the

migration and integration process in destination countries. Unintended pregnancies can result from the low prioritisation of reproductive and sexual health needs, particularly in terms of contraceptive use (Metusela et al., 2017). Migration has also been associated with increased sexual abuse and gender-based violence that may result in unwanted pregnancies (Tirado et al., 2023), and it involves encountering new obstacles such as language barriers and a lack of knowledge of health services and resources in the destination country (Baraitser, 1999; Lara et al., 2015).

Nevertheless, immigrant women's higher IA rates may go beyond mere linguistic obstacles and different cultural competencies. Immigrant women may also face multiple barriers, including economic, institutional and legal barriers, to accessing reproductive health services. Immigrant women may lack health insurance and struggle to afford healthcare costs, which can limit their access to prenatal care and contraception. In some countries, undocumented immigrant women may not be entitled to healthcare benefits, including for SRH, which can lead to unwanted births or unsafe abortions (Hiemstra, 2021). In other countries, although contraceptive counselling and abortion care are available for immigrants residing without a residence permit, undocumented migrants who seek permanent residency status are concerned about being identified as a social burden for using public programmes or services, regardless of their eligibility for such programmes. This may result in them avoiding publicly funded services, including abortion care (Agadjanian & Yoo, 2018; Marti Castaner et al., 2022; Zuniga et al., 2023). Exclusion from SRH coverage can also be linked to the discrimination and marginalisation that some immigrant women experience due to their migration status, gender and ethnic or cultural origin (Schmidt et al., 2018). Special attention must be paid to the case of refugee women, who are exposed to particularly high levels of sexual violence and may also need to engage in transactional sex for survival, and therefore require specific treatment in relation to SRH that is not always granted to them (Erhardt-Ohren & Lewinger, 2020; Vangen et al., 2008).

Attitudes and norms based on religious beliefs, intra-group values and relationships and gender norms can influence behaviours related to sexual practices, contraceptive use and the decision to seek abortion care in the case of unintended pregnancies (Loeber, 2008). In several religious communities, both contraceptives and abortion are stigmatised or viewed as morally wrong, which can create barriers to accessing SRH services (Adamczyk, 2008; Arousell & Carlbom, 2016). This feature can mitigate the occurrence of unintended pregnancies and abortions, especially within highly religious ethnic and national groups (Moreau et al., 2013). However, the relationship between the religious values and gender norms and IA may be more complex. On some occasions, social control based on restrictive religious norms surrounding contraceptive use and pregnancies outside of marriage can potentially drive women to consider abortion as a viable option to avoid their community stigma (Gele et al., 2020). Additionally, in some immigrant groups, norms and expectations related to gender condition some practices related to sex-selected abortion (Brekke, 2013; Singh et al., 2010). Although patterns and norms related to fertility regulation practices in the country of origin may be replicated in the new destination, as has been observed among immigrant women from former Soviet

Union republics in Western Europe, it has been also reported that immigrants change these patterns over time in response to the reception conditions (Malin & Gissler, 2008).

Finally, the differences between Spanish-born and immigrant women in abortion practices are related to disparities in relevant socio-demographic and socio-economic characteristics. Research on factors related to the likelihood of having an abortion has pointed to the importance of age, partnership status, number of children, education level, socio-economic status and occupational situation as predictors of a higher likelihood of having an unwanted pregnancy and undergoing voluntary abortion (Helström et al., 2006; Jones et al., 2002; Rasch et al., 2008).

It is well known that abortion, like all phenomena related to reproduction, is highly age-dependent. As such, several studies have shown that age is one of the most important predictors of the likelihood of abortion. The relationship between the abortion process and age is not linear, which is linked to the fact that fertility intentions vary significantly over the life course (Pilecco et al., 2020). For example, Jones et al. (2002) observed a gradual increase in abortion rates in adolescent age groups and a peak in abortion rates among the 20–24 age group in the United States, which then decreases in later ages although it may increase in the last stages of a woman's fertile life. These differences correspond to changes in fertility behaviour over the life course. At the beginning of reproductive life, abortion is used as a way of delaying entry into parenthood. The decrease in abortion rates in those in their late 20s and 30s corresponds to the motherhood stage in many women's lives (Sihvo et al., 2003). The situation is different for women at the end of their fertile life. They may tend to limit their offspring once the desired parity is reached and may turn to abortion in the event of contraceptive misuse or failure (Helfferich et al., 2014). Nevertheless, these life course patterns may vary across diverse immigrant communities due to differences in norms related to the timing of sexual activity, fertility timing and expected number of children. For instance, as highlighted by Vangen et al. (2008) in the Norwegian context, women from Muslim minorities generally exhibit lower rates of sexual initiation, which results in comparatively lower rates of adolescent abortion.

Another strong predictor of unwanted pregnancies and abortions is socio-economic status (Helström et al., 2006; Zurriaga et al., 2009). Typically, women with lower socio-economic status (in terms of occupational position or education level) have fewer economic resources and experience more precarious financial situations, which increases the risk of assuming the costs related to raising a child and, consequently, may lead them to consider abortion as a viable option (Font-Ribera et al., 2008; Rasch et al., 2008). However, some researchers caution against an overly simplistic view of the relationship between socio-economic status and the use of abortion as a means of avoiding an unwanted pregnancy. Rossier et al. (2007) suggested that the fact that women of higher socio-economic status tend to resort less to abortion is due not only to their greater knowledge of contraceptive methods and greater willingness to use them but also to their greater means to continue with the pregnancy even if it was unplanned. Furthermore, the relationship between socio-economic status and the decision to abort varies greatly depending on the

stage of the life course (Sihvo et al., 2003). Young women who are pursuing advanced university degrees and those who have high qualifications but are at the beginning of their professional careers may choose to postpone motherhood until they reach their career goals (Font-Ribera et al., 2008).

Some authors have emphasised the importance of socio-demographic and socio-economic factors, the impact of which may be even greater than the particularities related to the difficulties of the migration process or the impact of the norms and expectations of migrants' ethnic communities. In other words, immigrant populations may share some features that, in addition to distinguishing them from native populations, are associated with unwanted pregnancies and a higher risk of abortion: a younger age structure, lower education levels, increased partnership or family volatility, greater job instability and economic precariousness (González-Rábago et al., 2017; Rodriguez-Alvarez et al., 2016; Wanigaratne et al., 2020). As immigrant populations differ from the native population in terms of the above-mentioned characteristics, compositional aspects may have a substantial effect on the higher abortion rate among immigrants (Desai et al., 2019).

Given the heightened exposure of immigrants to the risk of unintended pregnancies, which is strongly associated in the literature with the use of IA, the practice of IA is one aspect of SRH in which the paradoxical pattern of the healthy immigrant is not observed. The fact that immigrant women resort to abortion more frequently than native women implies a poorer standard of health among the former than the latter. Resorting to abortion is often a consequence of not being able to access, or facing barriers to obtaining, more affordable fertility control methods that involve fewer health risks. Research findings indicate that, in the case of abortion, the condition of being an immigrant clearly exerts an adverse effect. Moreover, the migrant condition, with its associated low socio-economic status and legal barriers to accessing SRH services, exerts a detrimental effect on post-abortion health. The literature reveals that this is related both to limited access to post-abortion care and to the conditions under which the abortion was performed—such as resorting to unauthorised centres or individuals to carry out the procedure or having it performed at later gestational ages (Tousaw et al., 2017; Väisänen et al., 2018). Therefore, there is nothing paradoxical about the fact that immigrant women, with their lower socio-economic position, lack of integration into the receiving society, limited information on contraceptive methods, poorer reproductive health culture and greater difficulties in accessing health services, have (in relative terms) more abortions than native women (Wanigaratne et al., 2020).

6.3 Data and Methods

The analysis in this chapter was conducted using two data sources. First, we utilised microdata from the register of voluntary terminations of pregnancy from 2011 to 2021, which was provided, following a specific request, by the Spanish Ministry of Health. This register gathers information from all women undergoing IA in

authorised clinics through individual statistical forms and is published annually. It encompasses information related to the procedure, including gestational age, the reason for the abortion, the method used in the intervention and the socio-demographic characteristics of the women. Data from the abortion register were used to calculate the numerators of the rates for subpopulations differentiated by origin, level of education and age group.

The denominators of the rates for the total population and subpopulations differentiated by origin, level of education and age group were obtained from the aggregated data of the 2011 and 2021 Population and Housing Censuses, both available on the website of the Spanish National Statistics Institute (INE),[1] through the advanced query system, which provides customised tables. Both of these data sources are publicly accessible and free of charge.

The crude and specific rates for different socio-demographic categories and the calculation of their differences were our main tools of analysis. However, rate differences can be decomposed in a manner that informs us about the part of the differences attributable to the socio-demographic composition of the groups or to the differential behaviours of specific categories. The Kitagawa technique was used to perform this kind of decomposition, splitting the observed difference in rates into two components (Kitagawa, 1955). The first component (composition) refers to the part of the difference that can be attributed to distributional dissimilarities in the category under consideration; the second component (rates) refers to category-specific differences in rates.

Although the analytical potential of the combined use of these two data sources is undeniable, it is also important to emphasise that it has some limitations. Unfortunately, the two databases could not be linked because no common identifiers are available, which limits the possibilities of this exercise of rate analysis. Another main limitation of this study is that it was not possible to use the complete microdata from the 2021 Spanish Census because these were not yet available. This made it necessary to reconstruct the population distributions for 2021, which are indispensable for calculating the specific rates on which this work is based, using the system of 'predefined tables' provided by the INE on its website. In the absence of microdata, it was only possible to reconstruct the distributions of the female population by country of birth, age and education level. Although these factors are crucial to understand the phenomenon of abortion among immigrant women in Spain, they are not sufficient. Further studies could include variables with a high explanatory potential such as partner status, fertility prior to abortion or length of stay in the country of arrival. The use of complete census microdata would also allow for more complex decomposition exercises than those presented here, such as those based on regression models.

[1] www.ine.es

6.4 Evidence

6.4.1 Induced Abortion in Spain

Until 1985, voluntary termination of pregnancy was considered a criminal offense in Spain (Pellico-López et al., 2022; Ruiz Salguero et al., 2008). Organic Law 9/1985 reformed the criminal code, decriminalising abortion in three cases: serious danger to the life or physical or psychological health of the pregnant woman, pregnancy as a result of rape up to 12 weeks of gestation, and serious malformations in the foetus up to 22 weeks. Subsequently, Organic Law 2/2010 of 3 March 2010 on *Sexual and Reproductive Health and the Voluntary Termination of Pregnancy* was enacted. This allowed IA at the request of the woman within the first 14 weeks of gestation and for medical reasons—severe risk to life or health of the pregnant woman or of anomalies in the foetus—in the first 22 weeks or at any time if a clinical committee certifies that the foetus presents anomalies incompatible with life or an extremely serious and incurable disease.

Since the entry into force of this regulation, others have been enacted amending it. The most recent of these provides more guarantees for public healthcare to all women regardless of their place of residence and the regulation of the individual right to conscientious objection of healthcare personnel. This was a response to the situation following legalisation that most IAs take place in private out-of-hospital centres, even though the interventions are financed by the public health system (Ministerio de Sanidad, 2022), as a result of conscientious objection by healthcare personnel in public hospitals (Pellico-López et al., 2022). In addition, the decentralisation of part of the healthcare competencies from the national government to the Autonomous Communities (regional governments) generates great territorial differences, including in the exercise of this right. In fact, there are some Spanish regions where no abortion has been performed in public centres in recent years (Ministerio de Sanidad, 2022).

Concerning the rights of immigrants regarding access to IA, the Organic Law 4/2000 of 11 January established equal healthcare rights for foreigners registered in the municipal register and Spanish nationals, encompassing reproductive health services. Nonetheless, this access was not universal, as a notable number of immigrants encountered barriers, partly due to intricate administrative procedures for obtaining a healthcare card (Aragón-Martín, 2017; Ostrach, 2013).

The liberalisation of access to IA through Law 2/2010 expanded the rights of both native and eligible immigrant women within the healthcare system (Aragón-Martín, 2017). Nevertheless, 2 years later, a reform by the conservative government excluded undocumented migrants from healthcare (for more details see Chap. 2 of this volume). Following this reform, non-EU citizen foreigners were required to have valid residence authorisation to access the Spanish healthcare system, leaving many female immigrants without reproductive health coverage. Notably, some regional governments and local authorities implemented measures to alleviate the restrictions imposed by the central government (Ostrach, 2020; Pérez-Urdiales,

2021). In July 2018, a change in the government once again modified the conditions for accessing the national health system, granting access to all foreigners with legal residency but leaving it to the Autonomous Communities to specify who is permitted access to healthcare services within each region.

Apart from potential inequalities in reproductive rights, as seen in other countries, another factor that can influence unequal reproductive health outcomes among immigrants is socio-economic status. The socio-economic conditions of women and their living environment may influence the likelihood of experiencing an unwanted pregnancy and resorting to an IA (González-Rábago et al., 2017; Perez et al., 2019). A particularly vulnerable group in this context is immigrant women, who may face an undesirable convergence of social determinants of health. In addition to inherent socio-economic factors, nationality, ethnicity and legal status may intersect, collectively affecting not only their socio-economic position but also their support network and their knowledge and utilisation of the health system. This convergence makes it more challenging for them to prevent unwanted pregnancies (Gea-Sánchez et al., 2017; Llorente-Marrón et al., 2016).

Studies published in the last decade in Spain on IA considering migratory status have repeatedly shown that abortion is more frequent among immigrants than natives. However, these studies are scarce and not all of them analyse recent data. Pérez et al. (2013) analysed data from 2001 and Llorente-Marrón et al. (2016) tested the special vulnerability of immigrants in their analysis of individual and contextual characteristics affecting abortion rates with data from a panel sample of 22 European countries for the 2001–2009 period. Both studies noted that better socio-economic and employment conditions decrease the abortion rate. Job stability, economic security and robust career prospects are less common among immigrant women than among native women.

Rodriguez-Alvarez et al. (2016) and González-Rábago et al. (2017) focused on the comparison between immigrant and native women in the Basque Country. Both studies paid attention to total, repeated and second trimester prevalence. The first study was based on the country of origin in the 2009–2013 period and showed that female immigrants have higher rates of IA and repeated IA than natives. Women from Central America also have a higher probability of delaying pregnancy termination. The second study addressed social inequality related to education and place of birth in the 2011–2013 period and confirmed higher rates of IA for women with lower education levels and immigrant women in all three scenarios. Surprisingly, it showed no significant differences according to specific place of birth.

In summary, studies carried out in this field of immigrant abortion in Spain are scarce, use data prior to the last decade and tend to focus on specific regions of the country. All of this justifies paying attention to the current national situation and doing so with more complex analyses that address the intersection of different social determinants.

6.4.2 *Abortion Among Immigrants: Trends and Main Features*

In all developed countries that have received considerable numbers of immigrants, the practice of abortion is more common among immigrant women than among native women. Spain is no exception, as shown by data systematically collected by the Ministry of Health since 2011.[2] The statistics for the 2011–2021 period leave no room for doubt. Of the 1,090,481 abortions performed in the country during that decade, 413,997 were performed on women born outside the country. This figure indicates that almost 4 out of every 10 abortions in Spain (38%) were performed on immigrant women. The data (Fig. 6.1) demonstrate two further facts. First, the proportion of abortions among immigrant women has remained more or less constant over time (oscillating around 40%); in other words, in Spain the trends of change in the number of abortions among immigrant women have been roughly similar to those of native women: both immigrant and native women have tended to have fewer abortions over this period. Second, the propensity of immigrant women to have abortions is much higher than that of native women. In fact, while immigrant women of reproductive age accounted for about 20% of all women residing in Spain during this period, they had 40% of all abortions.

The shared tendency of immigrants and Spanish-born to have fewer abortions may be attributed to changes in the size and/or characteristics of their populations over the period. The period observed includes the hardest years of the economic crisis (2011–2014) and the subsequent economic recovery, which means that there

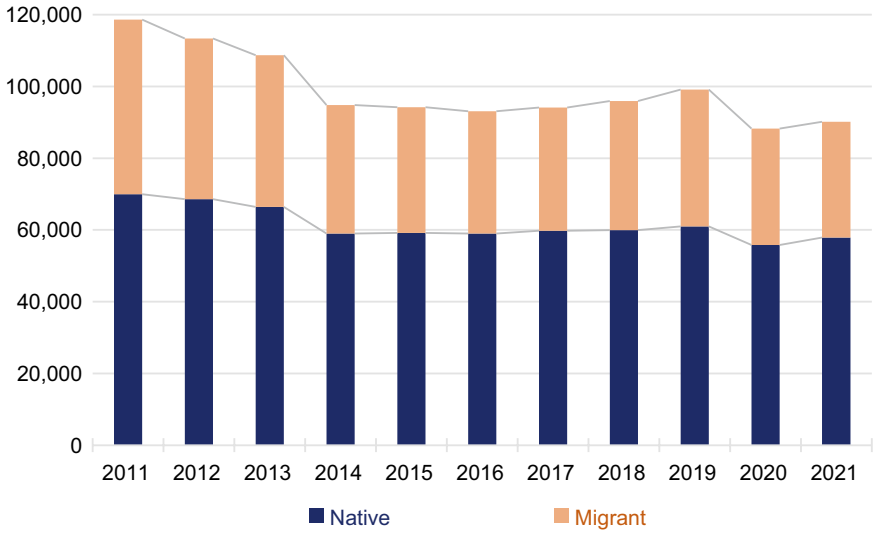

Fig. 6.1 Change in number of abortions in Spain by country of birth of the woman. (*Source*: Spanish Ministry of Health (Register of voluntary terminations of pregnancy))

[2] https://www.sanidad.gob.es/profesionales/saludPublica/prevPromocion/embarazo/home.htm

may have been relevant changes in the size and characteristics of the immigrant population residing in Spain. To prevent the change in the size of the respective populations from confounding the interpretation of the observed tendency to have fewer abortions, we normalised the data to be compared by calculating the rates of IA per 1000 women (of reproductive age). The results, disaggregated for immigrant and native women, are presented in Fig. 6.2. The data indicate that the decline in abortion rates in Spain was driven, above all, by immigrant women. Spanish women hardly changed in the intensity of their abortion practices; native variation over time was very small. They slightly decreased their rate from 2011 to 2014 and, after the economic crisis, the rate recovered and virtually returned to the starting point. In contrast, immigrant women decreased their rate significantly during the economic crisis (2011–2014), followed by stabilisation from 2014 to 2019. The rate decreased again in 2020, coinciding with the onset of the COVID-19 pandemic. Over the whole period, the rate of IA among immigrant women decreased by almost 30%.

Did immigrant women from different origins behave equally towards abortion during that decade? Figure 6.3 shows the change from 2011 to 2021 for different migratory origins. As expected, all immigrant groups, regardless of their origins, decreased their IA rates more than Spanish-born, but the behaviour of immigrant women followed three patterns. First, only women from high-income countries behaved similarly to Spaniards in that they decreased their abortion practice to a very small extent (−0.6 abortions per 1000 women in the case of Spanish-born; −1.5 in the case of immigrants from rich countries). Second, women who had arrived from sub-Saharan Africa and non-high-income Asian and Oceanian

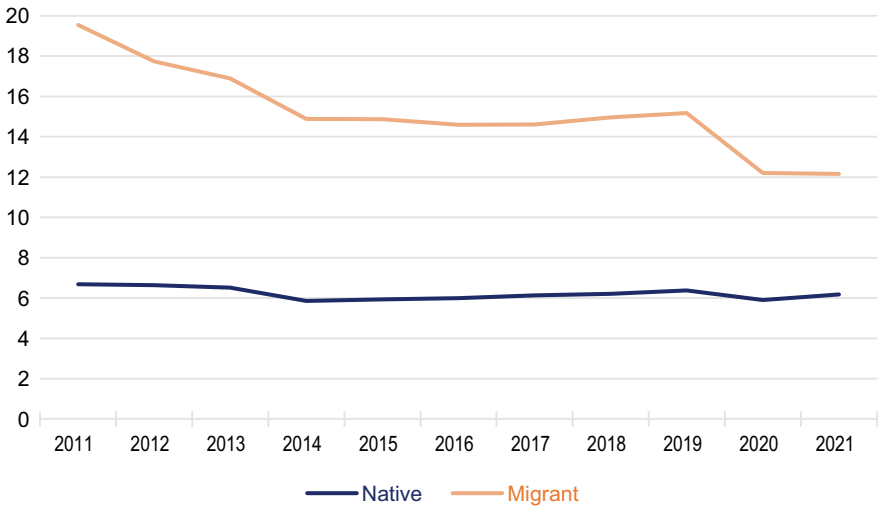

Fig. 6.2 Change in crude rates of induced abortion between 2011 and 2021 in Spain. Rates per thousand women by country of birth. (*Source*: Spanish Ministry of Health (Register of voluntary terminations of pregnancy) and National Institute of Statistics (2011 Population and Housing Census))

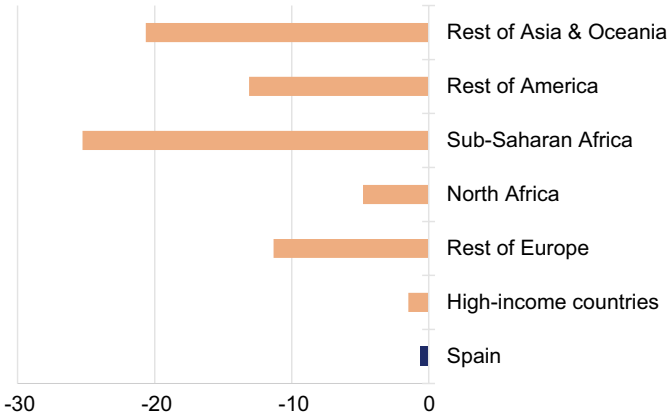

Fig. 6.3 Change in rates of induced abortion between 2011 and 2021 in Spain. Rates per thousand women by country of birth. (*Source*: Spanish Ministry of Health (Register of voluntary terminations of pregnancy) and Spanish National Institute of Statistics (2011 Population and Housing Census))

countries decreased their propensity to abort the most (reducing their rate by more than 20 abortions per 1000 women). Finally, between the two extremes were women from Latin America and non-rich Europe, two very large immigrant groups, who reduced their rates by just over 10 abortions per 1000 women.

Note: High-income countries include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Sweden, Switzerland, Monaco, Andorra, Norway, the United Kingdom, Israel, the United States, Canada, Australia, New Zealand, Japan, South Korea, Taiwan and Singapore. Rest of Europe includes Albania, Armenia, Belarus, Bosnia, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Malta, Moldavia, Poland, Romania, Serbia, Slovakia, Slovenia and Ukraine. North Africa refers to Algeria, Egypt, Libya, Morocco and Tunisia. Sub-Saharan Africa includes the remaining African countries. Rest of America refers to American countries not included among high-income countries. Rest of Asia and Oceania contains the countries in those regions not previously included among high-income countries.

These observed differences in the change over time in the abortion practice of immigrants and natives invite a more detailed examination of the characteristics of the women who had abortions according to their migratory status and their origins.

Are there differences in abortion behaviour in Spain associated with the different origins of immigrant women? First, from the comparison between the number of abortions and the number of women in each group, it is clear that immigrant women had consistently higher rates of abortion than Spanish-born women. As confirmed by the data in Table 6.1, corresponding to 2021, native women had the lowest rate among all countries of birth. Regarding the intensity of abortion practice, women from highly developed countries were very close to Spanish women; women from

Table 6.1 Abortions, female population, and induced abortion rates in 2021 Spain, by age, education, and country of birth

	Abortions		Population		Rates × 1000
	N	%	N	%	
Women 12–52	90,189	100	12,337,798	100	7.3
Age					
12–19	9388	10.4	1,915,467	15.5	4.9
20–24	18,753	20.8	1,157,089	9.4	16.2
25–29	19,227	21.3	1,250,295	10.1	15.4
30–34	18,641	20.7	1,385,331	11.2	13.5
35–39	16,188	17.9	1,621,716	13.1	10.0
40–52	7992	8.9	5,007,900	40.6	1.6
Education					
Primary or less	11,738	13.0	1,622,781	13.2	7.2
Lower secondary	28,819	32.0	2,888,856	23.4	10.0
Upper secondary	31,229	34.6	2,799,483	22.7	11.2
University	16,966	18.8	5,026,671	40.7	3.4
Unknown	1437	1.6			
Country of birth					
Spain	57,879	64.2	9,654,198	78.2	6.0
High income countries	3085	3.4	414,990	3.4	7.4
Rest of Europe	4204	4.7	404,121	3.3	10.4
North Africa	3396	3.8	315,207	2.6	10.8
Sub-Saharan Africa	1328	1.5	69,537	0.6	19.1
Rest of America	17,672	19.6	1,306,218	10.6	13.5
Rest of Asia & Oceania	1825	2.0	173,604	1.4	10.5
Unknown	800	0.9			

Source: Spanish Ministry of Health (Register of voluntary terminations of pregnancy) and Spanish National Statistics Institute

the rest of Europe, North Africa, Asia and Oceania have similar IA rates, slightly above those observed among Spanish women; and Latin Americans and especially sub-Saharan Africans exhibited the highest abortion rates. The rates for sub-Saharan women were more than three times higher those for Spanish-born women.

As can also be seen in Table 6.1, the practice of IA among the Spanish resident population (as measured by specific rates) is most common among 20–24-year-olds and 25–29-year-olds. Abortion is less frequent in the 30 s and rates are much lower below the age of 20 and above the age of 40. In turn, the relationship between IA and educational attainment takes the form of an inverted U: the practice of abortion is less intense at low (primary education or less) and high (university) educational levels and more intense at intermediate educational levels (lower secondary and upper secondary).

Age-specific rates by country of birth (Fig. 6.4, left panel) provides a more accurate perspective than the specific rates. All immigrant groups had higher age-specific rates of abortion than Spanish-born women. Only Asian women (excluding

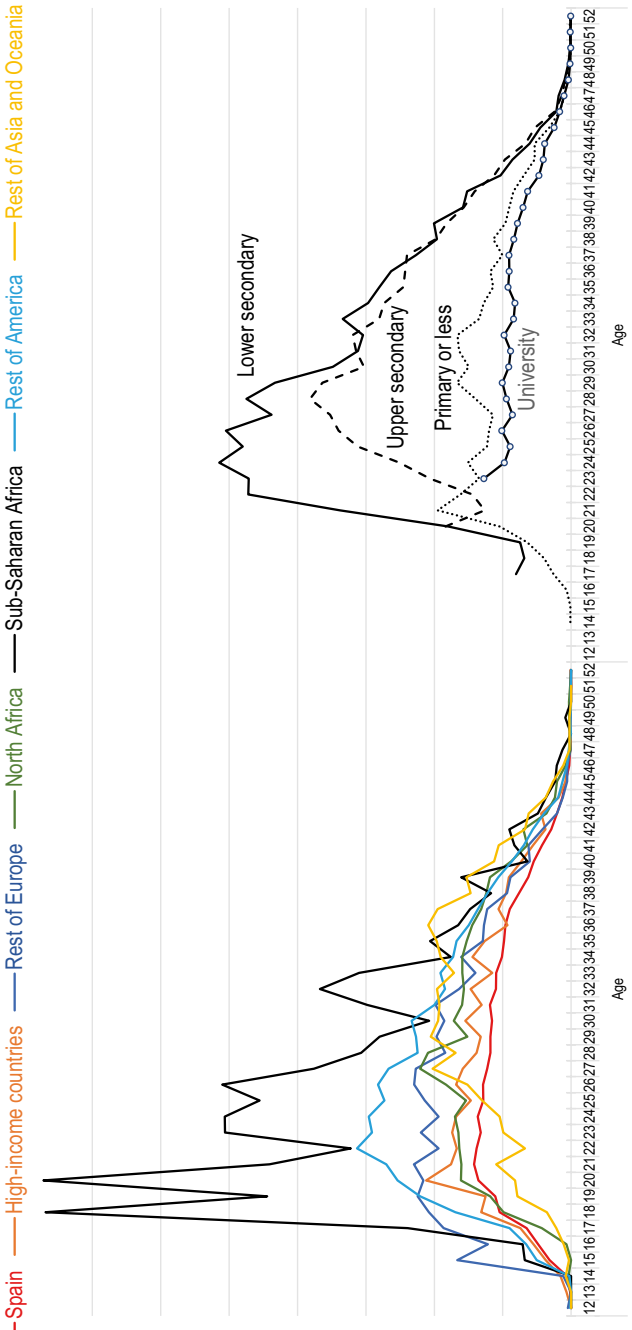

Fig. 6.4 Left panel: 2021 age-specific induced abortion rates by country of birth. Right panel: 2021 age-specific induced abortion rate of immigrant women by educational attainment. (*Source*: Spanish Ministry of Health (Register of voluntary terminations of pregnancy) and Spanish National Institute of Statistics (2011 Population and Housing Census))

those from high-income countries) had lower abortion rates at young ages than Spanish women, who had fewer abortions at all other ages than the rest of the groups. Women born in high-income countries closely resembled Spanish women, with a slightly higher abortion rate. At the opposite extreme, it was Sub-Saharan women who showed the highest levels of abortion at virtually all ages, followed by Latin American women. Relative to native Spanish women, women from high-income countries had slightly higher levels. North African and European women from non-high-income countries had more abortions than Spanish women at the same ages throughout their reproductive life. Finally, American women excluding those from high-income countries, and, above all, Sub-Saharan women showed the highest propensity to IA.

It is also known that abortion tends to be strongly associated with the education level of women (Fig. 6.4, right panel). As can be seen in the figure, immigrant women with university education had the lowest abortion rates among immigrants. Women with intermediate education levels (lower secondary and upper secondary) had more abortions than university-educated women. Interestingly, women with intermediate education levels also had more abortions than women with only primary education or less. The age-specific abortion rates of immigrant women with low educational attainment were slightly above those of university-educated women but far below those of women with intermediate levels of education.

6.4.3 Decomposing Native-Immigrant Differences in Abortion

The differences observed in age-specific rates and those associated with educational attainment are important and in themselves very telling, but they do not exhaust the interpretation of the evidence presented here. In general, the age and educational attainment profiles of immigrant women tend to be different from those of natives in the receiving country. If these profiles, or distributional differences, are indeed different from one group to another, it is highly likely that observed differences in abortion practice between immigrants and natives are (at least partially) due not only to different behaviours but also to dissimilarities in the composition of groups. We first tested whether such compositional differences exist before presenting the results of a decomposition exercise by age and educational attainment of the differences in abortion rates between Spanish-born and various immigrant groups for 2021.

Table 6.2 shows the average ages of women of reproductive age residing in Spain in 2021 and their levels of education. The differences in mean ages reveal that the youngest on average (33.4 years) were women from non-rich Asian and Oceanic countries. Native Spaniards, together with African women, both North and sub-Saharan, were slightly older (around 34 years). With an older average age, American and European women from non-affluent countries came next. Finally, women from non-high-income European countries and from high-income countries were the least young, with average ages of 36 and 37, respectively. Differences in average

Table 6.2 Female population age 12 to 52 years residing in Spain in 2021. Mean age and proportion of educational attainment by country of birth

		Educational attainment			
	Mean age	Primary or less	Lower secondary	Upper secondary	University
Spain	34.02	10.1%	24.0%	21.5%	44.4%
High income countries	36.77	13.8%	15.6%	24.9%	45.7%
Rest of Europe	36.10	26.4%	24.7%	25.7%	23.2%
North Africa	34.81	47.4%	27.9%	15.3%	9.4%
Sub-Saharan Africa	34.69	38.3%	29.2%	19.7%	12.9%
Rest of America	35.26	19.0%	19.5%	32.0%	29.5%
Rest of Asia and Oceania	33.40	31.8%	25.0%	20.2%	22.9%

Source: Spanish National Institute of Statistics (2011 Population and Housing Census)

ages correspond to important dissimilarities between groups in the size of some strata. For example, in all immigrant groups, women aged 30–39 had a higher relative weight than native Spanish women of those ages. The differences in educational attainment are also notable, with native Spanish women achieving the highest levels. Taking the ratio of female university graduates to women with low educational attainment in the different groups as an example, while there were more than four Spaniards with a university degree for every one with only primary education or less, there were only 0.2 North Africans or 0.3 Sub-Saharan Africans. As expected, women from high-income countries had a higher level of education than Spanish women.

The results of the decomposition exercise are presented in Fig. 6.5. In accounting for the differences in abortion rates between native Spaniards and different immigrant groups, the rate component predominated over the compositional component in all cases. In other words, the bulk of the differences corresponded to dissimilar behaviours across groups, not to heterogeneity in the age structure and educational attainment distribution of the groups: the fact that Spanish women had fewer abortions than immigrant women (negative differences in the figure) was not due primarily to the composition of their populations by age and educational attainment but to the rates ingredient. Moreover, except among women from high-income countries, in all immigrant groups both composition and rates contributed to higher levels of abortion than among Spanish-born. Interestingly, if women from high-income countries were to share the educational distribution with Spanish women, they would have somewhat fewer abortions, not more, than Spanish women, mainly because of their higher educational attainment.

Regarding age, the most striking cases were among Maghrebi women, among whom almost 40% of the difference with Spaniards was explained by age composition; and among Asian and Oceanian women from non-rich countries, with their age

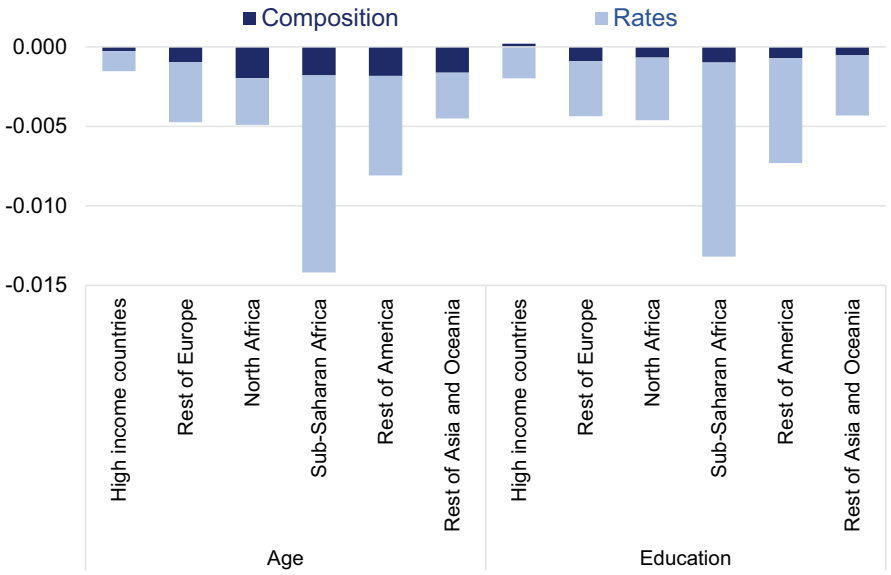

Fig. 6.5 Kitagawa decomposition of the 2021 differences in abortion rates between Spanish native women and immigrant women by country of origin. Negative differences indicate that abortion rates are higher in all immigrant groups than among native-born women. (*Source*: Spanish Ministry of Health (Register of voluntary terminations of pregnancy) and Spanish National Statistics Institute)

composition contributing 36% of the difference with Spaniards. In other words, more than a third of the excess abortions in these Maghrebi and Asian female subpopulations were accounted for by their different age profile. For European and American women from non-rich countries, around 20% of the differences with Spaniards corresponded to their age composition. Finally, the case of Sub-Saharan women stood out, as they were not only those who had the most abortions but also those for whom age composition was the least important (13% in relative terms) in accounting for the difference from natives. The higher incidence of abortion among sub-Saharan women was primarily attributable to genuine behavioural differences.

The composition by education level had less impact on the abortion differences between Spanish-born and immigrants than the composition by age. The contribution of the compositional element of education accounted for one fifth (21%) of the difference in abortions between natives and Europeans from non-high-income countries and one seventh (15%) in the case of North Africans. For all other origins, the compositional contribution to the differences with natives was around 10%, except for immigrants from rich countries, whose educational composition would have produced slightly higher abortion rates than those of Spaniards if that had been the only contribution to the differences.

6.5 Discussion and Conclusions

6.5.1 Discussion

The predominant analytical framework for studying abortion among immigrant women involves comparing their experiences with those of native women. The present study fully confirms that Spain is similar to other developed countries receiving immigrants in that non-native women have a clearly higher risk of abortion than native women (Guillaume & Rossier, 2018). Different mechanisms have been suggested to explain the high abortion rates of immigrant women, including the challenges of migration itself, the lack of information on contraceptive methods, barriers of different types (legal, linguistic, institutional, socio-economic) that hinder access to SRH services, or the imprint of the cultures and traditions of the countries of origin. Be that as it may, this differential associated with migratory status has been documented in Spain since the 1990s and the first half of the 2000s, when it was estimated, with partial data from four Spanish regions, that the rate of IA among immigrant women was three times higher than among native women (Orjuela et al., 2009). Subsequent studies (Rodriguez-Alvarez et al., 2016; Ruiz Ramos et al., 2012; Zurriaga et al., 2009) corroborated these differential risks with partial data from other Spanish regions. If IA, compared with other contraceptive methods, is considered an inferior solution from a health perspective to the purpose of decoupling sex from unwanted conceptions, there is no paradox in this higher risk of abortion among immigrant women observed in Spain.

The information collected for the last decade (2011–2021) and used in this study shows that this differential between native and immigrant women still exists at the national level but the gap has become smaller over time. The most recent available data indicate that in 2021 the risk of IA for immigrant women was only twice that of native-born women (Table 6.1). Moreover, the decrease in the abortion rate in Spain from 2011 to 2021 was entirely due to the behaviour of immigrant women, who reduced their abortion rate by almost 40%, while the rates of native women hardly changed (Fig. 6.2). The change in trend is quite remarkable: immigrant women have stopped contributing to the increase in IA in Spain and have driven it down. Spain thus joins the process of abortion reduction that European and North American countries have experienced in recent years (Bearak et al., 2020) due primarily to the behaviour of immigrant women.

In Spain, there are no systematic studies available that analyse in detail the decision-making processes that lead women to have an abortion or the possible peculiarities characterising reproductive decision-making among immigrant women. There is also a lack of precise knowledge of the prior behaviours (contraceptive use) and the possible constraints (lack of information, insufficient access to medical services, discrimination) that might limit these immigrant women's abortion decision-making. The paucity of information, and the corresponding lack of studies, suggests indirect approaches to agency factors and mechanisms driving the decision to induce an abortion. Our indirect approach is based on examining the

empirical associations of immigrant women's IA practice with certain socio-demographic factors to suggest inferences that shed light on the decision to abort. In this chapter, we address three aspects of the AI practice of immigrant women: change over time, differential behaviours conditional to the socio-economic position, and the impact of the socio-demographic composition (age, education level, country of birth) of immigrant women.

First, in the last decade, immigrant women have significantly decreased their abortion rates, thus narrowing the gap between them and natives. Although immigrant abortion rates are still higher than those of natives, the trend shows that immigrant women adapt relatively quickly to the prevailing patterns in the country and that the differential barriers to accessing abortion that may have operated in the past declined over time. Lack of information about the risks of becoming pregnant and contraceptive methods may be one explanation for the persistent abortion gap between natives and immigrants in the country. However, if this were the case, it is clear that these information deficits, while still existing, have become less relevant over time.

Second, the relationship between abortion and socio-economic status—here measured by educational attainment—tends to be curvilinear in an inverted U-shape among immigrant women, with the intermediate educational strata experiencing the highest risks. The fact that it is immigrant women with intermediate levels of education who have the most abortions is interesting and illustrative. It has usually been assumed that information about sexual practices, pregnancy risks and contraceptive methods depends on education level. This argument would explain both the negative educational gradient of abortion among immigrant women and the differentials between immigrant and native women. The evidence of a non-linear relationship between education level and abortion practice is, however, incompatible with this interpretative framework. Within this framework, it is difficult to explain why immigrant women with secondary education have more abortions than those with primary education or less. It is possible that immigrant women with intermediate education have more information than those with lower education about the opportunities available to end an unwanted pregnancy and that this is a reason for their higher abortion rates, but this would not explain the lower rates among university-educated women. Our findings allow us to conclude that either the availability of information functions differently at different levels of educational attainment or it is not so relevant to the process of abortion decision-making.

Our third inference is that the composition of the different subpopulations of immigrant women is a factor of considerable importance in explaining the variation in their abortion rates. With the available data, we were able to study the composition by age, educational attainment and country of birth. The unequal age composition of the subpopulations of native and immigrant women accounts for about a quarter of their differences in abortion rates; in the case of North African and Asian women, the weight of the age composition accounts for about 40% of the difference with natives. Although less relevant than age composition, differential distributions by educational attainment are also important as they account for about one tenth of the differences in the rates of immigrant women compared with native-born women.

A case of interest is that of immigrant women from high-income countries, with a composition that is similar to but slightly higher than that of Spaniards. If they had the same educational composition as native Spanish women, their rate of IA would in fact be lower than that of native women. Another interesting case is that of Sub-Saharan women, the subpopulation with the highest observed abortion rates. The educational distribution of these women is very different from that of autochthonous women, with higher proportions of women with low education and far fewer university graduates, but the difference in rates is so large that it far exceeds the compositional gap.

When accounting for differences in the observed subpopulations of immigrant women, the rate component (differences in behaviours often referred to in these exercises as 'unexplained') far outweighs the compositional component (differences in distributions referred to as 'explained'). In other words, the heterogeneity of abortion behaviours among specific socio-demographic categories outweighs the distributional differences of these subpopulations. Part of the difference in the AI levels of immigrant populations compared with native populations is due to their different age structure and education level, but even if the different categories of immigrants had the same ages and education levels as Spaniards, they could still be expected to resort to abortion more than natives.

This also means that we cannot suggest a conclusive explanation for the differences as a whole. What the exercise presented here reveals is that if we want to understand the practice of abortion by comparing the behaviour of immigrant and native women, we can only explain part of the observed variation: the portion that corresponds to the rate effect once we discount that which corresponds to compositional effects. Furthermore, our analysis suggests that factors related to information deficits on contraceptive use and pregnancy risks and access to family planning services among immigrants should be downgraded when understanding the decision-making processes leading to abortion among immigrants. One attractive possibility is that the levels of IA recorded in Spain for immigrant women reflect the levels observed in their countries or regions of origin, with which they tend to be congruent (Guillaume & Rossier, 2018). At any rate, more research is needed to fully understand this complex reality.

6.5.2 Strengths of the Study

The main strength of this study is the high quality of the data used. The abortion data were taken from a national administrative register that includes systematic information on the full scope of legal abortions that have taken place in Spain. The register contains basic abortion information and some socio-demographic characteristics of the women who had abortions, including their country of birth. The Ministry of Health has provided the microdata free of charge, upon ad hoc request, since 2011. Population data were taken from the Population and Housing Censuses provided by the INE. With such data, it is possible to undertake the task of

delineating very precisely the socio-demographic profiles of immigrant women who have had abortions in Spain, to compare them with native women and to study their differences by separating factors relating to composition and rates and distinguishing them according to the country or region where migration originated.

6.5.3 Conclusion of the Study

Immigrant women in Spain continue to resort to abortion more intensively than native Spaniards, although the differential between native and immigrant women has narrowed considerably in the last decade. An important part of the heterogeneity observed in the abortion rates of both subpopulations is due to their distributional differences in age and education: composition effects account for about a quarter of the difference in the case of age and about a tenth in the case of educational attainment. In other words, if immigrant women had the same age and educational composition as native women, the differences in their abortion rates with indigenous women would be smaller. The rest of the difference, that which does not correspond to the composition effect, must be attributed to behavioural factors that cannot be entirely explained by the present exercise. However, the socio-demographic profiles of immigrant women who resorted to abortion in Spain suggest that explanations based on the immigrant women's limited information or access barriers to family planning services are not entirely adequate. More research is needed to better understand the differences in abortion behaviours of natives and immigrants.

Competing Interests This chapter is part of the R&D project PID2021-128108OB-I00, funded by MCIN/AEI/10.13039/501100011033/ and FEDER, a way of making Europe.

References

Abji, S., & Larios, L. (2021). Migrant justice as reproductive justice: Birthright citizenship and the politics of immigration detention for pregnant women in Canada. *Citizenship Studies, 25*(2), 253–272. https://doi.org/10.1080/13621025.2020.1859186

Acevedo, P. (2008). Reproductive behavior of immigrant Latin American women in Spain. *Social Medicine, 3*, 64–70.

Adamczyk, A. (2008). The effects of religious contextual norms, structural constraints, and personal religiosity on abortion decisions. *Social Science Research, 37*(3), 657–672. https://doi.org/10.1016/j.ssresearch.2007.09.003

Agadjanian, V., & Yoo, S. H. (2018). Migration, legality, and fertility regulation: Abortion and contraception among migrants and natives in Russia. *Demographic Research, 38*, 1277–1302. https://doi.org/10.4054/DemRes.2018.38.42

Aragón-Martín, B. (2017). Women rights or 'unborn' rights? Laws and Loopholes in Madrid's public health-care services' abortion provision to migrant women. In S. De Zordo, J. Mishtal, & A. Anton (Eds.), *Fragmented landscape: Abortion governance and protest logics in Europe* (pp. 169–187). Berghahn Books.

Arousell, J., & Carlbom, A. (2016). Culture and religious beliefs in relation to reproductive health. *Best Practice & Research Clinical Obstetrics & Gynaecology, 32*, 77–87. https://doi.org/10.1016/j.bpobgyn.2015.08.011

Averitt Taylor, J. (2014). Reproductive health policy affecting low-income women: Historical precedents and current need for social work action. *Social Work & Public Health, 29*, 132–140. https://doi.org/10.1080/19371918.2013.775872

Baraitser, P. (1999). Family planning and sexual health: Understanding the needs of South Asian women in Glasgow. *Journal of Ethnic and Migration Studies, 25*, 133–149. https://doi.org/10.1080/1369183X.1999.9976676

Bearak, J., Popinchalk, A., Ganatra, B., Moller, A.-B., Tunçalp, Ö., Beavin, C., Kwok, L., & Alkema, L. (2020). Unintended pregnancy and abortion by income, region, and the legal status of abortion: Estimates from a comprehensive model for 1990–2019. *The Lancet, 8*, e1152–e1161. https://doi.org/10.1016/S2214-109X(20)30315-6

Brekke, T. (2013). Religion and sex-selective abortion: A comparative study of immigrants from South Asia to Norway. *Diaspora Studies, 6*, 31–39. https://doi.org/10.1080/09739572.2013.843290

Coast, E., Norris, A. H., Moore, A. M., & Freeman, E. (2018). Trajectories of women's abortion-related care: A conceptual framework. *Social Science & Medicine, 200*, 199–210. https://doi.org/10.1016/j.socscimed.2018.01.035

Colantonio, S., Roman-Busto, J., Fuster, V., & Zuluaga, P. (2014). Contribution of immigration to adolescent fertility in Spain considering the reproductive pattern in the country of origin. *Biodemography and Social Biology, 60*, 87–100. https://doi.org/10.1080/19485565.2014.899455

Dehlendorf, C., Harris, L. H., & Weitz, T. A. (2013). Disparities in abortion rates: A public health approach. *American Journal of Public Health, 103*, 1772–1779. https://doi.org/10.2105/AJPH.2013.301339

Desai, S., Leong, E., & Jones, R. K. (2019). Characteristics of immigrants obtaining abortions and comparison with U.S.-born individuals. *Journal of Women's Health, 28*, 1505–1512. https://doi.org/10.1089/jwh.2018.7547

Diaz, E., Omland, G., Hannestad, Y., & Ruths, S. (2019). Use of hormonal contraceptives among immigrant women and their daughters in Norway: Data from the Norwegian prescription database. *Acta Obstetricia et Gynecologica Scandinavica, 98*, 232–239. https://doi.org/10.1111/aogs.13469

Erhardt-Ohren, B., & Lewinger, S. (2020). Refugee and internally displaced women's abortion knowledge, attitudes and practices: Addressing the lack of research in low- and middle-income countries. *International Perspectives on Sexual and Reproductive Health, 46*, 77–81. https://doi.org/10.1363/46e1120

Fabi, R. E., Saloner, B., & Taylor, H. (2021). State policymaking and stated reasons: Prenatal care for undocumented immigrants in an era of abortion restriction. *Milbank Quarterly, 99*, 693–720. https://doi.org/10.1111/1468-0009.12519

Fair, F., Raben, L., Watson, H., Vivilaki, V., van den Muijsenbergh, M., & Soltani, H. (2020). Migrant women's experiences of pregnancy, childbirth and maternity care in European countries: A systematic review. *PLoS One, 15*, 1–26. https://doi.org/10.1371/journal.pone.0228378

Fathalla, M. F., Sinding, S. W., Rosenfield, A., & Fathalla, M. M. (2006). Sexual and reproductive health for all: A call for action. *The Lancet, 368*, 2095–2100. https://doi.org/10.1016/S0140-6736(06)69483-X

Ferrer Serret, L., & Solsona Pairó, M. (2018). The place of abortion in the pregnancy decision-making process in young adult women in Catalonia, Spain. *Sociology of Health & Illness, 40*, 1087–1103. https://doi.org/10.1111/1467-9566.12744

Font-Ribera, L., Pérez, G., Salvador, J., & Borrell, C. (2008). Socioeconomic inequalities in unintended pregnancy and abortion decision. *Journal of Urban Health, 85*, 125–135. https://doi.org/10.1007/s11524-007-9233-z

Gea-Sánchez, M., Alconada-Romero, Á., Briones-Vozmediano, E., Pastells, R., Gastaldo, D., & Molina, F. (2017). Undocumented immigrant women in Spain: A scoping review on access to and utilization of health and social services. *Journal of Immigrant and Minority Health, 19*, 194–204. https://doi.org/10.1007/s10903-016-0356-8

Gele, A. A., Musse, F. K., Shrestha, M., & Qureshi, S. (2020). Barriers and facilitators to contraceptive use among Somali immigrant women in Oslo: A qualitative study. *PLoS One, 15*, 1–15. https://doi.org/10.1371/journal.pone.0229916

Gil-Lacruz, A. I., Gil-Lacruz, M., & Bernal-Cuenca, E. (2012). Socio-economic determinants of abortion rates. *Sexuality Research and Social Policy Journal of NSRC, 9*, 143–152. https://doi.org/10.1007/s13178-011-0056-z

González-Rábago, Y., Rodriguez-Alvarez, E., Borrell, L. N., & Martín, U. (2017). The role of birthplace and educational attainment on induced abortion inequalities. *BMC Public Health, 17*, 1–7. https://doi.org/10.1186/s12889-016-3984-y

Guillaume, A., & Rossier, C. (2018). Abortion around the world. An overview of legislation, measures, trends, and consequences. *Population, 73*, 217–306. https://doi.org/10.3917/popu.1802.0225

Hasstedt, K., Desai, S., & Ansari-Thomas, Z. (2018). Immigrant women's access to sexual and reproductive health coverage and care in the United States. *Issue Brief (Commonwealth Fund), 2018*, 1–10.

Heino, A. E., Gissler, M., Malin, M., & VÄisÄnen, H. (2020). Induced abortions by woman's country of origin in Finland 2001–2014. *Scandinavian Journal of Public Health, 48*, 88–95. https://doi.org/10.1177/1403494818812640

Helfferich, C., Hessling, A., Klindworth, H., & Wlosnewski, I. (2014). Unintended pregnancy in the life-course perspective. *Advances in Life Course Research.* https://doi.org/10.1016/j.alcr.2014.04.002

Helström, L., Zätterström, C., & Odlind, V. (2006). Abortion rate and contraceptive practices in immigrant and Swedish adolescents. *Journal of Pediatric and Adolescent Gynecology, 19*, 209–213. https://doi.org/10.1016/j.jpag.2006.02.007

Hiemstra, N. (2021). Mothers, babies, and abortion at the border: Contradictory U.S. policies, or targeting fertility? *Environment and Planning C: Politics and Space, 39*, 1692–1710. https://doi.org/10.1177/2399654421998368

Jones, R. K., Darroch, J. E., & Henshaw, S. K. (2002). Patterns in the socioeconomic characteristics of women obtaining abortions in 2000–2001. *Perspectives on Sexual and Reproductive Health, 34*, 226. https://doi.org/10.2307/3097821

Kessler, K., Goldenberg, S. M., & Quezada, L. (2010). Contraceptive use, unmet need for contraception, and unintended pregnancy in a context of Mexico-U.S. migration. *Field Actions Science Reports. The Journal of Field Actions, Special Issue 2*. https://journals.openedition.org/factsreports/534

Keygnaert, I., Guieu, A., Ooms, G., Vettenburg, N., Temmerman, M., & Roelens, K. (2014). Sexual and reproductive health of migrants: Does the EU care? *Health Policy, 114*, 215–225. https://doi.org/10.1016/j.healthpol.2013.10.007

Kitagawa, E. M. (1955). Components of a difference between two rates. *Journal of the American Statistical Association, 50*(272), 1168–1194. https://doi.org/10.2307/2281213

Lara, D., Holt, K., Peña, M., & Grossman, D. (2015). Knowledge of abortion laws and services among low-income women in three United States cities. *Journal of Immigrant and Minority Health, 17*, 1811–1818. https://doi.org/10.1007/s10903-014-0147-z

Llorente-Marrón, M., Díaz-Fernández, M., & Méndez-Rodríguez, P. (2016). Determinantes contextuales del aborto inducido: un análisis panel. *Revista de Saúde Pública, 50*, 8. https://doi.org/10.1590/S1518-8787.2016050005917

Loeber, O. (2008). Sexual and reproductive health issues of Turkish immigrants in the Netherlands. *European Journal of Contraception and Reproductive Health Care, 13*, 330–338. https://doi.org/10.1080/13625180802303626

Lonergan, G. (2012). Reproductive justice and migrant women in Great Britain. *Women: A Cultural Review, 23*, 26–45. https://doi.org/10.1080/09574042.2012.644490

Makenzius, M., Tydén, T., Darj, E., & Larsson, M. (2011). Repeat induced abortion: a matter of individual behaviour or societal factors? A cross-sectional study among Swedish women. *European Journal of Contraception and Reproductive Health Care, 16*, 369–377. https://doi.org/10.3109/13625187.2011.595520

Malin, M., & Gissler, M. (2008). Induced abortions among immigrant women in Finland. *Finnish Journal of Ethnicity and Migration, 3*, 2–12.

Marti Castaner, M., Slagstad, C., Damm Nielsen, S., & Skovdal, M. (2022). Tactics employed by health-care providers in the humanitarian sector to meet the sexual and reproductive health-care needs of undocumented migrant women in Denmark: A qualitative study. *Sexual and Reproductive Health-care, 34*, 100785. https://doi.org/10.1016/j.srhc.2022.100785

Mengesha, Z. B., Dune, T., & Perz, J. (2016). Culturally and linguistically diverse women's views and experiences of accessing sexual and reproductive health care in Australia: A systematic review. *Sexual Health, 13*, 299–310. https://doi.org/10.1071/SH15235

Metusela, C., Ussher, J., Perz, J., Hawkey, A., Morrow, M., Narchal, R., Estoesta, J., & Monteiro, M. (2017). "In My Culture, We Don't Know Anything About That": Sexual and reproductive health of migrant and refugee women. *International Journal of Behavioral Medicine. 24*, 836–845. https://doi.org/10.1007/s12529-017-9662-3

Ministerio de Sanidad. (2022). *Interrupción Voluntaria del Embarazo. Datos definitivos correspondientes al año 2021* [Data file]. Ministerio de Sanidad.

Mitchell, K. R., Lewis, R., O'Sullivan, L. F., & Fortenberry, J. D. (2021). What is sexual wellbeing and why does it matter for public health? *The Lancet Public Health, 6*, e608–e613. https://doi.org/10.1016/S2468-2667(21)00099-2

Moreau, C., Trussell, J., & Bajos, N. (2013). Religiosity, religious affiliation, and patterns of sexual activity and contraceptive use in France. *European Journal of Contraception & Reproductive Health-care, 18*, 168–180. https://doi.org/10.3109/13625187.2013.777829

Orjuela, M., Ronda, E., & Regidor, E. (2009). Contribución de la inmigración al incremento de las interrupciones voluntarias del embarazo. *Medicina Clínica, 133*(6), 213–216. https://doi.org/10.1016/J.MEDCLI.2008.10.064

Ostrach, B. (2013). 'Yo no sabía...' – Immigrant women's use of national health systems for reproductive and abortion care. *Journal of Immigrant and Minority Health, 15*(2), 262–272. https://doi.org/10.1007/s10903-012-9680-9

Ostrach, B. (2020). Publicly funded abortion and marginalised people's experiences in Catalunya: A longitudinal, comparative study. *Anthropology in Action, 27*(1), 24–34. https://doi.org/10.3167/aia.2020.270103

Paquier, L., Barlow, P., Paesmans, M., & Rozenberg, S. (2020). Do recent immigrants have similar obstetrical care and perinatal complications as long-term residents? A retrospective exploratory cohort study in Brussels. *BMJ Open, 10*, 1–8. https://doi.org/10.1136/bmjopen-2019-029683

Pellico-López, A., Paz-Zulueta, M., Manjón-Rodríguez, J. B., Sánchez Movellán, M., Ajo Bolado, P., García-Vázquez, J., Cayón-De las Cuevas, J., & Ruiz-Azcona, L. (2022). Evolution of legislation and the incidence of elective abortion in Spain: A retrospective observational study (2011–2020). *International Journal of Environmental Research and Public Health, 19*(15), 9674. https://doi.org/10.3390/ijerph19159674

Perez, G., Gotsens, M., Cevallos-García, C., & Domínguez-Berjón, F. (2019). The impact of the economic recession on inequalities in induced abortion in the main cities of Spain. *European Journal of Public Health, 29*(2), 279–281. https://doi.org/10.1093/eurpub/cky250

Pérez, G., Ruiz-Muñoz, D., Gotsens, M., Casals, M., & Rodríguez-Sanz, M. (2013). Social and economic inequalities in induced abortion in Spain as a function of individual and contextual factors. *European Journal of Public Health, 24*(1), 162–169. https://doi.org/10.1093/eurpub/ckt104

Pérez-Urdiales, I. (2021). Undocumented immigrants' and immigrant women's access to healthcare services in the Basque Country (Spain). *Global Health Action, 14*(1), 1896659. https://doi.org/10.1080/16549716.2021.1896659

Picavet, C., Goenee, M., & Wijsen, C. (2013). Characteristics of women who have repeat abortions in the Netherlands. *European Journal of Contraception & Reproductive Health-care, 18*, 327–334. https://doi.org/10.3109/13625187.2013.820824

Pilecco, F. B., Guillaume, A., Ravalihasy, A., Desgrées du Loû, A., & Parcours Study Group A. (2020). Induced abortion and migration to metropolitan Paris by Sub-Saharan African women: The role of intendedness of pregnancy. *Journal of Immigrant and Minority Health, 22*, 682–690. https://doi.org/10.1007/s10903-019-00956-9

Rasch, V., Gammeltoft, T., Knudsen, L. B., Tobiassen, C., Ginzel, A., & Kempf, L. (2008). Induced abortion in Denmark: Effect of socio-economic situation and country of birth. *European Journal of Public Health, 18*, 144–149. https://doi.org/10.1093/eurpub/ckm112

Rodriguez-Alvarez, E., Borrell, L. N., González-Rábago, Y., Martín, U., & Lanborena, N. (2016). Induced abortion in a southern European region: Examining inequalities between native and immigrant women. *International Journal of Public Health, 61*, 829–836. https://doi.org/10.1007/s00038-016-0799-7

Rossier, C. (2003). Estimating induced abortion rates: A review. *Studies in Family Planning, 34*, 87–102. https://doi.org/10.1111/j.1728-4465.2003.00087.x

Rossier, C., Michelot, F., Bajos, N., & the COCON Group. (2007). Modeling the process leading to abortion: An application to French survey data. *Studies in Family Planning, 38*, 163–172. https://doi.org/10.1111/j.1728-4465.2007.00128.x

Ruiz Ramos, M., Ivañez-Gimeno, L., & García-León, F. J. (2012). Características sociodemográficas de la interrupción voluntaria del embarazo en Andalucía: diferencias entre población autóctona y extranjera. *Gaceta Sanitaria, 26*(6), 504–511. https://doi.org/10.1016/j.gaceta.2011.11.017

Ruiz Salguero, M. T., Cabré, A., Castro, T., & Solsona, M. (2008). *Anticoncepción y salud reproductiva en España: Crónica de una (r)evolución*. Consejo Superior de Investigaciones Científicas.

Schmidt, N. C., Fargnoli, V., Epiney, M., & Irion, O. (2018). Barriers to reproductive health care for migrant women in Geneva: A qualitative study. *Reproductive Health, 15*, 1–10. https://doi.org/10.1186/s12978-018-0478-7

Sihvo, S., Bajos, N., Ducot, B., & Kaminski, M. (2003). Women's life cycle and abortion decision in unintended pregnancies. *Journal of Epidemiology and Community Health, 57*, 601–605. https://doi.org/10.1136/jech.57.8.601

Singh, N., Pripp, A. H., Brekke, T., & Stray-Pedersen, B. (2010). Different sex ratios of children born to Indian and Pakistani immigrants in Norway. *BMC Pregnancy and Childbirth, 10*. https://doi.org/10.1186/1471-2393-10-40

Tapales, A., Douglas-Hall, A., & Whitehead, H. (2018). The sexual and reproductive health of foreign-born women in the United States. *Contraception, 98*, 47–51. https://doi.org/10.1016/j.contraception.2018.02.003

Tirado, V., Ekström, A. M., Orsini, N., Hanson, C., & Strömdahl, S. (2023). Knowledge of the abortion law and key legal issues of sexual and reproductive health and rights among recently arrived migrants in Sweden: A cross-sectional survey. *BMC Public Health, 23*, 551. https://doi.org/10.1186/s12889-023-15399-z

Tone, A. (2002). Historical influences on women's sexual and reproductive health. In G. M. Wingood & R. J. DiClemente (Eds.), *Handbook of women's sexual and reproductive health* (pp. 7–19). Springer.

Tousaw, E., La, R. K., Arnott, G., Chinthakanan, O., & Foster, A. M. (2017). "Without this program, women can lose their lives": Migrant women's experiences with the Safe Abortion Referral Programme in Chiang Mai, Thailand. *Reproductive Health Matters, 25*, 58–68. https://doi.org/10.1080/09688080.2017.1392220

Urpis, O. (2019). Sexual and reproductive health as an indicator of social integration: The obstacle of a patriarchal culture and forced marriage in migrant communities. In S. Ličen, I. Karnjuš, & M. Prosen (Eds.), *Women, migrations and health. Ensuring transcultural health-care* (pp. 23–34). University of Primorska Press.

Väisänen, H. (2015). The association between education and induced abortion for three cohorts of adults in Finland. *Population Studies, 69*, 373–388. https://doi.org/10.1080/00324728.2015.1083608

Väisänen, H., Koponen, P., Gissler, M., & Kontula, O. (2018). Contraceptive use among migrant women with a history of induced abortion in Finland. *The European Journal of Contraception & Reproductive Health Care, 23*, 274–281. https://doi.org/10.1080/13625187.2018.1483019

Väisänen, H., & Batyra, E. (2021). Unintended pregnancy resolution among parous women in twelve low- And middle-income countries. *Journal of Biosocial Science, 54*, 698–724. https://doi.org/10.1017/S0021932021000225

Vangen, S., Eskild, A., & Forsen, L. (2008). Termination of pregnancy according to immigration status: A population-based registry linkage study. *BJOG: An International Journal of Obstetrics and Gynaecology, 115*, 1309–1315. https://doi.org/10.1111/j.1471-0528.2008.01832.x

Wanigaratne, S., Wiedmeyer, M. L., Brown, H. K., Guttmann, A., & Urquia, M. L. (2020). Induced abortion according to immigrants' birthplace: A population-based cohort study. *Reproductive Health, 17*, 1–13. https://doi.org/10.1186/s12978-020-00982-z

World Health Organization (WHO). (2019). *Sexual and reproductive health fact sheet 2019*. WHO website: https://www.afro.who.int/sites/default/files/2020-06/Sexual%20and%20reproductive%20health-%20Fact%20sheet%2028-05-2020.pdf

Wilder, E. I. (2000). Socioeconomic and cultural determinants of abortion among Jewish women in Israel. *European Journal of Population, 16*, 133–162. https://doi.org/10.1023/A:1006351225920

Zuniga, C., Ragosta, S., & Thompson, T. (2023). Recruiting foreign-born individuals who have sought an abortion in the United States: Lessons from a feasibility study. *Frontiers in Global Women's Health, 4*, *1114820*. https://doi.org/10.3389/fgwh.2023.1114820

Zurriaga, O., Martínez-Beneito, M. A., & Galmés Truyols, A. (2009). Recourse to induced abortion in Spain: Profiling of users and the influence of migrant populations. *Gaceta Sanitaria, 23*, 57–63. https://doi.org/10.1016/j.gaceta.2009.09.012

Chapter 7
The Pandemic's Most Forgotten Population? The Impact of COVID-19 on the Health and Living Conditions of Newly Arrived Immigrants in Spain

Olaya García-Vázquez, Cecilia Estrada Villaseñor, and Carmen Meneses-Falcón

7.1 Introduction

In a continuum throughout human history since ancient times, epidemics and pandemics have increased over time. Sixteen pandemics occurred between 1347 and 2019, resulting in 141 million deaths, with the Black Death and the 1918 influenza pandemic having the most significant consequences (Wren et al., 2022). Many causes have been associated with these pandemics, such as increasing globalization processes, global transport systems, travel to and from many regions, population growth, closer relationships with wild animals, which may transmit pathogens in human habitats, and social behaviors that lead to massive population concentrations within dense urban environments (Bhadoria et al., 2021). At the same time, societies are increasingly prepared to deal with these epidemics and pandemics, and international collaboration has been essential to slow their spread and create possible vaccine measures to stop them (Bhadoria et al., 2021).

Considering the combination of contemporary migration and public health policies, however, the intricate relationship between disease transmission and human

O. García-Vázquez (✉)
Quantitative Methods Department, Universidad Pontificia Comillas, Madrid, Spain
e-mail: ogarciav@comillas.edu

C. Estrada Villaseñor
University Institute of Studies on Migration (IUEM), Universidad Pontificia Comillas, Madrid, Spain

Refugee and Forced Migrants, Universidad Pontificia Comillas, Madrid, Spain
e-mail: cestrada@comillas.edu

C. Meneses-Falcón
Sociology Department and Social Work, Faculty of Humanities and Social Sciences, Universidad Pontificia Comillas, Madrid, Spain
e-mail: cmeneses@comillas.edu

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*, IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_7

mobility distinguishes the case of the COVID-19 pandemic, making its study of paramount importance. Especially in Europe, several governments unjustly linked the spread of COVID-19 to immigrants, resulting in increased xenophobia and policy restrictions, both in terms of access to healthcare and integration into society (Fouskas et al., 2022; Katsambekis & Stavrakakis, 2020; Perna & Moreno, 2021; WHO, 2020). In this context, some European countries implemented public health measures to restrict the entry of irregular immigrants (Baldacchino, 2021; Montagna, 2023).

In December 2019, the COVID-19 pandemic began in Wuhan, China, and initially spread to 72 countries. The mortality among certain immigrant groups during the pandemic was found to be higher than that among native populations, which could be explained by their differential exposure to the virus (e.g., due to their precarious employment and overcrowded accommodation), and language barriers in understanding government measures and recommendations (Aldea, 2022). Although there is no evidence indicating a higher rate of SARS-CoV-2 transmission among immigrants and refugees, another study found that overcrowding in reception centers might have increased their risk of exposure to COVID-19 (ECDC, 2020).

Central to our investigation is the overarching observation that despite clear vulnerabilities, access to universal healthcare services was inconsistently extended to undocumented immigrants during the COVID-19 pandemic (ECDC, 2020; Freier et al., 2020; Orcutt et al., 2020). Some European countries, including Greece, Italy, Malta, and Spain, offered free emergency healthcare services related to COVID-19 for undocumented immigrants (WHO, 2021). However, these undocumented immigrants faced numerous barriers, such as limited social networks, unfamiliarity with the healthcare system, and cultural and language barriers (De Vito et al., 2016), which prevented them from seeking care on equal terms to natives. Within the setting of immigrant reception and detention centers, it is essential to engage community and communicate health information taking into account the diverse language, cultural, and health literacy requirements of these population (ECDC, 2020). Furthermore, cutbacks in universal healthcare were linked to the rise of xenophobia, discrimination, and antimigration political discourses (Katsambekis & Stavrakakis, 2020; WHO, 2020), which deepened during the COVID-19 pandemic. Therefore, the violation of immigrants' human right to healthcare at the southern European border was seen as part of the European Union's migration policy related to the restriction and containment of migratory flows during the pandemic (Baldacchino, 2021; Stierl & Dadusc, 2022).

These restrictive policies and limited access to healthcare for immigrants were compounded by the effects of the economic crisis during the pandemic. At the global level, high inflation, unemployment, and social distancing requirements led many immigrants to return to their countries of origin, with economic consequences for their families regarding incoming remittances (World Bank Group, 2020). Although some people pointed out that immigrant workers were essential for economic sectors during the COVID-19 pandemic, such as agricultural or domestic work, this need did not lead to changes in policy or attitude in Europe (Parella Rubio, 2021; Sajir et al., 2022). Furthermore, foreign workers' precarious living

conditions and risk of infection were more prevalent than among native workers (Bofill-Poch & Gil, 2021; Reid et al., 2021).

Considering the Spanish context, the Spanish government decreed a national lockdown in 2020 from March 14th to June 21st, when everyone was confined to their homes except for essential workers. These government measures also contemplated border closures with little consideration for populations with precarious living conditions, such as immigrants. The relationship between living conditions and border closures during the COVID-19 pandemic for the immigrant population in Spain and Europe is complex. Among the various aspects, mobility restrictions affected their job opportunities and exacerbated their precarious living conditions, job losses, and difficult access to healthcare and social benefits (Fouskas et al., 2022; Freier et al., 2020).

Access to healthcare was particularly crucial during the pandemic, especially for immigrants. In Spain, of the 4.7 million infections up to November 2020, 13.1% were among immigrants (Ministry of Health, 2020). In addition, since 2012, confusion has reigned around immigrants' right to access healthcare and the withdrawal of thousands of health documents from immigrants (Ruiz-Azarola et al., 2020), as described in Chap. 2. In addition, regional differences in healthcare access in Spain led Madrid and the Canary Islands to experience more difficulties while Catalonia and Andalusia had better access, as described in Chaps. 2 and 5 (YosíSanidad Universal, 2022). Immigrants entered many Mediterranean countries in 2020, with almost 42,000 immigrants arriving in Spain by sea (UNHCR, 2021a), 34,000 immigrants arriving in Italy, 15,000 in Greece, and 2000 in Malta.

Little is known about how these pandemic-related restrictions influenced certain aspects of daily life, such as living conditions, access to healthcare, food insecurity, addiction problems, violence, or physical insecurity among non-European immigrants who arrived in Spain during the COVID-19 pandemic. We aim to provide a qualitative view of the relationship between this migration group and their health by considering a broader understanding of health beyond purely medical factors, drawing from the sociology of health literature. This chapter elucidates these multifaceted challenges by spotlighting the intricate and often overlooked dimensions of the effect of the pandemic on immigrants. In doing so, we can foster a deeper understanding of related issues, which will lead to more inclusive and informed public healthcare decisions during future health crises.

This chapter uses qualitative methods to explore the following objectives: (1) provide a descriptive account of the living conditions experienced by non-European immigrants who arrived by small boats or over land at the southern Spanish border during the COVID-19 pandemic; (2) capture how these immigrants accessed healthcare services during the pandemic to understand the barriers and facilitators they encountered in Spain; and (3) explore the impacts of the pandemic on their well-being, including nutrition and addiction problems, exposure to violence, and physical insecurity. Hence, this chapter discusses the conceptual framework, some methodological aspects, the results obtained, and draws some conclusions about our research findings.

7.2 Conceptual Framework

Our research approach goes beyond a strictly clinical or medical conception of well-being and includes a comprehensive understanding of social, physical, and psychological well-being. This framework is in line with the World Health Organization's (WHO) definition of health and immigrants' social determinants of health, including their differential access to healthcare and exposure to COVID-19 due to their working or living conditions, as highlighted in Chap. 5 (Juárez et al., 2023).

In this context, the connection between housing (i.e., living conditions) and health has been evident as a social determinant of health for many years (Krieger & Higgins, 2002), as inadequate housing conditions are linked to physical and mental health problems. In this regard, poor housing conditions had a more detrimental effect on immigrants' well-being during the COVID-19 pandemic (Bueno Doral et al., 2021). Despite successful integration and adaptation to the culture and norms of the host society, immigrants still face inequalities and difficulties compared with Spanish-born in terms of well-being (as will be discussed in Chap. 9).

Despite its widespread impacts on immigrants, the COVID-19 pandemic has been shown to worsen the axis of socioeconomic inequalities, requiring the pandemic to be analyzed according to ethnoracial, migration, age, and gender categories (Etowa & Hyman, 2021). Some studies have pointed out that COVID-19 has affected populations very differently, considering contagion, development of infection, and deaths, with some disproportionate differences between ethnic minorities and immigrants (Gomez-Aguinaga et al., 2021; Guijarro et al., 2021). Hence, the sub-Saharan, Caribbean, and Latin American immigrant populations were at higher risk of COVID-19 infection than national populations and other immigrants from Europe, North America, Africa, or Asia. Different variables, such as identity, gender, race, class, sexuality, and disability, intersect to shape individuals' opportunities in society. We found many significant factors among immigrants in Europe that contribute to their undervaccination, such as African origin, recent migration, and being a refugee or asylum seeker (Crawshaw et al., 2022). South American and sub-Saharan immigrants experienced the most significant impacts on mortality during the two main waves of the COVID-19 pandemic in Spain, as Asian immigrants suffered disproportionately high mortality impacts, particularly among working-age individuals (Aldea, 2022). In this sense, older age (Yuguero et al., 2021), female gender, and undocumented status (Gomez-Aguinaga et al., 2021) had a more negative impact on immigrants' well-being during the pandemic. Considering immigrants' access to healthcare services during the COVID-19 pandemic in Portugal, the pandemic may have exacerbated their difficulties, particularly among women, individuals with lower income, and those who perceived themselves to be at moderate or high risk of COVID-19 infection (Gama et al., 2022).

The literature prior to the COVID-19 pandemic indicated that migratory status and migration circumstances affected immigrants' well-being. Previous studies have demonstrated that the age at which individuals migrate impacts their subsequent integration in various domains, including the residential, labor, and marriage

markets (Aslund et al., 2009). Furthermore, the mode of arrival, such as by small boat, and housing security (Achotegui et al., 2010; Theodosopoulou et al., 2021), had a significant negative impact on immigrants' well-being. Due to their different exposure to certain risks, undocumented female immigrants who arrive in Spain by *patera* (i.e., small boats) should receive emergency care, including gynecological examinations to detect sexual violence and investigations to identify trafficking situations (Jiménez-Lasserrotte et al., 2020). Furthermore, nationality of origin and the amount of time spent living in the destination country (Achotegui et al., 2015) had a negative impact on the immigrant population's overall well-being.

7.3 Methods

7.3.1 Design

This study used a qualitative method, and semi-structured interviews were conducted with key informants who worked with immigrants during the COVID-19 pandemic. The semi-structured interviews were conducted to improve our understanding of the health and living conditions of the immigrant population in Spain. To achieve this goal, we conducted interviews with migration professionals working in civil society organizations, such as social workers, lawyers, educators, doctors, psychologists, and social integrators. An interview script with 15 questions was designed to obtain information about immigrants' access to healthcare, well-being, the impact of socioeconomic conditions on their access to healthcare, and protection against COVID-19 infection. Due to time and resource constraints, it was not possible to contact the immigrant population directly. The objective, therefore, was not to reflect the experience of individual immigrants but to explore the interventions with this group during the first year of the pandemic and the differences within the immigrant groups attended by civil society organizations. In this sense, it is important to note that the professionals involved in this study faced challenges in conducting the interviews due to the demanding working conditions and professional burnout they experienced. The interviews lasted an average of 50 min and were conducted on the Microsoft Teams platform. All interviews were conducted in Spanish, although English was offered as an optional interview language. All of the quotes presented in this chapter are translated into English of the original Spanish. These interviews were conducted between April 1st and June 26th, 2022.

Criteria for rigor and quality of qualitative research were followed. First, subject triangulation was used to identify different civil society organizations to interview. Second, the criterion of reliability was followed to ensure coherence between the objectives, research techniques, and research questions. Third, the research team was triangulated, and interviews were conducted, transcribed, and coded separately by a minimum of two researchers. If there was any doubt about the analysis results, the third researcher made the final coding decision.

7.3.2 Sampling

The inclusion criterion was individuals working with immigrants during the COVID-19 pandemic lockdowns in Spain. The sampling was initially conducted by contacting partner organizations of the university and then spread through a snowball effect. When the first organizations were interviewed, they referred us to other colleagues or entities. Contact was made by email to invite people to participate in the research project. Diversity and heterogeneity were sought among the interview subjects (Table 7.1), such as interviewees from different Spanish regions, different occupations among the professional staff, different immigrant groups with whom they work, and their immigrant clients' different lengths of stay in Spain (e.g., recently arrived, already settled, or already integrated or established). Regions identified earlier as having limited (e.g., Madrid and the Canary Islands) or more favorable access (e.g., Catalonia and Andalusia) to healthcare for undocumented immigrants were prioritized in our sampling process (YosíSanidad Universal, 2022). While this research project was comprehensive, to meet the length requirements, this chapter focuses exclusively on data related to the experiences of recently or newly arrived immigrants at the southern Spanish Moroccan land border and the southern border of the Canary Islands during the initial months of the COVID-19 pandemic in Spain.

Despite these contributions, there are some limitations due to the sample size. In this sense and following the purpose of qualitative methodology (Polit and Beck, 2010), this study did not attempt to show a representative reality or quantify a phenomenon but rather to understand how the immigrant population in Spain was impacted by the COVID-19 pandemic.

Table 7.1 Interviewee characteristics

	Occupation	Organization type	Location	Gender
1	Social integrator	NGO	Canary Islands	Female
2	Doctor	Healthcare service	Madrid	Female
3	Psychologist	International organization	Canary Islands	Female
4	Educator	NGO	Cataluña	Female
5	Social worker	NGO	Madrid	Female
6	Social worker	NGO	Melilla	Female
7	Lawyer	NGO	Spain	Female
8	Educator	NGO	Madrid	Female
9	Lawyer	NGO	Spain	Female
10	Social worker	Social service	Cataluña	Female

Note: Nongovernmental organization (NGO). What is more, interviewees located in "Spain" provided a country overview instead of a regional view

7.3.3 Ethics

The University's Ethics Committee reviewed this study. The research purpose, anonymity guarantee, and data confidentiality were explained to the interviewees, who signed their informed consent. Any doubts were resolved before the start of the interview. All (n = 10) interviewees agreed to participate and to be recorded. The researchers themselves transcribed the interviews for analysis. All interview records were stored securely by the research team. Only aggregated data are presented to protect the anonymity of the interviewees, that is, their gender, the region where they worked, and their occupation.

7.3.4 Analysis

Our analysis attempted to capture both points of convergence or experiences and notable divergences (i.e., analyses of deviant cases). OG-V and CE-V agreed upon the initial categories: namely, economic, social, health, legal administrative, and migratory journey. Considering the analysis in this chapter, we focused on the results from the final category: namely, health and well-being. With regard to health outcomes, NVivo 12 software (Lumivero, Denver, CO, USA) was used to analyze the information in three categories, and themes emerged based on the dimensions affected by the COVID-19 pandemic: (1) immigrants' living conditions during pandemic lockdowns; (2) immigrants' access to healthcare during the first months of the pandemic; and (3) situations of violence or physical insecurity among the immigrant population. Each theme is explored in more detail below.

7.4 Evidence

7.4.1 Living Conditions During Pandemic Lockdowns

According to the interviewees, non-European immigrants who recently arrived by entering either through small boats or by land at the southern Spanish border during the COVID-19 pandemic were often in irregular situations. Many interviewees observed that following the closure of borders, many newly arrived immigrants were trapped in the city where they were living and could not continue their migratory route. During the first months of the pandemic, many lived in temporary emergency shelters and Centers for Temporary Stay of Immigrants (CETIs) on the southern Spanish border, where they received emergency medical care, psychological care, food, and referral to public healthcare services. However, the interviewees reported various problems, including inadequate temperature, overcrowded

accommodation, insufficient toilets and showers, lack of cleaning or disinfection, insufficient healthcare personnel, and substandard housing in tents:

> There are plastic tents in one of the worst areas on the island of Tenerife, where there is brutal humidity. It's freezing cold when it rains … it rains in torrents, torrents that flood everything. And when it's hot, it's very hot. So, it's horrible, and then, on top of that, they're sleeping on what would be like a stretcher in the infirmary with a mattress with a mat on top of it that is full of fungus. (Social integrator, Canary Islands)

According to the interviewees, immigrants' lack of work permits pushes them into precarious economic sectors in their efforts to stay in Spain, such as agriculture, domestic work, or prostitution. In line with this issue, COVID-19 infections exposed inequalities in the immigrants' protection against COVID-19 because many had to continue working while sick to support themselves economically and did not have sufficient space for individual isolation, which made them more exposed to COVID-19 infections. According to key informants, this lack of personal space led to false home confinements of healthy people that lasted for months and prevented these immigrants from following their migratory journeys. Once the pandemic lockdowns ended, the reported difficulties in continuing migratory journeys were the lack of transfers from the Canary Islands to mainland Spain, either by plane or boat, and the high cost of antigen testing:

> There were even people who experienced multiple quarantines. The maximum was … I remember that person, who I think is now traumatized for life because they spent approximately 70 days [in quarantine]. (Social integrator, Canary Islands)

> There have been people who have spent two months in the COVID centre and from there they have gone directly to the peninsula, because they have always been in quarantine, in quarantine, not real quarantine. Because, moreover, quarantines are very badly managed, if you put some kids in a room, they are in quarantine, a new element also arrives in the room for the others. Once again, those who have done the previous quarantine have to quarantine again. (Social worker, Melilla)

> When the incidence of COVID-19 infections decreased a little, the migrants could start traveling to other countries. Of course, many were not vaccinated, and they couldn't afford an antigen test to be able to travel. Leaving the country was very difficult for them too, as they had to save a lot of money to be able to pay for the test. (Social integrator, Canary Islands)

Considering nutrition, the interviewees widely reported that immigrants on Spain's southern border did not usually have facilities where they could cook. The incompatibility of mealtimes with their work schedules was mentioned and consequently, some immigrants did not have the chance to eat proper meals in their shelters. Many problems were reported in relation to the quality of food, such as the lack of hot, nutritious, and healthy food, where only sandwiches and cold meals were provided. The interviewees reported the negative impact of this lack of nutritious food on immigrants' health, such as eating disorders, insomnia, psychological problems, and stomach issues:

> It's not just that lack of nutrition has physical consequences, like constipation, or the other way around, stomach problems, but also sadness as a consequence. Perhaps I can describe

> this more clearly as the sadness of eating the same thing every day. Imagine eating bad airplane food for 2 months without a break. (Social integrator, Canary Islands)

The interviewees mentioned a lack of specialized care for newly arrived immigrants' addiction disorders. In accordance with Chap. 5, the absence of treatment for drug dependencies drives certain immigrants to prioritize this pressing need over other dimensions of sociolegal integration in their country of origin. The consumption of alcohol or psychoactive substances was prohibited in emergency centers; however, immigrants' drug problems were not managed adequately because of the lack of space or qualified staff. For example, professionals at the Moroccan CETI in Melilla lacked specialized training in drug addiction (Doctors of the World, 2021), which made it difficult for the CETI to treat immigrants with this type of problem. Hence, some of the interviewees reported how this lack of attention to addiction and substance abuse caused coexistence issues:

> Many people come with drug addiction problems from their country of origin. In addition, buying alcohol when the shops are closed is impossible. Of course, the level of abstinence and the symptoms that go with it are quite aggravated. (Psychologist, Canary Islands)

7.4.2 Access to Healthcare

The interviewees reported that immigrants experienced several difficulties during the pandemic lockdowns related to the issuing of health documentation to access the healthcare system, such as delays in obtaining their health cards, updating expired documentation, lack of specialized healthcare, and lack of access to the COVID-19 vaccination campaign. Some of the interviewees mentioned the fundamental role of some NGOs and organizations working with the public administration to issue health documentation, thus guaranteeing access to healthcare and the COVID-19 vaccination campaign for immigrants who successfully completed the process. However, immigrants' access to healthcare differed across Spanish regions, as the interviewees reported regional differences in immigrants' healthcare access. For example, an interviewee from Catalonia reported having generalized access to all immigrants in an irregular situation during the pandemic:

> In Catalonia, no, we have not had such pressing problems as in other regions since 2012, when a health reform took place in which human rights were restricted in what would have been universal healthcare. The principle was universal and so on, but the principle disappeared with the change of government. However, Catalonia has always maintained a health policy in which we have not detected any serious incidents. (Lawyer, Catalonia)

> We did work a lot in coordination with the equality department and with the hospital to be able to attend to them [immigrants], even if they did not bring the proper documentation to be able to obtain their health card or general practitioner. And later on, we managed to get them vaccinated just by sending their name and details to the hospital's social worker. (Social educator, Madrid)

Despite the best efforts of civil society organizations, the perception of all of the interviewees was that immigrants' health vulnerabilities had increased. Among other reasons, the interviewees mentioned the shortcomings of healthcare personnel in organizations managing emergency resources, the shortcomings of primary care in public healthcare systems in some regions, such as Madrid, the lack of information on the immigrant population's health-related rights, and their fear of deportation. In this sense, the interviewees described the need for an intercultural approach to healthcare when explaining the COVID-19 virus to newly arrived immigrants who were unaware of how it was transmitted, how it was prevented, asymptomatic cases, and the importance of social distancing and home confinement:

> This fear was conditioned by information deficiencies, such as an immigrant person not having their documentation updated, of being afraid that they have not renewed their red card, "what is going to happen? are they going to kick me out of the country?" Or "I don't have a health card; when this happens I will need an appointment because I have gynecologic, psychological, psychiatric, psychiatric body swelling, or traumatic sequelae, how can I get this visit from a specialized doctor who will heal me?" (Lawyer, Madrid)

> The health promotion team had a lot of practical COVID-19 related talks daily. Several explanatory videos were made on this topic. Much education was conducted because this was very difficult for us. When they started to understand, there was a huge change in attitude [among immigrants], in wanting to get vaccinated, in wanting to get tested [for COVID-19]. (Psychologist, Canary Islands)

In this vein, several interviewees pointed to the lack of cultural mediators as one of the major healthcare shortcomings, for example understanding the need to respect sacred festivals, such as Ramadan, or the HIV/AIDS taboo for many people from African countries. According to the interviewees, health tests and prevention workshops were held in the CETIs in Melilla and the Canary Islands. However, the lack of interpreters or translated reports meant that communication about health-related issues was not always comprehensible for immigrants. In cases where interpreters were present, the Canary Island interviewees reported that the health centers prevented the interpreter from entering the consultation room because of the necessary application of COVID-19 protocols. As a consequence, immigrant patients may have had a limited understanding of the health issue they were experiencing. In addition, one interviewee from the Canary Islands reported discrimination in the treatment of immigrants who were forced to wait outside healthcare facilities:

> By the way, staff from the hospital or from another health center where we sometimes refer people, things that happened, like they [medical staff] made them [immigrants] wait in the street, with the rest of the local patients inside. (Social integrator, Canary Islands)

Several interviewees from Spain's southern border also mentioned the genetic differences or a lower number of health problems between immigrants of certain nationalities and Spanish-born. This was partly explained by the interviewees as being related to the profile of the immigrants served by the NGOs, such as young age, genetics, predisposing risk factors, good health, resilience, chronicity of life in difficult situations, and vulnerability. However, one of the interviewees mentioned that the crisis caused by the pandemic encouraged the migration of people older

than usual because of the terrible situation in their home countries. The impact of age at migration was emphasized, with different age groups potentially facing distinct challenges and opportunities:

> It is also a population where practically all of them were asymptomatic when positive. I don't know why, I don't know if this was due to genetics, I don't know, I don't know if it was due to age, predisposing risk factors, I don't know, but the vast majority of the population was indeed asymptomatic when infected with COVID-19. Hence, the minority, the minority, had a slight fever. (Psychologist, Canary Islands)

> Economically, it [the situation] was brutal in many countries, much more than here [Spain]. They had to start a migratory process at the age of 40, at 50, when this was unthinkable for a person to reach the age of 40 and say they wanted to work. I saw this; we had never seen it before. (Lawyer, Catalonia)

7.4.3 Situations of Violence or Physical Insecurity

The poor living conditions of newly arrived immigrants in their temporary accommodation (such as lack of addiction treatment, overcrowding, and insufficient mental health professionals) had a negative impact on their coexistence and cohabitation in Spain. Hence, living in temporary accommodation centers, sharing accommodation with people from very different cultures, and living with people whose mental health had deteriorated (due to violence and migratory difficulties) became complicated. As a result, some of the interviewees reported cases of conflicts and violence in these temporary accommodations:

> [Emergency accommodation] *is known to have a lot of conflicts because administrations do not know how to manage it. And I think that one of the main reasons, apart from the fact that the conditions are degrading, in terms of weather and infrastructure, is because people don't understand each other. Imagine 2,400 people coming here with posttraumatic stress. (Social integrator, Canary Islands)*

> *Living together during the pandemic became complicated because they could not go out. They were women from many cultures together without being able to go out … Let's say that there was an increase in tension, the whole situation was very tense in general, and in terms of sharing spaces, there was little patience.* (Social educator, Madrid)

Considering the migratory journey, the interviewees reported immigrants' bereavement, loss of loved ones, disappearances, and deaths of immigrant peers on the southern Spanish and European borders. Some of the interviewees noted that the migratory route caused bereavement or negative impacts on immigrants' mental health related to leaving one's own country to look for a better life, the different incidences of violence or risks during the migratory route, the loss or death of loved ones, the traumatic experience of seeing people who travel with you die, and the arrival at a hostile border:

> Psychological duels are very common there; that is to say, immigrants' living conditions in their countries of origin are quite limited. So, of course, death is something quite common there, not only death in the family but death during the journey in small boats. Many arrived

> with a pile of dead bodies on their boat. That is to say, it is a very difficult experience. (Psychologist, Canary Islands)

> This whole issue is addressed in the area of health, but we also work in the area of health, we work on the whole issue of emotions, fundamentally on grief, loss, and emotions. We do all of this in workshops, because they must get everything out, all the hard things they have lived through—not only leaving their countries, where there is now a lot of violence—but all the violence of the route, even the violence of arriving here. All the losses experienced by family members, friends, and their own personal experiences. (Social worker, Melilla)

In relation to the Melilla border fence, which separates Morocco from Europe and Spain, an interviewee mentioned working with many newly arrived immigrants seeking asylum and international protection. During the first months of the COVID-19 pandemic in Melilla, however, there were reports of "illegal refoulement of immigrants," where foreigners were returned to Morocco without having had the opportunity to request asylum at the Morocco–Spain border. One interviewee described situations of physical violence perpetrated by Spanish Security Forces against immigrants at the Melilla border fence, which resulted in physical injuries among immigrants, who were sent back to Morocco and received treatment in health centers there. According to the interviewees, these incidents of violence were not isolated events but rather a response to the anti-immigrant or restrictive discourse of a political sector in the Spanish and European populations:

> They are beaten up on arrival. Wounded, they are taken in buses to wherever. We—who are in contact with Nador [Morocco]—the most seriously injured go to the hospital … they communicate with a computer because they are under surveillance until they are taken away. (Social worker, Melilla)

Acts of violence by uncontrolled groups of natives were also reported. In the case of the Canary Islands, the interviewees reported both aggression and xenophobic attitudes on the part of the native population toward immigrants living in temporary accommodation. This might be due to the myths of immigrants as spreaders of disease (Roca & de Balanzo, 2006), a narrative used against them with sometimes racist attacks (Fouskas et al., 2022). There is evidence of a sector of Spanish society spreading xenophobic discourse, characterized by contradiction, aggressiveness, and feelings of superiority, where foreigners are viewed as dangerous (OBERAXE, 2019). According to the interviewees, these aggressions resulted in hospitalizations, imprisonment, and intensive care. In the case of Melilla, one interviewee reported improper use of physical force by CETI workers against immigrants. In addition, according to several interviewees, the closure of the borders between Morocco and Spain for >2 years led to an increase in the number of dangerous and deadly routes attempted by *patera* or small boats, as was the case with the route to the Canary Islands or Portugal:

> The crossing of the Strait (of Gibraltar) was also much more controlled, and it was practically impossible to enter Europe there, which made people try to find their way to go elsewhere. Some cases were even documented of reaching Portugal, which had never happened before, from [place] to Portugal, all in a small boat in the middle of the Atlantic Ocean. It's not the same as the Mediterranean. (Social integrator, Canary Islands)

> Since the land borders have been closed, the entire migratory flow has used the Canary Islands route, which is much more dangerous because so many people die. We see it every day, they [civil society organizations] are overwhelmed and overloaded, which makes it difficult for them to provide personalized attention to each immigrant who has their own story. These stories could be about trafficking, asylum, persecution, gender violence, all these stories, each person has their own story and has arrived here for a series of reasons. (Lawyer, Spain)

7.5 Conclusions

In this chapter, we described the adverse effects of the COVID-19 pandemic on the well-being of newly arrived immigrants in Spain, one of the European Union countries most affected by the pandemic. These newly arrived immigrants faced extremely precarious health conditions during the pandemic because of their limited and varying access to healthcare services, which depended on the Spanish region, and poor living conditions. As a result, the pandemic has led to mobility and migration difficulties for certain groups and amplified socioeconomic inequalities (Etowa & Hyman, 2021).

Considering the living conditions of immigrants, the connection between housing and well-being has been documented (Krieger & Higgins, 2002), and substandard housing conditions have consistently been associated with both physical and mental health issues. During the initial months of the COVID-19 pandemic, however, newly arrived immigrants at the southern Spanish border found themselves living in substandard housing conditions. The interviewees reported that these conditions had negative impacts on immigrants' mental and physical health in addition to the impacts of their irregular migration to the southern border of Spain. In both Melilla and the Canary Islands, the interviewees reported that the immigrant population's lack of access to housing led to the establishment of temporary reception centers, which were marked by extremely precarious living conditions. These reception centers or informal camps featured undignified and unsanitary conditions, violence, overcrowding, health difficulties, and a lack of space for isolating people with COVID-19, as occurred in other European countries (Baldacchino, 2021; Deutsche Welle, 2020; Doctors of the World, 2021). In addition, the closure of European borders increased irregular immigrants' transits using more dangerous and deadly routes, such as the route to the Canary Islands and the coast of Portugal (APDHA, 2021; UNHCR, 2021b), as well as other points in Greece (Mixed Migration Centre, 2020; Open Arms, 2023). In 2020, over 1000 individuals died or disappeared in the Mediterranean while attempting to reach Europe (Open Arms, 2023; UNHCR, 2021a). Among those who successfully reached Europe, illegal refoulement was reported in Europe, where countries often did not respect the principle of non-refoulement for irregular immigrants or asylum seekers (Costa, 2021; Jauhiainen, 2020; Stierl & Dadusc, 2022). Spain and Malta were reported to have suspended forced returns during the pandemic (WHO, 2021); however, some of the

interviewees reported the illegal refoulement of immigrants by Spain during the COVID-19 pandemic, which is supported by previous research (Costa, 2021).

In this sense, the interviewees reported that immigrants' housing and economic vulnerability were exacerbated by the rise in xenophobia, racist attacks, and restrictive measures during the COVID-19 pandemic, especially in the Canary Islands and Melilla. This unfortunate trend is consistent with findings both in Spain (Ministry of Interior, 2021) and worldwide (WHO, 2020). In Greece, the exclusion of immigrants persisted in various areas, such as formal employment, healthcare, housing, and intercultural coexistence, along with the resurgence of hostile rhetoric and anti-immigrant attitudes driven by national populism during the pandemic (Fouskas et al., 2022). Several European countries, such as Spain and Italy, have blamed the immigrant population for spreading and bringing COVID-19 into the country (Katsambekis & Stavrakakis, 2020; Perna & Moreno, 2021; WHO, 2020). In this context, some European countries used public health measures to contain the arrival of irregular immigrants (Baldacchino, 2021; Montagna, 2023) as part of the European Union's policy that turns their southern borders into a space of control and containment of migratory flows (Baldacchino, 2021; Stierl & Dadusc, 2022).

Regarding immigrants' nutrition, most of the interviewees reported that immigrants experienced food insecurity and a lack of traditional meals. These factors may lead to unfavorable dietary changes among immigrants, contributing to the development of chronic diseases, such as cardiovascular disease, hypertension, and type 2 diabetes (Popovic-Lipovac & Strasser, 2015). These negative impacts tend to increase with the length of time spent in a foreign country, although some European cases present lesser or even positive impacts. Immigrants' diverse dietary patterns are due to their diverse countries of origin. For example, immigrants from Mediterranean countries in North Africa tend to have healthier diets than other groups, although the quality of their diet may be worse than in their home country (Benazizi et al., 2019). In contrast, non-Mediterranean immigrants may improve the quality of their diet when they become residents in Spain. In addition, the interviewees indicated that the COVID-19 pandemic heightened food access difficulties for newly arrived immigrants and revealed a lack of intercultural perspective in temporary accommodation in Spain.

In terms of mental health, immigrants' psychological well-being was affected by factors both prior to their migration, such as exposure to violence, and by factors following their migration, including asylum procedures, poor living conditions, discrimination, and low socioeconomic status, as reported by the interviewees and the literature (Pfarrwaller & Suris, 2012). Despite these mental health issues, immigrants and refugees are significantly less prone than native-born individuals to developing alcohol or illicit drug problems (Salas-Wright & Vaughn, 2014). In line with Chap. 5, unaccompanied minor immigrants in Spain experienced various challenges associated with drug dependency, including prioritizing their drug needs over the integration process. Prolonged exposure to hostile living conditions in the destination country following migration has been linked to higher rates of drug use (Dupont et al., 2005). However, immigrants' drug consumption might change between their home and destination countries, in part because of uncertainty about

their application for refugee status. In line with previous reports, the interviewees also reported that the lack of professionals specialized in drug addiction in the southern Spanish border had a negative impact among newly arrived immigrants (Doctors of the World, 2021).

Furthermore, the interviewees reported a lack of intercultural perspective in healthcare. Along this line, certain objections to vaccination by specific cultural groups have been reported in Europe (ECDC, 2020). Therefore, the interviewees highlighted the need for socio- and intercultural approaches to health-related issues. In line with previous studies, the interviewees noted that trust and effective communication regarding vaccine development were crucial for enhancing immigrant communities' access to and uptake of COVID-19 vaccines (Abba-Aji et al., 2022). In this sense, the weaker the immigrants' social networks, the less they knew about their access to social and healthcare resources (Bueno Doral et al., 2021). Furthermore, newly arrived immigrants in Europe were reported to experience challenges when trying to access healthcare, including language difficulties, cultural barriers, lack of culturally sensitive care, and information about health procedures, as reported by the interviewees and the literature (Van Loenen et al., 2018).

A few interviewees observed the good health of newly arrived immigrants with whom they worked, especially in their resilience against Covid disease. One factor may partially explain these initially better health outcomes observed among immigrants (Aldea, 2022), that is, the healthy migrant effect, where individuals with better health are more likely to migrate. Although the healthy immigrant paradox is a well-known concept among researchers studying the health of immigrants, there are theoretical debates about the explanations and research about it (already discussed in Chap. 1). In addition, it is important to consider the health status of individuals prior to migration, the healthy immigrant effect, and how previous experiences influence the decision to migrate and migrants' health (Namer & Razum, 2022).

Despite this good health among newly arrived immigrants, their health may have deteriorated over time in the destination country, due to their poor living and working conditions (Newbold, 2005; Sserwanja & Kawuki, 2020), referred to as the unhealthy assimilation or acculturation paradox (Antecol & Bedard, 2006). In this sense, the greatest concerns of the interviewees were the limited access to healthcare (including food, dependencies and psychological needs), poor living conditions (including overcrowding, lack of sanitation and physical insecurity), and consequently the deterioration of health once immigrants arrive in Spain. Although the immigrant population needed access to healthcare, undocumented people in several countries around the world experienced a lack of access to healthcare during the COVID-19 pandemic (WHO, 2021). As already mentioned, the COVID-19 pandemic was not the first pandemic and will certainly not be the last. Therefore, lessons must be learned from this crisis. Regardless of immigrants' administrative status, universal and equitable access to health and healthcare in addition to measures to curb pandemics must integrate the entire immigrant population into the native population (ECDC, 2020; Freier et al., 2020; Orcutt et al., 2020).

In conclusion, the emergency caused by home confinement deepened the precariousness of non-European immigrants who arrived by small boats or by land at the southern Spanish border during the COVID-19 pandemic. The pandemic's impacts on immigrants depended on their exposure to vulnerability or inequality (e.g., gender, age, nationality, documentation, or work). Thus, the pandemic reinforced newly arrived immigrants' food insecurity, precarious living conditions, difficulties in accessing healthcare services, and various forms of violence (such as xenophobic attacks, lack of intercultural support, and institutional violence in Europe). In addition, the immigrant population's difficulties in accessing mental health, addiction treatment, and COVID-19 protection were reported.

References

Abba-Aji, M., Stuckler, D., Galea, S., & McKee, M. (2022). Ethnic/racial minorities' and migrants' access to COVID-19 vaccines: A systematic review of barriers and facilitators. *Journal of Migration and Health, 5*, 100086. https://doi.org/10.1016/j.jmh.2022.100086

Achotegui, J., Suárez-Varela, M. M. M., Boada, P. C., Bauset, C. Q., Fuster, J. V. P., Clemente, N. G., et al. (2010). Características de los inmigrantes con síndrome de estrés crónico del inmigrante o síndrome de Ulises. *Norte de salud mental, 8*(37), 23–30.

Achotegui, J., López, A., Suárez-Varela, M. M. M., Espeso, D., & Achotegui, A. (2015). Estudio sociodemográfico de los inmigrantes con síndrome de Ulises: Estudio sobre 1.110 inmigrantes atendidos en el SAPPIR in Barcelona. *Norte de salud mental, 13*(52), 70–78.

Aldea, N. (2022). Mortality impact of the Covid-19 epidemic on immigrant populations in Spain. *SSM-Population Health, 20*, 101291. https://doi.org/10.1016/j.ssmph.2022.101291

Antecol, H., & Bedard, K. (2006). Unhealthy assimilation: Why do immigrants converge to American health status levels? *Demography, 43*(2), 337–360. https://doi.org/10.1353/dem.2006.0011

Aslund, O., Bohlmark, A., & Nordström Skans, O. (2009). *Age at migration and social integration*. IZA discussion paper, 4263. https://doi.org/10.2139/ssrn.1434577.

Asociación Pro-Derechos Humanos de Andalucía-APDHA. (2021). *Derechos Humanos en la Frontera Sur*. Retrieved March 16, 2023, from https://apdha.org/media/informe-frontera-sur-2021.pdf

Baldacchino, G. (2021). Extra-territorial quarantine in pandemic times. *Political Geography, 85*, 102302. https://doi.org/10.1016/j.polgeo.2020.102302

Benazizi, I., Blasco-Blasco, M., Sanz-Valero, J., Koselka, E., Martínez-Martínez, J. M., & Ronda-Pérez, E. (2019). ¿Cómo es la alimentación de la población inmigrante residente en España? Resultados a partir de una revisión sistemática. *Anales del Sistema Sanitario de Navarra, 42(1)*, 55–68. https://doi.org/10.23938/ASSN.0389

Bhadoria, P., Gupta, G., & Agarwal, A. (2021). Viral pandemics in the past two decades: An overview. *Journal of Family Medicine and Primary Care, 10*(8), 2745–2750. https://doi.org/10.4103/jfmpc.jfmpc_2071_20

Bofill-Poch, S., & Gil, C. G. (2021). Tú no tienes donde ir (y yo sí). De cómo el miedo al contagio impacta en las trabajadoras migrantes empleadas en el hogar. *Migraciones. Publicación del Instituto Universitario de Estudios sobre Migraciones, 53*, 143–170. https://doi.org/10.14422/mig.i53y2021.006

Bueno Doral, T., Lara, M., & García-Castillo, N. (2021). Social care for the migrant population in Spain: Needs and strengths of organisations during the COVID-19 pandemic and infodemic. *International Journal of Migration, Health and Social Care, 18*(1), 16–30. https://doi.org/10.1108/ijmhsc-10-2020-0097

Costa, T. (2021). Devoluciones en caliente de migrantes en la frontera sur de Europa. *AULA revista de humanidades y ciencias sociales, 67*(2), 39–47. https://doi.org/10.33413/aulahcs.2021.67i2.177

Crawshaw, A. F., Farah, Y., Deal, A., Rustage, K., Hayward, S. E., Carter, J., Knights, F., Goldsmith, L. P., Campos-Matos, I., Wurie, F., Majeed, A., Bedford, H., Forster, A. S., & Hargreaves, S. (2022). Defining the determinants of vaccine uptake and undervaccination in migrant populations in Europe to improve routine and COVID-19 vaccine uptake: A systematic review. *The Lancet Infectious Diseases, 22*(9), e254–e266. https://doi.org/10.1016/s1473-3099(22)00066-4

De Vito, E., de Waure, C., Specchia, M. L., Parente, P., Azzolini, E., Frisicale, E. M., Favale, M., Teleman, A. A., & Ricciardi, W. (2016). Are undocumented migrants' entitlements and barriers to health-care a public health challenge for the European Union? *Public Health Review, 37*, 13. https://doi.org/10.1186/s40985-016-0026-3

Doctors of the World [Médicos del Mundo]. (2021). *La salud naufraga en la frontera sur española*. Retrieved March 8, 2023, from https://www.medicosdelmundo.org/sites/default/files/informe-salud-frontera-sur.pdf

Dupont, H. J., Kaplan, C. D., Verbraeck, H. T., Braam, R. V., & Van de Wijngaart, G. F. (2005). Killing time: Drug and alcohol problems among asylum seekers in The Netherlands. *International Journal of Drug Policy, 16*(1), 27–36. https://doi.org/10.1016/j.drugpo.2004.06.002

DW-Deutsche Welle. (2020). *Malta lets migrants ashore after weeks in limbo*. Retrieved March 16, 2023, from https://www.dw.com/en/malta-lets-migrants-ashore-after-weeks-in-limbo/a-53719736

ECDC-European Centre for Disease Prevention and Control. (2020). *Guidance on infection prevention and control of coronavirus disease (COVID-19) in migrant and refugee reception and detention centres in the EU/EEA and the United Kingdom*. Stockholm. Retrieved February 23, 2023, from https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-guidance-refugee-asylum-seekers-migrants-EU.pdf

Etowa, J., & Hyman, I. (2021). Unpacking the health and social consequences of COVID-19 through a race, migration and gender lens. *Canadian Journal of Public Health, 112*(1), 8–11. https://doi.org/10.17269/s41997-020-00456-6

Fouskas, T., Koulierakis, G., Mine, F.-M., Theofilopoulos, A., Konstantopoulou, S., Ortega-de-Mora, F., Georgiadis, D., et al. (2022). Racial and ethnic inequalities, health disparities and racism in times of COVID-19 pandemic populism in the EU: Unveiling anti-migrant attitudes, precarious living conditions and barriers to integration in Greece. *Societies, 12*(6), 189. https://doi.org/10.3390/soc12060189

Freier, L. F., Castillo, S., & Luzes, M. (2020). The plight of migrants and refugees in the pandemic. *Current History, 119*(820), 297–302. https://doi.org/10.1525/curh.2020.119.820.297

Gama, A., Marques, M. J., Rocha, J. V., Azeredo-Lopes, S., Kinaan, W., Machado, A. S., & Dias, S. (2022). 'I Didn't know where to go': A mixed-methods approach to explore migrants' perspectives of access and use of health services during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 19*(20), 13201. https://doi.org/10.3390/ijerph192013201

Gomez-Aguinaga, B., Dominguez, M. S., & Manzano, S. (2021). Immigration and gender as social determinants of mental health during the COVID-19 outbreak: The case of US Latina/OS. *International Journal of Environmental Research and Public Health, 18*(11). https://doi.org/10.3390/ijerph18116065

Guijarro, C., Pérez-Fernández, E., González-Piñeiro, B., Meléndez, V., Goyanes, M. J., Renilla, M. E., et al. (2021). Differential risk for COVID-19 in the first wave of the disease among Spaniards and migrants from different areas of the world living in Spain. *Revista Clínica Española (English Edition), 221*(5), 264–273. https://doi.org/10.1016/j.rceng.2020.10.005

Jauhiainen, J. S. (2020). Biogeopolitics of COVID-19: Asylum-related migrants at the European Union borderlands. *Tijdschrift voor Economische en Sociale Geografie, 111*(3), 260–274. https://doi.org/10.1111/tesg.12448

Jiménez-Lasserrotte, M.d. M., López-Domene, E., Hernández-Padilla, J. M., Fernández-Sola, C., Fernández-Medina, I. M., Faqyr, K. E. M. E., Dobarrio-Sanz, I., & Granero-Molina, J. (2020).

Understanding violence against women irregular migrants who arrive in Spain in small boats. *Health-care, 8*(3), 299. https://doi.org/10.3390/health-care8030299.

Juárez, S. P., Honkaniemi, H., Aradhya, S., Debiasi, E., Katikireddi, S. V., Cederström, A. F., Mussino, E., & Rostila, M. (2023). Explaining COVID-19 mortality among immigrants in Sweden from a social determinants of health perspective (COVIS): Protocol for a national register-based observational study. *BMJ Open, 13*(4), e070670. https://doi.org/10.1136/bmjopen-2022-070670

Katsambekis, G., & Stavrakakis, Y. (2020). *Populism and the pandemic—A collaborative report* (POPULISMUS Interventions 7). Populism Research Group, Loughborough University.

Krieger, J., & Higgins, D. L. (2002). Housing and health: Time again for public health action. *American Journal of Public Health, 92*(5), 758–768. https://doi.org/10.2105/AJPH.92.5.758

Ministry of Health. (2020). Estudio ENE-COVID: cuarta ronda estudio nacional de sero-epidemiología de la infección por sars-cov-2 en España.

Ministry of Interior. (2021). *Informe sobre la evolución de los delitos de odio en España*. Retrieved March 16, 2023, from https://www.interior.gob.es/opencms/pdf/servicios-al-ciudadano/delitos-de-odio/estadisticas/INFORME-EVOLUCION-DELITOS-DE-ODIO-VDEF.pdf

Mixed Migration Centre. (2020, November 1). *Impact of COVID-19 on migrant smuggling*. Retrieved March 16, 2023, from https://mixedmigration.org/wp-content/uploads/2020/10/131_covid_thematic_update_smuggling.pdf

Montagna, N. (2023). Quarantine ships as spaces of bordering: The securitization of migration policy in Italy during the COVID-19 pandemic. *International Migration Review*. https://doi.org/10.1177/01979183231154560

Namer, Y., & Razum, O. (2022). Health of people before migration, the "healthy migrant". In S. Galea, C. K. Ettman, & M. H. Zaman (Eds.), *Migration and health*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226822495.003.0004. 2022. Chicago Scholarship Online.

Newbold, K. B. (2005). Self-rated health within the Canadian immigrant population: Risk and the healthy immigrant effect. *Social Science & Medicine, 60*(6), 1359–1370. https://doi.org/10.1016/j.socscimed.2004.06.048

OBERAXE. (2019). *Percepciones, discursos y actitudes hacia las personas inmigrantes en un barrio de Madrid*. Ministerio de Trabajo, Migraciones y Seguridad Social.

Open Arms. (2023). *No more refugees adrift*. Retrieved March 16, 2023, from https://www.openarms.es/en/what-we-do/mediterranean

Orcutt, M., Patel, P., Burns, R., Hiam, L., Aldrige, R., Devakumar, D., Kumar, B., Spiegel, P., & Abubakar, I. (2020). Global call to action for inclusion of migrants and refugees in the COVID-19 response. *The Lancet, 395*(10.235), 1482–1483. https://doi.org/10.1016/s0140-6736(20)30971-5

Parella Rubio, S. (2021). El sector del trabajo del hogar y de cuidados en España en tiempos de COVID-19. *Anuario CIDOB de la Inmigración 2020, 102–114*. https://doi.org/10.24241/AnuarioCIDOBInmi.2020.102

Perna, R., & Moreno, F. (2021). Inmigración y atención sanitaria en un contexto de pandemia: vulnerabilidades y (escasas) respuestas en Europa y en España. *CIDOB*. https://doi.org/10.24241/AnuarioCIDOBInmi.2020.116.

Pfarrwaller, E., & Suris, J. C. (2012). Determinants of health in recently arrived young migrants and refugees: A review of the literature. *Italian Journal of Public Health, 9*(3). https://doi.org/10.2427/7529

Polit & Beck. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies, 47*(11), 1451–1458. https://doi.org/10.1016/j.ijnurstu.2010.02.014

Popovic-Lipovac, A., & Strasser, B. (2015). A review on changes in food habits among immigrant women and implications for health. *Journal of Immigrant and Minority Health, 17*, 582–590. https://doi.org/10.1007/s10903-013-9877-6

Reid, A., Rhonda-Perez, E., & Schenker, M. B. (2021). Migrant workers, essential work, and COVID-19. *American Journal of Industrial Medicine, 64*(2), 73–77. https://doi.org/10.1002/ajim.23209

Roca, C., & de Balanzo, X. (2006). Imported diseases in immigrants: Myth and reality. *Anales del Sistema Sanitario de Navarra, 29*, 139–144.

Ruiz-Azarola, A., Escudero Carretero, M., López-Fernández, L., Gil García, E., March Cerdà, J., & López Jaramillo, D. (2020). La perspectiva de personas migrantes sobre el acceso a la atención sanitaria en el contexto de políticas de austeridad en Andalucía. *Gaceta Sanitaria, 34*(3), 261–267. https://doi.org/10.1016/j.gaceta.2018.09.006

Sajir, Z., Molinero-Gerbeau, Y., & Avallone, G. (2022). "Everything changes, everything stays the same". The governance of migrant labour in Spanish and Italian agriculture in the first year of the Covid-19 pandemic. *Estudios Geográficos, 83*(293), e114. https://doi.org/10.3989/estgeogr.2022120.120

Salas-Wright, C. P., & Vaughn, M. G. (2014). A "refugee paradox" for substance use disorders? *Drug and Alcohol Dependence, 142*, 345–349. https://doi.org/10.1016/j.drugalcdep.2014.06.008

Sserwanja, Q., & Kawuki, J. (2020). Migrant health: Healthy migrant effect and the need to prioritize migrant health. *Asian Journal of Medicine and Health, 18*(6), 11–16. https://doi.org/10.9734/AJMAH/2020/v18i630209

Stierl, M., & Dadusc, D. (2022). The "Covid excuse": European border violence in the Mediterranean Sea. *Ethnic and Racial Studies, 45*(8), 1453–1474. https://doi.org/10.1080/01419870.2021.1977367

Theodosopoulou, P., Tsiamis, C., Pikoulis, A., Pikouli, A., Aristomenis, E., & Pikoulis, E. (2021). Rescue medical activities among sea migrants and refugees in the Mediterranean region: Lessons to be learned from the 2014–2020 period. *International Maritime Health, 72*(2), 99–109. https://doi.org/10.5603/IMH.2021.0018

UNHCR. (2021a, January 27). Malta sea arrivals and asylum statistics 2020. United Nations High Commissioner for Refugees. Retrieved March 16, 2023, from https://www.unhcr.org/mt/wp-content/uploads/sites/54/2021/01/Malta-Sea-Arrivals-and-Asylum-Statistics_UNHCR_2020_27.01.2021_.pdf

UNHCR. (2021b, January). Routes towards the Western and Central Mediterranean Sea. United Nations High Commissioner for Refugees. Retrieved March 16, 2023, from https://data.unhcr.org/en/documents/details/86069

Van Loenen, T., Van Den Muijsenbergh, M., Hofmeester, M., Dowrick, C., Van Ginneken, N., Mechili, E. A., et al. (2018). Primary care for refugees and newly arrived migrants in Europe: A qualitative study on health needs, barriers, and wishes. *The European Journal of Public Health, 28*(1), 82–87. https://doi.org/10.1093/eurpub/ckx210

World Bank Group. (2020). *Covid-19 crisis through a migration lens*. World Bank Group.

World Health Organization. (2021). *Refugees and migrants in times of COVID-19: mapping trends of public health and migration policies and practices*. Retrieved March 7, 2023, from Source. https://www.who.int/publications/i/item/9789240028906

World Health Organization Europe. (2020). *ApartTogether survey: Preliminary overview of refugees and migrants self-reported impact of COVID-19*. World Health Organization.

Wren, M., Petts D, Guthrie G, Clarke S, Nation BR, Peters L, Mortlock S, Sturdgess I, Wright M, & Burt, C. (2022). Pestilence, Plague and Pandemics: A Troubled History. *Ulster Medical Journal, 91*(3), 143–151.

YosíSanidad Universal. (2022). El derecho a la asistencia sanitaria en las comunidades autónomas: Un derecho hecho pedazos. Informe acerca de la trasposición y aplicación del RDL 7/2018 a nivel autonómico entre 2018 y 2022. Retrieved March 8, 2023, from Source. https://yosisanidaduniversal.net/materiales/informes/informe-derecho-asistencia-sanitaria-comunidades-autonomas

Yuguero, O., Calahorra, M., Cuevas, S., Gimenez, N., Hernandez, I., Lacasta, J. D., Porque, J., & Pardos, C. (2021). Cross-sectional study of SARS-CoV2 clinical characteristics in an immigrant population attended in a hospital emergency Department in the Catalunya Health Region in Spain. *Journal of Migration and Health, 4*, 100055. https://doi.org/10.1016/j.jmh.2021.100055

Laws

Orden SND/421/2020, de 18 de mayo, por la que se adoptan medidas relativas a la prórroga de las autorizaciones de estancia y residencia y/o trabajo y a otras situaciones de los extranjeros en España, en aplicación del Real Decreto 463/2020, de 14 de marzo, por el que se declara el estado de alarma para la gestión de la situación de crisis sanitaria ocasionada por el COVID-19. https://boe.es/boe/dias/2020/05/20/pdfs/BOE-A-2020-5141.pdf

Real Decreto-ley 16/2012, de 20 de abril, de medidas urgentes para garantizar la sostenibilidad del Sistema Nacional de Salud y mejorar la calidad y seguridad de sus prestaciones. Jefatura del Estado «BOE» núm. 98, de 24 de abril de 2012. https://www.boe.es/buscar/pdf/2012/BOE-A-2012-5403-consolidado.pdf

Real Decreto-ley 7/2018, de 27 de julio, sobre el acceso universal al Sistema Nacional de Salud. Jefatura General del Estado, BOE» núm. 183, de 30 de julio de 2018. https://www.boe.es/eli/es/rdl/2018/07/27/7/dof/spa/pdf

Chapter 8
Convergences and Divergences in Health: Differences in Premature Mortality Between the Spanish-Born and the Immigrant Population

Rafael Grande and Juan Manuel García-González

8.1 Introduction

Premature mortality refers to mortality that occurs before the average age of death of a given population, or more generally before an age that is considered 'normal'; that is, before age 65 or 75. The significant, steady and overall increase in life expectancy over the past century has led to a marked decline in premature mortality (Allen et al., 2017; Frieden et al., 2020). This longevity revolution has been accompanied in recent decades by a new epidemiological transition characterised by a marked decline in cardiovascular disease as the leading cause of death and an increase in cancer mortality, in European countries as a whole (Bray & Weiderpass, 2010; ReFaey et al., 2021) and in Spain in particular (García-González & Grande, 2018). Despite its downward trend, premature mortality remains an important health indicator because it can reveal the links between mortality and health inequities in adolescence and adulthood. Therefore, premature mortality is an indicator that should be considered when assessing quality of life.

The aim of this chapter is to compare premature mortality between immigrants and the Spanish native population for the 2012–2015 period. The analysis is limited to deaths between the ages of 20 and 64, which provides a certain degree of homogeneity because it coincides with the economically active ages in the labour market and excludes adolescent mortality. The objective is to determine whether there is an 'immigrant disadvantage' in premature mortality, even when controlling for third-party variables, or whether, on the contrary, we observe the healthy immigrant

R. Grande (✉)
Faculty of Social and Labour Studies, Area of Sociology, University of Malaga, Malaga, Spain
e-mail: rgrande@uma.es

J. M. García-González
Department of Sociology, Universidad Pablo de Olavide, Sevilla, Spain
e-mail: jmgargon@upo.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*, IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_8

paradox. To this end, we analyse premature mortality by all-cause mortality and by major causes (cancers, diseases of the circulatory system, injuries and external causes, and other causes) and compare mortality risk by major regions of origin (developed countries, Eastern Europe, Latin America and the Caribbean, and the Maghreb). In addition, because our interest is in the relationship between health and socio-economic conditions, we examine differences in premature mortality between natives and immigrants according to education level and occupational social class.

The chapter is structured as follows. In the next section, we briefly review the literature on the evolution of premature mortality in the context of the epidemiological transition, and on health and mortality in the immigrant population. The third section presents the data used and the research design and methodology. The fourth section presents the results. Finally, we discuss the results obtained and present the main conclusions.

8.2 Conceptual Framework

The notion of the epidemiological transition seeks to elucidate the prevailing trends in morbidity and mortality in Western societies. To mitigate the potential bias of referring only to Western societies, the associated concept of the health transition emerged with the goal of offering a versatile and adaptable framework applicable to diverse societies. In addition to elucidating the changes in the health status of populations, it influences the socio-political responses to these changes. Over the past three decades, advanced societies in demographic terms have entered a new phase of both transitions, characterised by five common features: (a) a cardiovascular revolution, although this has slowed down in the last two decades (García-González, 2013; Hervella et al., 2021); (b) a stabilisation of cancer mortality, although it still represents a significant proportion of total mortality (Hofmarcher et al., 2020; Ministry of Health, 2023); (c) an initial exponential rise in mortality from dementia and Alzheimer's disease towards the end of the twentieth century followed by a subsequent stabilisation in the twenty-first century (Ministry of Health, 2023; Winblad et al., 2016; Wu et al., 2016); (d) an increasing concentration of mortality among older age groups (García-González, 2014); and (e) an overall improvement in health across different age groups, although evident inequalities persist among various social groups (Mackenbach et al., 2018).

In this general context of change, 85% of deaths in Spain since the beginning of the twenty-first century have occurred among individuals over the age of 65 (INE, 2023). This figure highlights the significant efforts made in addressing mortality among the elderly. However, the remaining 15% of premature deaths have the greatest impact on productivity and human capital loss, causing immense family distress and acting as a major obstacle to increased life expectancy (World Health Organization, 2013). These factors emphasise the importance of studying premature mortality from a social demography perspective.

In terms of the major groups of causes of death and disease burden, approximately 78% (72% in men and 84% in women) of the mortality burden in Spain among individuals aged 15–65 is concentrated in noncommunicable diseases. When examining specific causes, the impact of cancers has been steadily increasing since the beginning of the twenty-first century and they now account for 39% of all premature mortality (32% in men and 51% in women). Meanwhile, cardiovascular mortality has significantly declined, representing only 16% (18% in men and 12% in women) of premature deaths (Hervella et al., 2021). These findings have led the 2030 Agenda for Sustainable Development, specifically Sustainable Development Goal 3, to recognise the pressing issue of premature mortality caused by noncommunicable diseases, with particular emphasis on the impact of cancer on quality of life (United Nations, 2015). Furthermore, this mortality serves as a catalyst for social inequalities, both on a global scale—with higher rates observed in middle- and low-income countries (World Health Organization, 2021)—and within countries, with disparities between different social groups (Mackenbach et al., 2015).

As health status is an indicator of social inequalities, migration studies have widely discussed the healthy immigrant paradox or epidemiological paradox observed in many developed countries, where immigrants have similar or better health outcomes than native populations. This phenomenon is considered paradoxical because immigrants coming from less developed regions are exposed to worse socio-economic conditions in the host societies and this is expected to have a negative impact on their health according to the theory of the social determinants of health (Luthra et al., 2020; Markides & Rote, 2015). As discussed in Chap. 1, the healthy immigrant paradox has been mainly explained as a product of the selection hypothesis or positive selection effect of migration, whereby young people in good health are more likely to emigrate (Gadd et al., 2006; Marmot et al., 1984; Wallace & Wilson, 2019). Studies have also suggested that this health advantage may be attributed to healthier lifestyles and behaviours observed in specific groups of immigrants compared with natives. The healthier lifestyles and behaviours of these immigrant groups are potentially influenced by prevalent cultural norms from their country of origin (Abraído-Lanza et al., 2005; Khlat & Darmon, 2003).

Accordingly, the literature has shown lower mortality rates in the immigrant population than among the native population (Aldridge et al., 2018; Deboosere & Gadeyne, 2005; Lu, 2008; Razum, 2008). In the Spanish case, evidence in favour of the healthy immigrant paradox has been found in relation to mortality patterns, but with significant differences according to geographical area of origin (Grande et al., 2023; Ruiz-Ramos & Juárez, 2013). There is also evidence for the epidemiological paradox regarding Spanish-born in relation to morbidity and healthcare (Gimeno Feliú et al., 2015; see also Gimeno Feliú and Moreno-Juste in Chap. 3 of this book), quality of life (García-Gómez & Oliva, 2009) and reproductive health (Speciale & Regidor, 2011; Stanek et al., 2020). However, due to the scarcity of available data sources, the healthy immigrant paradox has been rarely studied in the Spanish case, especially for specific causes of premature death.

8.3 Data and Methods

The analysis used data extracted from the administrative death register by cause of death and from the 2011 Spanish census. This dataset, available upon request from the Spanish National Statistics Institute (INE), links individual information from the Vital Statistics from 2012 to 2015 with microdata from the 2011 census, which include personal and household characteristics of the individual, such as sex, age, country of origin, marital status, education level, labour market status, living conditions and migration legal status. This linking of administrative data and the integration of various data sources allows for the follow-up on mortality through vital statistics for a wealth of information and the adoption of longitudinal analyses, in line with the trend in countries with advanced statistical systems (Requena, 2021).

Our dataset included 10% of the population residing in Spain based on the 2011 census, thus excluding the deaths of people who were not registered in the census. A subsample was selected of persons aged from 20 to 64 years and present in the 2011 census, in the 2012 registry and in the 2016 registry if their death was not registered in that period (censored cases). A total of 2,276,491 persons were included in the analysis: 49.6% men and 50.4% women; 93.7% born in Spain (2,132,012 persons) and 6.3% born abroad (144,479 persons).

We defined premature mortality as that occurring between the ages 20 and 64. This included deaths from all causes in this age range. In our subsample during the 2012–2015 study period, there were 19,953 deaths (13,527 men and 6426 women; 19,296 natives and 657 immigrants).

All of the analyses were performed separately for men and women because of the different morbidity and mortality patterns. First, for the descriptive analysis, we calculated age-specific mortality rates for Spanish-born and immigrants. Second, with a longitudinal approach, a survival analysis (event-time) was carried out. For this purpose, the database was transformed into person-years, obtaining 9,162,373 total observations. We used Cox regression models (proportional hazards models) to generate a survival function to predict the probability that a death occurred at a given time *t* for certain values of the predictor variables. In the separate models for men and women, we showed adjusted hazard ratios that are interpreted similarly to the incidence rate ratio (Abd ElHafeez et al., 2021).

This method allowed us to evaluate, as a function of exposure time, the risks of premature mortality associated with being a native or immigrant while controlling for demographic variables (age, rural or urban habitat, marital status and children) and socio-economic variables (education level[1] and occupational social

[1] (1) Elementary: cannot read or write; can read and write but attended school for less than 5 years; attended school for 5 years or more but did not reach the last year of ESO, EGB or Elementary Bachiller; reached the last year of ESO, EGB or Elementary Bachiller or has the Schooling or Primary Studies Certificate. (2) Secondary: Bachiller (LOE, LOGSE), BUP, Higher Bachiller, COU, PREU; Intermediate FP, FP I, Oficialía industrial or similar, Grado Medio de Música y Danza, Certificados de Escuelas Oficiales de Idiomas; Higher FP, FP II, Maestría industrial or equivalent. (3) Higher: Diplomatura universitaria, Arquitectura Técnica, Ingeniería Técnica or similar; Grado Universitario or equivalent; Licenciatura, Arquitectura, Ingeniería or equivalent; Máster oficial universitario (from 2006), Especialidades Médicas or equivalent; PhD.

class[2]). Due to the heterogeneity of the immigrant population in Spain, the risk of premature mortality relative to natives was shown for the main regions of origin: high-income countries (mainly EU-15 countries), Eastern Europe (mainly Romania), Latin America and the Caribbean (mainly Ecuador, Colombia and Argentina), and the Maghreb (mainly Morocco).[3] To assess the association between health and socio-economic status, we calculated interactions in the Cox regression models between immigrant status and education level and occupational social class.

Complementarily, for each of these analyses, independent models were performed for the main causes of premature mortality in men and women: (a) tumours or cancers (ICD-10 codes: C00–D48), for which the highest level of premature mortality is due to lung cancer; (b) circulatory system diseases (ICD-10 codes: I00–I99), mainly acute myocardial infarction and to a lesser extent heart and cerebrovascular diseases; (c) injuries and external causes (ICD-10 codes: V01–Y98), of which the specific cause with the greatest weight is suicide and self-inflicted injuries; and (d) the rest of the causes grouped together.

This research has some methodological limitations that need to be taken into consideration. First, because our database had a brief exposure time (2012–2015), we only had deaths recorded for 4 years, which reduced the sample and could lead to selection bias. The possible under-reporting effect of immigrant mortality must also be considered. In this regard, numerous authors have explored the existence of the so-called salmon bias hypothesis (Davies et al., 2011; Deboosere & Gadeyne, 2005; Lu & Quin, 2014); for example, a higher probability that the immigrant population chooses to return to their country of origin when they retire, grow old or become seriously ill would lead to measurement bias due to under-reporting of immigrant mortality (Abraído-Lanza et al., 1999). However, the salmon bias is weak (Dunlavy et al. 2022) and operates more or less strongly depending on other factors, such as access to healthcare in the destination and home countries (Norredam et al. 2015; Puschmann et al. 2017) or family integration at destination and the intensity of transnational ties with the home society, for which age at the time of migration and length of stay in the destination country would play a role (Syse et al., 2018). Regarding the under-reporting of immigrant mortality, the cleaning of the Population Municipal Register by the INE is an advantage for a better registration of the immigrant population and thus increases the rigour of this study. Second, we did not have information on health status with which to better control the models. Third, as the final size of the database and the small scale of the studied event (premature mortality) precluded specific analyses by country of origin of the immigrants, we opted to compare large regions of origin.

[2] (I) Directors and managers and university-educated professionals; (II) intermediate occupations and self-employed workers; (III) supervisors and workers in skilled and semi-skilled technical occupations; (IV) unskilled workers; (V) outside the labour force.

[3] For a detailed description of the categories of countries of origin, see Fig. 6.3 in Chap. 6.

8.4 Evidence

Figure 8.1 shows a comparison of age-specific mortality rates between the native Spanish and immigrant populations. For men, there were minimal differences from 14 to 39 years of age. However, the gap widened after 40 years of age, with immigrants experiencing slightly lower premature mortality rates and maintaining this advantage consistently until advanced ages, when some convergence can be observed. No clear trend was evident for women, for whom the comparative advantage was smaller and only found from 45 to 59 and from 75 to 84 years of age. In these age ranges, immigrant women had slightly lower premature mortality rates than native Spanish women. It is also noteworthy that for women aged from 15 to 39, the specific mortality rates for foreign-born women were higher than those of native Spanish women.

Figure 8.2 presents the model's results estimating the risk of premature mortality for immigrants in Spain based on their region of origin compared with that of Spanish-born (used as the reference category). After considering all control variables, the results reveal significant differences in the lower risk of premature mortality among immigrants, both between men and women and across various regions of origin. For men, only immigrants from Eastern Europe did not exhibit significant differences in the risk of premature mortality from people born in Spain. Conversely, immigrants from high-income countries, Latin America and the Caribbean and the Maghreb had a significantly lower probability of premature mortality than natives. For women, there were fewer discrepancies between natives and immigrants; only Latin American immigrants exhibited a significantly lower risk of premature

Fig. 8.1 Age-specific mortality rate by native and immigrant population in Spain in the period from 2012 to 2015. (Source: Authors' own elaboration)

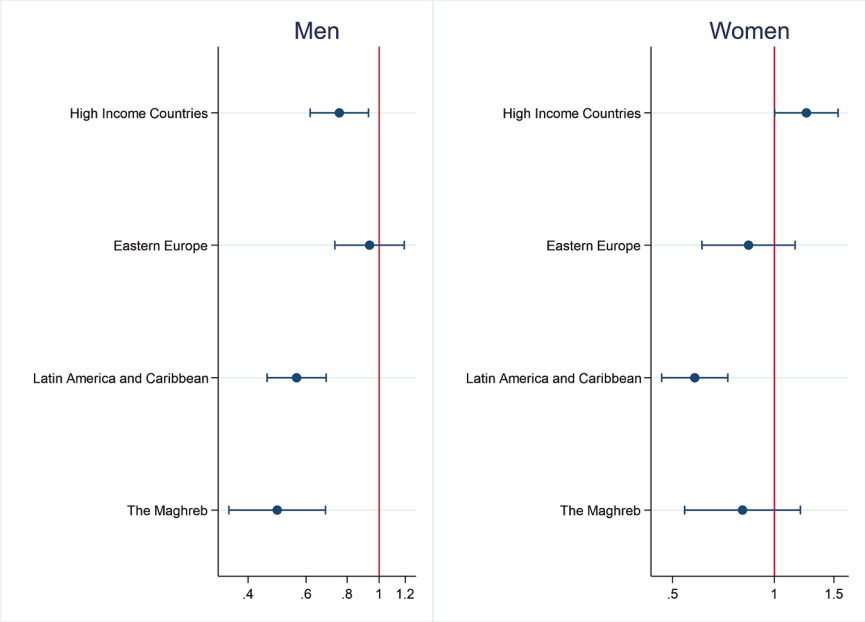

Fig. 8.2 Risk (adjusted hazard ratio) of premature mortality for men and women by region of origin versus natives (95% CIs). (Source: Authors' own elaboration. Note: The red vertical line at value 1 represents natives (reference category))

mortality than women born in Spain. Nevertheless, women from high-income countries had a mortality rate very close to that of Spanish women, and their evolution should be closely monitored. Overall, these findings shed light on the varying patterns of premature mortality risk among immigrants based on their region of origin and gender, highlighting the importance of considering these factors in healthcare and policy planning.

Figures 8.3 and 8.4 provide detailed information for each sex about the risk of premature mortality in the immigrant population, while controlling for demographic and socio-economic characteristics. The data were categorised according to large groups of causes of death and by area of origin compared with natives from Spain. Among men (Fig. 8.3), the most significant differences were in the lower mortality risk due to cancers among Latin American, North African and high-income country immigrants. For the other considered causes, only North African immigrants demonstrated a significantly lower risk of premature mortality related to circulatory system diseases and external causes. These findings suggest a positive selectivity effect and emphasise the influence of lifestyle habits associated with the cultural values of some origin communities. Among women, the differences between immigrants and native Spaniards were again less pronounced. Women from Latin America and the Caribbean exhibited a lower risk of death from cancers and other causes from age 20 to 64, and immigrant women from high-income countries and

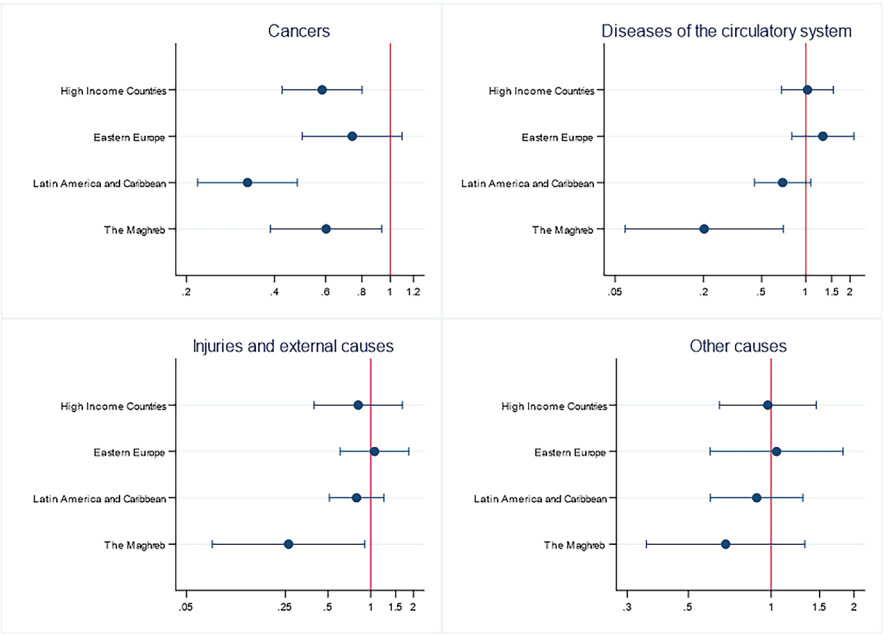

Fig. 8.3 Risk (adjusted hazard ratio) of premature mortality by cause among MEN by region of origin versus natives (95% CIs). (Source: Authors' own elaboration. Note: The red vertical line at value 1 represents natives (reference category))

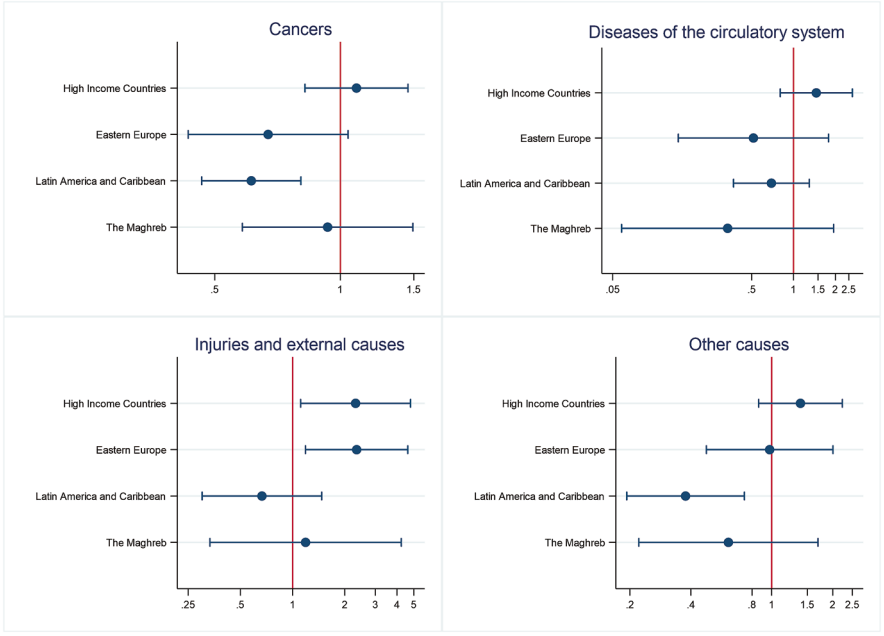

Fig. 8.4 Risk (adjusted hazard ratio) of premature mortality by cause among WOMEN, by region of origin versus natives (95% CIs). (Source: Authors' own elaboration. Note: The red vertical line at value 1 represents natives (reference category))

Eastern Europe faced a significantly higher risk of premature mortality from external causes. These results shed light on the varying risk of premature mortality among immigrants based on their area of origin, gender and specific causes of death, and highlight the importance of considering cultural influences and lifestyle habits when examining health disparities in different communities.

Finally, we examined the interaction of immigrant origin with education level and occupational social class to better test the assumptions of the theory of the social determinants of health. Figures 8.5 and 8.6 show the differences between immigrants and native Spaniards for each group of causes according to education level, separated by sex. Significant differences were observed only for men, for whom we found lower risks of premature mortality for all causes, and specifically for cancers, among immigrants with elementary and secondary education, but no such gap among those with higher education. Among women, there were no significant differences in the interaction by educational level for any of the four groups of causes considered. These results highlight the importance of considering the interaction of immigrant origin with educational level, especially for men, in understanding the social determinants of health.

Figures 8.7 and 8.8 show the impact of the interaction between migratory status and occupational social class on the risk of premature mortality. We did not observe significant differences for women, but there were notable differences among men for premature mortality due to cancers. Specifically, the gap in cancer mortality between natives and immigrants was statistically significant for men occupying the high and middle occupational classes (I, II and III). However, the higher cancer

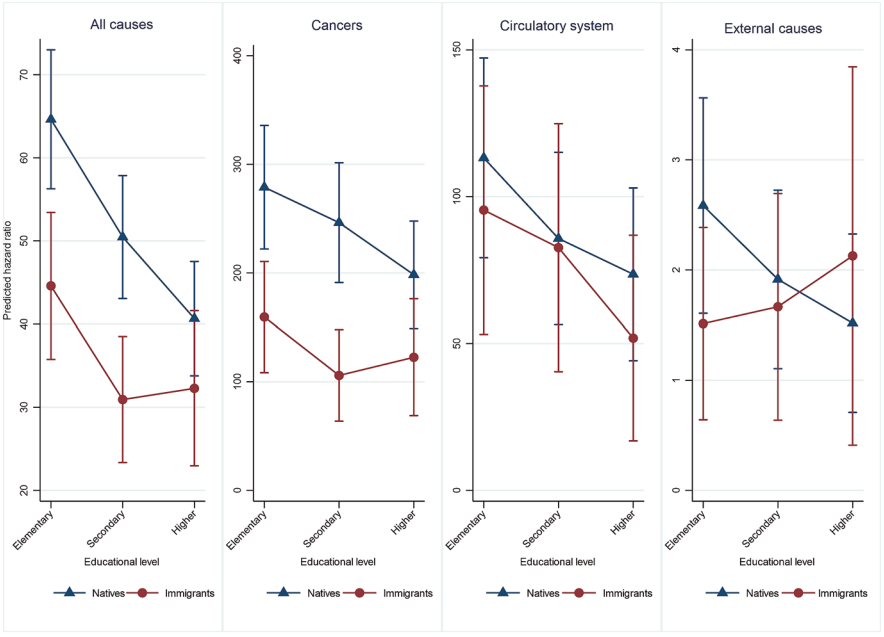

Fig. 8.5 Relative risk (predicted hazard ratio) of premature mortality among MEN by cause, immigrant origin and educational level (95% CIs). (Source: Authors' elaboration)

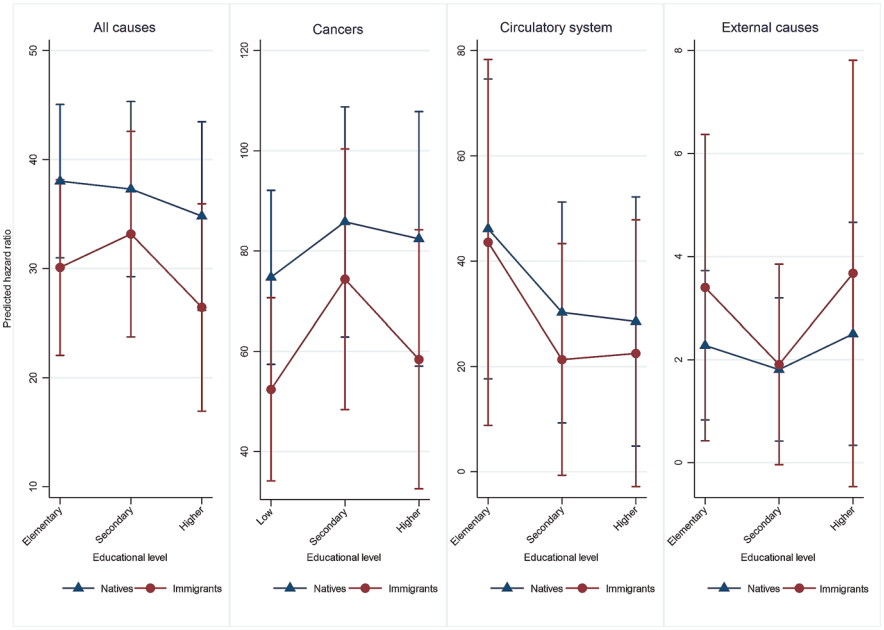

Fig. 8.6 Relative risk (*predicted hazard ratio*) of premature mortality among WOMEN by cause, immigrant origin and educational level (95% CIs). (Source: Authors' own elaboration)

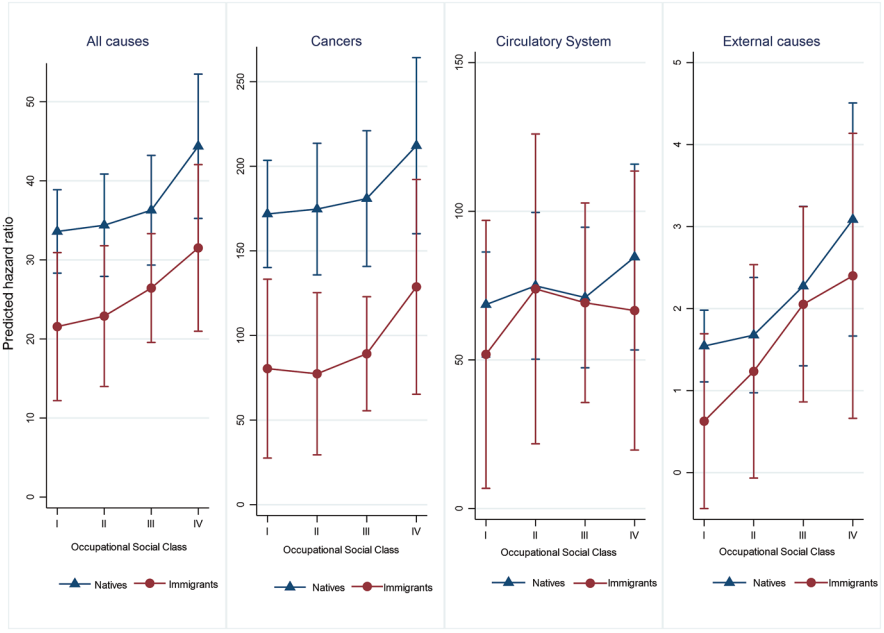

Fig. 8.7 Relative risk (*predicted hazard ratio*) of premature mortality among MEN by cause, immigrant origin and occupational social class (95% CIs). (Source: Authors' own elaboration. Note: Category V, 'outside the labour force', is omitted from the graph for a better ordinal representation of the occupational social class variable)

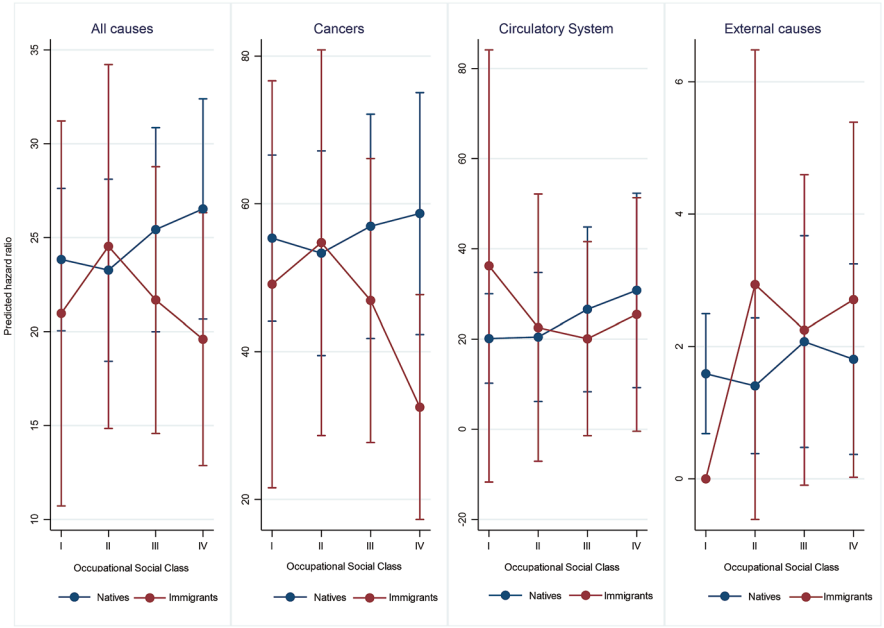

Fig. 8.8 Relative risk (*predicted hazard ratio*) of premature mortality among WOMEN by cause, immigrant origin and occupational social class (95% CIs). (Source: Authors' own elaboration. Note: Category V, 'outside the labour force', is omitted from the graph for a better ordinal representation of the occupational social class variable)

mortality among natives did not show significant differences among unskilled workers (IV). Unlike the observations regarding education level, which were consistent with the theory of the social determinants of health in that the immigrant advantage was significant in the lower strata with higher mortality, the significance in occupational class was found in the upper strata. Here, the lower premature mortality from cancers among immigrants was statistically significant. These findings indicate the importance of considering social class as a relevant factor in understanding the disparities in premature mortality between natives and immigrants, particularly for cancer-related deaths in men.

8.5 Discussion and Conclusions

This study reveals that immigrants in Spain have a slight comparative advantage over Spanish-born individuals in premature mortality for all causes. Our findings align with those of numerous studies conducted from the 1980s onwards in various countries, including Australia (Young, 1986), Canada (Omariba et al., 2014), the United States (Blue & Fenelon, 2011; Singh & Siahpush, 2001) and several European countries (Gadd et al., 2006; Pacelli et al., 2016; Syse et al., 2018), and of systematic reviews at the global level (Aldridge et al., 2018).

Upon examining this advantage across socio-demographic characteristics, we observed significant differences based on sex and region of origin. Among men, the immigrant advantage was more prominent in individuals from Latin America and the Caribbean and Maghrebi (mainly Morocco), whereas among women, it was primarily evident among Latinas. The comparative advantage of immigrants from Latin America and the Caribbean has been extensively documented for various causes of death and age groups in other contexts of reception (Shor et al., 2017). This phenomenon, known as the Hispanic mortality paradox, highlights that individuals of Latino origin who migrate to European or North American countries enjoy equal or even better health and lower mortality rates than the native population.

Overall, the findings indicate different life trajectories, particularly across age groups. The most significant differences were observed among people of working age, from 20 to 64 years, which confirms our results for premature mortality in Spain. However, as in other countries, this did not hold true for cardiovascular mortality. For men, the comparative advantage in premature mortality due to cancers among individuals from Latin America and the Caribbean, the Maghreb and high-income countries may be the result of a combined effect of life cycle, time spent in the country and lifestyle habits. For example, men from Latin America and Maghreb were at an earlier stage in the smoking epidemic than those born in Spain, leading to lower mortality rates from lung cancer, which is a major contributor to overall cancer mortality (Boulogne et al., 2012). Some studies have suggested a lower smoking prevalence among the immigrant population in other contexts (Blue & Fenelon, 2011; Baluja et al., 2003). This might also be the case for Latin American immigrants in Spain, among whom both men and women exhibited lower cancer mortality, possibly due to lower smoking rates in the Latin American region. The advantage persisted even among populations with higher smoking prevalence, such as the Maghrebi (Khlat et al., 2018). However, when examining the interaction with education level, this advantage diminished among unskilled workers, which could be explained by the psychosocial theory of the social determinants of health (Raphael, 2006) and, to some extent, by the ecosocial and life-cycle theories (Benzeval & Judge, 2001). Regardless of their origin, immigrants can change their habits in ways that affect their health as they experience processes of social mobility, upward or downward, after arriving in the destination country (Blane et al., 1999).

Therefore, similar to previous studies of the Spanish case (Grande et al., 2023; Ruiz-Ramos & Juárez, 2013), our results underscore the significance of cultural values within some origin communities. Based on these cultural patterns, it is likely that the immigrant population has more deeply ingrained healthy lifestyle habits compared with native populations of similar economic or education levels. For instance, they may adhere to better dietary practices and exhibit lower alcohol or tobacco consumption (Kimbro, 2009; Singh & Siahpush, 2002).

This cultural influence may also explain the case of the Maghrebi population, predominantly from Morocco, where social, cultural and religious norms are associated with healthier habits such as reduced alcohol or animal fat consumption. These could lead to lower premature mortality among men due to cancer or circulatory system diseases, as evidenced in our study of Spain.

Overall, it is essential to consider that Spain has a relatively short migratory history, with a substantial influx of migrants arriving at the beginning of the twenty-first century, primarily during their working-age years. These immigrants were socialised in cultures with generally healthier behaviours and habits. They carried these behaviours to Spain and maintained them due to their strong ties with their society and culture of origin, leading to better health and survival rates (Gushulak & MacPherson, 2006). This phenomenon can be attributed to a positive selection effect of the healthy migrant (Jasso & Massey, 2004). Those who arrived in Spain in the first decade of the 2000s had better health and a lower likelihood of suffering from diseases, thus creating an advantage in premature mortality during the years we analysed.

In this regard, the slight differences observed between the groups of causes of death and education levels in our study may be attributed to certain limitations. The size and year of our sample corresponded to only 10% of the 2011 census data for the immigrant population, and mortality data are available only until 2015. The relatively short migratory experience of migrants in Spain and the associated limited residence times of immigrants restricts our ability to conduct analyses covering longer life cycles or to explore diverse migratory patterns by origin and types of family grouping. Furthermore, the significant impact of the Great Recession that commenced in 2008 led to substantial emigration flows back to countries of origin. This additional factor may have induced a selection effect of healthy immigrants among those who remained due to favourable socio-economic conditions and those who left due to unfavourable conditions. Finally, as the death registry data we used does not include potentially relevant information about health-related habits and behaviours, we were unable to control for the effects of exposure to different risk factors in our analysis.

This study reveals differences in premature mortality between immigrants and people born in Spain based on sex and region of origin. However, we did not find substantial differences based on socio-economic level. Thus, it seems that the healthy immigrant paradox has a limited explanatory capacity and it is necessary to adopt an intersectional approach to analyse the relationship between the immigrant population, health and premature mortality. To gain a more in-depth understanding of these disparities in premature mortality, further investigation is required into the effects of length of residence and family integration processes and into the influence of social networks and support, which may vary depending on the region or country of origin.

Additionally, an examination of access to and utilization of healthcare in the destination country (Chap. 3 in this volume) and the retention or abandonment of cultural habits and behaviors as risk factors is necessary. This analysis should be undertaken within the framework of the social determinants of health, adopting a sociocultural and life-cycle health perspective. Adopting both approaches, we could better understand the pre-migratory experiences of immigrants and their trajectory in the destination country. Rather than viewing migration as a singular and straightforward event in life with immediate consequences on individual health and eventual mortality, we should recognize migration as a process encompassing pre,

during, and post-steps. In this process, individuals transition to a new environment where their prior socialization intersects with the new risk and protective factors of the host society. Such factors may significantly differ, and adaptation patterns can vary widely. Moreover, it is essential to incorporate a sociological perspective that accounts for non-cultural mechanisms rooted in the social structure, particularly post-migratory factors such as labor trajectories, access to health services, unemployment, poverty, and social vulnerability. These factors can help explain changes in health and their subsequent impact on premature mortality.

In conclusion, the analysis of divergences in premature mortality between immigrant and native populations is essential for future researchers, health professionals, and politicians to consider heterogeneity in both health and premature mortality, with the human and labor losses that this entails. In this way, public health interventions and policies oriented to different age groups, by sex, and by region of origin will be addressed more effectively.

Competing Interests The study was supported by the following grants: RTI2018-098455-A-C22 by the national R+D+i program of the Spanish Ministry of Science and Innovation.

References

Abd ElHafeez, S., D'Arrigo, G., Leonardis, D., Fusaro, M., Tripepi, G., & Roumeliotis, S. (2021). Methods to analyze time-to-event data: The cox regression analysis. *Oxidative Medicine and Cellular Longevity*, 1302811. https://doi.org/10.1155/2021/1302811

Abraído-Lanza, A. F., Dohrenwend, B. P., Ng-Mak, D. S., & Turner, J. B. (1999). The Latino mortality paradox: A test of the "salmon bias" and healthy migrant hypotheses. *American Journal of Public Health, 89*(10), 1543–1548. https://doi.org/10.2105/AJPH.89.10.1543

Abraído-Lanza, A. F., Chao, M. T., & Flórez, K. R. (2005). Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. *Social Science and Medicine, 61*(6), 1243–1255. https://doi.org/10.1016/j.socscimed.2005.01.016

Aldridge, R. W., Nellums, L. B., Bartlett, S., Barr, A. L., Patel, P., Burns, R., et al. (2018). Global patterns of mortality in international migrants: A systematic review and meta-analysis. *The Lancet, 392*(10164), 2553–2566. https://doi.org/10.1016/S0140-6736(18)32781-8

Allen, L., Cobiac, L., & Townsend, N. (2017). Quantifying the global distribution of premature mortality from non-communicable diseases. *Journal of Public Health, 39*(4), 698–703. https://doi.org/10.1093/pubmed/fdx008

Baluja, K. F., Park, J., & Myers, D. (2003). Inclusion of immigrant status in smoking prevalence statistics. *American Journal of Public Health, 93*(4), 642–646. https://doi.org/10.2105/ajph

Benzeval, M., & Judge, K. (2001). Income and health: The time dimension. *Social Science & Medicine, 52*(9), 1371–1390.

Blane, D., Harding, S., & Rosato, M. (1999). Does social mobility affect the size of the socioeconomic mortality differential?: Evidence from the Office for National Statistics Longitudinal Study. *Journal of the Royal Statistical Society: Series A (Statistics in Society), 162*(1), 59–70.

Blue, L., & Fenelon, A. (2011). Explaining low mortality among US immigrants relative to native-born Americans: The role of smoking. *International Journal of Epidemiology, 40*(3), 786–793.

Boulogne, R., Jougla, E., Breem, Y., Kunst, A. E., & Rey, G. (2012). Mortality differences between the foreign-born and locally-born population in France (2004–2007). *Social Science & Medicine, 74*(8), 1213–1223.

Bray, F. I., & Weiderpass, E. (2010). Lung cancer mortality trends in 36 European countries: Secular trends and birth cohort patterns by sex and region 1970–2007. *International Journal of Cancer, 126*(6), 1454–1466. https://doi.org/10.1002/ijc.24855

Davies, A. A., Borland, R. M., Blake, C., & West, H. E. (2011). The dynamics of health and return migration. *PLoS Medicine, 8*(6), e1001046. https://doi.org/10.1371/journal.pmed.1001046

Deboosere, P., & Gadeyne, S. (2005). Adult migrant mortality advantage in Belgium: Evidence using census and register data. *Population, 60*(5–6), 655–698. https://doi.org/10.2307/4148188

Dunlavy, A., Cederström, A., Katikireddi, S. V., Rostila, M., & Juárez, S. P. (2022). Investigating the salmon bias effect among international immigrants in Sweden: A register-based open cohort study. *European Journal of Public Health, 32*(2), 226–232. https://doi.org/10.1093/eurpub/ckab222

Frieden, T. R., Cobb, L. K., Leidig, R. C., Mehta, S., & Kass, D. (2020). Reducing premature mortality from cardiovascular and other non-communicable diseases by one third: Achieving sustainable development goal indicator 3.4.1. *Global Heart, 15*(1). https://doi.org/10.5334/gh.531

Gadd, M., Johansson, S. E., Sundquist, J., & Wändell, P. (2006). Are there differences in all-cause and coronary heart disease mortality between immigrants in Sweden and in their country of birth? A follow-up study of total populations. *BMC Public Health, 6*(1), 1–9. https://doi.org/10.1186/1471-2458-6-102

García-Gómez, P., & Oliva, J. (2009). Calidad de vida relacionada con la salud en población inmigrante en edad productiva. *Gaceta Sanitaria, 23*, 38–46. https://doi.org/10.1016/j.gaceta.2009.09.008

García-González, J. M. (2013). Contributions of cardiovascular mortality to Spanish life expectancy from 1980 to 2009. *Revista Española de Cardiología (English Edition), 66*(11), 848–853.

García-González, J. M. (2014). ¿Por qué vivimos más? Descomposición por causa de la esperanza de vida española de 1980 a 2009. *Revista Española de Investigaciones Sociológicas, 148*(1), 39–59.

García-González, J. M., & Grande, R. (2018). Cambios en las diferencias por sexo en la esperanza de vida en España (1980–2012): descomposición por edad y causa. *Gaceta Sanitaria, 32*(2), 151–157. https://doi.org/10.1016/j.gaceta.2017.03.004

Gimeno Feliú, L. A., Calderón, A., Diaz, E., Poblador, B., Macipe, R., & Prados, A. (2015). The healthy migrant effect in primary care. *Gaceta Sanitaria, 29*, 15–20. https://doi.org/10.1016/j.gaceta.2014.07.007

Grande, R., García-González, J. M., & Stanek, M. (2023). Differences in the risk of premature cancer mortality between natives and immigrants in Spain. *European Journal of Public Health*, ckad102. https://doi.org/10.1093/eurpub/ckad102

Gushulak, B. D., & MacPherson, D. W. (2006). The basic principles of migration health: Population mobility and gaps in disease prevalence. *Emerging Themes in Epidemiology, 3*, 1–11.

Hervella, M. I., Carratala-Munuera, C., Orozco-Beltran, D., Lopez-Pineda, A., Bertomeu-González, V., Gil-Guillen, V. F., et al. (2021). Trends in premature mortality due to ischemic heart disease in Spain from 1998 to 2018. *Revista Española de Cardiología (English Edition), 74*(10), 838–845.

Hofmarcher, T., Lindgren, P., Wilking, N., & Jönsson, B. (2020). The cost of cancer in Europe 2018. *European Journal of Cancer, 129*, 41–49.

INE. (2023). *Estadística de defunciones. Movimiento Natural de la Población*. INE.

Jasso, G., & Massey, D. S. (2004). *Immigrant health: Selectivity and acculturation* (No. 04/23). IFS Working Papers.

Khlat, M., & Darmon, N. (2003). Is there a Mediterranean migrants mortality paradox in Europe? *International Journal of Epidemiology, 32*(6), 1115–1118. https://doi.org/10.1093/ije/dyg308

Khlat, M., Bricard, D., & Legleye, S. (2018). Smoking among immigrant groups in metropolitan France: Prevalence levels, male-to-female ratios and educational gradients. *BMC Public Health, 18*(1), 1–9.

Kimbro, R. T. (2009). Acculturation in context: Gender, age at migration, neighborhood ethnicity, and health behaviors. *Social Science Quarterly, 90*(5), 1145–1166.

Lu, Y. (2008). Test of the 'healthy migrant hypothesis': A longitudinal analysis of health selectivity of internal migration in Indonesia. *Social Science and Medicine, 67*(8), 1331–1339. https://doi.org/10.1016/j.socscimed.2008.06.017

Lu, Y., & Qin, L. (2014). Healthy migrant and salmon bias hypotheses: A study of health and internal migration in China. *Social Science & Medicine, 102*, 41-48. https://doi.org/10.1016/j.socscimed.2013.11.040

Luthra, R., Nandi, A., & Benzeval, M. (2020). Unravelling the 'immigrant health paradox': Ethnic maintenance, discrimination, and health behaviours of the foreign born and their children in England. *Journal of Ethnic and Migration Studies, 46*(5), 980–1001. https://doi.org/10.1080/1369183X.2018.1539287

Mackenbach, J. P., Kulhánová, I., Menvielle, G., Bopp, M., Borrell, C., Costa, G., et al. (2015). Trends in inequalities in premature mortality: A study of 3.2 million deaths in 13 European countries. *Journal of Epidemiology and Community Health, 69*(3), 207–217.

Mackenbach, J. P., Valverde, J. R., Artnik, B., Bopp, M., Brønnum-Hansen, H., Deboosere, P., et al. (2018). Trends in health inequalities in 27 European countries. *Proceedings of the National Academy of Sciences, 115*(25), 6440–6445.

Markides, K. S., & Rote, S. (2015). Immigrant health paradox. *Emerging Trends in the Social and Behavioral Sciences*, 1–15. https://doi.org/10.1002/9781118900772.etrds0174

Marmot, M. G., Adelstein, A. M., & Bulusu, L. (1984). Lessons from the study of immigrant mortality. *Lancet, 1*(8392), 1455–1457. https://doi.org/10.1016/S0140-6736(84)91943-3

Ministerio de Sanidad (2023). Patrones de mortalidad en España, 2020. Ministerio de Sanidad.

Norredam, M., Hansen, O. H., Petersen, J. H., Kunst, A. E., Kristiansen, M., Krasnik, A., & Agyemang, C. (2015). Remigration of migrants with severe disease: myth or reality?—A register-based cohort study. *European Journal of Public Health, 25*(1), 84–89. https://doi.org/10.1093/eurpub/cku138

Omariba, D. W. R., Ng, E., & Vissandjée, B. (2014). Differences between immigrants at various durations of residence and host population in all-cause mortality, Canada 1991–2006. *Population Studies, 68*(3), 339–357.

Pacelli, B., Zengarini, N., Broccoli, S., Caranci, N., Spadea, T., Di Girolamo, C., et al. (2016). Differences in mortality by immigrant status in Italy. Results of the Italian network of longitudinal metropolitan studies. *European Journal of Epidemiology, 31*, 691–701.

Puschmann, P., Donrovich, R., & Matthijs, K. (2017). Salmon bias or red herring? Comparing adult mortality risks (ages 30–90) between natives and internal migrants: Stayers, returnees and movers in Rotterdam, The Netherlands, 1850–1940. *Human Nature, 28*, 481–499. https://doi.org/10.1007/s12110-017-9303-1

Raphael, D. (2006). Social determinants of health: Present status, unanswered questions, and future directions. *International Journal of Health Services, 36*(4), 651–677.

Razum, O. (2008). Migrant mortality, healthy migrant effect. In W. Kirch (Ed.), *Encyclopedia of public health* (pp. 932–935). Springer.

ReFaey, K., Tripathi, S., Grewal, S. S., Bhargav, A. G., Quinones, D. J., Chaichana, K. L., Antwi, S. O., Cooper, L. T., Meyer, F. B., Dronca, R. S., Diasio, R. B., & Quinones-Hinojosa, A. (2021). Cancer mortality rates increasing vs cardiovascular disease mortality decreasing in the world: Future implications. *Mayo Clinic Proceedings Innovations, Quality & Outcomes, 5*(3), 645–653. https://doi.org/10.1016/2Fj.mayocpiqo.2021.05.005

Requena, M. (2021). Censos de población, datos vinculados y el futuro de la investigación social. *Revista Internacional de Sociología, 79*(1), e181c. https://doi.org/10.3989/ris.2021.79.1.19.181c

Ruiz-Ramos, M., & Juárez, S. (2013). Mortalidad general y por causas en la población autóctona e inmigrante en Andalucía. *Gaceta Sanitaria, 27*(2), 116–122. https://doi.org/10.1016/j.gaceta.2012.04.003

Shor, E., Roelfs, D., & Vang, Z. M. (2017). The "Hispanic mortality paradox" revisited: Meta-analysis and meta-regression of life-course differentials in Latin American and Caribbean immigrants' mortality. *Social Science & Medicine, 186*, 20–33.

Singh, G. K., & Siahpush, M. (2001). All-cause and cause-specific mortality of immigrants and native born in the United States. *American Journal of Public Health, 91*(3), 392–399.
Singh, G. K., & Siahpush, M. (2002). Ethnic-immigrant differentials in health behaviors, morbidity, and cause-specific mortality in the United States: An analysis of two national data bases. *Human Biology, 74*, 83–109.
Speciale, A. M., & Regidor, E. (2011). Understanding the universality of the immigrant health paradox: The Spanish perspective. *Journal of Immigrant and Minority Health, 13*(3), 518–525. https://doi.org/10.1007/s10903-010-9365-1
Stanek, M., Requena, M., Del Rey, A., & García-Gómez, J. (2020). Beyond the healthy immigrant paradox: Decomposing differences in birthweight among immigrants in Spain. *Globalization and Health, 16*(1), 1–12. https://doi.org/10.1186/s12992-020-00612-0
Syse, A., Dzamarija, M. T., Kumar, B. N., & Diaz, E. (2018). An observational study of immigrant mortality differences in Norway by reason for migration, length of stay and characteristics of sending countries. *BMC Public Health, 18*, 1–12.
United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations.
Wallace, M., & Wilson, B. (2019). Migrant mortality advantage versus origin and the selection hypothesis. *Population and Development Review, 45*(4), 767–794. https://doi.org/10.1111/padr.12298
Winblad, B., Amouyel, P., Andrieu, S., Ballard, C., Brayne, C., Brodaty, H., & Zetterberg, H. (2016). Defeating Alzheimer's disease and other dementias: A priority for European science and society. *The Lancet Neurology, 15*(5), 455–532.
World Health Organization. (2013). *Global action plan for the prevention and control of noncommunicable diseases 2013–2020*. WHO.
World Health Organization. (2021). *Global health observatory 2020*. WHO.
Wu, Y. T., Fratiglioni, L., Matthews, F. E., Lobo, A., Breteler, M. M., Skoog, I., & Brayne, C. (2016). Dementia in western Europe: Epidemiological evidence and implications for policy making. *The Lancet Neurology, 15*(1), 116–124.
Young, C. (1986). *Selection and survival immigrant mortality in Australia*. Australian Government Publishing Service.

Chapter 9
Are All Immigrants Equally Healthy? Examining the Healthy Immigrant Paradox Across Age Groups and Education Levels in Spain

Aïda Solé-Auró

9.1 Introduction

Health is a multidimensional phenomenon, as it relates to individuals as a whole. The most popular definition of health to date is the one formulated in 1948 by the World Health Organization (WHO): "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." However, this conceptualization has been criticized and alternatives have been suggested, with an emphasis on fulfilling the ability of individuals to adapt and self-manage in the presence of disabilities and chronic diseases (Godlee, 2011; Huber et al., 2011). In 2021, Spain was among the European Union countries with the highest number of immigrants, accounting for approximately 14% of the total population and with an average age at arrival of 33.2 years (INE, 2023). Indeed, the impact of immigration in the demographic composition and social structure of numerous Western European countries is certain. Consequently, the European Commission prioritized offering support to countries that receive a high number of immigrants, which reflects the importance of fully understanding how immigrants experience the deterioration of their health over the life course using measures that generally follow this deterioration process consecutively (Solé-Auró et al., 2022).

Migration is related to different dimensions, including economic, demographic, environmental, developmental, historical, and sociocultural factors (Czaika & Reinprecht, 2022). These sociodemographic, economic, and cultural dimensions modify the way individuals, and particularly immigrants, live, interact, and socialize over their life course. Extensive research evidence indicates that immigrants are healthier upon arrival in the destination country than native-born populations on several indicators of healthy aging (Argeseanu Cunningham et al., 2008; Diaz et al., 2015a), which is often called the healthy migrant paradox. This health advantage is in

A. Solé-Auró (✉)
Department of Political and Social Sciences, Universitat Pompeu Fabra, Barcelona, Spain
e-mail: aida.sole@upf.edu

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*,
IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_9

general universal for mortality (i.e., death), but changes for morbidity depending on the health measure used (i.e., diseases and medical conditions) as immigrants' health converges toward the level of natives (Bousmah et al., 2019). Some researchers have found that immigrants in Europe are more likely than native-born populations to have health problems, such as functional limitations, mental disorders, poor self-rated health, and/or chronic health conditions (Solé-Auró & Crimmins, 2008) with variations in magnitude according to their country of origin and destination country.

In this chapter, I focus on Spain to complement the literature on immigrants' health by examining immigrant–Spanish native disparities in health for individuals aged ≥30 years old using data from 2014 and 2020. I follow three steps. First, I examine the heterogeneity of sociodemographic characteristics and health conditions between immigrants and natives. Second, I explore how the healthy immigrant paradox varies using four health measures (i.e., chronic health conditions, self-perceived health, Global Activity Limitation Indicator [GALI], and cognitive impairment) and two risk factors (i.e., smoking and overweight) across three age groups, which allows us to provide a more complete view of the occurrence of several health outcomes and two education levels. This is of considerable importance to the aging process and is closely related to the study reported in this chapter, as I also seek to highlight the need for a better understanding of health deterioration over the life course. Finally, I analyze how immigrants' country of origin (grouped by gross domestic product [GDP] per capita) might influence differences in their health. Overall, considering the number of aging immigrants in Spain, this issue should be treated as one of the most relevant social and public health concerns today.

9.1.1 Immigrant Flows

It is important to consider the diversity of immigrants' backgrounds and composition, as well as their origin and destination, in social planning, as it is crucial to understand how immigrants differ from native-born populations in ways that will affect local demand for social support and healthcare (already discussed in Chap. 3). Van Mol and de Valk (2016) identified three periods of migration within and toward Europe since the 1950s. The first period (1950s–1974) saw increased European migration due to post-war economic growth in Northwestern Europe. The second period (1973–1974) was influenced by the 1970s energy crisis, which led to a significant increase in non-European immigrant populations. The third period (1990 onward) began with the opening of Eastern European borders and the 2008 global economic crisis marked the end of this period, as it affected intra-European migration more than migration from non-European countries (Castles et al., 2014).

My case of interest in this study, Spain, received an important inflow of immigration during the 2000s (2000–2015), which places Spain among the top "Organization for Economic Cooperation and Development" countries' recipient of immigrants in absolute terms. Today, immigrants in Spain currently make up about 16% of the Spanish population (INE, 2023). Immigrants' countries of origin vary greatly, but a

large majority come from South American countries (around 36%), other European countries (about 32%), and African countries (16%) (INE, 2023) (some further remarks on this topic are included described in the Introduction of this book). Most immigrants who arrived in Spain between 1950 and 2000 came from neighboring countries, but recent flows (from the 2000s onward) also come from South American and African countries, which, as mentioned earlier, shapes the composition of society, as their socioeconomic backgrounds and health patterns might be more heterogeneous. Therefore, the composition of immigrants arriving in Spain and other Western countries has been accompanied by an increasing interest in their characteristics, most notably, their health status and healthcare needs.

9.1.2 Mechanisms of the Healthy Immigrant Paradox

The immigrant health literature has often noted that immigrants are healthier upon arrival than native-born populations with similar demographic and socioeconomic profiles (Biddle et al., 2007), which is in part due to the selective migration, known as the healthy migrant paradox, of individuals with the health, resources, and energy to migrate. Hence, it may not be simply that healthier people migrate, but that immigrants from some countries are positively selected according to some health aspects. This effect was originally identified in the United States, but has also been documented in many other countries since then, including European migration destination countries (Diaz et al., 2015b). Although these immigrants have a health advantage, studies have shown that over time, with subsequent generations and time spent in the destination country, their health decreases and tends to converge toward the level of natives (Antecol & Bedard, 2006; Bousmah et al., 2019; Diaz et al., 2015a; Gimeno-Feliu et al., 2017). However, the following question remains: Why are immigrants healthier than natives?

As mentioned by my colleagues (whose further remarks are described in the Introduction and Chap. 4), several mechanisms might explain the healthy immigrant paradox (Bacong & Menjívar, 2021). Here, I briefly summarize three important aspects of the paradox: namely, cultural and behavioral factors, immigrant selectivity, and the salmon bias effect.

Cultural and behavioral explanations for the healthy immigrant paradox state that immigrants arrive in the destination country with positive cultural values or healthy behaviors that predispose them to behave in a healthy way, such as eating healthily and consuming their traditional foods, or smoking and drinking less alcohol than native-born individuals (Abraído-Lanza et al., 2005; Castañeda et al., 2015). However, this health advantage was not seen for all health-risk behaviors. For instance, the immigrant groups reported significantly more sedentary behavior during leisure time, with overweight and obesity being strongly related to this lack of physical activity, particularly among the adult population (Martínez-González et al., 1999). Although these healthy habits have been shown to reduce or disappear over time, examining some of these behaviors and cultural practices can help us better understand the roots of the healthy immigrant paradox.

As an explanation for the healthy immigrant paradox, the mechanism of immigrant selectivity assumes that the healthiest and wealthiest individuals are the most likely to migrate because they can overcome hardship and destabilization during their move. Once in the arrival country, immigrants import healthy practices from their home countries (Hamilton, 2015), which gives them a health advantage due to their hardiness and resourcefulness compared with native-born individuals with similar demographic profiles. However, this selectivity is often stronger for immigrants from developing countries than for those from developed countries (Kennedy et al., 2015). In addition, it is based on higher educational attainment, regardless of the country of origin. However, immigrant selectivity not only depends on individual factors, such as lower smoking rates (Khlat et al., 2018; Riosmena et al., 2017), lower levels of chronic health conditions, and higher life expectancy than among people in their countries of origin, but also on structural and contextual factors. Nevertheless, scholars have not found universal patterns of health selectivity across all countries (Feliciano, 2020; Jasso et al., 2004), and additional research is needed to disentangle the effect of health selectivity from the effects of migration or assimilation.

The salmon bias effect (Pablos-Méndez, 1994) considers that less healthy immigrants return to their country of origin or are more likely to emigrate to receive care or support from family members (Abraído-Lanza et al., 2005). The salmon bias effect has been mostly studied in the US context and little research evidence has been found elsewhere (Palloni & Arias, 2004). Many health researchers have also explored whether selective return migration among less healthy immigrants helps explain immigrants' health advantages relative to destination country natives by comparing their mortality rates, particularly among the older population (Hummer et al., 2007). However, the mixed results show a dependence on several factors because migration decisions are complex and influenced by a number of factors, such as immigrants' health status (Norredam et al., 2015), whether they are coming from countries in conflict (Davies et al., 2011), socio-, micro-, and macroeconomic settings, the feasibility of international mobility, and education level, among other health- and work-related factors (Dunlavy et al., 2022).

9.1.3 Age, Socioeconomic Status, and Health

As individuals age, the prevalence of health problems is higher than in younger individuals; therefore, older individuals are more likely to suffer from several chronic health conditions (Barnett et al., 2012). However, the occurrence and development speed of chronic health conditions differ according to each individual's sociodemographic characteristics. The European population is currently rapidly aging. Between 2002 and 2022, the median age in the European Union increased by almost 6 years, from 38.7 years to 44.4 years (Eurostat, 2023). In particular, Spain saw a significant increase of 7.2 years in the median age during this period. In 2001, the percentage of people aged between 65 and 79 years was 12.4%, which rose to

15.1% by 2022. This upward trend in aging is evident across all European countries, with the proportion of the aging population in Spain reaching 16% in 2022 (INE, 2023). As a growing share of the diverse European population, immigrants play a role in this aging process. Today, a growing proportion of immigrants are older people (OECD and EU, 2015) who are in frequent contact with various healthcare services, such as primary care (analyzed in Chap. 3). Recent findings on the age-related health trajectories of immigrants versus native-born individuals in Europe show that immigrants have more chronic health conditions than their native-born peers at all ages, but the age-related speed of accumulation of chronic diseases is slower among immigrants than among natives, especially among older people. Hence, immigrants' advantage over native-born people may be explained by their healthy behavior (Jang et al., 2023).

The health effects of socioeconomic status (SES) are well established, as they can be observed across populations, regions, age groups, and health outcomes. As a good indicator of SES, education is often used to examine how SES relates to individuals' health status. The positive association between education and good health has been documented by many researchers (Luy et al., 2019; Marmot, 2005; Montez et al., 2012; Ross & Mirowsky, 1999; Williams et al., 2016). In general, people with lower education levels are more vulnerable to poor health and more likely to adopt specific health-risk behaviors (Huijts et al., 2017). Some studies and countries, however, do not associate immigrants' worse health with their lower education levels (Solé-Auró & Crimmins, 2008). A possible explanation may be the diversity of backgrounds among the different immigrant subgroups in Europe. As indicated by Siddiq and Najand (2022), distal socioeconomic indicators, such as parental education and/or own educational attainment, may generate more unequal returns for marginalized than privileged populations because of the potentially varying quality of education among different social groups.

The health disparities observed between migrants and nonmigrants can be attributed to various factors, primarily at the individual level (e.g., healthy behaviors), but also to the differing contexts (e.g., regions and policies), populations, and protective factors, and have been linked to a wide range of health outcomes. For instance, these disparities encompass migrant selectivity, both upon arrival in a new country and through their selective return to their country of origin, but immigrant-specific risk behaviors and lifestyles, dietary habits, and SES, as well as access to and use of healthcare services, also play crucial roles (Holmboe-Ottesen & Wandel, 2012; Mladovsky, 2007; Solé-Auró & Crimmins, 2008; Solé-Auró et al., 2012). In particular, considering obesity risk, socioeconomic factors and stress exposure may play an important role in increasing unhealthy weight gain in immigrant populations, leading to a higher risk of obesity in the immigrant population than in the native population 10–15 years after migration (Delavari et al., 2013).

Studies examining immigrants from diverse countries of origin have shown that immigrants disclose better self-reported health and lower levels of chronic health conditions (Kennedy et al., 2015) than people in their countries of origin. In addition, lower smoking rates have been found among immigrants (Riosmena et al., 2017) as well as higher life expectancy than among people in their countries of

origin. It is important to note that while health selectivity is observed, the selectivity patterns are not universally consistent across all health outcomes. At the group level, there is considerable interest in understanding the health transitions that occur in both migrant origin and destination countries. These transitions encompass various stages that countries go through in terms of health outcomes. In addition, researchers have focused on the impact of social media networks on health, which can serve as a potential continuation of (un)healthy behaviors and also provide valuable support resources (Reus-Pons et al., 2017).

9.2 Research Design and Methods

9.2.1 Study Population

This study combined microdata from the European Health Interview Survey in Spain (EESE) in 2014 and 2020, which is a cross-sectional survey representative of the noninstitutionalized Spanish population. The EESE provides information about the health of the Spanish population, which is harmonized and comparable at the European level. This information can be used to plan and evaluate actions related to health matters, such as knowing the determinants of health or life habits that pose health risks. The initially programmed information collection method was computer-assisted personal interviewing (CAPI), which could be supplemented, if necessary and in exceptional cases, by telephone interviews. As of March 17, 2020, however, the collection method for the 2020 EESE questionnaire was adapted to the casuistry derived from the COVID-19 pandemic. Therefore, it was necessary to change the method by replacing personal interviews with computer-assisted telephone interviewing (CATI). This modification affected the dwellings included in the sections that were collected from weeks 35 to 52.

The target population was individuals aged ≥15 years who reside in Spain. However, for the purpose of this study and to avoid discrepancies based on my main socioeconomic indicator (i.e., education level), I selected individuals aged ≥30 years and defined immigrants as those born in a foreign country. The citizenship variable was not considered, as some immigrants might have become citizens of the destination country before migrating. In addition, it is even more difficult for the rest of the foreign population to obtain Spanish citizenship, as 10 years of legal and continued residency are required and Spanish citizenship is not easy to obtain.

9.2.2 Dependent Variables

I used four health indicators and two risk factors to compute the health differences between immigrants and Spanish-born according to the Spanish EESE questionnaire. Studying these indicators is key to understanding the occurrence and duration in life of different health measures across different age groups.

First, I analyzed the presence or absence of chronic health conditions and risk factors. In line with the study by Solé-Auró et al. (2022) on unhealthy life expectancy in Spain, I used an indicator that includes the following conditions: (1) cancer, (2) stroke, (3) myocardial infarction, (4) heart disease, (5) hypertension, (6) diabetes, (7) high cholesterol, (8) chronic low back pain, (9) neck pain, (10) asthma, and (11) chronic obstructive pulmonary disease. I considered individuals as presenting the focal health condition when they answered affirmatively to all three questions: "Have you ever suffered from this specific health condition?"; "Have you had it in the last 12 months?"; and "Has a doctor told you that you have it?"[1] Second, I used self-perceived health over the previous 12 months, where the original question was: "How is your health in general? Is it very good, good, regular, bad, or very bad?" I grouped these five responses into two categories: namely, good (i.e., very good and good, coded as 0) and poor (i.e., regular, bad, and very bad, coded as 1) health.[2] Third, I used the Global Activity Limitation Indicator (GALI), which was developed by the Euro-REVES group for the European Union, which serves as an official structural indicator to track levels and trends in population health in the European Union. The GALI measures responses to the following question: "For the past 6 months at least, to what extent have you been limited because of a health problem in activities people usually do?" I dichotomized responses into limited (coded as 1), which included the original responses (i.e., "limited but not severely" and "severely limited") and no limitations (coded as 0). My last health measure concerned cognitive impairment, where the respondents were asked: "Do you have difficulties remembering or concentrating?" I dichotomized the four possible answers into two categories: namely, cognitively impaired (coded as 1) for those declaring themselves as having "some difficulty," "a lot of difficulty," or "cannot do at all," and not cognitively impaired (coded as 0) for those reporting no difficulties.[3]

In addition, I supplemented my analysis by examining two health-risk behaviors: overweight and smoking. Information on height and weight was converted to body mass index (BMI) values, which were categorized as overweight or obese (i.e., a BMI of $\geq$25) versus a healthy weight. Smoking was coded as being a current smoker versus nonsmoker (however, this definition excluded electronic smoking devices).

[1] P25a: ¿Alguna vez ha padecido?; P25b: ¿La ha padecido en los últimos 12 meses?; P25c ¿Le ha dicho un médico que la padece? para los ítems (1) Tensión alta, (2) Infarto de miocardio, (3) Angina de pecho, enfermedad coronaria, (4) Otras enfermedades del corazón, (7) Dolor de espalda crónico (cervical), (8) Dolor de espalda crónico (lumbar), (10) Asma (incluida asma alérgica), (11) Bronquitis crónica, enfisema, enfermedad pulmonar obstructiva crónica (EPOC), (12) Diabetes, (15) Colesterol alto, (23) Ictus (embolia, infarto cerebral, hemorragia cerebral), (26) Tumores malignos.

[2] P21: En los últimos doce meses, ¿diría que su estado de salud ha sido (1) muy bueno, (2) bueno, (3) regular, (4) malo, (5) muy malo?

[3] P38a ¿Tiene dificultad para recordar o para concentrarse? (1) No, ninguna dificultad, (2) Sí, alguna dificultad, (3) Sí, mucha dificultad, (4) No puedo hacerlo en absoluto.

9.2.3 Explanatory and Control Variables

I used migration status as my main explanatory variable (i.e., immigrants and Spanish-born), where immigrants were defined as foreign-born individuals. As one of the proposed aims was to explore the heterogeneity of immigrants according to their country of origin, I assigned the status of their country of origin according to the country's GDP per capita in 2014, the initial survey year using data from the World Bank (2023). In this dataset, the 33rd percentile corresponded to US$3197, while the 67th percentile corresponded to US$12,330 (as of November 2023). In particular, immigrants were classified into three GDP categories: "low GDP," for countries with GDP per capita up to the 33rd percentile; "midrange GDP," for countries with GDP per capita from the 34th to 65th percentiles; and "high GDP," for countries between the 68th and 99th percentiles of GDP per capita (see Appendix). In addition, I used information about immigrants' age at migration to compute their length of residence in Spain. Therefore, I generated two groups: that is, immigrants who have lived in Spain for <10 years or ≥ 10 years.

To examine how immigrants' SES is related to their relative health status, I included the education variable in my analysis, as education is the most appropriate indicator of SES when examining people across a wide range of ages. Education serves as a SES indicator for three reasons: first, it is more likely to remain constant during the adult lifespan and is easily measured for all individuals, even for immigrants; second, it is relatively well reported in questionnaires and survey data; third, the likelihood of reverse causation between education and health at older ages is lower than that between income/occupation and health (Solé-Auró et al., 2015). I classified my respondents into two low and high education groups in line with the International Standard Classification of Education.[4] "Low education" corresponded to those with compulsory education or lower, including the first stage of secondary education, primary education, and illiteracy (coded 1 to 5 in the original data source). "High Education" corresponded to those with upper secondary education, vocational training, and university degrees at all levels: i.e., Bachelor's degree holders, Masters' degree students, and Ph.D. students (coded 6–9) (INE, 2023).[5] Considering employment status, I distinguished between two employment states: working (i.e., employed or self-employed) and not working (i.e., retired, unemployed, permanently sick or disabled, homemaker, nursing home resident, or other).

I then included several control variables in my analysis. My demographic and living arrangements explanatory variables included the following factors: three age

[4] https://uis.unesco.org/en/topic/international-standard-classification-education-isced

[5] Low Education: 1 "No procede, es menor de 10 años" 2 "No sabe leer o escribir" 3 "Educación Primaria incompleta (Ha asistido menos de 5 años a la escuela)" 4 "Educación Primaria completa" 5 "Primera etapa de Enseñanza Secundaria, con o sin título (2° ESO aprobado, EGB, Bachillerato Elemental)." High Education: 6 "Estudios de Bachillerato" 7 "Enseñanzas profesionales de grado medio o equivalentes" 8 "Enseñanzas profesionales de grado superior o equivalentes" 9 "Estudios universitarios o equivalentes."

groups (i.e., 30–44, 45–64, and ≥ 65 years), gender (i.e., female vs. male), and marital status (i.e., married or in partnership [reference], never married, separated, divorced, or widowed).

Finally, I also added controls for two additional health measures: alcohol consumption (i.e., does not drink alcohol) and physical inactivity. The physical inactivity measure combined the least physical activity options regarding leisure activities, "I do not exercise. I spend my free time in almost exclusively sedentary activities," and the level of physical activity during one's work (or studies or housework if the respondent does not engage in paid work), such as "I am sitting during most of my working day." Hence, these measures ensured that people with the most physically demanding jobs were not assumed to be the least physically active.

9.2.4 Statistical Analyses

I categorized the descriptive statistics of my sample and the dependent, explanatory, and control variables into immigrant and native-born populations. I then created graphs to illustrate the health differences between these populations according to their education level across four age groups. This categorization was important because it provided additional information about the health of these groups as they aged over time.

I used a logistic regression model to analyze the association between immigrant status, health conditions, and health-risk behaviors. Model 1 (M1) presented the regression coefficients indicating the relative likelihood that immigrants' age at migration (i.e., < 10 and ≥ 10 years) determines each poor health category when age (i.e., 30–44, 45–64, and ≥ 65 years) and sex are controlled. These controls could be adjusted for compositional demographic differences that may affect people's health independent of their immigrant status. Model 2 (M2) added information about individuals' education level, living arrangements, activity in the labor market, and two additional health conditions (i.e., abstaining from alcohol and physical inactivity) to explore how the regression coefficients change following the addition of these controls, which differ between immigrants and Spanish-born. I explored the heterogeneity of this effect by adding two interaction terms in two models between immigration status and education level on health in Model 3 (M3). In addition, I explored the interaction between immigration status and age groups on health in Model 4 (M4). Adding interaction terms made the models more flexible as they allowed us to describe situations in which the influence of two variables simultaneously affects a third variable in a nonadditive manner. Finally, I used M3 and M4 to predict the probability of each health measure according to immigrant status interacted with education level and age groups to visualize these differences graphically. Therefore, all main findings related to the effect of each health measure are presented in the form of predicted probabilities. All statistical analyses applied weights (taken from INE, 2023) and were performed using the R statistical package (4.0.3;

The R Foundation, Vienna, Austria) and STATA 14 software (StataCorp, College Station, TX, USA).

9.3 Results

Table 9.1 presents the health, demographic, and socioeconomic characteristics of the immigrants and Spanish-born in my final sample, which comprised 39,899 individuals (3239 immigrants [13%] and 36,660 Spanish-born [87%]). Considering each of the four health indicators, I observed that immigrants had better health conditions: that is, a lower prevalence of chronic health conditions (35.3% vs. 51.8%), lower bad self-rated health (25.3% vs. 31.4%), fewer GALI limitations (17.8% vs. 28.7%), and fewer cognitive impairments (4.3% vs. 6.3%). However, almost no differences between immigrants and Spanish-born were seen for the two health-risk behaviors. My sample included more women than men and the immigrants were 9.4 years younger than the Spanish-born on average.

About the same proportion of immigrants and Spanish-born were married (around 68%), but more immigrants were never married, separated, or divorced, and fewer were widowed (as expected by the age effect) than Spanish-born. A smaller proportion of immigrants than Spanish-born had low education levels (42.7% vs. 53.9%, respectively), while a higher proportion of immigrants than Spanish-born reported high education levels (57.3% vs. 46.1%, respectively) and were working (58.0% vs. 48.8%, respectively), which illustrates the higher proportion of retired Spanish-born. No alcohol consumption and physical inactivity (e.g., leisure and work) showed better results for immigrants than for Spanish-born. Finally, considering only immigrants, I obtained information about three groups related to GDP per capita and their length of residence in Spain. Over half of the immigrants belonged to the midrange GDP per capita group and almost three out of four immigrants had lived in Spain for ≥10 years.

Figures 9.1 and 9.2 show the prevalence of poor health conditions and risk factors among immigrants by GDP per capita and Spanish-born in three age groups. In general, Spanish-born reported slightly worse health conditions than immigrants and age groups, except for bad self-reported health among immigrants with low or midrange GDP in all age groups and for cognitive impairments in all immigrant groups younger than 65 years who reported poorer health. In contrast, Spanish-born reported higher levels of overweight/obesity than immigrants with low or midrange GDP and also higher smoking prevalence than immigrants with midrange or high GDP.

Figures 9.3 and 9.4 show the prevalence of poor health conditions and risk factors among immigrants and Spanish-born by education level and age groups. In general, and among those with low education, Spanish-born reported more poor health conditions than immigrants in each health indicator and at all ages. I observed fewer health differences among Spanish-born with high education; for instance, poor self-reported health and cognitive impairment were slightly less prevalent

Table 9.1 Sample characteristics and weighted percentages in the sociodemographic and health variables for immigrants and Spanish-born (age ≥ 30 years)

	Immigrants	Spanish-born
Sample size (N)	3239	36,660
Chronic health conditions	35.3	51.8
Bad self-rated health	25.3	31.4
GALI	17.8	28.7
Cognitive impairment	4.3	6.3
Current smokers	21.7	23.7
Overweight or obese	54.5	55.5
Women (in %)	54.7	51.2
Age (mean)	46.02	55.4
Age groups (years)		
30–44	50.4	24.8
45–64	39.6	38.7
≥65	10.0	36.4
Marital status		
Married or in partnership	68.1	68.8
Never married	20.2	16.1
Separated or divorced	7.9	5.9
Widowed	3.9	9.3
Education level (in %)		
Low education	42.7	53.9
High education	57.3	46.1
Employment status (in %)		
Working	58.0	48.8
Not working	42.0	51.2
Does not drink alcohol	40.2	32.5
Physical inactivity (at leisure and work)	10.5	16.5
GDP per capita in 2014 from the country of origin		
Low	12.6	
Midrange	57.3	
High	30.1	
Length of residence in Spain		
<10 years	27.6	
≥10 years	72.4	

Sources: European Health Interview Survey in Spain 2014 and 2020.
Note: Weights provided by INE were applied. GALI "Global Activity Limitation Indicator".

among Spanish-born than among immigrants across all ages (i.e., the prevalence of poor self-reported health in the 30–44 age group was 0.12 and 0.17 for Spanish-born and immigrants, respectively). Considering chronic health conditions, the health differences between both groups were very small in contrast, although they were slightly significantly more prevalent among Spanish-born (Fig. 9.3). No differences were seen in the prevalence of both risk factors reported by immigrants and

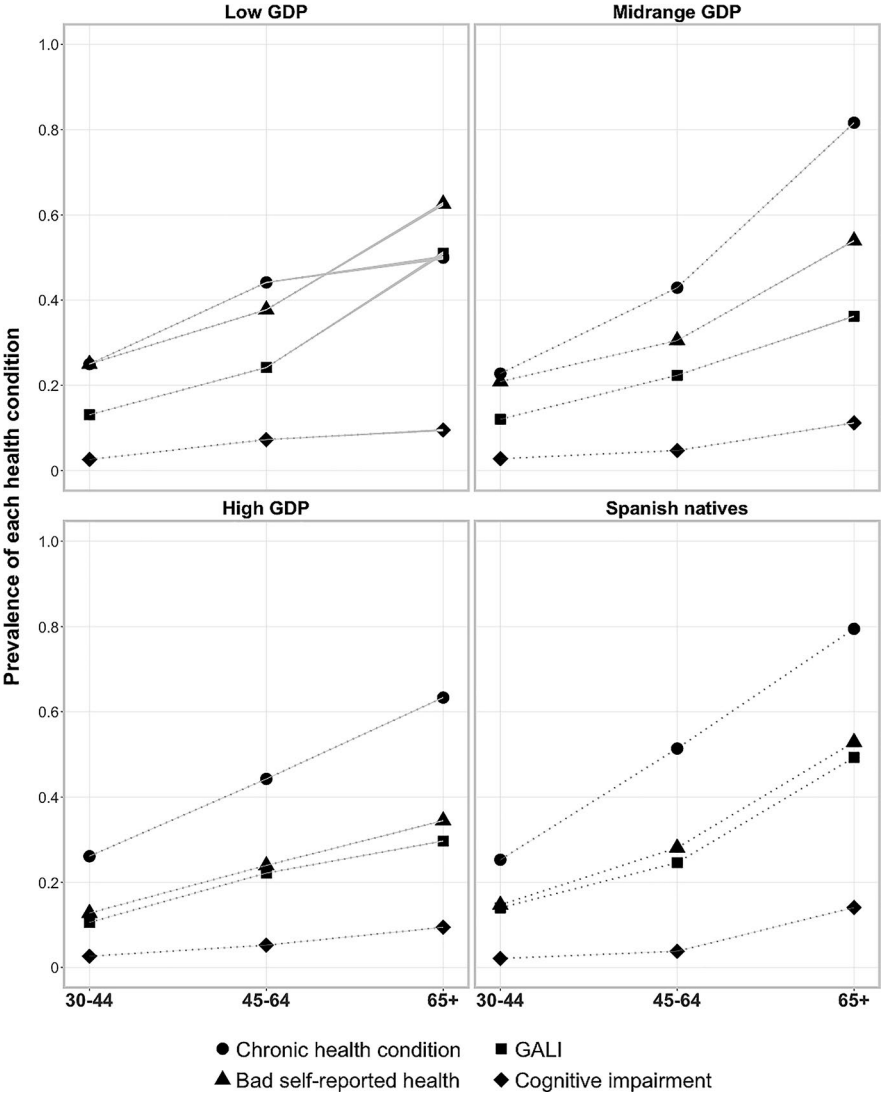

Fig. 9.1 Prevalence of poor health conditions among immigrants by Gross domestic product (GPD) per capita and Spanish-born in three age groups (30–44, 45–64, and ≥ 65 years). (Source: European Health Interview Survey in Spain 2014 and 2020. Individuals aged ≥30 years. Note: GALI "Global Activity Limitation Indicator")

Spanish-born across both education levels (Fig. 9.4), except for respondents with high education where immigrants had a slightly higher prevalence of overweight or obesity problems than Spanish-born across all ages (i.e., the prevalence of overweight or obesity in the 30–44 age group was 0.4 and 0.47 for natives and immigrants, respectively).

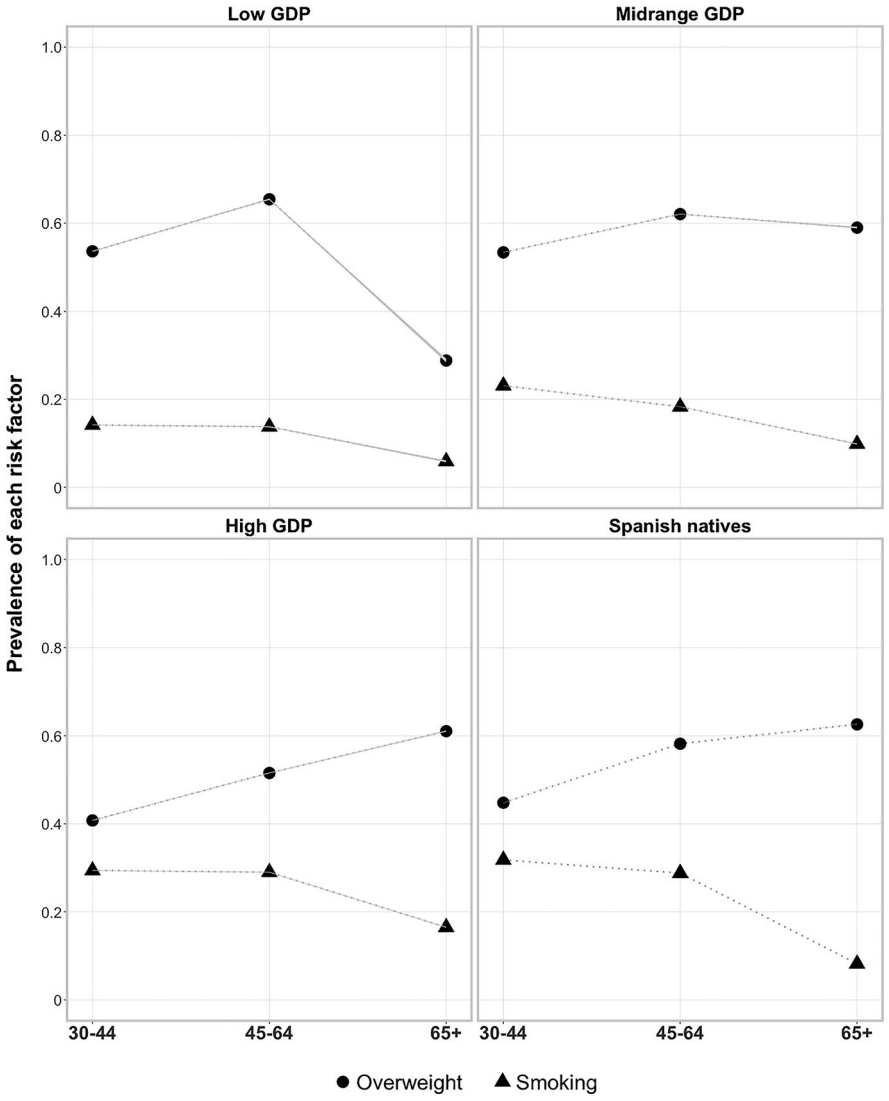

Fig. 9.2 Prevalence of overweight/obese and smoking among immigrants by GDP per capita and Spanish-born in three age groups (30–44, 45–64, and ≥65 years). (Source: European Health Interview Survey in Spain (EESE) 2014 and 2020. Individuals aged ≥30 years)

Figures 9.5 and 9.6 present the predicted probabilities for each health condition and risk factor based on immigrant status derived using a logistic regression model. Specifically, M3 showed the interaction effect between immigrants' age at migration and their low or high education level, while M4 demonstrated the interaction effect of immigrants' age at migration across the different age groups. My analyses found significant gaps in the predicted probabilities for each health condition

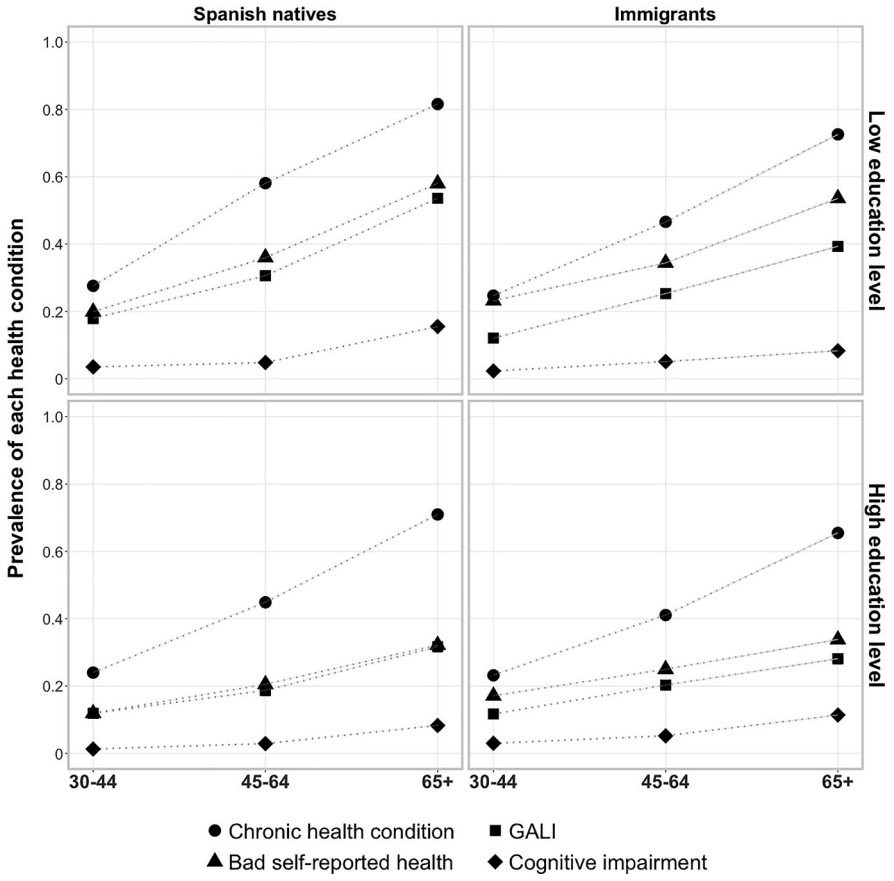

Fig. 9.3 Prevalence of poor health conditions among immigrants and Spanish-born by education level and age groups (30–44, 45–64, and ≥65 years). (Source: European Health Interview Survey in Spain (EESE) 2014 and 2020. Individuals aged ≥30 years. Note: GALI "Global Activity Limitation Indicator")

concerning immigrant status and either education level (M3) or age group (M4). Spanish-born with lower education levels were more likely to experience chronic health conditions, bad self-rated health, GALI difficulties, and cognitive impairments than immigrants, particularly those with <10 years of residence in Spain. However, immigrants with longer stays (≥10 years) and higher education levels were more likely to report poor self-rated health and cognitive impairment than both Spanish-born and short-term immigrants (<10 years). However, immigrants with high education levels had a lower likelihood of chronic health conditions, with no significant differences observed between groups in their GALI limitations. Across age groups (M4), the predicted probabilities for bad health conditions increased, with some differences. Similar age patterns were observed for chronic health conditions and GALI limitations, where Spanish-born had the highest

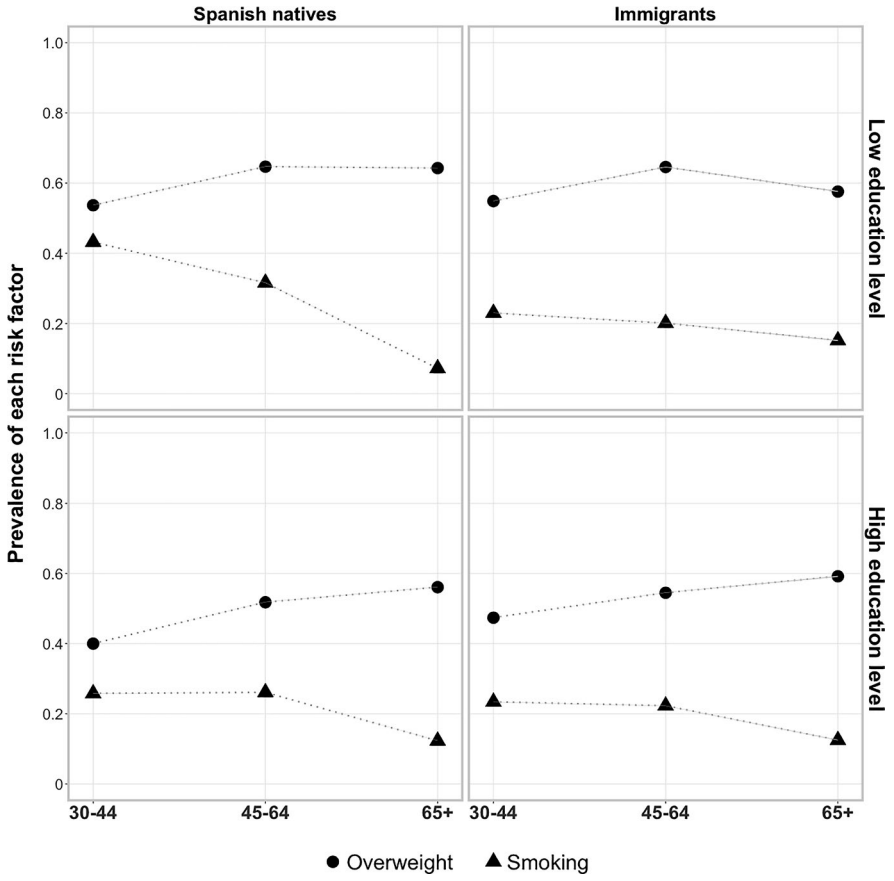

Fig. 9.4 Prevalence of overweight and obese and smoking health conditions among immigrants and Spanish-born by education level and age groups (30–44, 45–64, and ≥65 years). (Source: European Health Interview Survey in Spain (EESE) 2014 and 2020. Individuals aged ≥30 years)

predicted probabilities, followed by immigrants with long or short stays. Considering the age groups <65 years, almost no differences between groups were observed in terms of poor self-reported health and cognitive impairment. Nevertheless, short-term immigrants in the ≥65 age group had lower predicted probabilities than the other two age groups.

Figure 9.6 illustrates the predicted probabilities of being overweight or obese and smoking, which reveal significant disparities based on immigrants' age at migration, Spanish-born, and education levels (M3) or age groups (M4). Among the respondents with low education levels, immigrants were more likely to be overweight or obese, with no significant differences observed between Spanish-born and long-term immigrants. Long-term immigrants with high education levels were the most likely to be overweight or obese, while the other two groups showed similar, but lower, values (M3). In addition, the predicted probabilities for being overweight

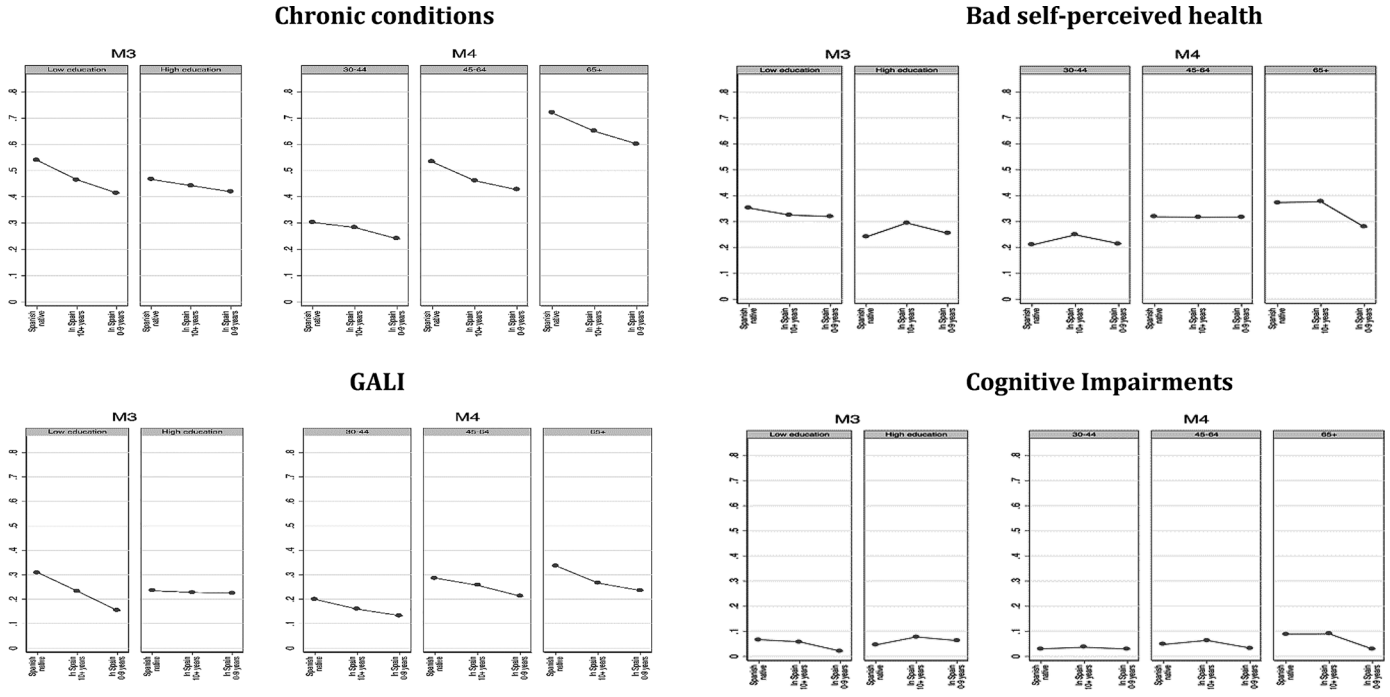

Fig. 9.5 Predicted probabilities of health conditions for immigrants age at migration and Spanish-born (with 95% confidence intervals) (2014–2020). (Source: EESE 2014 and 2020. Individuals aged 30-plus)

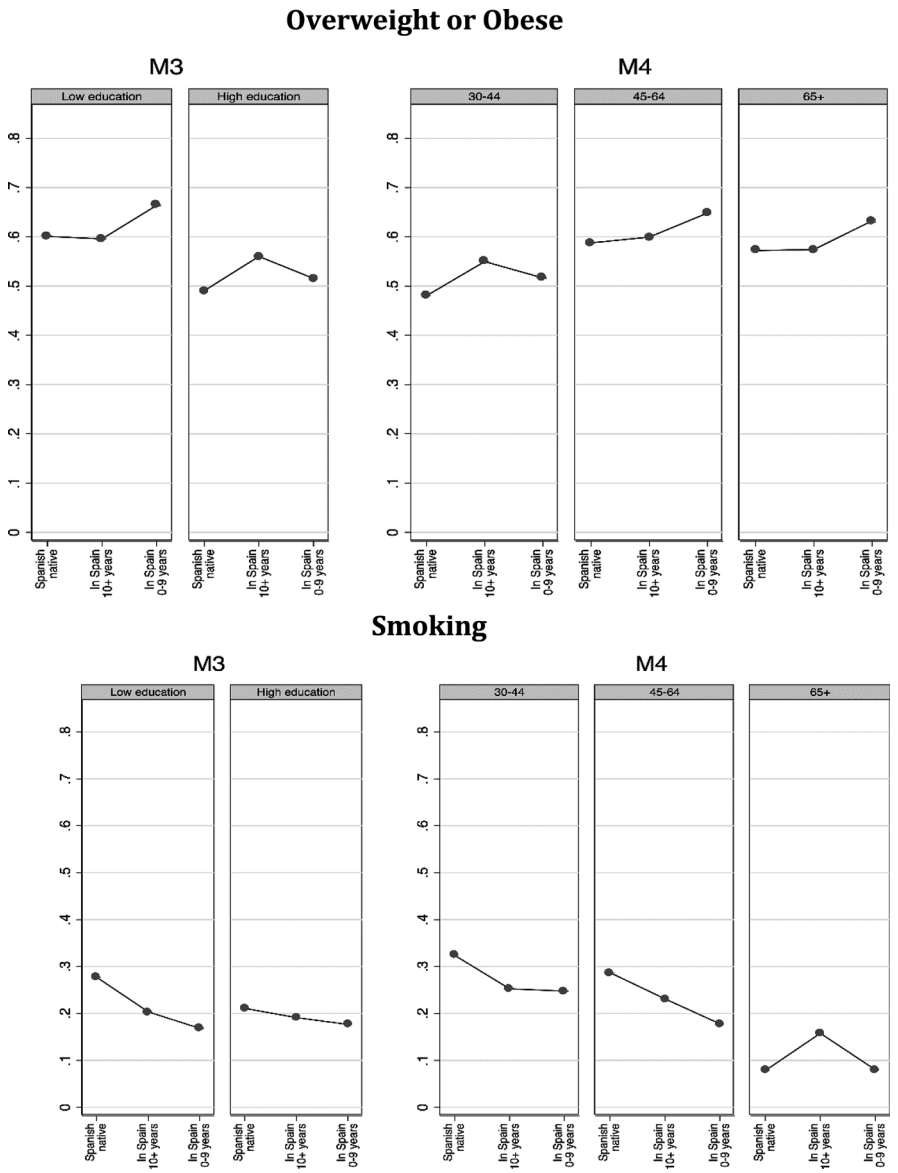

Fig. 9.6 Predicted probabilities of being overweight or obese and smoking for immigrants' age at migration and Spanish-born (with 95% confidence intervals) (2014–2020). (Source: European Health Interview Survey in Spain (EESE) 2014 and 2020. Individuals aged ≥30 years)

or obese increased with age (M4). Spanish-born aged 30–44 years had the lowest predicted probabilities, whereas long-term immigrants had the highest predicted probabilities. After the age of 45, the predicted probabilities were consistently higher for short-term immigrants with the remaining two groups showing similar,

but lower, probabilities. Considering smoking, Spanish-born (regardless of education level) were the most likely to be current smokers, followed by long- and short-term immigrants in that order. The differences were more pronounced for respondents with low education (M3). Overall, older respondents were less likely to smoke than younger respondents (M4). Spanish-born aged 30–65 years had the highest predicted probabilities for being current smokers. The probabilities were similar for immigrants aged 30–44 years, but long-term immigrants aged 45–64 years had higher predicted probabilities than short-term immigrants with <10 years in Spain.

9.4 Conclusions

This chapter examined the health disparities between immigrants and Spanish-born for individuals aged ≥30 years in 2014 and 2020. I also explored whether the healthy immigrant paradox persisted across age groups and education levels.

My findings support the presence of the healthy immigrant paradox in Spain, wherein both short- and long-term immigrants generally enjoy significantly better health conditions than Spanish-born. These disparities might be partially attributed to selection effects, as the immigrants in my data set were nearly 10 years younger on average and tended to have higher education levels than the Spanish-born. Therefore, the better position of immigrants based on their educational attainment might explain part of these health disparities between the two groups (Ichou & Wallace, 2019). Indeed, my study showed that Spanish-born with lower education levels were more likely to experience poorer health, regardless of their age, compared with immigrants.

These disparities for Spanish-born were most pronounced when compared with short-term immigrants, which suggests that their relatively (lower) position in education might acutely exacerbate the negative association with poorer health. Spanish-born with lower education levels were the most disadvantaged group. Several factors might play a role here: that is, worse health-risk factors, social isolation, and bad lifestyles could contribute to their poorer health status than that of immigrants. Indeed, this observation is aligned with other scientific researchers who have explored the risk of death among natives with the highest levels of deprivation (Oliva-Arocas et al., 2020). This finding underscores the importance of considering relative educational disparities to understand their potential impact on health outcomes.

The higher chronic health conditions among Spanish-born with high education levels in all age groups might be mainly explained through the three mechanisms described earlier. First, chronic diseases are more susceptible to being underreported by immigrants because they may not be well integrated into the healthcare system and find the concept of chronic illness and health limitations difficult to understand or report (Khlat & Guillot, 2017). Second, health surveys may suffer from underdiagnosis of health problems, as individuals experiencing severe health

problems may be unable or less likely to participate in surveys than others (Lorant et al., 2007). Finally, immigrants with high education levels may also be healthier before migration and may be more capable of maintaining their good health after moving (Chiswick et al., 2008).

Moreover, the Spanish-born' experience of worse health conditions than immigrants appeared to follow a consistent pattern across different age groups, except for short-term immigrants aged ≥65 years who had lower predicted probabilities concerning their poor self-reported health and cognitive impairment compared with the other groups. This finding may be explained by the subjective nature of this health outcome. In addition, short-term immigrants might underreport or have different standards for assessment (Verbrugge, 1989) or it may be because they must be in good health to emigrate from their country of origin. These differences may also be exacerbated by social isolation or hardship (Berchet & Jusot, 2012). Finally, regardless of education level, Spanish-born aged 30–64 years showed a higher likelihood of smoking than immigrants. These results are similar to other scientific findings in France (Khlat et al., 2019). In Germany and the Netherlands, immigrants increasingly adapt their smoking behavior to match that of natives when their length of stay increases (Hosper et al., 2007; Reiss et al., 2014). In the Netherlands, however, a socioeconomic gradient was detected earlier among the immigrant population; therefore, smoking-prevention measures should be tailored to meet the needs of lower socioeconomic groups (Nierkens et al., 2006).

There are also some exceptions where immigrants reported poorer health. Long-term immigrants with high education levels had a higher likelihood of reporting bad self-rated health and cognitive impairment across all ages, surpassing both Spanish-born and short-term immigrants. These findings may be explained by the effect of social support mechanisms on the relationship between stressful acculturation experiences, such as legal status stress, and self-rated physical health (Finch & Vega, 2003). Furthermore, both short-term immigrants with low education levels and long-term immigrants with high education levels were more likely to be overweight or obese than Spanish-born. In addition, long-term immigrants aged ≥65 years in Spain had the highest predicted probabilities of being current smokers. These higher risk factors observed among immigrants may be attributed to a combination of several mechanisms, including the typology of these immigrants (i.e., country of origin), education level (e.g., strongly related to healthy behaviors, such as smoking and diet), social and occupational environment (e.g., pollution, poor housing infrastructure), cultural environment (e.g., poorer health-risk habits or nutritional options), or gender, as smoking rates among women appeared to be increasing (Khlat et al., 2019; Lynch et al., 1997).

Certain limitations inherent to my study may have potentially influenced some of the outcomes. Most of my health measures were based on self-reports, which may introduce bias, as respondents may under- or overestimate their subjective characteristics, which may also differ based on their immigrant status. In addition, due to the cross-sectional nature of the data, obtaining clear causal explanations was challenging because I did not follow the respondents and their health situations over their lifetime (Rechel, 2011). The sample size did not allow us to analyze the full

extent of the heterogeneity (e.g., regions of origin or more detailed education levels) of the immigrant population in Spain. Finally, health outcomes are often influenced by a single event or the accumulation of health disadvantages over the life course. Therefore, in addition to studying lifestyle factors, a more comprehensive recording of stressful events might prove valuable in understanding the health inequalities between Spanish-born and immigrants over the life course.

Considering the diversity of my sample in terms of country of origin and educational attainment, future researchers should focus on understanding the role of educational selectivity in contributing to the observed health inequalities among the considered outcomes over the life course. Many studies, including my study, face limitations in terms of data availability and sample size, which leads to a broad categorization of immigrants instead of considering their specific countries of origin or reasons for migrating. By delving deeper into the causes of migration and the specific situations in the countries of origin, researchers could advance my general knowledge and gain insights into the complex factors influencing health outcomes among native and diverse migrant populations.

Competing Interests Aïda Solé-Auró obtained financial support for this research from the Spanish Ministry of Science and Innovation under the program "Generación de Conocimiento" Project LONGHEALTH (PID2021-128892OB-I00; PI: Iñaki Permanyer [CED-CERCA]; Aïda Solé-Auró [Universitat Pompeu Fabra]). This chapter received support from the 2021 SGR 00957 project (PI: Aïda Solé-Auró) founded by the Agency for Management of University and Research Grants (AGAUR).

Appendix: Recodification of Countries According to Their Gross Domestic Product (GDP) Per Capita in 2014 (in Alphabetical Order)

Low	Midrange	High
Afghanistan	Albania	Andorra
Bangladesh	Algeria	Antigua and Barbuda
Benin	Angola	Argentina
Bhutan	Armenia	Aruba
Bolivia	Azerbaijan	Australia
Burkina Faso	Belarus	Austria
Burundi	Belize	Bahamas
Cambodia	Bosnia and Herzegovina	Bahrain
Cameroon	Botswana	Barbados
Central African Republic	Brazil	Belgium
Chad	Bulgaria	Brunei Darussalam
Comoros	Cabo Verde	Canada
Côte d'Ivoire	China	Chile

(continued)

Low	Midrange	High
Democratic Republic of the Congo	Colombia	Croatia
Djibouti	Congo	Cyprus
Egypt	Costa Rica	Czechia
Ethiopia	Cuba	Denmark
Gambia	Dominica	Equatorial Guinea
Ghana	Dominican Republic	Estonia
Guinea	Ecuador	Finland
Guinea-Bissau	El Salvador	France
Haiti	Eswatini	Germany
Honduras	Fiji	Greece
India	Gabon	Hungary
Kenya	Georgia	Iceland
Kiribati	Grenada	Ireland
Kyrgyzstan	Guatemala	Israel
Laos	Guyana	Italy
Lesotho	Indonesia	Japan
Liberia	Iran	Kazakhstan
Madagascar	Iraq	Kuwait
Malawi	Jamaica	Latvia
Mali	Jordan	Liechtenstein
Mauritania	Lebanon	Lithuania
Micronesia	Libya	Luxembourg
Mozambique	Malaysia	Malta
Myanmar	Maldives	Monaco
Nepal	Marshall Islands	New Zealand
Nicaragua	Mauritius	Norway
Niger	Mexico	Oman
Pakistan	Moldova	Palau
Papua New Guinea	Mongolia	Panama
Rwanda	Montenegro	Poland
São Tomé and Príncipe	Morocco	Portugal
Senegal	Namibia	Puerto Rico
Sierra Leone	Nauru	Qatar
Solomon Islands	Nigeria	Russian Federation
Somalia	North Macedonia	Saint Kitts and Nevis
South Sudan	Palestine	San Marino
Sudan	Paraguay	Saudi Arabia
Syrian Arab Republic	Peru	Seychelles
Tajikistan	Romania	Singapore
Tanzania	Saint Lucia	Slovakia
The Philippines	Saint Vincent and the Grenadines	Slovenia
Timor-L'este	Samoa	South Korea
Togo	Serbia	Spain
Uganda	South Africa	Sweden

(continued)

Low	Midrange	High
Ukraine	Sri Lanka	Switzerland
Uzbekistan	Suriname	The Netherlands
Vanuatu	Thailand	Trinidad and Tobago
Viet Nam	Tonga	United Arab Emirates
West Sahara	Tunisia	United Kingdom
Yemen	Turkey	United States
Zambia	Turkmenistan	Uruguay
Zimbabwe	Tuvalu	Venezuela

References

Abraído-Lanza, A. F., Chao, M. T., & Flórez, K. R. (2005). Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. *Social Science & Medicine, 61*, 1243–1255.

Antecol, H., & Bedard, K. (2006). Unhealthy assimilation: Why do immigrants converge to American health status levels? *Demography, 43*(2), 337–360. https://doi.org/10.1353/DEM.2006.0011

Argeseanu Cunningham, S., Ruben, J. D., & Venkat Narayan, K. M. (2008). Health of foreign-born people in the United States: A review. *Health & Place, 14*(4), 623–635. https://doi.org/10.1016/J.HEALTHPLACE.2007.12.002

Bacong, A. M., & Menjívar, C. (2021). Recasting the immigrant health paradox through intersections of legal status and race. *Journal of Immigrant and Minority Health, 23*(5), 1092–1104. https://doi.org/10.1007/s10903-021-01162-2

Barnett, K., Mercer, S. W., Norbury, M., Watt, G., Wyke, S., & Guthrie, B. (2012). Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *The Lancet, 380*(9836), 37–43. https://doi.org/10.1016/S0140-6736(12)60240-2

Berchet, C., & Jusot, F. (2012). État de santé et recours aux soins des immigrés: Une synthèse des travaux français. *Questions d'économie de la santé, 172*, 1–7.

Biddle, N., Kennedy, S., & Mcdonald, J. T. (2007). Health assimilation patterns amongst Australian immigrants. *Economic Record, 83*(260), 16–30. https://doi.org/10.1111/j.1475-4932.2007.00373.x

Bousmah, M. A. Q., Combes, J. B. S., & Abu-Zaineh, M. (2019). Health differentials between citizens and immigrants in Europe: A heterogeneous convergence. *Health Policy, 123*(2), 235–243. https://doi.org/10.1016/j.healthpol.2018.12.005

Castañeda, H., Holmes, S. M., Madrigal, D. S., Young, M.-E. D., Beyeler, N., & Quesada, J. (2015). Immigration as a social determinant of health. *Annual Review of Public Health, 36*(1), 375–392.

Castles, S., De Haas, H., & Miller, M. J. (2014). *The age of migration: International population movements in the modern world*. Palgrave Macmillan.

Chiswick, B., Lee, Y. L., & Miller, P. W. (2008). Immigration selection systems and immigrant health. *Contemporary, Economic Policy, 26*(4), 555–578. https://doi.org/10.1111/j.1465-7287.2008.00099.x

Czaika, M., & Reinprecht, C. (2022). Migration drivers: Why do people migrate? In P. Scholten (Ed.), *Introduction to migration studies* (pp. 49–82). Springer.

Davies, A. A., Borland, R. M., Blake, C., & West, H. E. (2011). The dynamics of health and return migration. *PLoS Medicine, 8*, e1001046.

Delavari, M., Sønderlund, A. L. L., Swinburn, B., Mellor, D., & Renzaho, A. (2013). Acculturation and obesity among migrant populations in high income countries—A systematic review. *BMC Public Health, 13*(1), 458+.

Diaz, E., Kumar, B. N., Gimeno-Feliu, L.-A., Calderón-Larrañaga, A., Poblador-Pou, B., & Prados-Torres, A. (2015a). Multimorbidity among registered immigrants in Norway: The role of reason for migration and length of stay. *Tropical Medicine and International Health, 20*(12), 1805–1814. https://doi.org/10.1111/TMI.12615

Diaz, E., Poblador-Pou, B., Gimeno-Feliu, L.-A., Calderón-Larrañaga, A., Kumar, B. N., & Prados-Torres, A. (2015b). Multimorbidity and its patterns according to immigrant origin. A nationwide register-based study in Norway. *PLoS One, 10*(12). https://doi.org/10.1371/JOURNAL.PONE.0145233

Dunlavy, A., Cederström, A., Katikireddi, S. V., Rostila, M., & Juárez, S. P. (2022). Investigating the salmon bias effect among international immigrants in Sweden: a register-based open cohort study. *European Journal of Public Health, 32*(2), 226–232. https://doi.org/10.1093/eurpub/ckab222

Eurostat. (2023). https://ec.europa.eu/eurostat/web/interactive-publications/demography-2023

Feliciano, C. (2020). Immigrant selectivity effects on health, labor market, and educational outcomes. *Annual Review of Sociology, 46*, 315–334. https://doi.org/10.1146/ANNUREV-SOC-121919-054639

Finch, B. K., & Vega, W. A. (2003). Acculturation stress, social support, and self-rated health among Latinos in California. *Journal of Immigrant Health, 5*, 109–117. https://doi.org/10.1023/A:1023987717921

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Díaz, E., Laguna-Berna, C., Poblador-Plou, B., Coscollar, C., & Prados-Torres, A. (2017). Multimorbidity and immigrant status: Associations with area of origin and length of residence in host country. *Family Practice, 34*(6), 662–666. https://doi.org/10.1093/FAMPRA/CMX048

Godlee, F. (2011). What is health? *BMJ, 343*, d4817.

Hamilton, T. G. (2015). The healthy immigrant (migrant) effect: In search of a better native-born comparison group. *Social Science Research, 54*, 353–365. https://doi.org/10.1016/j.ssresearch.2015.08.008

Holmboe-Ottesen, G., & Wandel, M. (2012). Changes in dietary habits after migration and consequences for health: A focus on South Asians in Europe. *Food & Nutrition Research*, 56. https://doi.org/10.3402/fnr.v56i0.18891. Epub 2012 Nov 6. PMID: 23139649; PMCID: PMC3492807.

Hosper, K., Nierkens, V., Nicolaou, M., & Stronks, K. (2007). Behavioural risk factors in two generations of non-western migrants: do trends converge towards the host population? *European Journal of Epidemiology, 22*, 163–172.

Huber, M., Knottnerus, J. A., Green, L., Van Der Horst, H., Jadad, A. R., Kromhout, D., Leonard, B., Lorig, K., Loureiro, M. I., Van Der Meer, J. W., et al. (2011). How should we define health? *BMJ, 343*, d4163.

Huijts, T., Stornes, P., Eikemo, T. A., & Bambra, C. (2017). The social and behavioural determinants of health in Europe: findings from the European Social Survey (2014) special module on the social determinants of health. *European Journal of Public Health, 27*(1), 55–62.

Hummer, R. A., Powers, D. A., Pullum, S. G., et al. (2007). Paradox found (again): infant mortality among the Mexican-origin population in the United States. *Demography, 44*, 441–457.

Ichou, M., & Wallace, M. (2019). The healthy immigrant effect: The role of educational selectivity in the good health of migrants. *Demographic Research, 40*, 61–94.

Jang, S. Y., Oksuzyan, A., Myrskylä, M., van Lenthe, F. J., & Loi, S. (2023). Healthy immigrants, unhealthy ageing? Analysis of health decline among older migrants and natives across European countries. *SSM - Population Health, 23*, 101478. https://doi.org/10.1016/j.ssmph.2023.101478

Jasso, G., Massey, D. S., Rosenzweig, M. R., & Smith, J. P. (2004). Immigrant health-selectivity and acculturation. In *Critical perspectives on racial and ethnic differences in health in late life* (p. 7) Available from: https://www.ncbi.nlm.nih.gov/books/NBK25533/

Kennedy, S., Kidd, M. P., McDonald, J. T., et al. (2015). The healthy immigrant effect: Patterns and evidence from four countries. *Journal of International Migration & Integration, 16*, 317–332. https://doi.org/10.1007/s12134-014-0340-x

Khlat, M., & Guillot, M. (2017). Health and mortality patterns among migrants in France. In F. Trovato (Ed.), *Migration, health and survival* (pp. 193–213). Edward Elgar. https://doi.org/10.4337/9781785365973.00016

Khlat, M., Bricard, D., & Legleye, S. (2018). Smoking among immigrant groups in metropolitan France: Prevalence levels, male-to-female ratios and educational gradients. *BMC Public Health, 18*, 479.

Khlat, M., Legleye, S., & Bricard, D. (2019). Migration-related changes in smoking among non-Western immigrants in France. *European Journal of Public Health, 29*(3), 453–457. https://doi.org/10.1093/eurpub/cky230

Lorant, V., Demarest, S., Miermans, P. J., & Van Oyen, H. (2007). Survey error in measuring socioeconomic risk factors of health status: A comparison of a survey and a census. *International Journal of Epidemiology, 6*, 1292–1299.

Luy, M., Zannella, M., Wegner-Siegmundt, C., et al. (2019). The impact of increasing education levels on rising life expectancy: a decomposition analysis for Italy, Denmark, and the USA. *Genus, 75*, 11. https://doi.org/10.1186/s41118-019-0055-0

Lynch, J. W., Kaplan, G. A., & Salonen, J. T. (1997). Why do poor people behave poorly? Variation in adult health behaviors and psychosocial characteristics by stages of the socioeconomic life course. *Social Science & Medicine, 44*, 809–819.

Marmot, M. (2005). Social determinants of health inequalities. *The Lancet, 365*, 1099–1104.

Martínez-González, M. A., Martínez, J. A., Hu, F. B., Gibney, M. J., & Kearney, J. (1999). Physical inactivity, sedentary lifestyle and obesity in the European Union. *International Journal of Obesity and Related Metabolic Disorders, 23*(11), 1192–1201. https://doi.org/10.1038/sj.ijo.0801049

Mladovsky, P. (2007). Migrant health in the EU. *Eurohealth, 13*(1), 9–11. ISSN 1356-1030.

Montez, J. K., Hummer, R. A., & Hayward, M. D. (2012). Educational attainment and adult mortality in the United States: A systematic analysis of functional form. *Demography, 49*, 315–336.

National Institute of Statistics, INE. (2023). https://ine.es/en/index.htm

Nierkens, V., de Vries, H., & Stronks, K. (2006). Smoking in immigrants: do socioeconomic gradients follow the pattern expected from the tobacco epidemic? *Tobacco Control, 15*, 385–391.

Norredam, M., Hansen, O. H., Petersen, J. H., Kunst, A. E., Kristiansen, M., Krasnik, A., & Agyemang, C. (2015). Remigration of migrants with severe disease: Myth or reality?—A register-based cohort study. *European Journal of Public Health, 25*(1), 84–89. https://doi.org/10.1093/eurpub/cku138

OECD & European Union. (2015). Socio-demographic characteristics of immigrant populations. In *Indicators of immigrant integration 2015—Settling* (pp. 37–51). OECD Publishing.

Oliva-Arocas, A., Pereyra-Zamora, P., Copete, J. M., Vergara-Hernández, C., Martínez-Beneito, M. A., & Nolasco, A. (2020). Socioeconomic inequalities in mortality among foreign-born and Spanish-Born in small areas in cities of the Mediterranean coast in Spain, 2009–2015. *International Journal of Environmental Research and Public Health, 17*(13), 4672. https://doi.org/10.3390/ijerph17134672

Pablos-Méndez, A. (1994). Mortality among hispanics. *JAMA, 271*, 1237.

Palloni, A., & Arias, E. (2004). Paradox lost: Explaining the Hispanic adult mortality advantage. *Demography, 41*, 385–415. https://doi.org/10.1353/dem.2004.0024

Rechel, B. (Ed.). (2011). *Migration and health in the European Union*. McGraw-Hill Education (UK).

Reiss, K., Sauzet, O., Breckenkamp, J., Spallek, J., & Razum, O. (2014). How immigrants adapt their smoking behaviour: comparative analysis among Turkish immigrants in Germany and The Netherlands. *BMC Public Health, 14*(844), 1–11.

Reus-Pons, M., Kibele, E. U. B., & Janssen, F. (2017). Differences in healthy life expectancy between older migrants and non-migrants in three European countries over time. *International Journal of Public Health, 62*(5), 531–540. https://doi.org/10.1007/s00038-017-0949-6

Riosmena, F., Kuhn, R., & Jochem, W. C. (2017). Explaining the immigrant health advantage: Self-selection and protection in health-related factors among five major national-origin immigrant groups in the United States. *Demography, 54*(1), 175–200. https://doi.org/10.1007/s13524-016-0542-2

Ross, C. E., & Mirowsky, J. (1999). Refining the association between education and health: The effects of quantity, credential, and selectivity. *Demography, 36*, 445–460.

Siddiq, H., & Najand, B. (2022). Immigration status, socioeconomic status, and self-rated health in Europe. *International Journal of Environmental Research and Public Health, 19*(23), 15657. https://doi.org/10.3390/ijerph192315657

Solé-Auró, A., & Crimmins, E. M. (2008). Health of immigrants in European countries. *International Migration Review, 42*(4), 861–876. https://doi.org/10.1111/j.1747-7379.2008.00150.x

Solé-Auró, A., Guillén, M., & Crimmins, E. M. (2012). Health care usage among immigrants and native-born elderly populations in eleven European countries: Results from SHARE. *European Journal of Health Economics, 13*(6), 741–754.

Solé-Auró, A., Beltrán-Sánchez, H., & Crimmins, E. M. (2015). Are differences in disability-free life expectancy by gender, race and education widening at older ages? 1986–2006. *Population Research and Policy Review, 34*(1), 1–18. https://doi.org/10.1007/s11113-014-9337-6

Solé-Auró, A., Zueras, P., Rentería, E., & Lozano, M. (2022). Gender gap in unhealthy life expectancy: The role of education among adults aged 45+. *International Journal of Public Health, 67*, 1604946. https://doi.org/10.3389/ijph.2022.1604946

The World Bank Data Bank. (2023). *GDP per capita (current US$)*. Accessed on 9 June 2023. https://genderdata.worldbank.org/en/indicator/ny-gdp-pcap-cd

Van Mol, C., & de Valk, H. (2016). Migration and immigrants in Europe: A historical and demographic perspective. Chapter 3. In B. Garcés-Mascareñas & R. Penninx (Eds.), *Integration processes and policies in Europe* (IMISCOE Research Series). https://doi.org/10.1007/978-3-319-21674-4_3

Verbrugge, L. M. (1989). The twain meet: Empirical explanations of sex differences in health and mortality. *Journal of Health and Social Behavior, 30*(3), 282–304. https://doi.org/10.2307/2136961

Williams, D. R., Priest, N., & Anderson, N. B. (2016). Understanding associations among race, socioeconomic status, and health: Patterns and prospects. *Health Psychology, 35*, 407.

Chapter 10
Immigrant Health in Spain: Lessons for Public Interventions and Future Research

Mikolaj Stanek, Sol P. Juárez, and Miguel Requena

10.1 Advancing Immigrant Health

In Chap. 1 of this book, we indicate that our main purpose is to offer a broad but integrated overview of the health of immigrants in Spain, a country with a limited tradition of immigration but that has nevertheless emerged in recent decades as a major migration destination in the developed world. The large and relatively rapid influx of immigrants into Spain has turned the country into a kind of laboratory in which to examine the intricate relationships between immigration processes and the health of immigrants. Assessing both to what extent the dominant conceptual frameworks in the field are appropriate when examining these complex relationships and whether the empirical regularities documented in other countries with longer migratory trends are observed in Spain seemed plausible and, at the same time, relevant objectives when planning this book. The goal of the authors is, through this book, to provide the reader with the results of an extensive exploration of different aspects of immigrant health, including access to health services, migrant-specific vulnerability factors, health changes associated with time spent at the destination, and the differentiated problems of certain subpopulations of immigrants.

M. Stanek (✉)
Department of Sociology and Communication, University of Salamanca, Salamanca, Spain
e-mail: mstanek@usal.es

S. P. Juárez
Centre for Health Equity Studies, Stockholm University/Karolinska Institutet, Stockholm, Sweden

Department of Public Health Sciences, Stockholm University, Stockholm, Sweden
e-mail: sol.juarez@su.se

M. Requena
Department of Sociology II (Social Structure), UNED, Madrid, Spain
e-mail: mrequena@poli.uned.es

M. Stanek et al. (eds.), *Multidisciplinary Perspectives on Immigrant Health*,
IMISCOE Research Series, https://doi.org/10.1007/978-3-031-82352-7_10

To present this overview of the health of immigrants in Spain, we opt for a life course perspective to offer the reader, as far as the available information allows, a broad look at the health, illnesses, and death of immigrants in Spain across all age groups, from cradle to grave. In addition to the life course perspective, the deliberate selection of specialists from different fields—from sociology and demography to public health and medicine—allows us to engage in a multidisciplinary approach and use different methodologies. Both qualitative and quantitative methodologies underpin the analyses provided, drawing on a rich array of information sources. In some chapters, secondary sources, such as official statistics and administrative registers, are used; other chapters are based on data coming from primary sources, such as qualitative surveys or interviews.

The book's findings thus operate across three levels: empirical, conceptual, and practical. First, we present several pieces of basic information to convey an accurate and current overall picture of the health status of immigrants living in Spain. The reader can find relevant illustrations of health across practically all stages of the life cycle for different types and groups of immigrants throughout the book's chapters. In several chapters, an expository resource, but not without substantive implications, is used to compare the health of various groups of immigrants with that of native Spaniards and with other types and groups of immigrants. Second, the collection of empirical information on health throughout immigrants' life courses is useful in assessing some of the predominant conceptual approaches that frame interpretations of the health status of immigrants in developed societies and, in particular, the healthy immigrant paradox. The health advantage of immigrants over natives has certainly proven in the Spanish case to be an observable regularity, although one that does not occur in a universal or generalized way—some, but not all, groups or types of immigrants have an advantage over natives in some, but not all, dimensions of their health. There is perhaps no better example of this phenomenon than perinatal health, where the immigrant advantage in avoiding low birthweight contrasts with the immigrant disadvantage in escaping macrosomia. Third, the contributions that make up the volume are intended to serve as guides to orient public policies and interventions aimed at addressing the health problems that affect immigrants.

As the readers have all chapters at their disposal, the remainder of this final chapter synthesizes the main implications of our findings concerning possible public interventions and future research. For the sake of clarity and conciseness, we present them in the form of lessons.

10.2 Lessons for Public Interventions

10.2.1 Immigrants Are Not a Burden on the Healthcare System

Numerous studies have demonstrated the lack of empirical support for the belief that immigrants take excessive advantage of healthcare systems. Nonetheless, this perspective persists and has significantly influenced political agendas in a variety of settings (Gottlieb et al., 2020). In Chap. 2, Perna and Moreno posit that a comparable situation unfolded in Spain during the economic crisis of 2008 to 2014. The perception that immigrants add an extra burden to the healthcare system contributed to the curtailment of healthcare access rights for specific immigrant categories. Moreover, Chap. 3, authored by Gimeno Feliú and Moreno-Juste, provides compelling evidence refuting the claim that immigrants strain the healthcare system, demonstrating that immigrants tend to use medical services at a lower rate than natives.

In the Spanish context, the challenge may lie in the underutilization, rather than the overutilization, of public health resources. Further investigation considering immigrants' health needs is required to substantiate this claim and explore factors contributing to potential resource underutilization in the healthcare sector. The results provided by several chapters in this book call for a critical examination of the potential drawbacks linked to immigrants' limited healthcare use in the long term. A more consistent and closely monitored healthcare approach may prevent the non-detection of serious health problems across the life course of immigrants. For instance, insights from Chap. 4 suggest that improvements in early pregnancy monitoring among immigrant women could prevent specific adverse perinatal outcomes, such as macrosomia in newborns. Additionally, the results of Chap. 6 affirm that, despite a systematic reduction over differences in the last 10 years, immigrant women still tend to undergo voluntary pregnancy termination more frequently than native Spanish women. It is plausible that directing resources toward improving immigrant women's access to sexual and reproductive health services, especially those related to preventing unwanted pregnancies, could yield significant advantages, alleviating the psychological and physical burdens on women who undergo induced abortion and reducing public expenditure.

Overall, the evidence compiled in this book offers several lessons concerning immigrants' utilization of healthcare services. First, it is imperative to transparently and clearly communicate the data concerning the use of healthcare services to the general public. This will assist in providing an accurate portrayal of healthcare utilization, preventing potential manipulation of public opinion through misinformation. Biased information could be exploited as a tool to achieve political objectives rather than fostering greater equality and social cohesion.

Second, the recognition and understanding of the unique health needs within the immigrant community require a multifaceted approach. Policymakers often face challenges in understanding the nuanced and diverse health requirements of immigrant populations, which may be obscured by broader health statistics. Therefore, a collaborative effort involving decision-makers, practitioners, researchers, and civil

society is crucial. By engaging in close collaboration, these stakeholders can leverage their respective expertise and insights, and decision-makers can benefit from the practical experiences and on-the-ground perspectives of practitioners working directly with immigrant communities. Researchers can contribute by conducting in-depth studies that uncover specific health challenges and patterns within these populations. Civil society organizations, with their close ties to the community, play a vital role in advocating for the needs of immigrants and ensuring that their unique health concerns are not overlooked. This collaborative approach fosters a more comprehensive understanding of the health dynamics at play in immigrant communities and allows for the development of targeted interventions.

10.2.2 The Healthy Immigrant Paradox Is an Advantage Today and a Challenge for Tomorrow

The literature has consistently highlighted the positive economic and demographic impacts of immigration on European countries (Bonin et al., 2000; Boubtane, 2019; Coleman, 2008). Although the primary goal of this book is not to identify the societal contributions of immigrants to Spain, its findings allow us to hypothesize about immigrants' potential positive contribution to sustaining the public healthcare system. The analyses in our book suggest that the healthy immigrant paradox observed in Chaps. 3, 4, 8, and 9 could contribute positively to the Spanish healthcare protection system, as immigrants are generally healthier and use fewer resources than native Spaniards.

However, as discussed by Solé-Auró in Chap. 9, this advantage usually diminishes over time as immigrant health aligns with that of native Spaniards, a trend also observed in various studies across countries (Antecol & Bedard, 2006; Bacong & Menjívar, 2021). Other studies have confirmed that immigrants also converge over time in terms of healthcare service consumption (Ferre et al., 2023).

Stakeholders and decision-makers should therefore acknowledge that immigration is a crucial factor driving economic growth and has become the primary source of population expansion in regions of Spain experiencing low or negative natural growth rates. However, the contributions made by immigrants must be accompanied by reciprocal considerations. This involves developing mechanisms to facilitate their full social integration and the protection of their rights and to guarantee inclusion that recognizes immigrants' incorporation into healthcare and social protection systems as they age. This recognition becomes increasingly pertinent as immigrants, like any population, face age-related health challenges and issues over the life course.

Based on this evidence, we recommend that health policymakers acknowledge the undeniable health benefits of immigration while recognizing the necessity to adapt healthcare systems in Spain and in other countries undergoing demographic changes and shifts in healthcare service consumption patterns. This urgency is particularly evident in the ongoing and seemingly inevitable aging process of European

populations, emphasizing the need for proactive measures to address evolving healthcare needs associated with immigration and aging populations. This adaptation should consider the unique healthcare needs and challenges posed by an increasingly diverse population, ensuring that provisions remain effective, inclusive, and responsive to changing demographic landscapes.

10.2.3 Rights Should Not Be Taken for Granted

Spain is recognized for having one of the most inclusive healthcare systems in the world (Petroff et al., 2021). The regulation of healthcare coverage for immigrants in Spain serves as a model for addressing profound demographic changes while acknowledging health as a fundamental right and a crucial resource that enhances social cohesion and equality. However, as outlined by Perna and Moreno Fuentes in Chap. 2, the changes to the law in 2012 indicate that even the most inclusive healthcare systems rely on surprisingly fragile foundations and that immigrants, as some of the most vulnerable individuals in societies, are the first to suffer from budget cuts and entitlement reductions.

The use of economic crises as an alleged reason to curtail the social rights of immigrants in terms of welfare entitlements or healthcare coverage has been observed in various countries in recent decades (Lafleur & Stanek, 2017; Römer, 2023). Nevertheless, the Spanish case underscores the importance of the commitment of civil society and stakeholders at multiple levels of the healthcare system, ranging from local to regional to national, to safeguard the health rights of the most vulnerable populations. The widespread resistance to the reduction of health rights for undocumented immigrants is evident at the regional and local administration levels in Spain and among various representatives of Spanish society. This response emphasizes the importance of raising awareness among the population of the need for broad access to public health. It also highlights the need to establish bottom-up mechanisms to counterbalance decisions at various levels of the system, where choices may be more politically short-sighted and neglect to consider general and long-term benefits.

10.2.4 Universal Access to Health Is Necessary, But Not Enough

While this book highlights the existence of the pattern known as the healthy immigrant paradox in Spain, it would be inaccurate to assert that this pattern applies to all groups and all dimensions of health. For instance, in Chap. 4, Juárez and Dello Iacono illustrate that, while infants of female immigrants tend to have lower odds of being born with low birthweight, they are more likely to experience macrosomia.

Grande and García-Gonzalez go on to describe the variability in premature mortality by origin and sex in Chap. 8. Furthermore, Chap. 9 reports that high levels of education and long-term residence reduce the health advantage of immigrants compared with Spaniards. This evidence underscores that immigrant health is a complex, multifaceted phenomenon dependent on various factors, necessitating a nuanced approach to health policies.

In this regard, although free and unrestricted access to healthcare for all immigrants, regardless of their documentation status, can be considered an important achievement of the Spanish reception system, as indicated in Chaps. 1 and 2, universalism should be regarded only as a starting point for the development of an inclusive healthcare system that adapts to the needs of specific groups. This book emphasizes the need for a specialized approach to certain segments of the immigrant population with unique experiences and specific needs. In Chap. 5, Cristóbal et al. delineate the nuances of the experiences of unaccompanied young immigrants during and after their journeys, emphasizing their heightened vulnerability, particularly in terms of mental health. Despite being numerically marginal, this category of immigrants requires special attention from both health and social protection services. The need for a targeted approach is also evident in Chap. 7, where testimonies of individuals involved in the care of newly arrived immigrants highlight that these immigrants require tailored attention that accounts for their specific needs. Achieving this level of care requires close collaboration between researchers and decision-makers and willingness from the latter to address findings from empirical studies to identify the specific needs of certain categories of immigrants.

10.2.5 Attention Should Be Paid to Immigrants of Different Origins

In connection with the previous lesson, the need to design particular policies for certain types of immigrants (temporary immigrants, refugees and asylum seekers, unaccompanied minors, etc.), as well as interventions targeted to specific immigrant groups (Latin-Americans, Sub-Saharans, Asians, etc.), should be clear. One of the conclusions of this book, in line with the findings of previous studies (Acevedo-Garcia et al., 2012), is that it is difficult to establish health regularities that are broadly shared by all immigrants.

Chapter 3 shows that the use of healthcare services differs depending on the immigrants' region of origin. Although immigrants tend to use primary care, planned and unplanned hospitalization services, emergency rooms, and pharmacies less than native Spaniards, there are important differences between immigrant groups. For example, Eastern European adults are less likely to use emergency rooms, immigrants of other origins are more likely to use emergency rooms, and Asian children are more likely to use pharmacies than native Spaniards. Previous studies (Diaz et al., 2015; Gimeno-Feliu et al., 2016; Norredam et al., 2010) have

shown that Western European and North American patients use healthcare less than native Spaniards, whereas African, Asian, and Latin American immigrants use some services much more frequently. Chapter 4 also reveals relevant differences in perinatal health associated with the region of origin of immigrant mothers who gave birth in Spain. The results for both the prevalence of low birthweight and macrosomia are different for North African women, Sub-Saharan women, Latin American women, and Asian women. Chapter 6 concludes that, although induced abortion rates among immigrant women exceed those of native-born women, they are considerably higher among Sub-Saharan and Latin American women. North African immigrants and immigrants from low-income European and Asian countries have more abortions than native Spaniards, and the corresponding rates for immigrants from high-income countries are only slightly higher than those for Spaniards. The sociodemographic composition of the groups account for part of this heterogeneity, but most of the disparities are due to behavioral differences.

Chapter 8 reveals significant differences in the risk of premature mortality among immigrants. For men, immigrants from Eastern Europe are the only group who do not exhibit significant differences in the risk of premature mortality compared with people born in Spain. However, immigrants from Latin America and the Caribbean and the Maghreb region show a significantly lower probability of premature mortality than those coming from high-income countries. For women, Latin American immigrants exhibit a significantly lower risk of premature mortality compared with women from Eastern Europe and the Maghreb and, to the greatest extent, from high-income countries. When the causes of death are considered, the picture is even more complex. Finally, Chap. 9, which classifies immigrants by the levels of GDP per capita in 2014 of their countries of birth, indicates significant differences in the prevalence of poor health conditions, overweight, and smoking associated with immigrant origins.

In summary, the empirical results presented in this book point to health behaviors and outcomes that depend on immigrants' backgrounds. Health policies and interventions should take into consideration these types of outcomes and be designed to address the specific health deficits of each immigrant group.

10.3 Lessons for Future Research

10.3.1 A Multidisciplinary Approach Is Crucial for Advancing Research on Immigration and Health

Featuring studies from both medical and social sciences, this book represents a multidisciplinary approach to the study of immigrant health. Although multidisciplinary efforts are generally encouraged in research, there are limited opportunities in practice to embrace this perspective, as disciplinary boundaries are strongly established in academia. Such boundaries are observed, for example, in the

configuration of area specific departments and institutions, in the preference for different methodological approaches, and in field-specific conventions, including specific jargon and publication practices. In this context, the book format proves more effective than articles in presenting a multidisciplinary perspective on immigrant health.

Collaboration between medical and social sciences is crucial to advancing knowledge on immigration and health, furthering our understanding of how various social conditions influence health through proximate behavioral factors. Immigrants, exposed to different national contexts with specific social dynamics, present an opportunity to better understand how biology interacts with the broader social world, resulting in a differential distribution of health risks across social groups.

However, the fact that research on immigration and health is produced across different disciplines, which do not generally share common platforms for discussion (such as conferences and journals), reduces opportunities for embracing a multidisciplinary approach. This situation is observed, for example, by Juárez and Dello Iacono in Chap. 4. After performing a literature review, the authors identify a shortage of cross-field referencing between medical and social sciences.

An intrinsic aspect of multidisciplinary work is the incorporation of diverse methodological approaches to the examination of a topic. However, collaborations across research groups using different methodological approaches have proven to be challenging, as these approaches have different epistemological and ontological points of departure. This collective effort includes qualitative research, such as discourse analyses of public documents (Perna and Moreno Fuentes), interviews (Cristóbal-Narváez et al., García-Vázquez et al.), and literature reviews (Juárez and Dello Iacono) as well as various empirical studies applying statistical methods to administrative (Stanek et al. in Chap. 5 and Grande and García-González) and survey data (Solé-Auró). Through these approaches, the book offers a broad and comprehensive view of the health of immigrants in Spain, showcasing the strengths and limitations that specific methodologies and designs present. For instance, although the use of administrative data can ensure representativeness (making policymakers highly interested in this type of research), it generally fails to allow for the identification of immigrant groups that may be at higher risks of social and health vulnerabilities, such as unaccompanied minors and undocumented individuals. In this book, qualitative designs have been valuable in identifying some of the problems that unaccompanied immigrants encounter in Spain (Cristóbal-Narváez et al.) and in shedding light on the challenges faced by immigrants who arrived during the early phase of the COVID-19 pandemic (García-Vázquez et al.).

Similarly, while administrative data generally allow for the consideration of social determinants of health (such as education, occupation, and income), they fail to provide information that enables researchers to identify immigrant–native-specific dynamics such as racism and discrimination, which may be crucial in explaining why some groups have worse health outcomes than others. For example, in a literature review of quantitative studies, Juárez and Dello Iacono show that offspring of mothers from Sub-Saharan Africa have systematically worse perinatal health outcomes than offspring of Spanish-born and of other immigrant groups.

Qualitative efforts in this area could determine whether experiences of racism and discrimination could be behind these findings, thus inspiring researchers from other areas to initiate new efforts in data collection.

In addition, studies using quantitative data have raised questions that would benefit from qualitative approaches. For instance, in-depth interviews could be used to disentangle whether the significant decrease in abortion rates among immigrant women over the past decade (as shown by Stanek et al. in Chap. 6) is more likely to represent increasing inequalities in access to family planning or better opportunities for childbearing.

Although this book does not include studies using mixed methods (i.e., a combination of qualitative and quantitative approaches in the same study) or studies that explore the same health domain using different approaches (qualitative or quantitative), edited collections of this nature could be a valuable resource for scholars seeking to develop a much-needed multidisciplinary lens within the field of immigration and health research.

10.3.2 A Context-Sensitive Approach to Immigration and Health Research Is Missing

There is a need for evidence that is sensitive to the context in which the knowledge is to be applied. This is relevant not only to produce knowledge that can better inform policymakers at the national level but also to strengthen our understanding of the role that destination country contexts play in shaping immigrant health.

Research on immigration and health generally lacks a context-sensitive approach, with limited multidisciplinary research and the healthy immigrant paradox framework contributing to this gap. The excessive emphasis in the medical sciences on outcome-specific research, along with the general interest in some social disciplines in finding regularities to discuss the healthy immigrant paradox, may contribute to a de-contextualization of evidence (i.e., a lack of attention to the destination country context). The absence of a context-sensitive approach might unintentionally lead to or reinforce existing stereotypes among immigrants. Regularities between immigrant groups (either in the same destination country or across destination countries) may guide the academic discussion toward culturally specific practices that are not necessarily confirmed or evaluated through empirical evidence but that nevertheless may strongly impact public debate. Chapters 2 and 3 present an example of this, with Perna and Moreno Fuentes demonstrating how public and political discussions around the alleged overuse of the healthcare system by immigrants can motivate anti-migration sentiments, although Gimeno-Feliu and Moreno-Juste find no empirical support for this alleged overuse.

Current findings on immigration and health call for a greater focus on the role of arrival country contexts, including how legal rights and the public approach to immigration may influence immigrant health (Juárez et al., 2018). Along with the

healthy immigrant paradox, international studies have shown that immigrants' health advantage tends to decrease as the duration of residence in their destination countries increases (e.g., Antecol & Bedard, 2006). This evidence urges an examination of the conditions that immigrants face in their receiving societies, as these conditions have been shown to be contingent on economic or political crises. As Perna and Moreno Fuentes show in Chap. 2, the measures of austerity imposed during the 2008 economic crisis, for example, resulted in the exclusion from public coverage of the most vulnerable immigrant group (undocumented immigrants).

Although possibly insufficient in many ways, we believe that this book represents a novel attempt at a context-sensitive approach, offering an examination of the Spanish case that includes a description of the history of immigration (Stanek et al. in Chap. 1), a nuanced evaluation of legal frameworks and political discourses around healthcare entitlements (Perna and Moreno Fuentes), an empirical evaluation of healthcare use and provision (Gimeno-Feliu and Moreno-Juste), along with consideration of a number of health outcomes and their multiple social determinants (Cristóbal-Narváez et al.; García-Vázquez et al.; Grande and García-González; Juárez and Dello Iacono; Stanek et al., Solé-Auró). We view this attempt as an invitation for fellow researchers to undertake nuanced, contextually rich, and in-depth research endeavors aimed at mapping the convergences and divergences in health dynamics among immigrant populations within a broader context.

10.3.3 A Life Course Approach to Health Is Needed in Immigration Research

Despite theoretical and methodological differences between social science and medical approaches to the study of immigration and health, there is also common ground on which to strengthen multidisciplinary efforts. For example, a growing interest in the life course perspective is common in both the medical and social sciences. As mentioned by Stanek et al. in Chap. 1, this perspective represents an important shift from a static to a more dynamic consideration of health, a shift greatly needed in immigration research. For example, there is a need to avoid the tendency to explain differences between immigrants and natives with either very narrow biological explanations (i.e., as determined by fixed characteristics) or in isolation from social environments. In this regard, the adoption of a life course perspective can also help to foster a context-sensitive approach to research on immigrant health.

The adoption of a life course perspective on immigration and health research goes beyond the use of life course statistical methods. The adoption of this perspective may serve, for example, to raise awareness of the fact that health is contingent on the social environment in which immigrants are born and raised in their place of origin. This is important to avoid the identification of immigration with race and ethnicity, as the latter two are fixed characteristics that define certain immigrant

groups. In addition, this perspective may help to produce evidence that sheds light on how health in a receiving context can be modified depending on the social conditions to which individuals are exposed over time. In this book, the life course perspective is integrated by examining health outcomes that are more relevant at different ages (from perinatal health to premature mortality), with specific associated risks and needs. By doing so, we offer a comprehensive picture of immigrant health in Spain, bringing together researchers specialized in particular health domains (as is typical in the medical sciences). As immigrants in Spain are (still) relatively young, this study does not cover older immigrants, although it is expected that this group will become a subject of interest in the coming years.

While this book incorporates a life course *perspective*, there is a need for future efforts to employ life course *analyses* (i.e., specifically evaluating how early exposure influences later-in-life outcomes). The relative lack of longitudinal data infrastructure does not permit a shift in the tradition of assessing immigrant health from a static viewpoint in this national context. Initiatives in this area are necessary to disentangle how the health of immigrants residing in Spain develops over time and may also assist in identifying mechanisms of change relevant for policy intervention. This perspective may then help to integrate medical and social knowledge to identify when and how to intervene to facilitate the social integration of immigrants and promote the view of social integration as a public health goal.

10.3.4 New Theoretical Frameworks Are Needed, But the Healthy Immigrant Paradox Remains Useful

The healthy immigrant paradox serves as the main theoretical framework in this book as it represents common knowledge across both social and medical fields, thus facilitating a coherent examination of immigrant health in Spain. Although the healthy immigrant paradox has been increasingly challenged as a universal phenomenon, there are limited alternative frameworks with the ability to integrate different disciplines while facilitating the inclusion of field-specific theories. In this regard, the book demonstrates the ongoing relevance of the healthy immigrant paradox framework as an analytical approach that brings together scholars from different disciplines. In this book, for example, we offer contributions from political scientists, medical and public health scientists, psychologists, demographers, sociologists, and social anthropologists.

The analytical advantages of using the healthy immigrant paradox should nevertheless be used with caution by researchers when interpreting the findings. Empirical evidence produced in the context of the healthy immigrant paradox debate should not be directly translated into a course of action. This means that evidence in favor of the healthy immigrant paradox concerning one specific health outcome cannot directly (or by omission) support the lack of further research or interventions concerning another health dimension. For example, in Chap. 4, Juárez and Dello Iacono

show how robust evidence in favor of the healthy immigrant paradox in relation to low birthweight does not necessarily mean that the offspring of immigrants have better perinatal health outcomes overall or even in relation to other birthweight outcomes, as all immigrants are more likely to deliver high birthweight infants.

The universality of the healthy immigrant paradox has been called into question, and this book confirms that not all immigrant groups experience a health advantage relative to Spanish-born and that the advantage is not observed in all health dimensions. For example, in Chap. 8, Grande and García-González find only moderate evidence of a health advantage in relation to premature mortality when considering all causes, an outcome for which the immigrant advantage has been consistently observed across immigrant groups and destination country contexts around the world (Aldridge et al., 2018). Interestingly, and in contrast to what has been observed internationally (Juárez & Rostila, 2018), in Chap. 9, Solé-Auró finds evidence in favor of the healthy immigrant paradox when examining self-reported outcomes through survey data, with no indication that immigrant health worsens with duration of residence—rather the opposite. These findings, combined and coupled with those offered by Gimeno-Feliu and Moreno-Juste in Chap. 3 concerning immigrants' lower use of healthcare services and prescription drugs than Spanish-born, raise the question of whether underdiagnosis of chronic health conditions could explain these apparently contradictory findings.

The potential role of underdiagnosis in explaining mixed findings across studies in a context with universal access to healthcare for immigrants highlights the need to consider barriers to access beyond legal rights. This is, in fact, one of the potential areas of further research within perinatal health proposed by Juárez and Dello Iacono in Chap. 4, as the increased likelihood of high birthweight infants among immigrant mothers could also indicate lower utilization of prenatal care.

The fact that the healthy immigrant paradox could still be instrumental does not imply that alternative frameworks are not necessary. In fact, the whole definition of what constitutes an "immigrant" should be revised, as the phenomenon of immigration is inherently dynamic in modern times. This means that immigration can no longer be viewed as a unidirectional phenomenon (from origin to destination) (Serrano-Gallardo et al., 2024). As such, we support the development of a transnational approach to health research that considers the possibility that immigrant health can be shaped by their exposure to multiple country contexts simultaneously. This approach will allow us to further understand the links between immigrants and their home countries, developing complex and context-sensitive analyses that transcend an exclusive focus on country of origin or destination.

10.3.5 A Need for More and Better Data

The authors of the chapters in this book have made considerable efforts to make the most of the information available on immigrant health in Spain. The in-depth qualitative analysis of the policies and policymaking processes regulating immigrants'

healthcare access in Spain constructed and analyzed its own information. Qualitative studies on the health of unaccompanied minor immigrants and the effects of the COVID-19 pandemic on the health and living conditions of newly arrived immigrants required the production of new data. The analyses of perinatal health were based on a narrative synthesis of quantitative studies concerning the birthweight of offspring of immigrant women residing in Spain. The analyses in the remaining chapters drew on conventional data sources for quantitative social research: surveys, as in the analysis of the healthy immigrant paradox across age groups and education levels; administrative registers, as in the analysis of voluntary interruption of pregnancy; linked data from administrative registers (vital statistics) and population census, as in the study of differences in premature mortality between Spanish-born and the immigrant population; and data from a region-wide cohort, as in the examination of immigrant healthcare access. We make exhaustive use of available information and, frankly, we do not believe it is possible to significantly expand the type or number of sources to be used in studying immigrant health in a country like Spain.

The results of exploiting all this information are, in our opinion, remarkable, and the research findings are valuable. However, we also recognize that each contribution has limitations due, to a large extent, to the data on which each relies. A thorough assessment of the actual impact on immigrant health of the expansion and restrictions of immigrants' healthcare entitlements is therefore required. Administrative registers, despite their usefulness, do not contain information on health status prior to recorded events. Without such information, prior selection effects caused by health or interactions between health status and social conditions are not observable. Repeated cross-sectional surveys are a helpful resource but do not allow for longitudinal analysis of changes experienced by the same individuals. We would also like to be able to extend the validity of qualitative studies and regional cohort studies. This is especially necessary in a country where, as highlighted in Chap. 2, there is a high degree of regional decentralization in the provision of health services.

These limitations could be overcome with designs based on more and better data on the health of immigrants. Expanding and improving on the information contained in administrative registers is a promising option. In this respect, the possibility of linking information on the same individuals recorded at different times is of particular interest. Having longitudinal data on the health and social conditions of the same individuals at successive points in their lives is necessary to measure change over time and the duration of health events and episodes. Ideally, information should be collected from birth in panel-type instruments or in cohort studies with broadly representative samples, but as this option is nearly impossible for immigrants, retrospective surveys could reduce some of these difficulties.

Nevertheless, the scarcity of quality data on the health of immigrants is not a problem specific to Spain as a receiving country. Many host societies face similar data deficits. We are aware that certain characteristics of immigrant populations—mobility, instability, impermanency, vulnerability, insecurity, and others—make

producing this type of data complicated, arduous, and very costly. Obtaining quality information on immigrant health is necessary, however, to develop research designs that facilitate interventions based on the strongest possible evidence.

References

Aldridge, R. W., Nellums, L. B., Bartlett, S., Barr, A. L., Patel, P., Burns, R., Hargreaves, S., Miranda, J. J., Tollman, S., Friedland, J. S., & Abubakar, I. (2018). Global patterns of mortality in international migrants: A systematic review and meta-analysis. *The Lancet, 392*(10164), 2553–2566. https://doi.org/10.1016/S0140-6736(18)32781-8

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: A cross-national framework. *Social Science & Medicine, 75*(12), 2060–2068. https://doi.org/10.1016/j.socscimed.2012.04.040

Antecol, H., & Bedard, K. (2006). Unhealthy assimilation: Why do immigrants converge to American health status levels? *Demography, 43*(2), 337–360. https://doi.org/10.1353/dem.2006.0011

Bacong, A. M., & Menjívar, C. (2021). Recasting the immigrant health paradox through intersections of legal status and race. *Journal of Immigrant and Minority Health, 23*(5), 1092–1104. https://doi.org/10.1007/s10903-021-01162-2

Bonin, H., Raffelhüschen, B., & Walliser, J. (2000). Can immigration alleviate the demographic burden? *FinanzArchiv/Public Finance Analysis, 57*(1), 1–21.

Boubtane, E. (2019). Les effets économiques de l'immigration pour les pays d'accueil. *L'Économie politique, 84*, 72–83. https://doi.org/10.3917/leco.084.0072

Coleman, D. (2008). The demographic effects of international migration in Europe. *Oxford Review of Economic Policy, 24*(3), 452–476.

Diaz, E., Calderón-Larrañaga, A., Prados-Torres, A., Poblador-Plou, B., & Gimeno-Feliu, L.-A. (2015). How do immigrants use primary health care services? A register-based study in Norway. *European Journal of Public Health, 25*(1), 72–78. https://doi.org/10.1093/eu.r

Ferre, Z., Triunfo, P., & Antón, J. I. (2023). Immigrant assimilation in health care utilization in Spain. *European Journal of Health Economics*. Advance online publication. https://doi.org/10.1007/s10198-023-01622-6.

Gimeno-Feliu, L. A., Calderón-Larrañaga, A., Diaz, E., Poblador-Plou, B., Macipe-Costa, R., & Prados-Torres, A. (2016). Global health-care use by immigrants in Spain according to morbidity burden, area of origin, and length of stay. *BMC Public Health, 16*, 450. https://doi.org/10.1186/s12889-016-3127-5.

Gottlieb, N., Trummer, U., Davidovitch, N., Krasnik, A., Juárez, S. P., Rostila, M., Biddle, L., & Bozorgmehr, K. (2020). Economic arguments in migrant health policymaking: Proposing a research agenda. *Global Health, 16*(1), 113. https://doi.org/10.1186/s12992-020-00642-8

Juárez, S., & Rostila, M. (2018). Non-European migrants often have similar or better health than natives. *Sociologisk Forskning, 54*(4), 323–327.

Juárez, S. P., Honkaniemi, H., Dunlavy, A. C., Aldridge, R. W., Barreto, M. L., Katikireddi, S. V., & Rostila, M. (2018). Effects of non-health-targeted policies on migrant health: a systematic review and meta-analysis. *Lancet Glob Health, 7*(4), e420–e435. https://doi.org/10.1016/S2214-109X(18)30560-6

Lafleur, J. M., & Stanek, M. (2017). Restrictions on access to social protection by new southern European migrants in Belgium. In J. M. Lafleur & M. Stanek (Eds.), *South-north migration of EU citizens in times of crisis* (IMISCOE research series) (pp. 99–121). Springer.

Norredam, M., Nielsen, S. S., & Krasnik, A. (2010). Migrants' utilization of somatic health-care services in Europe - a systematic review. *European Journal of Public Health, 20*(5), 555–563. https://doi.org/10.1093/eurpub/ckp195

Petroff, A., Viladrich, A., & Parella, S. (2021). Framing inclusion: The media treatment of irregular immigrants' right to health care in Spain. *International Journal of Intercultural Relations, 82*, 135–134. https://doi.org/10.1016/j.ijintrel.2021.03.004

Römer, F. (2023). How immigration affects the welfare state in the short and long run: Differences between social spending and policy generosity. *European Policy Analysis, 9*, 69–90. https://doi.org/10.1002/epa2.1140

Serrano-Gallardo, P., Mas-Giralt, R., Castellani, S., & Juárez, S. (2024). Advancing migration and health research: A conceptual model to study return migration. *Journal of Epidemiology & Community Health, 78*, 263–268. https://doi.org/10.1136/jech-2023-220670