

EDITORIAL**IMMIGRATION AND HEALTH IN SPAIN****Miguel Delgado-Rodríguez (1,2).**

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Spain, the Western European country with more emigrants in the 1960s, has been the receiver of more than 6 million people since the end of the past millennium.¹ Undoubtedly, immigrants have contributed to the wealth of this nation and citizenship cannot ignore this fact. Therefore, the health of this labor force looking for a better future for them and their families should be a priority even in times of economic crisis. Many facts can contribute to a lower health status in this population: poverty (the first one), work without appropriate safety measures, bad housing, lack of accessibility to healthcare services, acculturation, etc.

In this issue of the *Revista Española de Salud Pública*, the programme on Immigration and Health of Consortium of Biomedical Research Network, Epidemiology and Public Health (CIBERESP) gives a substantial contribution to this subject after reviewing the studies carried out in Spain between 1998 and 2012 years. The first article of this series is a summary of the literature review, in which a total of 442 articles are in-

cluded.² The main conclusions are that most studies are somehow weak as they have used mainly a cross-sectional approach to compare the health level of immigrants versus native population. Secondly, most of the studies reviewed are focused on infectious diseases, as most of immigrants in Spain come from areas where these diseases are more prevalent; the next topic in importance, based on the number of published studies, is health inequities, although to a great distance (334 on infectious diseases vs 27 on health inequities).

The second article of the series is centered on health inequities and reviews 27 articles on this topic.³ The health indicators more frequently applied were perceived health and mental health, with a great disparity of results, mainly for women. In general, health is worse for immigrants, even when health-related quality of life is measured. Gender violence is increased in comparison to Spanish population. Nevertheless, prevalence of most chronic diseases is lower, as well as drug use and overall mortality. Attendance to emergency services is similar to native population, although, and as expected, when payment is required to access other health services, accessibility is

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worse. The same occurs with flu vaccination and use of screening programs. As regards to reproductive health, immigrants from Latin-America show higher rates of preterm and low birth weight newborns, whereas those coming from Northern Africa display the opposite results.

The third article deals with occupational health.⁴ 20 studies were included, 13 with quantitative methodology and 7 qualitative. The results of the studies show a higher incidence of injury, lower rates of disability, higher prevalence of work presenteeism, exposure to psychosocial factors, and precariousness. There are no differences from the findings in other countries.

The fourth article is dedicated to accessibility to health services.⁵ It summarizes the findings of 20 published studies: 13 analysed differences in healthcare use between immigrants and natives, and 7 were focused on determinants of accessibility. The results show less use of specialized care by immigrants, higher use of emergency care and no differences in the use of primary regarding the Spanish population. Some studies indicate differences according to place of origin. Five quantitative articles on determinants of access focus on factors related to the immigrant population, mainly socio-demographic (the most important variables were sex –female- and to be a student). Only two qualitative studies describe additional factors related to health services, such as access requirements, limited provision of knowledge on the health care system or perceived quality.

The prevention of cancer in immigrants is the objective of the fifth article after reviewing 5 published studies, four of them cross-sectional.⁶ Immigrant population have a lower participation in early detection of breast and cervical cancer programs, although there are differences by age (women aged 35 or less attend more to screening), and country of origin (women from coun-

tries with low rents attend less to the programs). Women reported to be sex workers are more likely to be human papillomavirus positive for high risk types.

Nutrition is the aim of the sixth article. It synthesizes the information provided by 16 published studies: 15 cross-sectional studies and one a non-randomized trial; usually with a small sample size (9 with < 500).⁷ Thirteen articles focus on food habits and nutritional status, but show substantial heterogeneity in objectives and results. Some studies find that the frequency of obesity was higher in the immigrant than in the Spanish native population, that the length of residence in Spain is not associated with obesity, and that immigrants consume less tobacco and alcohol but do less physical activity than the people born in Spain. The current available information is too insufficient to drawback any significant conclusion about the nutrition status of immigrants.

In the seventh article the problem addressed is mental health after the revision of 19 studies on the subject.⁸ The usual risk profile is to be a woman, young, immigration due to lack of economic resources, use of tobacco and alcohol, and suffering a chronic disease. Other studies report that psychological discomfort is associated to immigration, sex female, rural origin, and illegal status of residence. One of the studies suggests that people from Morocco show a higher level of distrust, language and cultural problems, making them more vulnerable.

The next articles deal with infectious diseases. Twenty years ago Spain achieved the dubious honor of being the European country with the highest rate of HIV/AIDS, mainly due to intravenous drug use. Nevertheless, the high immigration from Sub-Saharan Africa and other areas deserves especial attention and the ninth article is centered to this topic.⁹ The proportion of

immigrants in new HIV diagnoses is about 40%. Immigrants keep risk behaviors of their countries of origin. Transsexuals Latino men have a high prevalence of HIV and syphilis. Compared with native a less knowledge of infection is observed as well as less condom use. The main mechanism of transmission is heterosexual sex in Sub-Saharan Africa and homosexual in Latin America. There is also a higher proportion of young women in HIV infected immigrants. The risk of co-infection with hepatitis C virus is lower than in Spanish population. As expected, the diagnosis of HIV is late more than a half of cases, and more than a fourth are lost to follow-up, what deserves more attention.

Imported parasitic diseases also deserves a chapter, and it is the objective of the eighth article.¹⁰ It summarizes 48 studies. The most frequent diagnoses are parasitic intestinal diseases, malaria, Chagas' disease, and filariasis. The risk is high during the year next to immigrants' arrival, decreasing thereafter (obviously the diseases acquired in the origin country are diagnosed here and transmission decreases later on). The immigrants traveling to their country of origin presented a higher risk of parasitic imported diseases compared to those newly arrived or those travelers nonimmigrants. Immigrants from Sub-Saharan Africa are the group with the higher risk.

The eleventh focuses on tuberculosis and immigration where there is a considerable amount of information: 219 studies.¹¹ It allows to draw a clear picture of the current situation. Incidence in immigrants is higher at young-adult ages whereas it is increased in Spanish at ages >65 years; lung disease is less frequent as well as smoking and alcohol intake. It is strongly recommended to give the health card to immigrants to improve treatment, control and prevent transmission. Multidrug resistance is also higher in immigrants; this fact in general is also addressed in another article

of the series¹² (together with the drug resistance of other microorganisms),¹³ as the molecular epidemiology of *Mycobacterium tuberculosis* and other imported agents.¹²

The epidemiology of hepatitis viruses is discussed in the next paper of the series.¹⁴ Data from 19 original articles are commented on. Prevalence of hepatitis B and C virus infections in the immigrant population is higher than in Spanish population. Immigrants from Africa and East European countries presented the highest prevalence of both virus infections, whereas the Latin American-origin population displayed the lowest one.

Many other topics could be addressed in relation to the health of immigrants in comparison with our native population, including social and cultural aspects clearly related to health, as it has been suggested.¹⁵ Another point should be emphasized, the need of analytical designs (cohort, case-control, etc.), as most of the available information come from descriptive studies (surveys, cross-sectional, case-series, etc.) to a better understanding of the relationships between immigration and health. The difference between Spain and other countries is the massive immigration in relation to the native labor force in a short time, almost a 25% in about 10-12 years. This offers a unique opportunity for research.

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