POLICY REPORT

Informing Policies and Programs to Support Immigrant Heath in Spain.

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December, 2015

Special thanks is given to the academics, policy experts and others who provided their literature, feedback and expertise on research and policy related to migrant health.

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Resumen Ejecutivo

La inmigración es una cuestión política multidimensional que ha supuesto tanto retos como oportunidades. En España, la inmigración ha causado cambios rápidos en el perfil demográfico y de la salud de la población que han tenido implicaciones en el desarrollo de políticas y programas para atender las necesidades de salud de una población cada vez más diversa. Para que las políticas y los programas sean efectivos, deben estar fundamentados en la evidencia científica y hacer partícipe a las partes afectadas y a las organizaciones comunitarias.

La investigación es importante por su aportación al desarrollo de políticas a distintos niveles, desde proporcionar el conocimiento del estado de salud y datos epidemiológicos sobre enfermedades infecciosas a apoyar una política laboral equitativa y abordar los determinantes sociales de la salud. El fortalecimiento del sistema de salud necesario para atender a una población cada vez más diversa requiere de un profundo conocimiento de la heterogeneidad de la población inmigrante en España, sobre todo de los que están en situación de vulnerabilidad.

El subprograma de Inmigración y Salud del Centro de Investigación Biomédica en Red Epidemiología y Salud Pública (CIBER-ESP) ha contribuido a aumentar el número de publicaciones sobre salud de la inmigración y, en particular, sobre las áreas siguientes:

1. Estado de salud y acceso a la atención en salud
2. Uso de servicios de salud y calidad de la atención
3. Equidad en salud y determinantes sociales
4. Salud ocupacional
5. Enfermedades crónicas e infecciosas
6. Salud sexual y reproductiva
7. Salud mental

Los resultados de la investigación realizada en el marco del Subprograma destacan hallazgos clave sobre la salud de los inmigrantes en España y apuntan la necesidad de disponer de políticas y programas de salud que apoyen a esta población. El Subprograma se ha involucrado en un amplio abanico de actividades de transferencia de conocimiento con el fin de facilitar este proceso, sin embargo, se necesita un cambio en los niveles más altos de la transferencia de conocimientos. Además, las acciones de apoyo a la salud de la población inmigrante deben extenderse más allá del sector de la salud poniendo de manifiesto la necesidad de una colaboración intersectorial. Se necesita la autorización formal y la orientación del sector de la salud en el desarrollo de estrategias orientadas y de políticas y programas basados en la evidencia.

Executive Summary

Migration is a multi-level policy issue that has brought about both challenges and opportunities. In Spain, migration has brought about rapid changes in the demographic and

health profile of the population, with implications for the development of policies and programs to attend to the health needs of a more diverse population. For policies and programs to be effective, they must be informed by scientific research with the participation of relevant stakeholders and community organizations.

Research is important to inform policy development on multiple levels, from providing knowledge of health status and the epidemiology of infectious disease surveillance to supporting equitable labor policy and addressing the social determinants of health. Strengthening the health system to attend to a more diverse population will require in-depth knowledge about Spain's heterogeneous immigrant population, particularly those in vulnerable situations.

The Subprogram on Migration and Health of the Biomedical Research Center Network for Epidemiology and Public Health (CIBER-ESP) has contributed significantly to migrant health literature, with substantial research in the following areas:

8. Health status and access to health care
9. Health service use and quality of care
10. Health equity and the social determinants of health
11. Occupational health
12. Chronic and infectious diseases
13. Sexual and reproductive health
14. Mental health, and others

The results of Subprogram research highlight key findings on immigrant health in Spain and call for health policies and programs that support this population. The Subprogram has engaged in a wide range of knowledge transfer activities in order to facilitate this process, however, a move to higher levels of knowledge transfer is needed. In addition, actions to support immigrant health must extend beyond the health sector, calling for a need for inter-sectoral collaboration. Formal entitlement and guidance from the health sector is needed in developing targeted strategies, programs and policies that are evidence based.

1. Introduction: Scientific Research on Health of Immigrants in Spain

Migration is multi-level public policy issue that requires collaboration between public systems for managing health, education, social participation, public expenditure, public security, and others. Within the dimension of health, migration is a multifaceted issue. International human mobility implies changes in the epidemiology of disease and population health. This requires revising and strengthening health systems to respond to changing health needs. Scientific evidence about an increasingly diverse population is needed to inform this process.

The CIBER-ESP Subprogram on Migration and Health aims to conduct policy relevant research to support health of immigrants in Spain.

Migrant health research is a broad yet sparse area of knowledge that covers issues ranging from the epidemiology of population mobility and infectious disease surveillance to the determinants of health including social, political and cultural factors. Migrant health can be a contentious area of research since it rests on questions of equity, equality and human rights. Immigrants, particularly those from countries with limited economic and social resources, are often subject to a broad range of experiences of vulnerability that can occur in human life, with an implicit impact on opportunities for health, wellbeing and self-realization.

Migrants are economic migrants, temporary workers, retirees, asylum seekers, trafficked people, refugees, international students, expatriate executives, and anyone living outside of their country of birth. It should be noted that the research in this report refers to migrants with more vulnerability and fewer resources. People who migrate are healthy contributors to society, but the experience of migration impacts health on multiple levels, in terms of entitlements to health, access to health care, risk of infectious diseases and chronic conditions, exposure to poor working and living conditions, and levels of income. Immigrants tend to face barriers to using health services due to legal and administrative issues, discrimination or mistreatment, linguistic differences, unfamiliarity with the health system, and cultural health beliefs or practices. Also, health systems and health providers often lack the tools necessary to engage immigrant populations in health promotion, education, prevention and treatment services (1). The detailed study of subgroups of migrants on a variety of health issues is necessary in order to elicit meaningful information to inform policy (2).

"People who migrate are healthy contributors to society, but the experience of migration impacts health on multiple levels. There are typically disparities between immigrants and native-

In the past two decades, Spain has become an important destination for migrants, so migrant health research is relatively recent, however Spanish researchers have made significant contributions to knowledge in this field. Initiatives to link research groups and conduct coordinated projects- of which the CIBER-ESP network serves as an example- have contributed to the growth of research on migrant health as well as the possibility to inform public health policy to improve the health of immigrants and of the population as a whole (3).

2. CIBER-ESP Subprogram on Migration and Health

The Subprogram on Migration and Health was created in 2011 by the Biomedical Research Center Network for Epidemiology and Public Health (CIBER-ESP). The Subprogram falls within the DAPET program (Biological, Behavioral and Structural Determinants in Disease Development and Transmission in Vulnerable Populations). The mission of the Subprogram is to monitor and improve knowledge about the health status of the immigrant population in Spain related to communicable and non-communicable diseases, as well as the biological, behavioral and structural determinants of health (4). Program research is multidisciplinary and promotes collaboration and synergy among the Subprogram and other groups within CIBER-ESP. Through multidisciplinary collaboration, the Subprogram aims to coordinate research and knowledge translation activities to support evidence-based policy and practice with respect to immigrant health in Spain.

3. Objective of this Report

This report has four objectives:

1. To highlight the body of research produced by the CIBER-ESP Subprogram on Migration and Health,
2. To present a summary of the recommendations for policy makers supported by this research,
3. To describe the processes of knowledge transfer carried out within the work of the Subprogram, and
4. To support development of a collaborative and ongoing process of knowledge transfer among the Subgroup and migrant health stakeholders in Spain.

4. Policy Context in Europe and in Spain

Spain: A primary European destination for migrants

Once a country of emigration, from 1990-2010 Spain became a primary destination for migrants. Spain joined the ranks of the United Kingdom, Germany and other traditional European migrant receiving countries, which opened the political agenda to debate on issues related to national security, immigrant integration, and social protection for an increasingly diverse population.

As of 2014, there were 33.5 million people living in the EU-28 born outside member states, and nearly 18 million more were born in another member state, with the largest numbers in Germany, the UK, Italy and Spain (5). Migrant health has become an

Top immigrant groups in Spain (12)

1. Morocco.....714,221
2. Ecuador.....212,970
3. Colombia.....172,368
4. China.....164,555
5. Bulgaria.....140,206
6. Bolivia.....126,421
7. Peru.....83,583
8. Ukraine.....81,625

** There are an estimated 600,000 undocumented immigrants in Spain (14), one of the highest rates in the EU, despite favorable processes for regularization, naturalization and family reunification (15).*

important issue in Europe, in recognition of the need for health systems to adapt to changing population health needs. Immigrants make up a significant portion (estimated at 4%) of the European population (1).

Spanish policy: Migrant health in the context of economic crisis

Spain has been losing population since 2012 (decreasing 0.5% in 2014) through emigration and the departure of immigrants (12). Despite the decline, immigrants still make up over 10% of the resident population (12), an eight fold increase since 1990 (13). The decrease in the immigrant population is due to acquisition of nationality and departures. In 2013, over 20% of each of Ecuadorians, Colombians, Bolivians and Peruvians left Spain, presumably to return to their home countries (12). The population decrease has occurred in all but two of Spain's autonomous communities.

Despite population loss, Spain is now a major immigration country. Since 2009 the country has suffered from a dramatic economic recession, with one of the highest unemployment rates in Europe, currently at 24% (16). Spain had the highest number of naturalizations among EU member states in 2013. Thus, there is a consolidated immigrant population and a small but growing "second generation" that is contributing to shifts in national demographic trends and the population health profile (5,17). Spain also has a relatively well functioning National Health System that provides care for great majority of residents. It is publicly

Economic crisis as a threat to pro-migrant health policy

Up until 2012 Spain was among a few EU countries that granted migrants nearly the same health services as nationals (19) But this has changed with the onset of the 2008 economic crisis.

- In 2000 Law 4/2000 granted universal access to health services to all residents.
- Strategic Plan for Citizenship and Integration 2007-2010 aimed to promote social cohesion and equity. Autonomous Community Immigration Plans promoted equity in access to health services (17).
- In 2009 in contrast to much of the EU, Spanish regional plans provided for the right to health care, health education and health promotion and the improvement of information for migrants on health services, aided by Spanish experience with internal migration (19, 20).
- In 2010 the Spanish Presidency prioritized migrant health in support of Council recommendations on "Equity and Health in all Policies: Solidarity in Health" (21).
- In 2012, Royal Decree Law 16/2012 restricted health system access to documented immigrants.
- Immigrants' health entitlements have suffered similar setbacks in other European countries (18, 22).
- Some Spanish regions made arrangements to extend health entitlements, however,

financed, offers near universal coverage for services free at the point of service and is decentralized to the autonomous community level. Though the system has been shaken by the economic recession, it still plays an important role in the social integration of the immigrant population (18).

The Right to Health for migrants

- **Since 1948 health has been a human right** declared by the United Nations (6).
- **Maastricht Treaty** – encouraged member states to provide a high level of health protection.
- **Portuguese EU Presidency of 2007** prioritized migrant health.
- **Bratislava Declaration on Health, Human Rights and Migration** (9) highlighted challenges in providing care (10).
- **61st World Health Assembly in 2008**, WHO member states called to support migrant health via policy, dialogue, and health system strengthening.
- **EU Health Strategy 2008-2013** supported migrant health in health promotion, prevention and access to care (8).
- **EU Framework Program** called for coordination of research to address inequalities in the social determinants of health.
- In 2010 the Spanish Presidency and WHO hosted the **Global Consultation on Migration and Health (11)**.

In terms of equity, Spanish law related to health and social services has been among the most progressive in Europe. However, the economic crisis and austerity measures adopted by the Spanish government have restricted the entitlement of immigrants in the health system.

5. Subprogram Research on Migrant Health

The scientific contribution of the Subprogram to migrant health research consists of:

- Around 234 articles published in scientific journals,
- 37 active or completed projects (including 11 international projects), and
- High levels of participation in scientific conferences, meetings, and working groups (27).
- Four immigrant cohort studies completed or underway among Subprogram members, representing a highly valuable body of research that offers knowledge on key focus areas.

The barriers to carrying out research on migrant health are significant, including methodological challenges, lack of funding, competing priorities, constantly shifting policy commitment, and others (23). Research is sparse in some areas, and there is conflicting information about state of health and health determinants of the immigrant population. A Subprogram study of health status and health determinants among Latin-American immigrants in Europe found wide heterogeneities across various areas of health research including mental health, women's health, health service use, and others (24). In Spain, methodological challenges have been evidenced in the study of cardiovascular health, and infectious diseases in immigrant populations (25,26).

Appendix A offers a detailed summary of Subprogram research in major areas related to migrant health.

6. Key Research Findings on Migrant Health in Spain

This section summarizes key findings from Subprogram research on migrant health. A detailed explanation and contextualization of these findings can be found in Appendix A.

Access to Care and Health Service Use

1. In general, the Spanish immigrant population is healthy, with health needs that are similar to the native population.
2. Spain's severe economic crisis has significantly impacted immigrants' health and wellbeing through a move away from equity and cuts in health service provision.
3. Immigrants' use of primary care services is similar to the native born population, with greater use of emergency services and underuse of secondary care.
4. Disparities in health service use may be related to lack of familiarity with the health system, doctor-patient communication issues, or differences in risk perception and health seeking behaviors.

Occupational Health

5. Certain immigrant groups have higher rates of occupational accidents, presenteeism, lower rates of work disability, and greater overall exposure to psychosocial risk factors and job precariousness.
6. Immigrants are disproportionately employed in jobs in the construction, agriculture and hotel and domestic services sectors. These sectors pay low wages and imply greater exposure to work-related risks; they were also among the sectors most affected by the economic crisis.

Chronic and Infectious Diseases

7. Immigrants and natives tend to be similar in terms of the most prevalent chronic conditions, with better outcomes by some measures.
8. Immigrants are more vulnerable to some infectious diseases including tuberculosis. Spain is among the countries with the highest prevalence of Chagas disease in Europe.
9. There are challenges to screening and treatment including legal, administrative, cultural and linguistic barriers.

Mental Health

10. Factors that often accompany migration-especially in precarious circumstances or undocumented migration- may give rise to mental health problems.
11. There is lower use of mental health services among immigrants, perhaps due to lack of access or lack of understanding of the immigrant's culture on the part of the health professional, or quality of care that is not appropriate to the needs of immigrants.

Sexual and Reproductive Health

12. Immigrant women may have a greater risk of negative outcomes such as pre-term birth and low birth weight.

7. Policy Impact: Subprogram Knowledge Transfer and Engagement with Policy Makers

The Subprogram has undertaken action to transfer the results of the research described above with policy makers in Spain as an important source of knowledge that can help policy respond to the needs of a more diverse population (90). Among the aims of the Subprogram is that of improving the knowledge base on migrant health for the purpose of informing policy.

Subprogram members were queried about their policy related activities and knowledge transfer mechanisms in support of research use in policy, ranging from passive to active (90)[1]. While most research use in Spain takes place when policy makers receive research results and understand them (lower levels of use), some institutions are moving toward higher levels, whereby research causes a shift in perspective on an issue and can be drawn upon to shape policy and later implemented in policy or practice communities. In migrant health, knowledge transfer is particularly important, as a politically contentious issue and with scant research (18,27).

Key Subprogram policy and knowledge transfer actions

1. Production of policy briefs and presentation of available research to policymakers.
2. At the municipal level, support for actions that use research in the design of specific health policies targeting immigrant groups (18, 27).
3. Involvement in policy roundtables or working groups
4. Hosting policy-specific events related to migrant health.
5. Engagement with policy makers as experts on migrant health to shape policy
6. Engagement with community-based organizations or migrant health advocates, and
7. Creation of alliances or agreements with public institutions or research centers (27).

All Subprogram institutions have integrated some level of knowledge transfer and engagement with policy makers into their migrant health activities.

Higher level knowledge transfer actions

At the local level, members have helped shape the trypanosome cruzi vertical transmission control program, functioning in four autonomous communities, and they have consulted with health agencies on the need for systems to monitor new infections

[1] Knott and Wildavsky's model of research use among policy makers describes 7 stages for research use, moving from passive to active including, *reception, cognition, reference, effort, adoption, implementation and impact* (90). Evidence on use of research in policy making in Spain is scarce, but in subprogram members' experience most research use is on the levels of reception and cognition (receiving research results and understanding them). However, a shift is needed towards the higher levels of *reference, effort, adoption and implementation,* whereby research causes a shift in perspective on an issue, is drawn upon to shape policy and later implemented in policy or practice communities.

of specific diseases. Some groups have held meetings with government ministries to present, explain and contextualize research findings, and others have engaged from project inception to delivery with different health stakeholders including community-based organizations, public health agencies of Spain's autonomous communities, the National Social Security Institute, Ministry of Health Social Services and Equality, and Ministry of Employment and Social Security, Directorate General for Immigration, and others (91). Subprogram research has had a key role in supporting legislation of significant impact to Spain's immigrant population, including the work of the Commission to Reduce Social Inequalities in Health, the T. Cruzi Vertical Transmission Control Program and changes in tuberculosis control, RDL 29/2012 on the special system for social security coverage for domestic employees, Act 10/2010 on reception for immigrants and returnees in Catalonia, and others.

8. POLICY RECOMMENDATIONS

This section summarizes the key policy and program recommendations- supported by Subprogram research- for improving the health of immigrants in Spain.

1. *Ensure entitlement, support equity, and reduce barriers to health care*
   - Maintain a strong national health system with universal access and free at the point of service to support population health and manage chronic disease.
   - Re-commit to equity and universality as principles of the National Health System; expand entitlements to health and social services to include all immigrant groups.
   - Reduce barriers to access to care related to linguistic, cultural, economic, administrative or other issues.
   - Design interventions that teach cultural competencies for health professionals and within health institutions.
   - Establish mechanisms to support inter-sectoral action to support the social determinants of health.
   - Implement specific measures to protect the health of women immigrants, and focus on the second generation of immigrants.

2. *Tailor health programs to immigrant populations and promote health service use*
   - Engage in program adaptation for certain immigrant subgroups that have worse health outcomes or are otherwise at-risk.
   - Improve upon elements of Spanish regional immigration plans, including engaging in culturally relevant health promotion and education, use of translators, cultural mediators and community health outreach workers, among others.
   - Increase cooperation between social partners, immigrant associations and the public health administration.
   - Develop regional and local leadership capacity to guide the health sector approach to care for immigrant populations.

3. *Promote awareness and increase detection of imported and infectious diseases in immigrant populations*
   - Implement systems, guided by national policy, for the mandatory reporting of infectious diseases.
   - Develop programs to improve awareness of health professionals of emerging infectious diseases and those associated with human mobility.
   - Identify and expand screening and treatment programs across Spain's autonomous communities; ex: the *t. cruzi vertical transmission program.*

4. *Reduce the burden of chronic disease in immigrants and support good health status*
   - Support protective factors- within the host and/or origin culture- related to management of nutrition, physical activity, obesity and chronic pain.
   - Make special provisions to extend these efforts to immigrants and vulnerable groups.

5. *Support pro-employment policies and occupational health*
   - Promote the health of those impacted by the economic crisis; provide protections for the unemployed, those with low incomes and those in precarious work situations.

- Pay special attention to training of immigrant workers on labor rights and risk prevention.
- Provide incentives to companies to comply with good labor conditions.

6. *Support access to mental health services and develop cultural competencies among mental health institutions and providers*
   - Develop strategies for expanding mental health services available for immigrant groups.
   - Develop institutional plans to provide training, education and strategies on cultural competency to all mental health professionals and services, relevant to Spain's migrant profile.
   - Utilize and expand on the expertise of transcultural mental health services.

9. CONCLUSIONS

Supporting immigrant health policy and improving research-policy transmission

Spain's immigrant population is one of the highest in Europe. The health system must respond to the needs of a more culturally diverse population, so migrant health will continue to be an important issue and relevant area for scientific research. Clear policy recommendations are highlighted in Subprogram research, specifically with respect to ensuring universal entitlement to care, prioritizing occupational health and the social determinants of health, developing effective screening programs for certain infectious diseases, using mechanisms to promote health service use and adapt or culturally tailor programs to immigrant populations, provide training for health professionals and policy guidance and leadership for the health system, and ease the many administrative and other issues that serve as barriers to immigrant populations.

Although Subprogram knowledge transfer efforts are significant and growing, more is needed to ensure that policies take advantage of scientific knowledge available on migrant health. New channels for connecting research with policy would help research use move to the higher levels whereby knowledge influences perception of public health problems and plays a role in their resolution, with a positive impact on the health of the population. These channels should make use of knowledge brokers, facilitate communication, interaction and mutual understanding among policy makers and researchers and foster a spirit of collaboration.

Spanish demographics have changed dramatically in a short time period, provoking challenges in terms of social integration, but nevertheless providing the opportunity to support good health of the population. Subprogram research highlights the need for an acceptance of Spain's new immigrant population and a commitment to equity, signaling the need for the collaboration of sectors beyond the health system. The Spanish National Health System continues to be an asset in the provision of health protection to the great majority of the population, including immigrants, however, formal entitlements, guidance and leadership are needed for the health sector in order to promote good health of a more diverse population.

APPENDIX A.

Subprogram Scientific Literature on Migrant Health

Current international research on migrant health has established a typical profile of immigrants settled in a host country, whereby they are mostly young and healthy but experience barriers to health in terms of access to health care, unavailability or inappropriateness of services due to cultural or linguistic factors, risk of infectious or chronic conditions, poor indicators of the social determinants of health, and consequently worsening health over time (28). Immigrants in Spain, however, are a heterogeneous group, representing a range of cultures, languages and socio-economic backgrounds, and the majority have been living in the country for 10 years or more, according to the National Statistics Institute Census of 2011. The Spanish context illuminates some of the challenges and facilitators for immigrant integration, health and wellbeing.

Health status, access to healthcare and barriers

Overall, the immigrant population as a whole in Spain is healthy, with health needs that are similar to the native population. But because of the heterogeneity of this population, poor health of some groups may be hidden under the "immigrant" category; for example, in an analysis carried out by the Subprogram for the period 2006-2012, those from low-income countries reported worse health than the native born- especially women- and self-rated health worsened with the length of stay, approximating the health status of the native population. On some indicators though, immigrants are in better health than natives (39).

Maintenance of good health requires access to primary care. A common myth is that immigrants overuse health services. In Spain immigrants' use of primary care services is lower or similar to the native born population (40-42). Immigrants tend to make greater use of emergency services and underuse secondary care (17,43). These disparities are likely related to the barriers immigrants face, such as lack of familiarity with the health system, doctor-patient communication issues, or differences in risk perception and health seeking behaviors, in addition to working and employment conditions (17, 43). Additional barriers relate to health providers and how they perceive their responsibility and service to immigrant patients (44). Subprogram research shows that immigrants perceive the existence of individual (language, culture, knowledge etc.) and structural (human resources, service organization etc.) barriers to health services (45).

Health service use

To a great extent, public policy influences access to health care and health service management, delivery and quality. Health policy must serve as a guide to orient the health system to respond to the needs and cultural characteristics of a more diverse population (18, 27). Knowledge of the health system and usage patterns are different between the native and immigrant populations in Spain, where the latter make less use of health services in general, except in emergencies and also show greater unmet assistance (43, 100)

Also, traditional health care may not be suitable to the needs of new immigrant populations. Subgroup research shows that immigrant groups and natives may be different in the way they perceive their relationships with health providers, and in the consistency and continuity of care they receive (87). This could be due to differences in communication

styles, immigrants' lack of knowledge of the health system, misunderstandings of health professionals about immigrants' health needs, or administrative problems such as the lack of health records from immigrants' countries of origin (88).

In Spain, the lack of funds and rigidity of the system of health provision are seen as barriers to improved provision of care for all groups, both native and immigrant (18,89). Health professionals need guidance from the health system to resolve difficulties in providing services to immigrants (88). They may not speak the language of the patient or interpreters may not be available, and physicians may misunderstand patients' perceptions of their symptoms and illnesses. A 2009 Subgroup study showed that health providers felt they needed support in order to attend to their immigrant patients; they also felt that health promotion and education materials should be culturally adapted to a greater extent, and not all health professionals are even aware of translation and cultural mediation services already at their disposal (89). In order to be better prepared to attend to the needs of a diverse population, health professionals need specific training on cultural competencies needed to work with immigrant populations. A study in Catalonia signaled the need for greater leadership from the Health Department, as well as changes to the health system to develop specific strategies for service provision to immigrant groups and better provision information about the health system (89). This implies a need for inter-sectoral collaboration.

Chronic disease

Internationally and in Spain, chronic conditions account for an increasing percentage of the health costs of the population (46). Migration can lead to lifestyle changes in terms of nutrition and physical activity that can influence the development of chronic diseases (47). In migrant health studies in the USA and Europe, chronic disease in immigrants worsens over time, through acculturation to the habits and practices of the host culture. Spain shows more positive results in terms of chronic disease outcomes, perhaps because most of the immigrant population has recently arrived. One study reports that immigrants in Spain, especially recently arrived working class men, report less chronic disease than native Spaniards (43). A 2009 study in Madrid showed length of residence was not related to increases in prevalence of obesity (48). There is other evidence of positive changes in nutritional habits and a lower burden of chronic disease among immigrants (36.8%) in Spain compared to the native population (55.3%) (49), as well as similar mortality from cardiovascular and ischemic heart disease among specific immigrant groups (47, 50, 51). Immigrants and natives tend to be similar in terms of the most prevalent chronic conditions (39).

Health equity and the social determinants of health

The Leeds Consensus Principles state that equity should be a guiding principle in research on ethnicity and health (52). In the area of health equity, the Subprogram has conducted significant research on the social determinants of health- particularly those related to working conditions, living conditions, policy and socioeconomic inequality. Subprogram research shows a relationship between gender, socioeconomic status, employment and working conditions and poor mental health and poor self-perceived health in immigrant populations (39, 53). Social and economic policies have been shown to be related to socioeconomic inequalities in terms of mortality, chronic disease and risk factors, and mental health and self-perceived health (55). Immigration policy itself may be a social

determinant of health, particularly that which regulates access and entitlement to social benefits and services (96).

Spain's severe economic crisis has significantly impacted immigrants' health and wellbeing through a move away from a focus on equity and cuts in health service provision (54-55). The political responses and social consequences of the crisis also affected immigrants' living conditions (94) and have made it more difficult to implement action to protect vulnerable groups, such as was the case with the social security coverage of domestic workers (57).

Occupational Health

Work significantly influences health, not only through workers' access to income and social benefits, but also through the type of work performed, exposure to risks and skills training and education of the worker (63). Research has shown an association between the manual labor social class and poor working conditions and health outcomes. Work is thus identified as a primary aspect related to immigrants' vulnerability in Spain, given the precarious employment among the immigrant population (58, 59). A review of the occupational health of immigrants in Spain showed over 20 scientific studies evidencing higher rates of occupational accidents, more presenteeism, lower rates of work disability, and overall exposure to psychosocial risk factors, and job precariousness among immigrant workers (63).

The difficult labor situations of immigrant workers are described as lack of ability to negotiate employment conditions, limited social benefits, difficulty in defending rights, long working hours, exposure to environmental risks, vulnerability to discrimination and others (59-61). There are also issues of precarious housing, gaps in knowledge about work-related risks, and economic reliance on irregular jobs due to dependent family members (either in Spain or in the home country) (62-63). In some sectors, immigrants perceive their labor instability to be related to their condition as immigrants, their work sector and gender (60).

The Spanish economic crisis has been disastrous for immigrants, who are disproportionately employed in jobs in the construction, agriculture and hotel and domestic services sectors. These sectors pay low wages, imply greater exposure to work-related risks and, most significantly, were among the sectors most affected by the crisis (64). During peak immigration, foreigners were employed at rates above the Spanish population, however by 2011 the unemployment rate among foreigners was over 32% vs. 20% for native Spaniards (63). In this situation, immigrants make up a large share of the population facing poverty and social exclusion in Spain. For example, in a health survey on people attended by Caritas social services and living in substandard housing, over 90% were foreign-born. The physical and mental health status of this group was much worse than that of the general population (97).

Population mobility, imported diseases and infectious diseases

Differences in disease prevalence across countries means that migratory patterns are partly responsible for changes in patterns of infectious disease (29). A 20-year study of infectious disease incidence identified a number of important infectious diseases present among immigrant groups, and recommended that health screening of immigrants be carried out to ensure early diagnosis and treatment of these health problems (30). In Spain migrants are more vulnerable to tuberculosis; around 32% of cases were in immigrants in one study, and

they tended to be younger and have greater drug resistance (29,31). The migratory process itself and host country living conditions (including social isolation, poverty and uncertain legal status) also present an increased risk (32); despite the risks of higher prevalence, there are fewer studies of TB in immigrants in Spain than in the general population (31).

Through migration non-endemic countries have seen new cases of tropical diseases (33). Spain is among the countries with the highest prevalence of Chagas disease in Europe. High prevalence of Chagas disease was found among Bolivian immigrants in a study in Spain (34-35). This high prevalence is influenced by challenges to screening and treatment related to legal, administrative and cultural and linguistic barriers, in addition to lack of awareness (32).

With respect to HIV, 40% of cases in the European Union (and EEA) are in immigrants, who are often diagnosed at later stages of infection (32). A study in Spain showed that Latin Americans are the immigrant group most commonly studied, risk behaviors differed depending on country of origin and sex, and there was a delay in diagnosis of the disease in up to 43% of cases (36). A study of Latin American and Maghrebi immigrants in Catalonia showed a general lack of knowledge of HIV/AIDS and condom use, particularly among Maghrebis (37). Another study identified barriers among health providers related to disease diagnosis (38).

Mental Health

There is little literature available in Spain on the mental health of immigrants, including psychopathology among immigrants, migration stress as a risk factor, and mental health service use (42). Some studies show higher prevalence of poor mental health among certain disadvantaged- for example, those with temporary work contracts- subgroups of immigrants (70) or among immigrant women (98, 99), and work situation in Spain is related to mental health (58, 103). Subgroup research shows a relationship between socioeconomic status (social class) and mental health. In Spain, immigrant women from high-income countries have the best mental health status among all groups; in men mental health worsened from 2006-2012 for both immigrants and natives, but more so for the lower social class (manual laborers) (39).

Migration itself may be a risk factor for mental illness (71), though immigrants may benefit from protective factors. Factors that often accompany migration-especially in precarious circumstances or undocumented migration- may give rise to mental health problems (72-74), however, not all groups have higher psychopathology and the region of origin is relevant in influencing differences in psychiatric disorders relative to native Spaniards (75). In the Spanish context, acculturative stress – or the psychological impact of adapting to a new culture and perceived discrimination (102)- was found to influence psychiatric pathology (76). Also, violence in the social, work or family environment can affect mental health, especially among women (65). Studies have confirmed the need to pay special attention to differences by group of origin, some of which are at higher risk (101).

Studies in Spain indicate lower use of mental health services among immigrants (77). This could be due to lack of access or lack of understanding of the immigrant's culture on the part of the health professional; or quality of care that is not appropriate to the needs of immigrants. Provision of culturally competent care- that which is appropriate in a cross-

cultural situation- requires a range of actions at the institutional and organizational levels, and guidance is needed from the health system (78).

Sexual and reproductive health

Over half of immigrant women in Spain are of reproductive age, and their young age means that many will bear children in the Spanish health system, therefore sexual and reproductive health- including sexuality, childbearing, contraception and pregnancy, sexually transmitted diseases, family planning, and abortion- is related to many of their social and health needs (79).

Immigrant women may have a greater risk of negative outcomes such as pre-term birth and low birth weight, influenced by difficult socio-economic circumstances and inadequate access to prenatal care, and for many immigrant women, delivery may be their first experience with a Spanish hospital. Immigrant women often face worse pregnancy outcomes than native women (80). In a study in Almeria, immigrant women had less adequate prenatal care compared to natives, which was associated with pre-term births and low birth weight in infants (81). This could reflect barriers to access to prenatal care or other factors, for example, one study shows the wide heterogeneity of immigrant women and their culturally-specific health practices (82).

In Spain, a retrospective cohort study of pregnant North African women showed that immigrant women had a higher risk of neonatal morbidity, and compliance with prenatal care was the most important risk factor (83). Immigrant country of origin is also related to initiation of breastfeeding as well as on rates of cesarean delivery (84-85).

Social risk factors like living on low incomes, having inadequate diet, precarious living conditions, or living in an unhealthy environment are factors to which immigrant women are more exposed in Spain and can also influence pregnancy outcomes (83). The unemployment rate in Spain has been shown to impact pre-term births, however neighborhood disadvantage was more important in predicting poor pregnancy outcomes than country of origin (82). This study also showed the great heterogeneity in health service use among immigrant women; for example, some groups tend to use the established health system channels for prenatal care, whereas others seek care from traditional medicine sources. The heterogeneity of the immigrant groups in Spain point to the need to tailor services and programs specifically to the immigrant population of each region or area (86).

Vulnerable groups

A cross-cutting issue of Subprogram research on migrant health involves the multiple levels of vulnerability faced by immigrants, particularly among subgroups such as women, the undocumented, those who experience violence or those with low levels of social protection. Immigrants in Spain are vulnerable to discrimination and violence, both of which have implications for physical health, mental health and quality of life (65). A study of Ecuadorians in Spain found that immigrant women had greater exposure to violence, perhaps related to migrant status through living and working conditions (66).

The prevalence of Intimate Partner Violence among immigrants in Spain is estimated to be higher (27.9%) than in the native population (14.3%) (67). Also, many of the barriers immigrants face in interacting with host country institutions, including the health sector,

put immigrant women experiencing IPV into a position of heightened vulnerability (68). Though considered an ethnic minority rather than immigrant population, Spain's Roma population of approximately 750,000 is among the most vulnerable population groups. Though this population has access to the health system, they face numerous barriers to accessing health services (69).

APPENDIX B

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