ABSTRACT:

Introduction: In Spain, from 2000 to 2010, there were measures that promoted equality in health and permitted access to health services for the immigrant population. Because of the economic crisis and the reductions in public expenditure on health, security measures were put in place, which not only had negative consequences for this group, also for public health in general. Therefore, the number of imported diseases cases have increased in direct relation to international travels.

Objectives: To evaluate the presence of imported diseases in Spain and to know the problem of the immigrant in the Health System.

Method: the literature review of studies in English and Spanish published between 2007 and 2017, including several databases and reports from institutions and scientific organizations.

Results: A total of 173 articles indexed in the databases were obtained. 32 of these articles were adjusted to the inclusion criteria, of which 15 were selected to respond to the objectives. The studies affirm that population movements such as migrations or international trips, increase the presence of imported diseases in Spain. In addition, legislative measures imposed by the government on health matters, complicate access to the Spanish Health System for irregular immigrants. They also highlight other difficulties for the immigrant, such as the language and the lack of knowledge of the correct access and use of health services.

Conclusion: The sum of all the above mentioned, creates lack of confidence in the immigrant, which postpones contact with the health service, and may lead to a serious problem in public health, mainly due to the delay in the diagnosis, treatment, and monitoring of imported infectious diseases.

Key Words: Immigration; Spain; Nursing Staff; Health Services; Imported Diseases; Communication Barriers.
RESUMEN:

**Introducción:** En España, desde el 2000 hasta el 2010, existían medidas que fomentaban la igualdad en salud y acceso a los servicios sanitarios de la población inmigrante. Con el inicio de la crisis y las reducciones del gasto público en salud, se instauraron medidas que no solo tienen consecuencias negativas para este colectivo sino también para la salud pública en general, viéndose en aumento el número de casos de enfermedades importadas, también relacionadas con el aumento de viajes internacionales.

**Objetivos:** Evaluar la presencia de enfermedades importadas en España y conocer la problemática del inmigrante en el Sistema Sanitario.

**Método:** Revisión bibliográfica de estudios en lengua inglesa y castellana publicados entre 2007 y 2017 recogidos varias bases de datos y en informes de instituciones y organizaciones científicas.

**Resultados:** Se obtuvo un total de 173 artículos indexados en las bases de datos. De estos, 32 se ajustaron a los criterios de inclusión, de los que se seleccionaron 15 para responder a los objetivos.15 producciones se adaptaron al objetivo del presente estudio. Los estudios afirman que los movimientos poblacionales como migraciones o a viajes internacionales, elevan la presencia de enfermedad importada en España. Esto junto con las medidas legislativas impuestas por el gobierno en materia de sanidad, dificultan al inmigrante irregular la posibilidad de acceder al Sistema Sanitario español. Destacan además otras dificultades para el inmigrante como son el idioma y el desconocimiento del correcto acceso y uso de las prestaciones sanitarias.

**Conclusión:** Todo esto, crea desconfianza en el inmigrante, el cual aplaza el contacto con el servicio sanitario, pudiendo llegar a ocasionar un grave problema en la salud pública, principalmente por el retraso en el diagnóstico, tratamiento y seguimiento de enfermedades infecciosas importadas.

**Palabras claves:** Inmigración; España; Personal de Enfermería; Servicios de Salud; Enfermedades Importadas; Barreras de Comunicación.

INTRODUCTION

The Universal Declaration of Human Rights is established in Article 13: `` Everyone has the right to move freely, they can choose their residence in the territory of a State and every person has the right to leave any country, including his own, and return to his country” (1).

Emigration is considered, therefore, a fundamental right of people (2).

From the beginning of the 50s to the 80s, the Spanish society migrated mainly to America and Europe, the trend is reversed in 1973 and Spain becomes a recipient of immigrants. With the beginning of the economic crisis, the number of immigrants arrived in Spain decreased, although nowadays, these groups continue to reach the most moderate levels (2-4). Spain and Germany were the countries of Europe, with mutual alternations, occupying the first position in the number of immigrants coming abroad during the period 2001-2011 (3).

Currently, Spain, like other countries of the European Union, receives a significant percentage of the foreign population. According to data from the National Institute of Statistics, in the first semester of 2016, the immigrant population in Spain corresponds to 4,418,898 people (5).

Despite the fact that Europe is in a difficult situation for immigrants, a migratory demand is maintained in poor and rich countries (2). According to the SESPAS 2014 report (6), the causes of migration are heterogeneous and complex, mainly focused on the searching for new job opportunities.

In recent years, the immigration has settled in our society by legal and illegal ways. In a greater proportion, our nearest neighbours The Moroccans (5), separated from Spain
by a strict barrier of laws and controls, due to the efforts of the government are mainly
destined to the control of the borders leaving out the importance of the access of this
population to the Social Services, especially the health services (2).

Spain, a developed country, has a public health system, providing services to the
entire population, whose basis is to ensure equal access and use of services for all
citizens (7, 8).

The establishment in our society of foreign individuals, is a determining phenomenon
in Spain, causing changes in the population, with repercussions in multiple sectors:
service sector, school sector, health sector, etc. (3)

At the level of the health sector, these changes cause an important challenge in the
National Health System, to cover and meet the needs of this group (9).

Since 2000, a number of actions to promote equality in health and access to health
services for all citizens, both immigrants, and natives (9), have been approved in Spain
through: Law 14/1986, of April 25, General of Health (10) and Organic Law 4/2000, of
January 11, on rights and freedoms of foreigners in Spain and their social
integration (11).

Until 2010, progress was shown to improve health protection and access to health
care for the immigrant population (6, 12), with the onset of the crisis, and the consequent
reductions in public health spending (6, 13). The government instituted a series of new
measures that directly affected the immigrant community: Royal Decree-Law 16/2012,
of April 20, on urgent measures to guarantee the sustainability of the National Health
System and improve the quality and safety of its benefits (14).

Measures that not only have negative consequences for this population group, also for
public health in general (8), because the health access is reduced for immigrants in an
irregular situation and therefore, it is more difficult the detection, control and monitoring
of imported diseases favouring the transmission of them (6, 8).

This is compounded by the lack of knowledge of professionals about these imported
diseases and the difficulty in accessing health services and benefits of this population
group derived from multiple specific factors such as culture, religion, ignorance of the
functioning of the Health System, language, etc. (7, 9).

It requires joint work, by all health professionals, in the health care of the immigrant
community, to avoid inequalities. These health inequalities are a priority concern for
the World Health Organization (15).

The health system should pay special attention to those who need it most, by putting
in place health programs and health interventions that address the most frequent
problems, targeting these groups (15).

With attention to the people who need it most, health professionals have the
opportunity to demonstrate one of the great achievements of Spain, its Health System
which is developed, universal, free and leading worldwide (2, 16).

Most of the health workers do not know about the legislation that abates these
immigrant groups, and they are not aware of what is the appropriate way to deal with
imported pathologies. It is fundamental to dominate, within our possibilities, certain aspects of care to be able to act in an ethical, timely and correct manner.

Given these scenarios, we propose to conduct a study with the general objective of promoting health knowledge regarding immigration in Spain.

**OBJECTIVES**

**Specific objectives**

To list the difficulties in accessing the Spanish Health System by the immigrant population.

To assess the presence of imported pathology in Spain in relation to travel and international immigration.

**METHODOLOGY**

A descriptive review was carried out with the purpose of responding to the objectives of this work, consulting in bases of the sanitary field such as Medical Literature Analysis and Retrieval System Online (MEDLINE), Elsevier, Scielo, and Dialnet.

In addition, reports published in websites of different organizations and scientific societies were taken into account, such as:

- World Health Organization (WHO)
- Ministry of Health and Consumption (MSC)
- National Institute of Statistics (INE)
- Spanish Society of Epidemiology (SEE)
- Spanish Society of Infectious Diseases and Clinical Microbiology. (SEIMC)
- State official newsletter. (BOE)

Inclusion criteria were defined as publications in Spanish or English related to the subject of the study, published in the period between 2007 and 2017 and made available online in the form of a report, guide, protocol, and full article.

As exclusion criteria were defined publications which did not contemplate the subject in question and did not meet the criteria described above.

The search was conducted from January 2017 to April 2017. After the selection of the studies, all of them were fully read, in order to minimize selection biases and to extract key data to respond to the objectives of the study.

The following keywords were used: Immigration; Spain; Nursing staff; Health services; Imported diseases; Communication Barriers

The operators used, combined with the keywords for the search of articles related to the subject of the study were mainly: “AND”, to be able to specify more specifically the search, and others to a lesser extent: “ OR” ‘And ‘ NOT”.
RESULTS

A total of 173 articles indexed in the databases described above were obtained. Only 32 of them were adjusted to the inclusion criteria, of which 15 productions were adapted to the objective of this study. After analyzing the bibliographic material found, some thematic categories could be created, and according to them the following results have been found:

**Difficulties accessing the spanish health system by the immigrant population**

Young immigrants arrive in Spain with an optimal health condition and even with a better state of health than the native population, known as healthy immigrants \(^6\) because those who usually cross the borders \(^9\) are the ones psychologically strongest with an ideal health.

The health needs of immigrants are similar to those of the Spanish population in general \(^6\). Social policies in the face of the crisis affect the Health System directly and thereby reduce budgets for health, resources, personnel, and preventive activity. The measures taken have negative consequences for the entire population group and public health in general \(^8\).

The crisis exposes this group to risks in their health, being surrounded by social determinants and negative health \(^9\):

- Isolation and social disconnection.
- Overcrowding.
- Labor and educational situation.
- Start in habits of life of the host country: Change in diet, consumption of toxic substances (tobacco, alcohol), etc.

All of the above mentioned has a direct influence on the health of the individual and worsens it in the host country \(^8\). Added to this is the bad use they make on the Health System, by the presence of reasons such as (Table 1):

**Table 1:** Barriers in access to the Spanish Health System by the immigrant community, through information obtained by various sources

<table>
<thead>
<tr>
<th>SOURCES</th>
<th>Barriers to access the Spanish Health System, by the immigrant population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Communication problems: Doctor-patient.</td>
</tr>
<tr>
<td></td>
<td>- Socioeconomic context.</td>
</tr>
<tr>
<td></td>
<td>- Legal situation.</td>
</tr>
<tr>
<td></td>
<td>- Administrative obstacles.</td>
</tr>
<tr>
<td></td>
<td>- Attitudes of the health personnel.</td>
</tr>
<tr>
<td>Enrique R, Belén S, Cruz P, Lourdes L, Elisabeth S y José Manuel DO. La utilización de los servicios sanitarios por la población inmigrante en España. Elsevier España. 2009; 23(Sulp 1): 4-11 (^7).</td>
<td>- Ignorance of administrative procedures.</td>
</tr>
</tbody>
</table>
- Lack of economic resources.  
- Extensive working days.  
- Language.  
- Culture.  
- Religion. | - Legislative measures: RD/2012. |
| César V, Ana María V y Antoni T. Percepciones de un grupo de inmigrantes sobre el Sistema Nacional de Salud y sus servicios. Elsevier España. 2016;48(3):149-158 (16). | - The lack of linguistic competence is the most important obstacle to accessing health services. | |
| Ana AB, Santiago AU, Consuelo BS, Juan BJ, Adoración BD, Carmen CS et al. Inmigración y salud.1-120 (17). | - Language  
- Medical-legal difficulties: Irregular situation.  
- Economic level.  
- Sex  
- Age.  
- Country or ethnic group of origin. | |
| Pilar BS, Martina FG, María Jesús AM y Manuel GR. Percepción y experiencias en el acceso y el uso de los servicios sanitarios en la población inmigrante. Elsevier España.2015;29(4):244-251 (18). | - Circumstances of the migratory processes.  
- Ignorance of the available services. | |
- Health culture of the country of origin. | |
- Health culture and health system unknown.  
- Often do not understand the care organization.  
- Social marginality.  
- The difficulty of missing work to attend consultations.  
- Difficulty in communication.  
- Lack of papers. | |

These barriers (Table 1), being one of the most obvious the language, complicate the professional-patient relationship (to correct this situation requires the need to have an interpreter or even contact translation services (12).
To assess the presence of imported pathology in Spain in relation to travel and international immigration.

The imported diseases are pathologies acquired in countries where they are relatively frequent, but their diagnosis, treatment and monitoring are carried out in countries where the incidence and prevalence of them are almost non-existent (20).

These diseases are more common in certain groups, groups on which we must act to prevent them (21):

- International travellers with destinations in tropical areas.
- Migrants, soldiers ... who return to Spain and refugees.
- International adoptions.
- Immigrants: The nationalities with the highest prevalence and incidence of these imported diseases are Moroccan nationality and Romanian nationality.

Health professionals have seen an increase in the number of patients with clinical suspicion or diagnosis of infectious diseases that are not specific to our country or that had practically disappeared, including so-called tropical infections (22).

The importation of these diseases reflects the existence of three main factors (22):

- A great difference in economic-health development between PRB and the most industrialized countries.
- The climatic difference, which allows the existence of efficient vectors and adequate environmental conditions for their transmission.
- Large immigrant population movements or international trips.

In Spain, it is ruled out that the presence of this pathology is related to a low level of health since it is a country with a developed health system.

The appearance in Spain of these diseases due to the existence of efficient vectors, is not possible due to the climatic conditions do not allow them to act in most of the cases in an efficient way, although in reality, Spain is a country that has the presence of vectors capable of transmitting said diseases if the adequate requirements were met.

To a great extent, the group's immigrants and international travellers, among others, are being blamed for being responsible for introducing these pathologies into Spanish territory (22).

Throughout history, the mobility of the population due to immigration and international travel has played a critical role in the spread of infectious diseases (23).

The movements of the population, all over the planet, increase the possibility of both transmission and contagion (21).

In Spain, according to a review of imported infectious diseases, published by the internal medicine service of the Prince of Asturias Hospital, Madrid, carried out in 2008, it establishes that the number of imported infectious diseases increases during the massive arrival of immigrants who normally come from low income countries like Africa (22).
This trend changes, and currently, these diseases are increased in international travellers, either by tourism or business trips\textsuperscript{(21)}.

Each year the number of people making international trips increases. According to the World Tourism Organization, Spain won 4 million international arrivals in 2014\textsuperscript{(24)}.

France, the United States, Spain and China are still monopolizing the top positions for international arrivals\textsuperscript{(24)}.

The four main areas receiving passengers are Europe, East Asia, The Pacific and the American Continent\textsuperscript{(23)}.

Travelling is constantly increasing, but also, to areas of the world with higher health risk. Nowadays, among the 40 largest recipient countries are at least 10 countries considered low-income countries, where the risk of contracting an infectious disease is high\textsuperscript{(23)}.

Travel for holidays, entertainment or other forms of leisure represents just over half of the total number of international tourist arrivals (53% or 598 million) in 2014\textsuperscript{(24)}.

Acute episodes of some imported tropical diseases are more frequent in these groups than in immigrants\textsuperscript{(21)}.

The international traveller is exposed to infectious diseases of worldwide distribution and to the risks derived from the pathologies of each country. Migrants and travellers can introduce infections in populations that have never suffered them or that were believed to be eradicated, causing outbreaks in populations\textsuperscript{(23)}.

These diseases are of great relevance, in relation to public health, and we should not ignore the importance because in certain cases they constitute an important problem\textsuperscript{(21)}.

The latest data from the Carlos III Institute shows that in Spain, diseases that we thought eradicated are still present\textsuperscript{(25)} (Table 2).

\textbf{Table 2: Temporal sequence: Number of cases of Diseases of mandatory Declaration (Spain 2002-2007-2010-2015)}

<table>
<thead>
<tr>
<th>Disease</th>
<th>2002</th>
<th>2007</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiebre Tifoidea y Paratifoidea</td>
<td>181</td>
<td>75</td>
<td>70</td>
<td>63</td>
</tr>
<tr>
<td>Brucelosis</td>
<td>893</td>
<td>263</td>
<td>110</td>
<td>49</td>
</tr>
<tr>
<td>Tosferina</td>
<td>347</td>
<td>554</td>
<td>884</td>
<td>8471</td>
</tr>
<tr>
<td>Difteria</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lepra</td>
<td>18</td>
<td>19</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Paludismo</td>
<td>452</td>
<td>345</td>
<td>448</td>
<td>586</td>
</tr>
<tr>
<td>Triquinosis</td>
<td>25</td>
<td>115</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Cólera</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Fiebre Amarilla</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Peste</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Botulismo 6 9 8 4
Legionelosis 1461 1178 1309 1333

**Source:** Prepared by the authors based on data obtained from notifiable diseases - Temporary series: Carlos III Health Institute (25)

Other relevant data, obtained through various sources, reveals the presence in Spain of other diseases not mentioned in the previous table (Table 3):

**Table 3:** Relevant cases of an imported disease in Spain

<table>
<thead>
<tr>
<th>Disease</th>
<th>Description of case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dengue</td>
<td>In 2004 one of the vectors was detected in Barcelona, shortly after it was detected by other areas of the Spanish geography. In Spain, 2016, the presence of 30 imported cases is corroborated (26). It is not EDO until 2015.</td>
</tr>
<tr>
<td>Chagas Disease</td>
<td>A study conducted in 2009 confirms that approximately 50,000-90,000 people are affected by this disease in Spain, 95% undiagnosed (26, 27). In 2013, 582 cases were confirmed, 95% imported from Africa.</td>
</tr>
<tr>
<td>Fever by virus Chikungunya</td>
<td>In 2014, Spain had 380 cases, of which 92% were imported from the Americas (26, 27). Until 2015 EDO was not declared.</td>
</tr>
<tr>
<td>Fever Crimea-Congo</td>
<td>In the province of Cáceres, year 2010, the virus was detected in ticks. In Ávila, September 2016, the first case in humans was diagnosed (28).</td>
</tr>
<tr>
<td>EVE</td>
<td>On October 6, 2014, the World Health Organization (WHO) was informed of the first confirmed autochthonous case of the disease in Spain (29).</td>
</tr>
<tr>
<td>Virus Zika</td>
<td>The year 2016: Several cases imported into different Autonomous Regions are notified, due to the fact that Spain has a close relationship with the areas in which the incidence of the disease is recorded. One of the vectors, Aedes, is present in Spanish territory (30).</td>
</tr>
<tr>
<td>Brucellosis</td>
<td>In 2003, according to the Ministry of Health and Consumption, an outbreak of 11 cases was reported in Madrid (31).</td>
</tr>
</tbody>
</table>

Source: Own elaboration of data obtained from different sources: (26-31).

**DISCUSSION**

The data analyzed in this paper show that the massive arrival of immigrants to our country has been accompanied by legislative changes in health matters.

Revised studies sustain the presence of inequalities in access to the health system in relation to these legislative changes that are defined as unjust and avoidable (15). This is corroborated through the revision made given that the measure imposed by the government (Royal Decree-Law 16/2012) blocks access to health services through the exclusion of immigrants in an irregular situation. This has a direct impact to the
population and public health in general, with the appearance of the so-called imported diseases, as is the case of leprosy that had an incidence of 19 cases declared in 2007 when the arrival of immigrants was massive, 12 cases declared in 2012 when said Organic Law 16/2012 was approved and an incidence of 6 cases declared in 2015, when the arrival of immigrants was lower.

With the analysis of Royal Decree-Law 16/2012, it is observed how this hinders the performance of professionals before this group, thus creating ethical conflicts. Health professionals must abide by the regulations imposed by the government, leaving aside their moral and ethical criteria that are generally based on offering universal health care.

Health professionals criticize the measures established by the government and manifest an absence in professional participation for decision making regarding this population group. They point out that these approved measures, in relation to this group, are hasty and that they do not achieve the objective of health savings marked by the government (32).

This review argues that the presence of language and socioeconomic difficulties are the most important barriers to access the Health System of the immigrant community, however we must not forget other perceived difficulties such as the ignorance of the presence of some health services and the misuse of them generating collapse in the emergency department for pathologies that could be covered in primary care. For this reason, the involvement of immigrants for proper training on health issues is essential, such as access and proper use of the health system through talks or material available on the web.

It is demonstrated that the obstacles reduce the possibility of a correct access to the Health System in Spain and as a consequence, it reduces the contact of the professional with the ill immigrant making it difficult to detect imported diseases putting at risk the health of the population in general. Data from Carlos III Health Institute reveals that in 2007 Spain had an incidence of pertussis of 554 reported cases, following the imposition by the government of Royal Decree-Law 16/2012, and the consequent restriction of access to the health service by the immigrant population, in that same year (2012), the reported cases of Tosferina rise to 3439.

Despite the changes in the incidence of diseases in Spain, there are studies such as the one carried out in Barcelona in 2007, which confirmed that most professionals perceived the absence of access barriers (19).

With the analysis of our results it is also observed that other reasons that should concern us is the increase in the number of international travellers, as our results show that most of the diseases currently imported come from people who travel to endemic countries, with low income, where the risk of contracting an infectious disease is high (23). That is why diseases not common for our environment appear in Spain.

CONCLUSIONS

With the massive arrival of the immigrant community, changes are introduced in the legislation generating negative consequences in the immigrant population and leaving
this group without the right to public health coverage which also affect the public health.
The presence of barriers in the access to the Health System by the immigrant population is confirmed. Most of the studies reviewed confirm that the biggest obstacle is language, preventing adequate professional-patient communication.

The relationship between imported disease, immigration and international travel is verified. Currently, most of this pathologies are related to international travel.

It is confirmed the presence of difficulties and needs in health professionals to offer adequate care in the immigrant patient.

REFERENCES


