

Screening practices for infectious diseases among newly arrived migrants in Spain

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Summary

- Patterns of immigration
- Immigration health centres
- Main diseases among immigrant people
- Documents and guidance
- Diseases screened
- Results of screening practices
- Lessons learnt and challenges



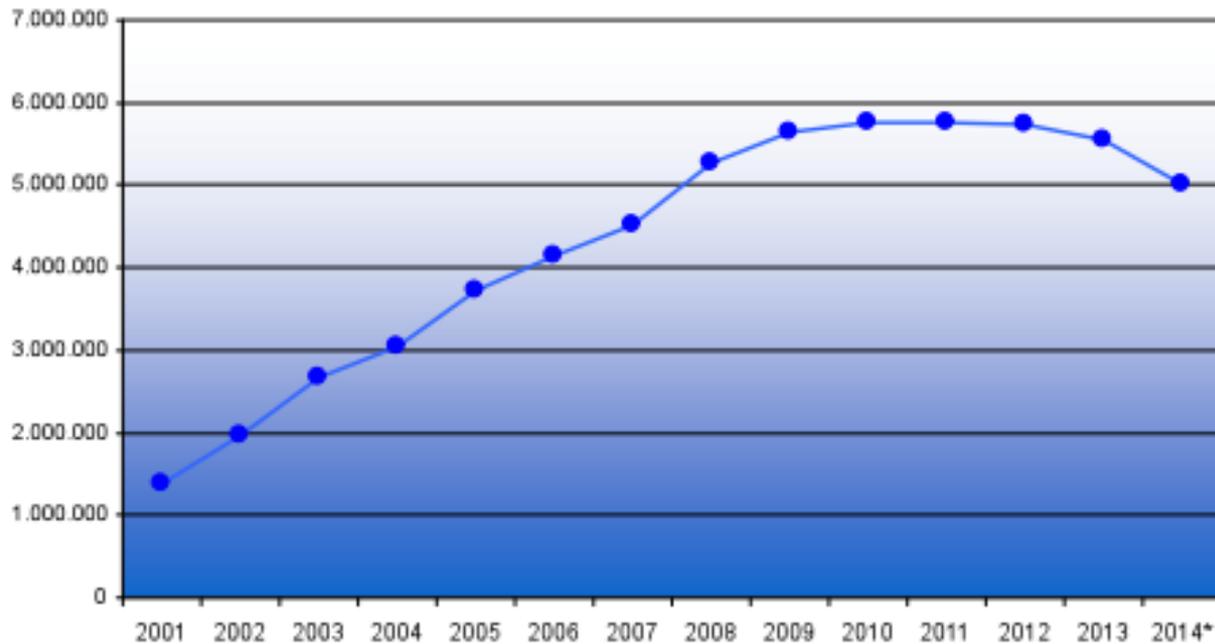




Spain is divided into 17 autonomous regions

Decentralization of health care system

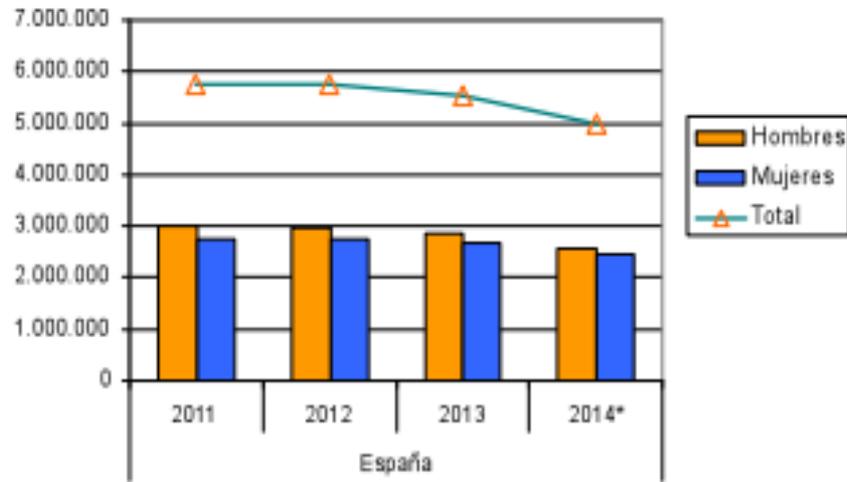
Patterns of immigration



Trend of the foreign population in Spain

Source: National Statistics Institute (INE)

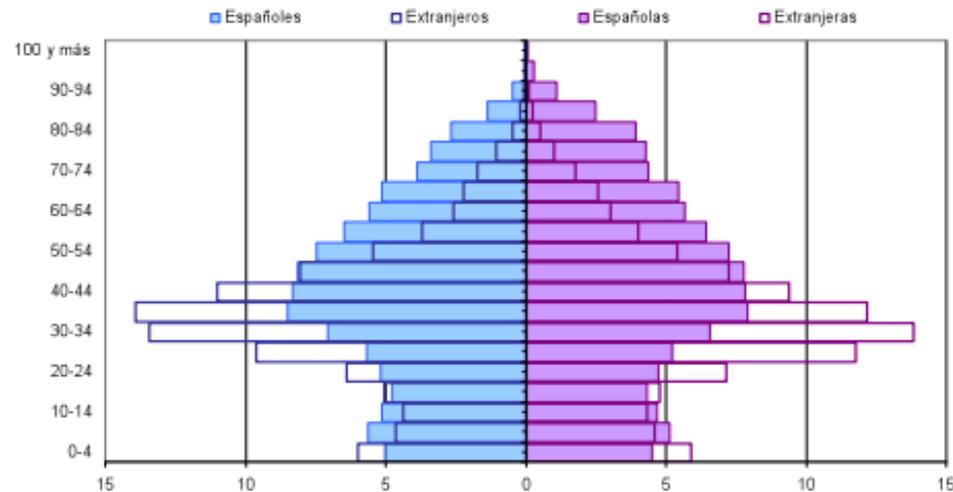
Patterns of immigration



Foreign population by sex

Source: National Statistics Institute (INE)

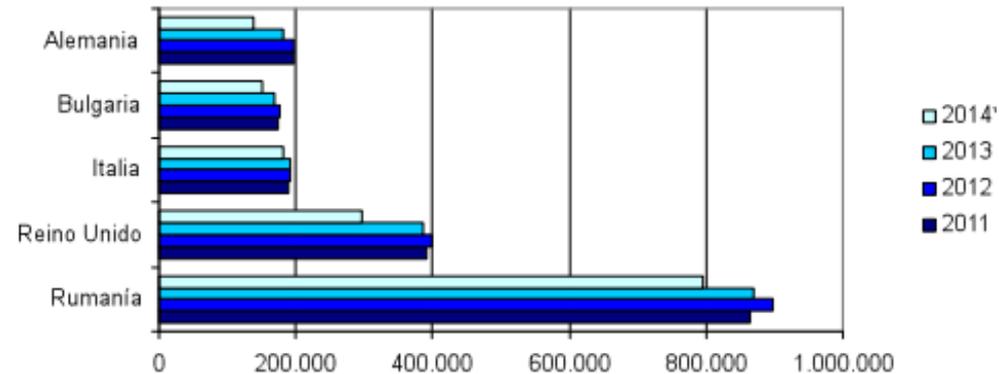
Patterns of immigration



Age structure of national and non-national immigrants in 2014

Source: National Statistics Institute (INE)

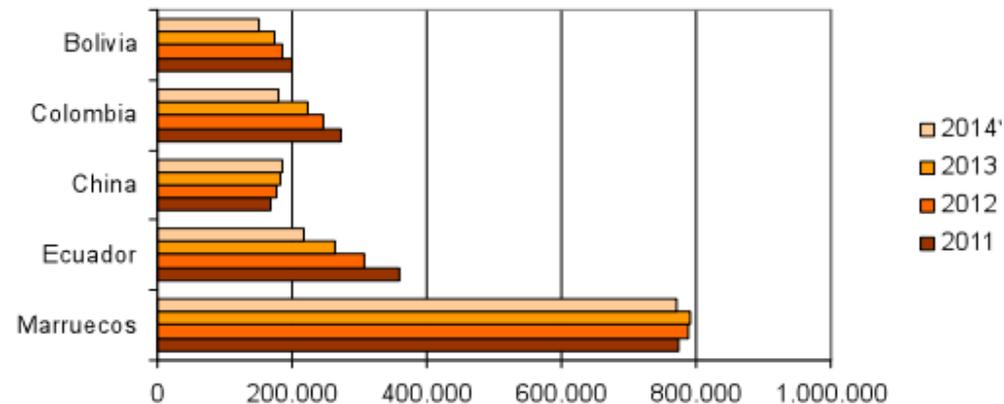
Patterns of immigration



Immigration by EU country of birth

Source: National Statistics Institute (INE)

Patterns of immigration



Immigration by non EU country of birth

Source: National Statistics Institute (INE)

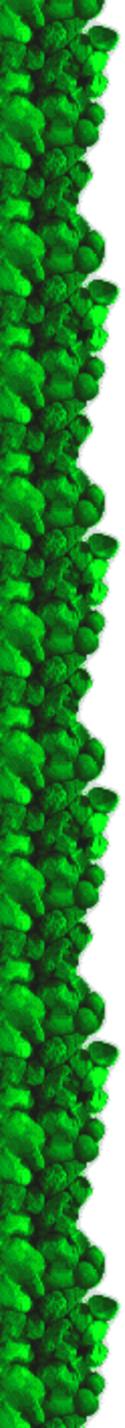
Immigration centres

No specific centres for immigrants

- Tropical Medicine Centres
- National Centre for Tropical Medicine
- International Health
- Spanish Society of Tropical Medicine

Diseases among immigrants

- Tuberculosis
- Hepatitis B and C
- STI
- HIV / AIDS
- Leprosy
- Malaria
- Schistosomiasis
- Filariasis
- Leishmaniasis
- Chagas disease
- Dengue



Guía de enfermedades infecciosas importadas

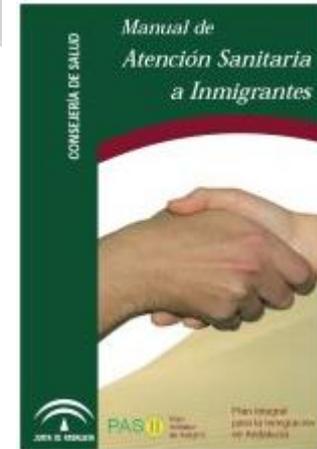
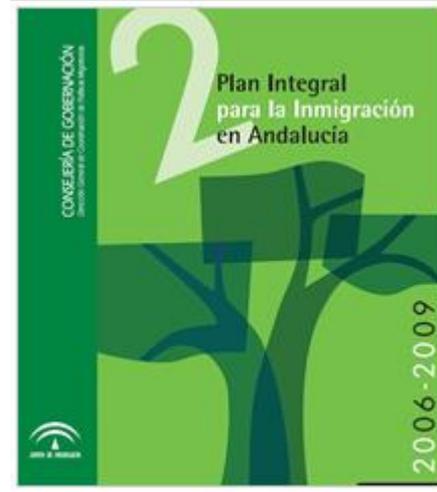


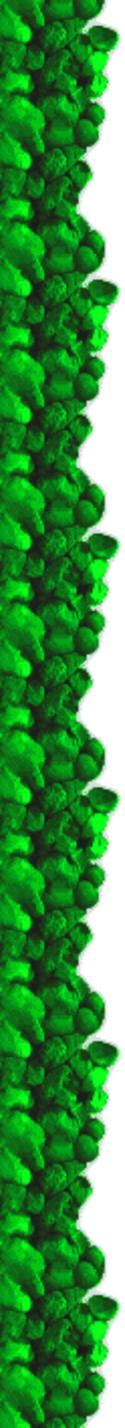
Estudio de Inmigración y Salud Pública: Enfermedades Infecciosas Importadas

guía de actuación en atención primaria para población inmigrante



RECOMENDACIONES PARA LA ATENCIÓN AL PACIENTE INMIGRANTE EN LA CONSULTA DE ATENCIÓN PRIMARIA





Screening of asymptomatic health people

1. Personal background
2. Current medical history
3. Physical exploration
4. Psychological basic exploration
5. Additional tests

Screening of asymptomatic health people

1. Personal background

- Birth country and travelled countries
- Length of stay in Spain
- Housing characteristics and cohabitants
- Relevant medical history: tuberculosis, STIs, HBV, HIV,...
- Stressors that impede adaptation
- Allergies
- Activity and employment status
- Educational level

In women:

- Gynaecological, obstetric and possible STIs medical history
- Contraceptive method used
- Abortions
- Controls of previous pregnancies
- Gender violence

In children:

- Mother's pregnancy monitored or not
- Vaccination status

Screening of asymptomatic health people

5. Additional tests

- CBC
- Blood biochemistry
- Urinalysis
- Parasite in faeces
- Tuberculin skin test and chest X-ray
- Serology
 - Hepatitis B
 - Hepatitis C
 - Syphilis
 - HIV/AIDS
 - Toxoplasmosis
 - Rubella
- Blood smear for malaria

Clinical Impact of HTLV-1 Infection in Spain: Implications for Public Health and Mandatory Screening.

Toro, Carlos; Rodés, Berta; Aguilera, Antonio; Caballero, Estrella; Benito, Rafael; Tuset, Concepción; García, Juan; de Lejarazu, Raúl Ortiz; Eirós, José M.; Calderón, Enrique; Rodríguez, Carmen; Soriano, Vincent; on behalf of the HTLV Spanish Study Group

Seroprevalence of chronic viral hepatitis markers in 791 recent immigrants in Catalonia, Spain. Screening and vaccination against hepatitis B recommendations

Introduction. The prevalence of chronic viral hepatitis in the European Union (EU) will vary because of the immigrants coming from countries having an elevated with a higher endemicity of hepatitis B (HBV) and C virus (HCV). Serologic screening in healthy immigrants is a subject that has been discussed in the areas of feasibility, ethics and cost-effectiveness. The main study aims were: a) to know the prevalence of chronic hepatitis markers and, b) to determine the best cost-effectiveness strategy of vaccination against hepatitis B.

Population and Method. An observational, perspective and multicenter study was performed on the Primary Care level in Catalonia (Spain) among healthy immigrants who had lived in the EU for less than 5 years.

Results. Data from 791 individuals were analyzed. They presented anti-HBc+ 33% (95% CI 29.6 -36.1), and anti-HBs+ 16.1% (95% CI 11.4 -20.8). HBsAg+ was 5.9% (95% CI 3-8.7), of those were HBeAg+ 15.62% (95% CI 5.3-32.8). The sub-Saharan group presented the higher prevalence of anti-HBc+ (77.3%) and HBsAg+ (18.2%), whereas the Latin American-origin population displayed the lowest one (12.5% and 1.2%, respectively). Determination of antibodies prior to vaccination was found as cost-effective from a seroprevalence anti-HBc+> 48.72%; only overcome by the CI of sub-Saharan population (95% CI 5.3-32.8). The prevalence of anti-HC+ was 6.1% (95% CI 4.3-7.8), especially high among the Eastern European (19.6%) and Indostanic

HIV-Positive Immigrants in the Canary Islands, Spain: Implications for Public Health in Europe

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Author Affiliations ▶

Molecular and Epidemiological Characteristics of Blood-Borne Virus Infections Among Recent Immigrants in Spain

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The increased immigration from developing regions to Western countries raises public health concerns related to blood-borne viruses. The prevalence of human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and human T-lymphotropic virus (HTLV) infections among recent immigrants attending several Span-

disadvantaged regions. The increased immigration from developing countries raises two public health concerns: the importation of unusual diseases or pathogens which can be transferred to natives, and acquisition of local diseases by the newly arriving immigrant population. Blood-borne virus infections are highly prevalent in most developing countries, where a broad spectrum of

Infectious diseases in sub-Saharan African immigrant children in Madrid, Spain

HUERGA, HELENA HD; LÓPEZ-VÉLEZ, ROGELIO MD

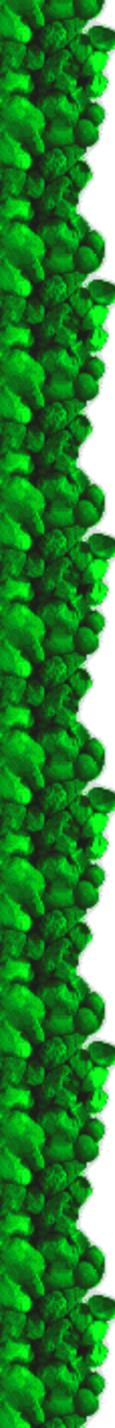
Abstract

Background. Immigration flow from developing countries to European countries is growing continually, but data about imported infectious diseases in immigrant children are few.

Methods. Descriptive and retrospective study of 125 sub-Saharan African children <14 years of age attending a tropical medicine referral unit in Madrid, Spain, between 1999 and 2001.

Results. Of the 125 children 79% had 1 or more symptoms. The remaining 21% (26 cases) were asymptomatic and were screened for infectious diseases. Of them 67% (15 cases) had 1 or more infectious diseases. Significant association ($P < 0.05$) was found between fever and malaria, between cutaneous pruritus and filariasis and between eosinophilia and filariasis and intestinal helminthiasis. Seventy-nine percent had infectious pathology and 33.3% were infected by 3 or more agents. Fifty-six (44.8%) cases of malaria were diagnosed: 7 (12.5%) were asymptomatic, 43 (76.8%) were caused by *Plasmodium falciparum* and 5 (8.9%) were mixed malarial infections. Intestinal parasitic infection was diagnosed in 44 (49.4%) of the 89 cases investigated. No significant difference existed between gastrointestinal symptoms and the presence of intestinal parasites ($P = 0.65$). Thirty-nine (21.9%) cases of filariasis were diagnosed. Hepatitis B serology was performed in 75 children: 24 (32%) were cured hepatitis B (antibody-positive only); 5 (6.6%) were hepatitis B surface antigen-positive; and 1 of 59 cases (1.7%) was hepatitis C-positive. The prevalence of latent tuberculosis infection was 12.9% (7 of 54 purified protein derivative skin tests performed).

Serological screening of Chagas disease in an immigrant population in Asturias, Spain proceeding from Chagas-endemic areas



Am J Trop Med Hyg. 2015 Apr;92(4):848-56. doi: 10.4269/ajtmh.14-0520. Epub 2015 Feb 2.

Screening of imported infectious diseases among asymptomatic sub-Saharan African and Latin American immigrants: a public health challenge.

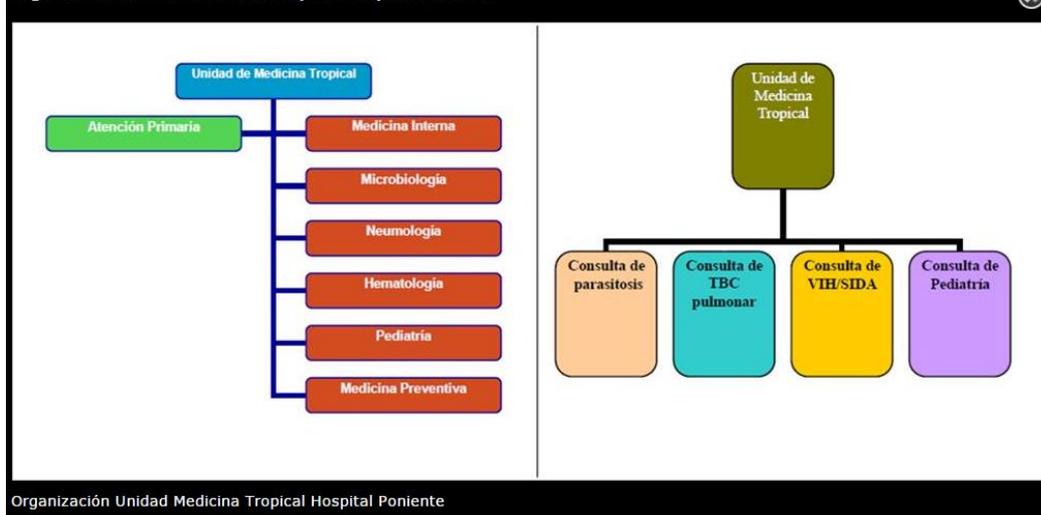
Monje-Maillo B¹, López-Vélez R², Norman FF², Ferrere-González F², Martínez-Pérez Á², Pérez-Molina JA².

⊕ Author information

Abstract

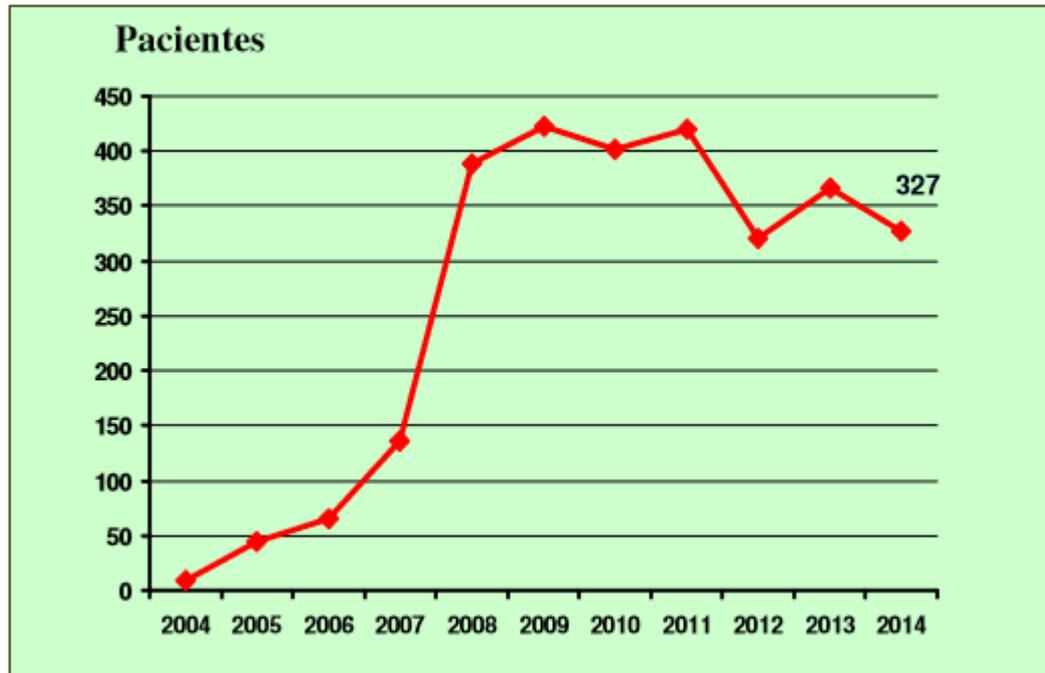
Migrants from developing countries are usually young and healthy but several studies report they may harbor asymptomatic infections for prolonged periods. Prevalence of infections were determined for asymptomatic immigrants from Latin America and sub-Saharan Africa who attended to a European Tropical Medicine Referral Center from 2000 to 2009. A systematic screening protocol for selected infections was used. Data from 317 sub-Saharan Africans and 383 Latin Americans were analyzed. Patients were mostly young (mean age 29 years); there were significantly more males among sub-Saharan Africans (83% versus 31.6%) and pre-consultation period was longer for Latin Americans (5 versus 42 months). Diagnoses of human immunodeficiency virus (HIV), chronic hepatitis B and C virus infection, and latent tuberculosis were significantly more frequent in sub-Saharan Africans (2.3% versus 0.3%; 14% versus 1.6%; 1.3 versus 0%; 71% versus 32.1%). There were no significant differences in prevalence for syphilis and intestinal parasites. Malaria and schistosomiasis prevalence in sub-Saharan Africans was 4.6% and 5.9%, respectively, and prevalence of Chagas disease in Latin Americans was 48.5%. Identifying and treating asymptomatic imported infectious diseases may have an impact both for the individual concerned and for public health. Based on these results, a systematic screening protocol for asymptomatic immigrants is proposed.

Organización Unidad Medicina Tropical Hospital Poniente



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AÑO 2014





Number of new patients attending the Tropical Medicine Unit (2004-2014)

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014

Continentes (Nº total de pacientes)	Latinoamérica (216)	Magreb (300)	E. Este (50)	A. Subsahariana (2.172)	Total (2.738)
VHB	1	31	11	639	682
VHC	1	0	7	61	69
TBC	3	34	2	65	104
Uncinarias	0	4	0	276	280
Strongyloides	37	21	0	351	409
Filarias	0	0	0	119	119
Chagas	82	0	0	0	82
Schistosomas	0	1	0	297	298
Giardia	7	19	92	2	120
VIH**	0	0	1	19	20
Paludismo	0	0	0	131	131

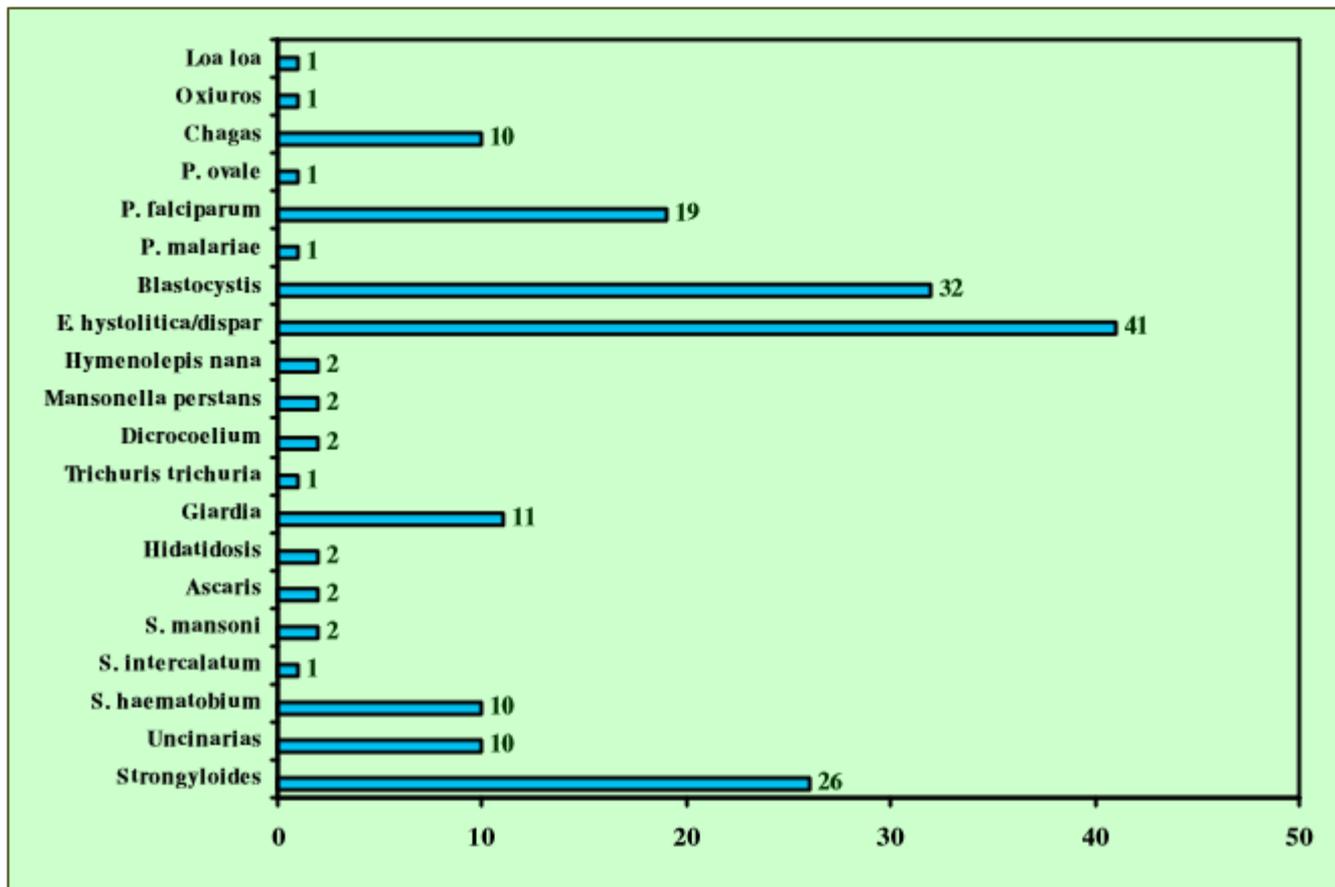
Main diagnoses in immigrant patients by area of origin (2004 -2014)

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014

	Frecuencia	Porcentaje
Marruecos	40	12,2
Mali	71	21,7
Ghana	13	4,0
Guinea Bissau	30	9,2
Mauritania	12	3,7
Senegal	59	18,0
Guinea Ecuatorial	6	1,8
Nigeria	9	2,8
Ecuador	3	,9
Burkina Fasso	5	1,5
Bolivia	14	4,3
Gambia	10	3,1
España	37	11,3
Guinea-Conakry	3	,9
Rumanía	3	,9
Rusia	2	,6
Colombia	1	,3
Costa de Marfil	1	,3
Argelia	1	,3
Brasil	1	,3
Inglaterra	1	,3
Camerún	2	,6
República Dominicana	1	,3
Pakistán	1	,3
República Democrática del Congo	1	,3
Total	327	100,0

Countries of origin of the patients seen during 2014

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014



Most relevant parasitological infections diagnosed in 2014

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014

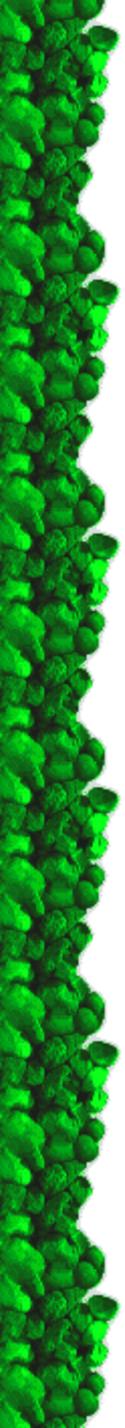
	Frecuencia
Hepatitis B	72
Hepatitis C	8
VIH	3
Tuberculosis	8
Chikungunya	1
Sifilis	20

Other infectious diseases diagnosed and/or treated in 2014

	Frecuencia	Porcentaje válido
<5 mm	34	36,5
5-10 mm	14	15,0
11-15	16	17,2
>15 mm	29	31,2
No realizado	234	
Total	327	100,0

Mantoux test results, 2014

Source: Annual report, Tropical Medicine Unit. Poniente (Almería), 2014



Lessons learnt and challenges

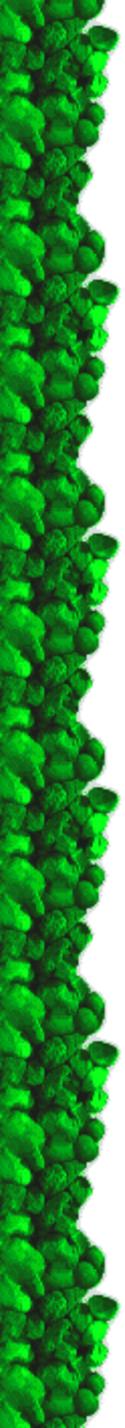
Same health system (no parallel system for immigrants)

Multidisciplinary teams

Training programs for HCW

Community participation

Systematic screening protocol for asymptomatic immigrants



Thank you very much
Muchas gracias