International Conference on Migration Health
1-3 October 2018
Oral Session Abstracts

Oral Session 1 - *Women and Children*
Monday, 01 Oct, 12.00 - 13.30

A Transcultural and Equitable Approach to Migrant Women's Health

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Title:A Transcultural and Equitable Approach to Migrant Women's Health

Background of the study:
Women migrants face poorer health outcomes and access issues due to sex/gender inequities and cultural barriers. They have specific health needs that required tailored responses. Migrants access health services less than the general population and face unique challenges related to maternal health, reproductive health, and violence. They are at elevated risk of unintended pregnancies and poor pregnancy outcomes. Migrant women also have worse health outcomes. Migrant women are less often screened for cervical and breast cancer in Europe. Healthcare systems do not effectively or equitably tackle migrant women's health.

Objective(s):
The workshop will outline the health needs that migrant women uniquely face across diverse healthcare systems in Europe. The goal is to provoke debate and devise effective and equitable strategies to tackle migrant women's health needs.

Method(s):
First, central issues related to migrant women's health will be outlined. Then, the main women's health needs will be discussed in an interactive, facilitated process in order to generate potential solution and answers. A transcultural approach, especially with regard to mental health issues, will be employed utilising concrete role play.

The two presenters of the workshop are experienced dinamizers who are involved in identifying health needs and upstreaming women's voices. Examples of good practice in origin countries will be presented. Small groups of workshop participants will develop solutions based on needs and to evaluate the current.

Summary of results in sufficient detail to support the conclusions:
The workshop will review the current state of migrant women's health cross-nationally in Europe, including best practice and define their health needs, employing a sex/gender-sensitive transcultural approach. The workshop will generate steps for working to improve migrant women's health.

Conclusion(s) reached:
The results will also be discussed. This workshop will be interactive and productive, so all the participants can better understand migrant women's healthy by employing a cross-national, transcultural approach with a gendered lens. Workshop delegates will work together to evaluate existing practice and develop innovative solutions.

Presenters:
· Kristin Semancik, European Institute of Women's Health
· Anaïs Le Corvec, Asserta

Migrant women's proficiency in the language of the host-country and late initiation of prenatal care - *the Portuguese baMBINO study*

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Limited proficiency in the host-country language is one of the most common barriers faced by migrants, yet its role in the hindrance of early initiation of prenatal care has not been thoroughly investigated. The aim of this study is to assess the association between proficiency in the Portuguese language and initiation of prenatal care among migrant women in Portugal, a country where 9% of births occur among foreign-born women.

Data from baMBINO, a population-based study on perinatal health in Portugal, was used. Adult foreign-born women were recruited during admission for delivery, and timing of their first prenatal visit along with other relevant data were collected from their medical registries. The initiation of prenatal care was classified into: early (within 12 gestational weeks), and late (after 12 gestational weeks). Self-rated scores regarding women's proficiency in understanding, speaking, reading, and writing in Portuguese were collected as part of a phone interview conducted post-delivery. Scores ranged from 1 (no proficiency) to 4 (native proficiency) and were then combined to create an overall proficiency level containing three categories: limited, intermediate, and high. Logistic regression models were employed to estimate the association between proficiency and initiation of prenatal care, adjusting for maternal age, marital status, educational years, income, parity, and region of residence. Only women who spent the whole pregnancy period in Portugal were included.

Out of 1054 migrant women, 19% entered prenatal care late, 12% had a limited proficiency level in Portuguese, while 32% had an intermediate proficiency. Among those who spoke Portuguese fluently, 16% initiated prenatal care late, compared to 20% among those with intermediate proficiency levels, and 29% among those with limited proficiency. Migrant women with intermediate (aOR=0.56, 95% CI: 0.34-0.92) or high (aOR=0.51, 95%CI: 0.32-0.82) Portuguese proficiency levels were significantly less likely to have their first prenatal visit late than those with a limited proficiency.

Inequalities exist in the timing of prenatal care initiation among migrant women according to their host-country language skills, which emphasizes the need for a more linguistically-competent care. Efforts should be made to develop outreach strategies and support pregnant migrant women with poor command of the language.

Increased Risk of Eating Disorders of Georgian Immigrant Women

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Background: Immigration is considered as one of the factors associated with the increased risk of mental health problems, eating disorders among them. However, the findings on eating disorders are mostly based on qualitative data, while quantitative studies tend to use small size samples and lack control of potentially confounding variables.

Objective: The current study addressed these drawbacks through comparing eating disorder patterns of Georgian immigrant women to Georgian women who never experienced living outside of their home country. We expected that eating disorder scores of these two groups would differ as a result of immigration.

Method: 506 women aged 18-55 of Georgian origin took part in the quasi-experiment. Half of them (experimental group) migrated to the UK and the USA and the other - has not. Ethics approval was obtained from Ilia State University IRB. Disordered eating patterns were measured by *Eating Disorder Examination Questionnaire (EDEQ)* that yields four different scores - eating concern, shape concern, weight concern, dietary restrictions, and the composite, global eating disorder score. Number of extraneous variables were controlled, such as age of arrival in a new country, immigration status, marital status, level of education, employment status, Body Mass Index and length of residence in a new country.

Results: Comparisons of experimental and control groups using MANCOVA with BMI as a covariate, found the difference in dietary restriction scores only, $F(1, 498) = 7.53$, $p = 0.006$, $\eta 2 = 0.02$; where immigrant women yielded higher mean score - 1.89, SD=1.59, than non-immigrants - 1.55, SD=1.50.

Conclusion: The hypothesis was partially confirmed as moving to western countries for a prolonged period appeared to represent a risk factor for only one out of five EDEQ subscales - restriction of food intake. This difference points to the connection between immigration and mental health and can be explained by culture-change hypothesis that attributes heightened risk of eating disorders among immigrants to the increased exposure to the so called western culture.

Burden of diseases in refugee children living in Moria camp, Greece

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Background of the study: In recent years an unprecedented migratory flux to Europe has been recorded. Lesvos Island (Greece) has seen 11.840 arrivals in 2017. During the asylum process, the large majority are held in Moria camp, a facility with a capacity for 2500 residents that hosts between 4000-6000 people at a time, including vulnerable populations such as children traveling alone or with their families. This study analyses the burden of disease in the pediatric population seen by ERCI, a nongovernmental organization that was at the time the main provider of acute and chronic care in the camp.

Objective: To asses the burden of diseases afflicting children of the major refugee camp in Greece

Method: Retrospective observational analysis using anonymous data collected for clinical purpose at the moment of consultation in a six-week period (August-September).

Summary of results: During the study period 216 children consulted the clinic, representing 14,6% of all consultations. The majority of patients were male (58,3%, n=126). Median and mean ages were 5,5 and 3,5 respectively (range 0-17 years). The most common countries of origin were Syria (48,6%, n=105) Afghanistan (19,9%, n=43) and Iraq (18,5%, n=40). The diagnoses, recorded in 77% of cases (n=166), were most commonly related to pulmonary (34%, n=57), gastrointestinal (19%, n=32), psychiatric and dermatological (6% each, n=11 each) problems. Infectious diseases represented 49% (n=81) of all diagnoses. Congenital diseases, mainly heart defects, represented 5% of diagnoses (n=8). Two pregnancies were seen in two 13-years-old Syrian child brides.

Conclusions reached: Within Moria camp children suffer from a significant number of infectious diseases. However treatable, the containment of these diseases becomes difficult with the overcrowding of the camp combined with poor housing conditions and lack of hygiene. Therefore the implementation of measures that address these issues is crucial. On the other hand, it is impossible in Moria camp to address and solve complex medical and/or social problems, that need to be transferred immediately to safer environments in cities with tertiary care facilities.

Conclusions: At the time of our analysis, Moria camp infrastructures and services were not able to guarantee children health and wellbeing.

Procedures for the Health Protection of Foreign Unaccompanied Minors arriving in Italy

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Background: INMP is conducting the project “Health protection of unaccompanied minors (UAMs) hosted in reception system”, funded by the European Commission (asylum, migration, integration fund). In the 79 centers for first reception (1350 place available) minors' health is checked at arrival and health assistance is provided over their stay.

Objective: improve the capability of the reception center teams to look after children's' health, by identifying and analyzing the procedures currently in use and by proposing the adoption of standard procedures.

Method: A qualitative-quantitative survey was conducted to investigate the procedures in force at the reception centres for UAMs. The questionnaire included 168 items arranged in 4 sections: characteristics of the center; team composition; procedures for health assessment; services provided. The survey has been conducted through the INMP e-platform. Monovariated analysis of collected data was performed and a dashboard for each center was created. A Social Network Analysis of the reported networks was also accomplished.

Results: All centers have completed the survey. Preliminary results show that procedure used for health assessment are not homogenous, even on the same territory. Usually, minors have access to health services using STP (Temporary Present Foreigner) codes instead of regular registration to National health system. Most of the centers revealed not to have formal relationships with the local health services (ASL) and only 1 out of 4 centers agreed their procedures with the ASL. In more than 50% of the centers, initial health assessment includes routine blood tests and, in nearly 100%, TB test. Tests for STD, including HIV test, are often performed as well. Few centers have a procedure dedicated to UAMs victims of trafficking or violence.

Conclusion: We founded that most of the procedures followed by reception centers are not in line with the current scientific guidelines on health checks. Thus, to facilitate the continuous interaction between ASL and the reception centers, coordination meetings will be promoted and a training plan is offered to the reception center teams aimed at guaranteeing the correct application of standard procedures.

Oral Session 2 - *South South Migration*

Monday, 01 Oct, 17.00 - 18.30

Protocol-Based Screening of Migrants in Oman and the GCC countries

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Migration is rising globally and has increased substantially in the Gulf Corporation Countries (GCC) in recent years, with important implications for health services.
Migrants in GCC countries face a disproportionate burden of tuberculosis, HIV, and hepatitis B and C. Overall, approximately 70% of tuberculosis cases in Oman are in foreign-born people (migrants). A better understanding of how to deliver effective and cost-effective screening, vaccination, and health services to this group is now crucial. Migrant workers are also screened for malaria, at present using microscopy, and we will present data for screening of approximately 40,000 migrants arriving in Oman.
GCC countries have adopted pre-departure screening — targeting migrants applying for long-term visas before they migrate from high-burden countries to GCC countries. There are many certified medical fitness screening centers at the countries of origin of migrants and protocol-based screening programs after arrival to the GCC countries. Oman has adopted the GCC pre-departure screening program, and has also established a protocol-based, after arrival screening program for all migrants and their families in designated medical fitness centers distributed across the whole country. Around one million migrants are screened in these centers annually. The Health of migrants is now addressed as part of health in an all policies approach, and is incorporated in the national strategies for the elimination of communicable diseases, e.g national strategic plans for elimination of TB, HIV, malaria, measles, etc.
We aim to discuss the screening of migrants to Oman with the following **objectives:**

- Discuss the pre-departure screening
- Discuss the post-arrival screening
- Discuss the results and implications of screening of migrants with emphasis on TB and malaria
- Discuss how Oman incorporated the migrants health in to the national health strategic planning, e.g. screening and treatment of latent TB and prevention of reintroduction of malaria
- Discuss the public-private mix introduced recently in Oman to address the health of migrants
- Discuss the new project of screening for malaria, on arrival, for migrants from malaria endemic countries
- Discuss how to establish effective, cost-effective, and sustainable approach to screening migrants

Problems faced by Nepalese female migrants workers in the Gulf Countries: A quantitative survey

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Background:
Nepal is a key supplier of labour for Gulf Countries. Most of the researches in Nepal have been focused on male migrant workers as they represent the majority of the migrant work force. However, Nepali women migration to gulf countries has increased significantly in recent years. The working and living conditions of women in foreign employment particularly to Gulf Countries is a topic regularly covered in Nepali media, but there has been very little academic research on the topic.

Objectives:
The main objective of this study is to examine the health and other problems experienced by Nepali women migrants at their work place during foreign employment in Gulf Countries.

Methods:
The study was based on analysis of information collected from 1889 female returnee migrants registered with an emergency shelter run by *Pourakhi,* a NGO in Nepal, in the period of eight years from July 2009 to June 2017.

Results:
The 1889 participants were aged 14 to 51 with a median age of 30 years. The vast majority of women (63.6%) had migrated for foreign employment for the first time. The most popular destination for foreign employment was Kuwait (55.5%), followed by Saudi Arabia (21.0%), UAE (9.2%), Oman (3.8%) and 5.5% in other countries. The majority of women was domestic worker and had poor education. Two fifths (38.5%) of women had experienced multiple forms of harassment including physical, verbal, mental and sexual abuse. More than one-third of women faced the work load problem, excessively long working hours for more than 18 hours per day. Likewise, women were even restricted contacting their family members. One fourth of women suffered from some kind of health problems.

Conclusions:
Female migrant workers face various work-related problems, which are often related to exploitation. Recruiting agencies and employers should provide information on possible risks and training for preventive measures. Raising awareness among female migrant workers can make a change in their working lives. The Government of Nepal, civil societies working with migrants should initiate awareness campaigns about risks and rights in relation to health and social care services in the host countries.

Forced Migration in Nigeria: An Overview and the Public Health Impact

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Background: Internal displacement of persons is a global issue. Several causes of forced migration have been described to include communal violence, internal armed conflicts, land/border conflicts, natural disasters like floods and drought, ethno religious conflicts and terrorist attacks. In Nigeria, majority of internal displacements are linked to terrorist attacks, most pronounced in the North East Nigeria as Boko Haram insurgency. Forced migration is associated with a lot of health challenges and thus demand concerted efforts by both the government and non-governmental organizations to reduce the adverse impact on the affected persons.

Objective: The objective of this study was to give an overview of internal displacement of persons in Nigeria, identifying specific causes from 1999 to date and to assess its public health impact.

Method: The study relied on review of articles from authoritative and valid sources such as books, journals and national dailies.

Results: Data gathered showed that Nigeria ranks among the top ten countries with the highest number of internally displaced persons (IDP) across the world. The causes identified were both natural and man- made. The man made causes of displacement in Nigeria included Boko Haram insurgency, Fulani Herdsmen attacks and ethnic/religious crises, all of which contributed about 94% of all the IDPs. The North east Nigeria has the highest number of IDPs up to 1,782,490 as at February 2018. The public health effects include the outbreak of infectious diseases such as polio and cholera from the IDPs camps; acute malnutrition; increased poverty level; increased child and maternal mortality rates and decreased number of health workers and health care facilities in the affected areas.

Conclusion: Crises induced displacement of persons in Nigeria is on the increase and has seriously affected the health and productivity of the affected persons especially in the north east Nigeria. The need for the Government to proffer solution to the root cause(s) of internal displacement of persons in Nigeria and also implement the necessary policies and frameworks to ensure that IDPs in Nigeria are cared for is highlighted.

Key Words: Internal displacement of Persons, Public Health, Nigeria.

Quality, Equity and Dignity; Are the Marginalized Communities Receiving Best Health Services in Malawi; Case Study; Refugees at DZaleka and Luwani Refugee Camps in Dowa and Neno Districts, Respectively

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Background:
Malawi hosts over 40,000 refugees from surrounding countries. As the Sustainable Development Goals emphasize on equitable access to quality health services, the Malawi's Ministry of Health has developed a National Quality Policy and Strategy focusing on marginalised communities such as refugees.

Objectives:
Assessing quality of health services at refugee camps

Methodology:
An assessment was conducted using a modified supportive supervision checklist in August 2017 at Dzaleka and Luwani Refugee Camps in Dowa and Neno Districts, respectively. Patient data from Dzaleka and Luwani Health Centres; and interviews with key informants and patients formed the analysis. Informed consent was sought.

Results:

Dzaleka had 27,000 refugees, (15,000 men, 9,500 women and 2,500 children), while Luwani had 2,500 refugees (850 men, 1005 women, 645 children). Dzaleka had a Health Centre with two clinicians and three Nurses managing an 550 patients each day and conducting 300 deliveries per month. Luwani Health Centre had one clinician, two nurses and five community health workers; recorded an average of three deliveries and 120 outpatients in a day. Both health centres were operating on 24-hour basis and daily.

UNHCR employed 80% of staff, supplied 60% of drugs and commodities, ambulatory services, cleaning materials, linen and beddings for Dzaleka Health Centre while government provided the remainder of the commodities as well as all the supplies and staff for Luwani Health.

There were no psychiatric services at both camps despite the Dzaleka recording an average of three suicide cases per month. It was difficult to estimate average number of hospital visits because of poor documentation. Dzaleka Health Centre had no running water during the period of the visits as opposed to Luwani, and there was no soap for hand washing at both facilities.

Conclusions
Lack of supportive mental health services, inadequate infection prevention and control measures, huge staff shortages with each clinician managing over 50 patient visits per day which is far from the UNHCR recommendation, and poor medical records make the health services at both camps to be substandard in quality and disregarding the dignity of the refugees. Malawi's Quality Policy and Strategy should advance improvements in these shortfalls.

Oral Session 3 - *Potpourri*

Tuesday, 02 Oct, 11.00 - 12.30

Evaluating migrant health policies at international level: a new approach to building a synthetic index

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Backgrounds
Policy evaluation is fundamental in order to improve the planning and implementation process, especially in the current challenging field of migrant health. At international level, the Migrant Integration Policy Index Health strand (MIPEX HS) is a recognized tool to evaluate and compare how governments promote the integration of migrants into the health sector,.
The MIPEX HS collects data in 40 countries using 38 indicators which cover four dimensions of health policies. Average scores are separately calculated for each dimension and their average gives the overall HS score. This method of aggregation may contain some weaknesses, as indicators and dimensions are given the same weight.
The aim of this study is to measure the robustness of the MIPEX HS, comparing different ways of aggregating the indicators.

Methods
Comparison of different methods of computing synthetic indexes permits the evaluation of different approaches. The software Ranker developed by the Italian National Institute of Statistics aims to perform an effective analysis through multiple methods of statistical synthesis of the different indicators of a variable that may be available. Three different methods were adopted: Mazziotta-Pareto Index (MPI) method based on a non-linear function which introduces a penalty for the units with unbalanced values of the indicators; the minmax normalization method of relative index (IR); and AMIN method, based on standardization and summarization of indicators.

Results
The three adopted methods showed similar results in terms of the resulting rankings. This finding support the idea that the selected basic indicators are valid and allows a consistent discrimination among the countries.
However, some countries (e.g. Hungary and Portugal) showed larger heterogeneity in ranking, while other countries showed a perfect homogeneity, such as New Zealand, at the top of ranking, and Latvia, at the bottom.

Conclusion
Any method for the synthesis of elementary indicators inevitably involves an element of subjectivity and bias. The procedure adopted here allows analysis of the relationship between different methods for aggregating indicators in a simple way and provides an effective tool for policy makers in order to evaluate an extremely complex and multidimensional phenomena, such as integration of migrants in the health domain.

Stabilizing Refugees with Complex Medical Conditions Prior to Departure: Experience with Refugees in Jordan, 2016 - 17

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Background:
The International Organization for Migration (IOM) facilitates refugee resettlement through provision of health assessments and travel health assistance. There are almost 737,000 refugees in Jordan with around 50 % of them having at least one chronic condition. Due to the huge number, medical access has become more difficult thus many refugees do not have appropriate management for their conditions. It can take weeks to months between health assessment and departure during which medical conditions can deteriorate delaying the resettlement process. To address this, clinical team was established in Jordan to follow/treat refugees with chronic conditions between the initial examination and departure.

Objective:
Looking at the most prevalent health conditions, evaluate the average duration of follow up interventions and their effect on the travel and post travel health care needs for refugees departing Jordan from Jan 2016 to Dec 2017

Method:
Records of all follow-up activities were reviewed; the common conditions, treatment types, frequency of visit, information changes and impact on travel were evaluated.

Results:
In 2016, 19,972 health assessments were performed on US-bound refugees, whereby 515 (2.6%) presented with complex medical conditions. Hypertension was most common condition (24%) followed by diabetes (15%) and cardiac conditions (14%).
In 2017, 8,808 refugees were examined (2,965 United Kingdom, 2,141 Australia, 1,770 US, 1,932 other countries). Of these, 255 (2.9%) presented with medical conditions requiring continuous care to stabilize the condition. The most prevalent conditions were: hypertension (51), diabetes (44), anemia (44), psychiatric disorders (23), seizures (20), heart diseases (19), and hypothyroidism (12). Moderate to high control levels were achieved for >85 % of the cases with diabetes and hypertension. All the 255 refugees were stabilized, 104 cases out of those resettled in the year 2017. Of those who were resettled, average follow up time was 6 months and only 1.18% required medical escort.

Conclusion:
The clinical follow-up care of refugees before resettlement is necessary to address the growing burden of non-communicable diseases among refugees. Such approach benefits refugees, host and recipient countries, contributes to safe air travel, supports continuum-of-care, whereby refugees' health conditions are better diagnosed, managed and documented before resettlement.

Syndromic surveillance of the asylum seeker population of Montreal

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BACKGROUND
Since 2017, Canada has seen a 4-fold increase of asylum seekers (compared to 2016) resulting from the substantial increase in interceptions during crossings of the United States-Canada border by foot. Over 90% of them (18 836 - 2017) cross into Québec province, and are re-directed to Montréal overwhelming receiving capacity for housing and health care. Since November 2017, the demographics of this population have changed, from claimants of Haitian origin with long stays in the US to people with short transit times in the US, arriving mainly from West Africa.

Since April 1st 2018, Montréal Public Health (DRSP) has dealt with increased cases of measles, tuberculosis and varicella among asylum seekers in temporary housing centers. This generated the need to implement a syndromic surveillance system to rapidly detect and respond to prevent infectious threats and outbreaks in this population.

METHODS:
Different models of syndromic surveillance in refugee and migrant care were consulted (1-2). 14 syndromes were identified as priorities based on the probability of infectious diseases in our specific population, their severity and potential for spread in context of temporary housing (ex.: rash, severe diarrhea, prolonged cough, neurological symptoms and fever). For each syndrome, a suggested level of urgency for obtaining a medical consultation (same day, 48 hours or usual) and infection control measures were recommended. A referral form was developed to facilitate access to medical evaluation and reduce barriers to care.

Nurses from the Regional Program of Access and Integration of Asylum Seekers working at the points of care collect data daily on these 14 syndromes and report weekly to the DRSP by email. Data is analyzed and interventions are based on pre-determined thresholds for action.

Initial and ongoing training sessions are offered to nurses on identification of infectious threats, implementation of the surveillance protocol and infection control measures. All the temporary housing facilities were visited to provide recommendations for baseline preparedness and materials.

CONCLUSION:
Syndromic surveillance aims at timely detection and response to infectious threats of public health importance. Additional benefits include better access to care and improved communication between health care workers and public health professionals.

Mental Health Screening and Support to Newly Arrived Refugees in the United States: A Pilot Study

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Background: Although refugees as a group are resilient, they arrive with significant stress and trauma exposure, which makes mental health an important aspect of their overall well-being. A five-question pilot screening tool was designed as a revision to a prior two-question screening tool, following recommendations of a local expert workgroup in our state to improve identification of mental health burden and referral to appropriate mental health care. The flow of this single urban clinic to process patients with refugee status includes an initial intake clinic visit and lab draw followed by a 2-week new arrival visit, aimed at identifying disease burden, initiating treatment and further screening.
Objective: To identify appropriate methods of screening for mental health disorders in newly arrived people with refugee status and identify barriers to accessing mental health care within one urban clinic´s health system.
Methods: Two separate retrospective chart reviews of one urban's clinics electronic medical record was reviewed to analyze the impact of a two-question mental health screening tool compared to a five-question screening tool. Initial review followed distribution of a two-question screening tool. Based on the results of the two-question screen, the tool was expanded to assess whether there would be improved uptake of screening by providers and changes in the numbers screening positive for mental health burden. Subsequent review analyzed the five-question pilot screening tool. Visits occurred at a single urban clinic in St. Paul, MN serving a primarily refugee population, with the majority from Southeast Asia and East Africa.
Results: From 8/1/2014-7/31/2015, using the two-question screening tool, 86 of 336 (25.6%) were screened,16 of 86 (18.6%) screened positive and only 8 of 16 (50%) were referred for mental health services. From 1/1/2016-5/1/2018, using the five-question pilot screening tool, 382 of 602 (63.4%) were screened, 75 of 382 patients (19.6%) screened positive. Full data collection and analysis is currently pending.
Conclusion: Though recommendations to implement mental health screening were made, there were significant barriers to achieving universal screening and referral in 2014-2015. With the piloted five-question screening tool, more patients were identified from 2016-2018 due to staff training and integration into the EMR.

Oral Session 4 - *Strategies to Optimize Migrant Health*

Tuesday, 02 Oct, 15.30 - 17.00

MEDICAL BOOKLET: a Useful Tool for Migrants Along all their Migration Route

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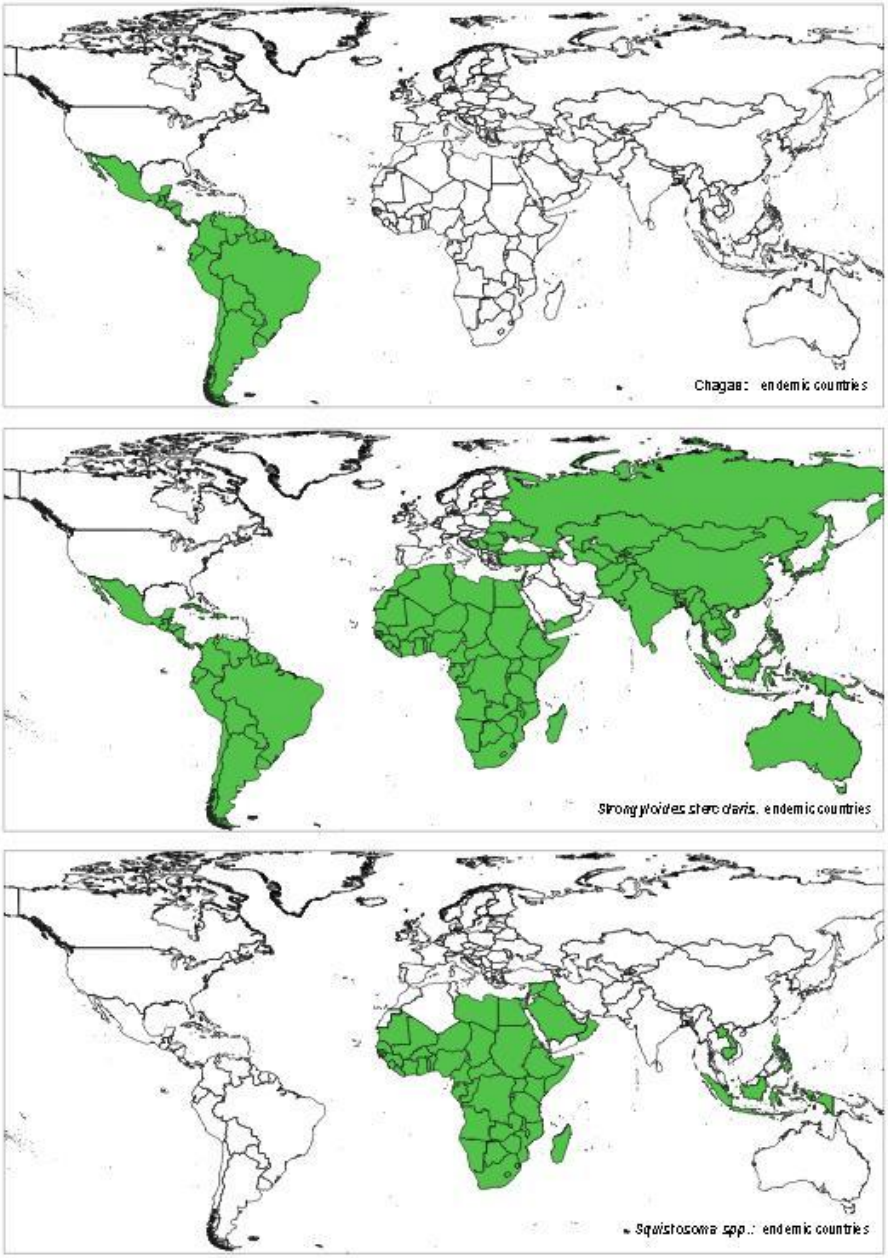
Background: Access to care and reliable recording of data and health history represent major issues in migrants' medicine, from both a public health and a clinical management perspective, especially in the vision of Universal Health Coverage (UHC) and multisectoral approach to health, which are claimed at any level.
Objective: we developed a medical tool (MT) for collecting clinical data of migrant patients in Italian context, aimed at providing care and follow-up during their migration route.
Methods: literature concerning standardized clinical procedures among migrants was reviewed. A working group was created with local health system (LHS) workers, civil stakeholders and hospital specialists. Meetings and mail-interactions occurred among them from July 2017 to December 2017.
Results: Main references were National Ministerial indications for immunization and Italian guidelines for screening among migrants. Moreover, we reviewed other International models of MTs: from International Organization for Migration, Doctors of the World Greece and from a simple one used in Chios (Greece). Languages chosen were Italian and English. Printed format was A6, the same of the envelope given together with the national sanitary card. MT consisted of 12 pages, divided in macro-chapters-pages: A) medical history; B) vaccinations; C) "general" screening (full blood count, EKG, PAP-smear), serology for HIV, HBV, HCV and syphilis, investigations for *Schistosoma* and *Strongyloides*; D) presence of disabilities; E) screening for active and latent tuberculosis infection (chest X-ray, Mantoux test/IGRA) and related treatments; F) chronic diseases; G) obstetrics and gynecology history; H) surgeries; I) clinical notes to describe any admission or ambulatory visits; L) ongoing treatment. Distribution started in January 2018 at the LHS migrant service with a good acceptance by patients.
Conclusion: To our knowledge this is the first example of MT for migrants involving LHS. MT is simple, well accepted and, given the double language, could be used even far from Italy along the migration route; it will contribute to rationalize the choice of medical investigations that need to be done and it will allow to sum up a detailed medical history that can be consulted at every visit everywhere.

CRIBMI: Improving screening strategies for migrants in Primary Care (PC)

A. Requena-Méndez, Spain[1], X. di Lollo, Spain[1], C. Subira, Spain[1], E. Sequeira, Spain[2], CRIBMI, Spain[3]

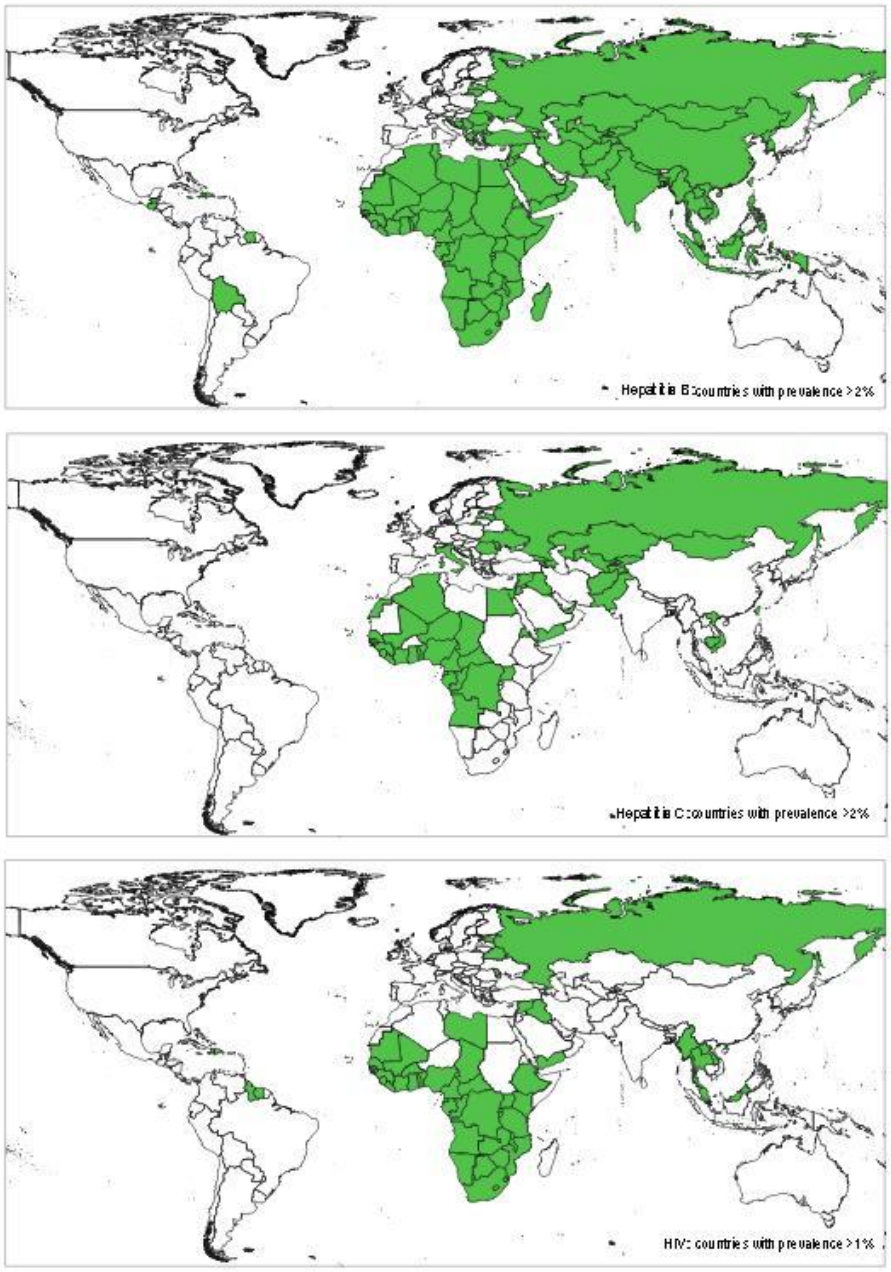
[1]Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain, [2]CAPSBE Casanova, Medicina de familia, Barcelona, Spain, [3]CRIBMI Working group, Barcelona, Spain

Background: Migrant health status may be improved if the presence of certain health conditions are early identified through the implementation of a screening program.
Objectives and methods: This is a randomized experimental study conducted in 8 primary care centers(PCCs) located in four areas of Catalonia that evaluates the feasibility and cost-effectiveness of a screening program through a software-device implemented in the informatics system used by medical doctors during their daily consultation at PCCs. The device, implemented in 4 PCCs, alerted for each patient the screening recommendation of 9 conditions according to sex, age and country of origin and was compared in other 4 PCCs where only a training strategy(TS) for PC professionals was implemented.
A comparative analysis of the PCCs was performed to select the two PCCs in each area with more similar characteristics. A training session concerning migrant screening strategies for each condition was done in all selected PCCs.
The seven infectious diseases(ID) selected were HIV, HBV, HCV, tuberculosis, strongyloidiasis, schistosomiasis and Chagas disease. Female genital mutilation(FGM) and mental health(MH) were also included as they are associated with migration. The recommendations for screening of each disease were comprehensively reviewed and adapted to the local context and to the primary care level.
Results: Two PCCs selected in each geographic area were randomized for the software implementation or for the TS. Screening recommendations were based on endemic countries for strongyloidiasis, schistosomiasis and Chagas diseases(figure-1); on a threshold level of prevalence for HIV(>1%), HBV(>2%) and HCV if prevalence(>2%)(figure-2) and on incidence(>50cases/100000-habitants) for active tuberculosis in migrants with < 5 years in Europe). Exploring the risk of FGM is recommended to women from countries in which this practice is prevalent, and evaluation of MH status is recommended for people from conflict and violence areas(figure-3).
The software has been preliminary tested and it has been implemented in the four intervention-PCCs.
Conclusion: This software-device may improve the implementation of a screening program at PC level.



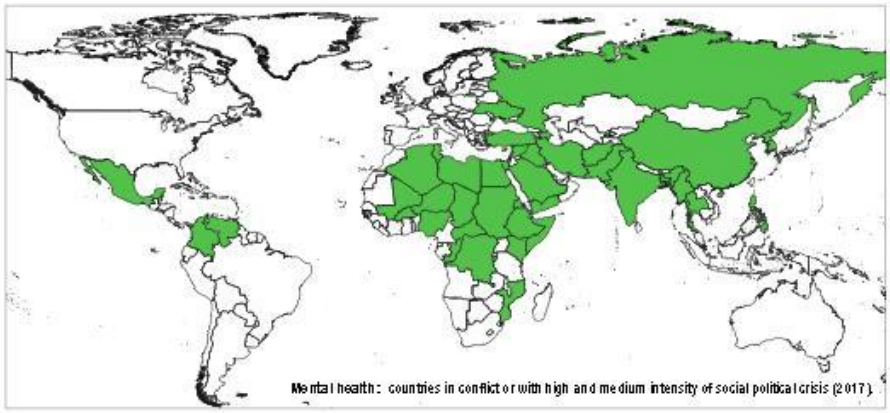
*These maps do not differentiate between Sudan and South Sudan. Screening is recomended in South Sudan in the last two conditions.
Strongyloidiasis test recomended in tropical/temperate countries without prevalence data. Schistosomiasis screening not recomended in countries with limited distributions (eg. China or Brazil).

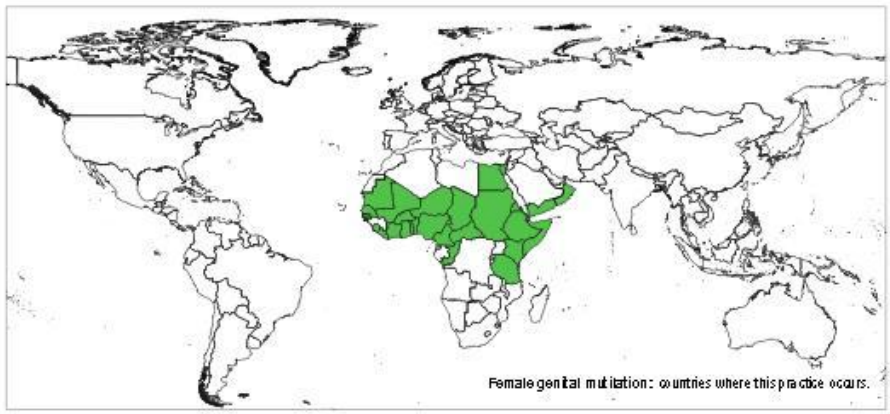
[Screening recommendations for parasitic infections]

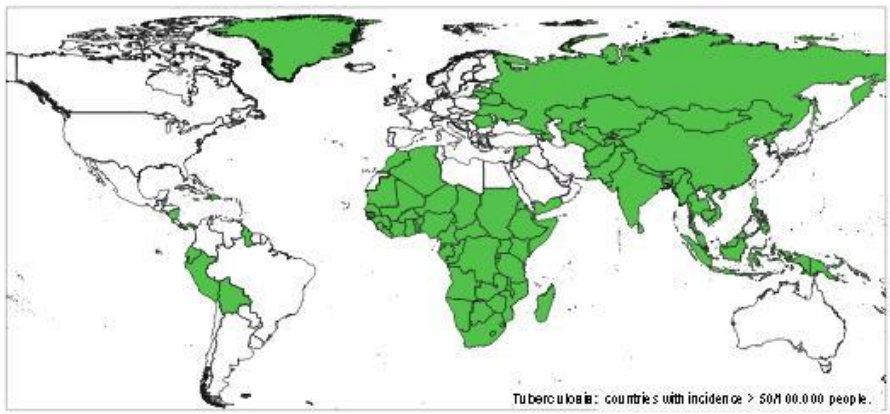


*These maps do not differentiate between Sudan and South Sudan. Screening is recomended in South Sudan in this three conditions.

[Screening recommendations for viral infections]







*These maps do not differentiate between Sudan and South Sudan. Screening is recomended in South Sudan in this three conditions.

[Screening recommendations for tuberculosis and other conditions]

Mapping Migrant Resources to Make Access to Care Smarter

G. Ragazzi, Italy[1], *P. Karnaki, Greece*[2]

[1]Agenzia Sanitaria e Sociale Regionale - Regione Emilia-Romagna, Bologna, Italy, [2]Institute of Preventive Medicine, Environmental and Occupational Health - Prolepsis, Marousi, Athens, Greece

Background: The design background of the mapping process refers to the joint cooperation between two EU funded projects aimed at reduction of health inequalities and improvement of access to health care and social services for migrants. The two projects involve 25 partners in 13 countries. The theoretical background is provided by two reference frames: social networks (Provan & Sebastian, 1998; Barabasi, 2002; Buchanam, 2003); and action-research (Lewin, 1946), closely related to the Learning Alliance paradigm (Smith & Moreno-Leguizamon, 2017).

Objective: The objective of this workshop is to demonstrate the usefulness of an interactive map with services that could offer help to newly arrived migrants. Attention is focused on the importance of increasing online visibility and reachability of those services that are directly related to health, but also on those that modify the social determinants of health, regarding in particular vulnerable migrants, women and unaccompanied minors, in order to contrast health inequalities.

Method: This interactive workshop relies to beginner level of complexity. We will start with an interactive poll to raise awareness on the massive use of mobile phone and ICT tools by migrants (5 min). Then we will explain mapping methodology and data collection of the two EU projects (10+10 min). Finally we will discuss strengths, critical points and future opportunities (5 min).

Summary: From the questionnaire data received to date, we have collected a hundred references until now. It is always possible to correct and add new references as we keep collecting data till 2020. The mapping process is an active platform wherein individuals are already key players in ongoing organisational activities. So it's not only to collect information, but also to build relations and (re)organize work locally.

Conclusion: The map is currently available on website and app for smartphone. Dissemination activities are now the best way to promote the mapping process and test the use of the interactive map.

The team presenting this workshop combines a set of social sciences professional skills and working experience in different Europeans countries and organisational contexts.

Description of a Public Health Project Aimed to Immigrant Population: *Salud Entre Culturas* (SEC) Project

I. Peña, Spain[1], *M. Navarro, Spain*[2], *C. Arcas, Spain*[1], *R. López-Vélez, Spain*[1,3]

[1]Ramón y Cajal University Hospital, Salud Entre Culturas, Madrid, Spain, [2]Mundo Sano, Madrid, Spain, [3]National Referral Unit for Tropical Diseases. Infectious Diseases Department. Ramón y Cajal University Hospital, Madrid, Spain

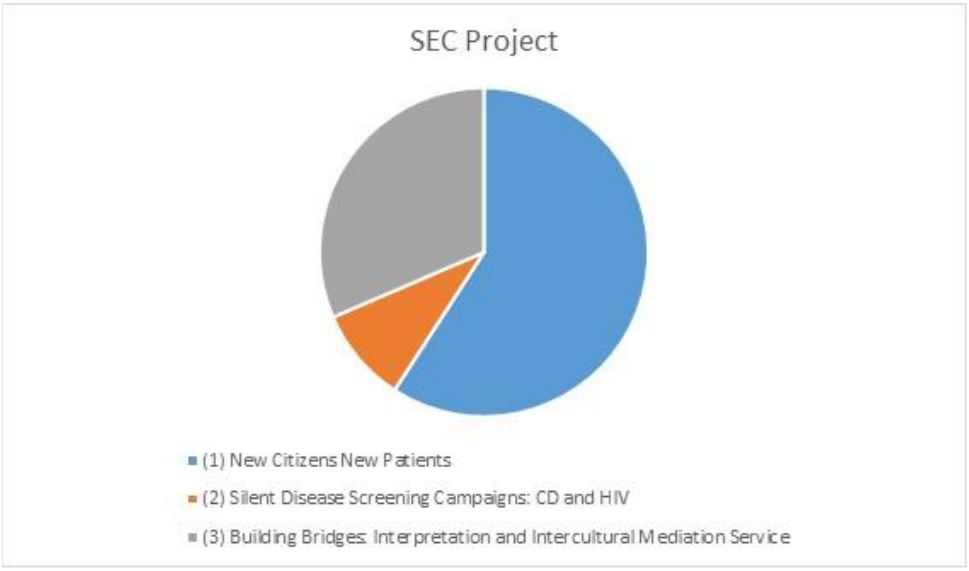
Background of the Study:
The growing flow of migration into Europe persists. Just in 2017, 171,635 immigrants and refugees arrived in Europe from North Africa via Mediterranean routes. Immigrants face many obstacles to access essential health-care services due to a number of factors, including their irregular status, language barriers and lack of health policies.

Objetive:
Description and evaluation of a public health project specifically aimed at and adapted to the immigrant population: the *Salud Entre Culturas* (SEC) project, linked to the Tropical Medicine Centre at Ramón y Cajal University Hospital in Madrid, Spain.

Methods:
SEC is implemented through three main programs:
(1) *New Citizens New Patients* (since 2006). Health education workshops on communicable diseases (HIV, STIs, TB, Chagas Disease (CD), Scabies) Spanish Health System and maternal and child health.
(2) *Silent Disease Screening Campaigns* (since 2014). Screening test for CD and HIV.
(3) *Building Bridges: Managing cultural diversity in health services* (since 2006) Accompaniment, interpretation and intercultural mediation in medical practice and training programs as professional mediators aimed at people of immigrant background.

Summary of Results:
A total of N=16559 immigrants have been beneficiaries up to 2017;
(1) N=9797 immigrants attended NCNP workshops
(2) N=1378 were screened for CD with a prevalence of *T cruzi* infection of 19.15%. N=174 were tested for HIV (2017 campaign) with a prevalence of 1.7%.
(3) N= 5192 immigrants have benefited from the interpretation and mediation service and N=18 have been trained as professional mediators.

Conclusions:
SEC project represents an initiative and a driving force for health access, training and health education. Thus, the growing number of users participating in its three programmes support the fact that projects of this nature are more necessary than ever in a reality where social inequalities and access barriers to the health system have increased, especially in the immigrant community.



[SEC Project]

Oral Session 5 - *Infectious Disease in Migrants*

Tuesday, 02 Oct, 17.30 - 19.00

Infectious disease testing of UK-bound refugees: a population-based cross-sectional study

A.F. Crawshaw, United Kingdom[1], M. Pareek, United Kingdom[2], J. Were, United Kingdom[1], S. Schillinger, Philippines[3], O. Gorbacheva, Switzerland[4], K.P. Wickramage, Philippines[3], S. Mandal, United Kingdom[1], V. Delpech, United Kingdom[1], N. Gill, United Kingdom[1], H. Kirkbride, United Kingdom[1], D. Zenner, United Kingdom[1]

[1]Public Health England, London, United Kingdom, [2]University of Leicester, Department of Infection, Immunity and Inflammation, Leicester, United Kingdom, [3]International Organisation for Migration, Manila, Philippines, [4]International Organisation for Migration, Geneva, Switzerland

Background
The UK, like a number of other countries, has a refugee resettlement programme. Refugees may be at risk of certain infectious diseases due to higher prevalence in their country of origin, circumstances of residency and travel, and programme selection criteria which favour vulnerability, but published data are scarce. The International Organization for Migration carries out standardised pre-entry health assessments (HA) on all UK refugee applicants as part of the resettlement programme. From this data, we report yields of TB, HIV, syphilis, hepatitis B and hepatitis C and risk factors with the aim of informing public health policy.
Methods
We examined a cohort of refugees (n=18,418) who underwent a comprehensive pre-entry HA between March 2013 and August 2017. Yields of infectious diseases are stratified by nationality and compared with published estimates. Factors associated with case positivity were assessed in univariable and multivariable logistic regression analysis.
Results
The number of refugees included in the analysis varied (range: n=8506 to n=9759). Overall yields were notably high for hepatitis B (188 cases; 2.04% [95% CI: 1.77-2.35%]), but below 1% for active TB (9 cases; 92 per 100,000 [48-177]), HIV (31 cases; 0.4% [0.3-0.5%]), syphilis (23 cases; 0.24% [0.15-0.36%]) and hepatitis C (38 cases; 0.41% [0.30-0.57%]), and varied widely by nationality. Sub-Saharan African nationality was a risk factor for HIV (aOR 51.72 [20.67-129.39]), syphilis (aOR 4.24 [1.21-24.82]) and hepatitis B (aOR 4.37 [2.91-6.41]). Hepatitis B (aOR 2.23 [1.05-4.76]) and hepatitis C (aOR 5.19 [1.70-15.88]) were associated with history of blood transfusion. Syphilis was associated with history of torture (aOR 3.27 [1.07-9.95]) and living with HIV (aOR 10.27 [1.30-81.40]). People living with HIV (aOR 1521.54 [342.76-6754.23] and acute hepatitis B (aOR 7.65 [2.33-25.18]) were more likely to have had a sexually transmitted infection.
Conclusions
Our results largely corroborate findings from other resettlement programmes and indicate that infectious disease acquisition in refugees varies by region and nationality. This information will inform policies and may enable a more targeted approach to testing based on potential risk factors, which has started in the UK programme.

Global surveillance of infectious diseases in migrants by the GeoSentinel network

E.D. Barnett, United States[1,2], A. McCarthy, Canada[3], C. Coyle, United States[4], S. Kuhn, Canada[5], W. Stauffer, United States[6], P. Walker, United States[6], F. Castelli, Italy[7], R. Lopez-Velez, Spain[8], P. Gautret, France[9], I. Molina, Spain[10], D.H. Hamer, United States[11], F. Mockenhaupt, Germany[12], C. Rothe, Germany[13], C. Greenaway, Canada[14], H. Asgeirsson, Sweden[15], F. Gobbi, Italy[16], M. Diaz Menendez, Spain[17], V. Johnston, United Kingdom[18], for the GeoSentinel network, United States[19]

[1]Boston Medical Center, Pediatric Infectious Diseases, Boston, United States, [2]Boston University School of Medicine, Pediatrics, Boston, United States, [3]University of Ottawa, Ottawa, Canada, [4]Einstein, New York, United States, [5]University of Calgary, Calgary, Canada, [6]University of Minnesota, Minneapolis, United States, [7]University of Brescia, Brescia, Italy, [8]Hospital Universitario Ramón y Cajal, Madrid, Spain, [9]Aix Marseille Universite, Marseille, France, [10]Hospital General Vall d'Hebron, Barcelona, Spain, [11]Boston University School of Medicine, Boston, United States, [12]Institute of Tropical Medicine and International Health, Berlin, Germany, [13]University of Munich, Munich, Germany, [14]Jewish Hospital, Montreal, Canada, [15]Karolinska University Hospital, Stockholm, Sweden, [16]Centro per le Malattie Tropicali, Negrar, Italy, [17]Hospital Carlos III, Madrid, Spain, [18]University Hospital College London Hospitals, London, United Kingdom, [19]GeoSentinel, Atlanta, United States

Background: Global surveillance of infectious diseases in migrants provides data to improve health of migrant populations.
Objective: To review GeoSentinel surveillance data for migrants after introduction of enhanced migrant health data collection in October 2016.
Methods: Data on country of birth, migration status, reason for encounter, language, diagnosis, and test results were collected from GeoSentinel, a global surveillance network of travel and migrant associated health conditions.
Results: Data were collected on 3809 migrants (10/2016-3/2018) from 44 GeoSentinel sites in 20 countries. Five sites (3 Spain, 2 US) contributed 62.5% of records. Most migrants (56.6%) were female; 40.8% were 18-65, 4% were < 5, and 3.3% >65 years; 204 were unaccompanied minors. Migrants originated from 137 countries; 28.3% came from the top 5: Bolivia (560, 14.7%); Guinea (145, 3.8%); Somalia (142, 3.7%); Cote d'Ivoire (115, 3%); and Nigeria (114, 3 %). Most (2032, 53.4%) spoke a language different from the GeoSentinel site. Migrants were seen for protocol-based assessments (1940, 51%); specialty referral (1092, 28.7%), tuberculosis management (325, 8.5%), primary care (172, 4.5%), post-travel illness (110, 2.9%), and inpatient consultation (89, 2.3%). Status was documented migrant (not refugee/asylee/asylum seeker) (1395, 36.6%), refugee (681, 17.9%), refugee/asylee (no difference at site) (516, 13.6%), undocumented migrant (392, 10.3%), asylum seeker (151, 4%), asylee (58, 1.5%), and unknown (519, 13.6%). Access to primary care was identified by 1410 (37%); missed opportunities for screening before the GeoSentinel encounter occurred for 569 (15%) for TB, 470 (12%) for HIV, and 460 (12%) for hepatitis B.
Common diagnoses overall included TB infection (762, 20%), Chagas (435, 11.4%), strongyloidiasis (365, 9.6%), schistosomiasis (439, 11.5%), eosinophilia (255, 6.7%), and hepatitis B (234, 6.1%). Of those screened, prevalence of hepatitis B infection was 6% (149/2257), hepatitis C 2% (37/1850), HIV 1.9% (42/2234), Chagas 51.6% (323/626), strongyloidiasis 20.7% (302/1458), schistosomiasis 33.9% (327/965), syphilis 2% (34/1700), malaria 10% (30/300), and GI parasites 23.4% (325/1388).
Conclusion: GeoSentinel surveillance data provide insight into health conditions of migrants. As the number of records grows, analyses of health conditions by migrant category, country of birth, and migration route will inform global strategies to address health of migrant populations.

Tuberculosis and Foreign-Born Populations in the United States: A Mixed Methods Analysis of Media Reporting and Political Identification

A.N. Desai, United States[1,2], S.M. Seshasayee, United States[3], M.S. Majumder, United States[4], B. Lassmann, United States[2], L.C. Madoff, United States[2], J.S. Brownstein, United States[5,6,7]

[1]Massachusetts General Hospital, Boston, United States, [2]International Society for Infectious Diseases, Brookline, United States, [3]Harvard T.H. Chan School of Public Health, Boston, United States, [4]Massachusetts Institute of Technology, Boston, United States, [5]HealthMap, Boston, United States, [6]Harvard Medical School, Boston, United States, [7]Boston Children's Hospital, Boston, United States

Background: Media reporting on foreign-born persons in the United States (U.S.) is prevalent due to political polarization of immigration. Reporting on communicable diseases has been demonstrated to affect public perception. Communicable disease reporting related to foreign-born persons has not yet been evaluated.

Objective: Examine how political leaning in the media affects reporting on tuberculosis (TB) in foreign-born persons. Tuberculosis was chosen for this pilot study as an estimated 66.2% of cases in the U.S. have been attributed to foreign-born persons.

Methods: HealthMap, a digital surveillance platform that aggregates disparate news sources on global infectious diseases, was utilized. Data was queried for news media reports from the U.S. between 2011-2018, containing the term 'TB" or 'tuberculosis' and "foreign born', refugee(s)' or 'im(migrants)". Reports were reviewed to exclude duplicates and non-human cases. Each media source was rated using two independent media bias indicators to assess political leaning. 32 non-tuberculosis reports were randomly sampled and evaluated as a control. Five independent reviewers performed sentiment analysis on each report and average ratings were obtained.

Results: 33 of 969 TB-associated reports referencing 'foreign-born,' 'refugee(s),' or 'im(migrants)'were included. Mean reports per year were 2.4 with a standard deviation of 1.6. 2016 demonstrated 58% (21) of all reports over the study period. 60% (20) of reports were published in right of center or right leaning news media. Thirty-nine percent (13) were identified as center, left of center or left. The control had 46% (15) left leaning reports, 28% (9) right leaning reports, and 25% (8) neutral reports. Sentiment analysis revealed that right-leaning reports often portray foreign-born persons negatively. Case counts were accurate regardless of political affiliation, however right and extreme-right leaning news tended to conflate latent tuberculosis incidence and active disease.

Conclusions:
Preliminary data from this pilot suggest that political leaning may affect U.S. media reporting on TB in foreign-born populations. Despite decreasing incidence of TB in the U.S., right leaning news organizations produced the most reports and the majority of these portrayed foreign-born persons negatively. Further investigation regarding communicable disease reporting of foreign-born persons both in the U.S. and globally is needed.

The epidemiology of varicella in immigrants and non-immigrants in Canada and the impact of the childhood varicella vaccination program

C. Greenaway, Canada[1,2], A. Akaberi, Canada[2], L. Azoulay, Canada[2], C. Quach, Canada[3], M. Brisson, Canada[4]

[1]McGill University, Jewish General Hospital, Division of Infectious Diseases, Montreal, Canada, [2]Lady Davis Institute for Medical Research, Centre for Clinical Epidemiology, Montreal, Canada, [3]CHU Ste-Justine, Infectious Diseases, Montreal, Canada, [4]Université Laval, Quebec, Canada

Background: Many young adult immigrants from tropical countries are susceptible to varicella (~15%) on arrival to Canada due to different transmission dynamics in their countries of origin and lack of prior vaccination. Varicella vaccine was licensed in Canada in 1998 and a publicly funded childhood vaccination program has been widespread since 2006. The number of varicella-susceptible older individuals accumulate in the context of childhood programs due to decreased transmission from low levels of circulating virus and waning vaccine immunity. Given that the severity of varicella (hospitalizations; deaths) increases with age it is predicted that about 20 years after introduction of these programs, outbreaks of severe varicella in older adults may occur unless susceptible individuals are identified and vaccinated. The aim of this study is to describe and compare the epidemiology of varicella in immigrants and non-immigrants over different vaccination periods.
Methods: A population based cohort of all cases of varicella in Quebec, Canada diagnosed between 1996-2014 in administrative health services databases were linked to immigration data. Vaccination periods were defined as pre-vaccination (1996-1998), private (1999-2005), and public (2006-2014). Crude annual incidence, vaccination period incidence and comparative rate ratios were estimated using the cohort and Quebec census data.
Results: 231,349 cases of varicella were identified, 6.4% (N=14,725) were in immigrants. Immigrants were older at diagnosis for all vaccination periods. The mean age increased for both immigrants (15.1 vs.19.5 years $p< 0.001$) and non-immigrants (8.4 vs 12.0 $p< 0.001$) in the pre compared to the public vaccination period. Despite the dramatic decrease in incidence of varicella over the study period incidence was higher for immigrants compared to non-immigrants for most age groups. This difference became more pronounced in the public (childhood vaccination) compared to the pre-vaccination periods for those aged 5-14 years (rate ratio=2.23 vs. 1.12), 15-24 years (3.53 vs. 1.90) and 15-44 years (2.19 vs. 1.18).
Discussion: Immigrants were older at varicella diagnosis and this increased after introduction of the childhood vaccination program. These data support the need to raise awareness that immigrants are at risk to develop severe varicella and the importance of providing varicella vaccine in this population.

In a retrospective cohort of asylum seekers, carriage rate of MDRO remains increased even after long term stay in the Netherlands

S.J. Ravensbergen, Netherlands[1], C. Louka, Netherlands[1], A. Ott, Netherlands[2], J. Rossen, Netherlands[3], D. Cornish, Netherlands[4], S. Pournaras, Greece[5], E. Bathoorn, Netherlands[6], Y. Stienstra, Netherlands[1]

[1]University Medical Centre Groningen, Internal Medicine/Infectious Diseases, Groningen, Netherlands, [2]Certe Lab, Medical Microbiology, Groningen, Netherlands, [3]University Medical Centre Groningen, Medical Microbiology, Groningen, Netherlands, [4]Babylon Primary Health Care Services, Elst, Netherlands, [5]Attikon University Hospital, Medical Microbiology, Athens, Greece, [6]Univercity Medical Center Groningen, Medical Microbiology, Groningen, Netherlands

Introduction. Several studies have shown an increased prevalence of multi-drug resistant organisms (MDRO) amongst asylum seekers. We aimed to assess the duration of MDRO carriage in this population.
Methods. Data were retrospectively collected from January 1st 2014 until December 31st 2016. Study material included screening for MDRO carriage and clinical samples from asylum seekers in need of medical care. We focused on methicillin-resistant *Staphylococcus aureus* (MRSA) and multi-drug resistant Enterobacteriaceae (MDRE). The rates of MRSA and MDRE detected were calculated per month after arrival in the Netherlands
Results. Samples from 2091 asylum seekers were included. 1270 (60.7%) were female, median age was 26 years (IQR 20-34) and median number of days in the Netherlands until first sample was 67 (IQR 4-235).
In the patients' first obtained samples, the rate of MRSA fluctuated between 4.5% and 13.0% per month after arrival. The rate of MDRE fluctuated between 7.4% and 25.0%. No decline in positivity rates was observed over the months after arrival in the Netherlands. In the group of asylum seekers who arrived more than one year ago, MRSA ((n=273, median months after arrival 34.1 (IQR 16.5-63.1)) was positive in 5.1% and the MDRE ((n=276, median months after arrival 35.4 (IQR 17-65)) in 9.4%. In the subgroup with follow-up samples available, 38/71(53.5%) of patients still tested MDRE positive in their final follow-up sample, after a median of 60.5 days (IQR 16.8-99.8).
Conclusion. To our knowledge, this is the first study demonstrating that carriage rate of MDRO in asylum seekers remains increased even after prolonged stay in the Netherlands. Longitudinal data on MDRO carriage after arrival in countries with a low MDRO prevalence are needed to determine optimal screening strategies, infection control measures and empirical antibiotic therapy.

National Immunization Policies and Practices Targeting Asylum Seekers, Refugees and Irregular Migrants in EU/EEA Countries

G. Marchetti, Italy[1,2], C. Giambi, Italy[1], M. Del Manso, Italy[1], A. Ranghiasci, Italy[1], G. Nacca, Italy[1], M.G. Dente, Italy[1], M. Marceca, Italy[2,3], K. Adel Ali, Sweden[4], S. Declich, Italy[1]

[1]Istituto Superiore di Sanità, Rome, Italy, [2]Sapienza Università di Roma, Public Health and Infectious disease, Rome, Italy, [3]Società Italiana di Medicina delle Migrazioni, Rome, Italy, [4]European Centre for Disease Prevention and Control (ECDC), Solna, Sweden

Background of the study: Migrants represent a potential vulnerable group and adequate health protection, including vaccine preventable diseases prevention, should be ensured.

Objective: The aim of this survey was to map national immunization policies and practices targeting asylum seekers, refugees and irregular migrants in EU/EEA countries.

Method: A web-based cross-sectional survey was conducted in 28 EU and 2 EEA (Iceland, Norway) countries within the ECDC funded Vaccine European New Integrated Collaboration Effort (VENICE) Project.

Summary of Results: All countries but the Czech Republic completed the survey and 28 countries (all except Romania) offer vaccination to migrants. A national regulation/legal framework supporting migrant immunization is available in 24/28 countries, of which for 9 it is specifically established for migrants. All the vaccinations included in the National Immunization Plan appropriate for age are offered to child and adolescent migrants in 26 countries and to adult migrants in 14 countries. Priority is given to polio, DT and MMR vaccines. Vaccinations are mainly given at holding and/or community level and only 5 countries vaccinate at entry level. A vaccination card is delivered to migrants in 23/28 countries for children/adolescent and 24/28 countries for adults. Methods of recording individual data vary highly across countries: for children/adolescents and adults, respectively, 15 and 12 countries use an electronic database, 5 and 4 use only paper registry, 2 and 2 use both electronic and paper registries, while 6 and 10 countries do not record information at all. Individual data are not made available from the sites where vaccinations are delivered to other local or national centers or institutions in 14/28 countries. Overall, 19 countries reported to have experienced vaccine shortages, but this shortage was not due to provision of vaccinations to migrants, contrary to some rumours.

Conclusions: Although policies about immunization of migrants are available in most of EU/EEA countries, there are important differences as to their objectives and implementation. Also methods of recording and transmitting data vary within and across countries. As migrants move, it would be important to share data and practices among countries to avoid unnecessary re-vaccination and better respond to migrants' immunization needs.

Oral Session 6 - *Barriers in Healthcare Access and Perceptions of Patients and Practitioners*

Wednesday, 03 Oct, 11.00 - 12.30

Walking in your shoes: how is it to be a patient in Moria refugee camp clinic?

M. Tilli, Greece[1], *S. Leggieri, Italy*[2]
[1]ERCI Med, Pireas, Greece, [2]Alma Mater Studiorum - University of Bologna, Bologna, Italy

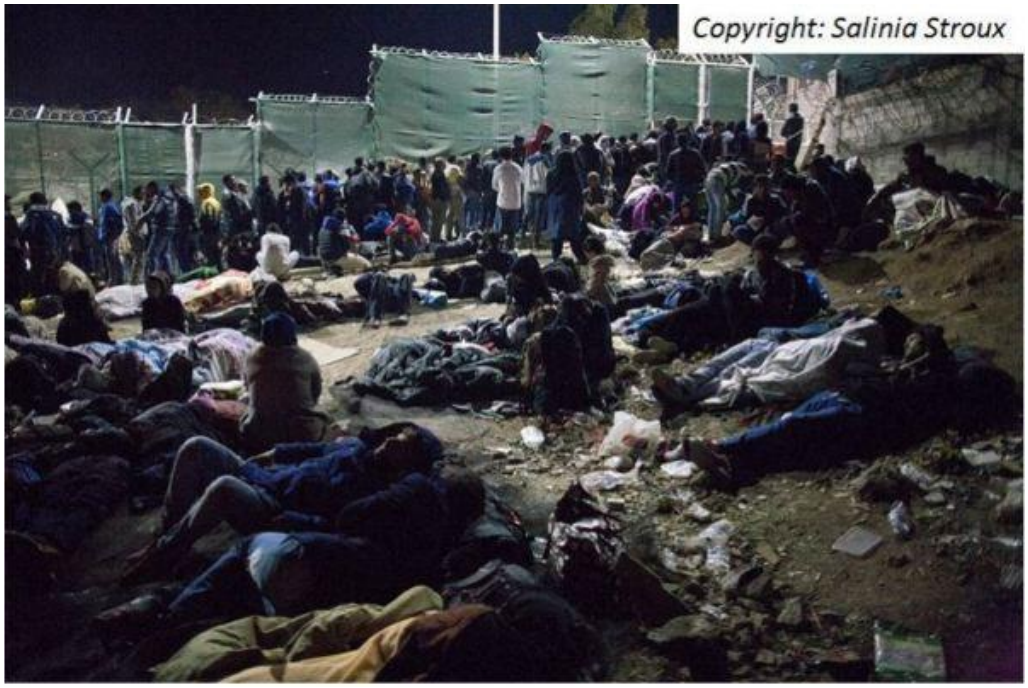
Access to health care can be challenging for an asylum seeker who lives in an overcrowded refugee camp, such as Moria Registration Center in Lesvos, Greece.

In a 15 to 20 minutes role-play, 8 to10 participants will act in different roles: an old woman from Iran who speaks only Farsi and has a bad back-pain, a very angry (and healthy) man who wants his x-ray to be controlled immediately, a pregnant lady who has just arrived in the camp and never had prenatal care, a teenager girl who faints while waiting in line, a man who seeks for psychological help for his anxiety… They will approach the volunteers of ERCI Med clinic (the authors of this workshop), a doctor and a crowd control operator, that will try to organize them in a line, visit them, and treat them according to their needs, the urgency of their condition, the availability of medicines and diagnostic tools.

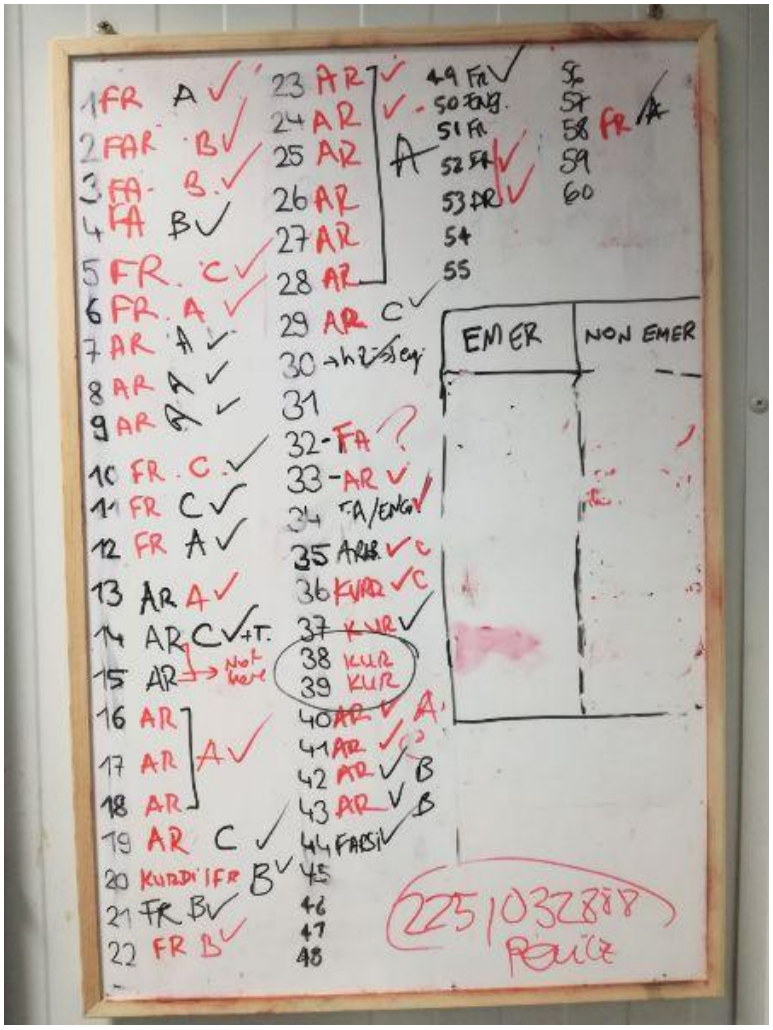
In the following 10/15 minutes, the participants will share their reflections and ask questions.

The participants will feel the stress of not understanding the language spoken by the doctor, the discomfort of waiting for a long time in line, the frustration of being ignored by an understaffed medical team that is constantly overwhelmed by the situation, the unfairness, real and not real, of an appointment system that is not well explained. A medical trained participant will also notice the shortage of therapeutic and diagnostic options available for the physician of the clinic, together with the difficulties for the young physician to find a proper diagnosis and treatment for problems that cover all the topics of medicine, from pediatry to psychiatry, emergency medicine and gynecology. The aim of this workshop is to emphasize the difficulties faced by the refugee and migrants in acceding basic health care within the premises of Moria Registration Centre, by creating an emotional connection between the participant and the character played.

[The morning line of patients at ERCI clinic]



[Moria camp (picture of Salinia Stroux)]



[The blackboard of the clinic after a 10 hours shift]

Healthcare Charging for Migrant Groups in the United Kingdom: Awareness and Experience of Clinicians within Sexual and Reproductive Health and HIV

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Background
Forced migration is currently at the highest level ever recorded. As a result, many European countries are seeking to limit or deter immigration. The United Kingdom has introduced upfront healthcare charging for patients not 'ordinarily resident' in the country, with exceptions for certain groups and services. Confusion over these regulations amongst healthcare professionals risks care being delayed or denied to eligible patients, with potentially damaging consequences on individual and public health. This is particularly significant within sexual and reproductive health (SRH) and HIV care, where sensitivity and timely management are essential.

Objectives
To investigate SRH and HIV clinicians' understanding of healthcare entitlement amongst migrant groups in the UK and their confidence and experience in dealing with this topic, and use this to clarify regulations, target training and optimise access to care.

Method
We conducted a survey to explore clinicians' confidence on this subject, understanding of terminology and regulations, and ability to synthesise knowledge through case-based scenarios. This was disseminated via relevant social media and websites and open for voluntary participation for seven days.

Results
350 respondents met inclusion criteria, of whom 77% reported encountering refugees, asylum seekers or undocumented migrants in their clinics. Only 39% felt confident in their understanding of healthcare charging. Terminology was correctly defined by 66%, and 71% and 64% identified refugees and asylum seekers as being exempt from healthcare charges respectively. Free services were correctly identified by 59%. In only 53% of case-based scenarios did respondents correctly ascertain whether charges would apply. 71% reported needing further training in this area, and many comments indicated a desire for educational resources.

Conclusion
This large sample of healthcare professionals in SRH and HIV demonstrated limited knowledge of healthcare charging regulations, despite many of them working[CN1] with migrant groups. A solid understanding is essential for clinicians to adapt to their changing patient demographic, deliver timely care and advise patients appropriately regarding potential charges. Structured training is therefore needed - and desired - to maintain patient safety as the priority in clinical encounters. This is particularly crucial in SRH and HIV services, responding to the complex needs of vulnerable individuals.

Asylum seekers' opinions on vaccination and screening policies after their arrival in Greece

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Introduction. Greece has been dealing with an increased number of refugees during the past 5 years. Many professionals speculate about the optimal timing of screening and vaccination in refugees, however refugees' own perspectives on health issues are not taken into account. In this study, we aimed to investigate asylum seekers' perspectives on infectious diseases screening and vaccination policies. *
Methods. Interviews were conducted within a refugee camp near Athens. Asylum seekers were approached and informed with the help of interpreters; consent forms were acquired. The survey focused on demographic data, vaccination status, screening policies and infectious diseases prevention.
Results. A total of 31 (23 male, 74.2%) refugees (29 Afghanis, 1 Iranian, 1 Iraqi) were interviewed. Mean age was 30 years (SD 13.3), 19.4% received primary or secondary education, while 48% received none. Mean time after arrival in Greece was 24 months (SD 9.2). All participants were willing to be vaccinated after arrival, 21 preferred vaccination and screening to be performed at the point of entry. All of them were open to educational campaigns, mostly through courses or brochures. 6 were screened for TB while 17 were screened for scabies. All of them considered screening for infectious diseases to be necessary and important for prevention, collective health and protection. 22 wanted to be screened for HBV/HCV and HIV and expressed concerns about high-risk sexual behavior in the camps. Finally, 20 of them had additional comments mainly focusing on insufficient medical care and skin diseases, mainly scabies.
Conclusion. Participants were willing to communicate their perspectives and concerns, especially regarding access to timely medical care. Overall, interviewees expressed a positive attitude towards vaccination and screening, understanding the rationale behind those policies for infection prevention and protection of public health.
*In the next months, data will be combined with data obtained in asylum seekers in the Netherlands. If this abstract is selected, we will present the data both from the Netherlands and from Greece.

Implementing a Programme of Combined Community-based Testing for Multiple Infections: Migrants' Attitudes and Awareness

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Background: Migrants are generally healthy but certain migrant subgroups are at increased risk of certain infections such as tuberculosis (TB), HIV, hepatitis B and C. Early diagnosis and management of these conditions can reduce morbidity, mortality and onward transmission. Routine testing of migrants, however, remains limited and focused on individual diseases with little acceptability data available from programmes offering combined infection testing to migrants. A new service in Leicester, UK, is offering combined testing for TB, HIV, and Hepatitis B and C to people who were born abroad when they register with primary-care and therefore offers an opportunity to evaluate migrants' acceptability to combined infection testing.

Objective: To explore migrants' knowledge, attitudes and practices about infectious diseases and a primary-care based combined infection testing programme.

Method: Focus groups and semi-structured interviews with migrants - including general migrant communities and those who had experienced the combined infection testing programme; semi-structured interviews with healthcare professionals in primary-care, secondary care, public health and NHS Clinical Commissioning . Constant comparative analysis.

Results: Overall 110 migrants (9 focus groups of 90 migrants in total; 20 semi-structured interviews) and 31 healthcare professionals were included in the study. Migrants' awareness of, and knowledge about infectious diseases - including perceptions of candidacy - was variable; there appeared to be a pattern associated with country of origin and different diseases. Participants' and professionals' experiences of the screening programme indicated high acceptability; little stigma was evident in participants' discussions about the diseases**.** Confusion about how to negotiate healthcare in the UK (NHS) was salient in comparison with other services (such as educational establishments).

Conclusion: To our knowledge this is the largest assessment of migrants' and healthcare professionals' attitudes to a combined infection programme**.** The community based screening programme was positively received; more work is needed to raise awareness of the programme and about the risk of diseases associated with country of origin. Working with non-healthcare services, which are more easily accessed my new migrants, is a promising strategy for addressing this.

THE GAMIFICATION OF PUBLIC HEALTH EDUCATION: EXPERIENTIAL LEARNING FOR MIGRATION HEALTH

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Introduction: Gamification is the use of games in a non-recreational context, like in an educational setting. The aim of gamification is to provide an experiential exercise that invokes emotions to deepen learning. The experience of migration and health lends itself to an emotionally evocative educational approach.

Objective: To demonstrate the value of the gamification experiences as a method of teaching public and global health topics, through the example of refugee health.

Material and methods: We created a game tool based on Escape Room exercises to achieve the specific educational objectives of raising awareness about the social and health challenges of some migration processes. We held variations of this game in four different scenarios: 1) Sixty students in the Master of Public Health program at Western University, Canada; 2) thirty health science undergraduate students at Western University, Canada; 3) Thirty health professionals (microbiologist, pediatrician, infectologist and public health professionals) from Vall d´Hebron Hospital, Barcelona-Spain; and 4) workshop participants (health professionals, educators and students) at the Public Health 2018 Conference in Montreal, Canada.

Summary: This workshop will provide a condensed version of this gamification activity as an experiential exercise for participants. We will facilitate a discussion on how participants felt and reflect on what they learned through this exercise. We will then share some of the responses from the various educational settings on the effectiveness of gamification, as well as provide insights into strategies for adapting the exercise for different audiences and time allotments.

Conclusions: The game learning tool demonstrated in this session improves the level of knowledge and empathy of participants. Evoking emotions through experiential learning enhances the educational experience as well as students' recall of key messages around the impact on health. The examples shared will present some of the limitations and required adaptations of this approach to meet the different realities and educational objectives of the group