

OPINION

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Health data collection and assessment of occupational health-related hazard in Hungarian migrants' reception centres

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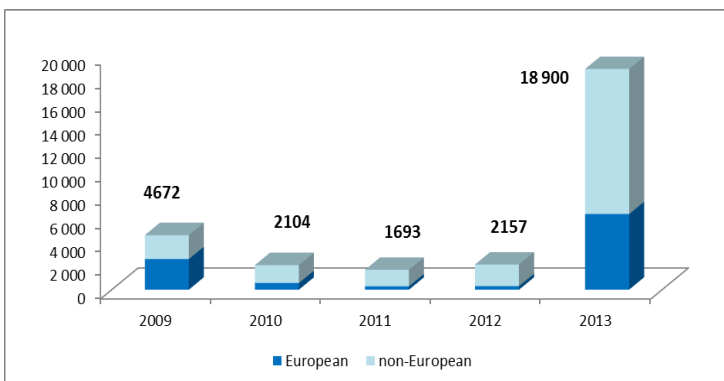
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Background

Hungary joined the European Union (EU) Schengen Area on 21 December 2007. The country covers approximately 1100 km of the EU's Schengen land borders and is faced with an influx of migrants – both regular and irregular – from eastern and south-eastern Europe.

Over the years the number of irregular migrants identified had levelled out, but started increasing sharply between 2012 and 2013 (see Fig. 1).

Fig. 1. Registered asylum seekers in Hungary by origin, 2009–2013



Source: Statistics of the Hungarian Office of Immigration and Nationality, 2014

(http://www.bmbah.hu/jomla/index.php?option=com_k2&view=item&layout=item&id=492&Itemid=1259&lang=en#)

More than 18 000 irregular migrants applied for asylum or refugee status in 2013. Several push factors serve as the background to this trend, such as the side-effect of the Arab Spring and the serious, bloody crisis in Syria.

The composition of the population of asylum seekers according to their country of origin is presented in Fig. 2, comparing 2012 and

and 2013 data. Aside from the high number of immigrants from the Balkans (UN Administrative Province of Kosovo (1244)) and Central Asia, numbers entering Hungary from the Middle East and Africa have also increased significantly. In these regions the public health services are either underdeveloped or have been destroyed, and as a consequence the vaccination status of the migrants is uncertain at best. The prevalence of emerging and re-emerging communicable diseases such as poliomyelitis, measles, and tuberculosis is high in these countries, making the recurrence of vaccine-preventable diseases in the EU a real health threat, and it is well understood that the incidence of communicable and vaccine-preventable diseases in the host population can significantly increase as a result (1). The most affected western European countries – namely the United Kingdom, Germany, France, Italy and Spain – have considerable migrant populations as well. During recent years, a growing number of reports have been published on the public health impacts of immigrant populations on the health care indicators in the EU. (See, for example, Suijkerbuijk et al. 2009 (2).)

Fig. 2. Composition of asylum seekers in Hungary by country of origin

Nationality	Number of asylum seekers in 2012	Number of asylum seekers in 2013	Changes
UN Administrative Province of Kosovo (1244)	226	6 212	5 986
Pakistan	327	3 081	2 754
Afghanistan	880	2 328	1 448
Algeria	59	1 116	1 057
Syrian Arabic Republic	145	977	832
Bangladesh	15	679	664
Morocco	47	496	449
Nigeria	27	455	428
Mali	0	305	305
Ghana	1	269	268
Somalia	69	191	122
Others	361	2 791	2 430
Total	2 157	18 900	16 743

Source: Statistics of the Hungarian Office of Immigration and Nationality, 2014

(http://www.bmbah.hu/jomla/index.php?option=com_k2&view=item&layout=item&id=492&Itemid=1259&lang=en#)

This public health threat simultaneously raises occupational health-related concerns, especially for front-line workers providing assistance for or dealing with migrants. Border guards, health care and non-health care workers in migrant reception centres have first contact with migrants bypassing the standard controls to cross borders.

In 2013 the Chair of Migration Health at the University of Pécs Medical School (UPMS) launched a survey covering 10 Hungarian border-crossing points along the eastern/south-eastern Schengen border and in asylum reception centres, in order to evaluate the preparedness of the staff and the conditions of the infrastructure, including the health-related considerations. This survey was a follow-up to a previous joint project of the International Organization for Migration and the University of Pécs (3).

The project consisted of 4 main items:

- facilitating a self-administered questionnaire survey of the staff (border guards, health and social care workers);
- detailing the public health infrastructure of the border-crossing points and reception centres;
- collecting and analyzing migrant health data from the onsite health records;
- organizing focus group sessions with migrants.

An important – and ongoing – part of the fieldwork is the collection and analysis of the migrants' available health data, including details of their access to health care provision and how their health data is stored. Based on the on-site analysis of the migrant health data (including the means of collection and storage), the conclusion is that currently no standardized, electronic migrant health statistics are available in Hungary. Ongoing health screening takes place in each of the centres

References

1. Migrant health: infectious diseases in non-UK born populations in the UK. An update to the baseline report. London: Health Protection Agency; 2011 (<http://www.better-health.org.uk/resources/research/migrant-health-infectious-diseases-non-uk-born-populations-uk-update-baseline-rep>, accessed 9 September 2014).
2. Suijkerbuijk AWM, Lindeboom R, van Steenberghe JE, Sonder GJB, Doorduyn Y. Effect of hepatitis A vaccination programs for migrant children on the incidence of hepatitis A in the Netherlands. *Eur J Public Health* 2009; 19(3):240–244.
3. PHBLM Project: increasing public health safety alongside the new eastern European border line. Brussels: International Organization for Migration (IOM) Regional Liaison and Coordination Office to the European Union; 2006 (<http://www.iom.int/jahia/webdav/shared/shared/mainsite/activities/health/PHBLM-Project-Summary-Brief-011209.pdf>, accessed 9 September 2014).

visited, and there is at the very least a health consultation room with regular, if not continuous service from physicians. However, there is no standardized screening protocol, health data are stored in paper records and in most cases only symptoms and findings are registered, not diagnoses; neither is there any use of International Classification of Diseases (ICD) coding. No clear channels exist to report focal points of the WHO International Health Regulations (IHR).

Conclusions

Below is a brief summary of experiences:

Although Hungary is making serious efforts to cope with the rapidly increasing migrant influx, there are areas in which further steps should be taken, as highlighted by the results of the survey.

- Border guard and civil staff training needs to be upgraded in order to cope with the increased occupational health hazards (the UPMS has offered its capacity to assist in this).
- Public health and migration-related training for medical staff should be implemented (UPMS is offering its capacity for such training).
- WHO IHR implementation should be consolidated.
- The health services provided by the reception centres should be further developed (staff, screening protocols, information technology infrastructure, working hours, and so on).

The development of a harmonized electronic migrant health information system and database would be an essential cornerstone in implementing evidence-based planning of health assistance for migrants. The UPMS has started the process of collecting the available data from the existing paper-based health records. As a first step toward data recording and analysis, experiences gained with symptoms- and findings-based surveillance systems could be utilized.

Information technology in environmental modelling and developing early warning systems for mitigating health risks (<http://www.eo2heaven.org/>)

Effective prevention of epidemics is based on several factors, such as the preparedness of health care professionals and the health care provision system being in place, but efficiency levels could be raised by implementing the right counter-measures, supported by a forecasting system. The development of a risk modelling system in the health context is essential in our rapidly changing world.

The EU's EO2HEAVEN (Earth observation and environmental modelling for the mitigation of health risks) project contributes to a better understanding of the complex relationships between environmental changes and their impact on human health. It aims to monitor changes induced by human activities, the emphasis being placed on atmospheric, river, lake and coastal marine pollution. The location of a possible disease outbreak may be identified by the risk map that has been developed to correlate environmental and health data. Software architecture for early warning systems has been developed by the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB) in Karlsruhe, within the frame of this project. This initiative is examining the effects of various environmental factors on cholera epidemics in Uganda.

Cholera is a bacterial, waterborne disease and has been eradicated in Europe, but it is responsible for thousands of deaths annually in Africa, making it an ideal basis for the development of the project. See the 52north website for more information (<http://www.52north.org/resources/references/sensor-web/eo2heaven>).

References

1. See the 52north website for more information (<http://www.52north.org/resources/references/sensor-web/eo2heaven>).
2. See the Infection Control Today website for more information (<http://www.infectioncontroltoday.com/news/2014/02/scientists-developing-early-warning-system-for-epidemics.aspx>).

Scientists use sensors to measure environmental parameters, such as rainfall, exposure to solar radiation and pH value, temperature, concentration of nutrients in the water, along with weather and climate forecasts. They also use mobile applications to collect health data on cholera cases from hospitals and doctors, such as where patients have been and what their symptoms are. Using the new software, each case appears as a red dot on a digital map. By correlating this information with the environmental data, scientists can see how fast and how far an outbreak is spreading.

With a functioning early warning system, decision-makers would have the opportunity to deploy medical resources effectively in the affected area and could support the health system in ensuring a more effective and focused response to a disease outbreak. Both regular and irregular forms of migration can contribute to and accelerate the spread of infectious diseases. Today, those diseases – showing strict correlation with migration – could be treated effectively if surveillance data were to be correlated with environmental changes. Malaria, dengue fever and other vector-borne diseases would also be good subjects for further investigation.

The EO2HEAVEN project is being implemented by numerous companies and research institutes, in collaboration with essential WHO support. Successful dissemination and promotion activities contribute to the widespread implementation of the initiative in affected countries and open up the opportunity to establish an early warning system without borders.

Population projections: why they are often wrong

(<http://www.bmj.com/content/349/bmj.g5184>)

John Appleby, chief economist, The King's Fund
BMJ 2014;349(g5184). doi: 10.1136/bmj.g5184

Predicting the sizes of populations is as important as it is challenging. These projections are used to estimate our future health care needs, government spending or tax revenues amongst other things. Populations generally change for 3 main reasons: births, deaths and migration. John Appleby, economist, sustains that predicting how these will change has proven difficult, and that this is to be recognized in order to construct various alternative futures.

RECOMMENDED READING

United Nations General Assembly 2014

International migration and development: report of the Secretary-General (A/69/207). New York: United Nations; 2014

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Migration of health workers: the WHO Code of Practice and the global economic crisis. Geneva: World Health Organization; 2014

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