EUROPEAN REFUGEE CRISIS: THE PUBLIC HEALTH DIMENSION

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ABSTRACT
EUROPE, AS WELL AS THE COUNTRIES IN SYRIA'S NEIGHBORHOOD, IS CURRENTLY EXPERIENCING AN UNPRECEDENTED INFLUX OF REFUGEES, ASYLUM SEEKERS AND OTHER MIGRANTS, HAVING TO FACE THE BIGGEST MIGRANT CRISIS SINCE WORLD WAR II. ONE ASPECT OF THE CURRENT REFUGEE CRISIS THAT RECEIVES LITTLE MEDIA COVERAGE IS THE NEED FOR HEALTH SERVICES OF THIS PARTICULAR POPULATION AND, AT THE SAME TIME, THE PUBLIC HEALTH ISSUES FACED BY THE VARIOUS COUNTRIES ALONG THEIR ROAD TO SAFETY. PROVIDING HEALTH CARE FOR A POPULATION THAT MOVES THROUGHOUT EUROPE, BEING PASSED FROM ONE COUNTRY TO THE OTHER, IS A HUGE CHALLENGE FOR EUROPE'S HEALTH SYSTEMS. THIS IS ESPECIALLY PROBLEMATIC NOT SOLELY FOR COUNTRIES HAVING TO DEAL WITH A LARGE NUMBER OF REFUGEES ALONG A SHORT PERIOD OF TIME, BUT ALSO FOR COUNTRIES HAVING HEALTH SYSTEMS THAT BARELY RESPOND TO THEIR OWN POPULATION NEEDS. ARE MIGRANTS REALLY POSING A THREAT TO THE HEALTH SECURITY OF THE DOMESTIC POPULATION? ARE EUROPE'S HEALTH SYSTEMS OVERWHELMED? WILL MIGRATION CRISIS BECOME A PUBLIC HEALTH DISASTER? THESE ARE THE QUESTIONS THAT WE WILL TRY TO ANSWER IN THIS PAPER.

KEY WORDS: MIGRATION, PUBLIC HEALTH, HEALTH SYSTEMS, CRISIS.

INTRODUCTION

The 2016 UN high-level Summit for Refugees and Migrants in New York1[2] provided a historic opportunity for world leaders to engage in responding to the public health dimension of mass migration.

According to the Office of the United Nations High Commissioner for Refugees (UNHCR), more than 65 million people are estimated to be displaced worldwide,[3] with over two million asylum applications registered by European countries starting with January 2015. Since 2015, almost ten thousand refugees and migrants are known to have died or gone

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[2]UN General Assembly. *New York Declaration for Refugees and Migrants*. A/71/L.1 (Sept 13, 2016). http://www.un.org/ga/search/view_doc.asp?symbol=A/71/L.1 (accessed May 17, 2017).
[3]UNHCR. *Global trends: forced displacement in 2015*. United Nations High Commissioner for Refugees, Geneva; 2015, accessed May 17, 2017. http://www.unhcr.org/statistics/unhcrstats/576408cd7/unhcr-global-trends-2015.html

missing at sea[4]. The influx of refugees, asylum seekers and migrants into the region is not just an isolated crisis but an ongoing reality that will affect European countries for some time to come, with medium and long term security, economic and health implications.

Despite the magnitude of this process and its potential for changing health patterns, the national response has been very diverse. Unfortunately, it has been more or less an example of national and international benign neglect[5]. The preoccupation with quotas has, too often, ignored that each refugee is an individual, a person with a story to tell, many of whom have experienced the worst living conditions in their countries of origin and of transit. Even when they reach the safety Europe can provide, their ordeal continues, many of the refugees lacking access to basic primary health care, including maternal and child health services, and, for those with non-communicable diseases, lacking the continuity of care on which their health depends. On the other hand, assuming they come from countries with failing health systems, they are a peril for the health security of the domestic populations. The paper examines the possibility of a balance between these two approaches.

MIGRATION AND HEALTH

The migration and public health nexus is not a new issue on the political or health agendas across the world. The lack of visibility regarding this topic is due to the lack of accurate numbers, to the difficulty to analyze data sets with diverse variables: the very definition of migrants differs from country to country, statistics regarding migrants, since the real number of irregular and illegal migrants is unknown, are of approximate value, and, moreover, high quality data on health determinants, health status and health service utilization by migrants are not available in most EU countries.[6] The specific health needs of migrants are poorly understood, language barriers make communication between health care providers and migrant patients very difficult, and, not least, health systems are not prepared to respond adequately. The situation gets more complicated by the problems migrants face in realizing their human rights, in accessing social services, and in engaging in low paid and often dangerous jobs, with the most acute challenges being faced by undocumented migrants, trafficked persons and asylum-seekers.[7]

Relationships between disease, travel and migration have historical roots that continue to haunt modern public health concerns. Based on the principles of protecting the recipient population through policies of exclusion directed at the migrant or arriving traveler, traditional approaches dealing with migrant health have focused on the recognition, identification and management of specific diseases of displaced populations at the time and place of their arrival.[8] Derived from the historical practices of quarantine, similar processes continue in a modern context through immigration medical screening and border control practices intended to reduce threats to public health or to limit potential impacts on healthcare

[4]"Refugees/Migrants Emergency Response – Mediterranean", UNHCR, Geneva 2017, accessed May 17, 2017, http://data.unhcr.org/mediterranean/regional.php

[5]Manuel Carballo, *et al*, "Evolving migrant crisis in Europe: implications for health systems", in *The Lancet Global Health* , 2017, Volume 5 , Issue 3 , e252 - e253, accessed May 17, doi: 10.1016/S2214-109X(17)30040-2

[6] Mark B.Padilla and Jose Pereira-Miguel, "Health and migration in the EU: building a shared vision for action", in Ana Fernandes. Jose Pereira-Miguel. (eds), *Health and Migration in the European Union: Better Health for All in an Inclusive Society*. (Lisbon: Instituto Nacional de Saude Doutor Ricardo Jorge, 2009): 15–22.

[7] Bernd Rechel, Philipa Mladovsky, Walter Devillé, Barbara Rijks, Roumyana Petrova-Benedict and Martin McKee, "Migration and health in the European Union: an introduction", in Bernd Rechel, Philipa Mladovsky, Walter Devillé, Barbara Rijks, Roumyana Petrova-Benedict and Martin McKee (eds.), *Migration and Health in the European Union*, (Open University Press, McGraw Hill, 2011): 5

[8] Gian Franco Gensini, Magdi H. Yacoub, Andrea A. Conti, "The concept of quarantine in history: from plague to SARS", *Journal of Infection* 49 (2004): 257-261.

services.[9] International migration, which is both part and consequence of globalization, increasingly affects health in migrant source, transit, and recipient nations.[10] Population mobility becomes a significant determinant of future health threats and risks for all regions of the world due to the number of people on the move, as well as the diversity and disparity of population characteristics between source, transit, and recipient destinations. Identifying threats related to migrant populations has been driven by historical outbreaks of transmissible infectious diseases of public health significance, such as plague and cholera. The flow of populations between locations with widely different health determinants and outcomes creates situations in which locally defined public health threats and risks assume international or global relevance, as proved by recent epidemics of SARS (Severe Acute Respiratory Syndrome), the novel type A H1N1 Influenza[11] or Ebola.

The combination of biological, behavioral, environmental, and socioeconomic determinants of health lead to major differences in health status of different populations. When a population moves from one country to another, characterized by different health patterns, it allows for the transfer of its characteristics between locations. This has far-reaching implications for health maintenance and promotion, disease prevention, intervention and health-services management, and education and training programs. In the public health community attention is traditionally drawn toward the effects of communicable diseases associated with migration. In the sphere of infectious diseases, population mobility is one of the underlying factors in the emergence and reemergence of diseases of international public health importance as shown by the serious outbreaks of the Twenty-first Century.[12] Migrant source and destination countries may exhibit differences for noninfectious diseases and conditions, as well, further complicating the problem as migrant-receiving nations are sometimes required to respond to adverse health outcomes that originate beyond their health planning considerations. Moreover, migrants who are subjected to legal, social, or economic isolation may develop diseases much different from those seen in the local population. Therefore, health interventions and attempts to mitigate adverse health outcomes in migrant communities may require approaches that differ from those required by the locally born community.[13]

As economic and social environments have the capacity of rapidly changing in our modern world, disparities in health determinants and disease outcomes can also change over time, thus adding an important dimension of complexity to the analysis of migrant health concerns. If those variations affect health determinants, the consecutive changes in health outcomes can be observed over relatively short periods of time. For example, in the thirty years following 1965, the difference between life expectancy for males in the United

[9] Centers for Disease Control and Prevention: *Technical Instructions for the Medical Examination of Aliens revised 2016*. Atlanta, Georgia https://www.cdc.gov/immigrantrefugeehealth/laws-regs/revisions-medicalscreening/medical_examination_aliens.html (accessed May16, 2017)

[10] Brian D Gushulak, J Weekers, Douglas W MacPherson, "Migrants and emerging public health issues in a globalized world: threats, risks and challenges, an evidence-based framework", *Emerging Health Threats Journal* 2(2010):e10, accessed May 26, 2017, doi: 10.3134/ehtj.09.010

[11]Mark A. Miller, Cecile Viboud, Marta Balinska, Lone Simonsen , "The signature features of influenza pandemics – implications for policy", *New England Journal of Medicine* 360 (2009):2595–8

[12]Joshua Lederberg, Robert E. Shope, and Stanley C. Oaks, Jr (eds.), *Institute of Medicine, Committee on Emerging Microbial Threats to Health. Emerging Infections: Microbial Threats to Health in the United States*. (National Academy Press: Washington, DC, 1992): 42.

[13]Mary Catherine Beach, Tiffany L Gary, Eboni G Price, Karen Robinson, Aysegul Gozu, Ana Palacio *et al.*, "Improving health care quality for racial/ethnic minorities: a systematic review of the best evidence regarding provider and organization interventions", *BioMed Central Public Health* 6 (2006):104

Kingdom and Russia increased by more than ten years.[14] Basic public health improvements such as providing safe drinking water, improved sewerage and housing can significantly reduce the occurrence of diseases of major public health impact in less than a generation,[15] while conflict, environmental change, natural disasters and population growth can lead to adverse health outcomes and increased rates of mortality over short periods of time.[16]

Health systems in migrant-receiving nations have to face several challenges ranging from early recognition of the diversity and disparity components of the arriving population to access to care for these migrant populations. Health practices may differ significantly between source and host nations, particularly in health-promotion strategies, approaches to disease screening (for hypertension, diabetes in pregnancy, different forms of cancer, etc.) or infectious disease prevention and control measures and outbreak response. Many economically developed countries have long-standing and effective public health and disease-control programs. Through sanitation, vaccination, antibiotic therapy, improved healthcare and public health services, infections that were historically significant causes of illness and death have dramatically decreased in numbers or have already been eliminated. The eradication of smallpox in the seventies of the last century has lead to a global effervescence in trying to develop similar programs of elimination of other infectious scourges and today several important communicable diseases, such as tuberculosis, measles or polio, have reached the point where they are no longer of public health significance in developed areas of the world. The picture of the developing world is significantly different, thus creating enormous differences in the prevalence of certain conditions among different areas of the globe. In a world that is on the move, migrants crossing these prevalence gaps can become the source for outbreaks of these diseases.[17] For example, the occurrence of tuberculosis in the high-income world in most of the cases is related to migration.[18]

Epidemiological disparities between the developed and less developed world are also observed for chronic diseases. Access to and utilization of health services may also display a different pattern between arriving and recipient population. Migrants from less developed regions of the world may have had less access to preventive care, health promotion programs, diagnostic or therapeutic interventions, therefore they may present with disease in more advanced stages than normally observed in the destination country. [19]

Traditional responses to the health challenges of migration, like medical screening, quarantine, and isolation in order to timely identify and, thus, reduce, by means of exclusion, the impact of health disparities in arriving mobile populations become very limited in their purpose.[20] Despite their apparent importance from a legal or administrative perspective, they

[14]Evgheni M Andreev, Ellen Nolte, Vladimir M Shkolnikov, Elena Varavikova, Martin McKee: "The evolving pattern of avoidable mortality in Russia", *International Journal of Epidemioogy* 32 (2003)**:**437-446.

[15]Mukul Kulshrestha, Atul Kumar Mittal, "Diseases associated with poor water and sanitation: hazards, prevention, and solutions", *Review on Environmental Health* 18 (2003):33-50.

[16]Michael J Toole, Ronald J. Waldman, "The public health aspects of complex emergencies and refugee situations", *Annual Review of Public Health* 18 (1997):283-312

[17]Alan R. Hinman, Jane A. Rooney, Jackson D. Milton, Robert L. Hackler, Joanna H. Harris, Debra Reynolds Margaret Tanner, Elizabeth Taylor, "The largest outbreak of measles in the United States during 1999: imported measles and pockets of susceptibility", *Journal of Infectious Diseases* 189, Supplement 1 (2004):S78-80, accessed May 19 2017, doi: 10.1086/377697

[18]Lobato MN, Mohamed MH, Hadler JL, "Tuberculosis in a low incidence US area: local consequences of global disruptions", *International Journal of Tuberculosis and Lung Disease* 12 (2008):506–12.

[19]Brian D Gushulak, Douglas W MacPherson, "The basic principles of migration health: Population mobility and gaps in disease prevalence", *Emerging Themes in Epidemiology* 3 (2006):3, accessed May 20 2017, doi: 10.1186/1742-7622-3-3

[20]Martin Cetron, Pattie Simone, "Battling 21st-century scourges with a 14th century toolbox", *Emerging Infectious Diseases* (2004), 10(11):2053-2054, accessed May 20 2017, doi:10.3201/eid1011.040797_12.

will be increasingly expensive and ineffective in the context of modern migration and population mobility and will affect international travel and trade.

Modern migration is part of the globalization process, intimately linked to global trade and economics, safety and security, and environmental climatic changes. In many developed countries, with ageing population, it helps labor and economic demands for human capital. Therefore improving the health of migrants and reducing adverse health outcomes related to migration is nowadays growing concern globally.[21]

EUROPEAN MIGRATION CRISIS AND HEALTH

"Il avait un nom" wrote Manuel Valls, a former French Prime Minister, on Twitter, about the picture of the young Syrian boy Aylan Kurdi, whose body was picked up by a police officer on a Turkish beach, in an attempt to raise awareness on the need for action in order to protect human security of the Syrian immigrants arriving in the EU.

Health is not just about diseases. The World Health Organization (WHO) defines health as "a state of physical, mental and social well-being and not merely the absence of disease or infirmity".[22] The same applies to migrant health. Unfortunately for public health, almost two years after the crucial moment in September 2015 in which the tragic death of three-year-old Aylan Kurdi brought the world's attention on the crisis, there is a general confusion about what is at stake and what needs to be done for the many thousands of refugees from the Middle East. The right to health is well documented in numerous international and regional human rights treaties, as well as in national constitutions, as a universal right guaranteed to all. As all EU member states ratified these legal instruments, they are obliged, no matter the level of government we are referring to, to provide health care services to all without discrimination and regardless of residence status.

Starting with January, 2015 almost 2 million people, including economic migrants, have crossed the Mediterranean Sea to Europe hoping for a better life and refugees fleeing conflicts, political turmoil, ethnic discrimination, and religious persecution. The huge influx of refugees is creating an ever-increasing economic and social burden on host countries and poses important public health challenges, alongside the deeper humanitarian and social issues. The mass involuntary migration is always associated with overcrowding, poor sanitation, and restricted access to clean water, creating an optimal environment for infectious disease outbreaks.[23] But the refugee crisis really started earlier and the overwhelming commitment to host large populations fell initially on low and middle income countries like Turkey, Pakistan, Lebanon, and Iran, many of which were already facing a substantial infectious disease burden[24]. The problem gained weight on the international political agenda only when the refugees became forced to migrate to high income countries, notably the EU ones. The collective health security aspect of the increasing numbers of refugees that can

[21]International Organization for Migration. *Migrant Health for the Benefit of All*, The Eighty-Eight Session of the IOM Council, MC/INF/275, IOM, 2004, accessed May 23 2017, https://www.iom.int/jahia/webdav/shared/shared/mainsite/about_iom/en/council/88/MC_INF_275.pdf

[22] World Health organization, *Constitution of WHO*, http://www.who.int/governance/eb/who_constitution_en.pdf

[23]See for example Sanjeet Bagcchi. "Cholera in Iraq strains the fragile state", *Lancet Infectious Diseases* 16 (2016): 24–25: after an official declaration of cholera outbreaks in Iraq in September, 2015, in the context of continued degradation of surveillance infrastructure in Syria, the risk of disease contagion and large-scale outbreaks occurring was very high.

[24]Mishal S Khan, Anna Osei-Kofi, Abbas Omar, Hilary Kirkbride, Anthony Kessel, Aula Abbara, David Heymann, Alimuddin Zumla, Osman Dar, "Pathogens, prejudice, and politics: the role of the global health community in the European refugee crisis", *The Lancet Infectious Diseases*, 16(8) (2016): e173 - e177, accessed May 27 2017, doi:10.1016/S1473-3099(16)30134-7

only be guaranteed by social integration and equity in access to health care has been shadowed by harder security issues like terrorism. And member states like United Kingdom, France or Belgium experienced several terrorist attacks during the past three years, and media abounded of reports of sexual and physical assaults in Europe, triggering exaggerated associations between refugees, terrorism, and criminality.

Many refugees come from poor countries with weak health systems, rising concern in several European countries about the occurrence of previously controlled infections within their borders. The difficult journey to safety that many refugees had to follow might increase their risk of infectious diseases, particularly measles or food and water-borne diseases, especially if they had vaccination programs that were interrupted in their countries of origin. But, to this moment, no systematic association between migration and spread of infectious diseases has been shown; the threat of outbreaks from population movements to Europe being substantially less than perceived.[25] On the other hand, diseases like cholera are not able of generating large outbreaks due to the living conditions and provision of health services in most EU countries like well developed public water and sanitation systems, excellent health infrastructure, and well integrated and responsive disease surveillance networks. The polio threat extensively discussed in medical[26] and general media, especially in light of low vaccination rates in Germany and UK, was not substantiated by facts. Following the 2013–14 outbreak of polio in Syria, some cases traceable to Syria were identified in Iraq,[27] but no cases were identified in Germany.[28] It is true that World Health Organization's Emergency Committee declared polio a Public Health Emergency of International Concern, which is the highest level of alert in public health with the exception of a pandemic, enhancing surveillance for minimizing the risk of spread.

Due to improved nutritional status and housing conditions, tuberculosis, another infectious disease of high concern, is not likely to easily spread or manifest complications in European developed countries. In addition, tuberculosis transmission from refugees to local populations will not occur often because it needs close contact. Moreover, with a prevalence of 19 cases per 100000 inhabitants, Syria is below the average prevalence in the EU (39 cases for 100000 inhabitants) and very far from certain EU member states like Latvia (57 cases per 100000 thousand0, Lithuania (83 cases per 100000), or Romania (99 cases per 100000), so refugees are more likely to be infected with tuberculosis by local populations than the other way around.[29]

Most migrants and refugees are young and relatively healthy, but their access to quality health care, including screening for health risk factors and vaccination has been long limited by conflicts, poverty and broken health-care systems. Displacement adds several other health challenges, such as intentional and accidental injuries, psychological trauma, sexual abuse, poor nutrition, and exposure to infectious diseases. Their socioeconomic vulnerability during this process also exposes them to abuse, exploitation, and further health

[25]World Health Organization, *Migration and health: key issues*, accessed May 27 2017, http://www.euro.who.int/en/health-topics/health-determinants/migration-and-health/migrant-health-in-the-european-region/migration-and-health-key-issues#292117

[26] See for example Martin Eichner, Stefan O Brockman, "Polio emergence in Syria and Israel endangers Europe", *The Lancet* 382(9907) (2013): 1777; David Butler "Polio risk looms over Europe; cases in Syria highlight vulnerability of nearby countries to the viral disease", *Nature* 503 (2013)**:** 7443

[27] Ann Gulland "World has been slow to act on polio outbreak in Syria, charity warns", *British Medical Journal* 348 (2014): g1947, accessed May 27 2017, doi: 10.1136/bmj.g1947

[28]Ana Schubert, Sindy Böttcher, Axel Eis-Hübinger "Two cases of vaccine-derived poliovirus infection in an oncology ward" *New England Journal of Medicine*, 374 (2016): 1296–98

[29] World Health Organization, *Tuberculosis surveillance and monitoring Europe 2015*, accessed May 27, 2017, http://www.euro.who.int/__data/assets/pdf_file/0004/273172/Tuberculosis-surveillance-and-monitoring-in-Europe-2015.pdf

risks. Many of the countries that migrants and refugees travel through are either unable or unwilling to provide free health, thus further endangering their situation. Final destinations, even in Europe, welcome them with precarious living conditions in transit camps that lack basic humanitarian standards. It is enough to consider Idomeni or Calais where poor sanitation, overcrowding, and insecurity are commonplace. Refugees can be exposed to various stress factors throughout the journey that may negatively impact their mental health status, including pre-migration factors such as political persecution and economic constraints, physical danger and separation during the process itself, as well as post-migration factors including detention, hostility and uncertainty in the places of arrival.[30]

Responding effectively to the health needs of the refugees is not an easy task, given the language and, sometimes, cultural barriers, lack of health insurance coverage, a different health care system, different understandings of illness and treatment, distrust between staff and patients, and limited of access to the refugee's medical history[31].

Meanwhile, health and social policies in recipient countries are becoming increasingly restrictive, entitlement to health-care services for refugees becoming more and more a political ping pong ball. Consequently, the burden for migrant health care has been almost entirely devolved to the non-governmental organizations community or host population, most of the health care being provided to refugees and migrants arriving in Europe by volunteers and NGOs that do not necessarily have formal training or links with the health-care system.[32,33] But the cost of exclusion from health care will always be higher than the cost of medical services, so governments need to accept that migrants' and refugees' rights to health not only are stated in universal conventions, but are part of a pragmatic reality. There is an obvious limit to what some of the smaller and poorer European countries can do alone, but the response by many of the richer ones has been highly inadequate.[34] The full health effects of the greatest mass migration since World War II will only become clear in many years to come. Only history will judge how this crisis was addressed. Drawing from its collective memory of the massive displacement following World War II or from the Balkan wars of the 1990s, Europe should have been more generous in enforcing the commonly accepted "European values", among which the principle of solidarity has a frontline seat. Addressing the health aspects of the migrant crisis is important because protecting and promoting migrant health is inextricably linked to public health.

CONCLUSION

The refugee crisis that has confronted Europe has posed a major challenge to several European institutions and structures. With a few notable exceptions, the political leadership has failed lamentably. Rooted in medical practice where finding the etiology of a disease, helps treat that disease, effective public health response must tackle the "causes of the causes", the conflicts in the Middle East, to which the same European countries so reluctant

[30] Philip Hunter, "The refugee crisis challenges national health care systems", *EMBO Reports* 17 (2016): 492–495. doi:10.15252/embr.201642171

[31] Dan Biswas, Maria Kristiansen, Allan Krasnik, Marie Norredam, "Access to healthcare and alternative health-seeking strategies among undocumented migrants in Denmark, *BMC Public* Health 11 (2011):560, accessed May 27 2017, doi: 10.1186/1471-2458-11-560

[32] Pamela DeLargy, "Europe's humanitarian response to refugee and migrant flows: volunteerism thrives as the international system falls short", *Humanitarian Exchange* 67 (2016):5-7, accessed May 27 2017, http://odihpn.org/wp-content/uploads/2016/09/HE-67-FINAL.pdf

[33] Alexander E. Kentikelenis, Amanda Shriwise, "International organizations and migrant health in Europe", *Public Health Reviews* 37 (2016):19, accessed May 27, 2017, doi:10.1186/s40985-016-0033-4

[34] Bayard Roberts, Adrianna Murphy and Martin McKee, "Europe's collective failure to address the refugee crisis" *Public Health* Reviews 37 (2016):1, accessed May 27 2017, doi: 10.1186/s40985-016-0015-6

now to accept the resulting refugees contributed by their failures during and after the invasion of Iraq. Rather than spreading xenophobia, politicians and media should recognize the social and economic benefits refugees can bring. Young immigrants, which are a major part of the arriving population, represent a minimal pressure on welfare services, but could foster economic growth and pay more in taxes than they claim in government benefits. Finally, to prevent is always better than to cure. Therefore providing appropriate health services could, in the end, save a lot of costs. It is time to shift from panicking to planning.

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