Alenka Kraigher, Nuška Čakš Jager

Occupational risks and protection from infectious diseases in contact with migrants and refugees

Abstract

Background: The health systems should protect the health of migrants, residents and health care workers at the same time. Avoiding crowding, ensuring sanitation and hygienic conditions, screening, health education and promotion, immunization, best practices and other measures are essential for communicable diseases control.

Methods: Review of literature, WHO and ECDC documents, the survey conducted among the five European countries (CARE project) and available national and international guidelines.

Results: The findings of this paper stress opportunities for increasing capabilities of healthcare systems, which can lead to improvement of the health and well-being of migrants, refugees and individuals from host communities, including health workers. On one hand the results show instances of challenges, on the other hand, examples of very good synergies between government, civil society and the public sector are presented.

Conclusions: In the European Region the risk of communicable diseases transmission from migrants to the host population was very low. Exchange of knowledge and training for staff involved in migrants' health care and application of preventive measures including personal protection and vaccination may contribute to better occupational and public health safety.

1. Introduction

For centuries, population movements have been one of the most important challenges and defining phenomena for the affected societies and migrating individuals. There are multiple reasons for migrations: violence, conflicts, natural disasters and human rights violations, which cause people to leave their homes. Moreover, lack of employment and subsequent poverty and hunger, is also a reason for the international migration of people. Migrant workers seeking employ-

ment make up a large proportion of international migrants worldwide. At least 100 million people have been forced to flee their homes and seek refuge either within or outside their country's borders in the last 10 years. Forced displacement and statelessness have been high on the international agenda in recent years and have continued to make dramatic headlines in all parts of the world. The influx of refugees and migrants into European Region since 2015 has occurred in a series of repeated occurrences. Large groups of refugees and migrants – ranging from tens to hundreds of thousands – move often simultaneously in different areas, and such movements increase during the summer. Several various factors, such as the social determinants of health, the risks and exposures in the origin, transit, and destination environments interact with individual biological and social factors and affect various health outcomes for refugees and migrants. »Refugees and migrants with pre-existing conditions or ones that they were unaware of (e. g. cardiovascular diseases, diabetes, pregnancy or malignancies) might not have had access to medical attention or treatment before or during their travel and arrive needing treatment.«[1]

The recent migration to Europe differs from previous migration occurrences. Above all visible are greater heterogeneity of arriving migrants and refugees and differences in their individual profile and motivation for movement, with more women and educated people choosing to cross the Mediterranean Sea.[2] Furthermore, observable is increased presence of vulnerable populations, for example unaccompanied minors more often migrating than in the past.[3]

These characteristics: the sheer number of immigrants, the increased presence of vulnerable groups, the heterogeneity of the arriving population and the growing anti-immigrant sentiment across Europe are putting immense pressure on protection, healthcare, legislative and other systems in both transit and destination countries, which must manage to work together and coordinate their actions.[4] Migrants and refugees are not a homogeneous group, and care sys-

[1] World Health Organization: Report on the health of refugees and migrants in the WHO European region. Geneva 2018, pp. 1–114.

[2] Hassène Kassar, Paul Dourgnon: The big crossing: illegal boat migrants in the Mediterranean. In: European Journal of Public Health 24 Suppl. 1 (2014), pp. 11–15.

[3] The Organisation for Economic Co-operation and Development: Is this humanitarian migration crisis different? In: Migration Policy Debates 7 (2015) pp. 1–15.

[4] Philipa Mladovsky, David Ingleby, Bernd Rechel: Good practices in migrant health: The European experience. In: Clinical Medicine 12 (2012), pp. 248–252.

tems must respond to their diverse needs. The health systems should adequately contribute to protect the health of the resident population and health care workers at the same time. Systems for newly arrived migrants and refugees should address their needs in order to assure health assessments; adequate shelter to avoid crowding and ensuring good sanitation and hygienic conditions; screening for communicable diseases; health education and health promotion, immunization and other measures.

2. Methods

To describe the health care workers' safety due to migrants and refugees care in terms of integrated public health plans and actions we reviewed peer-reviewed and grey literature, WHO and ECDC documents addressing the issue of prevention and control of communicable diseases among migrants arriving in the EU Member States, the survey conducted among the five European countries involved in the CARE project and a review of available national and international guidelines on this issue. This paper uses the terms migrants and refugees, who are entitled to the same universal human rights and fundamental freedoms as all human people, which must always be respected, protected and fulfilled.

3. Results

Health and healthcare for migrants stood in the focus of multiple international consultations. In 2010, Health of Migrants: The Way Forward was created as a framework for action to help advance resolution of the World Health Organization and the World Health Assembly No. 61.17. This framework identified four key areas for action: the monitoring of migrant health through the collection of standardized and comparable data and best practices; the adoption of international policy and legal frameworks to ensure national health policies that promote equal access to health services and social security for all migrants; the creation of health systems that are responsive to the needs of migrants, financially sustainable, culturally sensitive, linguistically appropriate and delivered by professionals who are aware of the health challenges associated with migration; and the es-

tablishment of intersectional partnerships and frameworks for dialog and collaboration across sectors and regions for global and regional consultative processes.[5]

WHO European Region is characterized by fundamental differences in health care systems of particular countries.[6] These differences influence the way health care is organized, financed and regulated for the general population; they also impact particular national health policies for refugees and migrants. Among these differences the fundamental variability is visible in defining access requirements to health services. Furthermore, they influence the implementation of international regional policies, recommendations and guidelines. As the common baseline, recommended is provision of emergency and urgent care to all refugees and migrants at the European Region, regardless of the legal status of the person in question. In order to support the European Region in designing a common framework for advancement of refugee and migrant health, the WHO has developed a comprehensive plan of action, which is based on high-quality evidence and intersectional operation. This plan of action has been developed to focus on and interconnect interests of various actors: international partner organizations, Member States and other relevant stakeholders, as well as refugees and migrants themselves.[7]

One of the central priorities of this plan lies in the area of improvement of social protection for refugees and migrants. To achieve this goal and to ensure universal health coverage and social protection, indispensable is development of sustainable financing mechanisms, both at the national and international levels.[8]

In the context of WHO European Region, other international instruments and agreements have defined the fundamental rights of refugees and migrants and their access to health care. In countries where the constitution does not explicitly provide for these rights, numerous other protocols, agreements and related guidelines have been accepted that support refugee and migrant health.

---

[5] World Health Organization: Health of migrants: the way forward: report of a global consultation, Madrid, Spain, 3–5 March 2010. https://apps.who.int/iris/handle/10665/44336 (accessed 26.1.2021).

[6] World Health Organization: Report on the health of refugees and migrants (Note 1).

[7] World Health Organization: Report on the health of refugees and migrants (Note 1)

[8] World Health Organization: Report on the health of refugees and migrants (Note 1)

3.1 *Utilization of care services for refugees and migrants in the WHO European Region*

In its »Report on the health of refugees and migrants in the WHO European Region« the World Health Organization reported on the implementation of health care services for migrants, stating that:

> Utilization of primary care services by refugees and migrant might be affected by the organization of the health system and whether payments are required for access. Provision of ethical and effective screening and health care for migrants at borders is an important step towards ensuring the health needs of refugees and migrants moving on into host communities.[9]

Furthermore, this Report presents conditions that affect utilization of health care services and which encompass several factors, from the availability of health care resources in particular countries to health care conditions of the arriving people:

> The speed and conditions with which these mobile populations arrived, and the number of people involved, created challenges for the countries receiving them. Refugees and migrants with pre-existing conditions or ones that they were unaware of (e.g. cardiovascular diseases, diabetes, pregnancy or malignancies) might not have had access to medical attention or treatment before or during their travel and arrive needing treatment. Apart from complications arising from lack of care, common infections acquired during displacement and migration and lack of nutrition can worsen these conditions. A commonly encountered problem relates to the integration of general medical services, psychosocial services and protection. Vulnerable or traumatized individuals (e.g. victims of trafficking and gender-based violence, victims of torture and trauma, and unaccompanied or orphaned minors) often have both physical and mental disorders.[10]

3.2 *Collaboration and multisector partnerships*

Some European countries have produced several cases of excellent collaboration between different stakeholders due to integrated public health plans and policies for incoming migrant and refugee populations. Some countries have tried to find efficient ways to design and

[9] World Health Organization: Report on the health of refugees and migrants (Note 1), p. X.
[10] World Health Organization: Report on the health of refugees and migrants (Note 1), p. XI.

deliver health services to migrants and refugees. »Realization of integrated people-centred health services depend on health system inputs, including the availability, accessibility and quality of health workers and the services they provide.«[11] On the one hand, the challenges were lack of staff, not enough training in cultural competence for health and social care professionals, and lack of coordination between the participating organizations. On the other hand, there were very good synergies that developed between government, civil society and the public sector. The results showed the possibilities to improve the effectiveness of health care in a way that ensures the health and well-being of both migrants, refugees and host communities, including health workers.[12]

3.3 Infectious diseases risk among migrants in the European Union/European Economic Area (EU/EEA)

Although migrant groups, including children, entering the EU/EEA, are at the similar degree of risk of contracting infectious diseases as other population groups in the host countries, there are several additional risk factors that could affect them. These include the absence or inadequacy of healthcare in the country of origin, exposure to infections and lack of care in the transit countries through which they travelled, and poor living conditions in the destination country. Evidence suggests that the risk of transmission of communicable diseases from refugee and migrant populations to host populations in the WHO European Region is low.[13] Such communicable diseases include tuberculosis, which may be prevalent in the migrants' countries of origin. Similarly, infections with hepatitis B and C viruses may occur in migrant populations from countries in which these diseases are

[11] World Health Organization: Framework on integrated, people-centred health services. In: Report by the Secretariat for the Sixty-ninth World Health Assembly. Provisional agenda item 16.1, A69/39, 15 April 2016, Geneva 2016, p. 4.

[12] World Health Organization: Framework on integrated, people-centred health services, pp. 1–12 (Note 7).

[13] Rosalia Marrone, Giovanni Baglio, Giusy Bruscino, Gianfranco Costanzo, Andrea Cavani, Concetta Mirisola: Prevalence of latent tuberculosis infection, hepatitis B, hepatitis C, and syphilis among newly arrived unaccompanied minors living in reception centers in Rome. In: International Journal of Infectious Diseases 15 (2020), pp. 126–130.

endemic; however, the number of individuals with these infections varies in different migrant populations across Europe.[14] In case of HIV infections visible is that a significant proportion of HIV-positive refugees and migrants became infected after their arrival in Europe. Therefore, the HIV infections are more likely to be diagnosed not directly after the arrival, but in a later period.[15] Tropical and parasitic infections not normally found in Europe are observable in migrant populations coming from territories with high endemicity of such infections. The risk for EU/EEA countries of experiencing outbreaks of infectious diseases because of the current influx of migrant population is extremely low. Although there is a low, or in some cases very low, likelihood of occurrence among migrants of the specific infectious disease risks they should be considered in order to ensure that they are recognized and treated in a timely manner, or prevented by immunisation when indicated they do not represent a significant risk for EU/EEA populations.

Overcrowding in refugee facilities can favour outbreaks of meningococcal disease. Especially sharing dormitories, poor hygiene, and limited access to medical care have been reported as contributing factors. Although meningococcal disease primarily affects children, it is still a leading cause of both meningitis and sepsis in adolescents, young adults and adults, especially in densely populated facilities that harbour newly-incoming migrants. Moreover, overcrowding of refugee camps can lead to heightened transmission of other diseases, e. g. measles, varicella and influenza.

3.4 Good practices in healthcare for migrants

One of the important initiatives regarding provision of healthcare for migrants and refugees constitutes project CARE (Common Approach for Refugees and other migrants' health). Within the framework of

[14] Marrone, Baglio, Bruscino, Costanzo, Cavani, Mirisola: Prevalence of latent (Note 3).

[15] Gianluca Cuomo, Iacopo Franconi, Nicoletta Riva, Alesandro Bianchi, Margherita Digaetano, Antonella Santoro, Mauro Codeluppi, Andrea Bedini, Giovanni Guaraldi, Cristina Mussini: Migration and health: A retrospective study about the prevalence of HBV, HIV, HCV, tuberculosis and syphilis infections amongst newly arrived migrants screened at the Infectious Diseases Unit of Modena, Italy. In: Journal of Infection and Public Health 12 (2019), pp. 200–204.

this project, the general objective is to promote and maintain the health of migrants in the European Union member states, especially in countries which are commonly a popular destination of migration and which are because of it under strong migratory pressure. In the report presented is an overview of the current serious situation regarding migration and health. Moreover, shown are the differences between three participating countries – Greece, Italy and Slovenia – with the focus on the role of civil society organizations in these countries.[16]

The report focuses on examples of good practice proposals from non-governmental organizations in Greece and Italy, which worked together with public authorities and other administrative institutions in these countries on preparation of health determination and prevention measures for migrating people. Several recommendations are presented in this report with regard to strategic planning of Public Health measures in provision of healthcare to migrants and refugees. These recommendations are proposed for various levels – from international, European level to the national level and focus on the role and responsibilities of civil society organizations. In examining in detail the integrated public health plans and policies implemented by Greece, Italy and Slovenia for incoming migrant and refugee populations in 2015–2016, several cases emerged of excellent collaboration between different stakeholders.[17]

Visible was lack of coordination in between particular services established for help for migrants and refugees; however, at the same time, observable were very good synergies between various actors from the governmental, civil society and public sectors. In accordance with this observation, opportunities for improving the effectiveness of health care may lay in coordination of actions on various levels. In

[16] Maria Psoinos, Christina Karamanidou, Elisabeth Ioannidis, Dimitris Papamichail, George Koulierakis, Maja Sočan, Silvia Declich, Sara Albiani, Giovanna Tizzi, Giulia Borgioli, Maria José Caldés Pinilla, Paolo Pezzati: Recommendations for strategic Public Health planning regarding migrant and refugee populations and the role of civil society organisations (2017). https://www.researchgate.net/publication/319932418_Recommendations_for_strategic_Public_Health_planning_regarding_migrant_and_refugee_populations_and_the_role_of_civil_society_organisations (accessed 26.1.2021).

[17] Psoinos, Karamanidou, Ioannidis et al.: Recommendations for strategic Public Health (Note 6).

this way, health and well-being of both migrants, refugees and host communities may be achieved.[18]

Other examples of similar best practices in provision of health care for migrant populations have been presented previously.[19] However, in this context, important is to note that specificity of the current socio-economic and political context in Europe, such as massive population influx, with heterogeneous profiles of migrating populations and their vulnerability makes it imperative to identify and implement examples of best practices from various countries and different situations. Especially with regard to increasingly hostile climate towards migrants and refugees in some destination countries, such action is an imperative.[20]

Although the number of migrants crossing Slovenian border in 2015 was more than a quarter of total population), the situation was handled quite well. This was partially due to good cooperation and coordination between National Institute of Public Health and different departments within Ministry of Interior (such as the police and military). Instructions and relevant necessary materials were handed to appropriate personnel, after assessing the situation accordingly. Furthermore, there was also good cooperation between NGOs and governmental departments. There were also quite a lot of volunteers from general population. Cooperation among many different countries, all involved and assisting with the migrant crisis in Slovenia – there were police, health care workers and volunteers coming from other countries.

---

[18] Psoinos, Karamanidou, Ioannidis et al.: Recommendations for strategic Public Health (Note 6).

[19] Stefan Priebe, Sima Sandhu, Sónia Dias, Andrea Gaddini, Tim Greacen, Elisabeth Ioannidis, Ulrike Kluge, Allan Krasnik, Majda Lamkaddem, Vincent Lorant, Rosa Puigpinósi Riera, Attila Sarvary, Joaquim J. F. Soares, Mindaugas Stankunas, Christa Straßmayr, Kristian Wahlbeck, Marta Welbel, Marija Bogic: Good practice in health care for migrants: views and experiences of care professionals in 16 European countries. In: BMC Public Health 11 (2011), https://doi.org/10.1186/1471-2458-11-187.

[20] Psoinos, Karamanidou, Ioannidis et al.: Recommendations for strategic Public Health (Note 6).

4. Discussion

The utter number of migrating people, their vulnerability and growing diversity, and the increase in anti-immigration attitudes across Europe are undoubtedly putting immense pressure on the protection, health, legislative and other systems in both transit and destination countries, which must manage to work together and coordinate their actions.

Quality care for refugee and migrant populations cannot be managed by health systems alone. Addressing refugee and migrant health care also provides an opportunity to identify gaps in routine service delivery and financing arrangements for the host populations. Therefore, it can improve and strengthen universal health coverage. It is a focus of many existing WHO strategies and action plans. Health systems should be adequately prepared to assist migrants/refugees while protecting the health of professionals and resident populations. Evidence suggests that the risk of transmission of communicable diseases from migrant and refugee populations to host populations in the European Region is very low, although it is possible that refugees and migrants from countries with a high prevalence of tuberculosis, HIV, hepatitis B and C may arrive.[21] Tropical and parasitic infections not normally found in Europe may, however, in some cases be introduced through migration movements, especially through refugees, migrants and travellers originating from or visiting areas of higher endemicity.[22] Although the likelihood that the specific infectious disease risks will occur among migrants and refugees is very low, they should still be treated in a timely manner, or prevented by immunization when indicated. Continuous sharing and exchange of knowledge and training for staff involved in migrants and refugees health care and conscious application of preventive measures including personal protection and vaccination may contribute to better occupational and public health safety.[23]

---

[21] Marrone, Baglio, Bruscino, Costanzo, Cavani, Mirisola: Prevalence of latent (Note 3).

[22] Joaquín Salas-Coronas, María Teresa Cabezas-Fernández, Ana Belén Lozano-Serrano, Manuel Jesús Soriano-Pérez, José Vázquez-Villegas, José Ángel Cuenca-Gómez: Newly Arrived African Migrants to Spain: Epidemiology and Burden of Disease. In: The American Journal of Tropical Medicine and Hygiene 98 (2018) pp. 319–325.

[23] Kevin Pottie, Alain D. Mayhew, Rachael L. Morton, Christina Greenaway, Elie A. Akl, Prinon Rahman, Dominik Zenner, Manish Pareek, Peter Tugwell, Vivian Welch,

It is of utmost importance to provide a basis for informed policy-making and countering myths regarding the migration through evidence-based research and information. One of such existing claims – namely that refugees and migrants are a source of communicable diseases in host countries – does not reflect reality. On contrary, evidence suggests that the risk of transmission of diseases through individuals migrating to Europe is very low.[24] Employees at the front lines of receiving and working with migrants may face an occupational risk of certain biological and chemical health hazards, such as having a direct contact with human secretions (e. g., blood, faeces, urine, saliva) or working continuously in polluted and/or odorous environments. Those working in long-term facilities may also face significant mental health hazards. The presence of certain occupational health hazards on one side and the demonstrated low level of appropriate knowledge on the health impact of assisting migrants on the other side have an unfavourable impact. Furthermore, results of study primarily focused on comparison of the awareness of the risks of employees who may have direct contact with migrants at different facilities indicate that there are considerable gaps in the training program for those working with migrants concerning the health-related aspects.[25]

Thus, well-designed, properly conducted educational programs and the incorporation of health aspects into undergraduate training for staff focusing on raising awareness about the health risks of international migration would be of crucial importance for public health. Several factors, such as low immunization coverage, adverse conditions during the migration and overcrowding of facilities for migrants in the reception countries may favour outbreak of diseases. Evidence suggests that such outbreaks can be prevented by vaccinations provided to the migrants. As explored through online survey on immu-

---

Joerg Meerpohl, Pablo Alonso-Coello, Charles Hui, Beverley-Ann Biggs, Ana Requena-Méndez, Eric Agbata, Teymur Noori, Holger J. Schünemann: Prevention and assessment of infectious diseases among children and adult migrants arriving to the European Union/European Economic Association: a protocol for a suite of systematic reviews for public health and health systems. In: BMJ Open 7 (2017), https://doi.org/10.1136/bmjopen-2016-014608.

[24] Cuomo, Franconi, Riva, et al.: Migration and health (Note 5).

[25] Istvan Szilard, Zoltan Katz, Karoly Berenyi, Peter Csepregi, Andras Huszar, Arpad Barath, Erika Marek: Perception of Occupational Risks and Practices of Self-protection from Infectious Diseases Among Workers in Contact with International Migrants at Hungary's Border. In: Journal of Rural Medicine 9 (2014), pp. 59–73.

nization strategies targeting migrants, several countries, e. g. Croatia, Greece, Italy, Malta, Portugal and Slovenia offer all vaccinations included in their National Immunization Plan to migrant children and adolescents.[26]

5. Conclusion

Health of refugees and migrants may be determined by several aspects, ranging from specific health determinants in the country from which they migrate, as well as circumstances occurring during transit and at the host countries. Hazardous travel, detention, violence and exploitation occurring during migration, but also acculturation after the arrival to the destination country coupled with living and working conditions that are risky to health, and limited or conditional access to health care are only a few examples that show the necessity of specific approach towards this issue. In consequence, transit and destination countries need to develop appropriate strategies, including long-term policy measures and adapt their national healthcare systems to pressures caused by migration. Only through such strategies, the challenges faced by refugees and migrants in accessing health care can be addressed appropriately. Migrants arriving to the Europe are generally in good health. Traveling conditions might make some migrants more vulnerable to health threats, due to exposures before arriving to the EU combined with low vaccination coverage. For this reason, it is important for front line health care workers assessing the health of newly arrived migrants in point of entry, to be aware of the epidemiology of disease and vaccination status. Evidence suggests that there is a very low risk of transmission of communicable diseases from the migrant and refugee population to the host population in the European Region. Quality care for refugee and migrant groups cannot be addressed by health systems alone. Social determinants of health cut across sectors such as education, employment, social security and housing. The health systems should be adequately prepared to

[26] Cristina Giambi, Martina Del Manso, Teresa Dalla Zuanna, Flavia Riccardo, Antonino Bella, Maria Grazia Caporali, Agoritsa Baka, Nuska Caks-Jager, Tanya Melillo, Ricardo Mexia, Goranka Petrovic, Silvia Declich, The CARE working group for the National Immunization Survey: National immunization strategies targeting migrants in six European countries. In: Vaccine 37 (2019), pp. 4610–4617.

provide aid to migrants/refugees while at the same time protecting the health of professionals and the resident population. Continuous sharing and exchange of knowledge and training for staff involved in migrants and refugees' health care and conscious application of preventive measures including personal protection and vaccination may contribute to better occupational and public health safety. Certainly, unforeseen events such as COVID-19 pandemic demonstrate how migrations forecasts can be influenced. The subsequent pandemic continues to have, an unprecedented global social and economic impact, which also affects asylum systems that slowed or stopped when countries closed borders or implementing strict border restrictions in response to COVID-19.