Chapter

Health Security and the Refugee Crisis in Greece: The Refugee Perspective

Thomas Papadimos, Scott Pappada, Michael Lyaker, James Papadimos and Andrew Casabianca

Abstract

The flight of refugees has been part of the human condition since the beginning of time. Recent events in the Middle East have caused a mass migration of refugees from Syria, Iraq, and Afghanistan. Their primary destination has been Europe, more specifically, the affluent, better industrialized countries of central and northern Europe. However, the European law currently requires that refugees must be processed at the first port of entry to Europe. In most cases, this involves the eastern Aegean Sea islands of Greece. Here the refugee camps have become overcrowded and underfunded, and have little medical care and security. The Greek government has limited resources and the response for support from the more affluent European countries has been underwhelming. Here we summarize the lack of health security from the refugee perspective of those that are awaiting entry to Europe and are encamped in Greece.

Keywords: human migration, Greece, public health, refugees, refugee camps

1. Introduction

The early to mid-twenty-first century will be known for its mass migration movements. In fact, Greece has become the gateway for the mass migrations of refugee populations since the end of World War II [1]. The current Middle East refugee crisis is taxing many national health care systems [2, 3]. Greece is in a particularly unique position regarding the flood of refugees into Europe because of their proximity to Turkey, which is the conduit for Syrian, Afghan, Kurdish, Iraqi, and in some cases, African refugees. Greece is not a stranger to refugees. In 1922, Greece experienced a massive inflow of Greek refugees fleeing Asia Minor after Greece's military defeat at the hands of Turkey. The Greek nation absorbed them successfully and in the 1990s was able to face a similar, but smaller refugee challenge with the migration of many people from Eastern Europe [4]. However, the current refugee problem, that is a consequence of the conflicts in the Middle East, is different; it involves a tidal wave of refugees that are of non-Greek origin. This was, and remains, a challenge for a homogenous society [5]. The challenge of supporting refugees is especially difficult in the context of the recent Greek debt crisis of 2008 that left the Greek economy devastated. The term migrant many times refers to economic status and can be considered derogatory, whereby they are not given the

consideration or status of refugees. In our work, we use the terms interchangeably and do not cast aspersions on those who are not truly refugees as defined by the 1952 United Nations Convention relating to the Status of Refugees (and the 1967 Protocol relating to the Status of Refugees).

Even before the debt crisis, there was a notion that Greece was not a safe host country for refugees [6]. Skordas and Sitaropoulos indicated that while the Greeks generally observed *non-refoulement* (the practice not mandating asylum seekers/refugees to return to a country in which they are liable to be persecuted), the Greek system of asylum suffered from a "calculated ambivalence towards the legal situation of the victims of non-state agents" and failed to provide for "basic subsistence needs ... and social protection for refugees and asylum seekers [6]." Despite Greece being on the receiving end of wave of refugees/migrants, the national policies were reactive with the occasional passing of ad hoc laws, executive decrees and polices directed at the behest of the European Economic Union (EU). These measures did not take into consideration the long-term view [7, 8]. Additionally, oppressive austerity initiatives forced on the Greeks by the EU have triggered "resistance" initiatives across the country making refugee-friendly positions/responses less likely [4]. In spite of these internal and external factors, the Greek nation, through anti-racist efforts and solidarity movements, managed to provide refugees with legal services, shared information regarding available social programs Greek language instruction and basic elements of health care [4, 9].

However, in 2015 a breaking point was reached. The conflicts in the Middle East resulted in more than 1,000,000 refugees arriving in Greece over a period of approximately 15 months [10]. This happened at the same time that the debt crisis was exacting a devastating toll on the Greek economy. Millions of people were leaving their home countries to find a safer place to relocate [11]. Most of these refugees were trying to get to central and northern Europe, through the route from Turkey to Greece [12]. However, the closure of the Western Balkans transit route on the border of Greece and the Former Yugoslav Republic of Macedonia in February/March 2016 (EU-Turkey agreement), transformed Greece "from a transit country to a country hosting tens of thousands of third-country nationals for a still undefined, yet long-term, period. Greece progressed from the logic of repression (meaning to keep all foreigners out) to the logic of reception," and received 90% of the total population of refugees from 2016 to 2018 [9]. This resulted in between 10,000 and 20,000 asylum seekers who were unable to leave Greece and becoming confined to refugee camps where they were trapped and forced to live under poor economic and health conditions [13, 14]. Over time, this number has now has swollen to over 60,000 people [15]. In effect, since 2011 one half of the Syrian population has been displaced, either as refugees to another country or internally (secondary to conflict, poverty, food insecurity or loss of infrastructure) [16]. Herein, we will review the multitude of public health and medical problems that dominate the health security of refugees in Greece. These problems include infectious diseases, mental health, women's health issues, traumas and burns, and children's health issues.

2. Methods

Using key words and the MESH headings provided by PubMed the authors reviewed the available papers and the determined which papers were the most relevant for the project. Additionally, key words were entered into Google Scholar resulting in further identification of source material; this included various forms of media and journalism. At the same time, documents originating with the United Nations and World Health Organization were also identified and reviewed.

3. Infectious diseases

3.1 Respiratory conditions

Refugees arriving to Greece may be vulnerable to infectious diseases because of poor nutritional status, unsafe drinking water in their journeys, lack of vaccination, poor or overcrowded living conditions, and lack of immunity to endemic diseases [17]. These factors can occur in transit, or in the country of origin [17, 18]. Because of this host countries may have serious concerns about the spread of disease by refugees/migrants. While there is little evidence to indicate that refugees spread disease to local populations (EU/EEA), conclusive data is lacking. Work done by Rojek et al., evaluating prospective data from medical consultations on patients presenting with symptoms and signs of a syndrome that may have warranted inclusion in a syndromic surveillance system, showed that fewer than 5% of patients had a full set of vital signs documented [17]. Also, only 11% of patients with a possible syndrome were reported to the medical alert system. Such gaps indicate that refugee patients may not be asked for a medical history, or be given an appropriately complete physical examination. Consequently, the risk of infectious diseases in refugee populations and the chance of disease entry into local populations may be underestimated [17].

Respiratory infections are of great concern and are the most frequent problem [17]. Medecins Sans Frontieres (MSF) clinics at the point of entry into Greece and Serbia found that respiratory tract infections (RTI) occurred in 41% of refugees. Clinics at the Greek-Turkish border exhibited an RTI prevalence of 23% [19, 20]. Refugees in Turkey had 330,000 excess cases of RTI and 50,000 excess cases of diarrhea in 2015 [21].

The unprecedented cross border mobility of refugees/migrants and refugees lends to the dissemination of multi-drug resistant (MDR) pathogens across borders. MDR organisms are often carried by young men (wounded in combat or as innocent by-standers). These individuals often find their way into camps where conditions contribute to the spread of pathogens with antibiotic resistance [22]. Although available evidence is sparse, there are indications that refugees admitted to healthcare facilities frequently import MDRs [23].

In a recent report by Hermans et al. regarding the disease burden among those staying at the Lesbos, Greece refugee camp, no reported cases of tuberculosis were identified [24]. However, 15.3% of Syrian refugees screened in Berlin had potentially contagious diseases [25]. This suggests that refugees entering Greece may have had inadequate diagnostic work-ups either due to a lack of medical expertise or money to do the testing. With the ongoing Syria humanitarian crisis infectious disease will continue to emerge and reemerge [26].

3.2 Hepatitis

As far back as 2003 Greek investigators had determined that refugees living in Athens (especially those from Asia and Albania) had a high incidence of hepatitis B viral (HBV) infection. Of note, the incidence of hepatitis C viral (HCV) infection was low [27]. Refugee populations in Greece in the early 2000s were avoiding established shelters for the fear of being departed, therefore they lived in crowded conditions among their own immigrant groups [28]. Hepatitis A viral disease (HAV) in Greece has remained high at 17.1% among non-immunized children [29]. Recent data from the Greek Government demonstrated spikes in HAV disease from 2005 to 2008, after the migration of populations from the Middle East and Roma (Albanian and other Balkan Roma groups) populations. A second spike occurred

in 2016 and 2017 secondary to the current Syrian disaster. In December 2016, as the Syrian crisis was reaching a crescendo, refugees and asylum seekers residing in host facilities in Greece were demonstrating an increase, mostly in children under 15 years of age [30, 31].

3.3 Leishmania

More than one million refugees arrived in Greece between 2015 and 2016 from areas with endemic Leishmaniasis (Syria, Iraq, and Afghanistan). This disease has serious social and economic consequences in these areas [32]. Fotakis et al. uncovered an infection rate of Phlebotomus spp. sand flies in refugee camps that indicated an elevated risk to local populations [32]. A common-sense recommendation would be to provide refugees access to descent living conditions, good health education, effective vector control, and interdict local colonization of sand flies. Ongoing studies of refugee populations regarding epidemiology and disease transmission may be helpful.

3.4 Shigella

Shigella is endemic in many low-income countries. The massive influx of refugees to Greece puts local and incoming refugee populations at risk [33]. At a syndromic notification center in Athens, Greece in 2015/2016 a cluster of shigellosis cases was identified. All cases were multi-drug resistant, and a potential common source was not identified. All cases were typed; real-time typing is helpful for control methods and epidemiological inquiries.

The truth is simple, refugees are colonized by resistant organisms during their extended stays in refugee/migrant camps [33, 34]. There is a need for a European tracking system that can be used by all countries were diseases and syndromes are identified to allow documentation and prompt, effective intervention.

4. Mental health

To say that refugees experience stress is an understatement. They must deal with war, migration, oppression, forced detention, violence, and witness death and destruction [35, 36]. They suffer abuse from smugglers, criminals, and governments [37]. In 2016, 5096 individuals perished at sea [37]. In view of the afore-mentioned, refugees have many psychological and somatic complaints [38]. To document this violence towards Syrian refugees and its effect, MSF has supported camps in Greece, conducted a quantitative and qualitative research investigation at sites in Greece (Ritsona camp near Athens, Katskikas camp near Ioannina, and Samos). The study aimed to determine the levels and type of violence experienced by refugees in their home communities, during their journey, and during their stay abroad. It also looked at the types of perpetrators, and the prevalence of anxiety and other mental disorders [35]. MSF used the Refugee Health Screener 15 (RHS-15) as their investigative tool. They found that over 92% of the participants screened positive for anxiety. Up to 75% experienced a violent act in Syria and over half experienced a violent act on their journey to Greece. The violence, as expected, decreased from Syria to Turkey and from Turkey to Greece. However, there were violent acts reported in Greece [39]. Most refugees felt oppressed by daily stressful events such as poverty, poor housing, isolation, societal marginalization, and changes in family structure [40–42].

To further elucidate the plight of Syrian refugees in Greece, in particular, Poole et al. studied major depressive symptoms and risk factors [43]. It is of interest that most migrants are normally healthier than the host populations [44]; this is called the "healthy migrant effect." However, refugees/migrants fleeing conflict zones are not, and they face an increased prevalence of mental health problems [45]. Major depressive disorder (MDD) undermines individual and family functionality, which is imperative for survival, resettlement, and acculturation [46, 47]. MDDs occurred in 44% of the population studied. Women had significantly increased odds of MDD. Globally, women have 50% more MDDs than men [48]. The prevalence of MDD did not differ by age or educational level; however, increased time of displacement and time in the asylum process in Greece seemed to increase the likelihood of MDD. The odds of MDD increased by 15% for each additional month an individual was in the asylum process. The prevalence of MDD was 10× higher in Syrian refugees that in Syrians in pre-conflict times and generally across the globe [49, 50]. There is some evidence that MDD may lessen as the time since leaving the area of conflict increases [51].

The destruction done to individuals, families, and the mental health infrastructure of countries that accept refugees, is cataclysmic and ongoing. This is only compounded by a lack of information about legal procedures and an uncertain future in the countries in which they are encamped [35].

5. Women's health

The plight of refugee women is difficult and perilous [52, 53]. While most of the refugees coming to Greece and Europe from the Middle East were initially men, women have been making the difficult trip in increasing numbers since 2016 [54]. Global figures show that 80% of the refugees and internally displaced people are women and children [55]. The displacement of families because of war has led to insecurity and vulnerability. Women are subjected to violence in their conflict-ravaged countries, during migration out of their country, and after their arrival in camps and refugee centers at their destination [52, 53]. Sexual and gender-based violence (SGBV) has become a significant burden to refugee women.

In war zones the terror is very straight forward. Bombs fall, soldiers from all sides of a conflict (whether from the Islamic State of Iraq and Syria (ISIS), the Syrian army proper, or Syrian rebels) rape women, kill family members, and steal possessions [52]. Violence during their journey of escape and migration comes, for the most part, from those who are supposed to help them, or claim to help them. Clearly, women traveling alone or with children are extremely vulnerable; however, even women travelling with men also do not have absolute safety.

Frequently, women are first victimized at the hands of smugglers who offer to help them and their children get to Europe for a price that includes "transactional sex." If transit to the European Union (EU) becomes more difficult due to the closing of more border crossings (EU—Turkish agreement of March 2016) [9] or the bombing/destruction of smuggler's boats (as proposed by the United Nations for the transit of refugees) [56] it is "likely that the demand for smugglers, and the price that they ask for facilitating the passage into Europe will increase [52]." A second opportunity for violence occurs at the hands of Turkish police and coast guard as women and their families try to flee to Greece [52]. A third threat along the road of migration comes from fellow male travelers. Even after reaching refugee camps women are frequently frightened to leave their tents at night (or at any time) due to the threat of rape by men in the camp [52]. The stress of flight from a war zone

and life in a refugee camp may lead to both verbal and violence from husbands. Psychological stress leads to SGBV and intimate partner violence [53]. This type of violence is a manner in which to eliminate feeling of helplessness and many refugee communities experience it [57]. It is of interest that SGBV is a reaction to something dangerous post immediate conflict [53, 58]. In 2015, the organization UN Women estimated that 35% of women are physically abuse or raped at some time in their lives [59].

Two other factors have exacerbated the plight of refugee women: (1) there are no clear policies at their first destination point in the EU (or for that matter, at any intermediate or final destination point) regarding whom to report physical or sexually abuse and (2), as alluded to above, the lack of an adequate accommodations increases their insecurity [52]. The above difficulties are all complicated by the fact that there are no legal, regular routes of transit for refugees.

Once asylum seeking women refugees (ASWR) reach a destination outside their country of origin there are considerable barriers to the provision of health care [60]. The first barrier is the legal barrier. ASWR (and men and children) will have limited access to national health systems. Specifically, the sexual and reproductive health (SRH) rights of ASWR are often compromised because of their lack of knowledge on what their rights are and how to navigate the health care system of their host country. This may be compounded by a deficit of knowledge on the part of those who try to provide services to them [60]. A second barrier is one of geography. Refugees can be moved from camp to camp and find it difficult to develop a sense of trust regarding relief workers. A lack of trust and a discontinuity of care compromise an ASWR's SRH. A third barrier involves the differing administrative rules and regulations in host countries. Even those providing the health care do not know all the rules and regulations regarding refugees and what they may be entitled to [60]. Another barrier of significance, involves the socio-cultural aspects affecting an ASWR. Some cultures have strict gender roles, and some ASWR do not want to be examined by a male health care provider. Even in a situation where the woman is willing, their husband or extended family may object [61]. Simply disrobing to any extent or assuming a particular position for a physical examination can be challenging [37, 62]. The general mistrust by the refugee community of the host country is accentuated by the health provider's lack of awareness regarding the socio-cultural mores of the refugees. Finally, the economic barriers cannot be discounted. ASWR may not be able to find work, or may not be allowed to work by their husbands or family [60, 63, 64]. Janssens et al. points out that the merely the need to purchase contraceptives may be beyond an ASWR's reach because of cost [60].

Therefore, the provision of care for ASWR is anything but systematic and organized [65]. Through their journeys, the barriers they encounter, and the woeful inadequacies they confront in their host countries, ASWR are left with unaddressed or inadequately addressed serious issues such as adequate perinatal care, controlling their sexuality, depression, anxiety, discrimination, unmet health service needs, and even female genital mutilation in their host destination perpetrated by their male dominant culture [65]. ASWR are a group that needs local, regional, and national assistance from the host country. Healthcare providers must understand position of refugee women from every perspective and must endeavor to overcome barriers to respect and meaningful care.

6. Child health

The international public health community is concerned about childhood morbidity in the refugee camps of Greece. Kampouras et al. was one of the first groups

to investigate and report on the disease burden of camps among children [15]. They divided the illnesses that occurred over the winter of 2016–2017 into infectious and non-infectious categories. Children less than the age of 12 years were usually presented with infectious causes (nearly 81%). Infants, toddlers and children suffered from respiratory infections more frequently than adolescents and adults who tended to present with non-infectious diseases. The most common infections in younger patients included infections of the respiratory tract (67%), skin (23%), the gastrointestinal tract (6%), and the urinary tract (3%). Non-communicable diseases among the youngest were often due to disease of the gastrointestinal tract (20%), respiratory system (18%), surgical problems (13%), and allergies (10%). Infants had better health than children or toddlers. There was no association between illness and gender [15].

There is no doubt that non-breastfed infants are at a higher risk for infection, hospitalization and death than those who are breastfed [66]. Significantly, while 75% of the babies arriving in Lesbos, Greece, were breastfed, only 25% of those leaving Lesvos were still being breastfed. The reason behind this may be related to some non-government organizations (NGOs) giving out infant formula indiscriminately. Because refugee camps have problems with overcrowding and many of the refugees/migrants arriving at these camps are already in poor health the general hygienic conditions of the camps are not very good [67–69]. Therefore, once the breast-feeding stops, not only is the mother's immunity no longer passed on to the infant, but the use of formula is plagued by a lack of hot, clean water, poor sterilization of bottles and nipples and an unreliable supply of milk types.

This leads to a general concern for the growth and development of refugee children [70]. Growth abnormalities have been identified among Syrian refugees in Jordan and Lebanon, where acute malnutrition is low, but stunting of growth is high [71–73]. Stunting, defined as low height for age, usually occurs because of prolonged undernutrition or malnutrition as well as poor living conditions [70]. In addition to stunting micronutrient deficiencies and a lack of adequate mineral and vitamin supplementation (such as zinc, iron, and calcium) in children is also associated with increased mortality [70]. In 2016 Walpole et al. carried out a project in Northern Greece to assess this situation among refugee children [70]. They found a high prevalence of stunting among the children from 0-5 years of age (including infants). Walpole et al. reported that "a high body mass index in stunted children was a common finding raising concerns over long-term health outcomes and risk of non-communicable disease." This is essentially caused by chronic malnutrition as opposed to acute malnutrition. The rates of stunting for children in camps in Northern Greece were twice as high as that found in Jordanian camps. The children were exposed to a high amount of carbohydrate and fat, and very little protein. Micronutrient deficiencies were likely attributable to factors such as inadequate dietary intake by pregnant and breastfeeding mothers. Because of this finding a recommendation has been made to the Greek government to supplement micronutrients to children under 5 years of age, pregnant women, and women who are breastfeeding [70].

To avert important childhood diseases and decrease childhood morbidity an effective vaccination program must also be put into place. Until the spring of 2017, vaccination of refugee/migrant children was primarily accomplished by NGOs collaborating with the Greek Ministry of Health (MOH) [74]. Unfortunately, not all camps were equally covered by NGOs administering vaccines. This was particularly noted in camps that used hostels, hotels, and apartments for housing. In the spring of 2016, the General Directorate of Public Health of the MOH took over all vaccination activities under a program entitled "PHILOS-Emergency health response to refugee crisis." The program was implemented by the Hellenic Center for Disease

Control and Prevention, and was funded by the Asylum, Migration and Integration Fund of the European Union's Directorate-General for the Migration and Home Affairs.

In a one-year period from 2017 to 2018, PHILOS performed 57,615 vaccinations. This included 21,031 vaccinations for measles-mumps-rubella (MMR), 7341 for diphtheria-tetanus-pertussis (DPT), 7652 for poliomyelitis, 5938 for pneumococcal disease, 7179 for Haemophilus influenza type b and 8474 for hepatitis B. Unfortunately, vaccination coverage was still not consistent, and subsequent vaccination often dropped off. The rate of vaccination for the first MMR dose was greater than 80%. However, the follow-up dose dropped by nearly one half. For all other vaccines the rates were even lower. The rate of 50% for children aged 0–4 years had follow-up vaccine coverage fall to less than 25% [31]. While numbers of those vaccinated are available, the denominator remains elusive. The lack of "cultural mediators" among the refugee community was a large problem in follow through. This was compounded by refugees being moved between locations as some camps closed and other camps opened. Vaccinating refugee children must be a priority, because refugees have low baseline rates of immunization and encounter obstacles to getting adequate healthcare. While PHILOS had developed standard operating procedures and improved coordination of vaccination implementation, much more needs to be done for the refugee children in Greece.

While we have addressed the SGBV women/girls suffer above. Here we need to address the topic of street children in Greece and the sexual exploitation of refugee boys. While the problem with street children in Greece has been a topic of concern since, but not extensively researched, since the late 20th century (1990s) [75], the sexual exploitation of refugee boys is a particular and growing concern in the face of the refugee crisis currently exacerbated by the Syrian refugee crisis [76].

What is the definition of street children? Determining this can be difficult because the action and locations of children "in the street" are difficult to ascertain and evaluate [75]. There have been attempts at defining this term by the United Nations (UN), and the Council of Europe (CE). However, according to Atlantis et al. there is agreement that the term refers to "children and young people who have early street experience and who usually spend most of their time in the streets, in the sense that they use that location as the principal place of some of their main daily activities (such as working, eating, and sleeping) [75]." However, let us review the two primary definitions as provided by the UN and the CE. The UN definition is as follows:

> *"any boy or girl…for whom the street has become his/her abode and/or source of livelihood; and who is inadequately protected, supervised, or directed by responsible adults [77]."*

The CE has a similar, but somewhat different definition:

> *"Street children are children under eighteen who, for longer or shorter periods, live in a street milieu. They are children who live wandering from place to place and who have their peer groups, and contacts in the street. Officially these children may have as their address their parents' home or an institution of social welfare. Most significantly, they have few or no contacts with those adults, parents, school, child welfare institutions, social services, with a duty toward them [78, 79]."*

Why are these children in this position? Before the current immigration/refugee crisis, this was usually this is due to "family breakdown, unemployment, poverty, membership of a minority group, armed conflict, and natural disasters [75]."

While these reasons apply today, the vast majority of these days are due to armed conflict or threat of conflict and the above-mentioned reasons still apply, but are secondary to conflict. In 1986, world-wide estimates were as high as 80 million street children [79, 80]. The current crises in the Middle East and those of the Balkans in the 1990s, do not give hope to a lesser estimate from 30 years ago. Greece has an attraction for those fleeing the Middle East and Africa because of its location as a stepping stone into Europe, but it does not have the resources to adequately support the current flood of refugees.

In 1999–2002, most of the street children were male (75%) [75]. In the recent flood of refugees to Greece (2015), the situation has worsened (89%) [79, 80]. Freccero et al. enlighten us that the current immigration crisis "is increasingly defined by the unprecedented numbers of children crossing the Mediterranean Sea, many of whom are unaccompanied and separated children (UASCs) as defined by the United Nations High Commissioner for Refugees (UNHCR) and the Committee on the Rights of Children [81]." In 2015 90,000 UASCs applied for asylum in Europe, four times higher than the previous year, and in 2016 there were 63,000 (89% being male) [79, 82].

This has been a particular problem in Greece where a majority UASCs are between 14 and 17 years of age and are inadequately housed and accommodated [83]. Frecerro et al. makes us aware that sexual exploitation is illegal in Greece and that Greece is a signatory of the Optional Protocol to the Convention on the Rights of the Child on the sale of Children, Child Prostitution and Child Pornography [76, 84]. Nonetheless, the high visibility of UASCs in public has led to increasing reports of teenage boys being exploited sexually by older men for money [84–88]. Young boys and teens are the majority of UASCs, and while institutions and governments have been appropriately concerned about girls and women, young male UASCs have been left without adequate responses to their plight. The Greeks have debated and given serious consideration to three approached to prevention of this dilemma for male UASCs: (1) the use of secure shelters for prevention of abuse and protection, (2) improving life skills to empower better decision-making, and (3) direct cash distribution to the individual [76]. There are positive aspects to these proposals, however, there still remains much work to be done on their implementation, need for funding sources, and the subsequent evaluation of their effectiveness.

Gender-based violence programs for women have been sorely needed and some have been implemented. However, these young, male, UASCs must not be overlooked. Shelter, tools for survival, and guidance are necessary to ensure their welfare.

7. Violence in Greek refugee camps

Violence is on the increase in Greek refugee camps [89]. Gender-based violence has been addressed above. Disease, insects, cold, uncontrolled amounts of waste, impure water, congestion, and increased stressed have led to violence in the camps through short tempers [89]. There are frequent clashes, riots, and incidence of violence, compounded by only 72 people per toilet and 84 people per shower [90]. Furthermore, Greece is struggling with a new refugee/migrant influx of 10,000 in October of 2019 and the camps are always at the breaking point [91]. The situation is so dire that children as young as 10 years of age are attempting suicide [92]. These problems in the camps and the increasing number of refugees has been compounded by "A combination of right-wing, populist narratives, a sluggish Greek economy and lack of tourism" on once popular Greek islands "have also affected

the sentiment of the locals towards migrants and refugees." The communities that opened their doors in 2015 are no longer warm and receptive [91]. The possible of violence between refugees, between Greek citizens and refugees, and refugee suicide/suicide attempts remains disturbing. An international effort in support of the refugees and in support of the government of Greece is needed.

8. Human trafficking

Many of the previous sections spoke to the topic of human trafficking, sexual or otherwise, involving men, women, children and smugglers/traffickers. Here we would like to emphatically point out that the trafficking of people as refugees leaving, not only poverty, but violence, abuse of all kinds, and seeking political asylum because of the fear of reprisal, is common, almost unstoppable, and a stain on the human effort for justice and on the instruments and institutions of government.

Another term for mass migration/exodus of refugees/migrants can be termed "irregular movement." In mass movements of migrants/refugees, there is little evidence as to when, why, and how such a susceptibility arises [93]. The reader may have noticed a "fluidity" in the terms of these different categories; there is neither a linear nor obvious trajectory between the identities of "migrant," "refugee," and "trafficking victim [93]." Trafficking could lead an individual to becoming a migrant/refugee, or sometimes migrants/refugees are trafficked in their flight from harm's way. There are different types of exploitation for trafficking and this includes: trafficking for sexual exploitation, trafficking for labor exploitation, trafficking for the removal of organs, trafficking for criminal activity, trafficking for forced marriage, and trafficking for sexual and labor exploitation [93]. Those who are trafficked have particular vulnerabilities as pointed out by Brunovskis and Surtees: a paucity of resources, no legal status, inadequate knowledge regarding laws, rights, and assistance, barriers to language, lack of humanitarian aid availability, work scenarios that can lead to exploitation and abuse, threats to safety of self and family, and exposure to violence and abuse with communities and families [93].

Populations moving irregularly and/or migrants/refuges encamped for prolonged stays are extremely vulnerable to being trafficked. There is no State organization or instrument that can provide proper protection from exploitation. Efforts to protect migrant/refugees requires a multi-agency approach between regional, national, and international organizations, including "criminal justice, judicial engagement, human rights and development [94]."

9. Social determinants of disease

It is evident from the above discourse that social determinants of disease effect refugees/migrants. A person's health is influenced by many factors, and these can be placed into five categories [95]. These categories include genetics, behavior, environmental and physical aspects, medical care, and social factors, i.e., social determinants of disease or health. In fact, migration, in and of itself, is a social determinant of disease [96]. Any meaningful endeavor to improve refugee health will depend on those who make policy and provide funding, as well as clinicians and public health officials and professionals. Movements of populations act as social determinants of disease of health in two ways. As previously stated, the first factor of just trying to get to safety or a better life through hostile areas presents a variety of health risks [97], and the second involves just being a refugee or migrant because this status "limits behavioral choices and, indeed, often directly impacts

and significantly alters the effect of other social positioning such as race/ethnicity, gender, or socioeconomic status, because it places individuals in ambiguous and often hostile relationships to the state and its institutions, including health services [98]."

The World Health Organization has created a Commission on the Social Determinants of Health in order to eliminate health inequities [95]. This commission wished to improve the daily life of populations, address the problems of distribution of power, money, and resources, and measure, evaluate, and act on these problems. This is a noble undertaking, however, if being a refugee or migrant is a social determinant of disease (and a significant one), then the policies and politics of war, religion, and genocide must be solved. This is a daunting, formidable, and seemingly insurmountable task at this time.

10. Conclusions

Many of the over one million refugees who have passed through Greece have been exposed to severe physical and mental trauma in their land of origin, on their routes of escape, and in the camps themselves. Their well-being necessitates physical security, food security, shelter, and a means of re-entering a safe society. More efforts are needed by the international community to ensure these necessities are put into place. More specifically, more attention must be directed to the security of women, girls, and male adolescents and their ultimate welfare, as well as encouraging refugees and migrants as to their rights as displaced people, services and legal options that are available to them. Furthermore, approaches to shelter, physical security, skill acquisition, and methods to assess and mitigate economic vulnerability must be pursued by institutions and governments. The dilemmas regarding the financial and manpower constraints of the Greek government in their ability to assist refugees and migrants must be addressed primarily by the EU and Middle Eastern nations in order to facilitate appropriate resolutions. These problems cannot simply be left at the doorstep of Greece. The ethics involving the plight of refugees and migrants in Greek camps require thoughtful and powerful approaches to resolve these difficult matters.

While the migrant/refugee problems related to Greece are highlighted here, it must be noted that there are still serious refugee matters in Syria (6.7 million refugees), Afghanistan (2.7 million refugees), South Sudan (2.3 million refugees), Myanmar (1.1 million refugees), and Somalia (0.9 million refugees), and these migrant/refugees face the same unenviable circumstances [99].

The authors hope that serious efforts are made on behalf of the refugees and migrants to ensure their well-being, while at the same time allotting resources to the Greek government so that the tasks that the European Union, the United States, and others expect the Greeks to execute can be accomplished in an efficient and empathetic fashion.

Author details

Thomas Papadimos[1*], Scott Pappada[2], Michael Lyaker[1], James Papadimos[3] and Andrew Casabianca[2]

1 Department of Anesthesiology, Division of Critical Care Medicine, The Ohio State University Wexner Medical Center, Columbus, OH, USA

2 Department of Anesthesiology, The University of Toledo College of Medicine and Life Sciences, Toledo, USA

3 The University of Toledo College of Medicine and Life Sciences, Toledo, USA

*Address all correspondence to: thomas.papadimos@osumc.edu

References

[1] Gulland A. Global refugee total reached almost 60 million in 2014, highest since WWII. BMJ. 2015;**351**:h6478

[2] Hunter P. The refugee crisis challenges national health care systems. EMBO Reports. 2016;**17**(4):492-495

[3] Kotsiou O, Kotsios P, Srivastava D, Kotsios V, Gourgoulianis K, Exadaktylos A. Impact of the refugee crisis on the Greek healthcare system: A long road to Ithaca. International Journal of Environmental Research and Public Health. 2018;**15**(8):1790

[4] Dedotsi S, Ioakimidis V, Teloni D-D. Refugee crisis in Greece: The development of racism, anti-racist responses and implications for social work. Comunitania. 2019;**17**:59-69

[5] Voulgaridou MG, Papadopoulos RK, Tomaras V. Working with refugee families in Greece: Systemic considerations. Journal of Family Therapy. 2006;**28**(2):200-220

[6] Skordas A, Sitaropoulos N. Why Greece is not a safe host country for refugees. International Journal of Refugee Law. 2004;**16**(1):25-52

[7] Triandafyllidou A. Greek immigration policy at the turn of the 21st century. Lack of political will or purposeful mismanagement? European Journal of Migration and Law. 2009;**11**(2):159-177

[8] Triandafyllidou A. Greek migration policy in the 2010s: Europeanization tensions at a time of crisis. Journal of European Integration. 2014;**36**(4):409-425

[9] Tagiadou I, Baskozos I. The challenge of a comprehensive health response to the refugee crisis in Greece. In: Refugee Migration and Health. Cham, Switzerland: Springer; 2019. pp. 149-159

[10] UNHCR. Peration Portal, "Mediterranean situation." UNCHR. United Nations Refugee Agency; 2018. Available from: https://data2.unhcr.org/en/situations/mediterranean

[11] Refugees UNHC. Global Trends: Forced Displacement in 2018. 2018. Available from: https://www.unhcr.org/en-us/statistics/unhcrstats/5d08d7ee7/unhcr-global-trends-2018.html

[12] Frontieres MS. Crisis Update. 2016. Available from: https://www.msf.org/syria-crisis-update-28-november-2016

[13] Frontieres MS. Dont't Turn Your Back on Asylum. London, UK: Medecins Sans Frontieres; 2016. Available from: https://www.msf.org/europe-dont-turn-your-back-asylum-takepeoplein

[14] Watch HR. Greece: 13,000 Still Trapped on Islands. 2018. Available from: https://www.hrw.org/news/2018/03/06/greece-13000-still-trapped-islands

[15] Kampouras A, Tzikos G, Partsanakis E, Roukas K, Tsiamitros S, Deligeorgakis D, et al. Child morbidity and disease burden in refugee camps in mainland Greece. Children. 2019;**6**(3):46

[16] Nations U. Syria at war: Five years on 2016. Available from: https://www.unescwa.org/sites/www.unescwa.org/files/publications/files/syria-war-five-years.pdf

[17] Rojek AM, Gkolfinopoulou K, Veizis A, Lambrou A, Castle L, Georgakopoulou T, et al. Clinical assessment is a neglected component of outbreak preparedness: Evidence from refugee camps in Greece. BMC Medicine. 2018;**16**(1):43

[18] Kousoulis AA, Ioakeim-Ioannidou M, Economopoulos KP. Access to health

for refugees in Greece: Lessons in inequalities. International Journal for Equity in Health. 2016;**15**(1):122

[19] Eonomopoulou A, Pavli A, Stasinopoulou P, Giannopoulos LA, Tsiodras S. Migrant screening: Lessons learned from the migrant holding level at the Greek–Turkish borders. Journal of Infection and Public Health. 2017;**10**(2):177-184

[20] Evlampidou I. Refugee crisis in Europe: Health status, life experiences and mental health problems of transiting refugees and migrants on the Balkan route in 2015. F1000Research. 2016;**5**

[21] Doganay M, Demiraslan H. Refugees of the Syrian civil war: Impact on reemerging infections, health services, and biosecurity in Turkey. Health Security. 2016;**14**(4):220-225

[22] MacPherson DW, Gushulak BD, Baine WB, Bala S, Gubbins PO, Holtom P, et al. Population mobility, globalization, and antimicrobial drug resistance. Emerging Infectious Diseases. 2009;**15**(11):1727

[23] Maltezou HC, Theodoridou M, Daikos GL. Antimicrobial resistance and the current refugee crisis. Journal of Global Antimicrobial Resistance. 2017;**10**:75-79

[24] Hermans MP, Kooistra J, Cannegieter SC, Rosendaal FR, Mook-Kanamori DO, Nemeth B. Healthcare and disease burden among refugees in long-stay refugee camps at Lesbos, Greece. European Journal of Epidemiology. 2017;**32**(9):851-854

[25] Theuring SF-JB, Portner K, Trebesch I, Durst A, Dieckmann S, Steiner F, et al. Screening for infectious diseases among unaccompanied minor refugees in Berlin, 2014-2015. European Journal of Epidemiology. 2016;**31**(7):707-710

[26] Nimer NA. A review on emerging and reemerging of infectious diseases in Jordan: The aftermath of the Syrian crises. Canadian Journal of Infectious Diseases and Medical Microbiology. 2018;**2018**:8679174

[27] Roussos A, Goritsas C, Pappas T, Spanaki M, Papadaki P, Ferti A. Prevalence of hepatitis B and C markers among refugees in Athens. World Journal of Gastroenterology: WJG. 2003;**9**(5):993

[28] Ackerman LK. Health problems of refugees. Journal of the American Board of Family Practice. 1997;**10**(5):337-348

[29] Kyrka A, Tragiannidis A, Cassimos D, Pantelaki K, Tzoufi M, Mavrokosta M, et al. Seroepidemiology of hepatitis A among Greek children indicates that the virus is still prevalent: Implications for universal vaccination. Journal of Medical Virology. 2009;**81**(4):582-587

[30] Mellou K, Silvestros C, Saranti-Papasaranti E, Koustenis A, Pavlopoulou ID, Georgakopoulou T, et al. Increasing childhood vaccination coverage of the refugee and migrant population in Greece through the European programme PHILOS, April 2017 to April 2018. Eurosurveillance. 2019;**24**(27):1800326

[31] Mellou K, Sideroglou T, Papaevangelou V, Katsiaflaka A, Bitsolas N, Verykouki E, et al. Considerations on the current universal vaccination policy against hepatitis A in Greece after recent outbreaks. PLoS One. 2015;**10**(1):e0116939

[32] Fotakis EA, Giantsis IA, Avgerinou A, Kourtidis S, Agathaggelidou E, Kapoula C, et al. Identification of Leishmania species in naturally infected sand flies from Refugee Camps, Greece. Emerging Infectious Diseases. 2019;**25**(2):361

[33] Georgakopoulou T, Mandilara G, Mellou K, Tryfinopoulou K, Chrisostomou A, Lillakou H, et al. Resistant shigella strains in refugees, August–October 2015. Greece. Epidemiology & Infection. 2016;**144**(11):2415-2419

[34] Ali PHSF, Krcmery V, Jankechova M, Putekova S, Kabatova J, Tkacova L, et al. Migrants are colonized by resistant bacteria during their prolonged stays in refugee camps. Clinical Social Work and Health Intervention. 2017;**8**(1):15-18

[35] Farhat JB, Blanchet K, Bjertrup PJ, Veizis A, Perrin C, Coulborn RM, et al. Syrian refugees in Greece: Experience with violence, mental health status, and access to information during the journey and while in Greece. BMC Medicine. 2018;**16**(1):40

[36] Europe UNHCoRBf. Desperate Journeys-Refugees and migrants entering and crossing Europe via the Mediterranean and Western Balkan Routes. 2017. Available from: https://www.unh/58b449f54.pdfcr.org

[37] Europe UBo. Desperate Journeys. 2017. Available from: https://www.unh/58b449f54.pdfcr.org

[38] Hassan G, Ventevogel P, Jefee-Bahloul H, Barkil-Oteo A, Kirmayer L. Mental health and psychosocial wellbeing of Syrians affected by armed conflict. Epidemiology and Psychiatric Sciences. 2016;**25**(2):129-141

[39] Nations U. More must be done to place Syrian refugees; conflict sees worst violence in months. 2017. Available from: https://refugeesmigrants.un.org/ar/node/100043137

[40] Miller KE, Omidian P, Rasmussen A, Yaqubi A, Daudzai H. Daily stressors, war experiences, and mental health in Afghanistan. Transcult Psychiatry. 2008;**45**(4):611-638

[41] Fernando GA, Miller KE, Berger DE. Growing pains: The impact of disaster-related and daily stressors on the psychological and psychosocial functioning of youth in Sri Lanka. Child Development. 2010;**81**(4):1192-1210

[42] Miller KE, Rasmussen A. War exposure, daily stressors, and mental health in conflict and post-conflict settings: Bridging the divide between trauma-focused and psychosocial frameworks. Social Science & Medicine. 2010;**70**(1):7-16

[43] Poole DN, Hedt-Gauthier B, Liao S, Raymond NA, Bärnighausen T. Major depressive disorder prevalence and risk factors among Syrian asylum seekers in Greece. BMC Public Health. 2018;**18**(1):908

[44] Zimmerman C, Kiss L, Hossain M. Migration and health: A framework for 21st century policy-making. PLoS Med. 2011;**8**(5):e1001034

[45] Fazel M, Wheeler J, Danesh J. Prevalence of serious mental disorder in 7000 refugees resettled in western countries: A systematic review. Lancet. 2005;**365**(9467):1309-1314

[46] Yoon E, Chang C-T, Kim S, Clawson A, Cleary SE, Hansen M, et al. A meta-analysis of acculturation/enculturation and mental health. Journal of Counseling Psychology. 2013;**60**(1):15

[47] Ventevogel P, van Ommeren M, Schilperoord M, Saxena S. Improving mental health care in humanitarian emergencies. SciELO Public Health. 2015. p. 666-667

[48] Organization WH. The Global Burden of Disease: 2004. 2004. Available from: https://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/

[49] Kilzieh N, Rastam S, Ward KD, Maziak W. Gender, depression and physical impairment: An epidemiologic perspective from Aleppo, Syria. Social Psychiatry and Psychiatric Epidemiology. 2010;**45**(6):595-602

[50] Ferrari AJ, Charlson FJ, Norman RE, Patten SB, Freedman G, Murray CJ, et al. Burden of depressive disorders by country, sex, age, and year: Findings from the global burden of disease study 2010. PLoS Medicine. 2013;**10**(11):e1001547

[51] Steel Z, Silove D, Brooks R, Momartin S, Alzuhairi B, Susljik I. Impact of immigration detention and temporary protection on the mental health of refugees. The British Journal of Psychiatry. 2006;**188**(1):58-64

[52] Freedman J. Sexual and gender-based violence against refugee women: A hidden aspect of the refugee "crisis". Reproductive Health Matters. 2016;**24**(47):18-26

[53] Jensen MA. Gender-based violence in refugee camps: Understanding and addressing the role of gender in the experiences of refugees. Inquiries Journal. 2019;**11**(02)

[54] Refugees UNHCo. Forced Global Displacement 2016. 2016. Available from: https://www.unhcr.org/globaltrends2016/

[55] Qayum MMS, Arooj H. Frequency and physical factors associated with gender-based violence in the internally displaced people of Pakistan. Journal of the College of Physicians and Surgeons Pakistan. 2012;**22**(1):63-65

[56] Sengupta S. UN wants to let Europe use military force to stop smuggling boats. New York Times. 2015. Available from: https://www.nytimes.com/2015/05/07/world/europe/un-wants-to-let-europe-use-military-force-to-stop-migrant-smuggling-boats.html

[57] Jasinski JL. Theoretical explanations for violence against women. In: Renzetti CM, Edleson JL, Bergen RK, editors. Sourcebook on Volence Against Women. London: Sage Publications; 2001. pp. 5-21

[58] Littlewood R. Militaray rape. Anthropology Today. 1997;**13**(2):7-16

[59] Chakrabarti S. Of Women: Inthe Twenty-First Century. London: Alan Lane; 2017

[60] Janssens K, Bosmans M, Leye E, Temmerman M. Sexual and reproductive health of asylum-seeking and refugee women in Europe: Entitlements and access to health services. Journal of Global Ethics. 2006;**2**(2):183-196

[61] Ascoly N, Van Halsema I, Keysers L. Refugee women, pregnancy, and reproductive health care in the Netherlands. Journal of Refugee Studies. 2001;**14**(4):371-393

[62] Mestheneos E, Ioannidi-Kapolou E, Gaunt S. Refugee Perceptions of Integration in the European Union. Groupe de travail sur l'intégration du CERE. Bridges and Fences: Bruxelles, OCIV; 1999

[63] Stronks K, Venema PU, Dahhan N, Gunning-Schepers L. ARTIKELEN-Allochtoon, dus ongezond?-Mogelijke verklaringen voor de samenhang tussen etniciteit en gezondheid geintegreerd in een conceptueel model. TSG-Tijdschrift voor Gezondheidswetenschappen. 1999;**77**(1):33-40

[64] Bartels K. Gezondheidstoestand. In: Grotenhuis R, editors. Van pionieren tot verankeren. Tien jaar gezondheidszog voorvluchingen. Ultrech: Pharos; 2003. p. 115-159

[65] Gagnon AJ, Merry L, Robinson C. A systematic review of refugee women's reproductive health. Refuge: Canada's Journal on Refugees. 2002;**21**(1):6-17

[66] Gribble KD, McGrath M, MacLaine A, Lhotska L. Supporting breastfeeding in emergencies: Protecting women's reproductive rights and maternal and infant health. Disasters. 2011;**35**(4):720-738

[67] Soares AA, Tzafalias M. Europe gears up to attend to refugees' health. Bulletin of the World Health Organization. 2015;**93**(12):822-823

[68] Bloch-Infanger C, Bättig V, Kremo J, Widmer AF, Egli A, Bingisser R, et al. Increasing prevalence of infectious diseases in asylum seekers at a tertiary care hospital in Switzerland. PLoS One. 2017;**12**(6):e0179537

[69] Pavli A, Maltezou H. Health problems of newly arrived migrants and refugees in Europe. Journal of Travel Medicine. 2017;**24**(4):1-8

[70] Walpole S, Abbara A, Gunst M, Harkensee C. Cross-sectional growth assessment of children in four refugee camps in Northern Greece. Public Health. 2018;**162**:147-152

[71] Bilukha OO, Jayasekaran D, Burton A, Faender G, King'ori J, Amiri M, et al. Nutritional status of women and child refugees from Syria-Jordan, April-May 2014. Morbidity and Mortality Weekly Report. 2014;**63**(29):638-639

[72] Hossain SM, Leidman E, Kingori J, Al Harun A, Bilukha OO. Nutritional situation among Syrian refugees hosted in Iraq, Jordan, and Lebanon: Cross sectional surveys. Conflict and Health. 2016;**10**:26

[73] Refugees UNHCo. Technical fact sheet: Nutrition situation-Syrian refugees response in Jordan. United Nations; 2014. Available from: https://data2.unhcr.org/en/situations/syria?od=7202

[74] Mellou K, Chrisostomou A, Sideroglou T, Georgakopoulou T, Kyritsi M, Hadjichristodoulou C, et al. Hepatitis A among refugees, asylum seekers and migrants living in hosting facilities, Greece, April to December 2016. Eurosurveillance. 2017;**22**(4):30448

[75] Altanis P, Goddard J. Street children in contemporary Greece. Children & Society. 2004;**18**(4):299-311

[76] Freccero J, Biswas D, Whiting A, Alrabe K, Seelinger KT. Sexual exploitation of unaccompanied migrant and refugee boys in Greece: Approaches to prevention. PLoS Medicine. 2017;**14**(11):e1002438

[77] Forum on Street Children and Youth. Grand Bassam, Ivory Coast: International Catholic Children's Fund; 1985

[78] Report F. Research Programme in the Social Field of Study: Group on Street Children. Strousbourg: Council of Europe; 1994

[79] Kurz G. Asylum applicants considered to be minors: Eurostat. 2018. Available from: https://ec.europa.eu/eurostat/documents/2995521/8895109/3-16052018-BP-EN.pdf/ec4cc3d7-c177-4944-964f-d85401e55ad9

[80] UNICEF. Exploitation of working children and street childrenFlorence Italy. 1986

[81] Rights of the Child Comment No. 6. Geneva: United Nation Committee on the Rights of the Child; 2005

[82] Asylum applicants considered to be minors. Eurostat; 2017. Available from: https://ec.europa.eu/eurostat/en/web/products-datasets/-/TPS00194

[83] United Nations High Commisioner for Refugees. Regional Refugee and Migrant Respose Plan for Europe. 2017. Available from: https://data2.unhcr.org/en/documents/download/52619

[84] Optional Protocol to the convention on the Rights for the Child on the sale of children, child prostitution and child pronography: United Nations Office of the High Commissioner; 2000. Available from: https://www.ohchr.org/EN/ProfessionalInterest/Pages/OPSCCRC.aspx

[85] Digidiki V. A harsh New Reality: Transactional Seex Among Refugee Minors As a Means of Survival in Greece. Boston; 2016. Available from: https://fxb.harvard.edu/2016/12/17/a-harsh-new-reality-transactional-sex-among-refugee-minors-as-a-means-of-survival-in-greece/

[86] Damon A. The teenage refugees selling sex on Athens Streets CNN; 2017. Available from: https://www.cnn.com/2016/11/29/europe/refugees-prostitution-teenagers-athens-greece/index.html

[87] Karas T. Young, Alone, Abused: Unaccompanited Minors Wish They Had Never Come to Greece: The New Humanitiarian; 2016. Available from: https://www.ohchr.org/EN/ProfessionalInterest/Pages/OPSCCRC.aspx

[88] Digidiki V, Bhabha J. Emergency within an emergency: The growing epidemic of sexual abuse and exploitation of migrant children in Greece. 2017. Available from: https://www.hks.harvard.edu/publications/emergency-within-emergency-growing-epidemic-sexual-abuse-and-exploitation-migrant#citation

[89] Pollak S. Violence and Disease in Overcrowded Greek Camp for Migrants. The Irish Times; 2019. Available from: https://www.irishtimes.com/news/world/europe/violence-and-disease-in-overcrowded-greek-camp-for-migrants-1.3631271

[90] Hammond R. Refugees Further Traumatized by Conditions in Greece's Moria Camp: Medecins Sans Frontieres. 2018. Available from: https://www.doctorswithoutborders.org/what-we-do/news-stories/story/refugees-further-traumatized-conditions-greeces-moria-camp

[91] Saleem A. Greece Struggles with New Migrant Influx—An Overview: Infomigrants; 2019. Available from: https://www.infomigrants.net/en/post/20068/greece-struggles-with-new-migrant-influx-an-overview

[92] Nye C. Children 'Attempting Suicide' at Greek Refugee Camp: BBC News. 2018. Available from: https://www.bbc.com/news/world-europe-45271194

[93] Brunovskis A, Surtees R. Identifying trafficked miegrants and refugees along the Balkan route. Exploring the boundaries of exploitation, vulnerability and risk. Crime, Law and Social Change. 2019;**72**(1):73-86

[94] Human Trafficking. Available from: https://www.unhcr.org/en-us/unhcr-human-trafficking.html

[95] NCHHSTP Social Determinants of Health. Centers for Disease Control and Prevention. Available from: https://www.cdc.gov/nchhstp/socialdeterminants/faq.html

[96] Fleischman Y, WIllen SS, Davidovitch N, Mor Z. Miegration as a social determinant of health for irregular migrants: Israel as a case study. Social Science & Medicine. 2015;**147**:89-97

[97] Zimmerman C, Kiss L, Hossain M. Migration and health: A framework for 21st century policy-makimg. PLoS Medicine. 2011;**8**(5):e1001034

[98] Castenada H, Homes SM, Madrigal DS, Young ME, Beyeler N, Quesada J. Immigration as a social

determinant of health. Annual Review of Public Health. 2015;**18**:375-392

[99] Mercy Corps. The World's 5 Biggest Refugee Crises. Available from: https://www.mercycorps.org/articles/worlds-5-biggest-refugee-crises