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HOW DOES THE SYRIAN REFUGEE CRISIS AFFECT PUBLIC HEALTH IN TURKEY?

Turkey's Syrian population has exceeded 2.7 million.² Looking at the distribution of Syrians in Turkey, one sees that the refugees are spread around the country. Socioeconomic integration of the Syrian refugees in Turkey is a priority item on the agendas of Government of Turkey, local governments as well as local and international NGOs. In line with this agenda, policy reforms and projects are being carried out in the areas of labour market, education and health services. In the domain of public health, general health screenings, including vaccinations, for refugees is provided at the borders. However, if the necessary vaccines need to be administered in multiple dosages, tracking the movement and residence of refugees becomes an issue. In this framework, this paper will attempt to (i) provide an account of Syria's public health indicators prior to and after the Civil War, (ii) outline the health policies that Turkey conducts within the frame of migration policies, and (iii) analyze Turkey's and Syria's immunization rates for selected diseases. As such, the purpose of the study is to point out areas related to health of refugees in the context of Turkey's public health and to discuss what can be practically done in the field.

¹ <http://www.tepav.org.tr/en/ekibimiz/s/1323/Esra+Ozpinar>

² Ministry of Interior Directorate General of Migration Management, Migration Statistics, Temporary Protection, 4 March 2016. http://www.goc.gov.tr/icerik6/temporary-protection_915_1024_4748_icerik

Syria made significant progress in fundamental health indicators in the past few decades, reaching the level of Turkey in most areas (see Table 1). By 2009, 77 percent of all deaths in Syria were caused by non-communicable diseases.³ Hence, communicable diseases did not constitute a public health threat in the years prior to the Civil War. Furthermore, there were no active communicable diseases in Syria that were extinct in Turkey.

Table 1. Health indicators prior to the crisis in Syria (1970 and 2009) and in Turkey (2009)

	Syria		Turkey
	1970	2009	2009
Life expectancy at birth	56	73	74
Infant mortality per 1000 live births	132	18	18
Under 5 mortality per 1000 live births	164	21	21
Maternal mortality per 1000 live births	482	52	27

Source: Syrian Arab Republic, Ministry of Health Statistics (2009) and World Bank

In relation with the crisis, health status of Syria has demonstrated a change especially in communicable disease patterns because of lack of nutrition and access to clean water. Occurrence of waterborne diseases that arise from contaminated water is exacerbated by the society's mobility. In Syria, 3.2 million children below the age of 5 are under the risk of malnutrition and 8600 of them suffer from acute malnutrition.⁴ Moreover, two thirds of the population does not have access to clean water. When comparing the current immunization rate of Syria with its pre-war levels, it is seen that the rate has significantly dropped from 80 per cent to 45 per cent.⁵ As such, current immunization rate of the Syrian population for diseases such as DTP and measles is similar to that of some Sub-Saharan countries like Somalia, Ecuador Guinea, and South Sudan which are possessing immunization rates below the 50 percent threshold.⁶ Several communicable diseases have reemerged (i.e. polio) or increasingly spread (i.e. measles, diphtheria, pertussis) as a result of the decline in vaccination coverage and worsening environmental conditions.⁷ All of these diseases, in fact, can be prevented if necessary sanitation and vaccination services are provided.

³ Syrian Arab Republic, Ministry of Health Statistics, 2009. Accessed on 10 March 2016
<http://www.moh.gov.sy/Default.aspx?tabid=254&language=en-US>

⁴ WHO, Syrian Arab Republic Annual Report 2015, 2016.
http://www.who.int/hac/crises/syr/sitreps/syria_annual_report_2015.pdf?ua=1

⁵ WHO, Regional Office for Eastern Mediterranean, 2013. <http://www.emro.who.int/press-releases/2013/disease-epidemics-syria.html>. Accessed on 16 March 2016

⁶ World Bank, Immunization, Measles and DTP

⁷ According to WHO approximately 2400 pertussis cases, 1600 suspected measles cases, 50000 cutaneous leishmaniosis cases were reported in 2015 in Syria.
http://www.who.int/hac/crises/syr/sitreps/syria_annual_report_2015.pdf

Syrians arriving to Turkey are vaccinated at the border crossings or in camps and they have access to public health services of Turkey. Within the scope of Temporary Protection Directive⁸, Syrians are able to receive health services with their temporary protection IDs issued by authorities. According to the protocol signed between Ministry of Health (MoH) and Disaster and Emergency Management Authority (AFAD), refugees can benefit from primary, secondary and tertiary healthcare services free of charge. However, refugees remain uninformed of these rights.⁹ One of the indicators for this is the increase in the number of leishmaniosis cases among people living in the Southeast Anatolia where majority of the Syrian population resides.¹⁰ As Syrians were started to be vaccinated for measles in border crossings after 2013, a number of refugees who have entered Turkey before this date are reported to have been infected with the disease and facilitated its spread as a result of their mobility.¹¹

Delivery of healthcare services to refugees in camps is carried out more systematically compared to those living in the cities. Nevertheless, the share of Syrians residing in camps only constitutes about 10 per cent of the total number of Syrians in Turkey.¹² As such, it is expected that healthcare services would function smoothly within the camps. In contrast, for those refugees residing outside the camps, frequently changing addresses and constant mobility may lead to public health institutions to lose track of patients and hinder timely delivery of preventive healthcare services.¹³ Due to various reasons such as absence of temporary protection IDs, language barrier and frequent address changes, delivery of and access to preventive healthcare services may become problematic.¹⁴ Aside from organizational problems, it is also observed that some refugees are inclined to hide their illnesses with the fear of being stigmatized and excluded from the community.¹⁵ While such cases are primarily detrimental to the involved patients, they also increase the risk of transmission of disease through interaction. Furthermore, poor conditions of dwellings and the high number of refugees residing in each dwelling have the potential to increase the likelihood and speed of disease transmission between Syrians.

⁸ Temporary Protection Directive, Official Gazette No: 29153, 22 October 2014.
<http://www.resmigazete.gov.tr/eskiler/2014/10/20141022-15-1.pdf>

⁹ At the “Conference on Management of Syrians in Turkey” which is organized by TESEV in October 2015, lack of coordination regarding management and lack of information provided to Syrians regarding their rights were highlighted. . http://tese.org.tr/wp-content/uploads/2015/11/ABnin_Goc_Politikalari_Cercevesinde_Turkiyedeki_Suriyeli_Gocmenlerin_Yonetimi.pdf

¹⁰ Hürriyet, Suriyeli çocuklardaki şark çıbanı korkuttu, 8 March 2015. <http://www.hurriyet.com.tr/suriyeli-cocuklardaki-sark-cibani-korkuttu-28394683> Accessed on 28 March 2016

¹¹ Turkish Medical Association, Publishments, Syrian Refugees and Health Services, 2014.
<http://www.ttb.org.tr/kutuphane/siginmacirpr.pdf>

¹² Ministry of Interior Directorate General of Migration Management, Migration Statistics, Temporary Protection, 4 March 2016.

¹³ Circular on Regulation of Syrian Refugees’ Mobility is announced during the conference on “Work Permit for Foreigners under Temporary Protection” held on 23 March 2016 in Ankara.

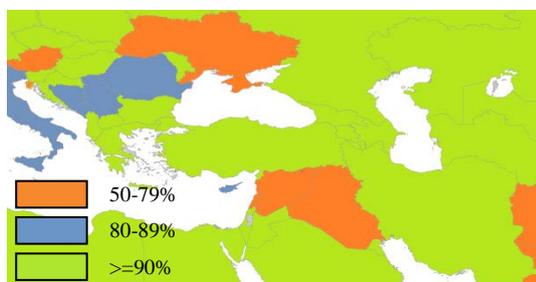
¹⁴ Turkish Medical Association, Publishments, Syrian Refugees and Health Services, 2014.

¹⁵ <http://www.syriadeeply.org/articles/2014/08/5953/syria-er-infectious-diseases-poised-spread-syria-iraq/>

Differences in the coverage of vaccination programs in Turkey and Syria indicate the diseases against which Turkey should implement effective and early interventions for Syrian refugees. The following are the diseases in which Turkey has higher immunization rates compared to Syria:

- (i) **Measles:** Measles is one of the deadly diseases that is observed in societies with poor sanitation conditions but can be easily prevented with vaccination. Measles vaccination coverage in Syria was 80 per cent in 2011 whereas it has fallen to 54 per cent in 2014. This figure is alarming especially for Turkey when considering the fact that Turkey hosts the largest number of Syrian refugees. In contrast to Syria, Turkey's coverage stands above 90 per cent; yet there is a decline from 98 percent in 2013 to 94 per cent in 2014.¹⁶ Figure 1 displays Turkey's surrounding region in terms of measles vaccination coverage.

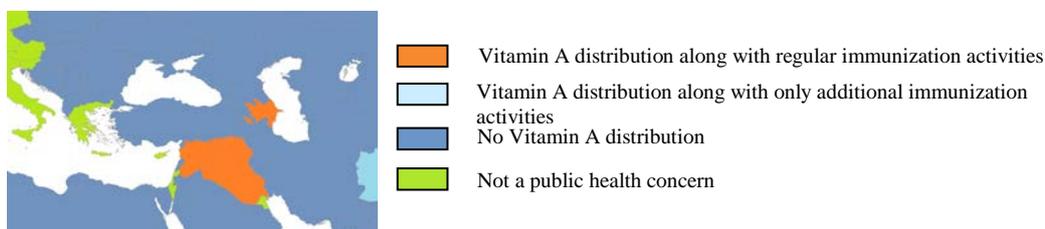
Figure 1. First dose of measles vaccine in Turkey and in the region, 2014



Source: WHO/UNICEF coverage estimates 2014 revision. July 2015.

- (ii) **Vitamin A Deficiency:** Measles consumes Vitamin A in the body. This is why, in countries where measles is frequently seen, Vitamin A supplement or vaccines are distributed to 6-59 months old children as a public health intervention. Since Turkey's measles coverage is high, there is no Vitamin A supplement program available for these purposes. Syrians coming to Turkey however, and especially children, are affected by measles and suffer from vitamin A deficiency. These families are beneficiaries of nutrition supplements and vaccine programs carried out by MoH and UNICEF.

Figure 2. Countries providing Vitamin A supplement, 2014

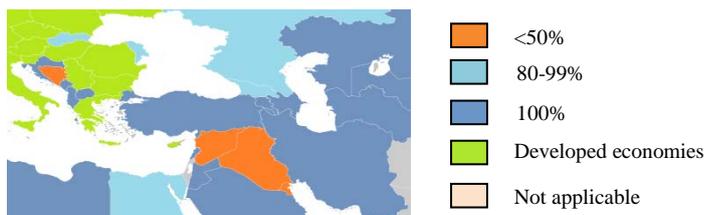


Source: WHO/IVB Database. July 2015.

¹⁶ World Bank, Immunization, Measles

- (iii) **Diphtheria, tetanus, and pertussis:** Diphtheria, tetanus and pertussis are among the leading causes of infant mortality in less-developed countries. A vaccine called DTP3 is developed to prevent these communicable diseases. DTP3 vaccine coverage is available in above 80 percent of Turkey's provinces, while fewer than half of Syria's districts reach the same level (Figure 3). Being a respiratory infection, pertussis is still one of the most severe communicable diseases, whereas the occurrence rates of diphtheria have declined since the end of World War II. Tetanus is always a threat for newborn babies and pregnant women. In late 1980s, for example, the rate of maternal and newborn mortality due to tetanus was 6.7 per 1000 live births. In time, the rate dropped through efforts in sanitation and hygiene. There is a 94 per cent reduction in 2013 compared to the level in late 1980s. The WHO still estimates however, that in 2013, 49 thousand infants lost their life due to tetanus.¹⁷ Taking into account the dire sanitary conditions in Syria nowadays, the risk of tetanus during child delivery is high. In Turkey, healthcare facilities are accessible for Syrian women during pregnancy and birth. Also, vaccination and nursing services are provided to Syrian newborns once they are registered in the system, according to the Temporary Protection Directive.

Figure 3. At least 80 % of DTP3 coverage by districts (%) in developing countries, 2014

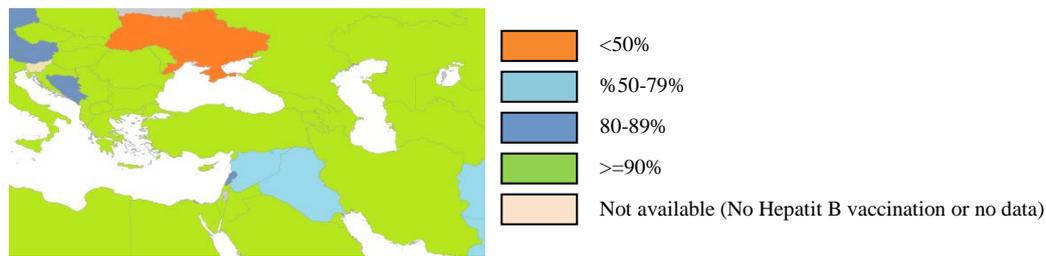


Source: WHO Database. July 2015.

- (iv) **Hepatitis B:** Turkey and Syria also differ in their coverage for Hepatitis B, a liver infection transmitted through blood or bodily fluids. Hepatitis B cases increase as a result of unhygienic conditions that create risks for reproductive health through insufficient medical interventions or delivery. In Syria, the range of Hepatitis B vaccine coverage varies between 50 to 79 percent. Turkey's regions on the other hand, have a range of coverage above 90 percent (Figure 4). It should be noted here that while vaccine coverage is vital in preventing the disease, it is equally important to inform people about reproductive health.

¹⁷ WHO, Maternal and Neonatal Tetanus elimination, 7 September 2015.
http://www.who.int/immunization/diseases/MNTE_initiative/en/

Figure 4. Third dose of Hepatitis B immunization rate in children, 2014



Source: WHO/UNICEF coverage estimates 2014 revision. July 2015.

- (v) **Pneumococcus:** Being malnourished in an unhygienic environment, as is often the case in conflict zones, can decrease the body's resistance to diseases. A decline in body resistance correlates with increased occurrences of pneumococcus, meningitis and septicaemia. The PVC13 vaccine plays a major role in combating these diseases. The level of PVC13 coverage in Turkey is above 90 percent, whereas the vaccine is not included in the public health program in Syria.¹⁸ The risk of infection and transmission is therefore high among internally and externally displaced Syrian populations.
- (vi) **Polio:** Polio has been eradicated in most countries, which is why its ongoing occurrence in Syria in 2013 is deeply worrying. Vaccination against polio is important to maintain Turkey's immunization in particular, and global immunization in general. Turkey receives refugees and immigrants not only from Syria and Iraq, but also countries such as Afghanistan and Pakistan where endemic polio cases have recently been observed. Additionally, Syria has been shown to be one of vulnerable countries against the polio virus.¹⁹ Wide-range vaccination programs are thus needed to eradicate the disease.

What to do?

Turkey needs to register refugees and track their health status. The Directorate General of Migration Management issues temporary ID cards when refugees first register. These temporary IDs allow refugees to benefit from healthcare services, including family doctors. According to the Circular on Administration of Health Services for Temporary Protection Beneficiaries (2015/8),²⁰ healthcare costs, excluding vaccination, will be collected not exceeding the tariff determined by the Social Security Institution (SGK). To clarify how this functions in real life, the author has contacted a family doctor working in Istanbul. According to the doctor, refugees are not turned away from health services even if they do not have temporary identities. This is especially valid when pregnancy or vaccination is the subject of the visit. There is, nevertheless, a problem of tracking patients at family medicine units, since the patients are required to follow their own appointments. Considering the living conditions of refugees and their mobile lifestyles, even if they are staying in the same province, few manage to regularly

¹⁸ WHO/IVB Database, 08 July 2015.

¹⁹ Global Polio Eradication Initiative <http://www.polioeradication.org/Keycountries.aspx> Accessed on 7 March 2016

²⁰ AFAD, Circular on Administration of Health Services for Temporary Protection Beneficiaries (2015/8), 2015. <https://www.afad.gov.tr/UserFiles/File/Mevzuat/Genelgeler/2015-8%20Genelgemiz.pdf>

show up for appointments. For example, vaccines such as poliovirus require several doses in periodic intervals. Refugees who get their first shot at the border following their arrival, need to be brought to health facilities for the following shots. For this purpose, it would be useful to implement appointment reminder system to track the patients' health. The reminder system via SMS or e-mail is considered as an innovative way to prevent no-shows at health services in U.S.²¹ Although such a system is present in Turkey, it is not applicable for all healthcare services or diseases. For instance, Turkish citizens are called on their phones to remind them of vaccination appointments. A similar system could be applied to refugees.

Turkey needs to boost its efforts in raising awareness about critical diseases. For instance, refugees should be informed about which health services they have free access to and health workers can be trained on how to treat refugee patients. The goal should be to prevent people who fear being stigmatized to fall outside the healthcare net. This will not only break the negative image that refugees can have due to potential diseases, but also improve public health. This would also enable refugees' integration into society, since self-confident and secure individuals can be more easily contribute to the well-being of their environments. Finally, this effort should be accompanied by additional services like health insurance, infrastructure, dwelling, and WASH (water, sanitation and hygiene). Improvements in these areas will also elevate the quality of life while preventing new diseases and the spread of existing ones.

²¹ SR Finkelstein, N Liu, B Jani, D Rosenthal, L Poghosyan. "Appointment Reminder Systems and Patient Preferences: Patient Technology Usage and Familiarity with Other Service Providers as Predictive Variables". *Columbia University*. <http://www.columbia.edu/~nl2320/doc/Health%20Informatics%20reminder%20systems.pdf>

Q Liu, K Abba, MM Alejandra, D Sinclair, VM Balanag, MD Lansang. "Reminder System to Improve Patient Adherence to Tuberculosis Clinic Appointments for Diagnosis and Treatment". *Cochrane Database of Systematic Reviews 2014*. Issue 11 Art No:CD006594. http://www.cochrane.org/CD006594/INFECTN_reminder-systems-to-improve-patient-attendance-at-tuberculosis-clinics