Holding Together for Curing This Wounded World

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Original Article

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Abstract:

The current crisis in Ukraine has not only caused endless human suffering, but also implies to the European Countries neighboring at Ukraine borders an important humanitarian task. However, currently in some journals concerns are raised against an immediate aid policy and towards uncontrolled receiving of refugees. These critics refer to the financial challenge of the European Community and raise concerns towards health hazards and public health risks probably linked to this humanitarian crisis.

Is there a health risk for European countries due to first aid programs supporting refugees from the Ukraine?

When a conflict like that occurring in Ukraine hits during a pandemic, the lack of global coordination of public health resources becomes more tragically obvious. The war in the Ukraine has indeed lead to incredible human suffering but the unity of the western states towards the refugees from the war regions is at the same time overwhelming and encouraging. Despite all positive aspects of these first aid social projects especially in countries close to the Ukraine e.g. Poland, Slovakia, Rumania and other countries, there might remain an increased risk for the health of the population in neighboring countries.

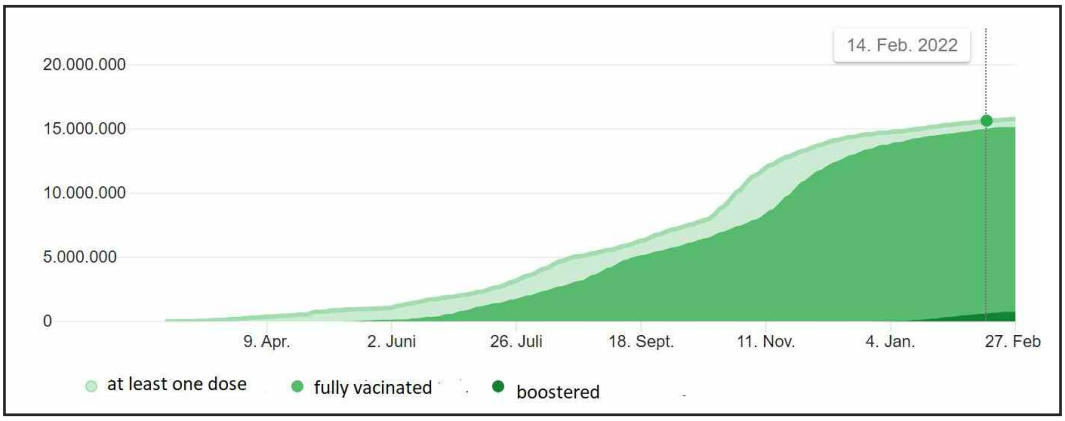
Reference has been made towards the fact, that 65% of major infectious disease outbreaks occurring in the 1990s were among refugee populations or in conflict zones according to World Health Organization (WHO)[1, 2, 3].

In Europe, the pandemic waves are now generally decreasing with only mild to none symptoms seen in infected ones and there is a strong tendency to reduce certain hygiene restrictions in these countries. In the same time, we realize that the Covid 19 pandemic is not over yet. Some countries of the European Union still register infection outbrakes and vaccination rates have not reached 100% nationwide. Even so-called vaccination breakthroughs in different areas prove that European Countries are still far from establishing a general stable immunity among their population[4].

Just before the invasion of Ukraine on Feb. 24, 2022 only about 35% of the Ukrainian population had been vaccinated against the Corona Virus. So, it has been questioned whether our background immunity in Europe is stable enough to absorb the infection pressure of millions of refugees. These low vaccination rates of the Ukrainian population are even in line with most of its neighboring countries, although some, including Poland and Hungary, have achieved higher vaccination coverage.While different health systems and varying attitudes about vaccination in those countries are contributing to those contrasting rates, Ukraine's relatively low vaccination rate could have implications for how large additional surges of cases, both in the country and in the region become as a result of the war. Like many other countries, Ukraine experienced a surge in cases due to the Omicron variant in November and another peak in the first week of February, most likely due to its low level of vaccination[5].

The increasing number of immigrants may indeed contribute now to a new health problem in Europe's unstable healthcare systems if we consider vaccination rates alone. On grounds of these numbers there may be a risk of an increasing new wave of Covid 19 infections in Europe due to the large number of refugees spreading into our countries without any health control[6].

Figure 1 Vaccination status of the population in the Ukraine at time of war beginning



Source: Reuters Covid 19 trackers. Comment: This vaccine role out data is projected by the numbers of doses vaccines administered and not by the number of people who have been vaccinated.

Critics of social first aid programs point to the fact, that by the middle of February 2022, 60% of COVID-19 tests conducted in the Ukraine were positive. And, as an official notice issued by the Robert Koch Institute in Germany on Friday 28 January 2022, Ukraine was listed as an international high-risk area implying that from 30 January 2022, a travel warning was issued by the Federal Foreign Office for Ukraine.

Source: Robert Koch Institute January 2022

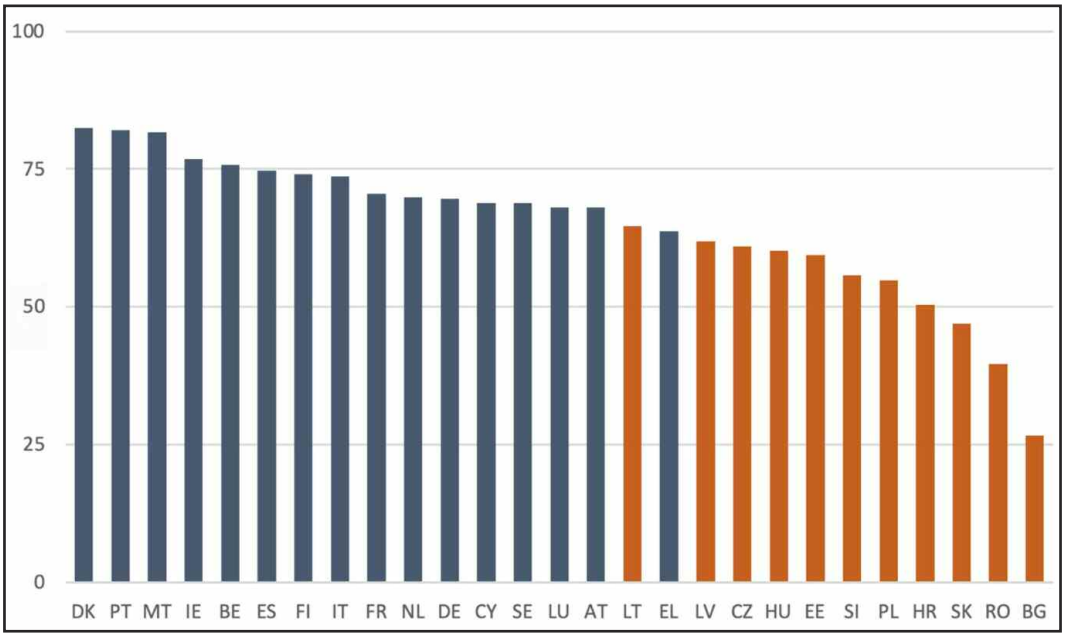
Such low vaccine coverage among Ukraine refugees does not seem to be enough in the eyes of critics to control a highly transmissible virus like SARS-CoV-2. They argue, that under war conditions with the political and social upheaval this situation may contribute to a potential emergence of new variant, which may put even our population at health risk. Hospitals might likely be hit hardest by the influx of refugees during the pandemic and war-related injuries will take precedence over COVID-19 care which will only make it easier for the virus to spread. That disruption may in turn lead to more infected health care workers who won't be able to perform their duties.

As a neighboring country, the Polish population is currently experiencing the strongest exchange with the refugees. It is just not for granted that surrounding countries have already reached a level of natural immunity in order to be able to take in refugees without risk to themselves. Prior to the influx, only 60% of Poland's population was vaccinated.

This situation exposes the weaknesses in the global biodefense network against threats like highly infectious coronaviruses according to critics. Even without a military conflict, gross inequities in health resources have led to profound differences in countries' ability to control COVID-19; developed nations have been able to purchase and distribute vaccines, while poorer countries, still struggle to contain the virus since they lack access to the shots. Eastern EU Member States (highlighted in orange in the figure below) have significantly lower vaccination rates than the EU average. This applies in particular to the tail lights in the EU: Slovakia (47.0%), Romania (39.6%) and Bulgaria (26.7%)[7, 8].

In fact, there is little doubt that the poor Corona immune status of refugees poses a direct

Figure 2 Percentage of fully vaccinated persons (without booster) in the total population of respective countries January 2022.



Source: Europäisches Zentrum für die Prävention und die Kontrolle von Krankheiten.

threat to our healthcare system as outlined before. The factors are obviously due to the fact that immunity to Covid 19 of the population in Europe is still vulnerable. Protective measures may not have been carried out in European Countries intensively enough to create a basic immunity in the population. There might remain a gap in the health prevention of the population. Should this fact impact social aid programs?

Humanitarian aid in the Ukraine at risk?

Presently, we already realizing an immense wave of willingness to help refugees both officially and in the private sphere which should not be reduced by any health concerns. In the end social aid programs are not only of help to refugees materially but also might be beneficial for helping countries.

Vaccination and mitigation measures such as mask-wearing, social distancing, and basic hygiene should be, of course, critical for curbing spread of SARS-CoV-2, but it is for granted that these measures are impossible to maintain when a country is under siege. War challenges every public health program. It limits the medical care available for those who might be seriously ill, and often fosters transmission when so many people are crowded into bomb shelter locations and on trains. This situation might turn indeed into a perfect storm of serious challenges even of our health system[9].

However, without downplaying this looming danger, we need to put the risk of infection emanating from the flood of migration into a proper perspective. From the view of Public Health including the understanding of the basics of Immunology and the course of the spread of the Sars Cov 19 Virus in different countries, there is hope that we will overcome this endemic threat under the ongoing aid program in Europe.

Epidemiological observations have taught us, that spreading of a contagious virus depends mainly on two factors: A) The pathogeny of the agent and B) the potency to resist the agent. The latter is referred to a proper immune response. Therefore, controlling refugees and selecting healthy from potential virus spreaders would be ideal from the point of view of Public Health. Unfortunately, there are still no easily recruitable immune parameters that can reflect such a reliable immunity[10].

Under these circumstances decision makers of Public Health need to continue a vaccination and booster campaign among refugees entering communal settings, especially those who are particularly vulnerable such as the elderly or people with underlying health conditions. Even in times of war with scarce vaccine supplies, this should be the primary goal. And, even if there are concerns arising that these programs will not be sustainable over a longer period this should not detract from the readiness to invest in active social aid programs.

Why should we remain positive towards the immunity of refugees?

Here we describe a hypothesis based on a deeper understanding of immunological principles, which in fact is in favor of the extension of more social aid programs despite the possible threat of increasing infections in our populations. According to our understanding, social aid programs and welcoming refugees do not have to lead to an increased infection rates in the population despite adverse circumstances.

For one, present data suggest that Omicron leaves less severe clinical cases in general[11]. And also we have to point to the fact, that resistance against virus exposure is not based merely on the specific adaptive immune system of humans alone[12]. This is why the vaccination status does not represent the entire immune status of refugees.

The specific immunity against corona virus is supported by *a non-specific immune system* considered also as *natural immunity*. The functioning of this innate immune system makes a decisive difference in viral attack. Especially with virus infections, it has been shown that the natural immunity of humans is a reliable factor for health even in cases of less active specific immunity. In the recent two years, people with poor health and a less active innate immune system have become victims of severe infections much more frequently than people in good health[13, 14, 15].

Although both the innate and the specific immune systems are closely related and act together in the defense of foreign germs these two different angles of the immune system are still subject to different stimulations and interactions.

The innate immune system acts as the body's first line of defense quickly against virus attack.

It consists of natural body barriers as well as humoral (proteins) and immune cell components such as scavenger's cells neutralizing germs. A third very essential role of innate immunity is related to Natural Killer Cells. Natural Killer (NK) Cells are lymphocytes which respond quickly to a wide variety of pathological challenges such as virus infections. Natural Killer Cell activity plays a decisive role in our immunity and protection against viruses as they recognize the lack of a self-tissue molecule on the surface of cells (characteristic of many kinds of virally infected and some cancerous cells) and lyse those cells by releasing toxic substances on them. Natural Killer Cells are therefore thought to be important in limiting the early phases of viral infections, before specific immunity becomes effective[16, 17, 18].

Current research from the new field of psychoneuroimmunology refers to interesting connections between stress and the human immunological response capacity. Obviously, duration of the emotional „challenge" or immunological stimulus has a strong impact on the human innate immune system[19]. However, it has been shown, that acute stress motivates the native immune response whereas constant stress reduces the effectiveness of this strong natural immunity[20, 21, 22, 23, 24].

On the grounds of these findings we hypothesize, that despite health concerns the immediate and constructive aid offered to refugees will facilitate the situation not only from a humanitarian and material point of view but it will also contribute to a certain stress relief among the refugees. The realization of such many helping hands may encourage refugees and will help improve their predicament. So, actually by reducing their stress, we also boost their immunity.

Conclusions

There are obvious and realistic concerns with reference to social aid programs under present pandemic conditions. However, we conclude, that charity programs not only benefit the refugees, but will also contribute to a better and more efficient immune system for refugees as it may help to reduce their stress impact. To improve the situation for refugees is therefore rewarding in two ways; for the refugees and for the helping population. Reducing the stress of refugees may in the end contribute a stronger immunity and a healthier population. Countries opening their borders for refugees will be rewarded for their gesture of humanity by a reduced infection pressure among refugees which in turn benefits the general population

Obviously there lies quite fundamental truth in the famous words: „Giving makes you happier than receiving." Supporting humanitarian aid projects to help refugees does not only correspond with Christian challenges but may be also rewarding in itself. We therefore should support the ongoing aid programs and expand our humanitarian aid wherever possible despite the possible health risks that these efforts may entail.

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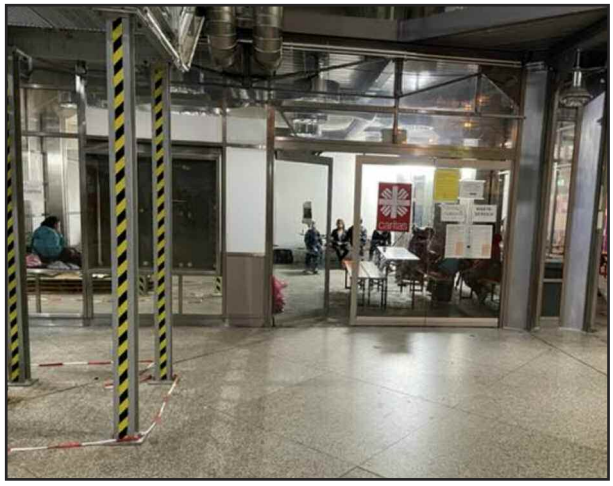

Photos taken from the First aid station at Munich Central Station welcoming refugees from the Ukraine and offering first aid.

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