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# Influenza vaccination in Poland – it's time to close the health gap!

Maciej Dariusz Zatonski

Associate of the European Observatory of Health Inequalities, the President Stanisław Wojciechowski State University of Applied Sciences, Kalisz, Poland

**ADDRESS FOR CORRESPONDENCE:** Maciej Dariusz Zatonski, European Observatory of Health Inequalities, State University of Applied Sciences in Kalisz, 13 Kaszubska Str., 62-800 Kalisz, Poland, e-mail: [public.mz@gmail.com](mailto:public.mz@gmail.com)

According to the Centers for Disease Control and Prevention, during the 2016/2017 season influenza vaccines prevented an estimated 5.3 million influenza illnesses, 2.6 million influenza-associated medical visits, and at least 85,000 influenza-related hospitalisations in the United States (US) alone [1]. In seasons when the World Health Organization (WHO) predictions matched circulating strains, influenza vaccines were shown to reduce the risk of having a medical intervention for influenza by 40-60% [2]. Influenza vaccinations were shown to reduce the risk of admissions to intensive care units, reduce hospital admissions for all influenza-like illness, and reduce mortality in people with diabetes, lung, and heart diseases [3-6].

And yet, the vast majority of countries, including most European Union (EU) states, fall short of the WHO vaccination target of 70% of the eligible population [7, 8]. In Poland, in the last influenza season less than 4% of the population were vaccinated against influenza. As a result, in 2016-2017 over 4 million cases of influenza were recorded, including about 100 influenza-related deaths [9].

Despite the best efforts of researchers, there is no universal vaccine available yet that would protect against all possible mutation of the influenza virus. However, evidence from other countries shows that this factor alone is not necessarily an obstacle to achieving high vaccination rates. Costs of implementation of universal influenza vaccination programmes might initially seem high but would very likely bring immediate and significant cost savings, while greatly reducing morbidity and mortality.

According to an article by Dr. Michał Seweryn published in this issue of the *Journal of Health Inequalities*, the combined cost of influenza-related pulmonary hospitalisation and productivity loss due to work-related

absence in Poland is estimated to be around PLN 168.7 million [10]. The real costs are likely to be significantly higher, due to the conservative approach used in the simplified model. Increasing influenza vaccination coverage in Poland to levels similar to those in the UK would likely result in savings to the Polish economy in excess of PLN 58 million.

There are multiple factors influencing the decision not to vaccinate. In Poland, the lack of knowledge and awareness among healthcare professionals and general public and low trust in public health campaigns contribute to the problem. Difficulty in accessing private vaccination services, due to cost and/or time required to book appointments early enough to receive vaccination prior to the start of the season, is another potential driver of low uptake in Poland.

My personal experience illustrates these obstacles well. I arrived in the UK over 7 years ago, together with my wife and 2 children. My youngest daughter was born in London over 5 years ago. Having previously worked in Poland as a healthcare professional, I have proactively tried to keep my family and myself immunised against influenza. In order to vaccinate myself, in Poland I would need to remember about the upcoming season and book an appointment in advance with my GP. This would usually require me to take a day off work (and/or to take my children out of school). There was no encouragement from the hospitals, and the local occupational health departments did not offer seasonal influenza vaccination. The same process would have to be repeated for all family members. Due to the costs, complexity, and time required to schedule and complete the vaccination, there were years in which not all of my family members would be protected.

In contrast, obtaining a seasonal influenza vaccine for all family members in the UK is significantly easier. The occupational health department in my hospital or university would offer a suitable appointment during my working hours, and perform the vaccination on site and free of charge. They would also notify my General Practice to ensure that my doctor's medical records are up to date. When my wife was pregnant, she would receive an invitation to visit her GP to protect her and our unborn baby from influenza. She could also receive the vaccine during her routine pre-natal appointments. My children would be automatically offered influenza vaccinations at their schools. If someone falls outside of high-risk groups and is not automatically eligible for a free influenza vaccination, they can make an appointment with their GP, or simply walk straight into any pharmacy that offers vaccination services, where after a short consultation they would receive the vaccine for a small fee.

On top of inefficiencies in the system of delivering vaccines in Poland (for example, lack of school vaccination programmes), there is a significant level of disinformation and misinformation coming from Polish national media, social media, and from some politicians and minor celebrities. Vaccinations are frequently pointed out as one of the greatest contributions to Public Health, yet the WHO has recognised the reluctance to vaccinate despite the availability of vaccines among top 10 greatest threats to global health in 2019 [11, 12]. Anti-vaccination movements have been misinforming the public on vaccination safety since the mid-1800s. Until recently, anti-vaccination movements had a relatively low impact on the uptake and implementation of universal vaccination programmes. In recent years, however, there appears to be a new wave of disinformation and misinformation in the EU and US, perhaps driven by foreign governments, and enabled by new technology [13]. Automated bots and social media messaging appear to be used to spread fraudulent and/or false information about vaccinations to wide audiences, with very little effort, and at low cost. According to US researchers, Russian social media bots have been spreading disinformation about vaccines to create social discord since at least 2014 [14]. Since even a relatively small drop in overall vaccination rates will result in loss of herd protection, such disinformation campaigns can effectively lead to destabilisation of the social, economic, and epidemiological situation in many countries. Recent outbreaks of nearly forgotten diseases in Europe appear to validate these concerns [15].

## DISCLOSURE

The author reports no conflict of interest.

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