

Editorial

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Volume 1 : Issue 1

Article Ref. #: 1000VROJ1e001

Article History

Received: January 25th, 2016

Accepted: January 27th, 2016

Published: January 28th, 2016

Citation

Sun C. Some problems of vaccination campaigns in developing countries. *Vaccin Res Open J.* 2016; 1(1): e1-e2. doi: [10.17140/VROJ-1-e001](https://doi.org/10.17140/VROJ-1-e001)

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Some Problems of Vaccination Campaigns in Developing Countries

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Vaccination offers the most cost-effective approach to prevent and control infectious diseases in the history of mankind.¹ The English physician Edward Jenner introduced smallpox vaccine in 1798. It is the first successful vaccine to be developed. Since then a series of vaccines have been developed and come into use; for example, the influenza vaccine, the hepatitis B vaccine, and the polio vaccine. The World Health Organization (WHO) reports that licensed vaccines are currently available to successfully combat against twenty-five infections.²

Recently the potential epidemics of two infectious diseases have stepped into the spotlight: diphtheria resurgence in Denmark³ and swine flu (H1N1) outbreak in Ukraine.⁴ Danish authorities announced in this January that unvaccinated refugees have brought deadly diphtheria into the country after 20-year absence. For other European countries, it was reported that asylum seeker have also been found to carry tuberculosis and malaria. Flu activity most commonly peaks in the northern hemisphere between December and February. In Ukraine, the H1N1 influenza virus has killed more than 50 people in this January so far, and moreover, the infection cases are growing, and many young people have fallen ill. The virus is approaching, or might have reached, epidemic levels in parts of the country. Swine flu (H1N1) has caused deaths in Russia and other former Soviet republics as well such as Armenia and Kazakhstan.

That vaccine-preventable diseases are rampant in developing countries may be induced by the following factors:

- Many people cannot afford to finance vaccine research or purchase the vaccines such that they are still not benefiting from vaccination.
- Both doctors and the general population lack a culture of vaccination in developing countries. Before or during an epidemic, the number of physicians suggesting their patients to be vaccinated is extremely low, and the percentage of those who have actually received their immunization is practically non-existent. More seriously, people are used to not seeking treatment until the disease has progressed to a difficult-to-treat stage.
- Anti-vaccination rumors contribute to the seriousness of preventable disease outbreak. In Eastern Africa and South and West Asia some individuals and media organizations spread rumors that oral polio vaccine was contaminated with Human Immunodeficiency Virus (HIV) and anti-fertility drugs. Another rumor says that vaccines cause child autism. Afghanistan and Pakistan account for the vast majority of polio cases globally and are the only two countries where it remains endemic. Some militant groups prohibit polio vaccinations and have attacked health workers. They claim that the polio vaccination drive is a front for espionage or a conspiracy to sterilize Muslims. Some Pakistani parents are against vaccination as well and they believe they are part of a Western plot to sterilize children.⁵
- Corruption in the health sector can mean the difference between life and death. Poor people are usually worst affected by graft. Corruption costs lives when fake or adulterated medications are sold to health services. This can lead to the public distrust in health system. As to fake and/or out-of-date vaccine, in 2009 more than 1,600 people in Guangxi Zhuang Autonomous Region, China have been injected with fake rabies vaccine and at least one boy died as a result⁶; hundreds of children from central Chinese province of Henan suffered serious health problems after being given out-of-date vaccines in 2014.⁷

What is so inspiring is that the Global Alliance for Vaccines and Immunization (GAVI) Alliance, a public-private global health partnership established in 2000 has been committing to increasing access to immunization in poor countries. GAVI has raised money for vaccines to save the lives of millions of children every year; United Nations Children's Fund (UNICEF) is helping countries with the training of health workers and helping governments set up the systems around communicating with parents and caretakers so that they understand why it is important to immunize their kids, and what they can expect from these vaccines; in addition, The WHO, UNICEF, The World Bank and other agencies and officials are stopping vaccine rumors by combating fear with knowledge and evidence, not with coercion.

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