



IFMSA Policy Statement Vaccination

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Summary

We, the International Federation of Medical Students' Associations (IFMSA), recognize the great importance of vaccines and immunization programs. Vaccine and immunization programs have led to enormous decrease in morbidity and mortality rates from communicable diseases in the past, and are still highly relevant, especially in low- and middle-income countries (LMIC). Vaccination has been proven to be one of the most efficient public health measures, preventing an estimated 2.5 million deaths each year (1).

Comparing the high-income countries on the one end and LMIC on the other, their problems are immensely different. Whilst LMIC still face the issue of inequitable access to vaccines, anti-vaccination movements are rising in high-income countries (HIC) in spite of undeniable success of vaccination programmes. To avert the above mentioned problems there is a need to join efforts for education and facilitation of public discussions, which will inform people about importance of immunization following the World Health Organization's (WHO) recommendations for Routine Immunization (2). This will not only stimulate better understanding of the necessity and importance of investing and improving vaccination programmes, but will also raise awareness about the harm and lack of evidence for the anti-vaccine movement.

Vaccination does not only provide an individual protection, but has a rather higher impact on the health of the population, including those not eligible for it. As medical students, we have the responsibility to raise awareness about the benefits of vaccination among all stakeholders, including governments, medical and professional societies and the public, while stressing the severe repercussions resulting from low vaccination coverage (1).

Introduction

Immunization and equitable access to vaccination are recognised as a core components of the human right to health (1). By improving access to early childhood vaccines, especially diphtheria-tetanus- pertussis-containing vaccine (DTP3) and measles-containing vaccine, a large number of future deaths can be averted. Children that have received vaccines early in their lives have a better chance of thriving in the future. These advantages are further increased by vaccination in adolescents and adulthood (1).

Coverage gaps persist between, as well as within countries. Discrepancies are high, especially with 15% lower coverage of DTP3 in low income countries than in HIC, as well as coverage of measles-containing vaccines in rural areas being 33% lower than in urban areas (1). Reaching underserved populations, especially transitory migrant populations and people affected with natural disasters or conflicts is challenging, but inequities need to be tackled because these populations often carry a heavier disease burden and may lack access to medical care (1).

Also, high immunization coverage is crucial in achieving the goal of eradicating poliomyelitis. The Global Polio Eradication Initiative (3) has reduced polio by 99%, however polio still survives among the world's poorest and most marginalized communities. Since polio has potential to spread from endemic to other



countries with less-than-adequate vaccination it is crucial to sustain high percentage of vaccinated children in all communities already vaccinating against polio (4).

Not only human vaccines play a role in eradication of diseases. For instance, the most effective measure for controlling rabies is mass vaccination of dogs and other carrier mammals. Outbreaks of rabies and loss of 55 000 lives per year can be prevented with sufficient funding, effective health structure, and improved cooperation with agricultural sectors, currently not implemented in LMIC (5)(6).

Introduction of new and improved vaccines targeted against several important causes of deadly diseases (eg. rotavirus, shigella (7), Haemophilus influenzae B, human papillomavirus) places a new challenge for governments, communities and health professionals. The number of health care workers, as well as their individual knowledge and skills, need to be improved and better coordinated in order to reach the highest possible standards in delivering and administering vaccines. Furthermore, joint efforts need to be made in order to shorten time lag in the introduction of new vaccines between HIC and LMIC (1).

Affordability of vaccines is often the problem in middle income countries (MICs) who are not eligible for GAVI support. Some of the strategies to enhance access to affordable vaccines worldwide include promoting price transparency, increasing competition through an expanded manufacturer base and creating new models of vaccine development (6). Price transparency can help countries assess whether or not they are getting equitable prices compared to other countries, and it can help to achieve lower prices by changing procurement practices (13). Transparency also requires that safety and effectiveness profile of vaccines needs to be made accessible and understandable in a timely manner. Low prices and free access to research data are a critical part of sustainable immunization programmes, thus transparency suggests that more countries could afford to introduce life-saving vaccines into their health systems, and more people would have access to a wider range of vaccines and improved standard of health (6).

Outbreaks of vaccine-preventable diseases are detrimental to people's health as well as costly, requiring significant resources such as human labour. Seen from two prominent examples of measles outbreaks - 5 measles outbreaks in 21 states and in the District of Columbia in the United States in 2015 (8) and measles outbreak in South Africa with more than 18 000 confirmed cases over the time period of 2009 - 2011 (9). The Centres for Disease Control and Prevention (CDC) estimates that for every \$1 the U.S. spends on childhood vaccinations, \$10.20 is saved in disease treatment costs (10). This signifies that the current relation between the cost of vaccination and the cost of treating the consequences of vaccine-preventable disease is approximately 1:10, therefore implying vaccination saves billions of dollars every year spent on treating the vaccine-preventable diseases.

In some countries there is increasing hesitancy towards immunization programmes and use of vaccines (11). Nevertheless, growing availability of information can as well boost public demand for immunization and ensure that people are informed of both benefits derived from vaccines and their potential risks. Parents' or legal guardian's decisions about children's best interests should be based on best public health practices, grounded in evidence based medicine. Healthcare workers have essential role in delivering messages to the public, and their continuous education can have a positive impact on vaccine uptake (14). As well as their education, healthcare workers have the responsibility to be approachable and clear when delivering the message of benefits and potential risks of vaccines. The responsibilities of parents and caregivers include the promotion of healthy forms of behaviour and appropriate health-care-seeking, all for the purpose of preserving child's right to highest attainable standard of health (12, A/24).

Main text

Therefore,

1. IFMSA calls upon governments to
 - Provide effective and quality immunization services to all.



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- Develop and sustain strong immunization programmes as part of a universal health care, closely coordinated with other primary health care programmes.
 - Ensure that national immunization plans are fully integrated into national health plans.
 - Create strategies that will be in accordance with national disease prevalence, and accompanied by comprehensive plans to control targeted vaccine preventable diseases.
 - Consider the inclusion of vaccines (as appropriate to national priorities) in health programmes across the life-course.
 - Further strengthen and expand surveillance systems to generate information for decision-making, monitoring the impact of immunization on morbidity and mortality rates and changes in disease epidemiology.
 - Ensure that immunization alongside with other primary health care programmes has available adequate resources, financial as well as human, to schedule and deliver services of the highest quality.
 - Support development of new vaccines.
 - Conduct a post-introduction evaluation of the introduction of a new vaccine(s) on a country's national immunization programme (15).
 - Adopt resolution calling for affordable vaccines and price transparency.
 - Promote and facilitate collaboration between medical institutions and other departments, such as media, with aim of delivering adequate and evidence base information to the public.
 - Promote development of vaccines by independent and competent infrastructure in order to assure transparent immunization programmes.
2. IFMSA calls upon WHO and other relevant international organizations to
- Support immunization programmes in LMIC with already limited capacities.
 - Encourage development of sustainable funding for LIMC governments to invest in establishment of requisite research facilities. These facilities will have the responsibility of training and maintaining the proper workforce that is able to investigate key endemic disease agents.
 - Actively encourage innovation and research of new and improved vaccines that would be accessible and affordable to everyone.
 - Insist on vaccine price transparency from governments and other philanthropic entities, especially the ones who are actively involved in vaccine price negotiations.
3. IFMSA calls upon universities to
- Promote quality education of medical students who will, as future health professionals, be capable of advising their patients.
 - Include in their medical curriculum the importance of vaccination, with emphasis on consequences and severity of diseases that can occur as a result of low vaccination coverage in their countries, regions, as well as globally.
 - Enable free access to new data and research on vaccines and immunization to students and teachers.
 - Support communication between medical and other relevant fields, such as veterinary, to improve understanding and means for tackling certain diseases.
 - Support creation of networks and partnerships among research centers and institutions of LMIC and HIC.
4. IFMSA calls upon its committees to
- Support medical students and National Member Organizations in advocacy towards their national governments and medical education institutions, to ensure that vaccination is a national and global priority.
 - Collaborate with governments and civil society organizations to promote the importance of immunization.
 - Support initiatives and activities that work towards strengthening capacities of medical students, members of IFMSA, to work towards issues pertaining to immunization and vaccine programs on local, national and global level.



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