World Health Organization

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Global immunization strategy

Report by the Secretariat

1. Vaccine-preventable diseases are responsible for about 25% of the 10 million deaths occurring annually among children under five years of age. With the availability of new vaccines, such as those against rotavirus and pneumococcal diseases, a much larger proportion of children can now be protected against a broader range of infectious diseases. Further improvements in coverage with vaccines currently used by most national immunization programmes, including measles, tetanus, pertussis and *Haemophilus influenzae* type b vaccines, are also averting deaths. Thus, vaccines help to reduce infant mortality significantly and are contributing to the achievement of the target in United Nations Millennium Development Goal 4 for reducing the under-five mortality rate.

2. In resolution WHA58.15, the Fifty-eighth World Health Assembly, recognizing the role that vaccines and immunization can play in reducing under-five mortality, welcomed the Global Immunization Vision and Strategy 2006–2015 developed by WHO and UNICEF as a framework for strengthening national immunization programmes. This report summarizes efforts by Member States to increase immunization coverage and to extend the benefits of immunization with new vaccines to an increasing number of children.

SUCCESS OF MEASLES MORTALITY REDUCTION EFFORTS

3. In resolution WHA56.20, the Health Assembly urged full implementation of the WHO–UNICEF strategic plan for measles mortality reduction 2001–2005, and, at the end of 2005, the major public health goal of reducing global measles mortality by 50% compared with the 1999 level had been surpassed, with a reduction of 60%. From an estimated 873 000 deaths in 1999, measles deaths were brought down to 345 000 in 2005. In Africa alone, the region with the highest burden of the disease, measles deaths dropped by 75% from an estimated 506 000 in 1999 to 126 000 in 2005. Over the same period, routine coverage with measles vaccine increased from 71% to 78% globally, and an increasing number of countries (171 in 2005 compared with 125 in 1999) provided children with a second opportunity to be vaccinated against measles, either through campaigns or through routine immunization programmes.

4. These public health accomplishments helped to prevent nearly 7.5 million deaths between 1999 and 2005, with accelerated immunization activities accounting for 2.3 million of the lives saved. They were made possible by the concentrated focus of immunization partners on the most effective strategies to control measles rapidly and on regions with the highest numbers of measles deaths. The sharp decline in measles deaths is the direct result of (a) the commitment and dedication of Member States severely affected by measles to provide better access to routine childhood immunization; (b) Member States' measles vaccination activities in which more than 360 million children aged

nine months to 15 years were vaccinated against measles between 1999 and 2005; (c) technical and financial support provided through the Measles Initiative, a partnership formed in 2001 and spearheaded by WHO, UNICEF, the American Red Cross, the Centers for Disease Control and Prevention (Atlanta, Georgia, United States of America), and the United Nations Foundation; and (d) intensified surveillance of suspected measles cases with laboratory confirmation.

IMPORTANT PROGRESS WITH ROUTINE IMMUNIZATION

5. Less striking than the measles success, but equally important, have been improvements in routine immunization coverage since 1999. These have been most marked in lowest-income countries, and particularly in sub-Saharan Africa; other regions, apart from South-East Asia, have continued to sustain high levels of immunization coverage. In 2006, a record 102 million children under one year of age were vaccinated worldwide with three doses of diphtheria, tetanus and pertussis vaccine, and the number of unvaccinated children decreased to 26.3 million compared with 28.1 million in 2005. Elements that have contributed to this achievement include national multi-year planning, district-level planning and monitoring, and the establishment of national budget lines, funded with domestic and external resources, including those provided by the GAVI Alliance for immunization services strengthening. As a result, routine immunization coverage, seemingly in stagnation since the early 1980s, now shows an encouraging rising trend, particularly in sub-Saharan Africa.

6. The district planning and monitoring approach promoted by WHO is based on five key strategies that were initially repackaged in western Africa into a single strategy, which has since rapidly gained acceptance globally as the “reaching every district” strategy. As an example, with this strategy, vaccination coverage of children in Ethiopia with a third dose of diphtheria, tetanus and pertussis vaccine improved in 14 of the worst-performing districts, from an average of 35% in 2002 to 71% in 2005.

7. The strategy of child health days, led by UNICEF, has also helped to promote routine immunization. Consistent with the emphasis of the Global Immunization Vision and Strategy on linking immunization with other health interventions, child health days are regular events designed to deliver an integrated package of preventive services such as immunization, vitamin A supplementation, deworming, growth monitoring and distribution of insecticide-treated bednets. They have become routine in many African countries, have achieved high coverage and have been shown to reduce inequalities in access to basic health services. Child health days are usually conducted twice a year and the integrated package that they offer is defined according to epidemiological needs and local circumstances. Preliminary analysis of experience so far in Ethiopia, Uganda and the United Republic of Tanzania shows that child health days have helped to deliver multiple interventions effectively (including immunization), to improve routine immunization coverage, and to reduce operational costs per child reached.

8. Vaccination weeks to promote immunization coverage using new and existing vaccines are regularly organized in the Region of the Americas and the European Region. Endorsed by all Member States in the Region of the Americas in 2003, vaccination weeks have already reached more than 147 million children and adults in that Region, especially in difficult-to-reach populations, isolated communities and towns with low immunization coverage. During the second European Immunization Week in April 2007, 25 Member States in the European Region were involved, underlining the importance of immunization through workshops, debates, training courses, exhibitions and media events. In northern India, vaccination weeks are held regularly for raising immunization coverage levels.

NEW AND UNDERUSED VACCINES

9. The introduction of new and underused vaccines continued to make progress. By the end of 2006, 164 Member States had introduced hepatitis B vaccine into their routine infant immunization programme, and global coverage with three doses of hepatitis B vaccine had reached 60%. Similarly, the *Haemophilus influenzae* type b vaccine is now in routine use in 108 Member States, and global immunization coverage is increasing. These developments are accompanied by Member States' increasing uptake of newly licensed vaccines against rotavirus diarrhoea and human papillomavirus infection and of the pneumococcal conjugate vaccine. The fast progress in introducing new vaccines has been facilitated by Member States' growing recognition of the value of the protection conferred by vaccines and immunization. Such progress has also been made possible by the establishment of global financing mechanisms, including the GAVI Alliance, and the important role played by regional procurement mechanisms, for example the Revolving Fund for Vaccine Procurement in the Region of the Americas.

10. More vaccines will soon become available on a large scale for use, among others, against meningococcal diseases, Japanese encephalitis and typhoid. In addition, governments, multilateral agencies, foundations, and research institutions, among others, have substantially increased their investment in the development of new vaccines. As a result, various new vaccines are likely to be available for introduction in the next 10 years. These include, in particular, vaccines against dengue, tuberculosis and malaria. However, countries increasingly have to decide which of these life-saving tools they should finance and use on a routine basis.

FURTHER EFFORTS REQUIRED

11. In spite of progress, much remains to be done if the full potential of immunization is to be exploited in achieving Millennium Development Goal 4.

12. In terms of mortality reduction, measles still causes more than 300 000 deaths among children every year. But this figure can be reduced if the strong political commitment seen since the beginning of the decade is sustained.

13. According to WHO/UNICEF estimates, more than 26.1 million young children did not receive the first scheduled dose of measles vaccine through routine immunization services in 2006. Intensified efforts to ensure that at least 90% of infants receive this dose before their first birthday would save many additional lives. In addition, countries such as India and Pakistan, with large populations and high measles mortality, should be supported in their efforts to reduce measles mortality. Indeed, some financial resources have already been pledged towards these two countries' efforts: in addition to increased resource allocation for immunization by Member States, US$ 147 million has been raised through the International Finance Facility for Immunisation and an additional US$ 100 million has been pledged by Measles Initiative partners.

14. With regard to routine immunization, large variations in coverage among regions and countries are still seen, and many children are yet to benefit from potentially life-saving vaccines, particularly in South Asia and sub-Saharan Africa. Globally, some 26.3 million infants did not receive three doses of diphtheria, tetanus and pertussis vaccine in 2006.

15. Efforts must focus on further increasing routine access to immunization services through the broad array of strategies that have proved themselves successful, such as the reaching every district strategy, child health days and immunization weeks.

16. As for the introduction of new or underused vaccines, whereas much progress has been made with the routine use of hepatitis B vaccine, this has taken 15 years since the Forty-fifth World Health Assembly recommended its universal use in 1992 (resolution WHA45.17). A similar time lag is unfortunately now being experienced with *Haemophilus influenzae* type b vaccine, for which global coverage remains low at 22%.

17. More tools and research are therefore required to support Member States in their decision-making processes, especially the generation of an evidence base through detailed analysis of the impact, in terms of cost benefits and public health, of these new vaccines.

18. It is also crucial that the growing demand for new vaccines should be matched with a greater number of manufacturers (including those in developing countries) of products that have been prequalified by WHO, thus laying the foundation for a healthy market and a reliable supply of affordable products of assured quality.

19. To meet the above challenges and reach the immunization objectives already expressed in the United Nations General Assembly special session on children (2002) and further enunciated in the Global Immunization Vision and Strategy, strong disease surveillance and programme monitoring systems are required. WHO and its partners have developed a global framework for vaccine-preventable disease surveillance and immunization programme monitoring. This framework combines the use of countrywide active surveillance, passive aggregate disease reporting, sentinel site surveillance, and prospective, time-limited projects to generate the comprehensive epidemiological data required to guide immunization programmes. It also outlines strategies such as ongoing monitoring of vaccine management and vaccine safety, as well as cross-sectional programme reviews to assess the state of programmes at the district and health facility levels.

20. As has been demonstrated by the global poliomyelitis eradication initiative, efficient surveillance systems can be established, even in resource-poor settings, at quite low cost relative to the cost of the intervention itself. The poliomyelitis surveillance network provides a structure for rapidly detecting and responding to diseases of national and international importance. Where appropriate, this network should serve as the platform both for an integrated disease surveillance system that provides epidemiological data on other communicable diseases, and for detection and response to emerging infectious disease threats. Funding for disease surveillance is usually disease specific and time limited. In the presence of weak national systems, parallel systems tend to be established in order to generate data suited to the needs of specific programmes. These uncoordinated efforts may address short-term needs, but are unsustainable in the long term. The global framework provides an opportunity for immunization partners to coordinate their efforts to secure sustainable funding for surveillance and programme monitoring.

REAPING THE FULL BENEFITS OF VACCINES AND IMMUNIZATION

21. The basis of the remarkable progress of the past few years, as described above, includes research and development efforts for new vaccines, a reliable supply of more affordable vaccines of assured quality, and the mobilization of substantial new resources through partnerships and innovative

mechanisms such as the International Finance Facility for Immunisation and the advance market commitment established through the GAVI Alliance for a pneumococcal conjugate vaccine.

22. The achievements outlined in this report demonstrate that safe and effective health technologies exist, efficient strategies are well known, and resources can be mobilized to support the vision that vaccines and immunization should be allowed to contribute their full potential to the reduction of under-five mortality.

ACTION BY THE EXECUTIVE BOARD

23. The Board is invited to consider the following draft resolution:

The Executive Board,

Having considered the report on the global immunization strategy,[1]

RECOMMENDS to the Sixty-first World Health Assembly the adoption of the following resolution:[2]

The Sixty-first World Health Assembly,

Having considered the report on the global immunization strategy;

Applauding the remarkable investments in human and financial resources made by Member States and partner agencies in support of vaccines and immunization as well as the launch of innovative financing mechanisms such as the International Finance Facility for Immunisation, and the advance market commitment for a pneumococcal conjugate vaccine through the GAVI Alliance;

Recalling resolution WHA56.20 on reducing global measles mortality, and commending Members States' and their partners' success in exceeding the goal of reducing deaths worldwide due to measles by 50% by the end of 2005 compared with the 1999 level;

Commending also Member States' and their partners' progress in increasing the availability, affordability and uptake of hepatitis B vaccine worldwide;

Encouraged by the progress in molecular biology and genetics that is accelerating the discovery and development of new vaccines and by the increasing number of developing-country manufacturers producing vaccines that meet WHO requirements for vaccines of assured quality;

[1] Document EB122/14.

[2] See document EB122/14 Add.1 for the financial and administrative implications for the Secretariat of the resolution.

Alarmed that many developing countries are not on track to meet the internationally agreed target in Millennium Development Goal 4 for reducing the under-five mortality rate;

Stressing the vital role that vaccine and immunization programmes can play in reducing infant mortality and in facilitating the delivery of a package of life-saving interventions,

1. URGES Member States:

(1) to implement fully the strategy for reducing measles mortality in order to achieve the goal set in the Global Immunization Vision and Strategy 2006–2015 of a 90% reduction in the global measles mortality rate between 2000 and 2010;

(2) to enhance efforts to improve delivery of high-quality immunization services in order to achieve the target of equitable coverage of at least 80% in all districts by 2010 set in the Global Immunization Vision and Strategy 2006–2015;

(3) to further expand access to, and coverage of, available new life-saving vaccines of assured quality for all target populations in order to accelerate the achievement of Millennium Development Goal 4;

2. REQUESTS the Director-General:

(1) to work with Member States to sustain political commitment at all levels for achieving high immunization coverage rates with all available vaccines;

(2) to collaborate with international partners, including UNICEF and the GAVI Alliance, in order to continue to mobilize the financial resources required to achieve this objective and in order to ensure that all Members States have access to sufficient supplies of affordable vaccines of assured quality;

(3) to facilitate scientific, technical and financial investments into the research and development of safe and effective vaccines against poverty-related and neglected diseases;

(4) to monitor progress towards achievement of global immunization goals and report on such progress to the Sixty-fourth World Health Assembly.

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