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Scaling up immunization to meet the Millennium Development Goals (MDGs)

Efforts to scale up immunization coverage in the poorest countries are pivotal to meeting the Millennium Development Goal to reduce child mortality. Of the 10.5 million deaths among children under five in 2003ⁱ, about one-quarter were attributable to diseases that are already — or soon will be — vaccine-preventable.

A global development agenda

The Millennium Development Goals (MDGs) are time-limited commitments made by governments throughout the world to reduce poverty and promote human development. Adopted in September 2000 by representatives from 189 countries (including 147 heads of state), they include some of the key commitments made at the major UN conferences of the 1990s.

There are eight interrelated goals, each with a number of key measurable targets to be met by 2015. They commit governments to: increase efforts to reduce poverty and hunger (MDG1), improve access to education (MDG2), promote gender equality (MDG3), combat ill health (MDGs 4-6), and ensure environmental sustainability, including access to safe drinking water and sanitation (MDG7). The remaining goal (MDG8) commits governments in developed countries to establish a global partnership for development, intended to support developing countries in their efforts to achieve the MDGs. This involves commitments to increase international development assistance (ODA), debt relief and technology transfers, and to introduce fairer trade policies.

Millennium Development Goals

- Goal 1 Eradicate extreme poverty and hunger.
- Goal 2 Achieve universal primary education.
- Goal 3 Promote gender equality and empower women.
- Goal 4 Reduce child mortality.
- Goal 5 Improve maternal health.
- Goal 6 Combat HIV/AIDS, malaria and other diseases.
- Goal 7 Ensure environmental sustainability.
- Goal 8 Develop a global partnership for development.

Reducing child mortality (MDG4)

Widely recognized as one of the most challenging of the eight goals, MDG4 commits governments to reduce mortality rates among children under five by two-thirds between 1990 and 2015. Progress on this will be measured against three indicators: under-five mortality rates, infant mortality rates, and the proportion of one-year-olds immunized against measles.

But in many of the poorest countries today — more than half-way towards the deadline — the child mortality goal is far from being met. The World Bank estimates that only 16% of developing countries are on track to reach this goal — including no countries in sub-Saharan Africa. WHO and UNICEF estimate that on current trends (based on vaccine demand, level of funding, health system development and vaccine availability), the immunization coverage rates that are needed to meet the child mortality goal (90% coverage nationwide and 80% coverage in all districts) will not be reached before 2037 — more than two decades beyond the target date.

In some countries, efforts to increase immunization coverage are hampered by weak health systems, conflict, and the unaffordable cost of some vaccines in low-income countries. As a result, in 2003:

- Over 27 million children missed out on immunization during their first year of life — leaving them vulnerable to infectious diseases both in childhood and during the productive adult years.
- 1.4 million children under five died from vaccine-preventable diseases for which vaccination is already included in most immunization schedules.

For example, in 2002ⁱⁱ over half a million children died from measles. In addition, over 1 million children died from pneumococcal disease, meningococcal disease, and rotavirus diarrhoea — diseases for which vaccines are likely to become available in the near future.

Role of immunization in meeting the MDGs

The global push to immunize children during the 1980s — which boosted global immunization coverage from 20% in 1980 to over 70% by 1990ⁱⁱⁱ — is evidence of what can be achieved through a global alliance of immunization partners. Today, the commitment by governments to reduce under-five mortality by 2015 calls for a similar global push to raise immunization coverage to 90% in all countries. Partners in the GAVI Alliance have demonstrated how quickly a scale-up can occur — succeeding in reaching over 42 million children with a new vaccine against hepatitis B in just three years.

Many of the vaccines needed to save children's lives already exist. And additional vaccines will soon be available. What is needed now is the global will to ensure that these life-saving tools are also available in the poorest countries — where the needs are greatest.

Efforts to strengthen immunization systems also have a wider impact on the provision of basic health services – through addressing system-wide barriers (such as lack of human resources) and creating opportunities for the delivery of other health interventions such as bednets to prevent malaria.

Immunization also has an impact on efforts to meet other MDGs. For example, when children are healthy they are more likely to attend school regularly and are better able to learn — helping achieve the target of universal primary school education (MDG2). For adult carers, immunization also helps prevent the loss of productive work due to childhood illness, and lowers the cost of out-of-pocket spending on health care – contributing to the goal of halving extreme poverty and hunger (MDG1).

Role of GAVI in meeting the MDGs

Since its launch in 2000, the Global Alliance for Vaccines and Immunization (GAVI) has committed over US\$ 1 billion in assistance to over 70 of the poorest countries in a concerted effort to reduce child mortality. The GAVI partners have focused on efforts to:

- strengthen immunization systems
- boost coverage with existing vaccines,
- improve access to new and underused vaccines,
- develop new sustainable funding mechanisms for vaccines
- improve immunization safety.

As a result, by end-2003, it is estimated that over 670 000 deaths^{iv} had been prevented (including those from hepatitis B that would have occurred in adulthood).

On the current level of resources, it is estimated that continued support from GAVI partners will save the lives of an additional 1.5 million children under five over the next decade. However, a quantum leap in funding is urgently needed today in order to scale up immunization to meet the child mortality goal (MDG4).

The Global Alliance for Vaccines and Immunization (GAVI) brings together all major stakeholders in global immunization. These include governments in industrialized and developing countries, UNICEF, WHO, the World Bank, non-governmental organizations, foundations, vaccine manufacturers, and public health and research institutions. The Vaccine Fund was created by GAVI partners to help build and maintain additional financial support for the Alliance.

ⁱ WHO data.

ⁱⁱ Latest available WHO data.

ⁱⁱⁱ Fully immunized with DTP, BCG, polio and measles vaccine.

^{iv} WHO estimate. Based on projections of the number of future deaths averted from hepatitis B, Hib disease and pertussis. It has not been possible to estimate the additional number of deaths averted through GAVI support for immunization against yellow fever or measles.