

WHO-UNICEF JOINT STATEMENT ON STRATEGIES TO REDUCE MEASLES MORTALITY WORLDWIDE



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World Health
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Immunization is essential for children to realize their right to the highest attainable standard of health. This statement outlines a new measles immunization plan co-sponsored by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO). The goal of the GLOBAL MEASLES

STRATEGIC PLAN is to reduce the number of measles deaths by half by 2005 and interrupt transmission of the virus in entire regions. This will be achieved through increased routine measles vaccination coverage combined with supplemental campaigns that give a 'second opportunity' for immunizing children.

Overview

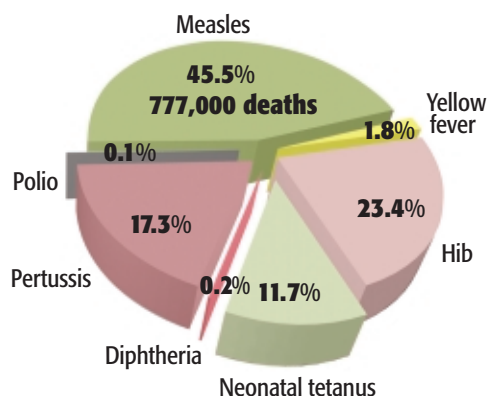
Measles is a leading cause of childhood deaths

There were an estimated 30 million to 40 million cases of measles in 2000, causing some 777,000 deaths. Measles thus accounts for nearly half of the 1.7 million annual deaths due to childhood vaccine-preventable diseases.

Measles can be prevented

Failure to deliver at least one dose of measles vaccine to all infants remains the primary reason for high measles morbidity and mortality. Many of the deaths can be prevented by more efficient use of existing immunization services and by ensuring the availability of resources for implementing all recommended strategies in each country.

Causes of 1.7 million vaccine-preventable deaths among children, 2000



Source: WHO, *World Health Report 2001*.

Measles immunization is a cost-effective intervention

The economic arguments for investing in measles are compelling. Of all health interventions, measles immunization carries the highest health return for the money spent, saving more lives per unit cost. The vaccine, which has been available for more than 30 years, costs US\$0.26 per dose, which includes safe injection equipment.

A new framework

WHO and UNICEF have developed the Global Measles Strategic Plan together with the US Centers for Disease Control and Prevention (CDC) and numerous experts worldwide, and in coordination with several other partners.

The goals:

- To halve the annual number of measles deaths by 2005.
- To achieve and maintain interruption of indigenous measles transmission in large geographical areas with established elimination goals: the Region of the Americas by 2000 (nearly achieved); the European Region by 2007; and the Eastern Mediterranean Region by 2010.
- To convene a global consultation in 2005, in collaboration with other major partners, to review the progress and assess the feasibility of global measles eradication.

Four strategies to reduce measles mortality:

- (1) Provide the first dose of measles vaccine to successive groups of all children at the age of nine months or shortly after;
- (2) Guarantee a 'second opportunity' for measles vaccination either through campaigns or routine immunization. The second opportunity is needed both to increase the chance that every child receives at least one dose of measles vaccine and to increase the proportion of the population that is fully immunized. When the first dose is given at nine months, not all children will develop a protective response. The second dose, given later, will increase the protective response and the likelihood of immunity. It is recommended that countries with high vaccination coverage implement a two-dose measles vaccination schedule;
- (3) Establish an effective system to monitor coverage and conduct measles surveillance with integration of epidemiological and laboratory information; and
- (4) Improve management of every measles case.

This new framework introduces an additional element: supplemental campaigns. If conducted, supplemental campaigns should target large populations (entire nations or large regions) and achieve coverage of over 90 per cent with safe and high quality services.

Added value

Measles immunization provides an opportunity to reach children with other measures that improve overall child health, including:

- supplemental vitamin A doses;
- rubella immunization and surveillance activities.

Progress

Measles immunization has saved the lives of millions of children

Substantial progress has been made towards measles mortality and morbidity targets, which were set at the World Health Assembly (1989) and at the World Summit for Children (1990). Reported annual measles cases declined by almost 40 per cent between 1990 and 1999. However, in 2000 the estimated number of cases worldwide remained at 30 million to 40 million, with 777,000 deaths.

Underuse of the vaccine is the major reason for the remaining measles disease burden

Because measles is so contagious and a small number of those who are vaccinated do not develop immunity, vaccination coverage levels need to be above 90 per cent to stop transmission of the virus.

Between 1990 and 1999, reported global routine vaccination coverage with one dose of measles vaccine among children remained at approximately 70 per cent.

However, in 1999, measles coverage below 50 per cent was reported by 14 countries: Afghanistan, Angola, Central African Republic, Chad, Congo, Democratic People's Republic of Korea, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Ethiopia, Niger, Nigeria, Somalia and Togo.

By 2000, most countries were providing a 'second opportunity' for measles vaccination – either through a two-dose routine schedule or through a combined



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These children in East Timor are being immunized against measles. The measles vaccine also helps protect against measles-related complications – blindness, deafness, malnutrition and pneumonia.

routine schedule and supplementary campaigns covering the entire country during the preceding three years. In general, countries with the lowest levels of measles vaccination coverage are those with a single-dose policy. In all, only 52 countries have single-dose policies and these are the countries that account for nearly all child deaths from measles.

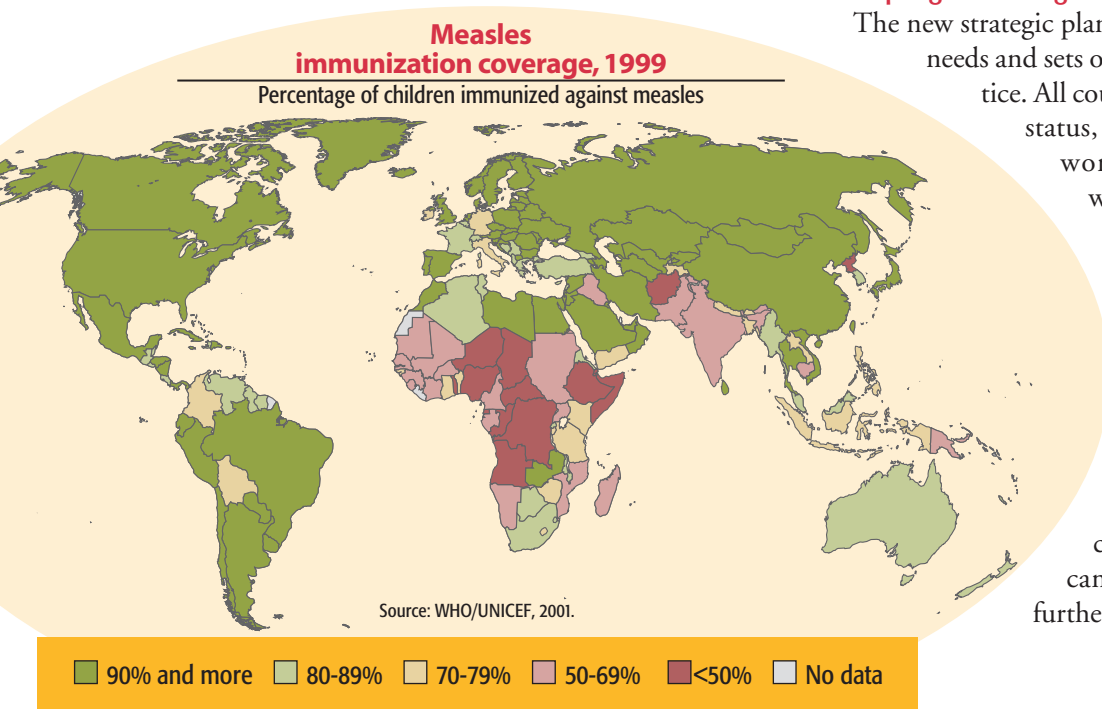
Countries' progress demonstrates that preventing measles deaths is an achievable goal

Measles transmission is presently at very low levels or has been interrupted in many countries in the Region of the Americas, Australia, Mongolia, New Zealand, the Pacific Island Nations, the Philippines and in some countries in the European Region and the Eastern Mediterranean Region.

In seven countries in southern Africa, all of which carried out mass measles vaccination campaigns between 1996 and 1998, measles mortality was reduced by 99 per cent following the campaigns.

Adapting the strategies to meet the countries' needs

The new strategic plan recognizes countries' varying needs and sets out a framework for good practice. All countries, whatever their measles status, can use the proposed framework to reduce measles deaths, while more ambitious countries or regions, such as the Americas, the Eastern Mediterranean and Europe, which have elimination goals, can also work within the framework to reach their targets. The backbone of the plan is increased routine measles vaccine coverage combined with supplemental campaigns to cut the death toll further.



Strategies for achieving sustainable reduction of measles mortality

Goal

- ✓ Reduce the number of annual measles deaths by half by 2005.

1. Routine immunization – achieve >90% routine vaccination coverage (in each district and nationally) with at least one dose of measles vaccine administered at 9 months of age or shortly thereafter.
2. Second opportunity for measles vaccination – for all children through routine or supplemental activities.
3. Measles surveillance – establish effective surveillance for measles to report regularly the number, age and vaccination status of children contracting or dying from measles, to conduct outbreak investigations and to monitor immunization coverage.
4. Improve management of complicated cases – including vitamin A supplementation and adequate treatment of complications.

Strategies for achieving and maintaining interruption of indigenous measles transmission

Goal

- ✓ Achieve and maintain interruption of indigenous measles transmission in large geographical areas.

1. Routine immunization – achieve very high (i.e. > 95%) immunization coverage (in each district and nationally) with the first dose of measles vaccine administered through routine services.
2. Second opportunity for measles vaccination – to maintain the number of susceptible population below the critical threshold for 'herd' immunity.
3. Measles surveillance – investigation and laboratory testing of all suspected measles cases (case-based surveillance). Isolation of measles virus should be attempted from all chains of transmission.
4. Improve management of complicated cases – including vitamin A supplementation and adequate treatment of complications.

Countries are encouraged to:

- **Assess progress on measles control.** They should also review their measles epidemiology.
- **Identify the reasons for low routine coverage.** Use existing tools and guidelines to increase immunization levels. Special attention should be given to districts with the lowest levels of coverage. A further argument for improving routine coverage is that supplemental measles campaigns will then be effective in preventing measles deaths over a longer period of time.
- **Take advantage of the priority given to measles to improve immunization safety.** The safety of immunization is based on ensuring that the following elements are addressed: behavioural change, the provision of safe injection equipment (e.g., auto-disable syringes and safety boxes) and the adequate management and disposal of immunization waste.
- **Plan and integrate measles activities with other health initiatives.** This will widen the scope and improve the impact of the public health care system.
- **Use advocacy for measles mortality reduction to promote the further development of routine immunization services.**

- **Develop a 3- to 5-year plan for measles mortality reduction.** Countries should develop plans together with the national inter-agency coordinating committees. Measles plans should be part of a comprehensive plan for strengthening immunization services.

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