6 Mainstreaming

of the Global Polio Eradication Initiative

The mainstreaming of the GPEI infrastructure – to transfer the long-term use of the infrastructure to other health objectives – is an important element of the eradication programme. The polio infrastructure encompasses human resources, communication networks, operational guidelines and standards, independent strategic guidance bodies and partnership mechanisms, along with offices, vehicles and equipment. All of these components are real assets to the countries concerned, and often play an important role in reaching their immunization and other health goals.

Globally, the polio infrastructure in 2007 consisted of more than 3,000 technical and support staff whose day-to-day work includes rapidly responding to surveillance reports, micro-planning at the district-level to reach previously un-reached children and helping to train health workforces, all of which actively support the strengthening of health systems. As the final infected countries become polio-free, these polio-funded staff are already gaining much experience in surveillance for other diseases and delivery of other health interventions such as insecticide treated bed-nets, Vitamin A and de-worming tablets.

Countries have been using these substantial assets of the polio infrastructure to systematically strengthen the Expanded Programme on Immunization (EPI) and – on an ad-hoc basis – for other purposes. With the recent adoption of three major strategies and frameworks to strengthen health systems and security – the Global Immunization Vision and Strategy (GIVS), the Global Framework for Immunization Monitoring and Surveillance (GFIMS) and the International Health Regulations (IHR 2005) – all countries now have the opportunity to more systematically plan for the long-term use of the assets of the polio infrastructure under the strategic guidance of these frameworks.

Contribution of polio eradication infrastructure to 60% decline in measles death is a concrete step towards Millenium Development Goal 4 for child survival.

6.1 Global Immunization Vision and Strategy (GIVS)

Developed jointly by WHO and UNICEF, with broad stakeholder consultative input, GIVS has two crucial medium term goals to be achieved by 2010: a 90% reduction in measles mortality (compared with 2000), and an increase in vaccination coverage to at least 80% at district-level. In 2005, the World Health Assembly (WHA) adopted a resolution welcoming the launch of GIVS, and urged all Member States to adopt GIVS as the framework for strengthening national immunization programmes from 2006 to 2016.

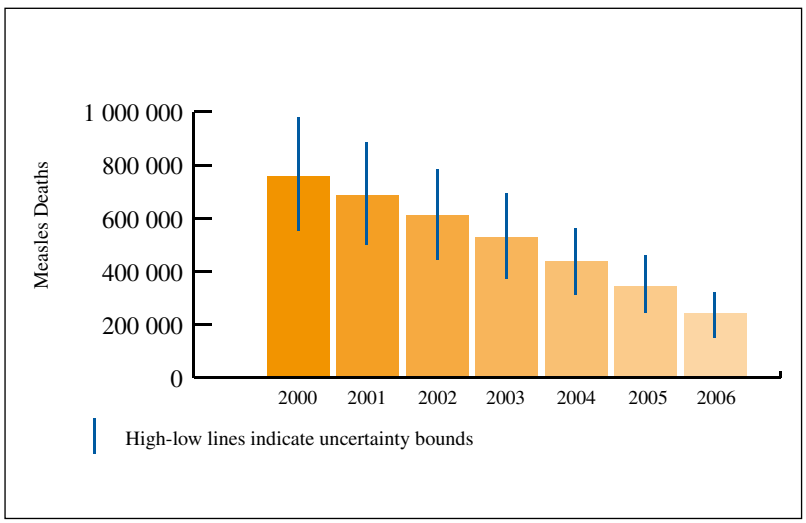
The framework has four strategic areas, each with detailed strategies and activities:

1) protecting more people in a changing world;
2) introducing new vaccines and technologies;
3) integrating immunization, other health interventions and surveillance in the health system context; and,
4) immunizing in the context of global interdependence.

Since 2006, the GIVS strategic framework is being used to guide national strategic plans for routine immunization and set agendas for global and regional expert advisory groups. The assets of the polio infrastructure, especially the expertise of the human resources, are being used in many countries to implement the GIVS strategies. By end-2007, substantial evidence had accumulated to vindicate this approach. The implementation of the 'Reaching Every District' (RED) approach – based on the polio eradication model for reaching entire populations with routine immunization services through a 5-pronged, district-based approach – has resulted in significant gains in routine immunization levels, particularly in Africa and South-East Asia. An evaluation of eleven countries in Africa that had implemented RED found that immunization coverage had increased, as the proportion of districts attaining DTP3 coverage above 80% had more than doubled. At the same time, the number of children immunized increased from 4.8 million to 7.3 million. GPEI-funded staff have been instrumental in the implementation of RED in many areas, working in close coordination with national immunization authorities and key partners, such as the GAVI Alliance.

Measles SIAs in all WHO regions are regularly planned, implemented, monitored and evaluated using the polio model and building on its infrastructure. This has been integral to the 60% reduction in measles deaths since 2000 and represents a concrete GPEI contribution towards the global effort to achieve Millennium Development Goal 4 for child survival.

Figure 9: Global measles mortality



Source: WHO/IVB measles deaths estimates, November 2006

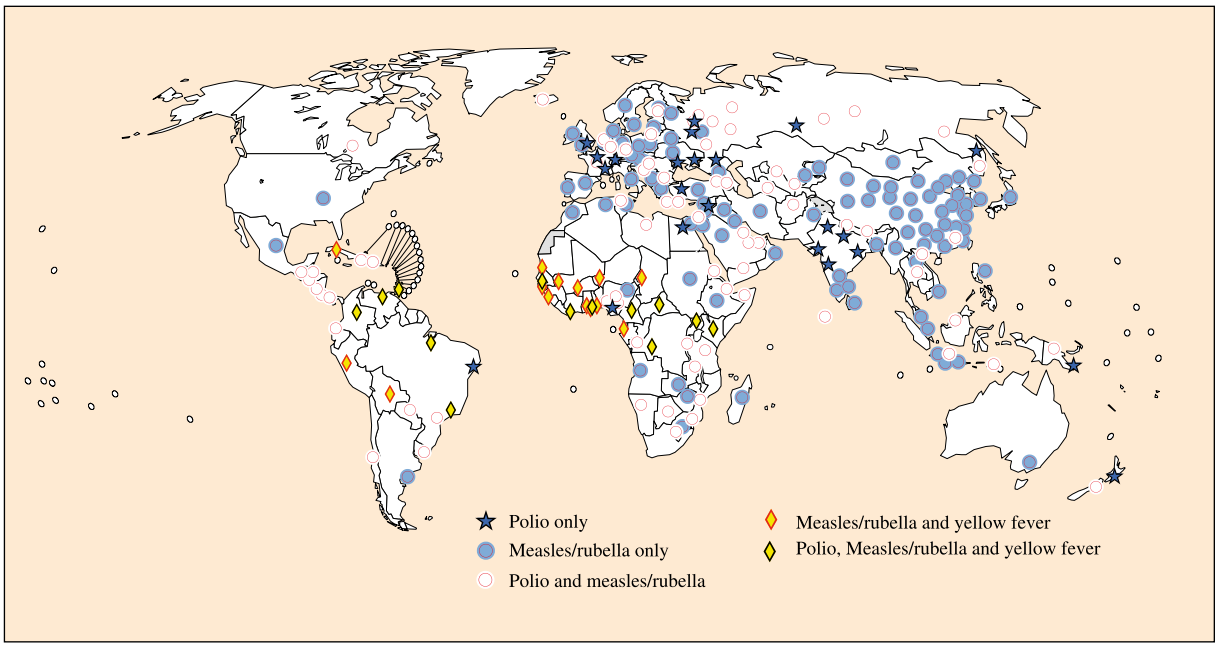
More than 50% of all National Influenza Centres are located in polio laboratories.

6.2 Global Framework for Immunization Monitoring and Surveillance (GFIMS)

The extensive active polio disease surveillance network for acute flaccid paralysis (AFP) is already being used by many countries to help detect other diseases of public health importance, especially vaccine-preventable diseases (VPDs). More than two-thirds (66%) of countries with AFP case-based reporting also report other VPDs on a case-base, most notably measles and neonatal tetanus. This integration is being stepped up, particularly in areas which are now polio-free, guided by GIVS. Given that AFP surveillance will need to continue beyond certification of interruption of wild poliovirus transmission, the world has a strong opportunity to ensure the broader benefits of AFP surveillance are maintained, even in the demonstrated absence of wild poliovirus transmission.

One of the key components of achieving the GIVS goals is the need for strong systems for disease surveillance and monitoring. To address this need, WHO, together with its global immunization partners, developed the Global Framework for Immunization Monitoring and Surveillance (GFIMS) and released it in 2007. GFIMS provides a strategic framework to systematically integrate the existing AFP surveillance network with other existing surveillance networks for VPDs into a broad, unified system drawing on the substantial assets and

Figure 10: Global laboratory capacity to detect vaccine-preventable diseases



The polio laboratory network serves as model for nearly 700 facilities: In addition to helping detect a variety of vaccine-preventable diseases, polio laboratories are integral for surveillance of pandemic avian influenza. More than 50% of all National Influenza Centres are located in polio laboratories.

resources of the various individual networks.

GFIMS aims to optimize the worldwide surveillance and control of VPDs by integrating epidemiological, laboratory and programme monitoring networks. This will help provide the high quality information needed to measure the impact of vaccines and maximize their safe, effective and equitable use, in order to reduce the global VPD burden.

In many countries, AFP surveillance is already being linked to epidemiological surveillance for VPDs such as diphtheria, influenza, Japanese encephalitis, measles, meningococcal meningitis, mumps, pertussis and rubella. The combined surveillance provides programmatic data to monitor ongoing immunization coverage trends, in order to maintain coverage achievements and reach additional children.

At the same time, the Global Polio Laboratory Network of 145 laboratories is addressing a wide range of public health problems. Today 83% of these laboratories assist in rapid diagnosis of a wide range of VPDs and serve as a model for developing broader VPD laboratory capacity to detect measles, rubella, yellow fever and Japanese encephalitis.

6.3 International Health Regulations 2005 (IHR 2005)

In June 2007, the IHR (2005) came into force, following adoption of the Regulations by the World Health Assembly in May 2005.

The IHR (2005) is the only international legal treaty on communicable diseases, aimed to prevent, protect against, control and provide a public health response to the international spread of disease. While any number of detected disease events may lead to notification depending on given situations, the IHR (2005) stipulates the mandatory international notification following detection of four specific pathogens: smallpox, human influenza caused by a new subtype, severe acute respiratory syndrome (SARS), and poliomyelitis caused by wild poliovirus.

To meet the rigorous surveillance, notification and response requirements stipulated by the IHR (2005), the first priority is to strengthen capacity in countries at all levels. This will entail significant development of specialized staff, laboratory capacity and logistics and communications capability. Countries that are State Parties to the Regulations have two years to fully assess their capacity and develop national action plans, followed by three years to meet the requirements of the IHR (2005) regarding their national surveillance and response systems.

As countries are just beginning the process of assessing their capacities to comply with the newborn IHR (2005), the value of the Regulations is already becoming evident. Existing national resources and structures – such as the extensive AFP surveillance network – are being utilized to detect, investigate and respond to events of international public health importance. While the rapid international detection and response to confirmed polio in polio-free areas has been a proven and historic standard operating procedure within the GPEI, the AFP surveillance capacity has – within the framework of the IHR (2005) – proved an invaluable resource in detecting and helping respond to avian influenza, measles, yellow fever and other outbreaks.

Going forward, it is expected that such existing infrastructures as the AFP surveillance network will be maintained and further built upon, to help countries create the capacities necessary over the next five years to fully comply with the IHR (2005).

Much more than 'just' polio
Polio staff respond to bird flu outbreak

A team from India's National Polio Surveillance Project conducting active surveillance for avian influenza in West Bengal.

In addition to investigating more than 40,000 AFP cases and supporting the Government of India in planning, implementing and monitoring polio campaigns, the more than 300 polio-funded Surveillance Medical Officers (SMOs) of the National Polio Surveillance Project play an integral part in strengthening broader public health, conducting active surveillance for other vaccine-preventable diseases, improving immunization coverage, assessing epidemiology and training district health staff and supervising performance.

In January 2008, during an avian influenza outbreak in West Bengal, the Government of the state and federal-level requested the assistance of the polio SMO network. Local SMOs:

- adapted polio eradication, district-level microplans to ensure house-to-house case searches for Avian Influenza;
- activated surveillance for human cases using AFP reporting sites;
- strengthened surveillance for poultry deaths;
- assisted with health risk communications, promoting safety measures to health workers and behaviour modification messages to communities; and,
- assisted in logistical support, providing transportation, telecommunications capacity, as well as administrative and data analysis and transfer capabilities.

These activities are indicative of how the polio infrastructure worldwide functions and assists with public health interventions. With local knowledge of communities, health systems and government structures, the polio network can swiftly mobilize its technical capacity to plan large-scale operations in response to local, national and international public health emergencies and humanitarian relief efforts.