**1. EXPANDED PROGRAMME ON IMMUNIZATION**

**Strategic issues**

Immunization is a highly successful intervention that has achieved dramatic reductions in illness, disability and death from diphtheria, hepatitis B, measles, pertussis, poliomyelitis and tetanus. Globally, immunization averts an estimated 2.5 million child deaths annually. Currently available vaccines could prevent some 15% of the more than 500 000 deaths of children under 5 that occur every year in the Western Pacific Region.

However, success in controlling vaccine-preventable diseases has been uneven in the Region, as large disparities persist between and within countries. In 2008, the most recent year for which data are available, 1.2 million infants in the Region did not receive the complete series of diphtheria-tetanus-pertussis vaccine scheduled for their first year of life. Twenty-five countries and areas already may have eliminated measles, yet almost 62 000 cases were reported in the Region in 2009. These challenges must be met if we are to achieve the Millennium Development Goals and meet the targets of the Global Immunization Vision and Strategy (GIVS).

The benefits of immunization for the people of the Western Pacific Region can only be fully realized if we meet challenges in three areas: access; quality and safety; and monitoring and surveillance. Increasing access requires strengthening the delivery of vaccines through routine immunization programmes and supplementary immunization activities. Increased access will help the Region reach the GIVS targets of 90% immunization coverage nationally and 80% in every district. Better access also will help achieve the Region’s goals of maintaining polio-free status, eliminating measles and controlling hepatitis B infections, as well as eliminating maternal and neonatal tetanus.

Newly developed and underutilized vaccines promise to further reduce child deaths due to diarrhoea, pneumonia, encephalitis and other conditions. Reducing the historic lag time for the introduction of these new vaccines, especially in low-income countries, requires targeted efforts in establishing disease burdens, identifying resources and advocating for policy change.

Programme coverage monitoring and disease surveillance provide the information necessary to measure progress and improve vaccine programmes. Laboratory networks assure the quality of laboratory testing for surveillance. The growing intensity of measles surveillance and the expansion of surveillance to new vaccine-preventable diseases have created increased demands and opportunities for surveillance capacity-building, database development, laboratory training and laboratory quality assurance.

Finally, ensuring the quality and safety of vaccines is a critical component of vaccine access. Some countries lack strong national regulatory authorities to assess vaccine quality and ensure adequate surveillance for adverse events following immunization. Technical support must be further enhanced to strengthen systems and capacity within countries to monitor and ensure vaccine quality and safety.

**Action and results**

WHO support helped ensure high polio vaccine coverage and adequate surveillance for acute flaccid paralysis for the Region, which remained poliomyelitis-free in 2009. Progress towards measles elimination continued, particularly in China and Japan. Successful implementation of measles elimination plans contributed to a 58% drop in measles cases in the Region from 2008 to 2009. The estimated number of measles deaths in the Region decreased by 92% between 2000 and 2008, with just 2000 deaths in 2010—surpassing the GIVS measles mortality reduction goal. Case-based measles surveillance also improved in 2009.
Combating Communicable Diseases

WHO provided country-specific technical support to assess maternal and neonatal tetanus risk areas and develop national plans in Cambodia and the Philippines, and to conduct tetanus toxoid supplementary immunization activities in the Lao People’s Democratic Republic, collaborating with maternal and child health programmes to deliver a package of essential health services including deworming medication, vitamin A and polio vaccine.

For hepatitis B, Hong Kong (China), Malaysia and Mongolia conducted serosurveys to measure progress towards control, while China and Viet Nam held high-level seminars to address issues in hepatitis B vaccination and treatment. As of 2009, 26 countries and areas that represent 87% of the Region’s population are estimated to have achieved the 2012 goal of chronic hepatitis B infection rates of less than 2% among 5-year-old children.

In 2010, the Western Pacific Region became the first WHO region where all low-income countries and areas provide *Haemophilus influenzae* type b (Hib) vaccine as part of their national immunization programmes. Surveillance for bacterial meningitis caused by Hib and *Streptococcus pneumoniae* was initiated with WHO support in 2009 in Cambodia, Mongolia, Papua New Guinea, the Philippines and Viet Nam, allowing for future

Reducing measles in China: children alerting children

“Search, search, search for your friend,” begins the familiar tune sung to the primary schoolchildren in Zhaoqing, a city of 6 million people in China’s Guangdong Province. The jingle invites the students to tell their friends who might have missed immunizations about the importance of measles vaccinations.

In China, children who have missed immunizations usually are those who live in mountainous or remote areas, have migrated to a new city or province but remain registered elsewhere, or have been born outside family planning guidelines. In an attempt to reach some of these children, the Bureau of Health, the Bureau of Education, the Communist Youth League and the Chinese Center for Disease Control and Prevention in Guangdong worked together to develop an innovative approach to identify, register and immunize previously left-out children.

In 2009, the “Red Scarf in Action” initiative encouraged schoolchildren between the ages of 6 and 14 years to seek out children in their communities who were missed by immunization campaigns. These Young Pioneers, already recognized for their excellent academic and service achievements, fanned out across their communities wearing their red scarves and distributed flyers to children who were not registered. They also encouraged parents to bring their children, from 8 months to 14 years of age, to the nearest health centre to be vaccinated. Health staff followed up with immunization activities.

More than 100 million children and adolescents were vaccinated against measles in China in 2009, decreasing measles incidence by 60% compared to the previous year. Measles elimination activities also prevent deaths from the bacterial and viral infections that cause pneumonia and diarrhoea, the major killers of children.

Similar child-to-child communication approaches have been very successful in eliminating measles and rubella in other regions. The pioneering effort in Zhaoqing used culturally relevant methods to achieve very high measles immunization coverage and may be adopted by other cities and provinces in China.
measurement of the impact of Hib and pneumococcal vaccines. Integrated surveillance for Japanese encephalitis was included in relevant countries, and China and Viet Nam announced plans to expand Japanese encephalitis vaccine nationwide.

Surveillance for severe rotavirus diarrhoea also was initiated in eight priority countries in 2009. Some 25%–60% of diarrhoea cases requiring hospitalization are caused by rotavirus in these countries, indicating the potential for significant impact upon the future introduction of rotavirus vaccine. WHO conducted surveillance and data management training for country staff to support these new surveillance systems.

Laboratory networks for poliomyelitis, as well as measles and rubella, continued to provide timely and reliable laboratory confirmation and virus identification. All poliomyelitis network laboratories and almost all measles and rubella network laboratories in the Region are fully accredited. A newly established Japanese encephalitis laboratory network began to provide laboratory confirmation and implement quality assurance measures, such as proficiency testing. An accreditation system based on the model of the other WHO laboratory networks was initiated in 2010. Training sessions were held to increase specialized skills at national laboratories.

National training workshops on adverse events following immunizations were developed and carried out in Cambodia, the Lao People’s Democratic Republic and the Philippines. In collaboration with units covering maternal and child health and noncommunicable diseases, an expert consultation was held in November 2009 to develop regional guidelines for comprehensive cervical cancer control, including the role of human papillomavirus (HPV) vaccine. In response to pandemic influenza (H1N1) 2009, WHO provided technical support to countries to develop rapid vaccine deployment plans, identified 17 low- and middle-income countries to receive donated vaccine, and provided vaccine to those countries. More than 6.2 million doses were distributed.

**Future directions**

WHO will continue to work with the Member States to address the challenges in achieving the Millennium Development Goals, reaching global and regional disease elimination and eradication goals, and meeting the targets in the Global Immunization Vision and Strategy. WHO will continue to work with national counterparts to enhance synergies among the routine immunization programmes, specific disease-control and elimination activities, and other maternal, adolescent and child health interventions. Improvements in laboratory quality and surveillance capacity are necessary to control, eliminate or eradicate specific vaccine-preventable diseases. Introduction of rotavirus and pneumococcal vaccines and the prevention of measles infection will help decrease the burden of pneumonia and diarrhoea, moving the Region towards success in implementing the WHO/UNICEF Regional Child Survival Strategy.

As we work to realize the synergies of mutually reinforcing strategies and cross-programme collaboration, WHO, Member States and our partners will continue to face challenges in human and financial resources. Partnerships among governments and multilateral and nongovernmental organizations are critical. The Global Polio Eradication Initiative, the Measles Initiative, and the GAVI Alliance, among others, are key partnerships through which WHO will continue to support Member States to achieve the global and regional goals.