Combating communicable diseases

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A health worker (left) from a community health station teaches a family about malaria rapid diagnostic testing, prevention and control in Khanh Hoa, Viet Nam. Strengthening surveillance is critical for malaria elimination efforts in the Region.
Member States in the WHO Western Pacific Region have had significant success in combating communicable diseases through the introduction of effective country-centred interventions, as advocated and strengthened under former Regional Director Dr Shin Young-soo. Still, several diseases – including dengue, hepatitis, malaria, measles and tuberculosis (TB) – continue to be major drivers of morbidity and mortality in a number of countries in the Region.

Over the past decade, action against these infectious diseases was focused on the need to finally conquer diseases that WHO has battled since its inception. WHO Regional Director Dr Takeshi Kasai has vowed to intensify efforts to address these “old enemies” and reach the unreached in the coming years to eliminate or end epidemics of communicable diseases.

A decade of work by Member States, supported by WHO and other partners, has contributed to the achievement of many global and regional milestones, including many targets in the Millennium Development Goals by 2015. With support from WHO at the country level, Member States are working towards achieving the Sustainable Development Goals to put an end to epidemics of major communicable diseases by 2030.

The WHO Regional Committee for the Western Pacific in October 2014 endorsed the Regional Framework for Implementation of the Global Vaccine Action Plan in the Western Pacific. Implementation of the Regional Framework has strengthened immunization systems and communicable disease programmes across the Region, leading to improved health outcomes.

Over the past year, there have been many successes in the fight against communicable diseases. The Region has remained polio free, nine countries and areas achieved measles elimination, and five countries and areas achieved rubella elimination. Only one country in the Region has not achieved maternal and neonatal tetanus elimination. An outbreak of vaccine-derived poliovirus has been contained in Papua New Guinea, with the last confirmed case reported in October 2018.

As of March 2019, a total of 24 countries and areas had achieved the 2017 goal of less than 1% prevalence among 5-year-old children for the surface antigen of the hepatitis B virus, which indicates a recent infection. Regional diphtheria–tetanus–pertussis vaccination coverage remained above 97%.

The Region also made substantial progress in combating TB, with a decline in TB deaths by 7% and TB incidence by 3% between 2015 and 2017, the latest year for which complete data are available. Still, TB remains a major public health challenge, as the reduction in the incidence rate has been too slow.

Work is guided by the Regional Framework for Action on Implementation of the End TB Strategy in the Western Pacific, 2016–2020, endorsed by the Regional Committee in October 2015. Through the adoption of a country-centred approach, much progress has been made in implementing the Regional Framework, notably the introduction of rapid diagnostic tools, systematic case finding and scaling up of programmatic management of drug-resistant TB, including the use of shorter treatment regimens. Progress has also been made in improving HIV testing among TB patients, determining baselines for catastrophic costs due to TB and providing social protection for TB-affected families.

The Region has also made further progress in the HIV response, including implementation of the Global Health Sector Strategy on HIV 2016–2021 and the Regional Framework for the Triple Elimination of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis in Asia and the Pacific, 2018–2030.
An estimated 73% of people in the Region living with HIV were diagnosed in 2018, 59% were receiving treatment, and 55% had achieved viral suppression. Progress in elimination of mother-to-child transmission (EMTCT) of HIV was highlighted in October 2018 when Malaysia became the first country in the Region to receive WHO official validation of the EMTCT of HIV and syphilis, one more example of the merits of a country-centred approach for effective collaborative efforts.

Early in his tenure, Dr Shin vowed to take action to address the Region’s disproportionately high hepatitis burden. With WHO stridently advocating early and intensive country-centred action, the Region took strong action on hepatitis over the past decade. As a result, 17 countries in the Western Pacific Region have developed or are now drafting national hepatitis action plans.

A growing number of countries are now able to access lower-cost generic drugs for hepatitis treatment. They are developing service delivery models to scale up access to testing and treatment. Mongolia, which hosted global World Hepatitis Day events in July 2018, is among the countries championing efforts to eliminate the disease in the Region.

Malaria-endemic countries have continued to make good progress towards achieving national elimination, even as outbreaks in Cambodia, Papua New Guinea and Solomon Islands resulted in an increase in cases.
Significant progress continues to be made towards elimination of key neglected tropical diseases (NTDs) as public health problems. Three countries and areas – Palau, Viet Nam, and Wallis and Futuna – were validated as having achieved elimination of lymphatic filariasis in 2018. Elimination has now been validated in nine of the Region’s 22 endemic countries – further testament to the success possible when WHO takes a country-centred approach. Meanwhile, China was validated as having achieved elimination of blinding trachoma in 2019.

High population coverage with mass preventive chemotherapy helped advance the control and elimination of selected NTDs. At the same time, efforts to strengthen integrated intersectoral efforts in water, sanitation and hygiene, as well as food safety and animal health, have spurred progress in the elimination of Asian schistosomiasis and the control of other zoonotic and foodborne NTDs. Countries are also making progress in reducing the health impact of dengue.

The elimination of communicable diseases will require intensified efforts, with actions that are more finely tuned and concentrated. Achieving the goal will also require health systems to be more resilient and innovative. Such an approach will accelerate time-bound efforts on specific issues based on the context of each country, as well as strengthen health systems and services to sustain achievements and ensure benefits beyond communicable disease control.

In setting out priorities for the next five years, the Regional Director notes the expectation of Member States to receive support from WHO to help control and eliminate infectious diseases as public health threats. Since taking the reins of the Region in February, Dr Kasai has been working tirelessly to prepare WHO to meet those challenges, especially by reaching the unreached with universal health services.
As a WHO flagship in the Region, the TB programme made substantial strides in reducing mortality from the disease by about 30% over the past decade. The reduction was largely due to the transition in WHO strategies from Stop TB to End TB, backed by WHO country-centred support.

TB incidence has been falling by about 2% per year in the Region. Still, an estimated 1.8 million people in the Region developed TB in 2017, with about 75% notified under national programmes. The emergence and spread of drug resistance is threatening control efforts, with only a small fraction of drug-resistant TB patients being diagnosed and treated, and a high proportion of TB-affected families continue to face catastrophic costs due to the disease.

In order to address missing cases, WHO introduced the Find.Treat.All initiative in 2018 in the Region to rapidly close gaps and scale up access to care. This represents a major shift from earlier passive case finding to intensified and active case finding among high-risk groups. The United Nations General Assembly High-level Meeting on the Fight to End Tuberculosis in September 2018 resulted in commitments at the highest levels to end TB by 2035.

In early 2019, WHO introduced updated regimens for drug-resistant TB and shorter preventive treatment options for latent TB infection to improve treatment uptake and outcomes. WHO also spearheaded support in the past two years to most of the high-priority countries in the Region to conduct TB patient cost surveys to determine baselines for the catastrophic costs and devise measures to mitigate them.

The high-priority countries in the Region are Cambodia, China, the Lao People’s Democratic Republic, Mongolia, Papua New Guinea, the Philippines and Viet Nam. High-level advocacy missions boosted country-specific actions to improve intensified case finding and strengthen multisectoral response in the following countries between mid-2018 and mid-2019.

**Mongolia** organized a high-level, multisectoral conference under the auspices of the Prime Minister. The resulting Ulaanbaatar Declaration commits to strengthening TB control through expanded patient-centred care and services as well as new technologies.

**The Philippines** launched a nationwide TB case-finding campaign with a commitment to find and treat 2.5 million people by 2022. The Government plans to achieve this ambitious target in three steps: (1) formation of high-level coordination committees; (2) massive screening and testing campaigns; and (3) enforcement of mandatory notification by private care providers and creation of a private sector consortium.

**Viet Nam** has developed an ambitious national action plan to end TB by 2030. The plan will provide a legal basis to mobilize the social and political system, in addition to the health sector, to end TB in line with national targets and the Sustainable Development Goals.
Building on the lessons of polio eradication in the Region

Launched in 1988, the Global Polio Eradication Initiative has helped countries make great strides in protecting the global population from the debilitating effects of poliomyelitis (polio). As part of global efforts, Member States in the Western Pacific Region eradicated the transmission of indigenous wild poliovirus in 1997. The Region was declared polio free in 2000.

Over the past decade, under the leadership of Dr Shin Young-soo, WHO support for countries has stressed health systems strengthening across programmes and partnerships. The Region has sustained the polio-free status through high population immunity and strong polio surveillance by integrating the polio programme with other public health priorities within the scope of national immunization programmes. However, the spread of wild poliovirus imported from endemic countries and the emergence of circulating vaccine-derived poliovirus (cVDPV) have continued even after polio-free certification.

From 2000 to 2012, there were five cVDPV outbreaks in the Region, in addition to a large-scale outbreak of imported wild poliovirus in China in 2011. The Lao People’s Democratic Republic and Papua New Guinea experienced large-scale cVDPV outbreaks in 2015–2016 and 2018, respectively. The Papua New Guinea outbreak is the second-largest outbreak of type 1 cVDPV in the world since 2000: 26 paralytic polio cases, including one death, were reported from April to October 2018. Despite its scale, the outbreak was successfully contained with strengthened outbreak detection and response capacity – the product of a decade of efforts by Member States, WHO and polio eradication partners.

Effective partnerships are key in the eradication of polio. Australia’s Victorian Infectious Diseases Reference Laboratory, a member of the WHO Regional Polio Laboratory Network, collaborated with WHO to conduct virology testing and genotyping for 663 stool samples from Papua New Guinea from June 2018 to May 2019. As a result, it was possible to generate the evidence of interruption of cVDPV transmission in the country.

As the world moves towards global certification of wild poliovirus eradication, efforts must continue to ensure that the achievements of the polio eradication programme are not reversed. The lessons and the legacy of polio eradication in the Region must be leveraged to ensure healthy lives and well-being for all, by strengthening health systems and accelerating progress towards universal health coverage, to keep the world safe from epidemics and other health emergencies.

Health workers provide immunization services to remote and hard-to-reach populations during outreach sessions in Port Vila, Vanuatu. Strong immunization programmes that reach every child are critical in maintaining the polio-free status in the Region.
Eliminating chronic hepatitis C through a public health approach

Of all the people in the world living with hepatitis C virus (HCV), approximately 14 million (or 20%) reside in the Western Pacific Region. To reverse this troubling trend, the Regional Action Plan for Viral Hepatitis in the Western Pacific 2016–2020 sets the target of eliminating viral hepatitis as a public health threat by 2030.

Today, nine out of every 10 cases can be cured with new direct-acting antiviral medicines, the generic alternatives of which have become increasingly affordable. These medicines present an unprecedented opportunity to eliminate HCV, which is a major risk factor for cirrhosis, liver cancer and premature death.

The Government of Mongolia is meeting the challenge head on with a commitment to eliminate HCV by 2020. About one in 20 people in the country are infected with HCV. Mongolia also has the world’s highest rates of new liver cancer cases. The Government launched the Healthy Liver Programme as a flagship initiative in May 2017 with WHO support. Testing is offered at all health facilities including primary care centres, initially targeting people aged 40–65 years, with links to confirmatory testing and treatment at the secondary and tertiary levels. A unique partnership model for laboratory testing – with 28 public and private laboratories working in collaboration – has been established to rapidly scale up access to testing, with all services covered under social health insurance. Building on this achievement, the Government demonstrated its strong commitment to eliminating HCV by hosting World Hepatitis Day events in Ulaanbaatar in July 2018, sharing its success stories for other countries to learn from and adapt. The Healthy Liver Programme has been expanded to cover everyone aged 15 years and above. By June 2019, more than 800 000 people have been tested and more than 27 000 people living with HCV were provided life-saving treatment.

By declaring hepatitis C a public health threat, the Government of Malaysia exercised its right to use the flexibilities permitted under the Agreement on Trade-Related Aspects of Intellectual Property Rights to facilitate access to lower-priced, generic, direct-acting antiviral medicines. With approximately 400 000 people living with HCV, the country launched universal free hepatitis C testing and treatment in March 2018. Services are now available at 44 hospitals and 25 primary care centres in the country, treating close to 3 000 people living with HCV at the end of June 2019. Further expansion to primary care facilities is planned to bring services closer to the population, including training for family physicians in August and September 2019 to ensure adequate human resources.

Protecting families against hepatitis: Mongolia offers free universal childhood hepatitis B vaccination for all children under 5 and has added hepatitis B and C testing and treatment for adults in its push to eliminate hepatitis C by 2020.
Strengthening outbreak response to accelerate malaria elimination

The emergence of partial resistance to artemisinin and its partner drugs in artemisinin-based combination therapies necessitated a radical approach to malaria in the Greater Mekong Subregion. Former Regional Director Dr Shin Young-soo provided leadership in the development of an accelerated elimination strategy for falciparum malaria in the Subregion.

Despite the efforts in the country, Cambodia experienced a malaria outbreak in 2017 because of stock-outs of antimalarial medicines and constraints in funding that impacted village malaria workers. The Ministry of Health through the National Center for Parasitology, Entomology and Malaria Control and the WHO country office in Cambodia developed an intensification plan targeting seven operational districts with the highest burden. Additional funding for the plan came from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

At its core, the plan involved an intensified outbreak response to ensure availability of key malaria commodities and services at all levels of the health system, including the village malaria worker network, and the use of strengthened surveillance data to target response by regular epidemiological analysis of disease trends. The plan also strengthened collaboration with partners under the leadership of local governments. WHO presence at the provincial level was bolstered by recruiting short-term consultants and conducting intensified supervisory visits to the provinces by staff from the Regional Office and country office. Dr Kasai, initially in his previous capacity as Director of Programme Management and later as Regional Director, participated in such missions in 2018 and 2019 to oversee implementation of the intensification plan.

These activities have resulted in a significant decrease in malaria cases. In May 2019, the reported number of falciparum infections for the first time was as low as 15% of all positive malaria cases. This progress brings Cambodia closer to realizing its national goal of eliminating falciparum malaria by 2020.

The response to the falciparum malaria outbreak in Cambodia, where multidrug resistance has been documented and considered a regional and global health security threat, is an exemplary case of applying a focused intensified approach as spelt out in Dr Kasai’s white paper for the Region. It demonstrates how success can be accelerated and achieved in the Region in the fight against communicable diseases.

To achieve malaria elimination by 2020, the malaria programme in Cambodia focuses on people living in forest-fringe areas and those engaged in logging or other forest-related work who are at highest risk of infection.
Combating the measles comeback

Measles is extremely contagious and can cause severe complications, including pneumonia, encephalitis, blindness and death. With support from WHO, Member States in the Region have been intensifying work to eliminate measles since 2003, when the regional burden was some 6.7 million cases.

Early in Dr Shin’s first term as Regional Director, WHO supported Member States to implement three core strategies for elimination: (1) immunization with two doses of measles-containing vaccine; (2) sensitive surveillance; and (3) strong national laboratory capacity and partnerships within the Region. As these strategies were implemented and scaled up, measles incidence was brought down to less than six cases per million people in 2012 in the Region.

A new challenge emerged from 2013 to 2016: a large regional resurgence of measles. Dr Shin and other WHO communicable disease experts recognized that more targeted strategies were needed to respond to new challenges while advancing towards the Region’s new goal of rubella elimination.

After a detailed analysis of the root causes of the resurgence and due consultation with Member States, WHO developed a new Regional Strategy and Plan of Action for Measles and Rubella Elimination in the Western Pacific, which was endorsed by the Regional Committee in 2017.

This Strategy now guides Member States in developing or updating national strategies and plans, including strategies to overcome barriers to health-care access for hard-to-reach populations and marginalized groups, such as migrants and the urban poor. The Strategy also promotes enhanced outbreak preparedness and response capacity. To date, four countries in the Region are updating or have finalized new action plans aligned with the new Strategy.

The results speak for themselves: nine countries and areas in the Region were verified as having achieved and sustained measles elimination in September 2018; many others are now close.

Over the past year, a measles resurgence worldwide has challenged all six WHO regions, leading to increased importation of the virus from endemic countries. Nevertheless, most countries in Western Pacific Region were relatively protected due to effective implementation of the measles elimination strategy. Endemic countries such as China, Malaysia and Viet Nam have continued to make encouraging progress towards elimination. And several Member States, including Cambodia, the Lao People’s Democratic Republic and Mongolia, effectively responded to importation-related measles outbreaks in early 2019 with support from WHO, in partnership with the Measles and Rubella Initiative, to prevent sustained measles transmission.

The strategies and programmes to support regional measles elimination that were developed and implemented under Dr Shin’s tenure have also helped build a durable legacy of establishing and strengthening systems, workforce capacity and partnerships that support routine and outreach health services.

With the commitment of Regional Director Dr Kasai to support countries on the path to universal health coverage, WHO will use investment in measles elimination as a key driver of fundamental health systems strengthening. Starting in June 2019, for example, WHO worked with multiple partners including the Global Polio Eradication Initiative, Gavi, the Vaccine Alliance, the Measles and Rubella Initiative and the United Nations Children’s Fund (UNICEF) to support a nationwide vaccination initiative in Papua New Guinea, which achieved 99% coverage, while also strengthening fundamental capacity for delivery of routine health services in remote areas. WHO will continue to work with Member States to strengthen their capacity to reach and vaccinate every child against measles, reaching the unreached while providing children with other crucial health services.