This report describes the work of the World Health Organization in the South-East Asia Region during the period 1 January–31 December 2017. It highlights the achievements in public health and WHO's contribution to achieving the Organization's strategic objectives through collaborative activities. This report will be useful for all those interested in health development in the Region.
The work of WHO in the South-East Asia Region

Report of the Regional Director

1 January–31 December 2017
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<td>ACT</td>
<td>artemisinin-based combination therapy</td>
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<tr>
<td>AEFI</td>
<td>adverse events following immunization</td>
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<td>AFP</td>
<td>acute flaccid paralysis</td>
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<tr>
<td>AFRIMS</td>
<td>Armed Forces Research Institute of Medical Sciences</td>
</tr>
<tr>
<td>AFT</td>
<td>ASEAN Forum on Taxation</td>
</tr>
<tr>
<td>AIIMS</td>
<td>All India Institute of Medical Sciences</td>
</tr>
<tr>
<td>AMR</td>
<td>antimicrobial resistance</td>
</tr>
<tr>
<td>ANMs</td>
<td>auxiliary nurse midwives</td>
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<tr>
<td>APAs</td>
<td>annual performance agreements</td>
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<tr>
<td>APSED</td>
<td>Asia Pacific Strategy for Emerging Diseases</td>
</tr>
<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<tr>
<td>ASHA</td>
<td>accredited social health activists (India)</td>
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<tr>
<td>BENAP</td>
<td>Bangladesh Every Newborn Action Plan</td>
</tr>
<tr>
<td>BHTF</td>
<td>Bhutan Health Trust Fund</td>
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<tr>
<td>BMJ</td>
<td>British Medical Journal</td>
</tr>
<tr>
<td>CCS</td>
<td>(WHO) country cooperation strategy</td>
</tr>
<tr>
<td>CKDu</td>
<td>chronic kidney disease of unknown etiology</td>
</tr>
<tr>
<td>CLSI</td>
<td>Clinical &amp; Laboratory Standards Institute</td>
</tr>
<tr>
<td>CME</td>
<td>continuing medical education</td>
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<tr>
<td>cMYP</td>
<td>comprehensive multiyear plan</td>
</tr>
<tr>
<td>WHO</td>
<td>WHO country office</td>
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<td>COPD</td>
<td>chronic obstructive pulmonary disease</td>
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<td>CRS</td>
<td>congenital rubella syndrome</td>
</tr>
<tr>
<td>CRVS</td>
<td>civil registration and vital statistics</td>
</tr>
<tr>
<td>CSOs</td>
<td>civil society organizations</td>
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<td>DFAT</td>
<td>Department of Foreign Affairs and Trade</td>
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<td>DOTS</td>
<td>directly observed treatment, short-course</td>
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<tr>
<td>ECHO</td>
<td>ending childhood obesity</td>
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<tr>
<td>CPD</td>
<td>continuing professional development</td>
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<tr>
<td>EDM</td>
<td>essential drugs and medicines</td>
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<td>EIDs</td>
<td>emerging infectious diseases</td>
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<td>EOCs</td>
<td>emergency operations centres</td>
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<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<tr>
<td>ERAR</td>
<td>emergency response to artemisinin resistance</td>
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<tr>
<td>EWARS</td>
<td>early warning alert and response system</td>
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<tr>
<td>FCTC</td>
<td>Framework Convention on Tobacco Control</td>
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<td>FDC</td>
<td>fixed-dose combination</td>
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THE WORK OF WHO IN THE SOUTH-EAST ASIA REGION

FETP  Field Epidemiology Training Programme
GAVI  Gavi, the Vaccine Alliance
GBS  Guillain-Barré Syndrome
GDP  gross domestic product
GFF  Global Financing Facility
GHSA  Global Health Security Agenda
GLP  Global Leprosy Programme
GMP  good manufacturing practices
GMS  Greater Mekong Subregion
GNH  Gross National Happiness (of Bhutan)
GPW  Global Programme of Work (of WHO)
GTS  Global Technical Strategy for Malaria
HDI  human development index
HiAP  health in all policies
HIS  health information systems
HITA  health intervention and technology assessment
HIV-AIDS  human immunodeficiency virus-acquired immune deficiency syndrome
HMM  Health Ministers’ Meeting
HNPSDP  Health, Nutrition, and Population Sector Development Plan
HPA  Health Protection Agency
HPV  human papilloma virus
HRH  human resources for health
ICAP  International Center for AIDS Care and Treatment Programs
icddr,b  International Centre for Diarrhoeal Disease Research, Bangladesh
ICT  information and communications technology
IDSP  Integrated Disease Surveillance Programme
IEHK  Interagency emergency health kit
IHPP  International Health Policy Programme
IHR  International Health Regulations (2005)
IMCI  integrated management of childhood illness
IPC  infection protection and control
IPV  inactivated polio vaccine
IRS  indoor residual spraying
ISPAH  International Society on Physical Activity and Public Health
ISQua  International Society for Quality in Health Care
ITAG  Immunization Technical Advisory Group
JMM  joint monitoring mission
JSSK  Janani Shishu Suraksha Karyakram
JSY  Janani Suraksha Yojana
LeCReD  low emissions and climate resilient development
LF  lymphatic filariasis
MCKs  medical camp kits
MCV  measles-containing vaccine
<table>
<thead>
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<tr>
<td>MDA</td>
<td>mass drug administration</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MDR-TB</td>
<td>multidrug-resistant TB</td>
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<tr>
<td>MDSR</td>
<td>maternal death surveillance and response</td>
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<tr>
<td>MDT</td>
<td>multidrug therapy</td>
</tr>
<tr>
<td>MERS-CoV</td>
<td>Middle East Respiratory Syndrome-Coronavirus</td>
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<td>MMR</td>
<td>measles-mumps-rubella</td>
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<tr>
<td>MMT</td>
<td>methadone maintenance therapy</td>
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<tr>
<td>MNT</td>
<td>maternal and neonatal tetanus</td>
</tr>
<tr>
<td>MoAF</td>
<td>Ministry of Agriculture and Forests</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MoHFW</td>
<td>Ministry of Health and Family Welfare</td>
</tr>
<tr>
<td>MPDSR</td>
<td>maternal and perinatal death surveillance and response</td>
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<tr>
<td>MR</td>
<td>measles and rubella</td>
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<tr>
<td>NATA</td>
<td>National Alcohol and Tobacco Authority</td>
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<td>NCDC</td>
<td>National Centre for Disease Control</td>
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<td>NCDs</td>
<td>noncommunicable diseases</td>
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<td>NDMC</td>
<td>National Disaster Management Centre</td>
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<td>NGOs</td>
<td>nongovernmental organizations</td>
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<td>NHAs</td>
<td>National Health Accounts</td>
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<td>NHI</td>
<td>National Health Insurance</td>
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<tr>
<td>NHSS</td>
<td>Nepal Health Sector Strategy</td>
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<td>NHSSP</td>
<td>Nepal Health Sector Support Programme</td>
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<td>NIEM</td>
<td>National Institute for Emergency Medicine</td>
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<td>NIHHRD</td>
<td>National Institute of Health Research and Development</td>
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<tr>
<td>NITAG</td>
<td>National Immunization Technical Advisory Group</td>
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<td>NMRA</td>
<td>National Medicine Regulatory Authority</td>
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<td>NPIPP</td>
<td>national pandemic influenza preparedness plans</td>
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<td>NPSP</td>
<td>National Polio Surveillance Project</td>
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<td>NRL</td>
<td>national reference laboratory</td>
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<td>NTDs</td>
<td>neglected tropical diseases</td>
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<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<td>OOP</td>
<td>out-of-pocket</td>
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<tr>
<td>PCR</td>
<td>polymerase chain reaction</td>
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<tr>
<td>PCV</td>
<td>pneumococcal conjugate vaccine</td>
</tr>
<tr>
<td>PEN</td>
<td>Package for Essential NCDs</td>
</tr>
<tr>
<td>PHEDMa</td>
<td>public health emergency and disaster management</td>
</tr>
<tr>
<td>PHEIC</td>
<td>public health emergency of international concern</td>
</tr>
<tr>
<td>PKDL</td>
<td>post-kala-azar dermal leishmaniasis</td>
</tr>
<tr>
<td>PLHIV</td>
<td>people living with HIV</td>
</tr>
<tr>
<td>PMTCT</td>
<td>prevention of mother-to-child transmission</td>
</tr>
<tr>
<td>POCQI</td>
<td>point of care quality improvement</td>
</tr>
<tr>
<td>PPE</td>
<td>personal protective equipment</td>
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<tr>
<td>Term</td>
<td>Description</td>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>RC</td>
<td>Regional Committee (of WHO)</td>
</tr>
<tr>
<td>RMNCAH</td>
<td>reproductive, maternal, newborn, child and adolescent health</td>
</tr>
<tr>
<td>RO</td>
<td>Regional Office (of WHO)</td>
</tr>
<tr>
<td>RRTs</td>
<td>rapid response teams</td>
</tr>
<tr>
<td>RSBY</td>
<td>Rashtriya Swasthya Bima Yojana</td>
</tr>
<tr>
<td>RSSY</td>
<td>Rashtriya Swasthya Surakhsha Yojana</td>
</tr>
<tr>
<td>SARI</td>
<td>severe acute respiratory infection</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SEA</td>
<td>South-East Asia (of WHO)</td>
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<tr>
<td>SEAR</td>
<td>South-East Asia Region (of WHO)</td>
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<tr>
<td>SEARHEF</td>
<td>South-East Asia Regional Health Emergency Fund</td>
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<tr>
<td>SEARN</td>
<td>South-East Asia Regulatory Network</td>
</tr>
<tr>
<td>SHOC</td>
<td>Strategic Health Operations Centre</td>
</tr>
<tr>
<td>SMOs</td>
<td>surveillance medical officers</td>
</tr>
<tr>
<td>STEPS</td>
<td>WHO STEPwise approach to surveillance</td>
</tr>
<tr>
<td>STH</td>
<td>soil-transmitted helminths</td>
</tr>
<tr>
<td>SWAp</td>
<td>sector-wide approach</td>
</tr>
<tr>
<td>TAG</td>
<td>technical advisory group</td>
</tr>
<tr>
<td>Thai FDA</td>
<td>Thai Food and Drug Administration</td>
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<tr>
<td>TPP</td>
<td>Trans-Pacific Partnership</td>
</tr>
<tr>
<td>TT</td>
<td>tetanus-toxoid</td>
</tr>
<tr>
<td>UHC</td>
<td>universal health coverage</td>
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<tr>
<td>UN Women</td>
<td>United Nations Entity for Gender Equality and the Empowerment of Women</td>
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<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<tr>
<td>UNCERF</td>
<td>United Nations Central Emergency Response Fund</td>
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<tr>
<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
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<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<tr>
<td>US CDC</td>
<td>United States Centers for Disease Control and Prevention</td>
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<tr>
<td>VPDs</td>
<td>vaccine-preventable diseases</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WHO-SEARO</td>
<td>World Health Organization – Regional Office for South-East Asia</td>
</tr>
<tr>
<td>WSPs</td>
<td>water safety plans</td>
</tr>
<tr>
<td>YLL</td>
<td>years of life lost</td>
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</table>
The Regional Director during a field visit to Cox’s Bazar in Bangladesh
Health in the South-East Asia Region is a global issue

Health and well-being matter to each and every individual, community and country in the WHO South-East Asia Region. Beyond the immediate concerns of sickness and health, life and death, the health sector is a major source of employment, particularly for women, while its quality and accessibility are vital to enhancing social stability and attaining more equitable societies. Importantly, while investment in health is of value in itself, it is also a key driver of successful economies.

Across our Region, as across the world, too many people are excluded from effective and affordable health care and are left behind as a result of their poverty, their gender, their ethnicity, the place they call home, or as a consequence of conflict or forced population movements among other causes. Moreover, given that our Region faces more natural disasters than anywhere in the world, we know that acute events hit the health of the poor and marginalized hardest.

Enhancing the state of health Regionwide – including the systems that support it – is a moral, legal and professional imperative. Notably, it is an imperative that can change the world. Of the 100 million people globally who are impoverished by health-care expenditure every year, for example, two thirds live in this Region.
Around one third of the 1 billion people targeted to benefit from access to health coverage by 2023 are also in our Region. Fifty per cent of the global deaths caused by tuberculosis (TB) take place in our Member States, two of which account for more than one third of the global TB burden. Our Region is, meanwhile, home to almost 40% of stunted children under five years of age (as well as one quarter of those that are overweight), and accounts for almost 27% of global mortality due to natural disasters and a quarter of all road traffic deaths. What happens in the South-East Asia Region matters – so much so that our success or failure will prove decisive in the world’s effort to achieve the Sustainable Development Goals (SDGs) and the ambition they represent.

Given the importance of our Region’s progress – both in each of the Region’s countries and globally – our Member States are increasingly promoting their interests in forums that shape global health governance and policy. That is both necessary and highly encouraging. Our Region requires a strong voice on the world stage and must be a key player in shaping policies that bring life-changing progress to communities at the grassroots.

The voice of our Member States – alongside WHO’s technical guidance, operational support and responsiveness to Member State needs and concerns – is especially important given the uncertainties we face. The world is currently dealing with a series of protracted humanitarian crises. Whatever our operating environment, however, we must never lose sight of what we can achieve by working together for health. Across our Region there are reasons for optimism. Three positive trends stand out.

- First, health now matters at the highest levels of government. Health is increasingly seen as a whole-of-government concern and is no longer confined to its designated ministry. In the past year we have witnessed India’s Prime Minister launch the Intensified Mission Indradhanush. We have watched the Prime Minister of Thailand commence the “Thailand marks the spot to stop AMR” campaign and appoint a multisectoral national committee to implement it. We have seen the State Counsellor of Myanmar present a new National Health Plan based on achieving universal health coverage (UHC). We have followed the Queen Mother of Bhutan as she led a countrywide advocacy tour to highlight pressing public health issues, including HIV/AIDS, teenage pregnancy, reproductive health, suicide prevention and substance abuse. And we have witnessed the President of Indonesia launch a mass catch-up campaign at a high school in Yogyakarta to help the country reach the Region’s Flagship Priority of eliminating measles and controlling rubella. Maldives, too, has made concerted, high-level commitments to tackle key public health issues such as noncommunicable diseases (NCDs), including by raising taxes on tobacco products and sugar-sweetened beverages.

- Second, the importance of catalysing and nurturing partnerships is gaining momentum. In this year’s report readers will find a section in each of the country reports that examines how WHO is working with different partners to catalyse action across government sectors and among the wider health community. That
includes our work with United Nations (UN) country teams in all countries; our work with the governments of Bangladesh and the Democratic People’s Republic of Korea (DPR Korea) to coordinate health partners in humanitarian crises; our efforts in Nepal and other countries to co-Chair or lead health partners’ groups; our Regionwide network of alliances with local organizations, civil society, collaborating centres and academic institutions to draw attention to neglected issues such as mental health; our ongoing efforts in Thailand to build relationships with private sector developers to ensure migrant children on construction sites are vaccinated; our endeavours across the Region to establish and strengthen alliances beyond the health sector to address antimicrobial resistance (AMR), NCDs and the health impacts of climate change; and our continued work with the WHO Western Pacific Region and the six countries of the Greater Mekong Subregion in the fight against malaria. I am particularly encouraged to see partnerships developing between countries to share information on the pricing and quality of medicines, and to share experiences and best practices through twinning arrangements such as those between Sri Lanka and Timor-Leste to strengthen immunization programmes.

And third, Regionwide commitment to achieve UHC is leading to a more integrated approach to advancing health for all. Indeed, UHC has become the basis for health policy in all countries, and is reflected in new sector policies and strategies in Bangladesh, India and Myanmar, and of course in Timor-Leste’s remarkable Saúde na Família (‘Health in the Family’) campaign. Notably, equitable access to quality services, financial protection and “leaving no one behind” have become the driving principles that underpin everything we do. They are also our most important metric of progress. This by no means reduces the significance of individual health programmes, but it does require us to begin seeing
health systems as more than the sum of their parts, be they building blocks or individual programmes. Health systems strengthening must no longer be seen as an end in itself, but rather as a means of ensuring better health outcomes for all programmes, as well as an essential component of each country’s capacity to protect its people when acute public health events occur.

Achievements and challenges

WHO’s work in the South-East Asia Region is guided by its eight Flagship Priority Programmes, the 2030 Sustainable Development Agenda and the achievement of the SDGs, as well as the principles and targets that Member States agreed upon when they adopted the Thirteenth General Programme of Work (GPW13) of the organization: to promote health, keep the world safe and serve the vulnerable. In line with these principles, four themes – which I outlined at the Seventieth session of the WHO Regional Committee for South-East Asia in September 2017 – underpin our work.

1. Universal health coverage and the health sector

Working toward a more equitable, effective, well-financed and results-oriented health sector is our core business. Each of our Flagship Programmes contributes in their own way to achieving UHC.

*At the High-Level Ministerial Meeting on Accelerating Malaria Elimination, New Delhi, India*
Finishing off key neglected tropical diseases (NTDs) is a case in point. By the end of 2017 four of the Region’s eight lymphatic filariasis (LF)-endemic countries reached the elimination threshold, while three – Maldives, Sri Lanka and Thailand – were validated to have eliminated the disease as a public health problem. Bangladesh and Nepal have, meanwhile, achieved the threshold for eliminating visceral leishmaniasis (VL). India has done the same in 90% of its administrative blocks and has also eliminated yaws. Importantly, because NTDs are primarily diseases of the poor and left behind, their elimination contributes to making health systems more equitable, at the same time as reducing poverty. The Region’s success is already changing the global health landscape given that it accounts for the world’s highest burden of LF, VL and leprosy.

Substantial progress has likewise been made on AIDS, TB and malaria. New HIV infections and deaths from AIDS continue to decline, while many more people living with HIV will be on treatment following the “Treat All” recommendations agreed upon in 2017. Thailand has eliminated mother-to-child transmission of HIV and congenital syphilis, and was the first country in Asia to do so; Myanmar was the first country in the Region to introduce a new, differentiated approach to service delivery for HIV. Notably, Maldives and Sri Lanka have been certified malaria-free, while new efforts are under way – in partnership with the Western Pacific Region – to tackle malaria in the Greater Mekong Subregion and across the Myanmar-China border. TB, by contrast, remains a stubborn challenge, with the Region accounting for 45% of global incidence, 50% of global deaths and 35% of the global estimated cases of multidrug resistance. Two countries – India and Indonesia – account for
37% of the global TB burden. DPR Korea and Timor-Leste are meanwhile among the top 10 countries worldwide for TB incidence rates. Though we have developed strategic plans and are modelling resource needs, the challenge of reaching the global target of ending TB by 2030 requires bold action and an accelerated response. It is for these reasons that in 2017 I designated “ending TB” as our eighth Flagship Programme and that it is now an integral part of our drive towards UHC.

With respect to the unfinished MDG agenda, by 2016 all but one country in the Region had achieved MDG 4, with under-five mortality reduced by 67% Regionwide. South-East Asia meanwhile achieved the greatest reduction among all WHO regions in maternal mortality (69%), while rates of institutional deliveries have increased dramatically. Significantly, in 2016 the Region eliminated maternal and neonatal tetanus as a public health problem and has prevented its resurgence. Four countries – DPR Korea, Maldives, Sri Lanka and Thailand – have already achieved child mortality rates below the 2030 SDG targets, while three have done the same with regards to the global maternal mortality target. I draw two conclusions from these numbers. First, we must focus: the detailed data in the final pages of this report show that some countries lag behind in terms of child and maternal mortality, and that increases in institutional deliveries are far from uniform. Second, with progress on under-five mortality, the proportion of deaths occurring in the neonatal period increases. Reducing neonatal mortality is our Flagship Priority. We have the technical tools and know where progress is needed. We must ensure our health systems deliver.

Substantial gains have been made in our quest to eliminate measles and control rubella. Both Bhutan and Maldives have already achieved the 2020 measles elimination target. DPR Korea and Timor-Leste reported zero cases in 2016 and 2017. Over 107 million children – the majority in India and Indonesia – were reached through supplementary immunization activities (SIAs) in 2017, while the Region as a whole has seen a 73% reduction in mortality
due to measles since the year 2000. That is a substantial achievement. In some countries, notably Nepal, the decline in the number of cases has been dramatic, with a reduction of over 97% for measles and 98% for rubella. We must nevertheless remember that despite impressive progress, routine immunization programmes are still missing over 4 million children with the first dose of measles-containing vaccine. Reaching those children and expanding the immunization programmes’ coverage is central to achieving UHC. Our work on health systems – especially through laboratory-based surveillance and innovations such as Pulse Lab and Rapid Pro which, respectively, monitor social media and track coverage in real time in Indonesia – is key to future success.

Rethinking frontline services and how they can prevent, detect and manage noncommunicable diseases has also been a point of focus. As the country briefs in the coming pages show, and as I have witnessed first-hand in my visits to health facilities across the Region, we are making significant progress. That is vitally important given the Regionwide shift in demographics and lifestyle and the corresponding evolution in the health needs of whole populations. Indeed, though effective outreach for immunization, mass drug administration and home-based maternal, child and newborn care remain essential, we must also have stronger institution-based health facilities that can provide continuity of care for those with multiple chronic conditions, especially as our populations age and new approaches to service delivery are devised and implemented. To that end, we cannot think about health systems strengthening in the public and (increasingly) private sectors without taking full cognizance of the need for effective NCD services.

Access to medicines and human resources for health is likewise a core concern of WHO South-East Asia and its Member States and is fundamental to achieving UHC. Two health systems priorities stand out – improving access to quality medicines and strengthening the health workforce. Notably, access to medicines is an area where partnership between countries has come into its own, particularly in relation to sharing information on pricing. Working groups established by the South-East Asia Regulatory Network are currently developing quality assurance standards for medical products; enhancing regulatory practices; strengthening vigilance for medical products; and creating a new platform for sharing information on the quality of medical products. The medicines agenda seeks not only to protect people from substandard and falsified products but, as outlined below, is a key component of financial protection through strategic purchasing. Work on strengthening the health workforce has, meanwhile, focused on transformative education and rural staff retention. We know that the quantity of trained health workers has increased, but the numbers still fall far short of the WHO SDG index. Imbalances between doctors and nurses and between rural and urban areas remain widespread. As a Region we have nevertheless agreed on 14 indicators to be used in all Member States when we assess progress in 2018.

Though financial protection and health financing are not Flagship Programmes, they underpin, and are integral, to other areas of our work that are. Indeed, while many of our
priorities are concerned with access to services, the other side of the UHC coin is protection from financial hardship due to health-care costs. The main driver of financial hardship in our Region is out-of-pocket (OOP) payments for health care. The main component of OOP spending is on medicines. While we can report a modest downward trend in recent years, OOP spending still constitutes more than 30% of total health expenditure in seven Member States. Inadequate public investment is largely responsible. While economic growth is vigorous in many parts of the Region, the share of gross domestic product (GDP) or government expenditure allocated to health remains static in too many Member States.

Importantly, we are beginning to see change. Health budgets have increased in Bhutan, India, Indonesia, Maldives, Myanmar and Thailand. As political support for public health spending grows, there is hope this trend will continue. In India, not only have we seen ambitious plans for the expansion of health protection schemes, but also commitments to significantly increase health spending as a proportion of GDP. India’s states are now required to allocate a minimum of 8% of their budgets to health. The final part of the picture is recognizing that more money alone does not necessarily translate into better health: that money must be used efficiently. Given this reality, building capacity in strategic purchasing is a growing priority.

2. Resilience in the face of emergencies and outbreaks

Resilience in the face of emergencies requires a strong health sector. It also requires establishing links with other key actors before and during an acute event, from ministries concerned and government departments to key assistance agencies and partners, be they public or private, internal or external. Depending on the scale of the emergency, local efforts also need to be coordinated with regional and global authorities in each concerned agency. Details in Part 3 of this report outline how WHO has helped address eight separate health emergencies in six different countries over the course of 2017.

Grade 3 Emergency response – Myanmar/Bangladesh

WHO’s immediate and ongoing response to the influx of an estimated 680 000 Rohingya people from Myanmar is an example of these principles at work. As a result of the influx, which began in August 2017, up to 1.3 million people in Cox’s Bazar, Bangladesh, and surrounding areas have required essential, life-saving health services. The new arrivals were traumatized, and many came with acute injuries and chronic conditions. They are especially vulnerable to infectious disease (as evidenced by the outbreak of diphtheria), in part through previous lack of access to immunization, but also from conditions in the camps. Women and children, who constitute the majority of new arrivals, have required – and still require – acute obstetric services and antenatal, newborn and child care. Problems resulting from crowded living conditions and lack of access to appropriate sanitation will be exacerbated with the monsoon’s onset.
The Regional Office, through the WHO Country Office, led the initial health response to the crisis, drawing on the Regional Office’s extensive emergency management experience. As part of the ongoing response WHO has worked with around 130 partners to deliver and manage health services, including large-scale immunization campaigns against cholera, measles, rubella and diphtheria. Though health facilities were initially concentrated in a few areas, thereby leading to inequitable access, prioritizing site management markedly increased the equitable distribution of these facilities and the services they offer.

Crucially, a review of WHO’s response took place in late January 2018 by members of the Independent Oversight and Advisory Committee (IOAC). The review – which speaks positively of the role played by both the Regional Office and Bangladesh Country Office – provides an important opportunity to clarify roles and responsibilities, particularly between WHO headquarters and the Regional Office. While this exercise will be of great value in honing our managerial and administrative response, there are other policy lessons to be learnt about coordinating health sector plans in association with other stakeholders.

That is vitally important. After a flood, an earthquake or even after civil conflict, we can expect humanitarian action that addresses acute needs to be followed by recovery and rebuilding. For WHO and its partners, our primary challenge is to sustain technical and financial support in the face of competing demands and waning international attention. But no matter how well the UN’s emergency administrative and managerial systems function,
the crisis reminds us that ultimately it is national and international systems of politics and governance that hold the keys to a more stable and equitable future.

**Health security and antimicrobial resistance (AMR)**

Our work on AMR is similarly instructive. The theme of this year’s Prince Mahidol Award Conference in Bangkok was “Making the world safe from the threats of emerging infectious diseases”. AMR featured prominently, with the meeting providing a crucial opportunity for key actors outside of the health sector – for example those engaged in livestock farming, fisheries, fruit-growing and environmental sustainability – to better understand AMR’s challenge. It was a critical event in the development of a One Health approach to the problem.

Significantly, a debate at the closing dinner considered the motion that “The world will be a much safer place in 2068” (150 years after the ‘Spanish flu’ pandemic). Though it was a light-hearted event at the end of a serious and successful conference, the motion was defeated. What was particularly striking – and by no means unique to this conference – was the widely held conviction that a safer world hinges on new scientific research and that good governance and institutional environments have a critical role in fostering and applying that research. These are lessons that must be taken seriously as we implement the growing number of AMR national action plans.

**The roots of resilience: quantifying risks, evaluating preparedness**

As the interventions above outline, and as will be expanded on later, strengthening country capacity to respond to emergencies from all hazards is one of the Region’s eight
Flagship Priority Programmes. While it is evident that our Region is particularly vulnerable to disasters, it is also evident that these risks are not equally shared. To better identify the risks each country faces we have quantified their exposure to a number of potential hazards by using existing databases and taking into account past events and predictions of future trends. The inspiration for this endeavour was to establish and provide evidence that can inform priorities for capacity-building interventions at the country level. This work has been published in the book *Roots for resilience*. The next step is to make this information more widely available through a web-based application.

The International Health Regulations (IHR) (2005) remain the basis of national preparedness and WHO’s work in supporting countries to enhance core capacities. Four of the Region’s Member States – India, Indonesia, Thailand and Sri Lanka – have declared their compliance with these capacities. In September 2017 Indonesia conducted a full-scale simulation of an influenza pandemic and response to test new guidelines and capacities. The exercise involved over 800 people and 100 institutions with observers from all over the world. In the same year each of the Region’s 11 Member States self-reported key information on IHR capacities, while WHO took part in six Joint External Evaluation (JEE) missions, with seven of the Region’s Member States now completing a JEE exercise. Many self-reported weaknesses were confirmed by the JEE exercises, though there were also cases where self-reporting was more critical than the JEE. Nevertheless, it is clear we have work to do in several Member States on risk communications, AMR, biosafety and biosecurity, response to chemical and radiation emergencies, and personnel deployment.

3. **The social, political and environmental determinants of ill-health**

Developing strong health services are vital if we are serious about improving the health of our Region’s populations. But what happens in the health sector alone – important as it may be – is not enough, nor will it ever be wholly decisive. In noting that, the 2030 Sustainable Development Agenda urges us to take action in other domains. Reducing NCD risk factors, for example, requires interventions with regard to taxation, advertising, food and beverage marketing and the promotion of physical exercise. Similarly, when it comes to road traffic injuries and deaths, the role of the health sector (at best) is simply to repair and rehabilitate ... to pick up the pieces. The real interventions needed to prevent the problem – reducing drink-driving and excess speed, enhancing vehicle and road maintenance as well as driver and passenger safety – take place elsewhere. Even as mental health services struggle for recognition and funding in the health sector, progress will also depend on legislation that prevents discrimination, as well as ongoing work across sectors to raise awareness of how to reduce the effects of depression and the tragedy of suicide.
NCDs – from talk to action

If I think back on the Region’s earlier annual reports, the NCD section’s focus was almost invariably on tobacco. Though for many years we had plans more comprehensive in scope, it is inspiring to see the range of initiatives now taking shape, particularly in combating the harmful use of alcohol, promoting exercise and improving nutrition. Notably, mental health, which is too often neglected, is gaining prominence, with Bangladesh and Bhutan focusing international attention on the importance of a whole-of-society approach to autism spectrum and neurodevelopmental disorders via the Thimphu Declaration. Moreover, while mental health counselling is an integral part of the response to any health crisis, it has been particularly important in helping meet the needs of the traumatized in Cox’s Bazar.

Key public health measures to battle NCDs such as increased taxation and targeted legislation are now backed by an increasing volume of evidence. Following successes with tobacco we have worked with Maldives, Nepal and Sri Lanka on taxation for sugar-sweetened beverages (SSBs). We have worked with Bangladesh, Indonesia, Nepal and Sri Lanka on new regulations for food and beverage marketing to children, with new legislation already implemented in Thailand. And we have worked with Bangladesh, Indonesia and Sri Lanka to decrease the consumption of salt. Maldives, Sri Lanka and Thailand now have SSB taxes in place.

While noting this wider focus, the fight against tobacco nevertheless continues. Bhutan has been recognized for its unique efforts to ban the production and sale of tobacco. Thailand has a new comprehensive legal framework to deal with the scourge. Maldives, Indonesia,
Sri Lanka and Thailand have again raised taxation of tobacco products, while Timor-Leste has introduced graphic warnings. The second Global Adult Tobacco Survey shows a 33% decline in tobacco use by young people in India and major decreases in overall rates in DPR Korea. Importantly, we continue to work with Member States and communities to explore alternative livelihoods for tobacco farmers.

**Looking to the future**

The list of factors that affect the Region’s battle with NCDs are many. Focus is vital. Gaining traction in the face of opposition from vested interests requires strong political support. That in turn requires Heads of State and other leaders to invest hard-won political capital. Sometimes it pays to be selective: significant gains in one area can build confidence and credibility for tackling others. Our country reports this year suggests we are making strong progress, and that our successes have expanded from our original bridgehead in tobacco into sugar, salt and other areas of nutrition, particularly for children.

But we have a long way to go. I see three areas that are of particular importance to our Region.

- **First, ageing populations.** The pace at which our populations are ageing is cause for concern. Changes in the proportion of the population over 60 years of age that took place over a century ago in Europe will happen in two decades or less in some of our Member States. This is an immense challenge for even the strongest health systems: ageing populations need person-centred health care and an approach to diagnosis and treatment that focuses less on curing multiple individual conditions and more on maintaining functional capacity and independence. As extended families cease to be the norm, we will need new approaches that link medical, social and long-term care. But the challenge extends beyond the health sector: older peoples’ ability to function effectively depends on pension, taxation and employment policies, as well as urban planning, transport and connectivity.

- **Second, urbanization and air pollution.** Ambient air pollution accounts for an estimated 4.2 million deaths per year worldwide from stroke, heart disease, lung cancer and chronic respiratory diseases. The problem is far from being confined to megacities. Indeed, it is estimated that soon 80% of the Region’s population will live within one hour of an urban conurbation. While urbanization brings many blessings, in our Region they are too often shrouded in a toxic cloud of health-threatening pollution resulting from dense, unregulated traffic, agricultural land clearance, the burning of waste materials, and uncontrolled emissions from factories. We are starting to see action, often at the behest of city authorities, for example in India and Nepal. The solutions are complex and require action across many sectors. But the impact on our health cannot be ignored.
And third, climate change. Climate change is already happening, and is a risk to public health, including from extreme weather events, changes affecting disease-carrying vectors, and environmental changes that cause displacement or threaten livelihoods. At the Seventieth session of the Regional Committee in 2017, ministers of health endorsed the Malé Declaration on Building Health Systems Resilience to Climate Change – a resolution that provides a clear platform for action both by WHO and national authorities.

4. Equity and rights – backed by good science, evidence and research

In an ever-changing global environment it is important – in line with the Thirteenth General Programme of Work – to re-emphasize the values and core functions that drive the work of WHO: health equity and human rights.

Our pursuit of health equity has practical application. Take the actions outlined in Chapter 3, for example, on the work that has gone into preparing the *State of health inequality in Indonesia*, refining cause-of-death data in Nepal, developing a prototype for a web-based real-time disease reporting system in India, and NCD surveys in several countries that make resource allocation more efficient and equitable. Across our Region we have pioneered ways of measuring progress to stay on track and achieve the health-related SDGs. Our tools may need replacement and in many areas the data limited, but my hope and ambition is that over time WHO will provide Member States with increasingly sophisticated and insightful measures of their performance.

That is of great importance. Increasingly, countries require research-based evidence to navigate the economic, epidemiological and demographic transitions they are undergoing. To this end, the Asia-Pacific Observatory on Health Systems and Policies (APO) – a collaborative partnership of interested governments, international agencies, foundations and researchers – which is managed by the Regional Office, is vital, and will help promote evidenced-informed health system policy research that advances equity by focusing research on different aspects of UHC.

These and many other examples demonstrate that WHO’s concerns for equity and rights in the Region are not merely abstract or theoretical concerns. Rather, we are keenly aware that UHC is only “the most powerful concept that public health has to offer” if it gets to grips with the many obstacles that stand in its way. Indeed, “Leaving no one behind“ will be reduced to a benign, hollow slogan unless it deals with the many difficult, complex and controversial issues countries face, including access to safe and affordable medicines, sexual health and rights, pain relief and palliative care, neglected religious and ethnic minorities, migrants, long-term care for the elderly, safer cities, inadequate human resources for health and many, many others.
In closing, we can be enormously proud of what we have achieved together over the past five years. I feel confident that WHO in the South-East Asia Region is now an organization that is better able to focus, is increasingly responsive to those it serves, and is more accountable to its Member States. That observation is supported in the following pages, which provides more detailed updates, country-by-country and Flagship-by-Flagship. Nevertheless, in acknowledging our many significant, game-changing successes, we must appreciate that population health is never stagnant: new challenges emerge; old problems can return. Targets and goals must be achieved. Our work continues.
Bangladesh

**Highlights**

- An innovative initiative launched to systematically rank the performance of public health facilities against health systems building block indicators. High performers were presented awards at a national ceremony as an incentive to improve management practices.

- WHO leads a comprehensive health response to the Rohingya refugee crisis, serving as a critical link between the Government and health sector partners and coordinating the establishment of health services, emergency vaccination campaigns and improvement of water quality.

- A real-time early warning and response system (EWARS) with daily reporting of 18 diseases was established for the Rohingya population in Cox’s Bazar, leading to a series of rapid vaccination campaigns against measles, cholera, diphtheria and polio.

- For the first time, Bangladesh’s surveillance system meets key international reporting standards for measles (>2/10,000 non-measles-non-rubella cases nationally) and polio (all districts reporting non-polio AFP rate of >2/100,000).

- The Government imposes 1% surcharge on all tobacco products to be used for tobacco control programmes and prevention of tobacco-attributable noncommunicable diseases (NCDs).

- The Government co-organizes the International Conference on Autism and Neurodevelopmental Disorders in Thimphu, Bhutan, and adopts the Thimpu Declaration.
The year 2017 will be mainly remembered in Bangladesh for the humanitarian response to the influx of more than 600,000 Rohingya refugees fleeing from Myanmar. While this was and continues to be an emergency operation, the entire WHO Country Office was fully involved in the response. This included all technical teams – even those specializing in areas such as noncommunicable diseases (NCDs), tuberculosis (TB), vector-borne diseases, and health systems strengthening – responding to the wide-ranging health needs of this greatly underserved population.

These teams provided technical guidance on establishing health services, supported needs assessments, took part in the training of health workers, and provided technical inputs to response plans and proposals to donors for funding. The administrative and logistical teams also played a vital role in the response – much of it invisible to the eye – ranging from travel and hotel arrangements, to establishing a rotation system for drivers, and providing administrative and budgeting support for the preparation of response plans and donor proposals. The same is true for the regional WHO Health Emergency (WHE) team, which provided instant and timely technical support, assisted with grant management and planning, offered strategic guidance and shared best practices.

Key activities and achievements in 2017

Assessing and planning staffing and educational needs of the health workforce to achieve universal health coverage (UHC)

Improving the performance and productivity of health workers will be vital to enable Bangladesh to provide quality health services throughout the country in order to achieve universal health coverage. To this end, the Ministry of Health and Family Welfare (MoHFW), with WHO support, focused on two key areas in 2017: (i) assessing current workloads of health workers and their staffing needs in order to improve human resource planning; and (ii) assessing the current production of health workers by educational institutions and efforts to assure quality education.

The staffing needs assessment involved using the WHO Workload Indicators of Staffing Need (WISN) method in two districts. The main objectives were to analyse the workloads of different types of health workers, assess current staffing needs required to deliver optimal health services, and project the human resource needs for the district public health system to deliver the planned essential services package.

Results of the assessment show that, while the workload is generally very high, this is particularly the case for nurses and general physicians working in subdistrict and district hospitals. Recommendations for immediate action included reallocating staff from low- to high-workload areas, filling existing vacant positions, and revising the scope of work for nurses to reduce their administrative workload and increase their technical responsibilities.

Longer-term recommendations included increasing the quantity and quality of staff, increasing flexibility in recruitment and human resource planning to better reflect the patient loads and disease burden in the districts, and establishing new staff categories for
administrative and support tasks to reduce the administrative burden on nurses and other health professionals.

In a step towards planning for the educational needs of the health workforce, WHO assisted the MoHFW in conducting a mapping exercise of health professional educational institutions and their graduates. A database has been built that contains 674 public and private schools and socio demographic data on their students over a 10-year period. This will provide critical information on the number of students in different health-related fields entering each school, and the number of graduates from each institution. The information will be used to formulate a comprehensive health workforce plan geared towards achieving UHC and the health Sustainable Development Goals (SDGs).

With the goal of strengthening the quality of medical education in Bangladesh, WHO also assisted the MoHFW in assessing how and to what degree medical colleges are implementing the National Quality Assurance Scheme (NQAS) that was set up to monitor and promote the quality of their educational programmes. Slightly more than half (52%) of the 104 public and private medical institutions responded to the survey. The exercise revealed that while medical schools had implemented many of the components of the programme – such as course appraisals by students and faculty development programmes – few followed the NQAS guidelines in implementing these activities.

The assessment made recommendations to place more emphasis on implementing the NQAS, strengthen the NQAS Secretariat, train faculty members from different medical colleges on the quality assurance programme, and conduct a faculty development programme through the MoHFW’s Medical Education Unit. WHO and the NQAS Secretariat worked closely on this assessment, forming a strong working relationship and increasing the Secretariat’s capacity to conduct such assessments on its own.
Establishing a transparent awards system to motivate health facilities to improve services and quality of care

WHO supported the Management Information System (MIS) unit of the MoHFW in conceptualizing and developing a systematic method to measure and reward the performance of public sector health facilities, community health services, and health offices at different levels of the health system. This health systems strengthening initiative uses the six WHO health systems building blocks\(^1\) as the framework for measuring performance, and posts the results on a publicly accessible real-time dashboard.\(^2\) It has reportedly inspired field-level health managers across the country to improve practices in health-care management with the limited resources available.

The assessment method uses four tools: (i) an online tool where facilities report on selected indicators through the existing District Health Information System (DHIS)\(^2\) platform; (ii) an onsite monitoring form that is completed by line managers; (iii) a physical assessment tool; and (iv) a patient satisfaction tool (see Fig. 1). The latter two assessments are carried out by a quasi-independent team of assessors, including WHO staff, who visit facilities that are shortlisted based on the results of the first two tools.

**Fig. 1:** The performance measurement tools for the health systems strengthening initiative

1 Consisting of: (i) health services; (ii) health workforce; (iii) health information system; (iv) medical products, vaccines and technologies; (v) health financing; and (vi) leadership and governance.

Based on the aggregate weighted scores across the four assessment tools, the first set of “champions” have been selected to receive the Health Minister’s National Award 2017 for best health management practices. A total of 50 national and divisional awards is planned to be given to divisional health offices, district civil surgeon offices, hospitals and upazila health complexes, and upazilas (subdistricts) (for their combined community health services) at an awards ceremony scheduled for February 2018.

In addition to WHO, different partners, including the United Nations Children’s Fund (UNICEF), the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), and the Health Information Systems Programme (HISP) Bangladesh, have supported this initiative.

Responding to the refugee crisis in Cox’s Bazar

When the number of Rohingya refugees from neighbouring Myanmar fleeing to Bangladesh started to grow rapidly in August 2017, WHO began emergency operations in Cox’s Bazar. The MoHFW immediately seconded the Deputy WHO Representative to Cox’s Bazar, who has extensive experience with humanitarian health emergencies, to serve as adviser to the Ministry and to strengthen the cooperation and coordination among humanitarian health partners, which grew in number on a daily basis during the month of September.

With the many competing demands due to the immense basic health needs of this population, WHO’s first task was to establish action priorities. WHO worked with the MoHFW to establish an operations centre; map out the locations of health-care facilities in camps and settlements, as well as inaccessible areas and migrant routes to ensure maximum coverage for the mobile Rohingya population; identify underserved areas; and oversee the allocation of health-care resources to fill in the gaps.

A top priority identified was the prevention and control of communicable diseases. During the first four months of operations, WHO served as the lead agency in identifying communicable disease risks, responding to public health threats, and planning mitigation

*Rohingya children at a camp with their vaccination cards*
and response measures. WHO supported the MoHFW in setting up a disease EWARS (see box) and had a major role in developing an acute watery diarrhoea (AWD) preparedness plan.

In response to measles cases and the very low immunization rates among the refugees found in the risk assessment, two measles–rubella campaigns for all children between 6 months to 14 years of age were conducted in the camps and settlements, reaching nearly half a million children. Given the extremely crowded conditions in the camps, these campaigns likely prevented a major measles outbreak.

Cholera was also identified as a major potential threat, given the overcrowding and poor water and sanitation conditions in the camps, reports of AWD among the refugees, and the fact that cholera is endemic in much of Bangladesh. To avert a major cholera outbreak, two rounds of vaccination using the oral cholera vaccine (OCV), obtained from the global OCV stockpile, took place. The first of these rounds was for 700 000 recipients aged 1 year and above, and the second round was to provide a second dose to 200 000 children aged between 1 and 4 years. This was the first emergency use of OCV in Asia and the second largest cholera vaccination campaign in the world to date (after a 2016 campaign in Haiti).

The EWARS also detected the first diphtheria cases, which led partners to pool their resources for a vaccination campaign that included diphtheria-containing vaccine (pentavalent for children under 7 year and tetanus–diphtheria (Td) for 7–14-year-olds). These campaigns provided other vaccinations as well. In all, from September to the end of the year, more than two million doses of six different vaccines plus vitamin A were administered in five campaigns (Table 1).

Table 1. Vaccination campaigns in Cox’s Bazar, September–December 2017

<table>
<thead>
<tr>
<th>Campaign dates</th>
<th>Vaccines provided</th>
<th>Target age group</th>
<th>Number vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 September–3 October</td>
<td>MR</td>
<td>6 months to &lt;15 years</td>
<td>135 519</td>
</tr>
<tr>
<td></td>
<td>bOPV</td>
<td>&lt;5 years</td>
<td>72 334</td>
</tr>
<tr>
<td></td>
<td>Vitamin A</td>
<td>6 months to &lt;5 years</td>
<td>72 064</td>
</tr>
<tr>
<td>10–18 October</td>
<td>OCV</td>
<td>&gt;1 year</td>
<td>700 487</td>
</tr>
<tr>
<td>4–9 November</td>
<td>bOPV</td>
<td>&lt;5 years</td>
<td>236 696</td>
</tr>
<tr>
<td></td>
<td>OCV</td>
<td>1 year to &lt;5 years</td>
<td>199 472</td>
</tr>
<tr>
<td>18 November–5 December</td>
<td>MR (mop-up)</td>
<td>6 months to &lt;15 years</td>
<td>354 982</td>
</tr>
<tr>
<td>12–31 Dec.</td>
<td>Pentavalent, PCV, bOPV-3</td>
<td>6 weeks to &lt;7 years</td>
<td>149 962</td>
</tr>
<tr>
<td></td>
<td>Td</td>
<td>7 to &lt;15 years</td>
<td>165 927</td>
</tr>
</tbody>
</table>

Water quality surveillance was identified as another top priority in preventing and controlling communicable diseases, given the poor sanitation conditions. The WHO environmental health team worked with the Government’s Department of Public Health Engineering to conduct three major surveillance rounds, during which 3374 samples from households and 1687 samples from drinking water sources were collected and analysed.

**Box 1. Setting up a disease early warning and response system for the Rohingya population**

In response to the influx of an estimated 655,500 Rohingyas from Myanmar who crossed the border into Cox’s Bazar in Bangladesh between 25 August and 31 December 2017, WHO and the MoHFW set up a disease early warning and response system (EWARS). The system gathers and analyses data on disease trends and investigates reports of possible cases of epidemic-prone diseases in order to detect and prevent potential outbreaks early on.

To establish the system, standard case definitions and reporting forms were developed in consultation with all health partners to maximize their acceptance, and widely distributed to all 175 health facilities and mobile clinics serving the refugee and host populations in Cox’s Bazar district. More than 300 district and national surveillance staff were then trained on the case definitions, use of reporting forms, and data flow and reporting mechanisms. The system contains 18 conditions considered to be epidemic-prone or of public health importance, for which all health facilities throughout the district are required to report case counts on a daily basis.

Disease reporting through the system began on 2 October; gradually increasing from only 1–4 reports per day during the first month to an average of 285 daily reports by December, and covering all 11 refugee settlements and the entire host population in the district. Information from the reports is compiled on a daily basis at the District Civil Surgeon’s control room and reported in a *Morbidity and Mortality Weekly Bulletin* published by the MoHFW and WHO each week.

To detect and respond to possible outbreaks, the system has (for most diseases) a defined alert threshold that triggers action. During the first two months since it was set up, the EWARS triggered more than 100 disease investigations, including for measles, tetanus, diphtheria, acute jaundice syndrome, and bloody as well as acute watery diarrhoea.

This involved field teams investigating the alerts and, depending on the suspected disease, clinically reviewing cases, tracing contacts, actively finding other cases and obtaining samples for laboratory diagnosis. The teams also carried out limited interventions to prevent outbreaks, such as health education and distribution of water purification tablets.

EWARS proved its value immediately after its launch by enabling WHO and MoHFW epidemiologists to confirm an outbreak of measles in mid-October, which led to a mop-up vaccination campaign that began a few weeks later. The system has also been instrumental in informing decisions about the need for and prioritization of other vaccination campaigns, including for pentavalent, cholera and diphtheria-containing vaccines.

Up to epidemiological week 49 of 2017, the EWARS registered more than 620,000 consultations, the majority of which were related to AWD and acute respiratory infections. A total of 273 deaths were recorded for diseases under surveillance.
The third round revealed that more than 30% of water sources and 79% of household water supplies were contaminated with *E. coli*. The surveillance results have been shared with humanitarian partners, particularly those from the water, sanitation and hygiene (WASH) sector, for action.

Based on the results, WHO recommended chlorination of contaminated shallow tubewells, the installation of new safe water points, decommissioning or relocation of latrines near water sources, organization of hygiene promotion activities, and a chlorination plan for households. As part of the response, WHO also procured three water purification units that together provide a complete drinking water supply system for up to 60 000 people, two water storage kits and five water tanks.

Another top priority identified was the provision of health-care services for the refugee population. WHO assisted the MoHFW in defining a minimum package of services to be available in the camps and settlements, minimum quality-of-care standards, and the location of sites for health facilities. All technical teams from the Country Office assisted in conducting needs assessments and setting up a range of health-care services, including for TB, vector-borne diseases, and NCDs. The NCD team, for instance, conducted an initial assessment of the diagnostic and treatment capacity for NCDs of health providers in the area and provided needed equipment. The team also supported mental health and psychosocial support services. The health systems team took part in an assessment of the needs and gaps in the district and upazila-level referral hospitals, and helped ensure the quality of locally procured drugs.

Also critical to the provision of health services for this population was the procurement by WHO of a large quantity of urgently needed drugs, medical commodities, equipment, and other supplies. These included 81 basic inter-agency emergency health kits (IEHKs) to meet the health needs of 81 000 people for three months, three surgical supply kits to cover 300 surgical interventions for 10 days, four inter-agency diarrhoeal disease kits that can together support the treatment of 2800 patients with diarrhoea of differing severity, five medical camp kits that can serve as an AWD treatment unit, and 11 cholera drug modules.

Through this assistance, WHO was able to help 17 health partners provide primary and secondary health-care services to the refugee population.

**Making headway in reinforcing tobacco control**

In 2017, the Government, with WHO support, stepped up its efforts to enforce the country’s tobacco control law of 2013 and related rules, which were enacted to increase Bangladesh’s compliance with the global Framework Convention on Tobacco Control (WHO FCTC). The 2013 law requires that graphic health warnings covering 50% of the packaging be placed on all tobacco products and rotated every three months. It also bans smoking in public places and on public transportation, and forbids the sale of tobacco to and by minors. In
response to monitoring and media reports that compliance with the law by businesses was low, the Government, with support from WHO, implemented a one-month initiative to operate dedicated mobile courts in all 64 districts of Bangladesh to prosecute offenders of the tobacco law. The courts fined violators, had a biri\(^3\) factory’s managers imprisoned, and destroyed tobacco products worth nearly US$ 20 000 without graphic health warnings.

In another effort to improve compliance with the tobacco law, the National Tobacco Control Cell within the MoHFW trained 128 sanitary inspectors on the law and their role in enforcing it. The training included a series of interactive role-plays to develop their skills in handling situations that may arise, such as the sale of tobacco products to minors, advertisements at points of sale or hospitals not enforcing the smoking ban.

A key development in the control of tobacco in 2017 was the approval by the Cabinet of a policy dictating the use of resources generated from a new 1% surcharge on all tobacco products. WHO, along with other partners, helped the Government draft this surcharge policy, which requires that revenues generated from the tax be used to finance tobacco control activities.

In another development, the National Institute of Preventive and Social Medicine (NIPSOM) established a tobacco cessation training network, with WHO support, to help build the capacity of the health-care system to provide tobacco cessation services. Following the training of 30 master trainers and 120 health-care providers, a “brief advice” counselling intervention that encourages smokers to quit has been initiated in seven primary care

\(^3\) Bir or “bidi” (hand-rolled cigarettes)
facilities. More than 2500 patients who received the intervention were followed up through phone calls to determine if they had actually quit using tobacco products. NIPSOM also conducted a survey of adults to assess the impact of anti-tobacco advertisements that include graphic health warnings in the newspapers. The study revealed a positive impact and concluded that such graphic anti-tobacco advertisements can be an effective component of a comprehensive tobacco control package.

The MoHFW conducted the country’s second Global Adult Tobacco Survey (GATS) in 2017, with technical and financial assistance from WHO. Data analysis is nearing completion and will provide an indication of the trend in tobacco use since the first GATS in 2009. The previous survey found that 43% of adults used tobacco – making Bangladesh one of the highest tobacco-consuming countries in the world.

Moving towards measles elimination and rubella control

Bangladesh reached a milestone in 2017, achieving a national reporting rate of non-measles-non-rubella febrile illnesses of 2.3 per 100 000 children under 15 years of age. The country is one of only a few in the Region to have reached the WHO reporting threshold of >2/100 000 which indicates a sensitive surveillance system.

Another milestone was the development, with WHO technical assistance, of a Strategic Plan for the Elimination of Measles, Rubella and Congenital Rubella Syndrome (CRS) in Bangladesh, which sets 2020 as the target date for eliminating these diseases. Among the objectives of the Strategic Plan are to achieve 95% coverage with two doses of measles–rubella (MR) vaccine in every upazila, municipality and city corporation; establish elimination standards for measles, rubella and CRS surveillance; maintain an accredited measles–rubella laboratory; prevent and respond to measles and rubella outbreaks; and conduct advocacy, social mobilization and communications activities to ensure political commitment and community engagement.

Already, 61 out of 64 districts and nine out of 11 city corporations have achieved 95% coverage with two doses of measles-containing vaccine, according to government estimates. In addition, surveillance and programme performance monitoring has been established; an accredited measles-rubella laboratory is in place; and a Measles Elimination Verification Committee has been formed.

The immunization programme has also established a strict protocol that is tied to the surveillance system for responding to possible measles outbreaks. An investigation, followed by vaccination of previously unvaccinated children, is triggered as soon as a ward reports more than two cases in one month. An incidence rate of more than five cases per million people sets off a supplemental immunization activity (SIA) for the entire division, as was the case with Chittagong division in 2017.
Maintaining Bangladesh’s polio-free status

For the first time, all 64 districts in 2017 have achieved a non-polio acute flaccid paralysis (AFP) reporting rate of above the WHO standard (2/100 000), indicating high sensitivity of the AFP/polio surveillance system. Environmental surveillance for early detection of poliovirus has now been established at four sites in Dhaka and has found no evidence that type 2 poliovirus is circulating in the country. This leads one to conclude that the switch from the trivalent oral polio vaccine (OPV) to the bivalent vaccine (which lacks type 2) in 2016 was successful.

The immunization programme also switched from using the full dose of inactivated polio vaccine (IPV) (given at 14 weeks of age) to a fractional dose, due to a global IPV shortage. WHO assisted the programme throughout the switch process, including with the training of health-care workers on how to administer the reduced dose – which requires a more difficult-to-administer intra dermal injection – and on monitoring for adverse side-effects.

Improving maternal and adolescent health

The MoHFW in 2017 endorsed a new National Maternal Health Strategy (2015–2030), developed with WHO assistance, with the goal of making access to quality labour and delivery care in appropriately equipped and staffed health facilities available to the largest
proportion of women in order to reduce maternal and neonatal morbidity and mortality. The strategy also focuses on providing a continuum of reproductive health services to women – from preconception to antenatal and postpartum care.

To support the implementation of the Strategy, WHO developed a training manual on the active management of the third stage of labour, the use of partographs to monitor labour and vital signs of the fetus and mother, and management of pre-eclampsia and eclampsia. The focus of these interventions is on reducing the main causes of maternal mortality, i.e. postpartum haemorrhage and eclampsia, which account for about half of all maternal deaths.

The orientation package was piloted in one district hospital and one upazila hospital in Narayanganj district. Doctors, nurses and midwives employed in the labour ward – a total of 15 from each hospital – participated in the pilot training programme. The MoHFW will scale up the training and WHO will support all upazilas in three districts.

Another major achievement in 2017 was the endorsement by the MoHFW of the country’s first National Adolescent Health Strategy (2017–2030), developed with technical support from United Nations Population Fund (UNFPA), WHO, UNICEF and local partners. The goal of the Strategy is “for all adolescents to lead a healthy and productive life in a socially secure and supportive environment where they have easy access to quality and comprehensive information, education and services”. The Strategy outlines interventions in four priority areas: (i) adolescent sexual and reproductive health; (ii) violence against adolescents; (iii) adolescent nutrition; and (iv) mental health of adolescents. WHO also assisted the Ministry in developing an accompanying action plan.

Co-organizing an international conference on autism and neurodevelopmental disorders

The WHO Country Office for Bangladesh – together with the Country Office for Bhutan and the Regional Office – assisted the governments of Bangladesh and Bhutan to organize and co-host the International Conference on Autism and Neurodevelopmental Disorders in Thimphu, Bhutan, in April 2017. This was the first conference of its kind to take place in the Region.

The three-day meeting brought together policy-makers, advocates, experts and persons living with autism spectrum disorder and other neurodevelopmental disorders from all over the world to discuss effective and sustainable programmes for individuals and families affected by these disorders. The Bangladesh Country Office provided extensive support for planning and organizing this conference, including facilitating coordination between the two health ministries and the different WHO offices.

Her Majesty The Queen of Bhutan graced the inaugural session along with H.E. Sheikh Hasina, Honourable Prime Minister of the People’s Republic of Bangladesh, H.E.
Dasho Tshering Tobgay, Honourable Prime Minister of the Royal Government of Bhutan and Dr Poonam Khetrapal Singh, Regional Director, WHO South-East Asia. H.E. Sheikh Hasina chaired a high-level discussion on the theme: “Enabling countries to successfully address autism and other neurodevelopmental disorders as part of their Sustainable Development Goals”. The Prime Minister’s daughter, Ms Saima Wazed Hossain moderated the high-level discussion and facilitated the Thimphu Declaration on Autism and Other Neurodevelopmental Disorders that was adopted by all Member States in the Region. Ms Hossain was later appointed WHO Goodwill Ambassador for Autism in the South-East Asia Region.

### Addressing water quality and safety

Considerable progress was made in 2017 to improve and expand national water quality surveillance and pilot climate-resilient water safety plans (CR-WSPs) in municipal and community-based water supply systems. This project, funded by AusAid and Department for International Development (DFID), created a team of WSP auditors consisting of 12 engineers from the Department of Public Health Engineering, who were then trained in conducting WSP audits. A surveillance team, including the auditors, carried out WSP audits and water quality testing (e.g. for arsenic, iron, manganese and salinity) at water sources of 17 municipal piped water supply systems, as well as for fecal contamination at the point of use. To improve adaptation to climate change risks and deliver safe water to consumers, CR-WSPs were piloted in four vulnerable towns with piped water supplies and eight rural unions that use “point water sources”, such as tubewells, dug wells and rainwater collection tanks.

The Government and WHO organized a national conference on drinking water safety, attended by national WASH partners, to ensure the future sustainability of WSPs and to plan strategies to achieve the SDG target of ensuring safe water for all by 2030. In addition, to reach the SDG targets for WASH in health-care facilities, the Government, WHO and WASH partners jointly organized a national conference on WASH in health-care facilities, and prepared a joint action plan to meet the goal of ensuring safe water supplies and adequate sanitation in all health facilities.

### Partnerships

Through its long-standing presence in Bangladesh, WHO has become a trusted partner of the MoHFW. In its capacity as the lead agency for the health sector in the emergency response in Cox’s Bazar, WHO was able to ensure that all 120 international and local health sector partners operating in the area were integrated into the MoHFW’s emergency coordination mechanisms.
As the main liaison between the Government and this large group of partners, WHO communicated government policy and overall direction to the partners. Conversely, the WHO Country Office has been interacting with the Government on behalf of all partners, and conveying their concerns, be it about day-to-day issues that required practical decisions or more complex problems that needed a policy response. WHO has also provided authoritative health guidance to partners, overseen the development of the health strategy and contingency plan, conducted joint health assessments, provided up-to-date health information to partners, identified needs and gaps, and worked with partners to fill them in.

WHO has been responsible for rationalizing health-care services in the camps and settlements and overseeing the process of reallocating them to where they were most needed. It also played a leadership role in improving the quality of health-care services being provided in the area by various health partners. This was in response to a review estimating that 40% of services being delivered did not meet basic quality standards, as well as reports of harmful practices by some health facilities.

In response, the local health authority established minimum standards for health services, with WHO support and the cooperation of health partners. Under this plan, all primary health facilities in the area were classified as either health posts or health-care centres – each of which had to provide an agreed-upon level of services based on Bangladesh’s essential services package. Partners not meeting these standards would be asked to leave.

WHO’s strong relationships with UNICEF and icddr,b were also critical to ensure the series of timely and high-quality vaccination campaigns that were conducted over a four-month period in Cox’s Bazar to prevent major disease outbreaks. Equally, due to WHO’s long-term working relationship with the Communicable Disease Control (CDC) Division of the MoHFW, the CDC Line Director in Dhaka was closely involved in coordinating the campaigns, helping to ensure their success.

WHO brought in partners outside of the health sector to participate in health sector coordination, such as those working on WASH, site planning, social protection and nutrition. In addition, the WHO Country Office, in its role as Chair of the Bangladesh Health Development Partners Forum, helped establish direct links between humanitarian partners and development partners, the latter having had little involvement in the emergency operations in Cox’s Bazar.

This forum has provided the opportunity for the various partners to discuss ways in which the development community can address the crisis in Cox’s Bazar over the longer term. These discussions led, for example, to WHO mobilizing resources from the World Bank for the MoHFW to establish an operational team in Cox’s Bazar, resulting in improved coordination and decision-making by the Ministry based on better, on-the-ground information. Through this emergency cooperation, WHO’s role has been strengthened.
as a broker between the Government and donors, especially the World Bank, as well as between the Government and humanitarian partners operating in Cox’s Bazar.

**Looking ahead**

During the second half of 2017, much of the WHO Country Office staff was deployed to or otherwise engaged in the emergency response to the refugee crisis. While WHO will continue its operations in Cox’s Bazar in 2018, it is recruiting emergency staff to be deployed in the area, in order to enable regular staff to work on core programmes. WHO will continue to play a role in the planning and implementation of vaccination campaigns in the camps, which are currently foreseen to include a second round of cholera vaccination for the general population (>1 year old), and another round of MR vaccination for children under 5 years. While core emergency activities in the camps – such as water quality surveillance, outbreak investigations and response, and the coordination of partners – will continue, work will intensify and expand in some other areas such as NCDs, mental health and psychosocial support.

The MoHFW will continue to roll out the essential services package, which was developed in 2016 with WHO technical assistance. Activities in 2018 and beyond will include an orientation on the package for MoHFW line directors, the development of guidelines for infection prevention and control, and the preparation of guidelines for a referral system. In addition, standard treatment guidelines for services included in the package will be reviewed and updated, as necessary.

To support the implementation of the country’s Health Workforce Strategy, WHO will assist the MoHFW with a health labour market analysis, and health workforce planning. WHO will also continue its support activities to improve the quality of professional health education in the country, including scaling up the NQAS at medical colleges, and reviewing and updating the curricula of different health professional educational institutions, as well as improving the educational institution database described above.

In the area of NCDs, WHO will advocate to the Government to endorse the Multisectoral Action Plan for NCDs developed with WHO assistance in 2015, and support its implementation, including revising standard treatment protocols for NCDs in primary health care settings.

Another major activity will be the analysis and report writing of the STEPS survey of NCD risk factors, which is currently under way. The results will be compared with those from the 2010 STEPS survey, allowing for an analysis of trends in the prevalence of NCD risk factors over the past 7 years. In addition, WHO will support the Ministry in developing and submitting a national mental health policy to the Cabinet, and in adapting the global
mental health Gap Action Programme (mhGAP) for Bangladesh in order to improve the provision of mental health services in the country.

Upcoming immunization programme activities include preparing for the nationwide introduction of rotavirus vaccine in late 2018, which includes upgrading the cold chain system and conducting cascade training of health workers on the new vaccine. The programme will also begin implementing the Urban Health Immunization Strategy that was developed by WHO with the Government and other partners in order to improve immunization coverage in urban areas, starting in Sylhet and Chittagong. In addition, planning will begin for the nationwide introduction of the human papillomavirus (HPV) vaccine, which is anticipated for 2019.

Additional activities in 2018 include the development of a green hospital model plan to enhance health systems resilience to climate change, a TB drug-resistance survey, and an antibiotic consumption survey to guide future activities to reduce antimicrobial resistance.
Bhutan

Highlights

- Bhutan becomes one of the first two countries in the WHO South-East Asia Region to eliminate measles before the regional target of 2020.

- The Minister of Health, His Excellency Mr Tandin Wangchuk, receives the WHO Director-General’s Special Recognition Award on World No Tobacco Day, 31 May 2017, for the nation’s unique efforts to ban the production and sale of tobacco.

- Her Majesty the Queen Mother of Bhutan leads a nationwide advocacy tour to promote public awareness of key public health issues – including HIV/AIDS, teenage pregnancy and reproductive health, suicide prevention and substance abuse – that particularly targeted vulnerable and marginalized populations.

- The Minister of Health launches the first comprehensive review of Bhutan’s health system to prepare for the development of the next five-year health plan.

- The health ministers from Bhutan and Bangladesh co-host an International Conference on Autism and Neurodevelopmental Disorders in April, where Member States adopt the Thimphu Declaration that calls for a “whole-of-society” approach to caring for people with autism and other developmental disorders.

- A joint external evaluation on Bhutan’s core capacities to implement the International Health Regulations (IHR) (2005) is successfully conducted in December.
Bhutan’s health system is guided by the philosophy of “Gross National Happiness (GNH)” that gives the highest priority to the population’s physical, mental and spiritual well-being within a safe and secure environment. The Constitution mandates the Royal Government to “provide free access to basic public health services in both modern and traditional medicines” and “endeavour to provide security in the event of sickness”. The National Health Policy and current Five-Year Health Plan both have the goal of achieving universal coverage of free health services, with the provision of high-quality primary health care as a key strategy in achieving this goal. The health system in Bhutan is also focused on reducing preventable maternal and child deaths, ending the epidemics of communicable diseases and NCDs, and strengthening the health system’s capacity to achieve UHC and the SDGs.

WHO has provided strategic and critical support over the years to strengthen the capacity of the health system. The results of this cooperation are evident from the many achievements and milestones reached in 2017, including first and foremost, the elimination of measles.

Key activities and achievements in 2017

Completion of a systematic review of the health system

In June 2017, the Minister of Health, H.E. Mr Tandin Wangchuk, launched a report of the first comprehensive review of Bhutan’s health system. The review, conducted with technical assistance from WHO and the International Health Policy Programme (IHPP) Thailand,
used the standardized Health Systems in Transition (HiT) methodology. This involves a systematic assessment of a country’s health system – from its organizational structure and governance to its financing, physical and human resources, and provision of services. The review consisted of a year-long process that involved extensive consultative meetings and dialogue with key stakeholders, including government officials, development partners, civil society and academia from the country and the region. This process helped to build consensus on the importance of developing an evidence base to inform health policies.

The report, which was internationally peer reviewed, will be used to inform the development of the nation’s next Five-Year Health Plan (2018–2023), as well as the collaborative Programme Budget of WHO for 2018–2019. It is, therefore, expected to help further strengthen the delivery of quality health services towards achieving UHC and the SDGs.
Advancing the regional agenda to address autism and other neurodevelopmental disorders

The Ministry of Health of Bhutan and Bangladesh co-hosted a three-day International Conference on Autism & Neurodevelopmental Disorders in Thimphu in April 2017, with

Box 3. Bhutan’s Queen Mother leads a ‘high-level advocacy tours’ to raise awareness of priority public health and social issues

Her Majesty the Queen Mother, Gyalyum Sangay Choden Wangchuck, has been a visible advocate for addressing major health and social issues in Bhutan – from the prevention of HIV/AIDS and ending the stigma related to this disease, to substance abuse, maternal and child health, teen pregnancy, and NCDs, among others. Given her influence in Bhutanese society and her interest in public health advocacy, the MoH, with financial and technical support, organized a series of “advocacy tours” in 2017 led by H.M. the Queen Mother. This was a key strategy to increase public awareness and knowledge of major public health and social issues.

The Queen Mother led three tours to a total of 14 of the country’s 20 districts (dzongkhags) over the year – visiting schools, colleges, hospitals and local communities – where different events were held for students, teachers, members of the Royal Bhutanese Army and their families, the police, local government officials, the business community, vulnerable groups and the general public. She was accompanied by a multisectoral advocacy team that included Cabinet secretaries, officials of the Ministry of Health and Ministry of Education, CSOs, parliamentarians, and officials of development partners (WHO, UNICEF and UNFPA).

During the events, Her Majesty would speak on issues relevant to the audience, followed by talks and poster presentations by team members, a question and answer session, and “infotainment” activities by local entertainment groups. The campaign covered a wide range of public health topics, such as alcohol abuse and its effects, teen pregnancy, newborn and infant health (e.g. the importance of institutional births, breastfeeding and immunization), HIV/AIDS (prevention, treatment and the issue of discrimination), hepatitis and TB, cervical cancer and suicide prevention. Each session also included health screening for NCDs (e.g. body mass index (BMI), blood pressure, blood sugar) and HIV and sexually transmitted diseases, as well as counselling services.

Another key objective of the tour was to increase the role of local leaders in creating awareness about and addressing priority public health and social issues. Towards that aim, visits to each district in the tour included meeting with local members of two government-established advocacy organizations to get them more involved in addressing these issues at the local level in an integrated, efficient, effective and sustainable manner. These are the Multisectoral Task Force (MSTF), established by the MoH to conduct advocacy on HIV/AIDS, and the Community-Based Support System (CBSS), established under the patronage of H.M. the Queen Mother to increase the participation of community leaders in tackling social issues, such as domestic violence and child protection.

The advocacy campaign directly reached more than 35,000 people and attracted wide media coverage to extend its public health messages to a larger audience.
the theme of developing effective and sustainable multisectoral programmes for individuals, families and communities living with autism spectrum disorder and other neurodevelopmental disorders (NDDs).

In her opening remarks, the WHO Regional Director, Dr Poonam Khetrapal Singh, emphasized the importance of working together to address autism and other NDDs. During the meeting, attended by more than 300 participants, Member States and development partners adopted the Thimphu Declaration. The Declaration calls upon countries in the Region to develop disability-friendly policies – including measures to combat the social stigma and promote inclusiveness of those affected – through a “whole-of-government” and “whole-of-society” approach, including the health, education and social service sectors. It also calls for strengthening information systems and research on autism and NDDs, including the sharing of best practices within and across countries; and for policy-makers, civil society, NGOs, academia, the private sector and the media to work together to address these disorders.

Determining Bhutan’s ability to comply with the IHR (2005)

Following a request from the MoH, a joint external evaluation (JEE) to assess the IHR (2005) core capacities in Bhutan was successfully conducted in December 2017. The evaluation consisted of a self-assessment completed by national stakeholders from a range of government sectors and organizations, which looked at capacities in all 19 technical areas included in the IHR. This was followed by a JEE mission of 12 international experts from all three levels of WHO and other key international organizations to conduct an external evaluation. Prior to the evaluation, WHO led a series of workshops with stakeholders and national authorities from multiple sectors to help them prepare for the JEE self-assessment.

The evaluation gave Bhutan a good score for having an IHR coordinating mechanism and policies to ensure compliance, and a strong immunization programme with high coverage rates, but lower scores in several other areas (e.g. detection and surveillance of antimicrobial resistance biosafety and biosecurity measures, and the ability to respond effectively to a public health emergency, including at ports of entry). The evaluation report
included recommendations to update IHR-related laws, guidelines and standard operating procedures (SOPs); implement mechanisms to enable professionals from different sectors, e.g. human and animal health, to adopt the One Health approach; and establish a training and exercise programme to test and improve preparedness and response operations. Technical and financial support from WHO and other development partners is crucial for taking these recommendations forward.

As an important step to improve the country’s ability to reduce and control AMR, in 2017 the Government approved a National Action Plan on AMR (2018–2022), developed with WHO support and based on the “One Health” approach.

**Strengthening the health sector’s preparedness and response to emergencies**

Actions were taken on several fronts in 2017 with the aim of improving the preparedness and response by Bhutan’s health sector to a natural disaster, under the EU-funded Bhutan

### Box 4. First mock emergency drill takes place at the National Referral Hospital

At 1.25 p.m. on 21 September 2017, a loud siren goes off at the Jigme Dorji Wangchuck National Referral Hospital (JDWRNH). Six ambulances pull over outside the emergency department, carrying scores of casualties, and ward boys run out with stretchers. The department is flooded with patients and caretakers seeking immediate assistance.

This was a mass casualty management drill conducted for the first time in Bhutan at JDWRNH, with WHO support. Here was the mock situation: an earthquake with a magnitude of 7.6 on the Richter scale has hit Sikkim, across the border in India. More than 1200 of the hospital’s staff and 100 volunteer students from the Khesar Gyalpo University of Medical Sciences of Bhutan took part in the drill.

The hospital’s medical superintendent, the designated “incident commander”, said: “The drill is to see how the hospital would manage when large causalties are reported at the hospital because of a disaster.” He committed to taking forward the lessons learnt and incorporating recommendations that were made following the exercise into similar drills, which he affirmed will take place twice a year to further strengthen the hospital’s ability to respond to disasters.

Similar simulation exercises, also supported by WHO, have since been conducted in seven regional referral and district hospitals throughout the country.
Health Sector Emergency Preparedness Project. To strengthen the ability of hospitals to promptly respond to such an emergency, contingency plans were prepared and emergency supplies pre-positioned at four hospitals, including the Jigme Dorji Wangchuck National Referral Hospital. This was followed by simulations at these hospitals of an emergency causing mass casualties to practise how they would manage such a situation (see Box). In addition, the WHO Bhutan Country Office, in collaboration with the MoH and the Nepal Country Office of WHO, pre-positioned five medical camp kits at key sites and organized a training on their deployment for personnel from different sectors (e.g. health staff, police, volunteers called “Dessups”, local government and others) in the eastern part of the country.

To strengthen the capacity of the broader health sector to respond to an emergency, the country developed a strategy for risk communications for health and, following a training of trainers at the SEA Regional Office, 55 key health officials received risk communications training, including district health officers, chief medical officers from district and referral hospitals, media focal points and programme officers. The MoH, with WHO support, also developed the Bhutan Risk Assessment Guidelines and trained key health staff on their use, and revised the SOPs for the country’s rapid response teams to include both natural hazards and infectious diseases. And in another critical step, the establishment of a health emergency operations centre (HEOC) on the grounds of the MoH got well under way in 2017, with the installation of facilities to house it, the procurement of supplies, and the development of HEOC guidelines and SOPs; the Centre has become operational in March 2018.

Finally, to enable Bhutan to assist other countries during an emergency, WHO facilitated a workshop on the requirements for the Bhutan Emergency Medical Team to be certified by WHO, and initiated the registration process.
Responding to an outbreak of dengue

Following reports of suspected dengue cases from some districts, WHO deployed an international expert on clinical management of dengue within a week, who reviewed the clinical guidelines on managing dengue patients and provided hands-on training to about 100 doctors, nurses, paramedics and health workers.

By December 2017, four districts with a total population of about 100,000 had been affected, with a total of 823 cases reported.

Realizing the importance of community participation in preventing and controlling dengue, WHO provided assistance to the four affected districts with dengue surveillance, on-site training on clinical management of dengue, a door-to-door awareness-raising campaign, and identification and elimination of mosquito breeding sites. WHO also supported the procurement of rapid diagnostic test kits and chemicals for mosquito control. No deaths due to dengue occurred during the year.

Partnerships

Some of the many examples of collaborative relationships that the WHO Country Office for Bhutan has fostered to assist the country with its health development activities include the following:

- Bhutan secured funding of US$ 400,000 from the UN Partnership to Promote the Rights of Persons with Disabilities (UNPRPD). The proposal was developed jointly by WHO, United Nations Development Programme (UNDP) and UNICEF to help advance the rights of people with disabilities. It recognizes that while Bhutan’s philosophy of GNH embodies a strong commitment to realizing the
equal rights of all, including people with disabilities, Bhutan has not yet ratified the Convention for the Rights of Persons with Disabilities (CRPD) and is yet to develop an adequate policy, institutional or legislative framework for people with disabilities to realize their equal rights.

- As Chair of the UN Inter-Agency Task Team on Emergency Preparedness and Response, WHO took the lead in developing an Inter-Agency Contingency Plan for Earthquakes, in cooperation with UN Office for the Coordination of Humanitarian Affairs (OCHA), all resident UN agencies and international development partners, resident representatives of foreign governments, as well as with ministries and agencies from across the Government of Bhutan, including the civil government, Armed Forces and His Majesty’s Secretariat. The plan was endorsed by the Department of Disaster Management in the Ministry of Home and Cultural Affairs.

- The WHO Country Office has partnered closely with other UN agencies, international NGOs and CSOs on various initiatives in the areas of reproductive, maternal, newborn, child and adolescent health (with UNICEF and UNFPA); water and sanitation [with the Australian aid agency, Department of Foreign Affairs and Trade (DDFAT)]; and climate change [with UNDP and United Nations Environment Programme (UNEP)], resulting in synergies and high-quality activities.

**Looking ahead**

Bhutan is gearing up to eliminate malaria, with the goal of reaching zero indigenous cases as early as 2018. A series of activities are planned, with WHO support, to enable the country to attain malaria-free certification by 2020. These include establishing a malaria elimination verification committee; strengthening the surveillance system, including conducting training on malaria microscopy and entomology; organizing cross-border collaboration meetings with India to share epidemiological information and coordinate vector control and surveillance activities; developing educational and advocacy materials; and continuing vector control activities in high-risk areas.

In order to sustain measles elimination, the focus in 2018 will be on developing a post-elimination strategy and action plan, which will strengthen surveillance, laboratory diagnosis, and the health workforce’s capacity to ensure that no one is left unimmunized. In addition, with Bhutan having introduced the “Test and Treat All” policy for HIV, the country is gearing up to eliminate mother-to-child transmission of HIV, hepatitis and syphilis. Efforts are under way to strengthen surveillance and ensure that identified individuals are under treatment.

To continue to reduce the burden of morbidity and mortality from NCDs, Bhutan is in the process of developing a national health promotion and behavioural change communication strategy with the objective of reducing risk factors contributing to NCDs in the country.
To support the implementation of the national AMR Action Plan, which the Ministry of Health approved in 2017, WHO will continue to assist the Government with advocacy activities, establishment of AMR surveillance, an analysis of drug prescription patterns, improving laboratory capacity to detect AMR, and strengthening the country’s capacity to implement a “One Health” approach towards AMR control.

WHO will also continue to support Bhutan’s emergency preparedness, in line with national plans. This will include conducting national- and facility-level simulation exercises, pre-positioning essential supplies and equipment in strategic locations across the country, and training of health and emergency personnel. In addition, Bhutan’s Emergency Medical Team (EMT) is expected to be registered under the WHO EMT global initiative.

Health security will receive special attention in 2018 from WHO and partners, who will assist Bhutan in implementing the immediate recommendations from the JEE for the IHR (2005).
Democratic People’s Republic of Korea

Highlights


- The Democratic People’s Republic (DPR) of Korea develops a National Action Plan on Antimicrobial Resistance to pave the way for a coordinated effort between the health, agriculture and fisheries sectors to curb the use of antibiotics and reduce AMR.

- DPR Korea makes plans for the verification of measles elimination, following an absence of confirmed cases since 2010.

- WHO-supported provision of essential medicines and life-saving equipment during an emergency caused by a drought strengthens health services in county hospitals and at all levels of the referral chain.

- The Government disseminates the new Medium-Term National Strategic Plan for Development of the Health Sector (2016–2020), which lays out outcome and impact indicators for eight strategic areas.
The Democratic People’s Republic (DPR) of Korea has faced significant public health challenges in the recent past that have been associated largely with external geopolitical factors. These include international economic sanctions that have affected the country’s ability to secure adequate financing for medicines and equipment vital for providing quality health-care services. The country also faces the threat of natural disasters, such as periodic floods and droughts. These in turn affect access to health services and food security, as well as an increase the risk of communicable disease outbreaks.

Despite these challenges, the country continues to achieve gradual but steady improvements in the population’s access to public health services, as well as in health outcomes. These include near-universal immunization coverage rates – confirmed by a new coverage evaluation survey conducted by UNICEF – increases in access to emergency obstetric care and to Integrated Management of Childhood Illnesses (IMCI) services, a continued decline in malaria incidence, and improved quality of TB case-detection and rising TB treatment completion rates.

WHO works on a wide range of activities and programmes in collaboration with the Government, UN agencies and other partners working in the health sector. These activities include assisting with humanitarian responses following emergencies, and providing technical assistance to the TB and malaria control programmes and to the immunization programme, which are supported by global health initiatives (Gavi, the Vaccine Alliance and the Global Fund). WHO also supports the Ministry of Public Health (MoPH) in scaling up the Essential Package for Noncommunicable Disease Interventions, strengthening logistics information and health information management systems, and increasing the country’s ability to prepare for and respond to a public health emergency or natural disaster by developing more resilient health systems.

**Key activities and achievements in 2017**

**Improving understanding and awareness of AMR**

The country’s efforts to control AMR took a major step forward in 2017, with the development of a National AMR Action Plan. This follows government actions to address AMR in recent years, including the appointment of a National AMR Manager in 2015, the designation of...
a National AMR Reference Laboratory (at Pyongyang Medical College Hospital) and, most recently, the establishment of a National Expert Committee for AMR.

To develop the Action Plan, the MoPH requested WHO support for a national seminar to include participants from the health, agricultural and fisheries sectors. The seminar, led by the AMR focal points in the Regional Office and the Country Office in Pyongyang, and in collaboration with the National Expert Committee and Food and Agriculture Organization (FAO), was held over three days in August. Participants conducted a situation analysis of AMR in DPR Korea following the seven focus areas outlined in the Global Action Plan on AMR (GAP) and reviewed and further refined a draft national action plan, with WHO guidance to ensure its alignment with the GAP. The plan was finalized in December for submission to WHO headquarters to comply with the World Health Assembly Resolution on AMR in 2015.

Providing essential medicines and equipment for hospitals and primary health care centres

WHO provided critical support to county hospitals in drought-affected areas in 2017, using funds from the UN Central Emergency Response Fund (CERF), enabling these hospitals to treat critical cases with essential medicines and use life-saving equipment (see Box).

**Box 5. Saving lives: a coordinated response to a health emergency**

Over a period of more than three months, five provinces in the south of the country (North and South Hwanghae, North and South Pyongan, and Nampo City) experienced a serious drought. This resulted in water pipes running dry – including at health facilities – and to worsening sanitary conditions, leading in turn to increases in waterborne illnesses, skin diseases and malnutrition rates.

In late June 2017, the Government requested WHO for assistance in addressing the health impacts of the drought. In response, WHO rapidly secured funds from CERF, and collaborated with other development partners to assign different responsibilities in order to ensure a coordinated, well-planned response. While UNICEF and other partners worked to ensure the provision of primary health care services at the household level (through the “household doctor” system) and at Ri-level clinics and polyclinics, WHO support focused on the 20 county hospitals in the five drought-affected provinces – a crucial link in the referral chain for the provision of secondary care for critical cases.

This support took two forms. First, to address the lack of basic equipment in many hospitals, or the availability of only outdated equipment, WHO procured a range of critical, life-saving medical equipment for the 20 hospitals. This included resuscitation equipment, ECGs, ambu bags and ventilation masks, nebulizers, as well as essential medicines. Second, to address the lack of any reliable water supply in the hospitals, water facilities were restored – including water tanks, sinks and taps – to ensure that each hospital had an adequate, safe and high-quality supply of running water and facilities for handwashing, which is the most cost-effective intervention to prevent hospital-acquired infections. The support also established a sustainable water quality surveillance system in each hospital, as well as a hospital sanitation programme that included water filters, purifying tablets, posters on handwashing, and the like.

Based on data provided by the MoPH, the number of direct beneficiaries of WHO support – measured in terms of patient visits to the 20 county hospitals over a six-month period – was more than 1.3 million, including patients most vulnerable to the effects of the drought, such as neonates, children under five years of age, and pregnant and lactating women.
In addition to supporting secondary care services during the emergency, WHO used CERF funding available for “under-funded emergencies” to provide life-saving medical equipment and a basic package of essential medicines to 230 Ri (village) clinics and 69 Ri hospitals in another 23 counties having the most vulnerable populations affected by the drought. This support has allowed these facilities to provide a minimum basic package of primary health care services to more than 270 000 people, particularly women and children, over a 6 month period in 2017.

Maintaining high performance of the National Immunization Programme (NIP)

A coverage evaluation survey (CES), conducted in 2017 by UNICEF in collaboration with WHO, confirms the high immunization coverage rates that have been reported by DPR Korea for the past several years. Conducted among a nationally representative sample of 1195 children 12–23 months old, the survey found that 93.5% had been fully immunized with valid, documented doses of all vaccines in the infant immunization schedule (polio, measles, BCG and DPT–hepatitis B–Hib pentavalent vaccines) before 12 months of age. Coverage rates for individual vaccines were nearly universal, except for IPV, which, due to a global shortage of the vaccine, has not been given to children since April 2016 (Fig. 2).

*Fig. 2:* Estimated vaccination coverage rates for children 12–23 months old with valid doses by 12 months of age, based on a coverage survey, DPR Korea, 2016

WHO worked with the national immunization programme to strengthen surveillance of and response to adverse events after immunization (AEFI) in Ri (village) clinics in the five most remote northern provinces in the country. This involved the ongoing work of refurbishing 400 clinics to establish partitioned areas with beds for observing children immediately after they are vaccinated, and providing adequate heating in the clinics to
help ensure that the children and their caregivers stay during the observation period. The clinics were also supplied with AEFI management kits, consisting of medicines, stethoscopes and other instruments.

Additional activities to strengthen the immunization programme that WHO supported in 2017 included improving the default tracking system to identify and vaccinate children who missed routine vaccine doses, and the training of 52 master trainers using the WHO Immunization in practice modules. These new trainers will continue cascade training to the county and Ri levels to improve immunization practices and will also provide supportive supervision. In addition, following advocacy from WHO and other partners, the national immunization programme decided to reintroduce IPV into the routine programme, starting in April 2018. Besides vaccinating new birth cohorts, catch-up vaccination with IPV will take place for children in the 1 to 5 years cohorts that missed the vaccination due to the global shortage.

Finally, WHO has facilitated a visit by the Regional Verification Committee on Measles Elimination in early 2018 to help the country meet the requirements for being certified as measles-free. DPR Korea has not had a single laboratory-confirmed, indigenous case of measles since 2010 and is now considered (as per WHO’s new classification) as a country where measles transmission has been eliminated or interrupted but not verified. However, DPR Korea is yet to introduce rubella vaccine into their NIP. WHO and partners continue to strongly advocate to the MoPH to introduce MR vaccine in their NIP.

**Improving the detection and diagnosis of tuberculosis**

The results of the National TB Prevalence Survey, finalized and disseminated in 2017, show an estimated prevalence rate of 641 per 100 000 population. This is considerably higher than the incidence of officially notified cases and an extremely high rate for a country where no HIV has yet been detected. These findings, which suggest that there are around 11 000 “missing” cases, indicate a need to improve case detection and diagnosis of the disease. As a key step in improving TB control in the country, a Joint Monitoring Mission involving six international experts took place in 2017 to review the performance of the National TB Control Programme. The team made recommendations to actively seek out missing cases, revise the diagnostic protocols to increase the sensitivity and specificity
of TB diagnosis, modernize treatment regimens [including switching to a shorter, 9-month regimen for multidrug-resistant (MDR) TB], and upgrade the National TB Referral Laboratory.

The lack of sensitivity of sputum smear cultures and the need to use more modern diagnostic tools (e.g. GeneXpert rapid diagnostic machine) as well as chest X-rays to confirm TB is evident in the data from the national reporting system. The data show that around 40% of new cases had at least one negative smear (Fig. 3).

**Fig. 3:** Cases of TB reported through the National TB Control Programme by notification type

- **EP** = extra pulmonary cases; **SS** = sputum smear

An updated National Strategic Plan for TB (2018–2021) was developed, with WHO support, based on the observations and recommendations of the Joint Mission, and in line
with the global End TB Strategy. The new plan focuses on active case-finding – including of childhood cases and smear-negative TB – by using GeneXpert machines in combination with X-rays, and proposes a modified diagnostic algorithm accordingly. Four GeneXpert machines have already been procured for TB testing laboratories, with WHO support.

**Striving towards malaria elimination**

The incidence of malaria continues to steadily decline in the country, with 4626 cases reported in 2017. This is down from nearly 300,000 in 2001 during the height of an outbreak in 1999–2002 and more than 23,000 cases in 2012 (Fig. 4). Given this progress, the MoPH prepared a National Malaria Elimination Strategy with the goal of interrupting the transmission of indigenous malaria cases nationwide by 2022 and attain elimination status by 2025.

*Fig. 4: Yearly malaria cases and incidence rates reported by the National Malaria Control Programme, DPR Korea, 2009–2017*

To help the programme meet these goals, WHO supported an external review of the National Malaria Control Programme in 2017, conducted by three independent consultants. The review made recommendations to strengthen laboratory confirmation of clinical cases and laboratory quality assurance, adjust how villages are stratified by malaria risk level, and ensure adequate supplies of malaria prevention materials [e.g. long-lasting impregnated bednets (LLINs), indoor residual spraying (IRS) stocks, and rapid diagnostic tests].

Consequently, the National Malaria Elimination Strategy (2018–2022) was revised and finalized, based on these recommendations and with WHO support. The Strategy gives top priority to ensuring universal and sustained access to key malaria interventions (e.g. distribution of LLINs, IRS, quality diagnosis and treatment) in high-risk areas.
The conversion from paper-based to electronic information systems continued in DPR Korea in 2017, with WHO support. A vaccine logistics management software was developed to enable the immunization programme to track and monitor the supply and distribution of vaccines and cold chain equipment in real-time at the Central and provincial levels.

WHO also provided technical assistance to the newly established e-Health Centre to harmonize reporting from different health programmes [e.g. maternal and child health (MCH), TB, malaria] – using the existing electronic communications network between the Central, provincial and county levels – with the eventual goal of creating a single reporting platform for all health information. These efforts will enable the MoPH to better monitor public health programmes on a regular and timely basis, and to improve the quality and completeness of quarterly and annual health reviews.

Partnerships

WHO works closely with other health sector partners with an in-country presence in DPR Korea, which consists primarily of UN agencies (UNICEF, UNFPA and FAO in addition to WHO), International Federation of Red Cross and Red Crescent Societies (IFRC), International Center for Religion and Diplomacy (ICRD) and international nongovernmental organizations (NGOs) implementing European Union projects. Examples of how the WHO Country Office has collaborated with these resident international partners include:

- serving as a member of the Humanitarian Cluster Team (HCT) comprising UN partners that coordinate humanitarian responses in the country. WHO chairs the HCT’s Health Sector Working Group and facilitates its coordination meetings are held to share information and harmonize the activities of different partners during emergencies to minimize duplication of efforts and gaps in the response. The Working Group also coordinates the procurement and distribution of health commodities and emergency kits (e.g. IEHKs);

- working with UNICEF to support the MoPH in developing country proposals to the Global Fund (to support TB and malaria control programmes) and to the Gavi Alliance to support the country’s immunization programme;

- collaborating with UNICEF and UNFPA to guide and support the MoPH in developing and finalizing the Medium-Term Strategic Plan for the development of the Health Sector (2016–2020), which will serve as a framework to plan activities for the next several years.

The WHO Country Office also collaborates with groups and individuals outside of the country to provide the needed expertise to the MoPH. Examples in 2017 include:
collaborating with the Health Intervention and Technology Assessment Programme (HITAP) of the Ministry of Health in Thailand to design and coordinate an independent external evaluation of Gavi support since 2007 for health systems strengthening (HSS). Experts from Sri Lanka and Bangladesh also participated in the evaluation. Recommendations from the evaluation will be incorporated into a grant proposal for a possible third phase of HSS support;

- using WHO’s horizontal collaboration mechanism, the DPR Korea Country Office collaborated with the WHO country offices in Sri Lanka and Thailand to facilitate and support two-week study tours for DPR Korea officials from the NIP to visit the immunization programmes in Sri Lanka (in March) and Thailand (in June) to build their skills and knowledge in immunization.

**Looking ahead**

Major activities that WHO will support in 2018 include the following:

- **Hepatitis B seroprevalence survey.** It is highly likely that DPR Korea has already reached the 2020 regional target of ≤1% seroprevalence of the hepatitis B surface antigen (HBsAg) among children up to 5 years of age. This assumption is based on the high immunization coverage rates for the hepatitis B birth dose and the three doses of the DTP–Hib–Hepatitis B (pentavalent) vaccine. As a way
forward, WHO intends to provide technical and financial support to the NIP to conduct a nationwide seroprevalence survey in 2018.

- **Joint EPI/VPD review.** With its continued success in controlling vaccine-preventable diseases (VPDs), the immunization programme in the country is shifting its focus from achieving high immunization coverage rates to sustaining equitable coverage and ensuring a high quality of service delivery through mobilizing resources and technical support. To facilitate and inform this change in focus, WHO and the MoPH, with support from UNICEF and Gavi, plan to conduct a comprehensive joint review of the immunization programme and the VPD surveillance system in 2018.

- **Joint external evaluation of the IHR.** In 2018, WHO will support DPR Korea in facilitating an independent evaluation of the country’s core capacities to effectively implement the IHR (2005), which to date have been evaluated only through self-assessment questionnaires.

- **Improving TB control.** WHO is committed to assisting the National TB Control Programme to implement its new National TB Strategic Plan. This will introduce in 2018 a shorter treatment regimen for multidrug-resistant (MDR)-TB cases, and increase the capacity to diagnosis and manage TB and MDR-TB through the involvement of mobile case-finding teams.

- **Working towards malaria elimination.** With the goal of bringing down the malaria incidence to near zero in the next 2 years, WHO will assist with strengthening malaria surveillance to ensure the detection of all cases by providing technical support for the development of guidelines for malaria elimination surveillance and response, and by supporting a training of trainers to roll out these guidelines.

- **Expanding the WHO Package of Essential Noncommunicable disease (PEN) interventions.** Implementation of PEN interventions – already piloted in two counties since 2014 – will be expanded to three more counties, with WHO support, using the lessons learnt from the pilot. This will also involve updating the national PEN guidelines to include the modified PEN services package.

- **Strengthening PHC services.** To progress towards UHC, WHO will assist the MoPH in strengthening the country’s vast network of primary health care facilities by developing standard packages of health services and supplying health facilities at the Ri and county levels with basic essential medicines and equipment.

- **Patient safety programme.** With WHO assistance, the MoPH will develop a National Action Plan on Patient Safety (2018–2022) to meet the goals of the Regional Strategy on Patient Safety (2016–2025) that was adopted at the Sixty-eighth session of the Regional Committee in 2015.
India

Highlights

- India embarks on the world’s largest measles and rubella vaccination campaign, targeting more than 400 million children 9 months to 15 years old. In 2017, more than 65 million children in 12 states were reached in the catch-up campaign.

- The Prime Minister, H.E. Mr Narendra Modi, launches the Intensified Mission Indradhanush in October 2017 with the goal of reaching 90% full immunization coverage nationwide by the end of 2018.

- The control of TB becomes a top government priority with the approval of a new National Strategic Plan for Tuberculosis Elimination by the Ministry of Health & Family Welfare (MoHFW) and a four fold increase in the annual TB budget.

- The Government reconfirms its commitment to combating antimicrobial resistance using a “One Health” approach and endorses the National Action Plan on AMR at an Inter-Ministerial meeting in April.

- The Health Ministry launches new national strategic plan to eliminate malaria (by 2027) and to accelerate the control of HIV and sexually-transmitted infections (STIs).

- The Government decides to provide free treatment for hepatitis C nationwide using generic direct-acting antivirals (DAAs).
Expanding access to government health services in order to improve the health status of India’s population became a more prominent political priority in 2017. A new National Health Policy document – the first since 2002 – was developed and endorsed by the Cabinet. The new policy establishes ambitious goals, including increasing life expectancy from 67.5 to 70 years by 2025, and creating a vast network of health and wellness centres to provide comprehensive primary health care services close to where people live. It also commits the Government to spending 2.5% of its gross domestic product (GDP) on health by 2025, more than double the current 1.15% public health spending rate.

The Government health budget for the fiscal year 2017–2018 increased by 27.5%. WHO had actively engaged in policy dialogue with MoHFW and the NITI Aayog in 2017 for development of the National Health Protection Scheme (NHPS). The NHPS will be a larger expansion of the existing Rashtriya Swasthya Bima Yojana (RSBY) insurance programme to cover hospital care for the poor and vulnerable population in India.

The high-level commitment towards improving health was also demonstrated by the launch by the Prime Minister in October 2017, of the Intensified Mission Indradhanush, which carries out intensive immunization drives in low-performing areas in order to achieve a 90% full vaccination rate for children nationwide by the end of 2018. The Prime Minister, H.E. Mr Narendra Modi, has also played a visible role in pushing for increased funding to combat TB, and has been actively engaged in promoting the containment of AMR.

*The Regional Director presenting the World No Tobacco Day Award to His Excellency, Mr J.P. Nadda, Union Minister of Health and Family Welfare, India*
A number of strategic plans were also launched in 2017 to meet the ambitious goals of reducing the burden of communicable diseases set out in the National Health Policy. These include the country’s first Action Plan to address AMR, a new TB Strategic Plan to vastly reduce the TB burden through stepped up testing and treatment, and a new strategic plan for HIV and STIs, which adopts the “Test and Treat” policy for HIV and the global 90–90–90 targets.

**Key activities and achievements in 2017**

**Major achievements by the Universal Immunization Programme (UIP)**

The Universal Immunization Programme (UIP) embarked on the world’s largest vaccination campaign to introduce the MR vaccine in 2017. The ”catch-up” campaign targets all children.
9 months to 15 years of age in order to both introduce rubella vaccination (by replacing measles vaccine with MR) and rapidly reduce immunity gaps for both diseases.

Two of the three phases of the campaign have been completed: Phase 1 in five states in February and Phase 2 in eight more states and Union Territories (UT) in September, through which 65.6 million children have been vaccinated – achieving around 97% coverage. Phase 3, to cover the remaining 23 states and UTs, will take place in 2018 and 2019. The MR vaccine is being introduced into the routine immunization programme subsequent to the campaigns in each state. The WHO National Polio Surveillance Project (NPSP) team of nearly 900 professional and support staff along with stakeholders worked with states and districts to meticulously prepare for the campaign and assess their preparedness, and to monitor the campaign.

Another major advance in the fight against VPDs in 2017 was the launch by the Prime Minister of the Intensified Mission Indradhanush (IMI) in October. The initiative – aimed at increasing the coverage of children with all vaccines in the national programme as well as pregnant women with tetanus toxoid vaccine – builds upon the original Mission Indradhanush (MI) that was launched in 2015. Since it began, MI has reached more than 25 million children and 6.8 million pregnant women in 201 low-performing districts.

The IMI accelerates the target of 90% full immunization coverage by 2 years – from 2020 with the original MI to the end of 2018. The programme focuses on 173 districts and urban areas across 24 states that a comprehensive analysis of immunization coverage data from multiple sources had found to be low-performing despite repeated phases of MI activities. As with MI, the initiative involves intensive immunization drives, consisting of outreach rounds conducted by auxiliary nurse midwives (ANMs) and assisted by community-based Accredited
Social Health Activist (ASHAs) and *anganwadi* (child development) workers, which take place one week per month over several months.

A third achievement was the introduction of pneumococcal conjugate vaccine (PCV) into the routine immunization programme in the state of Himachal Pradesh and selected districts of Bihar and Uttar Pradesh, targeting 2.1 million infants. Prior to the roll-out, the WHO-NPSP team developed the operational guidelines, training packages and assessment tools, and supported the national and state governments in its introduction. The Government plans to rapidly expand PCV into other districts in Bihar, six more districts in Uttar Pradesh and in Madhya Pradesh, and nine districts in Rajasthan.

**Major advances in the fight against tuberculosis**

With the launch of the new National Strategic Plan for Tuberculosis Elimination 2017–2025, the Government of India has committed to significantly stepping up its efforts and financing towards controlling this disease, which remains a major public health problem in India. Through a financial incentives packet (see Box 6), the new plan aims to greatly increase the number of TB patients who are diagnosed and treated appropriately.

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**Box 6. A dramatic increase in political commitment and public financing to end TB**

A global analysis of the TB burden published in 2016 estimated that there are 2.8 million new TB cases in India each year. This is an increase from earlier estimates and an indication that some 1 million annual cases are “missing”, since the officially reported incidence is around 1.8 million.

These data have sparked a renewed commitment at the highest political levels to control TB in the country. A new TB National Strategic Plan (2017–2025) was approved by the MoHFW and calls for dramatically increasing the diagnosis and treatment of TB cases, including MDR-TB.

A hallmark of the new plan is a direct benefit transfer (DBT) scheme that will provide financial incentives to both patients and health-care providers to get people infected with TB tested and put on effective treatment. Through this information technology (IT) based system, TB patients receive Indian Rupee 500 (≈US$ 7.80) via electronic transfer for each month that they have complied with the treatment regimen. Health providers report the patient’s compliance with treatment using the TB patient monitoring system (NIKSHAY), which provides a unique identifier for each patient and is linked to the DBT system. Private clinics, which are major providers of TB services in India, will receive Indian Rupee 1000 for each patient who completes treatment, as reported through NIKSHAY. The programme was designed based on the experience of three pilot projects that tested different versions of the scheme.

To finance this programme, which is scheduled to begin in April 2018, the Government of India has approved a fourfold increase in the TB programme budget for the next three years (to US$ 1.84 billion).

As further indication of the Government’s priority in tackling the country’s high TB burden, the Prime Minister requested all heads of governments of the states to make TB control a priority and to conduct quarterly reviews of their programmes. In addition, the President of India hosted a 2017 World TB Day event at his official residence.
In the control of TB, the national programme had switched earlier from a drug regimen of three days a week to a daily regimen using a four-drug combination, aimed at reducing the recurrence rate for TB cases (currently at around 14%) and improving patient safety. In 2017, with technical assistance from WHO, an important development has been the adoption of a new therapy (delaminid) to treat MDR-TB cases. The Government of India plans to produce the drug locally. The instalment of GeneXpert machines for the rapid diagnosis of TB, including drug-resistant cases, also continued to be ramped up in 2017. A proportion of these machines are mobile units for active case-finding in outreach settings, including in tribal areas and among other high-risk groups.

Finally, WHO, the MoHFW and other development partners conducted a formal evaluation of an innovative pilot project aimed at increasing the diagnosis and treatment of TB in the private health sector. Private providers in four districts in three states (Maharashtra, Bihar and Gujarat) are encouraged to contact a call centre if a patient is suspected of having TB, upon which the patient is diagnosed free of charge by the district health team and then treated by the private provider with drugs obtained for free from the MoHFW. The positive evaluation of the programme has led the Government to scale it up, with Global Fund support, to 96 new districts in all the states, starting in 2018.

Accelerating the control of HIV/AIDS and hepatitis

In a major step forward in the country’s efforts towards ending AIDS as a public health threat by 2030, the Government launched the National Strategic Plan for HIV and STI 2017–2024. The Plan calls for the nationwide scaleup of the “90–90–90” targets (90% of people living with HIV know their status, 90% of them receive antiretroviral therapy (ART), and 90% of those on ART achieve viral suppression) by 2020 – a process that is currently under way.

Another key development – one that is critical to meeting the 90–90–90 targets – is the Government’s decision to adopt the “Test and Treat” policy, in which all HIV-positive persons, regardless of their CD4 count, will be treated with ART, in order to facilitate the earlier initiation of therapy and thereby reduce HIV transmission. The National AIDS Control Organization (NACO) has significantly increased procurement of drugs to implement this policy, including first- and second-line therapies, as well as, for the first time, third-line therapies for difficult-to-treat cases.

Introducing cost-effective treatment for hepatitis C

An estimated 6 million people in India are infected with the hepatitis C virus (HCV) and 59,000 died in 2015 from complications of the infection, such as cirrhosis and liver cancer. The arrival of DDAs into the market in 2013 has been a major breakthrough in treating hepatitis C. The production of generic DDAs (sofofuvir, ledipasvir, daclatasvir) by six
India

manufacturers in India has slashed the prices for these drugs from thousands of dollars for a course of treatment to more affordable prices (e.g. US$ 120 for a 12-week course), although their use in India still remains low.

The Government made an important decision in 2017 to provide free treatment for hepatitis C nationwide using generic DAAs. The decision was based on the results of a hepatitis C treatment programme that was piloted in the state of Punjab (see Box 7), as well as on two economic analyses conducted with WHO technical support. One was a published cost–effectiveness analysis of DAA treatment, which found that a 12-week course using DAAs costing US$ 120 would be cost effective within 2 years and cost-saving within 5–10 years.5

Advocacy by WHO to the Union Government, backed up by these studies, was instrumental in the development of a National Action Plan for Viral Hepatitis, which includes free treatment through public sector health facilities nationwide. The Action Plan is expected to be approved by the Government and launched in 2018. In anticipation, WHO assisted the MoHFW in preparing the hepatitis C testing and treatment guidelines.


Box 7. Punjab’s hepatitis C initiative

In a pilot project supported by WHO, the Clinton Health Access Initiative (CHAI) and several other partners, the Government of the state of Punjab initiated free treatment for hepatitis C in June 2016, using locally produced generic DAAs. The state government covers the cost of the drugs, which it obtained for US$ 120 for a 12-week course of treatment.

The project used a decentralized service delivery model (“ECHO”) in which patients are treated in district hospitals, with tertiary hospitals providing oversight and mentoring to treating physicians through long-distance consultations via WhatsApp using smartphones.

Based on WHO recommendations, patients entering the programme are systematically registered and monitored. In addition, those who have achieved viral suppression are issued a “cure certificate” – an important incentive for patients to prove that they are free of the disease.

From June 2016 to December 2017, more than 40 000 patients had started free hepatitis C treatment in Punjab, with a cure rate of more than 92%. This programme, which WHO has documented in a case study, became the model for a national treatment programme that will be implemented through the National Action Plan for Hepatitis C.

The pilot programme also provided the opportunity to test the introduction of reuse prevention (RUP) syringes for injectable drugs, which – unlike auto-disabled syringes for vaccines – must accommodate varying doses. This was part of an injection safety programme that the Punjab Government developed with WHO assistance. This also involved the development of an operational roadmap for injection safety and health-care waste management. Based on the results of the pilot, the State Government introduced RUP syringes for all therapeutic injections in all public health facilities on World Hepatitis Day in 2017.
Stepping up the fight against malaria

In July, Union Minister of Health & Family Welfare, launched a new National Strategic Plan for Malaria Elimination (2017–2022), with the goal of eliminating the disease throughout India by 2027. The National Vector-Borne Disease Control Programme reported more than 1 million cases of malaria and 331 deaths in 2016. However, 80% of reported cases come from areas where only 20% of the population lives – largely tribal and hard-to-access areas in the eastern and northern states.

The new Strategic Plan will focus on intensifying efforts at the district and micro levels in these high-burden areas, including establishing mechanisms for early detection and completion of treatment. The Plan also sets year-specific elimination targets for different parts of the country, depending on their level of endemicity.

Supporting efforts to eliminate neglected tropical diseases

WHO is actively engaged in the elimination of kala-azar, leprosy and lymphatic filariasis (LF) in India. Activities that WHO is supporting include organizing and serving on state and district Neglected Tropical Diseases (NTD) Task Forces, conducting health facility assessments of services for leprosy and kala-azar, monitoring house-to-house IRS through random household visits, mapping out leprosy hotspots, and making follow-up home visits to kala-azar patients. To be able to adequately support the state and district governments in accelerating NTD elimination, the WHO Country Office expanded the presence of WHO NTD state and zonal coordinators from four states to eight states in 2017, for a total NTD
workforce of 15 officers. WHO also covers the cost of drugs and cold chain equipment for mass drug administration (MDA) against kala-azar and LF.

India has continued to make progress in reducing the incidence of kala-azar through repeated rounds of MDA and IRS. The number of reported cases declined by 81% from 2011 to 2016, with the incidence down to around 6000 cases nationwide (Fig. 5) and the geographical range down to 10% of the country’s blocks.

*Fig. 5: Trends in the number of reported cases of kala-azar in India*

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
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<td>2016</td>
<td>6,240</td>
</tr>
<tr>
<td>2017</td>
<td>5,758</td>
</tr>
</tbody>
</table>

*Source: National Vector-Borne Disease Control Programme, GoI*

To further intensify efforts to eliminate the disease, the Government rolled out an Accelerated Plan for Kala-azar Elimination in 2017, with technical assistance from WHO. The Plan includes more intensive (weekly) monitoring and supervision of case detection, patient care, and the availability of drugs and cold chain equipment in health facilities, with reports monitored by the Prime Minister’s Office. A pharmacovigilance system for kala-azar therapies was introduced in the Accelerated Plan and WHO provided training to medical officers and data entry personnel to operationalize the system. WHO also supported a study of post kala-azar dermal leishmaniasis (PKDL) to identify risk factors and assess the quality of services for patients with this condition.

The National Leprosy Eradication Programme intensified its activities to eradicate the disease in 2016–2017. Leprosy case detection campaigns using health staff and village volunteers to actively search for cases house-to-house and place them on treatment were conducted in 163 districts in 20 states during the year. A focused leprosy campaign – a house-to-house survey to detect cases with visible deformities (Grade 2 and above) – was also conducted in 21 states. In addition, nearly 60% of all villages in India were covered by a new “Sparsh” leprosy awareness campaign, which used village health and sanitation committees to raise awareness of the disease, reduce the stigma associated with it and improve self-reporting.
As a result of the active search for cases and disabilities, 29 states and UTs were found to have leprosy prevalence rates below the elimination threshold of 1 case per 10 000 population. WHO’s support to the leprosy elimination programme ranges from procuring drugs for multidrug therapy (MDT) for all cases to assisting with developing guidelines, conducting programme reviews and monitoring, data analysis, assessments of services provided in health facilities, and state-level planning. Much of this work is carried out by 15 WHO state and zonal NTD coordinators operating from the states of Bihar, Jharkhand, Uttar Pradesh and West Bengal. In addition, the WHO–NPSP network is transitioning to support elimination of NTDs.

Moving from maternal death reporting to maternal death surveillance and response

In pursuit of the goal in the 2017 National Health Policy to reduce maternal deaths to 100 per 100 000 by 2020 (from the estimated rate of 167/100 000 in 2011–2013), the Government of India wanted a better understanding of the incidence and causes of these deaths. While maternal death reports and a maternal death review process were instituted in 2010, an analysis of data revealed that less than 50% of estimated maternal deaths are reported through the national health information system, reviews of deaths are often poorly done, if at all, and translating information on maternal deaths into action is rarely done.

In response, the Maternal Death Surveillance and Response (MDSR) guidelines for India were developed, with WHO guidance, and launched by the Union Minister of Health in July 2017. The new MDSR guidelines, based on the WHO global guidelines, make maternal deaths notifiable, and expand the current reporting system into a system that focuses on continual surveillance (to improve reporting) and response (to improve analysis and planning for corrective actions).

A nationwide training programme is being rolled out to implement the new guidelines and MDSR system, with financial and technical support from WHO and other partners.
Strengthening surveillance of birth defects and stillbirths

India’s Birth Defect Surveillance (BDS) system, which now includes surveillance for microcephaly and other neural tube defects in response to the emergence of Zika virus, was further expanded and strengthened in 2017. Robust data quality assurance protocols were initiated with WHO assistance. With the 2025 National Health Policy target of reducing stillbirths to less than 10/1000 births in mind, the MoHFW is using the same BDS sites to create a sentinel stillbirth surveillance system, with assistance from WHO to develop operational guidelines.

Progress in addressing NCDs and reducing their risk factors

A National Multisectoral Action Plan for the Prevention and Control of NCDs (2017–2024), developed with WHO support, has been approved by the Union Minister of Health and is currently being reviewed by the Cabinet. To prepare for the roll out of the Plan, the Government is establishing a committee of secretaries from a range of ministries (health, human resource development, food processing, agriculture and farmer’s welfare) to provide high-level oversight to the implementation of this multisectoral plan.

WHO facilitated a series of consultations with ministries and other national and subnational stakeholders to advocate for their endorsement of the plan. To enable its implementation, once approved, the MoHFW and WHO have developed a training manual for NCD programme managers at the state level to enhance their skills in managing the country’s NCD control programmes, which focus on diabetes, cardiovascular disease and cancer. Training has already begun in several states.

In response to the high burden of depression and other mental health disorders and aligned with the 2017 World Health Day theme of “Depression: Let’s talk”, the WHO Country Office facilitated a series of advocacy activities throughout the year to raise awareness among policy-makers and health professionals about the burden of depression and to advocate for breaking the stigma associated with it, and increasing the capacity of mental health service delivery at the primary care level.

India has emerged as a leader in m-Health initiatives, which use mobile phone communications to increase knowledge and awareness of health issues, promote healthy behaviours, and improve disease management. An evaluation of the m-Cessation initiative that began in 2016 found that 7% of smokers had quit smoking over a 6-month period, while an evaluation of the m-Diabetes programme found that the intervention increased knowledge about diabetes in 56% of respondents and prompted 12% to undergo screening tests for diabetes. SMS directories of m-Cessation and m-Diabetes have been made available in multiple Indian languages to help expand their reach.

The second Global Adult Tobacco Survey (GATS2) was completed in India with technical support from WHO in 2017, allowing one to observe trends in tobacco use
since the first survey in 2009–2010. The survey, conducted among a random sample of persons 15 years of age and older, found a reduction in overall tobacco use (cigarettes, smokeless tobacco) of 17% since 2009–2010 – from 34.6% of adults to 28.6% – which translates into 8.1 million fewer adult tobacco users in India (Fig. 6). Tobacco use among young people (15–24 years) declined by 33% during this period, from 18.4% to 12.4%. The percentage of adults who smoke tobacco is 10.7% – down from 14% in the first survey – and the majority of smokers are men. These results indicate that the Government’s interventions to discourage tobacco use, including taxes on tobacco products and mandatory pictorial warnings covering 85% of packages on all tobacco products, developed with WHO support, are having a positive impact.
India launches National Action Plan on Antimicrobial Resistance

The National Action Plan on Antimicrobial Resistance, developed with WHO assistance, was launched at an Inter-Ministerial Consultation in April 2017, which was attended by representatives from 12 ministries and publicized across TV, print and the social media. During the meeting, four Union Government ministers (of Health & Family Welfare; Consumer Affairs; Food and Public Distribution; Environment, Forests and Climate Change) signed the Delhi Declaration on Antimicrobial Resistance.

The Declaration affirms the Government’s commitment to address AMR across sectors by establishing a national authority for containment of AMR, developing state-level AMR action plans, establishing AMR surveillance at the national and state levels as well as regulations to control antibiotic use in humans and animals, and raising public awareness and knowledge about AMR.

The Government, assisted by WHO, has developed a roadmap for implementation of the Action Plan. WHO provided assistance to the state governments of Madhya Pradesh and Kerala in developing their state AMR action plans. WHO also helped to establish the Maharashtra State Antimicrobial Resistance (MAHASAR) surveillance network and plans to strengthen state-level AMR surveillance in the state of Kerala.
Establishing a ‘near real-time’ Integrated Health Information Platform (IHIP)

At the request of Ministry of Health and Family Welfare, WHO had developed a web-based near-real-time electronic disease surveillance system - the Integrated Health Information Platform (IHIP) based on the country’s Integrated Disease Surveillance Programme (IDSP). Developed in 2017, IHIP integrates data from various “registries” to provide real-time information on health surveillance from all across India for decision-makers to take action. Healthcare providers, peripheral health workers and laboratory technicians are able to enter patient-specific data for 33+ syndromes or infectious diseases and their diagnoses and laboratory results via their mobile phones, tablets or, desktops respectively (Fig. 7).

Fig. 7: Integrated Health Information Platform: data flow and outputs

The design and development of this platform are attributed to the strengthening of India’s public health surveillance system. All health facilities, including person level information are geocoded and georeferenced, enabling the data to be accurately represented on interactive maps in a geographical information system (GIS) with charts and graphs. All data in IHIP has a person, place and time reference, and the system allows tracking of a public health event from anywhere in India, and manage disease outbreaks and provide up-to-date information on the health workforce, essential medicines, commodities and diagnostic equipment.
IHIP provides the Union Health Ministry, state health ministries, local governments, municipalities with real-time information on health surveillance from anywhere on any electronic device.

**Assuring access to and quality of affordable medicines and vaccines**

An assessment conducted in February 2017 by an international team of experts led by WHO confirmed that the National Regulatory Authority (NRA) of India continues to meet the WHO indicators for a functional vaccine regulatory system. The positive assessment builds renewed global confidence in the ability of the country’s regulatory system to ensure the safety and quality of vaccines produced in India, which is a major supplier of vaccines globally.

The Government of India hosted the “First World Conference on Access to Medical Products and International Laws for Trade and Health in the Context of the 2030 Agenda for Sustainable Development” in New Delhi in November 2017. The aim of the conference was to exchange knowledge and ideas on how to balance the need for global access to affordable medical products (e.g. generic drugs) against international trade conventions, such as intellectual property rights and competition laws. The Conference – attended by delegates from ministries of health, commerce and foreign affairs from South Asian Association for Regional Cooperation (SAARC), Member States from the WHO SEA Region, development partners, academia and the private sector – was inaugurated by the Union Health Minister. Participants at the Conference suggested that a special session of the UN General Assembly take place on access to medicines.

**Addressing the health impacts of air pollution in India**

Household and ambient air pollution account for an estimated 9% of the national disease burden in India, and 1 million deaths are attributed each year to indoor air pollution, including half of pneumonia deaths in children under 5 years, according to Global Burden of Disease estimates. The main sources of household air pollution are the use of unclean fuels – firewood, crop residue, cowdung, charcoal – for cooking. While India has made progress in encouraging people to use cleaner stoves, including through the *Ujjwala* scheme, which distributes cook stoves that use cleaner liquefied petroleum gas (LPG) to poor women at no cost. Many Indians, especially in rural areas, still rely on polluting biomass fuels for cooking and heating.
To address the need for developing a multisectoral strategy to reduce air pollution in India, as well as to promote coordination between various government ministries, WHO, along with partners and stakeholders have engaged with the Government of India to initiate discussions to address this issue. A rapid assessment of household air pollution in India, using the Household Energy Assessment Rapid Tool (HEART) aimed at examining household energy use and the adoption of clean technologies for cooking, was conducted in 2017. The study found that 67% of the population uses traditional (polluting) fuels for cooking, while 28% now use LPG stoves.

WHO, along with Bloomberg Philanthropies and the US Centers for Disease Control and Prevention (CDC), conducted a “scoping mission” to India in September, during which they met with stakeholders from a range of ministries and agencies to better understand their efforts in moving to clean energy technologies, and to assess the country’s potential to accelerate progress in this area. The Country Office is now working with the MoHFW, the Ministry of Environment and other government departments on a clean air campaign in Delhi.

**Partnerships**

To support the government’s health programmes and initiatives, both at the Union and state levels, WHO is working with the MoHFW, along with a range of government ministries and agencies, including the NITI Aayog (formerly the Planning Commission), Ministry of Women and Child Development, Ministry of Finance, Ministry of Chemicals and Fertilizers, Ministry of Road Transport and Highways, Ministry of Agriculture and Farmers’ Welfare, Ministry of Environment, Forests and Climate Change, and Ministry of Drinking Water and Sanitation.

The WHO Representative to India coordinates the Health Partners Group, bringing together the MoHFW, health-related UN agencies, development partners and a number of foreign embassies to discuss health policy and strategies to support the Government’s priorities and initiatives in health.

Among the many examples of collaboration with other UN agencies, the WHO Country Office is assisting with development of the UN Sustainable Development Framework (UNSDF) for India (2018–2022), leading the work with UNICEF on the section on “Good Health, Nutrition, Water and Sanitation”. WHO also works with other UN agencies at the state level in developing state health sector plans using the UHC and SDGs frameworks. Other examples of collaboration with multiple partners include:

- working closely with the US CDC on the Global Health Security Agenda to strengthen overall surveillance, laboratory, data and network for all pathogens and emerging diseases, as well as on HIV/AIDS through the US President’s Emergency Plan for AIDS Relief (PEPFAR);
- maintaining its strong partnership with the US CDC, Rotary International, UNICEF, the Gates Foundation and the Gavi alliance on immunization activities, including supporting the implementation of the MR campaigns across the country using the NPSP workforce in all states, and partnering with Gavi to strengthen the country’s routine immunization system;

- collaborating with a range of other organizations to provide technical and financial support on specific issues and programmes, including with the Global Fund, the Bill & Melinda Gates Foundation, United States Agency for International Development (USAID) and the US CDC on TB; the US CDC and the Dutch and Swedish embassies on AMR; Sasakawa Foundation on leprosy; Bloomberg Philanthropies on tobacco control and road safety; FAO on the “One Health” initiative; and the World Bank on health systems strengthening.

Looking ahead

With the anticipated rebranding of the NPSP into the National Public Health Surveillance (NPHS) Project, the project will continue to broaden its scope to other public health priority areas, enabling the development of an integrated framework for data and programming across multiple areas. At the same time, core polio activities will be handed over by WHO to the Government in a phased manner. In 2018, the NPSP will support efforts to eliminate NTDs, and continue its support for the IMI and the ongoing MR vaccination campaigns, which are targeted to reach around 300 million children in 2018.

WHO India will continue to provide technical assistance for the planning and scaleup of the National Health Protection Scheme and the health and wellness centres. Further technical support will be provided to expand and stabilize the IHIP. Greater emphasis will be placed on the SDGs and on advancing UHC by the Government, which is also the theme for World Health Day in 2018.

Capitalizing on the high political commitment to reduce the burden of communicable diseases in India, WHO will continue to work with the national and state governments to support the elimination of TB, HIV, malaria and NTDs, including LF, kala-azar and leprosy. WHO will also assist the Government with the roll-out of the National Action Plan for AMR in 2018, including strengthening AMR surveillance and infection prevention and control.

In the area of NCDs, the main focus of WHO technical assistance will include implementing the Multisectoral Action Plan at the state level, scaling up population-based screening for common NCDs, and rolling out the India Hypertension Management Initiative. WHO will also continue to support tobacco control activities with the goal of making India fully compliant with the WHO Framework Convention on Tobacco Control (FCTC).
In the area of MCH activities, WHO will support the Government in improving the coverage and quality of services, especially during the period around birth, improving midwifery competencies and skills, and scaling up the birth defect surveillance system, sentinel stillbirth surveillance, and the country’s maternal death surveillance and response system.

WHO will also continue to provide evidence-based policy advice on addressing the health impacts of air pollution in 2018. The year will also see the start of the Thirteenth General Programme of Work of WHO and the finalization of the new WHO Country Cooperation Strategy for India.
Indonesia

Highlights

- The MoH and WHO jointly launch a major report that provides a comprehensive picture of the health inequalities in Indonesia.

- More than 35 million children throughout Java are vaccinated against MR in a mass campaign that pushes for the elimination of measles and the control of rubella.

- The National HIV Programme adopts policies to expand the testing and treatment with antiretrovirals (ARVs) for all HIV-positive persons (“Test and Treat All” and the “90–90–90” Strategy).

- Indonesia hosts a three-day high-level meeting in April on “Keeping the Promise: Ending NTDs on Time in the WHO South-East Asia Region”, to share best practices on eliminating NTDs and confirm countries’ resolve to meet the 2020 target for ending these diseases.

- The MoH and WHO conduct a full-scale simulation exercise of an influenza pandemic and response in September to test the new guidelines on pandemic risk management and build local capacity.
The year 2017 marked the midway point for the WHO Country Cooperation Strategy (CCS) for Indonesia (2014–2019). The WHO Country Office for Indonesia updated the agenda for the remaining 2 years so that the CCS better aligns with the country’s revised health priorities, the transition from the Millennium Development Goals (MDGs) to the SDGs, and the Regional Flagship Priorities of the Regional Director. This followed an extensive consultative process with all key stakeholders and partners that included the MoH, the Ministry of Environment, the Planning Commission (BAPPENAS), donors and UN agencies.

Progress in meeting the country’s goal of UHC by 2019 continued in 2017, with around 170 million Indonesians – 70% of the total population – now enrolled in the National Health Insurance (NHI) programme, a “single payer” insurance system designed to provide a universal package of health services to the entire population, financed by premiums and government subsidies for the poor.

To address the growing burden of NCDs and their risk factors, the “Health Lifestyle Movement” – known as Germas – became a national health campaign in 2017. The campaign involves inserting messages about healthy habits and lifestyles, and preventive measures into any public event organized by or in collaboration with the MoH.

And as seen in the following sections, Indonesia made significant strides in 2017 in the fight against communicable and vector-borne diseases (VBDs), including introducing the MR vaccine through mass vaccination campaigns, and intensifying efforts to end HIV, TB, hepatitis C and NTDs such as LF and leprosy through enhanced case detection and treatment. The Government also strengthened its capacity to prepare for, plan and respond to health emergencies.

**Key activities and achievements in 2017**

**Examining health inequalities to develop policies to close the inequality gap**

The MoH and WHO launched the *State of health inequality report of Indonesia* in December 2017. This is the first report to provide a comprehensive assessment of health inequalities that WHO has developed and published jointly with a Member State. The purpose of the analysis, which used the WHO health inequality monitoring tools, was to understand in-depth the magnitude and scope of inequality in health-care access, health status and health-related behaviours as a key step in developing policies and activities to reduce these inequities between social, economic and geographical groups with the aim of achieving UHC. Led by the National Institute of Health Research and Development, the process for producing this report was a major undertaking lasting from April 2016 to October
and involved a series of training workshops and technical meetings that were attended by a wide range of stakeholders from the MoH, academia, research institutes and development partners.

The report summarizes data from more than 50 health indicators covering 11 topics – including MCH, NCDs, environmental health and the distribution of health facilities and personnel. The official data from national surveys were disaggregated by such variables as household economic status, educational level, place of residence, age and gender.

Among the findings are the need for action to increase equity in antenatal care (ANC) and births attended by skilled health personnel; improve exclusive breastfeeding rates across demographic groups and regions; provide mental health services across income levels; reduce inequality in access to improved water and sanitation; and increase the number of health personnel (especially dentists and midwives) in many of the country’s health centres. The report, which includes interactive visualizations of detailed data accessible by scanning or linking to a website, is available at: http://www.who.int/gho/health_equity/report_2017_indonesia/en/.

Strengthening the continuum of care for HIV and hepatitis

WHO coordinated an external joint review of the National Health Sector Response to HIV in Indonesia in early 2017. Recommendations from the review, along with a policy paper supported by WHO to the Director-General of Disease Prevention and Control, led the Government to adopt the globally recommended “Test and Treat all” policy, which calls for all individuals who test positive for HIV to obtain access to treatment with ARVs. This is a big step forward from the previous policy, which limited eligibility for access to ART to people with a certain minimum CD4 count.

At the same time, the National HIV Programme adopted the global fast-track targets of “90–90–90” by 2027. Reaching these targets will require adopting a "continuum of care
Box 8. Providing measles-rubella immunization to 35 million children in mass campaigns in Java launched by H.E. the President

With the aim of reaching the regional target of eliminating measles and controlling rubella by 2020, the Government of Indonesia conducted a mass MR immunization campaign throughout the island of Java in August–September 2017. The campaign reached more than 35 million children aged 9 months to 15 years, starting with 6–15 year olds in all public, private and religious schools, followed 1 month later by community-based vaccination in early childhood educational centres, community health centre, and village health posts for younger children.

According to rapid coverage assessments conducted by external monitors, as well as administrative data, more than 94% of districts achieved coverage at or above the target level of 95%. Following the campaigns, the MR vaccine was incorporated into the routine immunization programme, replacing the monovalent measles vaccine.

WHO played a key role in providing technical assistance for the campaigns, working with the MoH, local governments and development partners. This included hiring and deploying 27 national and international consultants in the highest-risk areas to assist local health and education departments with microplanning, mapping, and monitoring and evaluation in order to ensure the quality of the campaign in these areas. For the first time, the country used the WHO SIA Readiness Assessment Tool to systematically determine the preparedness of each district and province before launching the campaign in each province.

MR campaigns in the rest of the country will take place in 2018, targeting another approximately 35 million children.
Advancing the agenda to control tuberculosis

In early 2017, the National TB Programme and the WHO Country Office organized a joint external TB monitoring mission, during which a team of international and national TB experts conducted a comprehensive review of the programme and issued a detailed set of recommendations. These recommendations call for implementing a multisectoral response to TB control, partnering with the private sector in improving TB diagnosis, and ensuring social protection of TB patients through the National Health Insurance Programme.

A major outcome of the review was a decree issued by the Minister of Health in February 2017 to, for the first time, make TB a mandatory notifiable disease. WHO is now collaborating with the MoH and the Ministry of Internal Affairs in developing district-level TB action plans in 271 priority districts.

Indonesia also made significant progress in 2017 in diagnosing and treating drug-resistant TB. More than 511 GeneXpert machines for the rapid diagnosis of TB, including resistant cases, are now available in 64% (329) of the country’s districts, compared with 15% (79 districts) in 2013. In September, the Programme introduced the new WHO-recommended shorter treatment regimen for drug-resistant TB. Access to treatment by patients with drug-resistant TB also increased, and 97% of provinces now provide services for these patients.

Continuing progress in controlling malaria

As a result of continued efforts at the national level as well as by local authorities and communities, 19 new districts were declared malaria-free in 2017, increasing the total to 266 of the country’s 514 districts (52%). Nonetheless, nearly 218 000 new cases have still been reported annually for the past few years, due to continued high endemicity in the country’s extreme East (Papua and West Papua provinces) and persistent, though lower-level local transmission in Java, Sumatra, Kalimantan and Sulawesi.

A new complication in eliminating malaria in Indonesia is the apparent emergence in humans of a *Plasmodium* species (*P. knowlesi*) that was previously thought to exist only in primates. Since 2008, 400 cases from nine districts in Sumatra and Kalimantan have been confirmed with polymerase chain reaction (PCR). Currently, WHO is helping the MoH to include *P. knowlesi* infection into the diagnostic guidelines for malaria.

Continuing efforts to combat neglected tropical diseases

The elimination of LF, leprosy and schistosomiasis is one of the Government’s national priority programmes designated in 2017. Towards that goal, a third annual round of MDA against LF, officially launched by the Health Minister, was carried out in October 2017, reaching 97% geographical coverage and 78% population coverage.
To intensify the detection and early treatment of new cases of leprosy – which still number around 17,000 new cases annually – the MoH launched a nationwide social mobilization and education campaign using a family health approach called “Let’s find the patches”. The campaign teaches heads of households to examine family members for white blotches (“patches”) on the skin that are an early sign of leprosy infection, and to record the results using a standardized form. Family members with patches are then examined at primary health care facilities and, if diagnosed with the disease, are treated with drugs provided by the MoH.

With WHO technical assistance, the Indonesia NTD Programme developed and costed out a comprehensive National Roadmap on Schistosomiasis Eradication (2018–2025) and adopted new national guidelines for the eradication of yaws, which include MDA using azithromycin, as recommended by WHO. WHO also continues to mobilize funds for the drugs used for mass preventive chemotherapy against LF and schistosomiasis, as well as for MDT used to treat leprosy cases.

In addition, Indonesia hosted a three-day, ministerial-level meeting in April on “Keeping the Promise: Ending NTDs on Time in the WHO South-East Asia Region”. Health ministers, vice-ministers and delegates from all 11 countries in the Region attended the meeting, along with experts from WHO collaborating centres on NTDs, academia and partner agencies. During the meeting, best practices in combating these diseases were shared, including the results of pilot projects in Indonesia and India of a three-drug combination (ivermectin, diethylcarbamazine (DEC) and albendazole) for preventive chemotherapy. Delegates also reconfirmed their countries’ commitment to meeting the regional target for eliminating or eradicating these diseases by 2020 through the “Jakarta Declaration”.

Integrating health information systems to strengthen health systems

In 2017, with Global Fund HSS support and WHO technical assistance, the MoH embarked on a national initiative to integrate an extremely fragmented health information system (HIS) into one that will meet the informational needs for planning UHC and measuring progress against the health SDGs. The integrated information system uses a District Health Information System (DHIS)2 platform to enter, analyse and display – on digital dashboards – data on HIV, TB, malaria, immunization and human resources. It has been pilot-tested in 10 districts through a partnership between the MoH’s Centre for Health Information (PUSDATIN), WHO, the Global Fund, the University of Oslo, national universities, and district and provincial governments. The system has the potential of integrating other HIS’s, including that of the National Health Insurance Programme.

There is widespread buy-in from the MoH to expand the Programme to the rest of the country, with WHO supporting the MoH in assimilating and disseminating the lessons learned from the pilot projects. Through its advocacy, the MoH has been successful in
mobilizing resources from the Central Government and subnational governments to expand the information system to 50 additional districts in 25 of the country’s 37 provinces.

**Strengthening preparedness and response to health emergencies**

Indonesia is one of only four countries in the SE Region (along with Thailand, Sri Lanka and India) to meet the eight core capacities required to implement the IHR (2005), based on a self-assessment. To independently assess and strengthen the country’s ability to respond to a public health emergency, a JEE of IHR capacities was successfully conducted in November 2017. Fourteen different ministries – including health, agriculture, communications and informatics, and environment and forestry – participated in the process, which consisted of a self-assessment, and a series of consultation’s and visits by a team of international experts.

The evaluation gave Indonesia high scores for several of the 19 technical areas of the JEE, including immunization, the national laboratory system, risk communications, points of entry, and linking public health and security authorities. The country received lower scores in several other areas, including AMR, emergency response operations and zoonotic diseases. Three overarching recommendations from the evaluation were:

(i) to develop and implement a fully integrated, multisectoral national action plan for IHR implementation, facilitated by a legal decree from the highest level;

(ii) to establish a mechanism to coordinate IHR and the global health security work of all relevant ministries, agencies and institutions; and

(iii) to evaluate and improve decision-making structures and the delegation of authority and responsibility to act, not only between the national and subnational levels, but also at the national level.

The Minister of Health has committed to working with all Member States and national stakeholders in implementing IHR (2005) to enhance global health security.

**Progress in addressing NCDs and tobacco use**

A major development in 2017 was the approval by the Ministry of Finance of new regulations to increase tobacco taxes, while also simplifying tax rates (by reducing the number of tax brackets for tobacco products from 12 to five). The increase in taxes – expected to be around 10% in 2018 – will provide additional revenues for the National Health Insurance Programme, as well as potentially have an impact on reducing tobacco consumption. The tax bill was the result of a multiyear effort by WHO to bring various government ministries and other stakeholders together (including the ministries of health, finance, human development and culture, law and human rights, and labour) to advocate
for and discuss ways to reduce tobacco use. Implementation of the WHO PEN services in primary health care settings, which began in 2011 in Indonesia, has been uneven and slow to take off. As a key step in strengthening the delivery of these services, WHO focused this year on conducting an assessment of PEN implementation in 15 provinces, in collaboration with provincial and district managers, to identify gaps and develop strategies to address them, while also building capacity at the subnational level for monitoring and assessing PEN implementation.

Getting a handle on the burden of injuries in Indonesia

While injuries, including from road traffic accidents, have emerged as a leading public health problem in Indonesia, robust estimates of injury-related mortality and morbidity are lacking due to the existing information systems for collecting injury data that are fragmented across different agencies and sectors (e.g. health, the police and legal system). The national health reporting system does not provide any data on injury-related hospitalizations, disabilities, type of injuries or outcomes. Therefore, WHO supported the country’s first-ever situation analysis of existing data on the public health burden and impact of injuries in Indonesia.

The review found that injuries cause nearly 10% of all deaths in the country and 15–20% of total disabilities. Road traffic injuries are the leading cause of injury-related morbidity and mortality, with more than 40 000 reported deaths every year. Stakeholders recommended that the health sector play a key role in: (a) creating a national coordinating agency on injury prevention; (b) developing effective injury surveillance systems; and (c) managing post-crash services, in coordination with public and private hospitals. The review led to the development of a Framework for Strengthening Road Safety in Indonesia.

Assessing the national food control system

FAO and WHO jointly conducted Indonesia’s first systematic assessment of its entire food control system, which aims to both protect the health of consumers and ensure fair trade practices. The assessment – the first to use a new assessment tool jointly developed by FAO and WHO – was a comprehensive “farm-to-fork” review of the entire food chain. It was conducted with all key agencies and sectors involved in food production, processing, transportation, sales and quality control (e.g. the ministries of health, agriculture, industry, planning, transportation; the Bureau of Standards; and others).

The assessment examined and made recommendations on the different dimensions of food safety, namely: policy and legislation; infrastructure and finances; human resource needs and development; routine control, monitoring and surveillance; interactions with domestic and international stakeholders; strengthening the scientific evidence base; and continuous improvement of system’s operations. The assessment will form the evidence
Box 9. Preparing for an influenza pandemic

In 2016, the MoH developed national influenza pandemic preparedness guidelines and a contingency plan, based on the WHO pandemic risk management guidelines. To test these guidelines and plans, the MoH, in collaboration with WHO, conducted a full-scale simulation exercise of an influenza pandemic and response in the city of Tangerang Selatan over two days in September 2017. The exercise linked pandemic preparedness and response to the country’s disaster management framework, and used an “all hazards” approach (using systems and elements common to managing emergencies due to all types of health hazards), as well as the multisectoral “whole-of-society” and “whole-of-government” approach in preparing for and responding to disease outbreaks.

The simulation exercise involved the participation of around 800 people from more than 100 institutions and agencies, ranging from the ministries of health, agriculture, human development and welfare to the National Police, the military, the National Nuclear and Energy Agency (BATAN), local governments, civil society organizations and communities. Around 500 observers attended the event, including representatives from six countries in the Region (India, Maldives, Myanmar, Nepal, Thailand and Timor-Leste), international agencies and partners such as FAO, IFRC, DFAT Australia, USAID, and the Korean aid agency (KOICA). WHO is now assisting 10 priority provinces in developing and testing influenza pandemic contingency plans.

base for strategic planning to upgrade the food control system and strengthen multisectoral collaboration among relevant authorities.

Partnerships

WHO has provided technical support to and mobilized resources for the Government of Indonesia through strong collaboration with a wide range of partners, including UN agencies (e.g. UNICEF, FAO, The United Nations Educational, Scientific and Cultural Organization (UNESCO), UNFPA), bilateral aid agencies (e.g. DFAT, US CDC, USAID), global funders (e.g. the Global Fund, Gavi, Gates Foundation), as well as with various Indonesian government agencies, provincial and district-level governments, local universities, NGOs and civil society organizations (CSOs). Some examples of activities based on strong partnerships include the following:

- WHO conducted activities to strengthen the country’s capacity to prevent, detect and respond to public health emergencies, under the umbrella of the IHR (2005) and Global Health Security. WHO played a key coordinating role in bringing relevant
national and international stakeholders and partners together to build the country’s capacity to implement the IHR (2005). This included organizing the IHR JEE, as well as an “IHR-PVS” (IHR-Performance of Veterinary Services Pathway) workshop to bridge implementation of the IHR and PVS (of the World Organization for Animal Health) in order to ensure coordination between the human and animal health sectors for the prevention and control of zoonotic diseases. WHO also worked closely with the MoH in preparing the full-scale influenza pandemic simulation exercise, which brought together stakeholders from the district, provincial and central levels of the Government, as well as development partners such as DFAT, US CDC, and USAID.

- WHO has partnered with UNESCO and the International Labour Organization (ILO), as well as with city authorities, the MoH and CSOs, to support the rights of people with disabilities as well as efforts to develop disability-inclusive cities in Indonesia. One initial project is a collaboration with the district health office in Yogyakarta to develop an instrument to collect data from people with disabilities regarding their type of disability, access to public health care, as well as their demographic, socioeconomic, educational backgrounds. This will be used to create a database to help determine eligibility for a special social security programme for people with disabilities to be established by the provincial government.

- The Global Fund remains a close collaborator with the WHO Country Office in strengthening country capacity to control TB, HIV and malaria. WHO is the main organization providing technical assistance to the national TB programme and played
a key role in helping the Government secure US$ 117 million for its TB programme from the Global Fund for a 3 year period.

- WHO has also collaborated with other non-traditional partners. In the field of HIV control, for example, a partnership with the international human development NGO, FHI 360, to set targets and conduct workshops, laid the ground for implementing the Fast Track 90–90–90 Strategy in 96 districts of the country.

**Looking ahead**

According to the revised CCS (2014–2019), WHO will accelerate its support in 2018 of the Indonesian Government’s efforts to control and eliminate communicable diseases, including priority NTDs and VPDs. It also plans to work with other partners to better coordinate support for activities to address the continued issues of childhood stunting and disparities in maternal health services, particularly regarding anaemia in pregnant women.

The WHO Country Office will also continue its assistance in strengthening Indonesia’s health systems, both to expand national health insurance coverage to the remaining one third of the population and to address quality and equity issues that were brought out in the *State of health inequity report 2017*. In addition, WHO will play a key role in the country’s health sector review in 2018, as well as in supporting the Government to strengthen Indonesia’s capacity to respond to all hazards and public health emergencies.

*The WHO Goodwill Ambassador for Leprosy, Mr Yohei Sasakawa, during his visit to an elementary school in Gorontalo*
Maldives

Highlights

- Maldives becomes one of the first two countries in the South-East Asia Region to be certified by WHO as having eliminated measles – three years ahead of the regional target.

- The Ministry of Health receives the Regional Award of Excellence in Public Health from the WHO Regional Director, in recognition of its successes in eradicating or eliminating diseases (measles, LF, polio and maternal and neonatal tetanus [MNT]); progress in achieving UHC; high spending on health (>9% of GDP); and evidence-based policy decisions to address NCDs.

- The Minister of Health receives the World No Tobacco Day Award from the WHO Regional Director for his leadership of and support for tobacco control activities.

- The Seventieth session of the WHO Regional Committee for South-East Asia held in Maldives in September 2017 adopts the Male Declaration on Building Health Systems Resilience to Climate Change.

- National Policy and Plan for Food Safety based on the “One Health” approach is launched – an important development in a country that imports nearly all of its food.

- Maldives increases its preparedness and response to public health emergencies with the successful containment of the country’s first major influenza outbreak, establishment of a HEOC, and development of the first National Action Plan on IHR, following a JEE.

- To promote generation of local evidence to inform policy formulation, Maldives launches its first National Health Research Policy.
Maldives, an archipelago of 1192 coral islands in the Indian Ocean with a population of around 417 000, is an upper-middle-income country with an economic growth rate averaging 7% a year for the past 10 years. Reflecting its stage of development, the country has registered an impressive track record in health outcomes wherein children and their mothers in the country are able to survive during and after delivery, and life expectancy has increased by 12–13 years in the past 25 years (now at 77 years). Certified by WHO in 2017 as having eliminated measles, Maldives is now leading in the Region in eliminating infectious diseases, including malaria, filariasis, polio and MNT. However, Maldives faced its first influenza outbreak in 2017, which it controlled in six weeks with support from WHO. The country also continues to battle frequent outbreaks of dengue.

Maldives is undergoing a social, demographic and economic transition – all of which have an impact on the population’s health. More and more people, especially young people, are leaving the outer islands to move to the increasingly crowded capital, Malé. This migration is leading to changes in the family structure and living arrangements – with older and more vulnerable people often left on the outer islands – as well as changes in
health behaviours and lifestyles, and increasing levels of stress and even violence, due
in part to the high unemployment among youth. With the epidemiological transition, the
burden of chronic, NCDs is also increasing.

The country has been a leader in the South-East Asia Region in reducing the financial
risk of its citizens due to illness with the establishment of its social health insurance
programme (Aasandha), which provides free health care to the entire population. As a
result, health spending as a percentage of GDP has now reached 9% – on par with many
high-income countries. However, the vast majority of health-care expenditures (87%) is
for curative care, including care received overseas, and the private health sector is fast
growing – factors that affect the efficiency of health spending and the sustainability of the
insurance programme.

Key activities and achievements in 2017

Realizing universal health coverage to achieve “Health in SDGs”

The Government has fully committed itself to achieving the health SDG by establishing
fully functional primary health centres providing free care and State-run pharmacies on
every inhabited island, as well as through the near-universal roll-out of the Aasandha
health insurance scheme, which has led to a sharp decline (from 49% to 30%) in out-of-
pocket spending.

To measure progress towards the health SDG targets, the MoH, with WHO support,
organized the country’s first sector SDG workshop in 2017 on “Core Health Indicators of
SDG3”, during which participants identified baseline values and their data sources. The
MoH has also established a Secretariat for Health in SDG, supported by WHO, which is also
facilitating coordination between the SDG units in the MoH and the Ministry of Environment
and Energy.

In addition, WHO supported a public health expenditure review to better understand
the current health financing system in general and the Aasandha insurance scheme in
particular. Health spending in real terms has increased fivefold since 2005, especially since
the insurance programme was initiated in 2012 (Fig.8). The study reveals that Maldives has
reached a stage where levels of health expenditure are adequate to meet the country’s
health needs, but several steps are required to realign spending patterns so that services
are delivered effectively, resources utilized efficiently and funds distributed equitably.
Specifically, the review recommends that the country develop standard treatment protocols
and standard rates for services. This would have a major impact on reducing costs and
inefficiencies, since, at present, the Aasandha programme does not negotiate prices with
private providers, but instead covers all payments. To reduce the costs of drugs, for which spending has increased eightfold in 6 years, the study recommends more rational use of medicines, including a shift from brand-name to generic drugs.

*Fig 8: Trends in health expenditure in Maldives*

![Graph showing trends in health expenditure in Maldives](image)

*Source: Public health expenditure review, Maldives, December 2017 (draft report)*

As part of health system reforms to increase universal access to primary health care services throughout the country, the role of general practice medical officers is shifting from mainly a curative care role to one that focuses more on preventive health services, including for NCDs. This shift will require a robust referral system for patients coming to primary health centres who need more specialized or higher-level care. To facilitate the flow and tracking of referrals, WHO is assisting the MoH in piloting an IT platform for referrals, as part of the roll-out of the general practitioner system.

**Taking the bull by the horns: #BeatNCDs**

A major development in addressing NCDs in 2017 was the adoption and roll-out of the WHO PEN interventions for primary health care in the first three atolls. This involved the training of 30 master trainers at the central level, followed by a training of 100 health workers from the three atolls. A unique peer approach for supervision and followup has been introduced, in which a team of doctors and nurses from one facility will coach others in their facility as well as those in nearby facilities.

To address the high burden of NCDs in Maldives, which account for more than 80% of total deaths, the Minister of Health, along with the WHO Regional Director, launched the nationwide “Healthy Lifestyle Campaign 25 Ah 25”. The campaign aims to increase the population’s awareness of NCD risk factors, promote preventive measures and modulate
Box 10. Measles elimination in Maldives: celebrated locally, rejoiced globally

At the Seventieth Session of the WHO Regional Committee for South-East Asia in Maldives in September 2017, the WHO Director-General, Dr Tedros Adhanom Ghebreyesus, and the Regional Director, Dr Poonam Khetrapal Singh, awarded the Government of Maldives a certificate declaring that the country had eliminated the local transmission of measles in 2017, well ahead of the 2020 regional target. This makes Maldives only one of two countries in the Region (along with Bhutan) to reach this milestone. The country has now eliminated five diseases – polio, MNT, LF, and malaria, in addition to measles – making it a leader in disease control in the South-East Asia Region.

The road to measles elimination needed a final push to reduce any remaining immunity gaps in the population. This consisted of a mass MR vaccination campaign (“Maves Jahaifin”) targeting age cohorts that were born before the country had achieved its high measles coverage rates (now at 99%) or had included a second dose in the infant immunization schedule – namely, children 8–14 years old who lacked evidence of having had a second measles vaccine dose, and all adults 15–25 years of age. The campaign for children took place in schools, while vaccination stations at health facilities and community-based vaccination booths were set up for adults, with extended evening and weekend hours.

The MR campaign was conceptualized, planned and implemented by the National Immunization Programme, with technical support from WHO, the Maldives Technical Advisory Group on Immunization (MTAGI), and the National Verification Committee (NVC). This multisectoral effort, involving several ministries, as well as the media, youth groups and businesses, also received high-level political support, with the President of the country launching the campaign.

To meet the surveillance standards required for verification, MTAGI, with WHO support, led a review and updated the measles surveillance guidelines, followed by the training of public health focal points from all atolls and islands on the updated guidelines and recording and reporting forms. The Health Protection Agency, with guidance from MTAGI and technical support from WHO, also developed a measles outbreak preparedness and response plan.

In addition, the National Immunization Programme has developed a measles elimination sustainability plan. And with the goal of eliminating rubella in the near future, the programme replaced measles vaccine with the MR vaccine for the first measles-containing vaccine (MCV) dose at 9 months in April 2017. Incidentally, the second MCV dose (measles–mumps–rubella vaccine) at 18 months of age was introduced in 2007.

Regional Director, Director-General and Minister of Health, Maldives released a publication – “A Killer Nailed: A reconstruction of Maldives triumph over Measles”, as well as brochure entitled, “Freedom from Fear: Maldives celebrates Measles Elimination” and a short video describing how Maldives was able to achieve measles elimination.
lifestyles, with the goal of reducing the burden of NCDs by 25% by the year 2025. This is a multisectoral campaign that involves several government ministries (including education, sports and youth, economic development and housing), as well as institutions such as the Indira Gandhi Memorial Hospital (IGMH), and CSOs such as the Maldives NCD Alliance. Social media, including Twitter, is playing a key role in this campaign, targeting young people especially. As part of the campaign, the MoH, with WHO support, has established outdoor gyms at 10 sites across the country.

WHO also supported a “Report on fiscal policies to reduce consumption of sugar-sweetened beverages (SSBs) and other regulatory measures to promote healthy diets in the Republic of Maldives”. The report provides a situational analysis of unhealthy diets in the country and assesses the potential impact of alternative specific excise taxes on the demand for and consumption of these beverages, as well as on revenue generation. Based on the results, the report recommends an effective tax rate of at least 20% on both imported and locally produced sugary drinks to obtain meaningful reductions in consumption, with revenues earmarked for programmes that promote good nutrition and physical activities. The report will be discussed with the Government in 2018 to inform future tax policy regarding SSBs.

A further development was the establishment of a high-level multiministerial NCD Steering Committee with the Minister of Health as Chair and WHO as a member. The purpose of the Committee is to provide oversight of activities addressing NCDs and their risk factors, and to ensure the active participation of different ministries and departments in these efforts.

Confronting antimicrobial resistance

The MoH, with WHO support, launched a National Action Plan for Containment of Antimicrobial Resistance (AMR) in 2017, which outlines actions to be taken by different ministries and sectors, with coordination provided by a multiministerial National AMR Committee. To implement the Action Plan, a series of technical training was conducted, with WHO support. To initiate AMR surveillance – a key component of the Plan – 40 laboratory technicians received training in AMR diagnosis, while five experts participated in a study tour to the Christian Medical College in Vellore, India, to learn from their AMR laboratory surveillance programme. This was followed by the initiation of AMR surveillance
at the IGMH – which has been designated as the national centre for AMR surveillance – in partnership with the Maldives National University.

A series of technical sessions was organized for more than 150 pharmacies, with the aim of stopping over-the-counter sales of antibiotics. The MoH also conducted multiple public awareness activities to increase the population’s knowledge of AMR and the dangers of misusing antibiotics. These ranged from TV interviews to social media discussions and community-based events. In addition, the MoH is partnering with the Ministry of Education to include hygiene promotion and AMR messages in primary school curricula.

**Containing an influenza outbreak and improving preparedness for public health emergencies**

The country’s first influenza outbreak occurred in March 2017, with 291 cases and six reported deaths. The WHO Representative, acting as Incident Manager, coordinated the response to this emergency and facilitated timely technical assistance as outlined in the global pandemic preparedness plan. This included bringing in the regional influenza expert; as well as providing drugs to treat severe cases, rapid test kits and other laboratory supplies; supplying protective gear for health workers (e.g. masks and gowns), and 21 500 doses of flu vaccine for high-risk groups.

WHO also brought in five global experts to train doctors and nurses in the intensive care unit (ICU) at the IGMH in critical care for influenza patients. And to bridge the trust deficit between the MoH and the population during the outbreak, WHO assisted the MoH in reviewing and strengthening its risk communication strategy and in preparing simpler, user-friendly media briefs and situation reports. With the MoH’s efforts and WHO’s enhanced support, the outbreak was contained within 6 weeks.

Several activities also took place in 2017 to strengthen Maldives’ preparedness and response to future public health emergencies, with WHO’s technical assistance. The MoH established an HEOC, which will be able to function independently through satellite connections during emergencies, including to distant islands. The Ministry, with the National Disaster Management Centre, developed an “All Hazards Emergency Plan” that will guide future responses to emergencies, and clearly outlines the processes, roles and responsibilities of different sectors involved in disaster management. In addition, to facilitate immediate community-based responses during an emergency, rapid response teams from nine regional and atoll hospitals were identified and trained in rapid emergency response, including in administering first aid. Four additional IEHKs were prepositioned, making a total of nine kits now placed in strategic locations across the country.

To strengthen Maldives’ ability to implement the IHR 2005 to prepare for and respond to disease pandemics, Maldives became the second country in the Region to complete a JEE of the IHR core capacities. This was a highly participatory process involving many
The evaluation commended the country for having in place a high-level National IHR Focal Point, laws and policies to facilitate IHR performance, a strong immunization programme with 99% coverage for all childhood vaccines, and a Health Sector Response Framework, which provides a system for sending and receiving health personnel and medical countermeasures during emergencies. The country’s core capacities are, however, negatively affected by insufficient funding and inadequate human resources, with high turnover rates among trained, experienced staff and many posts filled by expatriates.

To implement the JEE recommendations, the Government has developed, costed and endorsed an action plan. Among priority activities, WHO supported the training of 30 port of entry officers, and has also advocated for the establishment of a quarantine facility, which is currently under discussion.

Setting the research agenda for the health sector

The MoH received WHO support in developing a National Health Research Policy in 2017, which was released in June. This was in recognition of the need for robust scientific evidence to address national health priorities in the light of the economic, epidemiological and demographic transitions under way in Maldives. It was also in response to the country’s limited local capacity in conducting research (much of which is contracted out to international experts), and insufficient investment in health research. Development of the policy involved an extensive consultative and participatory process that included a broad range of stakeholders from academia, various government ministries, development partners and UN agencies.

The objectives of the research policy include establishing a national health research agenda; establishing effective oversight mechanisms to ensure high international quality research standards; increasing health research funding; strengthening local health research capacity; and promoting the use of evidence in policy and programme planning by setting up mechanisms to disseminate research findings. In addition, the policy calls for the establishment of a National Health Research Council, and sets specific priorities for research in eight different areas, including estimation of the burden of various diseases, causes and risk factors of diseases, effectiveness of interventions, social determinants of health and health-care financing.

Addressing the growing concern of food safety

The Government of Maldives developed the country’s first National Food Safety Policy (2017–2026) based on the “One Health” approach, and involving numerous ministries and partners. This is a key development in a country that imports 98% of its food. Actions taken to implement the policy in 2017 included training nearly 100 health personnel on
laboratory diagnosis of foodborne illnesses, food quality control systems, surveillance and response.

Given the large number of migrant workers, food safety posters in multiple languages were developed and distributed to food outlets. The Maldives Food and Drug Authority (FDA) and Health Protection Agency also developed a mobile app to manage a database of all outlets selling food and restaurants. This database will be used to strengthen the inspection process for food establishments.

**Improving health system resilience to climate change**

Through the Low Emission Climate Resilient Development (LeCRED) Programme, the MoH disseminated a health-care waste management strategic operational plan, with WHO support; and established an environment-friendly health-care waste management system on the country’s largest atoll of Laamu. The system includes a 135-litre autoclave installed in Gan Regional Hospital and table-top autoclaves in each of the 11 island health centres.

A team of 25 health facility staff was trained to operate and maintain the system and to oversee the waste management in their respective facilities. In addition, health facility safety plans were developed for all health facilities, based on the Hospital Safety Index Survey that assessed their ability to adapt to the effects of climate change. It is expected that these safety plans will eventually be developed in all health facilities nationwide.

WHO also facilitated the country’s participation in the Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS 2017) and supported the dissemination of the study findings. The results found that 98% of citizens use improved sanitation facilities and 99% use improved drinking water sources, which is in line with targets for achieving universal coverage for water and sanitation.

To prepare for a Ministerial Roundtable on Building Health Resilience to Climate Change, which was held during the Regional Committee session in September 2017, the MoH hosted an informal consultation in May attended by all Member States of the SEA Region. The consultation produced a draft declaration and a Regional Framework for Building Climate-Resilient Health System (2017–2022). The resulting Male Declaration – signed by all 11 Member States of the Region at the Regional Committee – endorsed the Framework and called upon UN and other agencies and partners to mobilize technical, financial and human resources to enable its implementation.

**Achieving excellence in reproductive, newborn and child health**

The MoH, with support from WHO, finalized and launched the Maldives Every Newborn Action Plan (ENAP) (2016–2020) on World Prematurity Day, which the country observed for the first time. The Plan focuses on improving the quality of maternal health care, especially for preconception and prenatal services, to reduce the rate of stillbirths.
The MoH continued training health workers under its Facility Based Newborn Care and Point of Care Quality Improvement Programme in 2017, with support from WHO and UNICEF. Around 110 nurses and doctors from seven regions were trained by a team of master trainers – making up a total of 200 health professionals from three regions trained thus far through the Programme.

WHO also took the initiative to support the MoH in updating its Family Planning Standards and Guidelines and an accompanying operational manual for health workers. To prepare these materials, a highly participatory and inclusive process was undertaken, involving

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**Box 11. Ministry of Health receives a ‘Regional Award for Excellence in Public Health’**

The Regional Director, Dr Poonam Khetrapal Singh, awarded the Ministry of Health the Regional Award for Excellence in Public Health during the Seventieth Regional Committee Session in September 2017 in recognition of a number of achievements and successes by the country over the past several years.

The Award, given annually, recognizes the contributions of an institution, individual or programme that has made a significant difference in improving the health and well-being of the people in their country.

The Republic of Maldives became the first Member State in the WHO South-East Asia Region to be verified malaria-free in 2015. It then eliminated LF in 2016 and measles in 2017. Leprosy is no longer a public health problem in the country, polio has been eradicated, and MNT eliminated.

The Government now spends 9% of its GDP on health, the highest rate in the Region, and is fully committed to achieving UHC with the establishment of fully functional primary health centres in every inhabited island. Sea ambulances have been introduced on every atoll for timely emergency services to all. At the same time, the land ambulance fleet has been expanded to almost every island health centre. The Government has established State-run pharmacies in every inhabited island, which dispense all the 455 medicines on the national essential drugs list free of charge. This, along with the near-universal roll-out of the social health insurance scheme, has led to a decline in out-of-pocket expenditure from 49% of all health spending, on average to 30%.

Along with increasing access to health services, the Government is also committed to ensuring the quality of these services. To this end, the MoH developed the Maldives Quality of Care Framework, which consists of a comprehensive set of 125 standards, covering everything from infrastructure to the competence of health personnel, the availability of medicines and equipment, adherence to protocols for a range of health services, patient safety and infection control, to continuity of care and patient rights.

The country has also made significant efforts to improve the health system’s resilience to climate change and to explore the use of alternative, environment-friendly, cost-effective energy options.
different levels of health facilities, clinicians, experts, professional associations, UN and other international and national agencies, and community representatives, especially women.

**Partnerships**

Since becoming the first UN agency to establish an office in Maldives, WHO continues to be a reliable and trusted partner in the country’s health development. To address many of the complex health issues and to comply with the SDG Agenda, the WHO Country Office recognizes the need to collaborate with partners beyond the MoH, and has thus engaged with numerous stakeholders. Some key examples are as follows:

- **Ensuring political commitment at the highest level.** To ensure the success of the MR mass vaccination campaign – which had the challenge of achieving high coverage rates among adults, as well as school-aged children – WHO and the MoH mobilized visible support from top political leaders. The campaign was launched by the President of Maldives, H.E. Mr Abdulla Yameen Abdul Gayoom, in the presence of the Vice-President, the Health Minister and other senior officials. The launch took place simultaneously by top officials at different sites across the country, including by the Minister of Education, Dr Aishath Shiham, at a school, and by the Managing Director of the largest public service company, STELCO, on the company’s premises. A number of government ministers also participated in the launch, including the ministers of Education, Tourism, Defence, Sports and Youth, Housing, and Islamic Affairs.

- **Engaging multiple stakeholders.** The World Health Day event of WHO in April 2017 was attended by the Vice-President, H.E. Mr Abdulla Jihad, which not only brought visibility to the Day’s health issue topic “Depression: Let’s Talk”, but also commitment from the Government to address the issue. The programme was also attended by several Cabinet ministers, Members of Parliament, foreign ambassadors, and representatives of UN agencies and other partner institutions, national agencies and academia, as well as suppliers and other stakeholders. For the MR campaign, WHO and the MoH elicited the participation of a wide range of groups to spread the word about the campaign, including public media, leading newspapers, phone and internet service providers, youth groups, NGOs, and medical and nursing associations and councils.

- **Working with the media as partners.** To facilitate the productive engagement of the media, whose role is especially critical during health emergencies, 21 local media personnel received an orientation on risk communications along with 40 health professionals. Media sensitization workshops were also organized by the WHO Country Office for major events, including the MR vaccination campaign, the Seventieth session of the WHO Regional Committee in Male, and the NCD Multi-Stakeholder Forum, a major advocacy event attended by 125 people from different sectors.
Going beyond the health sector. WHO and the MoH continue to collaborate with different ministries through their participation on several oversight and advisory committees and task forces. For example, the High-level Steering Committee on NCDs includes the ministries of Sports and Youth, Economic Development, Education, and Housing; the Technical Committee for SDG Monitoring includes members from 12 ministries and institutions; and the Multi-Ministerial Committee includes the ministers of Health, Fisheries and Agriculture, Education and Economic Development, along with the Maldives FDA and WHO. Having these many different stakeholder structures has ensured greater participation of people at different levels in activities such as promoting healthy lifestyles, the AMR awareness campaign, vector control and waste management activities.

Working with non-State actors. Within the Framework of engagement with non-State actors (FENSA), WHO is increasingly facilitating the participation of CSOs in health activities. Among many examples, WHO and the MoH partnered with the Maldives Red Crescent during the influenza outbreak to help increase awareness among the large population of migrant workers, and collaborated with the Society for Health Education and other organizations on World AIDS Day to build awareness regarding sexual and reproductive health issues. WHO supports the Maldives NCD Alliance founded by the Cancer Society of Maldives, the Diabetes Society and Tiny Hearts Maldives, which is represented on the High-Level Committee on NCDs.

Partnering with academia. The Country Office has collaborated with different faculties of the Maldives National University on research activities, including a countrywide prevalence study of soil-transmitted helminthic infestations, a baseline study of the prevalence of AMR, and a study to estimate the burden of dengue.

Collaborating with other UN agencies. Apart from the successful collaboration on the Joint UN Programme, LeCRED, WHO chaired the Joint UN Task Force on AIDS and ensured the participation of all UN agencies concerned in working with the MoH’s Health Protection Agency to develop plans for the elimination of mother-to-child transmission of HIV. Other examples of ongoing collaboration with UN agencies include working on the UN Development Assistance Framework (UNDAF) to ensure that health issues were adequately incorporated into the document, collaborating with UNICEF to support the MR campaign, working with UNFPA on updating the Family Planning Guidelines, and with UNDP on climate change activities.

Fostering new partnerships

Although Maldives is not eligible for Global Fund support, WHO facilitated the visit of executive directors of the Stop TB Partnership and the Global Fund, advocated for catalytic funding and inclusion of Maldives in its regional proposal for TB elimination, and helped
the Health Protection Agency develop and submit a “TB Free Male” proposal to the TB Reach/Stop TB Partnership. The Country Office also coordinated with SAARC to explore collaboration on TB elimination efforts, and with the World Bank to explore potential funding from the Bank’s Pandemic Emergency Financing Facility.

**Looking ahead**

Some of the major activities that will take place in Maldives in 2018 and beyond with WHO support include:

- development of a Health National Adaptation Plan, in line with the Male Declaration on Building Health Systems Resilience to Climate Change. Building on the successes and lessons of LeCRED and the country’s Health Environment Plan, the MoH, with WHO assistance, will also be developing a proposal to the Green Climate Fund to address climate change and health issues;

- establishment of the country’s first medical school to address the continuing dependence of Maldives health system on expatriate doctors and allied health professionals;

- roll-out of the general practitioner system and the DHIS2 to streamline the delivery of health services;

- finalizing the country’s AMR policy and continuing to strengthen and expand AMR surveillance in collaboration with other ministries;

- activities to enable the country to achieve certification of elimination of mother-to-child transmission of HIV and syphilis in 2018, including compiling high-quality data and assisting with the preparation of the country’s report to regional and global validation committees; and

- mobilizing technical and financial resources to achieve the target of eliminating TB by 2020.
Myanmar

Highlights

- Myanmar swiftly controls an H1N1 influenza outbreak with WHO technical support through a comprehensive response involving effective clinical management, surveillance, targeted immunization and a successful risk communications campaign.

- More than 13 million children are vaccinated against Japanese encephalitis in nationwide catch-up campaign conducted in two phases (school-based and community-based).

- State Counsellor and Union Minister of Health & Sports launch the National Health Plan 2017–2021 that sets out a vision of universal coverage of an essential package of health services.

- The “Ministerial Call for Action to Eliminate Malaria in the Greater Mekong Subregion by 2030” is endorsed in December by all six countries of the Subregion during the high-level meeting in Nay Pyi Taw, and the Government of Myanmar launches the National Malaria Strategic Plan and National Malaria Elimination Plan to meet this goal.

- The WHO Country Office provides immediate emergency health assistance to those affected by the conflict in Rakhine State, along with the Regional Office and the WHO Country Office for Bangladesh.
Myanmar made good progress in health and development in 2017. On 31 March 2017, State Counsellor and Union Minister of Health & Sports launched the National Health Plan 2017–2021, which captures Myanmar’s vision for phasing in UHC through the delivery of an essential package of health services. To provide more coordinated development assistance to the country, UN partners, including WHO, drafted Myanmar’s first United Nations Development Assistance Framework (UNDAF) in consultation with the Government. The health component of the Framework is under the theme of “People”, placing it aptly with education and broader social services in a comprehensive approach towards social development.

Another key initiative in 2017 was the JEE of the IHR (2005), an extensive multisectoral and multipartner undertaking co-led by the Government (which exhibited strong country ownership) and WHO. The evaluation’s findings were mixed, with Myanmar showing limited capacity in two thirds of the 19 technical areas, but having made progress on the rest.

An overarching recommendation from the report was to finalize key legislation, policies, guidelines and standard operating procedures (SOPs) as critical steps in fulfilling the country’s IHR obligations. The evaluation also highlighted the need for increased collaboration between the human and animal health sectors and for building capacity in surveillance, food safety, the laboratory system, and the surveillance and control of AMR using the “One Health” approach.
Emergency support from WHO featured prominently in 2017 as a result of key events – the detection of influenza A (H1N1) virus on 24 July, and the violence in Rakhine State. At the same time, WHO was able to keep its strategic commitments and initiatives on track, providing technical assistance to the Ministry of Health and Sports (MoHS) across a range of collaborative programmes, notably a two-phase, nationwide Japanese encephalitis (JE) vaccination campaign in November and December. The size of WHO’s assistance and biennial programme budget in 2016–2017 was, in fact, at record levels.

**Key activities and achievements in 2017**

**Responding to the emergency situation in Rakhine State**

On 24 August 2017, after 1 year of consultations, the independent Advisory Commission on Rakhine State, chaired by former UN Secretary-General Dr Kofi Annan, submitted its final report to the President of the Republic of the Union of Myanmar. The report recommends urgent and sustained action to improve the situation of the population in the state, including health.

In fact, the document was a key point of reference even in its interim version earlier in 2017, facilitating dialogue between the Government and the UN. However, the event was overshadowed by attacks against multiple police posts and an army base in the northern part of Rakhine State the following day. Following the attacks and subsequent security operations, more than 600 000 refugees crossed over to Bangladesh. Almost all activities of development partners were temporarily suspended, with gradual resumption, except in the most affected townships of Maungdaw and Buthidaung.

WHO provided emergency assistance within two days, and continued working closely with the MoHS at both the Union and state levels to provide emergency health assistance in Rakhine. The MoHS’ response, funded by WHO and CERF, included the provision of life-saving health services in the immediate aftermath of the crisis. Eight MoHS mobile health teams, with a total of 40 health staff, served over 25 000 people in Maungdaw and Buthidaung townships until mid-November 2017. In addition, WHO funded and assisted 17 mobile health teams to provide services in two additional townships (Rathedaung and Sittwe) from October to December, and to continue services in Maungdaw and Buthidaung until the end of the year. WHO also trained 25 basic health staff in conducting disease outbreak investigations and response.

Importantly, in addition to the emergency and humanitarian response, WHO kept its focus on longer term development in Rakhine State, most notably by supporting the MoHS in implementing the health-related recommendations of the Advisory Commission. This work will continue in 2018.
Box 12. A comprehensive response contains the spread of influenza A (H1N1) pdm09

On 24 July, WHO was notified by the MoHS of 13 influenza A (H1N1) cases. By 7 January 2018, when the event was formally “ungraded” by WHO (i.e. no longer requiring a WHO emergency response), there had been 406 laboratory-confirmed cases of influenza A (H1N1) pdm09, including 60 deaths. Within 3 weeks of the first cases being brought to the attention of WHO, the number of laboratory-confirmed cases and deaths had declined significantly – indicative of a rapidly controlled situation.

The multipronged response that was responsible for limiting transmission of the virus included intensive disease surveillance and event analysis; clinical case management (including the use of antiviral drugs); immunization of high-risk groups (e.g. the elderly, children under 5 years, pregnant women, health workers and members of all state and regional rapid response teams); and a communication and information campaign across broadcast, print and social media to address the fears of the population and raise awareness of ways to prevent and control the disease.

WHO played a key role in supporting this comprehensive response. This support included managing and analysing surveillance and outbreak data; working with national, international and social media on educational messages and risk communications; assisting the MoHS in training public health professionals on risk communications; supporting the National Health Laboratory in characterizing the virus and testing its drug susceptibility; helping develop an influenza vaccination policy; and providing (with other partners) 10 000 vials of influenza vaccine, antiviral drugs, laboratory reagents and personal protective gear.

An after-action review conducted mid-October 2017 confirmed the importance of the swift series of actions undertaken, and commended the role of the proactive media activities in effectively reducing the general fear of the disease at the right time.

The review also made a series of recommendations to improve the country’s preparedness and response to potential influenza outbreaks in the future. The recommendations included finalizing the country’s pandemic influenza preparedness plan; developing a national action plan for health security; stockpiling antiviral drugs and other essential supplies; strengthening the country’s sentinel site surveillance of influenza-like illnesses (ILI)/severe acute respiratory infection (SARI); and improving the management of severe influenza cases, including establishing high dependency units in hospitals for patients moving in and out of intensive care. Actions toward improving influenza surveillance have already begun; the MoHS finalized ILI/SARI surveillance guidelines and has made plans to expand sentinel surveillance from two sites currently to eight additional sites, which will begin operations in 2018.

Moving towards country ownership of the polio programme

The Government of Myanmar – which achieved polio-free status in 2014 along with other countries in the Region – formulated a National Polio Transition Plan in 2017, with technical assistance from WHO. The Plan sets the stage for the MoHS to take over full responsibility of polio control activities in 2021. It focuses on capacity-building, including strengthening the vaccine supply management system; increasing community involvement in immunization; the gradual transfer of the 18 WHO-supported Surveillance Medical Officers to the MoHS; strengthening acute flaccid paralysis (AFP) surveillance as well as case-based MR surveillance; and fully integrating polio-related activities into the comprehensive multiyear plan for immunization (cMYP).
As part of the recommended polio eradication endgame strategies, the MoHS also conducted polio vaccination campaigns in July and August in Rakhine State, during which children under the age of 2 years received both OPV and IPV and children aged 2–5 years received OPV. Nearly 373,000 children were vaccinated, resulting in a coverage rate of 94% for the first round and 89% for the second. Finally, Myanmar hosted the 10th meeting of the Regional Certification Commission on Polio Eradication in November, which reviewed reports from Member States of the SEA Region on maintaining a polio-free status, and updated the Global Certification Commission (GCC) on the polio-free certification status of the Region.

**Box 13. Myanmar’s immunization programme introduces JE vaccine through a nationwide “catch-up” campaign**

As with many countries in the Asia-Pacific Region, the reported incidence of JE in Myanmar has been increasing in recent years, making it a growing public health concern in the country. The MoHS, therefore, decided to introduce JE vaccination into the routine childhood immunization schedule with Gavi support, using the live single-dose vaccine.

Prior to the introduction, the MoHS, together with development partners (WHO, UNICEF, Gavi), organized a nationwide “catch-up” campaign for children aged between 9 months and 15 years to boost immunity among those too old to be reached through the routine programme. The campaign, which targeted around 14 million children, was conducted in two phases: (i) a school-based phase in November for children aged 5–15 years; and (ii) a community-based phase in December for younger children.

Government officials and societal leaders actively participated in promoting and planning the campaign. The Central Executive Committee that oversaw the planning and implementation of the campaign was chaired by the Union Minister of Health & Sports and also involved the active participation of several ministries (including the Ministry of Education, Ministry of Information, Ministry of Home Affairs and Ministry of Border Affairs) and other government departments. Importantly, special advocacy from the states and regions secured the commitment of local leaders and organizations in assisting with the campaign, particularly ethnic leaders. Assessments indicated that the campaign was successful, with coverage reported at 94% for the school phase and 92% for the community phase.

WHO provided technical support with a rapid convenient assessment survey to monitor coverage during the campaign, AEFI surveillance and causality assessments of serious AEFI cases, and monitoring and evaluation of the overall campaign. In addition, WHO facilitated communications activities and materials, including advocacy meetings in hard-to-reach areas, and coordinated the management of donor funding for the campaign.

**Working towards malaria elimination through cross-border collaboration**

Myanmar has made impressive gains in controlling malaria in the past few decades. It achieved the MDG targets for malaria by 2004, i.e. 11 years ahead of time. These gains have accelerated in the past 5 years, with reported cases declining by 77% between 2012 and 2016 and deaths by 95% (Fig. 9). The country now aims to eliminate *Plasmodium*
falciparum malaria by 2025 and all forms of the disease by 2030. Towards these goals, the MoHS finalized, endorsed and launched a National Malaria Strategic Plan 2016–2020 for the first phase of elimination, and a National Malaria Elimination Plan 2016–2030 for the longer term.

A critical component of efforts to achieve malaria elimination is systematic, formalized cross-border collaboration. With that end in mind, two meetings of the Greater Mekong Subregion (GMS) were held in Yangon in March and December, with participation from all GMS countries as well as national and international organizations.

During the December meeting, country delegates and the Regional Directors of the WHO South-East Asia and Western Pacific regions issued a “Ministerial Call for Action to Eliminate Malaria in the Greater Mekong Subregion by 2030”. The document calls on GMS countries to work together to, among other things, develop cross-border elimination strategies and action plans, exchange malaria surveillance data through the Regional Malaria Surveillance Network, establish an independent subregional oversight body, share best practices and conduct collaborative research.

Fig. 9: Decline in malaria cases and deaths in Myanmar, 2005–2016

Source: Annual report 2016, National Malaria Control Programme, Myanmar

In addition, the MoHS, along with the Government of the People’s Republic of China, developed a more focused China–Myanmar Cross-Border Malaria Elimination Strategy 2017–2030 and Operational Plan (2018–2020), with WHO support. Fundraising for this project is currently under way in collaboration with China.
Addressing Myanmar’s high tuberculosis burden

Myanmar is classified by WHO as one of 30 high-TB burden countries, with a triple high burden of TB, HIV-associated TB, and MDR-TB. WHO continues to support TB care and control services through the National TB Control Programme (NTP), which showed steady progress in 2017 against the objectives of the National TB Strategic Plan 2016–2020. Among the many activities supported by WHO during the year were efforts to improve the detection and treatment of MDR-TB and strengthen TB surveillance and case detection.

To cope with a concentration of MDR-TB in Yangon, a programme supported by WHO, the Global Fund, USAID, 3MDG and other partners was initiated to increase the early detection and treatment of MDR-TB cases. All patients found to have TB were tested for drug-resistant TB using the GeneXpert rapid diagnosis test and then placed on treatment. The programme has had remarkable success, notifying and treating 100 MDR-TB cases a month in Yangon. With higher treatment completion rates, provisional data from 2017 suggests that the percentage of MDR-TB among all TB patients has declined.

The NTP also launched a pilot project in the cities of Yangon and Mandalay to introduce a shorter TB treatment regimen, which cuts the duration of treatment from 20 or more months to 11 months. However, the new regimen – consisting of a combination of seven drugs, including a new quinolone – increases the pill burden on patients and requires closer monitoring of possible adverse effects. In an important response, the NTP and FDA successfully launched an active TB Drug Safety Monitoring and Management (aDSM) system with guidance from WHO.

To strengthen TB surveillance, WHO supported an assessment of the country’s community-based active case detection programme in order to improve its effectiveness and efficiency. The assessment found that active case detection accounted for around 20% of all TB cases notified nationwide, but that its overall impact on TB incidence and epidemiology appeared limited. The report recommended that mobile teams with portable digital chest radiography (CXR) machines be utilized more efficiently to target high-risk populations. The national programme also launched the country’s fourth TB prevalence survey with WHO support. Once the results become available in late 2018, Myanmar’s TB burden and trends will be re-estimated, as agreed by the NTP and WHO. This is to improve understanding of the TB epidemic and revise the National TB Strategic Plan to enable the programme to more rapidly “bend the TB curve”.

Meanwhile, WHO continues to support the Government’s advocacy for the control of TB both nationally and internationally. This includes the active contributions of the Myanmar delegations to the Delhi Call for Action (March 2017), the Moscow Declaration to End TB (November 2017) and a major emphasis on MDR-TB.
Bringing effective treatment to patients with hepatitis C

In Myanmar, viral hepatitis persists as a major cause of liver cancer and cirrhosis. According to estimates from 2015, 6.5% of adults are infected with hepatitis B and 2.7% with hepatitis C. In a major new initiative, the country introduced treatment for hepatitis C (using DAAs) free of charge in June 2017 to 2000 patients initially in eight designated hospitals. Plans have been made to scale up the programme nationwide.

WHO used the opportunity of World Hepatitis Day in July to advocate for the elimination of hepatitis. States and regions were also involved during the year to extend the campaign to the subnational level.

Strengthening health systems to achieve universal health coverage

On 31 March, the State Counsellor launched the National Health Plan 2017–2021, which establishes a vision for UHC for Myanmar. At the core of this effort is the delivery of an Essential Package of Health Services (EPHS), which will be rolled out progressively in three stages – a basic package, an intermediary package and a comprehensive package – from now till 2030, with each stage corresponding to the five-year periods of the national health plans.

A health check-up for the elderly in Chaung Oo township in the Sagaing region
To make the development and roll-out of the services package a reality, the National Health Plan places at its centre the strengthening of health systems using a primary health care approach. Accordingly, the first Annual Operation Plan (AOP) for 2017–2018, endorsed in May 2017, focuses on strategies, developed with WHO assistance, to strengthen three critical components of the health system – human resources, information systems and health financing. The AOP also calls for finalizing the services package, to which each health programme will contribute.

To help ensure that health facilities at the local level are ready to deliver the services in the EPHS, the Government has developed an “investment package” that includes funding for infrastructure, supplies and human resources (including for training health workers on the EPHS). The investment package – which adds 5% to the national budget – is initially being offered to the country’s 76 most needy townships, and will be expanded progressively to the entire country by 2021.

In addition, to strengthen the capacity of the health workforce to implement the EPHS, a National Strategy for Human Resources for Health (2018–2021) was developed with technical assistance from WHO, including back-up support from headquarters and the Regional Office. The Strategy highlights three areas that directly impact the ability of the health workforce to implement the National Health Plan and achieve UHC:

(i) planning for the right skills mix and appropriate recruitment, deployment and retention of health workers, including detailed actions to retain frontline workers in rural areas;

(ii) ensuring the quality of the health workforce; and

(iii) governance issues, including regulation and financing.

In another important step, the MoHS developed a new Strategic Action Plan for Strengthening Health Information (2017–2021), with WHO playing a leading technical support role, along with other development partners. The vision of the plan is to develop an integrated, electronic health information system with the goal of “generating and making accessible, comprehensive, integrated and timely health information for decision-making at different levels of the health system.” This will entail using the DHIS2 platform – which was developed with Global Fund support for patient and programme information on HIV, TB and malaria – and expanding it over time to incorporate other information systems and data, including the current (paper-based) national health management information system (HMIS). The plan identifies 12 categories of information that will eventually be included in the integrated e-health system. These range from information on public health, epidemiological surveillance and information from hospitals and from population-based

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surveys to information on logistics management, civil registration and vital statistics (CRVS), health resources management, financial management and the private sector.

**Strengthening reproductive, maternal, newborn, child and adolescent health**

A key focus area in 2017 was advocacy and training activities to enable the roll-out of the country’s MDSR system to all 17 states and regions. The system is designed to identify, report and determine the causes of all maternal deaths through real-time surveillance and to use this information to respond with actions to reduce preventable maternal mortality in Myanmar, which has the Region’s third-highest maternal mortality rate.

WHO supported the development of technical MDSR guidelines and an advocacy package on MDSR, as well as advocacy activities and the training of around 500 state and regional health department staff, township medical officers, and front-line workers, including midwives, to institutionalize the system in all 17 states and regions. Similarly, WHO, along with UNICEF, supported the training of district- and township-level health staff and front-line workers for the roll-out of a Child Death Surveillance and Response (CDSR) system in Bago Region, which has a high burden of child mortality.

In addition, the facility based Integrated Management of Neonatal and Childhood Illnesses (F-IMNCI) training package was updated in 2017 and approved by the Health Minister. Subsequently, 55 trainers were trained on the revised package at the Central level for key health officials from all States and Regions. To roll out the updated F-IMNCI training, WHO, UNICEF and JSI (John Snow, Inc.) have agreed to support its expansion to three states and regions (Shan, Bago and Rakhine).

**Addressing noncommunicable diseases**

In 2017, the Government developed and launched a National Strategic Plan for the Prevention and Control of NCDs (2017–2021), which provides an integrated framework for action involving many sectors of the Government and society to combat NCDs and their risk factors, in line with the country’s socioeconomic, cultural and development agenda. The plan centres around four key strategies:

(i) advocacy and leadership for multisectoral action;

(ii) health literacy promotion;

(iii) health systems strengthening; and

(iv) evidence generation for decision-making. The MoHS has been rolling out the WHO PEN interventions – first introduced in 2012 – and expects it to be implemented in one quarter of the country by 2018.
Another key document launched in 2017 was the National Eye Health Plan 2017–2021, which outlines a strategic approach to reduce avoidable blindness in Myanmar, where rates of blindness among persons 50 years and older range widely across regions – from 1.4% to 10% – with cataracts being the leading cause. The goal of the Plan is to improve access to comprehensive and quality eye care services in order to reduce avoidable blindness by 25% by the year 2021, in line with the WHO Universal Eye Health: a Global Action Plan 2014–2019. The National Plan was developed with a range of key stakeholders through a collaborative process, with technical support from WHO, the Fred Hollows Foundation and other partners.

In addition, the UN Joint Global Programme on Cervical Cancer Prevention and Control was launched in March 2017 in Myanmar – one of only six countries worldwide and the only country in the South-East Asia Region to participate in this pilot initiative. The programme is a collaboration of seven UN agencies (including UNFPA, UNICEF, International Agency for Research on Cancer [IARC] and UN Women), with WHO serving as the convening agency. A draft action plan for Myanmar has been prepared and the MoHS has established a national coordinating body for cervical cancer, as well as working groups for each of the three pillars of the plan (HPV vaccination of girls, screening for precancerous lesions, and treatment of invasive cancer cases). Screening guidelines are being finalized through consultative meetings with national and international experts.
Improving prevention and care services for injuries and violence

Myanmar has one of the highest burden of injuries in the SEA Region, with road traffic injuries, drownings, accidental falls and assaults among the major causes, according to the National Injury Surveillance System. The system highlights the urgent need to improve access to and quality of acute trauma care. In 2015, there were around 10 800 estimated deaths due to traffic accidents, for a mortality rate of 20 per 100 000 population – the second highest in the region.

A key approach to addressing this issue is to integrate injury prevention and care into the undergraduate curriculum of medical and allied professionals. The first training of trainers, supported by WHO, was conducted in February 2017 for 40 medical, nursing and allied health professors, lecturers or trainers from universities, the MoHS and Yangon General Hospital. In addition, the country’s school health programme and school health manual were revised to include the topics of NCDs, violence, injury prevention and gender equity mainstreaming.

In the area of preventing gender-based violence (GBV), WHO supported the country’s initiative to establish one-stop service centres for survivors of GBV by assisting with the development of guidelines on care and support for survivors. WHO also supported the development of advocacy materials for health personnel, as well as training workshops on gender mainstreaming for health staff conducted in five states and regions.

Partnerships

At UN level, WHO is an active participant of the UN Country Team and the Humanitarian Country Team. The WHO Country Office took the lead in contributing to the health and health-related sections of Myanmar’s first UN Development Assistance Framework (UNDAF), drafted in 2017. The process itself provided useful opportunities for discussing with the Government, as well as within the UN, a more collaborative and reinforcing approach in support of national efforts.

WHO is also co-policy lead on the Myanmar Health Sector Coordination Committee (M-HSCC) and, in a strategic departure, began hosting its Secretariat in 2017. The M-HSCC is the country’s formal health sector coordinating body, and is chaired by the Union Minister for Health and Sports, with 35 members from the Government, multilateral and bilateral agencies, nongovernmental organizations (NGOs), the private sector and civil society. WHO also serves as the Secretariat for three of the Committee’s eight technical and strategy groups (health system strengthening, malaria and TB) that coordinate activities in specific technical areas.
In the area of emergencies and humanitarian support, WHO has played an important role as co-lead for the Health Cluster at the national and subnational levels, especially in Rakhine State. In this role, WHO has helped strengthen coordination and communications between the MoHS and the Health Cluster, and facilitated coordination among partners to secure health services for vulnerable groups. The WHO Country Office also helped to forge partnerships within the state-level health clusters in Rakhine and Kachin states (where its presence was strengthened) through coordination meetings, small-scale funding and sharing of responsibilities. In addition, WHO provides technical guidance to partners to ensure consistency in approaches, such as data collection, reporting, and response through the disease EWARS.

Another programme in which WHO plays a leading and major coordinating role is TB, in which WHO helps coordinate all organizations supporting TB care and prevention in the country to ensure that their activities are in line with the National TB Strategic Plan and the global End TB Strategy, and that they follow international standards for TB diagnosis, treatment and care. Furthermore, WHO has a lead facilitating role in a public–private partnership for TB prevention and treatment, which includes professional associations, such as the Myanmar Medical Association, NGOs and leading chest physicians.

WHO has worked on several activities and programmes through technical and programme partnerships – some based on joint funding. These include the landmark National Micronutrient Survey launched in 2017, for which WHO provided technical and financial support at all three levels of the Organization (country, regional and global). In addition, WHO and the other “H4” partners ([Joint United Nations Programme on HIV/AIDS], UNAIDS, UNFPA and UNICEF), along with the World Bank and the Asian Development Bank, have partnered on health systems strengthening activities, as well as on HIV/AIDS to support national policies, strategies and plans. Similarly, catalytic and complementary opportunities to strengthen
reproductive, MCH, health systems and MDR-TB were implemented in partnership with the 3 MDG fund in Myanmar – at record levels during 2017.

A further example of collaboration with partners involved the planning and implementation of the JEE of the IHR (2005), for which WHO co-led several comprehensive meetings with stakeholders from multiple sectors and organizations and with international experts. The resulting report will provide a critical foundation for improving the nation’s overall health security.

Looking ahead

In cooperation with national health authorities, WHO has formulated a large and more strategically focused biennial collaborative programme for 2018–2019. The programme ranges from emergency response to ensuring continued progress with ongoing programmes and activities. In the area of emergency preparedness and response, WHO will continue to support the MoHS in the implementation, inter alia, of the health-related recommendations of the Advisory Commission on Rakhine State, in line with the guiding principles of the UN system.

Other programmes and technical areas that WHO will focus on in 2018 and beyond include the following:

- inception of implementation, from January 2018, of a new, 3-year funding cycle from the Global Fund to support the HIV, TB and malaria programmes, in close collaboration with a range of partners;
- health and immunization systems strengthening activities to be funded by a new, substantial Gavi health system strengthening (HSS2) grant;
- activities to accelerate health achievements towards the SDGs, including continued development and expansion of the e-health system to integrate health information from various programmes and systems, and continued improvement in TB surveillance, diagnosis and care;
- the development of three key national strategies in the National Health Policy to enable progress towards the goal of UHC, namely, increasing access to affordable medicines, increasing health financing for UHC, and increasing the retention of frontline workers in rural areas; and.
- in consultation with partners, supporting the succession to the 3 MDG fund in Myanmar. Finally, the WHO Country Office will be developing a new CCS for Myanmar in 2018, in order to align with the new National Health Plan and the new Thirteenth General Progamme of Work of WHO.
Nepal

Highlights

- 2017 was a year of legal and policy reforms, with the Ministry of Health and Population (MoHP) developing and updating numerous policy and legal frameworks to advance UHC and fulfil its Constitutional mandate guaranteeing basic health as a fundamental right of all Nepalese.

- The establishment of three HEOCs at the provincial level contributed to an effective response to the floods and landslides that occurred in 2017.

- The Urban Health Initiative was launched to address the health effects of air pollution in the capital city of Kathmandu.

- The MoHP developed a Human Resources for Health roadmap that projects the health human resources needs for the SDG era and outlines actions to improve health worker education, recruitment, performance and management.

- Nepal achieved dramatic reduction in measles and rubella incidence over the past decade while maintaining intensive case-based, laboratory-supported surveillance.
Nepal has moved forward in implementing a new federalized (decentralized) form of government, as mandated in the 2015 Constitution, which divides power between three tiers of government – federal, provincial and local – each of which has autonomy to raise and spend revenue. The system establishes seven provinces and 753 local government units. In 2017, elections were held for the federal Parliament, provincial assemblies and local units to run the village and municipal administration. This will enable stronger political leadership at the provincial and local levels of all sectors of the government, including health. There are positive signs that the health sector will benefit from the new decentralized system, as some of the newly formed local governments have started to provide additional funds to improve local health services. For the fiscal year 2017–2018, the Government of Nepal provided Nepalese Rupee 15 billion (=US$ 146 million) to local governments as conditional grants for health, making up 27% of the total health sector budget.

At the same time, there is concern that health services may be interrupted due to a lack of strong coordination between the three levels of the government. WHO and other partners have thus provided assistance to the MoHP over the past year in determining the structure and functions of governing bodies responsible for health at each level of the system, which are expected to be established in 2018.

*The Regional Director with His Excellency Mr Ram Singh Yadav, State Minister for Health, Nepal*
To enact the provisions of the 2015 Constitution that guarantees basic health as a fundamental right of all people in Nepal, the Government has developed a series of legal and policy frameworks, many with technical inputs from WHO and other development partners. These include a large number of acts, which, once implemented, will contribute to advancing UHC and the health SDGs. The most important of these new laws is the landmark Health Insurance Act, which was passed in 2017 and has already begun to be rolled out in several districts. The Act establishes a government-run social insurance scheme that requires all citizens to have health insurance, with families paying an annual premium (Nepalese Rupee 2500 or ≈US$ 24) while the Government covers the cost of premiums for the poor. The initial package covers expenses up to Nepalese Rupee 50 000 (≈US$ 485) per year. A technical team led by the Health Insurance Board, with WHO as a member, is currently reviewing the package of services to be covered, and is developing regulations to enable implementation of the law. The Government has also adopted indicators to monitor progress towards the SDGs, and has established baseline values and targets for all the health-related SDGs.

Another major event in 2017 was the flooding and landslides along the Indian border in August and September, affecting more than half of the country’s districts and temporarily displacing more than 100 000 people.

Key activities and achievements in 2017

Advances in policy reforms in the health sector

The MoHP, with technical support from WHO and other partners, developed and updated a number of legal frameworks, policies and strategies in 2017 to meet the health-related provisions of the new Constitution and to align with the new federal system of government. Apart from the Health Insurance Act, bills were drafted, many with WHO assistance, related to National Health, Reproductive Health, the Control and Regulation of Alcohol, the establishment of a Health Institution Quality Assurance Authority (HIQAA), Drugs and Mental Health. All of these are at various stages of approval. In addition, the MoHP developed or updated a series of national policies in 2017, including on national health, partnerships, drugs, ambulances, disabilities and mental health, the regulation and control of alcohol, AMR and migrant health.

Enhancing preparedness and response to emergencies

In 2017, WHO established health emergency operation centres (HEOCs) in the capital cities of three provinces (Pokhara, Surkhet and Doti) and handed them over to the provincial governments to improve their ability to prepare for and rapidly respond to public health emergencies following a natural disaster. These provincial centres, which are independent
from but will report to the National Health Emergency Operation Centre at the MoHP in Kathmandu, are mandated to coordinate with other emergency operation centres (EOCs) in the country, both in terms of sharing data and in providing an effective response to emergencies.

Taking into account the lessons learnt from the earthquake response in 2015, six hub hospitals in Kathmandu Valley are now fully equipped with critical stockpiles to serve as emergency medical logistics warehouses. Each emergency stockpile – consisting of tents, a generator, surgical and other medical supplies, an IEHK and an Interagency Diarrhoea Disease Kit (IDDK) – contains enough equipment and supplies to enable the hub hospitals to provide health services to the population during an emergency. There is a plan to establish similar stockpiles in the new provincial HEOCs.

To further strengthen Nepal’s capacity to immediately respond to a public health emergency, WHO and the Government jointly organized the country’s first “National Conference for the Rapid Response Teams (RRTs)” in December 2017. The two-day conference – attended by around 250 participants, including RRT focal points and health officials from 75 districts, representatives from medical colleges, development partners and the media – provided a platform for the country’s RRTs to present, in a scientific manner, their work in outbreak preparedness and response. During the conference, a computer-based epidemiological case study that simulated the investigation and management of a disease outbreak was presented and discussed.

WHO Nepal also took the initiative to upgrade the infrastructure of the “Health Desk” at the country’s designated point of entry (Kathmandu’s Tribhuvan International Airport) to improve the country’s readiness to respond to the potential spread of diseases brought in through an increased influx of international airline passengers. In addition, WHO supported a review of Nepal’s EWARS to inform the design of a more comprehensive national disease surveillance system, and to provide detailed information for a JEE of the country’s core capacities to meet its obligations under the IHR (2005), which will take place in 2018.

The WHO Country Office supported the MoHP’s response to the floods and landslides that occurred in August following heavy rains, with additional support from USAID. The floods affected 36 of the country’s 75 districts, displaced more than 100 000 people, and caused 160 reported deaths with 29 reported missing. The response included organizing more than 200 health camps in the 15 most highly affected districts, which provided health services to more than 50 000 people. Field-based officers from the WHO Emergency District Support (WEDS) project that was initiated following the 2015 earthquake assisted the district public health offices with this response. This included, among other support, providing community water filters, water disinfecting tablets and training to community stakeholders on how to disinfect water sources. All this may have been instrumental in preventing diarrhoeal disease outbreaks during the emergency. Moreover, WHO IPD Surveillance Medical Officers also supported maintaining routine immunization sessions during 2017 floods.
The Nepal Country Office also continued its support to other countries in the South-East Asia Region in strengthening their emergency preparedness and response. This support included sending medical camp kits (MCKs) to WHO country offices in four countries (Bhutan, Bangladesh, Sri Lanka and Timor-Leste), and training critical staff in Bhutan and Timor-Leste in setting up the kits during an emergency. Other instances of horizontal collaboration initiated by the Nepal Country Office include deputing one of its technical officers as a WHO Incident Manager to support the health sector response to the Rohingya crisis in Cox’s Bazar, Bangladesh, and assisting WHO Bhutan in planning a simulation exercise to test the effectiveness of the national referral hospital’s Mass Casualty Management Plan.

Moving towards elimination of measles and control of rubella

With support from WHO and other partners, Nepal has achieved a dramatic reduction in the incidence of measles and rubella (see table). Lending credibility to the decline in incidence is the country’s strong measles/rubella case-based, laboratory-supported surveillance system. For the past 2 years the system has exceeded international performance standards for measles surveillance, achieving a detection rate for discarded non-measles, non-rubella febrile cases (above the minimum required rate of 2/100 000) and a sample collection rate of above 95% (versus the standard of 80%).

Table 2. Confirmed measles and rubella cases (routine reporting or outbreaks): reduction between 2003 and 2017

<table>
<thead>
<tr>
<th>Confirmed cases</th>
<th>Cases (base year)*</th>
<th>Cases (year)</th>
<th>Reduction in cases from base year</th>
<th>Percentage reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>5419 (2003)</td>
<td>99 (2017)^</td>
<td>5320</td>
<td>98%</td>
</tr>
<tr>
<td>Rubella</td>
<td>1336 (2009)</td>
<td>21 (2017)^</td>
<td>1315</td>
<td>98%</td>
</tr>
</tbody>
</table>

* Note: Different base years for measles and rubella, have been selected before the campaign with specific antigens. ^ In 2017, two measles-negative cases are pending lab results for rubella.

According to the Nepal Demographic Health Survey (NDHS) 2016, national coverage for the first dose of MR vaccine is 90%. WHO is assisting the MoHP’s Child Health Division to further increase coverage of two doses of MR vaccine through the routine immunization programme to 95%. This assistance includes using data from case-based measles surveillance and outbreak investigations to identify low-coverage areas for special immunization activities, taking part in regular immunization programme review meetings with regional and district health managers, and supporting revision of existing microplans to adapt to the restructured local government divisions (gaunpalika or rural municipalities). To further boost the population’s immunity and achieve the goal of eliminating indigenous measles transmission by the end of 2019, the MoHP is planning a nationwide MR vaccination campaign in 2019.
Transitioning to country ownership of the polio programme

Nepal took several measures in 2017 to ensure that the country remains polio-free and the Government sustains these efforts once technical and financial support through the Global Polio Eradication Programme ends in 2019. To enable the polio programme to continue its operations, including its network of 15 field-based surveillance medical officers (SMOs) currently employed by WHO, the national Polio Legacy Committee endorsed a draft Polio Transition Plan and the Government included a line item in the annual budget to cover some of the costs of the SMO network. This and other efforts to take ownership of polio control activities were pointed out as “best practices ... that other countries can be directed to” in the second report of the Global Polio Eradication Programme’s Transition Independent Monitoring Board (December 2017).

The country continues to maintain AFP surveillance above international certification levels. To further strengthen polio surveillance, the National Public Health Laboratory (NPHL) initiated environmental surveillance for polioviruses at five sites in Kathmandu to detect circulating wild polio or vaccine-derived poliovirus even in the absence of AFP cases.
WHO trained NPHL staff in collecting and processing sewage samples, which are then sent twice a month to the Regional Reference Laboratory in Bangkok for virus isolation.

To further increase the population’s immunity to polio, the National Immunization Programme conducted a nationwide polio vaccination campaign in 2017, through which 1.6 million children received a single dose of the bivalent OPV.

**Strengthening primary health care to combat NCDs**

Implementation of the WHO PEN for primary health care facilities, which started in 2016 in two pilot districts with WHO support, expanded to eight more districts in 2017. The MoHP plans to expand PEN interventions to 20 additional districts in 2018–2019, using government funds. To build a pool of national trainers who will train frontline health workers on the PEN interventions, the MoH conducted two training of trainer courses in 2016 and 2017 for a total of 71 medical officers, nurses and district health staff, with WHO technical support. These new trainers have subsequently trained more than 150 service providers from 90 health facilities in the two pilot districts, as well as health workers in an additional eight new districts.

WHO has been supporting a hospital-based cancer registry in Nepal since it was established in 2003. To further improve the country’s cancer data, the National Health

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**Box 14. Nepal launches Urban Health Initiative to tackle health effects of air pollution**

WHO estimated that there were 22 841 deaths in Nepal in 2016 due to household air pollution – mainly from cook stoves that burn wood, charcoal and other dirty fuels – and nearly 10 000 deaths due to ambient air pollution. These deaths are largely related to increased mortality from stroke, heart disease, chronic obstructive pulmonary disease, lung cancer and acute respiratory infections. Air pollution is a major environmental problem in Kathmandu Valley especially during the winter season, with an average level of PM$_{2.5}$ (fine particulate matter small enough to invade the lungs) almost five times higher than the WHO threshold that is considered safe.

To address this severe problem, WHO launched the Urban Health Initiative (UHI) in Nepal in August 2017 to demonstrate the health benefits to the people of Kathmandu from policies and measures to reduce air and environmental pollution that can be adopted in the near future. The project will be implemented by WHO with cooperation from the MoHP, UN Habitat and the intergovernmental International Centre for Integrated Mountain Development (ICIMOD).

The interventions of the initiative have three pillars: (1) building access to relevant health evidence by generating data to identify possible options to tackle the problem; (2) building health competencies by developing key messages and training stakeholders and service providers; and (3) conducting health communications campaigns targeting people living in the city to generate awareness about the health impacts of air pollution and ways in which they can reduce it. These activities are expected to strengthen the capacity of the health system and urban stakeholders to integrate health into urban policies in order to prevent air pollution-related diseases.

An inception workshop attended by all key stakeholders was organized in Kathmandu in August 2017. The WHO Country Office is currently assisting with an analysis of different options for achieving policy change to reduce air pollution emissions in Kathmandu from four major sources: transportation, brick kilns, construction and the burning of waste. This analysis will inform the development of a communications strategy.
Research Council (NHRC) launched a population-based cancer registry in 2017, starting with three districts. To establish a training programme to implement the cancer registry, WHO sent seven NHRC officials to the IARC Regional Hub for Cancer Registration in Mumbai, India (a WHO collaborating centre) to be trained as master trainers, including in the use of the system’s software. In addition, WHO supported the MoHP in developing evidence-based national cancer treatment protocols for the 17 most common cancers in Nepal, aimed at improving the quality while also reducing the costs of cancer care. The Government currently provides financial support of Nepalese Rupee 100 000 (approximately US$ 1000) towards the treatment of each cancer patient.

Strengthening information on cause of death

It is estimated that more than 90% of deaths in Nepal occur in the community and not in hospitals, thus making it difficult to gather robust data on causes of death. To address this problem, the MoHP is leading an effort to introduce a verbal autopsy programme to collect cause-of-death information, as part of the country’s Mortality Statistics Strategic Improvement Plan (2016–2020). WHO verbal autopsy tools were adopted to the country context, and staff from the B.P. Koirala Institute of Health Sciences and the Nepal Medical Association, which will be overseeing the programme on the ground, were trained on the use of these tools, with WHO support. In addition, the MoHP established a technical working group – comprising all key government stakeholders, UN agencies, development partners and academic institutions – to guide necessary actions to strengthen mortality data.

A health worker collecting data for maternal death surveillance using verbal autopsy tools
Because Nepal’s difficult terrain makes it virtually impossible to conduct verbal autopsies from each community, the programme is being implemented in a nationally representative sample of communities (clusters). Roll-out of the programme began in 2017 in three districts, with the aim of capturing all deaths in the participating communities. Preceding the roll-out, a core group of programme managers, interviewers and doctors from the three districts received training on how to conduct and record verbal autopsies. The programme will be expanded to more districts in the coming years, taking into account lessons learnt from this initial phase.

Improving water safety and water quality surveillance

WHO has been advocating for and providing technical support towards the development of WSPs to ensure that water for human consumption is free of microbial, chemical or radiological risks or components. WHO supported training in developing WSPs for engineers, health professionals, communities and newly-elected local leaders. This in turn has led to the incorporation of WSPs in all existing and new projects supported by the Asian Development Bank and the Government of Finland. Overall, Nepal has now implemented nearly 2200 local WSPs, providing more than 4 million people (14% of the population) with safer water by the end of 2017.

In addition, as part of the DFID-funded project “Building Adaptation to Climate Change in Health in LDCs through Resilient WASH”, the Government of Nepal, with technical support from WHO, has developed CR-WSPs. These plans provide a systematic framework for managing climate-related risks by considering the implications of climate variability at each stage of the water supply system. The CR-WSPs are gradually being extended beyond existing water supply systems to new water systems that are in the design or planning phase.

In 2017, the MoHP demonstrated its commitment to ensure the quality of water (especially its biosafety) in Nepal by expanding water quality surveillance throughout the country and allocating national resources for the first time to this effort. It has also initiated procurement of water quality testing equipment to further improve the quality of the surveillance system.

Planning for future health workforce needs

The MoHP has developed a Human Resources for Health Strategic Roadmap 2030 with technical assistance from WHO and the active involvement of partners across sectors. The
Roadmap was based on a systematic analysis of the country’s human resources for health (HRH) needs in the coming decades – taking into consideration such factors as disease burden and demographic trends, and the population’s health status – in order to meet the SDGs and accelerate progress towards UHC. It also takes into account the transfer of the decision-making authority from the Central Government to provincial and local governments in the new federalized system.

The Roadmap projects the needs for different types of health workers at four points in time – the present, in 2020, 2025 and 2030 – and estimates that the total health workforce will have to increase by around 30% by 2030 (from 149,000 at present to around 194,400). It also identifies policy actions in such areas as education, recruitment, deployment, management and leadership, and the use of evidence, with a focus on improving the enrolment and retention of skilled health workers at all levels, especially in rural areas.

Improving the regulation of and access to medicines

The MoHP Department of Drug Administration (DDA), mostly with WHO support, made significant improvements in 2017 to strengthen its capacity to regulate the country’s drug supply. These improvements include strengthening the department’s online drug administration and management system for more transparent, efficient and better coordination of its registration process; development of a comprehensive web-based software program for post-market surveillance and management of market authorization, and the training of drug regulators in pharmacovigilance and policy options for setting prices for medicines. In addition, WHO supported the MoHP in revising the National List of Essential Medicines, the Essential Free Drugs List (to incorporate NCD drugs) and the Nepalese National Formulary.

Partnerships

The WHO Nepal Country Office remains very engaged, now as co-Chair, in the dynamic health External Development Partners (EDP) forum. The EDP forum meets twice a month to discuss key health issues and coordinate technical and financial support, in addition to conducting an annual review.

The Country Office worked jointly with the UN Country Team in developing the next five-year UNDAF. The new Framework clearly articulates access to quality basic health services as a major area of work for all UN agencies. In addition, preparedness for possible natural disasters is also a top priority of the UNDAF. WHO has also started working with UNDP to explore ways of working together to combat NCDs in the country.

In 2017, the MoHP, UNFPA, the German bilateral aid agency (GIZ), WHO and the Real Medicine Foundation signed a collaborative agreement in support of “Midwifery Education
Box 15. Progress since 2016

- **Strengthening HIV care in Nepal**: The year 2017 marked the release of Nepal’s new National HIV Testing and Treatment Guidelines, which recommends initiation of ART for all people testing positive for HIV regardless of their CD4 count (the “Test and Treat” strategy). This rapid initiation of ART is expected to improve clinical outcomes and prevent loss to followup between HIV testing and initiation of therapy. The National Centre of AIDS/HIV is also taking the initiative to roll out community-led testing in 2018, which is expected to help reach the first “90” of the global and national targets of “90–90–90” (i.e. 90% of people living with HIV know their status).

- **The Full Immunization Declaration Initiative**: Progress continued under this initiative in 2017, with 40% (30/75) of districts now declared “fully immunized” – that is, 100% of children have received all vaccine doses in the immunization schedule. This is up from 28% of districts a year ago. In addition, in the remaining 45 districts, 60% of local administrative units have been declared as fully immunized.

- **Mental health**: The MoHP, with support from WHO and a number of different stakeholders, has revised the National Mental Health Policy. Legislation to support the Policy has been drafted, and is ready for the Government’s endorsement. The aim of the new policy – an important milestone in Nepal – is to bring mental health services as close to the community as possible in a country where few psychiatrists and other mental health specialists exist. Services will be provided at primary health care facilities by general health workers, such as doctors, paramedics, nurses and female community health volunteers, once they are trained in providing a package of mental health care services developed with WHO assistance. The package has thus far been rolled out in seven districts. WHO also supported the development of a training curriculum on mental health for health administrators, and is working with universities to include mental health in the medical school curriculum.

- **Antimicrobial resistance**: The expansion of Nepal’s AMR surveillance system continued in 2017, with 22 laboratories now conducting AMR testing throughout the country and 10 microorganisms under surveillance (up from eight in 2016 and six in 2015). Ongoing activities supported by WHO during the year included celebration of AMR Awareness Week; sensitizing clinicians, animal health and agricultural professionals on the rational use of antibiotics in the respective sectors; and the introduction of a chapter on the rational use of antibiotics in the secondary school curriculum (Classes VIII–X). With WHO technical support and the active engagement of the National AMR Containment Steering Committee, Nepal successfully secured funding for the inception phase of a country grant from the UK Fleming Fund, which supports countries in improving laboratory diagnosis and surveillance of AMR. This funding was used to conduct a comprehensive assessment of the country’s human and animal health laboratories. WHO and the FAO have now submitted a joint proposal for the first phase of the country grant to support the MoHP and the Ministry of Livestock Development to enhance joint laboratory-based AMR surveillance and reporting of AMR data to the Global AMR Surveillance System (GLASS).

- **Maternal and perinatal death surveillance and response (MPDSR)**: With technical support from WHO, the community-based MPDSR system was launched in three more districts in 2017, making a total of nine districts since the system began in 2016. WHO also provided technical and financial support for the expansion of a hospital-based MPDSR system in 65 hospitals, as well as for review workshops with district managers, on-site coaching, and training in assigning the cause of maternal deaths. These districts and hospitals are now reporting maternal and perinatal deaths through a web-based reporting system.

- **National Health Accounts (NHA)**: The MoHP conducted a new, fifth round of NHA, which included four fiscal years (from 2012–2013 to 2015–2016), with WHO support. In addition, data analysed by the WHO Regional Office from the 2015–2016 Annual Household Survey estimated that 10.7% of Nepalese (more than 3 million people) spend over 10% of their total expenses on health – considered to be “catastrophic health spending” – and 1.7% of the population were pushed below the poverty line as a result of their health-care expenditure.7

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and Cadre”. The purpose of this arrangement is to facilitate a more coherent and coordinated approach towards midwifery in Nepal in order to meet the standards of WHO and the International Confederation of Midwives (ICM).

In addition, WHO worked with national and international NGOs, academic institutions and professional societies on a number of health issues and programmes to achieve the deliverables outlined in its workplan.

Looking ahead

Major activities that WHO will focus on in 2018 and beyond include the following:

- **CCS implementation.** WHO Nepal is looking forward to working with a wider range of stakeholders to advance health in the SDG era. The Office will focus on the key priorities and deliverables identified in the new CCS (2018–2022) that was developed this past year. The Strategy provides an opportunity to work in the changing political context in Nepal and with stakeholders beyond the traditional health sector to address key health challenges. The four strategic areas of collaboration identified and agreed by the MoH and WHO are:
  - advancing UHC in a federalized (decentralized) governance structure, which will include both access to services as a part of UHC and health systems strengthening (e.g. national oversight and policy development);
  - effective delivery of priority public health programmes, which will cover TB control, the elimination of selected NTDs, the control of VPDs, and the promotion of health through the life course.
  - enhance health security, disaster preparedness and response, which includes strengthening the country’s capacity to achieve higher compliance with the IHR (2005) and improving preparedness and response to public health emergencies, especially at subnational levels;
  - multisectoral engagement and partnerships for improved health outcomes, which will focus on developing partnerships to combat AMR, NCDs, and the impact of environment and climate change.

The CCS also requires the WHO Country Office to be more accountable in achieving pre-agreed results and in monitoring progress. The Strategy aligns well with the new UNDAF, SDGs, WHO Thirteenth General Programme of Work, and adapts to the transition to a federalized government, which will enable the wider population in the country to benefit from better health service delivery during both normal times and health emergencies.
Tuberculosis prevalence survey: For the first time in Nepal, a population-based survey of people aged 15 years and above will be conducted to detect active TB infection. An estimated 57,610 people will be screened, which will – depending on the case – include a questionnaire, X-ray and sputum exam. The field work for the survey will take about 17 months and the final results are expected by the end of 2019. WHO will ensure adherence of the survey to quality standards and provide technical support.

Elimination of trachoma as a public health problem. Trachoma used to be the second leading cause of blindness in Nepal and was endemic in many areas of the country. The MoHP National Trachoma Programme, launched in 2002, has dramatically reduced incidence of the disease through the WHO SAFE Strategy (S – surgery for advanced cases, A – antibiotics [MDA with azithromycin], F – face-washing, E – environment improvement) implemented in endemic areas. WHO recently received a formal request to verify and validate the dossier that Nepal has submitted to be officially certified trachoma-free. The country expects to receive certification for trachoma elimination in 2018, following the final surveys of trachoma trichiasis (an indicator of the potentially blinding stage of the disease) in a few districts. If the dossier is validated, Nepal will be first country in the Region to eliminate the disease.
Sri Lanka

Highlights

- For the fourth time, Sri Lanka receives the World No Tobacco Day Award for its strong record in regulating tobacco use, including imposing one of the world’s highest tobacco tax rates.
- A tax on sugar-sweetened beverages was introduced in November, informed by a study commissioned by WHO.
- The EPI introduces HPV vaccine for sixth-grade girls through schools nationwide, achieving >80% coverage.
- Due to a strong response from the Government, with WHO support, a dengue outbreak following major floods is largely controlled within a matter of weeks.
- Sri Lanka is recognized as having achieved one of the world’s highest rates of exclusive breastfeeding (82%), based on a scorecard released by WHO and UNICEF.
- Sri Lanka hosts the International Symposium on Traditional and Complementary Medicine in November, during which all 11 Member States in the Region commit to the Colombo Declaration to incorporate evidence-based traditional medicine practices into their health-care systems.
The elimination of malaria, LF and MNT as public health problems was among the many public health successes that Sri Lanka had already achieved before the start of 2017. While low maternal and child death rates have been maintained through widespread coverage and access to MCH services, further reductions will require quality improvements in healthcare service delivery.

New and emerging challenges posed by epidemiological and demographic transitions include an ageing population and an increasing burden of NCDs, which now account for 75% of all deaths in the country. Noteworthy actions taken by the Ministry of Health, Nutrition and Indigenous Medicine (MoH) in recent years include the development (in 2016) and implementation of a multisectoral action plan on NCDs, the creation of an “NCD Alliance” of CSOs as an important advocacy platform for people at risk of or living with NCDs, and ongoing measures to address elderly care and disability. The primary health care system is being reorganized to increase the utilization and effectiveness of NCD screening and treatment services – including the establishment of 700 “healthy lifestyle clinics” for NCD patients – as well as to sustain the gains in MCH and the control of communicable diseases.

Like other countries and regions around the globe, Sri Lanka is becoming increasingly vulnerable to the substantial and wide-ranging impacts of climate change. The country experienced severe floods during the summer of 2017, with a concurrent outbreak of dengue that claimed over 400 lives and infected more than 185,000 people. WHO supported the national response to the twin emergencies by mobilizing funds, bringing in technical expertise and leading the health sector response as part of the UN Humanitarian Country Team. Using lessons learnt from handling emergencies and disasters in the past, the country aims to build resilient and sustainable systems that will boost its ability to prepare for, respond to and recover from emergencies through a robust national disaster preparedness, mitigation and response framework.

The country has fully embraced the vision of the SDGs with the establishment of a separate Ministerial Portfolio on SDGs through a Parliamentary Act in 2016. The Government has also proposed a “Blue-Green” budget for 2018 that aims to generate economic growth by focusing on ocean resources and the adoption of climate-friendly and sustainable technologies (e.g. in energy and agriculture). A Parliamentary Select Committee had requested UN assistance in analysing the budget to ensure that it is aligned with the SDGs.

The year 2017 marked the end of the previous WHO CCS, and the development of a new CCS for 2018 to 2023. This document will serve as the main vehicle through which WHO will support Sri Lanka’s efforts towards achieving UHC and the health SDG targets. It is also aligned with the strategic vision of WHO’s Thirteenth General Programme of Work and the South-East Asia Region’s Flagship Priorities.
Key activities and achievements in 2017

Promoting quality improvements for maternal, newborn and child health

With the objective of further reducing the maternal mortality ratio down to a single digit and achieving a neonatal mortality rate of less than 2.2 per 1000 live births by 2030, the Family Health Bureau developed, with WHO support, the second Maternal and Newborn Strategic Plan (2016–2025), based on the Global Strategy for Women’s, Children’s and Adolescents’ Health and the global Every Newborn Action Plan. The Plan aims to achieve these ambitious targets by investing in improvements in the quality of maternal and newborn care, particularly during labour, birth and the first day and week of life (including care for complications during childbirth); strengthening health systems to ensure UHC for essential and emergency care for mothers and newborns; addressing inequities in access to quality care; and counting every mother, fetus and newborn through measurement, programme tracking and accountability.

As a key step in ensuring positive childbirth experiences and quality care, the MoH has established a quality assurance system for MCH services, based on the available WHO regional and global guidance and with technical and financial support from the Organization.

The system starts with a quality-of-care assessment examining all aspects involved in the provision of care: from the availability of services to infrastructure, the availability and competencies of human resources, birth outcomes, service provider satisfaction, as well as client satisfaction. Teams from 10 hospitals that are initiating the system were trained in 2017 on how to conduct the assessments and identify gaps using the WHO-SEARO Point of Care Quality Improvement (POCQI) Manual. Activities to introduce improvements using POCQI techniques will take place over the next two years.

In a scorecard developed by WHO and UNICEF in 2017, Sri Lanka was recognized as having one of the world’s highest breastfeeding rates – 82% for exclusive breastfeeding (one of just 23 countries with rates of >60%) and an 87% rate of continued breastfeeding at 2 years of age. To build further capacity in breastfeeding promotion and to sustain these high rates, two paediatricians and three public health specialists took part in the WHO/UNICEF lactation management training course in Malaysia to enable them to become master trainers in lactation management for health-care professionals. In addition, the Government, with WHO support, converted the Sri Lanka Code for the Protection and Promotion of Breastfeeding into an Act of Parliament, which will enable it to more easily take legal action for violations by companies marketing breast-milk substitutes.

“Bending the curve” for tuberculosis and HIV

While Sri Lanka maintains a relatively low incidence of TB (at 65 per 100 000 population) compared with most other countries in the Region, the country continues to report 8000–10 000 new cases and around 657 deaths every year. There are an estimated 4000 additional unreported cases each year due to inadequate case detection. Other challenges in controlling TB include a treatment success rate of less than the WHO 85% target, and a relatively high case-fatality rate, which may possibly reflect the advanced stage of the disease by the time it is diagnosed, as well as the presence of comorbidities, such as HIV and diabetes.

Sri Lanka has pledged to end the TB epidemic by reducing the TB incidence by 80% and TB deaths by 90% by 2030. Towards that aim, two important studies were conducted in 2017 with WHO support: a TB Drug Resistance Survey and a mid-term review of the National TB Programme conducted to assess the implementation of strategies in the National TB Strategic Plan. The drug resistance survey found relatively low rates of MDR-TB: 0.07% among new smear-positive pulmonary TB patients and 1.05% among previously treated pulmonary TB patients. Weaknesses revealed in the mid-term review include a low rate of early diagnosis of cases; significant disparities in case reporting between districts; and poor coordination between districts and the Central level that negatively affected TB surveillance. Key recommendations included improving early detection and

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timely treatment of TB cases by ensuring that all outpatient departments have sputum smear microscopy and digital X-ray services; installing a laboratory information system and web-based TB patient record system to improve timely reporting and response; and strengthening the surveillance system nationwide. The Programme plans to implement these improvements to enhance case detection and reporting in demonstration projects in three districts and apply the lessons from these pilot districts to scale them up nationwide.

While Sri Lanka has a low HIV prevalence rate in the general population, at less than 0.1%, the rate among key populations (men who have sex with men, female sex workers, prisoners) is around 1%. An external review of the national response to HIV and STI in Sri Lanka, which was carried out in October 2017 with WHO technical assistance, recommended enhanced case detection, testing and treatment among key populations. These recommendations were incorporated into the new five-year National Strategic Plan for HIV/AIDS (2018–2022) and in the new funding request to the Global Fund. The Strategic Plan, which has the goal of ending AIDS in Sri Lanka by 2025, includes stepped-up strategies such as enhancing communications about prevention and testing to key populations using mobile phone messages and social media apps; encouraging HIV testing among returning migrants, UN peacekeepers and other vulnerable populations, including the use of self-testing HIV kits; considering the use of pre-exposure prophylaxis among men who have sex with men and transgendered individuals; introducing rapid diagnostic tests for syphilis and HIV at ANC clinics and other community settings; and conducting HIV sentinel surveillance among key populations every two years.10

WHO is also supporting the National Programme in implementing targeted interventions for key populations and in monitoring progress towards the elimination of mother-to-child transmission of syphilis and HIV.

**Maintaining a malaria-free status and addressing the remaining leprosy problem**

Since being certified by WHO as malaria-free in 2016, Sri Lanka has sustained malaria surveillance and training activities to prevent reintroduction of the disease and maintain its malaria-free status, with a three-year “transition” grant from the Global Fund and technical support from WHO. Several workshops were conducted in 2017, with technical support from WHO headquarters, the Regional Office and other international experts to share lessons learnt, reorient entomological surveillance to eliminate mosquitoes that harbour the parasite, and build the capacity of Central and subnational health staff in the prompt diagnosis and treatment of imported cases of malaria.

Although leprosy was eliminated as a public health issue in Sri Lanka in 1995, around 2000 new cases (10% of whom are children) continue to be reported each year. To address the key issue of accessibility to treatment, especially in remote areas, WHO has supported the concept of establishing around 20 outreach satellite clinics to bring key diagnostic and treatment services closer to the affected communities. WHO is also supporting the investigation of drug resistance as the possible cause for the increasing number of relapsed cases.

**Progress in addressing NCDs and the consumption of unhealthy foods and drinks**

In July 2017, the National Immunization Programme introduced the HPV vaccine nationwide through schools to reduce the risk of cervical cancer. Two doses of the vaccine were given to 10–11-year-old girls (in grade VI) with a minimum interval of 6 months. The country achieved a coverage rate among all targeted girls of more than 80% by the end of the year. Prior to the introduction of the vaccine, WHO supported a study visit by MoH officials to Bhutan to learn from their experience with school-based HPV vaccination. As a member of the technical advisory group, WHO also provided evidence of the effectiveness and safety of the vaccine as well as resources to support the development and implementation of this new policy.

Sri Lanka took several important steps in 2017 to reduce the consumption of unhealthy foods and beverages and promote healthy diets, with the aim of lowering the risk of obesity, diabetes, cardiovascular disease and other NCDs, all of which now account for 75% of the total deaths in the country. A national consultative meeting was held with key
stakeholders to present the findings of a study commissioned by WHO on the frequency and impact of advertising and marketing of foods and non-alcoholic beverages that are high in fat, sugar and salt to children. The findings said that companies use a “combination of exploitation and misinformation strategies to target children”. The meeting helped build a national consensus on policies to regulate the unethical marketing of unhealthy foods and beverages, especially those targeting children. As a next step in developing these policies, WHO supported the development of a National Nutrient Profile model for Sri Lanka, which categorizes foods and non-alcoholic beverages according to their nutritional composition (e.g. sugar, fat, salt content and calories) and differentiates between foods that are part of a healthy diet and those that are not.

The National Nutrient Profile model, along with other research, has already resulted in important positive policy changes. The Government passed a Bill in 2017 that imposes taxes on SSBs, which increase with sugar content, in order to reduce the demand for and

Box 16. Government introduces taxes on sugar-sweetened beverages, informed by WHO-supported research and advocacy

A study commissioned by WHO, following a request by the Minister of Health, reviewed trends in the Sri Lankan population’s consumption of SSBs – a major contributor to high-sugar diets – along with the health and economic consequences of the population’s consumption of these beverages and the potential effects of taxing these products.

The study found that the per capita consumption of these sugary drinks in Sri Lanka had increased by 68% in the past nine years and, according to the 2016 Global School Health Survey, 26% of 13–17 year olds drink at least one carbonated soft drink every day. The study estimated that 52 000 years of healthy life are lost per year due to the consumption of these beverages, resulting in annual economic losses of Lankan Rupee 28 billion (about US$ 181 million) due to adverse health consequences and the resulting health-care costs. Poorer urban households were found to spend more on SSBs than on fruits, milk and health care combined.

The study also estimated the impact of different levels of taxation on the prices of these products and on their consumption, as well the revenues that would be generated by the tax. WHO used the results of this study, along with the Sri Lanka national nutrient profiling model, to successfully advocate to the Health Minister, Dr Rajitha Senaratne, to submit a proposal for incremental taxes on SSBs to the Cabinet; the Cabinet approved a tax of 50 Sri Lankan cents per gram of sugar. The tax and resulting price increase is expected to not only reduce the demand for and consumption of highly sweetened drinks but also to incentivize manufacturers to reformulate their products to reduce their sugar content.
consumption of highly sweetened beverages (see box). The traffic light labelling system for beverages – introduced in 2016 to indicate their sugar content – was also adjusted, based on the Nutrient Profile, to reduce the upper threshold for sugar content for the middle (yellow) category of drinks. The model is now being used to develop, with WHO assistance, a standardized nutrient labelling system for all packaged foods to help consumers more easily identify healthy and unhealthy foods.

WHO also supported a critical assessment of progress that the country is making in implementing the National Multisectoral Action Plan for the Prevention and Control of NCDs (2016–2020). The Action Plan is being revised, based on the review, in order to accelerate progress in controlling NCDs, including ways to better align the efforts of various stakeholders with its goals.

Improving the lives of people with disabilities

In February 2016, the Government of Sri Lanka ratified the UN CRPD, requiring the country to “recognize that persons with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination of disability”. Towards that aim, the MoH, in collaboration with WHO, launched the WHO Priority Assistive Products List (APL). This includes 50 devices, selected on the basis of their need, which enable people with disabilities to function better and live healthy and productive lives. The list will play a similar role as the List of Essential Medicines in promoting access to high-quality, affordable assistive products, such as wheelchairs, canes, eyeglasses, artificial limbs and hearing aids by, for example, informing procurement and reimbursement policies. The APL is thus considered vital in moving towards Sri Lanka’s goal of UHC and sustainable development.

Responding to natural diseases and infectious disease outbreaks

In response to the devastating floods that affected 15 of the country’s 25 districts in May 2017, WHO immediately mobilized US$ 175 000 from the South-East Asia Regional Health Emergency Fund (SEARHEF) to provide life-saving medical assistance. Additional funds came in through the UN CERF and the USAID. As the lead in the health sector response within the Humanitarian Country Team, WHO helped with the development of district health emergency preparedness and response plans in the eight worst-affected districts; and conducted district-level training for over 250 field health workers to strengthen disease surveillance, implementation of the IHR (2005), and risk communication.

The monsoon rains that triggered the floods helped turn a higher-than-normal incidence of dengue since the year began into a major outbreak, which at its peak resulted in nearly 10 700 reported cases in one week in July (Fig. 10). WHO worked with the MoH to develop a multisectoral action plan to address the epidemic with the objective of bringing
Box 17. Improving mental health through an innovative community-based violence prevention programme: Manohari

Sri Lanka’s National Mental Health Policy 2005–2015 was developed in the wake of the 2004 tsunami to support affected people. When the Civil War came to an end in 2009, the need to strengthen mental health services and make them available to affected communities was recognized. The country chose to adopt an innovative and sustainable approach that prioritizes the provision of mental health services at the community level.

With funding from the UN Peacebuilding Priority Plan (PPP), WHO, together with the Directorate of Mental Health under the MoH, and experts from a multidisciplinary team of professionals, developed “Manohari”, a community-based violence prevention programme in two conflict-affected districts in the country’s north (Kilinochchi and Mullaitivu). The regional directors of health services serving these districts have played a critical role in facilitating the programme and in ensuring its sustainability through continual engagement with the participating communities.

The Programme seeks to address some of the underlying issues contributing to psychosocial problems common in these communities, such as domestic abuse and alcoholism. It aims to reduce the stigma that exists around seeking treatment for mental disorders by breaking away from traditional models of mental health treatment and counselling. Instead, Manohari relies on storytelling, drama, dialogue and role-playing to help communicate practical knowledge on how to identify and cope with difficult emotions such as rage and jealousy, as a key first step in diffusing community tensions and promoting reconciliation.

Through the Programme, 45 women from community support organizations and 10 community-based mental health professionals have been trained, using a series of 10 modules developed by the team of experts. Those trained are currently implementing the Programme in their communities and they believe that the simple strategies they learned through Manohari offer the chance to drive real change in their communities. Project implementers have suggested that psychosocial well-being support be provided to families affected by incidents such as conflict, displacement, and sexual and GBV, especially in view of the increasing rate of suicides in the country.

Fig. 10: The epidemic curve of the 2017 dengue outbreak in Sri Lanka

Source: Disease surveillance data, epidemiology unit, MoH.
down the caseload and reducing case fatality. Key to controlling this crisis was limiting the spread of the vector, and towards that aim, WHO supported the training of entomologists, public health inspectors and medical officers on identifying and eliminating mosquito breeding sites.

To assist the health system in providing treatment services to those affected, experts from the Ministry of Public Health in Thailand and the Queen Sirikit National Institute of Child Health, a WHO collaborating centre for dengue case management, travelled to Sri Lanka to train clinicians at six tertiary care hospitals to improve case management of critical cases of dengue and dengue haemorrhagic fever. To address the overload of cases coming to the country’s tertiary care hospitals, a protocol for triaging patients by level of care (e.g. care at home, in primary health care settings, and in lower-level and tertiary hospitals) was developed with WHO assistance. WHO also supplied essential equipment for diagnosis and treatment (e.g. ultrasound scanners and laboratory analysers) to secondary and tertiary hospitals managing dengue patients.

The outbreak was largely contained within seven weeks, or by the end of August. In all, from 1 January to 31 December 2017, there were more than 185 000 suspected dengue cases.

To enhance the country’s preparedness and response to future infectious disease outbreaks, WHO mobilized funds from the Australian aid agency DFAT to strengthen diagnosis and clinical management and vector control, and to conduct epidemiological surveys – activities that will continue until mid-2018.

Also in 2017, the Government conducted, with WHO support, a JEE of the country’s compliance with the IHR 2005 – a comprehensive multistakeholder assessment of the core capacities that are required to prevent, detect and respond to public health threats. The exercise involved more than 100 stakeholders from various government departments who worked together with international experts to assess the 19 areas of concern. Among the major improvements that the evaluation identified as priorities are strengthening collaboration between sectors and agencies to foster a true “One Health” approach, enhancing infectious disease surveillance in both the human and animal health sectors across all levels of government, and improving the documentation of all areas reviewed.

Developing a national strategic plan to address AMR

The Government launched the country’s first National Strategic Plan for Combating Antimicrobial Resistance (2017–2022) in May 2017. The Plan was developed by a multisectoral coordination group on AMR established with WHO assistance, which included representatives from four sectors (human health, animal health, agriculture and fisheries). Based on the WHO Global Action Plan on Antimicrobial Resistance, the National Strategic Plan embraces the One Health approach to controlling AMR, encompassing human, animal and aquatic health, crop production and food safety.
Sharing research to integrate traditional and complementary medicine into health systems

An International Symposium on Traditional and Complementary Medicine was held in Colombo during two days in November, co-organized by the MoH, WHO and the University of Sri Jayewardenepura. The conference provided a forum for researchers and practitioners of both traditional and allopathic medicine to share cutting-edge research, innovations and evidence-based practices of traditional medicine in disease prevention, diagnosis and management, including the development of effective and quality medicines. Thirty-six international and 15 national researchers participated as keynote speakers and a total of 248 research papers were presented. Over 400 local and international academics and researchers in natural or herbal product development, practitioners of traditional medicine – including the Sri Lankan deshiyachikitsa system – industrialists and investors, health-care practitioners and policy-makers from nine countries in the South-East Asia Region of WHO took part in the symposium. Participating countries in the Region signed the Colombo Declaration on Traditional Medicine: a ministerial-level commitment to integrate evidence-based traditional medicine practices into health-care systems to advance UHC, as well as to strengthen public–private partnerships and academic collaboration between countries in traditional medicine research.

With H.E. Dr Rajitha Senaratne, Minister of Health, Nutrition and Indigenous Medicine, Sri Lanka
Gathering critical evidence to inform health systems strengthening policies

In 2017, the MoH established the Human Resources for Health Coordination Unit to improve coordination among various MoH departments, the Ministry of Higher Education and other ministries in the recruitment, training, planning and deployment of the health workforce. WHO provided technical support to set up the unit and facilitated an observational visit by a team from Sri Lanka to the HRH unit of Malaysia’s Ministry of Health.

One of the first activities of the new unit was to coordinate a health labour market analysis for Sri Lanka, in collaboration with WHO (headquarters and the regional and country offices). The study found that, while there has been a large increase in the health workforce – especially nurses – in the past decade, a coordinated long-term policy regarding the health workforce is lacking. In addition, there remain geographical disparities in the distribution of medical and nursing officers, who are not always deployed where the need is greatest. Oversight of the quality of education in private medical and nursing schools is inadequate, resulting in the Government not recognizing the qualifications of privately trained doctors and assistant nurses.

The study found a conflict in policies concerning the migration of doctors to other countries between different ministries (Education, Health, Foreign Employment), and data on the health workforce are fragmented across different information systems. Among the 10 recommendations from the study are the development of a comprehensive health workforce policy and action plan that takes into account demographic and epidemiological trends and disease burden projections; improving oversight of the private health sector and the accreditation system for private and public medical and nursing schools; establishment of an integrated, multiministerial approach to managing the migration of doctors; and enhancing the collection of coordinated and systematic data on the health workforce to ensure more equitable health service delivery to the population. The results and recommendations will be used in developing a strategic roadmap and policies on the health workforce.

Two studies have recently been completed that examine how much Sri Lankans are spending out of pocket on health, despite the free public-sector provision of health care in the country. The NHA, based on data from 2013 and published in 2016, found that out-of-pocket expenditure made up around 40% of total health spending. To more fully understand the population’s health-care utilization and out-of-pocket spending patterns, WHO, the MoH, Colombo University and the Sri Lanka Medical Association collaborated in 2017 on a detailed analysis of the 2012–2013 Household Income and Expenditure (HIE) Survey, along with data from previous HIE surveys. The survey found that out-of-pocket payments went primarily towards care obtained at private outpatient clinics and private hospitals and nursing homes, as well as for medicines and laboratory tests obtained in
the private sector. The average household spent Sri Lankan Rupee 17,856 (≈US$ 116) per year on health – which comes to an estimated Sri Lankan Rupee 96 billion for the entire population – and the figure is considerably more in households with elderly persons or those with chronic health conditions. More than 6% of households spent at least 10% of their total expenditures on health – defined as catastrophic health-care spending – and with the increase in the elderly population and those with NCDs, out-of-pocket expenditures is expected to increase considerably if no countermeasures are taken.

In 2016, the WHO Country Office developed Sri Lanka’s Health SDG profile, an essential first step in creating systems for measuring, implementing and monitoring the country’s progress against the health SDG. In 2017, WHO helped the MoH in further analysing the SDG 3 indicators, stratified by age–sex, ethnicity, geography, income and other demographic variables. A workshop on the use of the WHO Health Equity Analysis Tool was conducted to increase the capacity of stakeholders from a range of sectors and agencies (including the Department of Census and Statistics, the Department of the Registrar-General, the Police Department and several directorates in the MoH) to conduct equity analyses. Stratification of health data by these variables will help the Government make the necessary changes to policy and practice to reduce inequalities and ensure that “no one is left behind”.

**Partnerships**

The Sri Lanka WHO Country Office actively partners with the MoH, other government agencies, UN agencies and other development partners, the private sector, academia and NGOs in implementing its programmes and activities. Examples of the many activities that involve collaboration with multiple partners include the following:

- **Mobilizing resources from other agencies to effectively manage emergencies.** To respond to the 2017 floods, WHO was able to mobilize assistance through the UN CERF and USAID. The Country Office also received funds from DFAT during the dengue outbreak to strengthen the health sector’s diagnostic capacity and clinical management of dengue, and to conduct vector control and epidemiological surveys to improve its preparedness and response to VBD outbreaks.

- **Partnering to enhance research capacity in health.** The WHO Country Office spearheaded the preparation and consultation process for a Code of Conduct on Research in Sri Lanka and the Research Governance Strategy for Sri Lanka, working closely with the National Health Research Council. WHO also worked with DFAT to secure a fellowship grant to 15 individuals for a course on Australian Research Governance and Ethics at the University of Monash held in November 2017.

- **Partnering with international and local organizations on mental health.** To support reconciliation efforts following the Civil War, WHO mobilized US$ 420,000 from the UN
PPP to implement the community-based psychosocial support programme (Manohari) that teaches conflict-resolution techniques. WHO also partnered with the MoH and the National Authority on Tobacco and Alcohol (NATA) to develop a training programme for medical officers on treating and managing patients who abuse alcohol and a training course for middle-level staff from the health, social services and education sectors on community prevention of alcohol abuse. In addition, WHO partnered with the Alcohol and Drug Information Centre (ADIC), a CSO, in designing an innovative community-based alcohol abuse prevention programme that empowers village women and local groups to advocate for reduced alcohol consumption and conduct alcohol abuse prevention activities.

- **Working with development banks to strengthen health systems and PHC.** WHO collaborated with the Asian Development Bank on a primary health care strengthening programme, including mapping all health facilities in four provinces to improve the delivery of health services to vulnerable populations. WHO also collaborated with MoH subcommittees and the World Bank to reorganize PHC service delivery and health systems strengthening.

- **Supporting other Member States in the Region in public health.** With support from WHO, the Sri Lanka MoH signed a “twinning agreement” with the MoH in Timor-Leste to assist that country to strengthen its immunization programme in 2017 and 2018. WHO also supported the training in Sri Lanka of physicians from the Democratic People’s Republic of Korea in the management of gastric and liver cancer and cardiac angiography in 2017.

- **Engaging youth with UNDP.** WHO collaborated with UNDP in developing “Youth Dialogue”, a programme to build skills in young people to be youth leaders. WHO used this opportunity to promote healthy eating and mental health.

- **Partnering with the MoH and the National Science Foundation on chronic kidney disease of unknown origin (CKDu).** In 2017, WHO and partners initiated a large-scale community-based survey to estimate the burden of CKDu. This partnership will continue in 2018 to design and implement a cohort study to understand the risk factors of CKDu.

**Looking ahead**

The WHO CCS for Sri Lanka 2018–2023, developed in consultation with key stakeholders – including the MoH, the UN Country Team, and national and international experts – provides a strategic vision for WHO’s work in Sri Lanka for the next 5 years. It was designed to respond to the country’s priorities and resources needed to advance its health agenda to meet the SDG goals, and is aligned with the UN Sustainable Development Framework (UNSDF) for Sri Lanka.
The activities in the CCS centre around four strategic priorities: (1) policy support for health-care service delivery (including HRH, sustainable and equitable financing, and primary health care that responds to the country’s changing demographics, such as an ageing population); (2) addressing NCDs and road injuries and their determinants; (3) increasing resilience in the face of health threats (such as infectious disease outbreaks and natural disasters); and (4) using a knowledge-based approach to improve health.

The following diagram shows the strategic priorities and focus areas of work of Sri Lanka and WHO in the next five years:
Thailand

Highlights

- WHO certifies Thailand as having achieved elimination of LF as a public health problem.
- Following advocacy from WHO, the Government commits to accelerating efforts to end TB in Thailand – one of 30 countries with the highest rates of TB.
- Thailand hosts and co-funds regional high-level meeting on road safety, during which health ministers from the Region sign the Phuket Commitment to better protect vulnerable road users (pedestrians, bicyclists, motorcyclists).
- A JEE of Thailand’s capacity to implement the IHR (2005) is successfully completed.
- The Government enacts the country’s first comprehensive law protecting breastfeeding by strictly regulating the marketing of breastmilk substitutes and other foods marketed for infants.
- HPV virus vaccine targeting schoolgirls is successfully introduced nationwide.
- The Government increases taxes on tobacco, alcohol and sugary drinks to discourage the consumption of products contributing to NCDs.
Thailand is a middle-income country with an impressive history of accomplishments in public health. These include achieving near-universal health insurance coverage through the 2002 National Health Security Act; the elimination of mother-to-child transmission of HIV and syphilis in 2016; sustained high coverage of childhood vaccinations (99% for most vaccines according to WHO–UNICEF estimates); and the official elimination of LF in 2017. However, the country continues to be challenged by an increasing burden of NCDs, a high rate of TB, growing AMR and unacceptably high numbers of road traffic deaths and injuries – all impacting negatively on the population’s health and the nation’s economy.

A major achievement in 2017 – and one that will guide WHO’s work in Thailand for the next 5 years – was the development and approval of a new WHO CCS for 2017–2021. In a unique arrangement, the Ministry of Public Health (MoPH), several quasi-government agencies and WHO have agreed to work together in specific programme areas and fund these programmes jointly using a pooled funding mechanism. The six agreed-upon areas are: (i) AMR; (ii) global health diplomacy; (iii) international trade and health; (iv) migrant health; (v) NCDs; and (vi) road safety. For each area, there is a lead organization responsible for implementing activities and managing a pooled fund that is “un-earmarked”, allowing for flexibility in how the funds within each area are spent.

This is the first time that other national entities – which include the Thai Health Promotion Foundation, the National Health Security Office, and the Health Systems Research Institute, among others – have agreed to allocate their funds around a WHO CCS. In fact, WHO will contribute only 30% of the total CCS budget, with the in-country
partners contributing the remaining 70%, thus ensuring strong country ownership in the programmes. This innovative CCS can serve as a model for other middle-income countries to follow.

Key activities and achievements in 2017

Ending tuberculosis becomes a top government priority

The Royal Thai Government in 2017 increased its commitment and funding to fast-track effective strategies to end TB in the country, where around 120 000 new cases still occur each year. This follows an epidemiological review of TB conducted by the independent Greenlight Committee in 2016, which found uneven progress in controlling the disease in the country despite considerable advocacy from WHO. The honourable Vice-Minister of Health of Thailand signed in March 2017 the Delhi Call for Action to end TB in WHO South-East Asia Region by 2030 which will help accelerate efforts to end TB in Thailand. The honourable Minister of Public Health gave an address on the role of UHC in ending TB at the November 2017 WHO Global Ministerial Conference held in Moscow, “Ending TB in the Sustainable Development Era: A Multi-sectoral Response”. The MoPH, with WHO assistance, became one of the first to develop a TB research agenda in an Asian country, using a participatory and intellectually rigorous process that involved top academicians, health ministry officials and civil society representatives.

In addition, the MoPH, with WHO technical support, developed protocols for post-marketing surveillance to monitor the safety of newer, shorter TB treatment regimens, in preparation for their introduction.

Supporting efforts to eliminate malaria by 2026

To support the Government of Thailand’s plan to eliminate malaria by 2026, WHO assisted with a detailed assessment of the country’s systems and strategies for laboratory diagnosis of malaria. Major recommendations from the assessment included ways to increase access to timely malaria laboratory diagnosis through the country, the establishment of a National Quality Assurance Programme and a programme of continuous training of laboratory technicians to ensure the accuracy of malaria diagnoses, and the establishment of a National Reference Laboratory for malaria, which is required before a country can be certified as having eliminated malaria.

MDR strains of the malaria parasite are threatening the ability of Thailand and the GMS\textsuperscript{11} to meet their malaria elimination targets, which for the Subregion is 2025 for \textit{P. falciparum}.

\textsuperscript{11} Consisting of Thailand, Cambodia, Laos, People’s Democratic Republic Myanmar, Viet Nam and parts of the People’s Republic of China.
and 2030 for all species. In response, WHO is assisting the MoPH in incorporating the monitoring of drug efficacy into the country’s routine malaria surveillance system. This will enable the country to monitor drug-resistant trends on a continual basis and will provide a comprehensive picture of the emergence or spread of MDR strains. This information will help policy-makers better direct resources to more intensive strategies to address MDR-TB, such as intensive case-based surveillance and more stringent patient follow up to ensure compliance with a full course of treatment.

Promoting and protecting breastfeeding

On 4 April 2017, the National Legislative Assembly passed the Control of Marketing of Food for Infants and Young Children Act, which places a total ban on advertising and promotion of breast-milk substitutes for infants as a way to protect and encourage breastfeeding. This Act, which came into effect in September, is the first comprehensive law in Thailand to regulate the marketing of foods for infants and young children (0–3 years of age).

The law prohibits the direct contact of food company representatives with pregnant women and caregivers of infants and young children, and forbids promotional activities such as giving discount coupons, free samples, gifts and prizes. Violators are liable for fines up to Thai Baht 300 000 and imprisonment for up to 1 year.

WHO played a critical role in the formulation and passage of the law by providing technical assistance on legal issues, advocating for the law in the media (e.g. in newspaper
editorials, press interviews), and, most importantly, through a letter from the then WHO Director-General, Dr Margaret Chan, to the honourable Prime Minister of Thailand, stressing the importance of breastfeeding for infant health development and urging the passage of the Act.

Making headway with the control of risk factors for NCDs

Thailand’s new Excise Tax Act came into effect in September 2017, which increases taxes on tobacco products, alcoholic beverages and sugary drinks, among other items. These “sin taxes” are recommended by WHO as “best buys” to reduce the consumption of unhealthy products contributing to the country’s high rate of NCDs, which now account for an estimated 81% of all deaths.

The taxes on sugary drinks will continue to rise in proportion to their sugar content, while taxes on sugar-free soft drinks have actually been reduced. In addition to potentially reducing the consumption of these products, the taxes generated are used to fund government agencies that promote healthy lifestyles, including the Thai Health Promotion Foundation and the National Sports Development Fund.

In another important development to address NCDs, the Government and the food industry agreed to an ambitious goal to reduce the consumption of sodium in Thailand by 30% by 2025. Most dietary sodium – which Thais consume on average at twice the recommended level – comes from packaged foods. Therefore, through a series of meetings, workshops and other WHO-supported advocacy activities, food industry representatives, the Thai FDA, the MoPH and civil society groups developed a joint action plan to reformulate selected food products to reduce their sodium content, which includes time-bound targets and a monitoring plan. The action plan focuses on four groups of high-salt foods: (i) instant foods (e.g. noodles, congee, soup); (ii) frozen foods; (iii) condiments (e.g. fish sauce, soy sauce, seasoning cubes); and (iv) snacks (e.g. potato chips, crisp corn/rice, nuts).

The WHO Country Office also worked closely with the MoPH to finalize and publish the 2015 Global School Health Survey (GSHS). This was conducted among a representative sample of schoolchildren in grades 7–12 and was a follow up to the first survey conducted in 2008. The study found high and growing levels of sedentary activity – with 52% of 13–15 year olds spending three or more hours of being awake every day by not being physically active. These findings are higher than the 40% or less recorded in 2008 (Table 3).12

Nearly one in five students (19%) were also found to be overweight. Nearly 19% of 13–15-year-olds reported that they currently drink alcohol and 14% said they use tobacco products. Among 13–15 year olds, alcohol and cigarette use have actually increased since

12 A comparison between the two surveys could only be made for 13–15 year olds.
2008, and the proportion of those who have had sexual intercourse has more than doubled (from 6% to nearly 15%) over the same period. Students are also vulnerable to mental health problems, with 13% of students reporting that they had attempted suicide in the previous 12 months. These findings underscore the importance of tackling disease risk factors at an early age.

Table 3. Selected self-reported rates of risky health behaviours among 13–15-year-olds from the first and second rounds of the Thai Global School Health Survey

<table>
<thead>
<tr>
<th>Percentage of students who reported</th>
<th>2008</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being overweight</td>
<td>16.4%</td>
<td>18.5%</td>
</tr>
<tr>
<td>Spending 3+ hours/day in sedentary activities</td>
<td>39.6%</td>
<td>52.2%</td>
</tr>
<tr>
<td>Currently smoke cigarettes (at least 1 per day in the past 30 days)</td>
<td>8.8%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Drink alcohol (at least 1 drink in the past 30 days)</td>
<td>15.6%</td>
<td>19.2%</td>
</tr>
<tr>
<td>Ever having sex</td>
<td>6.4%</td>
<td>14.9%</td>
</tr>
</tbody>
</table>

Strengthening preparedness and response to emergencies

A JEE of the country’s core capacities in meeting the IHR (2005) to respond to disease pandemics was conducted in June 2017 by a team consisting of technical staff from the WHO Regional Office and headquarters, the offices of FAO and OIE (the World Organization for Animal Health), as well as experts from Bangladesh, France, Israel, Kenya, Sweden, the United Kingdom and the United States of America.
The evaluation recognized Thailand as a leader in the Region in several technical areas for which it received high scores, notably in passing strong laws and regulations to implement the IHR, having a strong immunization programme, and having sufficient human resources to meet IHR requirements (including a strong field epidemiology training programme). Work is now under way to prioritize and plan the implementation of the more than 60 recommendations made to further strengthen the country’s IHR core capacities.

There is a special focus on improving collaboration and coordination between different agencies and better integrating the private sector and communities in activities to prevent, detect and respond to pandemics.

To improve Thailand’s ability to respond to natural disasters, a team of experts from WHO headquarters and the Regional and Country Office, along with mentors from Japan, initiated a process in 2017 to develop emergency medical teams (EMTs) that meet the recently established WHO EMT standards. In addition, a national intersectoral workshop on how to conduct a post-disaster needs assessment (PDNA) took place with support from WHO and other UN agencies following severe flooding in the southern provinces in early 2017.

WHO also assisted the Government in assessing how to strengthen Thailand’s preparedness for a potential influenza pandemic, with a focus on ensuring the sustainability of local production of influenza vaccine. The recommendations from this assessment, presented to all stakeholders, include the development of a dedicated national influenza pandemic preparedness plan.

Making progress in improving road safety

The Thai Government, with strong WHO support and advocacy, substantially strengthened road safety laws in 2016, including reducing blood alcohol limits to curb drink–driving, reducing local speed limits, strengthening the process of testing for drivers’ licences, and imposing seat-belt requirements. In 2017 WHO support focused on helping the Government put in place systems and structures to implement and enforce these stricter laws.

One key achievement in 2017 was the development and roll-out of a speed limit-setting manual, in collaboration with WHO, international experts and key government entities (Ministry of Transportation, Ministry of the Interior, Royal Thai Police and others). The lack of appropriate speed limits and their enforcement has been a major factor contributing to Thailand’s high rate of road fatalities – the second highest in the world at 36 per 100 000 population.

The manual addresses this problem by providing guidance to local governments in determining what speed limits to set at different types of locations (e.g. residential areas or near schools). It was pilot-tested in one province (Chachoengsao) and used to analyse
Box 18. Thailand launches multisectoral plan to combat antimicrobial resistance

Thailand’s National Strategic Plan for AMR (2017–2021), endorsed by the Cabinet in 2016, has ambitious goals to reduce morbidity from AMR by 50% by 2022, reduce the use of antibiotics in humans and animals, and increase public awareness of AMR and the appropriate use of antibiotics. The Plan is based on the “One Health” approach, which recognizes the interdependence between human health, animal health and the environment to effectively combat AMR. Thus, a key element of the National Strategic Plan is the collaboration between different sectors – from the health and agricultural sectors to the pharmaceutical industry, education sector, civil society, and the private sector.

<table>
<thead>
<tr>
<th>Summary of the National Strategic Plan on antimicrobial resistance 2017–2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vision:</strong> Reduction of mortality, morbidity,* and economic effects from AMR</td>
</tr>
<tr>
<td><strong>Mission:</strong> Establish policies and national multisectoral mechanisms that support effective and sustained management of AMR</td>
</tr>
<tr>
<td><strong>Goals</strong></td>
</tr>
<tr>
<td>• 50% reduction in AMR morbidity</td>
</tr>
<tr>
<td>• 20% reduction in antimicrobial consumption in humans</td>
</tr>
<tr>
<td>• 30% reduction in antimicrobial consumption in animals</td>
</tr>
<tr>
<td>• 20% increase in public knowledge of AMR and awareness of appropriate use of antimicrobials†</td>
</tr>
<tr>
<td>• Increase in country capacity to tackle AMR to score 4 as measured by the WHO JEE tool‡</td>
</tr>
<tr>
<td><strong>Strategies</strong></td>
</tr>
<tr>
<td>• AMR surveillance system using the One Health approach</td>
</tr>
<tr>
<td>• Regulation of antimicrobial distribution</td>
</tr>
</tbody>
</table>

To advance the implementation of the Plan, the Prime Minister appointed a multisectoral National Committee on AMR Policy in March 2017, which has its Secretariat at the FDA, and which held its first two meetings in 2017. A working group to develop the National Operational Plan on AMR was also appointed by the Minister of Public Health and an AMR website was created (www.amrthailand.net).

Two major events took place in November 2017 to draw attention to the issue of AMR and the Government’s determination to tackle it. The Prime Minister launched the Mission, “Thailand Marks the Spot to Stop AMR”, at a highly publicized exhibition that presented the six strategies of the National Strategic Plan. Two days later, a national conference was held, chaired by the Deputy Prime Minister and co-hosted by 22 Thai organizations and government agencies (including six ministries, professional associations, hospital networks and research institutes), as well as WHO, FAO and OIE. During the conference, all 22 Thai stakeholders signed the “Call-to-Action Declaration against AMR” to confirm their commitment to working towards the goals and strategies of the National Strategic Plan.

Studies to better describe the “landscape” of antimicrobial use in Thailand continued in 2017, with support from WHO. These include a study of the distribution of antimicrobial use in humans and animals that will help develop a national system to monitor antimicrobial use in Thailand.
the entire road network in one urban area, a process that can be replicated elsewhere. The manual has subsequently been rolled out in 22 of the country’s 77 provinces.

A road safety media fellowship to enable journalists to improve their skills in reporting about road safety grew to include 15 media fellows in 2017, who took part in workshops and field trips for on-site learning, and who conducted a number of interviews resulting in high-quality media stories. The fellowship programme has led to a project conducted jointly by the Thai Public Broadcasting System (PBS) and an alliance of foreign ambassadors (the “Embassy Friends of Road Safety”) to join forces in creating a sustainable platform to advocate for road safety activities – from strengthening data systems to policy and legislative changes and their implementation and enforcement. This partnership also led the National Broadcasting and Telecommunications Commission to contribute financial support to the fellowship programme.

**Partnerships**

The WHO Country Office in Thailand works and supports a wide range of partners across all of its programmes. Examples of these partnerships in 2017 include the following:

- **with international partners.** Among the many collaborative activities with the UN and other national partners was a joint national consultative meeting on hypertension with the US CDC; advocacy work to support the new Breastfeeding Act with UNICEF; and a joint publication on tobacco control with UNDP. WHO also continued to collaborate with the Embassy Friends of Road Safety – an alliance of ambassadors living in Thailand – who brought in experts from Sweden and the United Kingdom to describe successful programmes in their countries during the national Annual Road Safety Seminar held in December 2017. WHO also works in close partnership with UNICEF, the Thai US CDC Collaboration, and UNAIDS to assist Thailand in maintaining its status as having eliminated mother-to-child transmission of HIV.

- **with academia.** WHO collaborated with the Faculty of Tropical Medicine at Mahidol University to conduct the country’s first training programme on malaria elimination for regional-level health staff, which took place over six days in October 2017. They also jointly evaluated the course and training materials, including its relevance for global use.

- **with the private sector.** Through an agreement initiated by WHO, the real estate developer, Sansiri PLC, continues to collaborate with the National Immunization Programme, the Institute for Urban Disease Control and UNICEF in conducting immunization outreach activities for migrant children living on Sansiri construction sites. This public–private partnership model to provide immunization services will be expanded to other private companies in 2018.
Looking ahead

WHO will continue to contribute its intellectual and social capital by collaborating with Thai governmental and nongovernmental partners focusing on CCS priority areas. Some of the major activities being planned include the following:

- Continue to focus on reducing the risk factors for NCDs, including tobacco control; hypertension management; sodium reduction and elimination of transfats in processed foods; policy development to prevent childhood obesity, including enforcement of the new breastfeeding law; and strengthening surveillance and capacity-building.

- WHO will advocate for amendments to the road safety law that are currently pending, as well as those yet to be proposed. This will be carried out in collaboration with the Road Safety Directing Centre, the Office of the Council of State, and the Working Group to Review Road Safety Legislative Amendments that WHO played a key role in establishing and that drafted the amendments that recently became law. WHO will also advocate for nationwide implementation of the speed-setting manual, and work with the Ministry of Transportation’s Motorcycle Safety Working Group to develop a realistic plan based on the WHO Two- and Three-Wheeler Safety Manual and the Save LIVES package.

- Important Zika virus research studies will commence in 2018 that will help provide a much better picture of the prevalence and impact of Zika virus infection in Thailand. The most important of these studies, financially supported by USAID, will examine the incidence of Zika virus infections in pregnant women, as well as the associated risk of neonatal microcephaly. Thailand is also scheduled to host a regional consultation on Zika virus in early 2018 that will aim to build a consensus on actions to take to reduce this public health threat in the Region.

- WHO will continue to support national- and local-level immunization partners to address low vaccination coverage among children in the southern part of the country, and efforts to achieve the elimination of measles and rubella by 2020, including reaching 95% coverage of both doses of MMR vaccine both nationally as well as in each district.
Timor-Leste

**Highlights**

- By May 2017, medical teams had visited 94% of Timor-Leste’s households through the Saúde na Família (Health in the Family) programme that is bringing a package of primary health care services to the entire population.

- The country celebrates its first official National Health Day on July 22 to commemorate the first anniversary of the launch of the Saúde na Família programme and the Prime Minister released a book documenting stories from the first year of the programme’s implementation.

- Timor-Leste is on track to eliminate malaria by its target year – 2021, having cut the incidence by >99% in 11 years.

- The country hosts a “Global Conference on the 2030 Agenda: A Roadmap for SDGs in Fragile and Conflict-affected States” in May 2017, attended by >250 high-level policy-makers from around the world.

- The control of NCDs advances with the establishment of the country’s first NCD clinic and endorsement by the MoH of a package of essential NCD interventions tailor-made for Timor-Leste.

- The Government mandates graphic pictorial warnings for all tobacco products.

Since the restoration of Timor-Leste’s Independence in 2002, all successive governments have been committed to providing universal health care. Much of the country’s health infrastructure destroyed during the Independence struggle has been rebuilt.

The country achieved the MDG 4 by reducing mortality in under 5 children by more than two thirds and infant mortality by 65% (from 130/1000 to 46/1000) from 1990 to 2013. The National Immunization Programme was also substantially expanded with the addition of five vaccines into the routine immunization schedule in 2016. Leprosy has been eliminated as a public health problem, measles has practically disappeared, and the country is polio-free. Timor-Leste has maintained a low incidence rate of malaria for the past 5 years and is on track to eliminate malaria by its target year – 2021, having cut the incidence by >99% in 11 years.

Despite this progress, UHC is yet to be achieved, particularly in remote and rural areas, reflected in the high maternal and child mortality rates. Timor-Leste continues to have a high burden of communicable diseases and VBDs, and has one of the highest TB incidence rates in the world. Rates of malnutrition, which have declined in recent years, are still high among children. Although classified as a low-prevalence country for HIV/AIDS, rates of sexually transmitted diseases overall remain high. NTDs, including lymphatic filariasis, yaws and soil-transmitted helminths, also persist throughout the country. Despite the fact that the national incidence of leprosy is now below the threshold used to define elimination status, the disease remains endemic in two municipalities (Dili and Oe-cusse). Dengue outbreaks are also a major public health concern, occurring every year from January to March.

Adding to the continual burden from communicable diseases are NCDs such as cardiovascular disease and cancers, which now together account for 44% of all deaths. Timor-Leste is also highly vulnerable to natural disasters such as cyclones, earthquakes.
and the consequences of rising sea levels, and has limited capacity to cope with and adapt to the impact of these potential disasters.

Overall, despite considerable progress since 2002, estimates suggest that a large number of people are still being "left behind" in Timor-Leste in terms of access to health care. There remain large disparities in access to health services between the rich and the poor, and between urban and rural households.

In 2015, the government launched the Comprehensive Service Package for Primary Health Care, which includes the Saúde na Família (Health in the Family) programme, and was designed to reach those “left behind”. It constitutes an important milestone to strengthen primary health care services at the community level through domiciliary visits by teams of health professionals. By taking primary health care directly to the people and identifying those requiring follow-up care, the Saúde na Família programme is a major vehicle for achieving UHC and aims to overcome barriers of access to health care, especially for the vulnerable, poor, marginalized and disabled. The programme is thus a key strategy to achieving the SDG 3: “Ensure healthy lives and promote well-being for all at all ages.”

WHO Country Office support is focused on health systems strengthening to ensure UHC, including support for Saúde na Família. WHO assistance is aligned with the country’s national development and health plans, the health-related SDGs and the UNDAF.

Key activities and achievements in 2017

Promoting the health SDG and universal health coverage

In May 2017, the Government hosted the “Global Conference on the 2030 Agenda: A Roadmap for SDGs in Fragile and Conflict-affected States”. The three-day conference, co-organized by the Prime Minister’s Office, the G7+ Secretariat and a high-level support group for SDGs, brought together more than 250 high-level policy-makers from 10 countries in Africa, Asia, West Asia and the Pacific, as well as development partners and CSOs.

It was opened by the UN Secretary-General, Mr António Guterres, via a video message. The meeting provided a platform to discuss the challenges and share lessons and best practices related to implementing the SDG Agenda in fragile and conflict-affected states. According to the Regional Director of UNDP, the conference was “an excellent forum for learning about how countries such as Timor-Leste have transitioned from conflict to peace and development, and how peace has been sustained. It also presents lessons and opportunities for cooperation between fragile states on the SDGs.”

During the conference, a panel discussion on health showcased the Saúde na Família programme. During the discussion, the then Prime Minister, Dr Rui Maria de Araújo, said, “First and foremost, this programme is a testament to the universal values and principles of equality and justice, and underscores the responsibility of the government to guarantee
health care for all its citizens. Secondly, it recognizes that primary health care is the best strategy to achieve health for all, and is the foundation for health systems strengthening through the provision of quality and comprehensive health care in a cost-effective and equitable manner. Lastly, it is in line with the spirit of the SDGs of ‘leaving no one behind’ by reaching out to people who are still being ‘left behind’ in Timor-Leste in terms of access to health care."

The event concluded with the Prime Minister of Timor-Leste, H.E. Dr Rui Maria de Araújo, launching the book on Saúde na Família, which documents the lives of people who have benefited from the programme as well as experiences of health workers in implementing it during its first year. The book can be downloaded from the WHO Country Office for Timor-Leste website.

On 22 July 2017, the first officially designated National Health Day was celebrated to commemorate the launch of the Saúde na Família programme on this day in 2015. The MoH organized activities around the theme: “Bring health services to the family, bring people improved quality of life.” These activities included blood donation camps and check-ups at all hospitals, education and outreach initiatives through the media, cultural and sporting events, a scientific seminar, and awards for professional performance to workers in the health sector.
**Progress towards the elimination of neglected tropical diseases**

The country’s Integrated NTD Control and Elimination Programme, which aims to eliminate LF and yaws, and control soil-transmitted helminthiasis (STH) by 2021, made further headway in 2017, with financial support from the Government of the Republic of Korea and technical support from WHO. Simultaneous MDA against LF and STH – the second of five required annual rounds – achieved 100% geographical coverage and reached nearly 994 000 people (78% of the population).

Following this round, Timor-Leste became the first country in the SEA Region to use the coverage supervision tool (CST), the latest assessment tool developed by WHO, to monitor and estimate MDA coverage in selected municipalities. Due to the high burden of STH in Dili municipality, an additional MDA round against STH was conducted 6 months later, which reached more than 85 000 children under the age of 16 years, achieving the coverage rate of 74%.

For the first time, a yaws endemicity mapping survey was completed in 10 out of the country’s 13 municipalities. Data from the survey will be used to determine which areas to target for MDA and how many rounds will be needed.

**Advancing towards measles elimination**

Timor-Leste did not report a single confirmed case of measles in 2017 and has been free of locally transmitted measles since August 2015. The country is very close to interrupting indigenous measles transmission. However, verification of the interruption of indigenous measles virus transmission in the country will be possible only in August 2018 (i.e. 3 years after the last indigenous case). If no such cases are confirmed by then, WHO will be in a position to declare Timor-Leste as the third country in the SEA Region to eliminate the disease (after Bhutan and Maldives). This will be a major achievement only 16 years after the country gained independence following the cessation of hostilities.

Efforts to reach measles elimination and rubella control have included a combination of routine immunization and supplemental vaccination campaigns: a second vaccine dose was added to the immunization schedule in 2016 (while also introducing MR vaccine); and case-based, laboratory-supported measles and rubella surveillance that meets WHO standards was introduced. A National Verification Committee on Measles Elimination and Rubella Control was also formed in 2015. A further step towards being certified measles-free in 2017 was the establishment of a MR molecular epidemiology laboratory.

Another step required to achieve measles elimination status is to close the observed immunity gap; the WHO–UNICEF estimated national coverage of the first dose of MCV in 2016 was only 78%. The immunization programme is therefore planning a nationwide vaccination campaign combining MR and polio vaccines for children under the age of 5 years in July 2018.
Box 19. Evaluation shows simultaneous introduction of five vaccines to be successful

In February 2016, Timor-Leste introduced five vaccines into the child immunization schedule all at once: a birth dose of hepatitis B, a single dose of IPV at 14 weeks, two doses of MR vaccine, a fourth DPT dose at 18 months, and a DT booster at 6 years of age. In November 2017, a post-introduction evaluation (PIE), supported by WHO, was conducted to assess how well these vaccine introductions have been implemented and to identify and address any technical, programmatic or logistical issues and document the lessons learnt. The PIE involved a team of eight international and 10 national evaluators who visited 16 community health centres, 10 health posts and two referral hospitals spread across eight of the country’s 13 municipalities.

The evaluation showed that the newly introduced vaccines had been well integrated into the national EPI, with well-developed national plans and budgets. The PIE also found that the VPD surveillance system was generally highly sensitive, and that significant progress had been made in implementing recommendations from the EPI/VPD review and effective vaccine management (EVM) assessment conducted in 2015.

Strengthening maternal and child health services

A major component of Timor-Leste’s Improvement Plan for Emergency Obstetrics and Newborn Care (EmONC) – developed in 2016 with support from WHO and UNFPA to reduce maternal mortality and improve birth outcomes – is the development of a sustainable training programme for health workers using a national team of trainers. As a key step, a comprehensive competency-based training package for doctors, nurses and midwives on

Mothers queuing up to get their children vaccinated in Covalima municipality
intrapartal and immediate postpartum care was developed in 2017 with WHO technical assistance, based on the national standards of care. WHO also supported the installation of web application software for a perinatal and birth defect database at the national referral hospital in Dili (Hospital Nacional Guido Valadares or HNGV).

The MoH finalized and launched in 2017 the national guidelines for health-care providers on GBV and intimate partner violence – a serious problem in post-conflict Timor-Leste – with support from WHO and UNFPA. The finalization process involved a series of working group meetings, consultations with key stakeholders, and translation of the guidelines into the local Tetun language.

**Strengthening universal health coverage for HIV/AIDS and hepatitis**

Timor-Leste adopted the “Test and Treat” policy of putting all HIV-positive patients on ART regardless of their CD4 count, in 2017. And by the end of December 2017, 287 people living with HIV were receiving the therapy. An Integrated Biological and Behavioural Survey (IBBS) conducted in 2016–2017 with technical support from WHO shows a reversal of the HIV epidemic among key populations (female sex workers and men who have sex with men) (Fig. 11). Data suggest that the country is moving closer to achieving the “90–90–90” targets (90% of people living with HIV know their status, 90% of them receive ART, and 90% of those on ART achieve viral suppression) and reaching the goals of eliminating mother-to-child transmission of HIV/AIDS and syphilis by 2020 and ending AIDS by 2030.

*Fig. 11: Trends in HIV prevalence among key populations and the general population, 2004–2016*
As part of the country’s hepatitis prevention and control programme, more than 10 500 health-care professionals, police and armed forces personnel were vaccinated with the first and second doses of hepatitis B vaccine during a mass vaccination campaign conducted from July to October 2017 with technical assistance from WHO.

Addressing the country’s high incidence of tuberculosis

Timor-Leste has the highest estimated TB burden in the SEA Region, with an estimated incidence of 498 per 100 000 population which has remained fairly constant since 2002. TB is also one of the single highest causes of hospital deaths in the country. The National TB Programme in 2017 took important steps to address this serious problem, with WHO support. These included: (1) launching an initiative to sensitize midwives across the country to screen for TB in mothers and children; (2) conducting a nationwide training of doctors to identify missing TB cases in the paediatric population; (3) developing paediatric TB guidelines in consultation with paediatricians from HNGV hospital, NGOs, private practitioners and experts from the National Health Laboratory; and (4) updating the National TB Strategic Plan (2018–2022) to address key drivers of the epidemic.

On the path towards eliminating malaria by 2021

The National Malaria Control Programme has made remarkable progress in controlling malaria in a little more than a decade. The number of clinical and laboratory-confirmed
cases declined from more than 223,000 in 2006 (for an incidence rate of 220 per 1000 population) to 30 cases in 2017 (incidence of 0.02/1000). The positivity rate from rapid diagnostic tests and blood smears also decreased from 39% in 2006 to 0.02% by 2017. Of the 30 reported cases in 2017, 16 were indigenous (along the border with West Timor province) and 14 were imported from Indonesia. Timor-Leste has thus moved from the “control phase” to the “elimination phase” and is on track to meet its goal of being malaria-free by 2021.

This progress has been the result of a comprehensive control programme involving the use of rapid diagnostic tests for malaria; the introduction of artemisinin-combination therapy to treat cases; a strong surveillance system; the widespread distribution of LLINS and IRS in high-incidence areas; and implementation of evidence-based vector control measures. WHO has provided critical technical and financial support throughout the years, from helping prepare the Global Fund grant applications to assisting with a series of technical guidelines, training malaria focal points at all levels and, most recently, supporting the development and costing of the country’s National Malaria Elimination Strategy (2018–2021), which was endorsed by the MoH in 2017.

Fig. 12: Trend in malaria incidence in Timor-Leste from 2006 to 2016 and malaria control interventions

Combating antimicrobial resistance

The launch of the National Action Plan on Antimicrobial Resistance 2017–2020 in May 2017 reinforced the Government’s commitment to the five strategic objectives of the Plan: (1) bridging knowledge and awareness gaps; (2) conducting surveillance; (3) improving hy-
giene, infection prevention and control; (4) the rational use of antimicrobial medicines; and (5) promoting sustainable investments in new medicines, diagnostic tools and vaccines.

In November 2017, the MoH, in collaboration with the Ministry of Agriculture and Fisheries, organized a series of events for the World Antibiotics Awareness Week (WAAW), with support from WHO. The activities, which continued well into December, included seminars and workshops to raise awareness among health-care professionals from the public and private sectors, pharmacists, animal health professionals, medical and veterinary students from five universities in Dili, the media, and the general public about AMR and their respective roles in combating it. The Radio and Television Timor-Leste (RTTL) network broadcast animations and messages on AMR daily for a month and information, education and communication (IEC) materials on AMR from the global WAAW website were adapted, translated and widely disseminated. Experts from the MoH, Ministry of Agriculture and Fisheries, and WHO also took part in a TV talk show that week to educate the public about AMR.

Continuing the fight against NCDs and tobacco use

The WHO PEN interventions for primary health care facilities, adapted to Timor-Leste’s needs in 2016, was endorsed by the MoH in 2017 and rolled out on a pilot basis in the districts of Dili and Ermera. This followed the training on PEN protocols of 47 health professionals working at the primary health care level, as well as the provisioning of necessary medicines and equipment in both districts, with WHO support. In addition, WHO helped establish the country’s first NCD clinic at the national hospital (HNGV) to enable patients from primary health care facilities to be referred for follow-up care.

In an important step in combating the country’s high smoking rates, graphic pictorial warnings on packages of all tobacco products – covering 65% of the front and 80% of the back surface – were made mandatory in 2017. WHO supported the design of five sets of pictorial warnings and packages chosen by the MoH, as well as the formulation of packaging guidelines.

Following the passage of comprehensive national tobacco control legislation in 2016, WHO collaborated with the MoH, the Secretariat of the National Commission for Tobacco Control, the National Alliance for Tobacco Control, and several other groups, to raise awareness about the new law across the country. Advocacy and education workshops were
conducted that targeted youth, including students from public and private universities, CSOs and NGOs, the general public, and distributors and shopowners selling tobacco products, down to the subdistrict level. In addition, the district of Ermera launched its Tobacco-Free Generation Initiative in 2017 to raise the community’s awareness of the harmful effects of tobacco. The Initiative began with displaying “No Smoking” signs procured with WHO support in educational institutions, government offices and villages throughout the district.

Preparing for infectious disease emergencies

A series of activities took place in 2017, with WHO support, to further strengthen Timor-Leste’s ability to detect and respond to a potential infectious disease emergency and its capacity to implement the IHR (2005). SOPs for points of entry were developed and 15 staff persons from four PoEs trained on their use. All points of entry – the airport, seaport and land border crossings – received essential diagnostic equipment to strengthen their medical services.

The country’s pandemic influenza surveillance system became operational in 2017. The National Health Laboratory began testing specimens from cases of SARI and ILI obtained from sentinel sites across the country, and for the first time reported data to WHO’s global FluNet system. This is the culmination of technical and financial support from WHO that has included training, overseas study tours, and supervision and monitoring visits to the surveillance sites.

In addition, an assessment was conducted of the national “early warning” system for infectious disease outbreaks: an event-based surveillance system that relies on information from official as well as unofficial reports from sources such as the media, community members and even from rumours. In addition, municipality surveillance focal points from all of the country’s districts were trained to strengthen their capacity to detect epidemic threats early, respond to and control outbreaks, and monitor epidemic-prone diseases, including unusual influenza virus infections. WHO, along with the FAO, the MoH and Ministry of Agriculture and Fisheries, also conducted the country’s first workshop on risk assessment and outbreak investigation, which was attended by around 30 public health and animal health officials from all 13 municipalities.

Improving food safety

A national food safety monitoring system was implemented in 2017 in all municipalities in the country, which establishes a mechanism for regular inspections and certification of businesses handling food. To facilitate the establishment of this system, training on the “five keys to safer food” (keep foods clean, separate raw and cooked foods, cook thoroughly, keep food at safe temperatures, and use safe water and raw materials) took place, with WHO support, for nearly 50 restaurant managers, food vendors and supermarket personnel in Dili.
municipality. The MoH, with WHO’s support, also organized a national workshop on food safety, in collaboration with relevant ministries and government departments, including the Prime Minister’s Office. WHO continues to advocate for Timor-Leste’s membership in the Codex System, which sets the global food safety standards.

**Partnerships**

The WHO Country Office continues to maintain strong collaborative relationships with other UN agencies, development partners, academia and CSOs, as well as with several government departments and ministries. These include not only the MoH, but also the Prime Minister’s Office, and the ministries of Agriculture and Fisheries, Education, State Administration and Social Solidarity. Some salient examples of partnerships that WHO has forged with other organizations include the following:

- WHO co-Chairs the Development Partners Health and Nutrition Group, whose members include UN agencies (UNICEF, World Food Programme [WFP], UNFPA, FAO), bilateral partners like the European Union (EU), DFAT, Portuguese Cooperation, the Cuban Medical Brigade, and NGOs represented by Health Alliance International (HAI). The group holds monthly meetings to discuss crucial health issues, improve coordination and harmonization of the health activities of the various partners, and avoid duplication of their work.

- Since the passage of the national tobacco control legislation in 2016, WHO has collaborated with a range of public and civil society partners to raise awareness about the legislation across the country. These include the MoH, the National Commission for Tobacco Control, the Authority of Inspection of Economic Activities, Sanitary and Food (AIFAESA), the Public Health Professionals Association, and other stakeholders.


- WHO collaborated with UN Women, WFP and others in observing “16 Days of Activism against Gender-Based Violence” from 25 November to 10 December 2017 in Timor-Leste. The WHO Country Office signed the pledge to shun and stand against GBV in any form.

- WHO and UNFPA jointly supported the MoH in conducting an assessment on Emergency Obstetric and Newborn Care, and in developing an EmONC Improvement Plan based on the results of the assessment.

- WHO is collaborating with the NGO Plan International to scale up a WSP programme in Lautem and Aileu municipalities.
Box 20. Establishing partnerships with other countries to strengthen Timor-Leste’s immunization programme

In a unique arrangement initiated by the WHO Timor-Leste Country Office, the governments of Timor-Leste and Sri Lanka signed a two-year “twinning agreement” in September 2017. The aim of the arrangement is to help strengthen Timor-Leste’s immunization programme as it transitions from GAVI support by sharing the knowledge and best practices of Sri Lanka’s highly successful immunization programme with the national immunization programme in Timor-Leste.

The partnership involves a series of visits by the Timorese MoH and EPI staff from both the national and local offices to Sri Lanka to learn first-hand how the country has achieved, and maintains, 99% vaccination coverage rates. It also involves follow-up coaching and long-distance mentoring by Sri Lanka immunization staff to their counterparts in Timor-Leste. The programme will facilitate the transfer of programme management skills in areas such as planning and budgeting, vaccine logistics, and the use of data to track progress and improve coverage. The first visit of the Timor-Leste team to Sri Lanka took place in November 2017. WHO is providing support for each exchange visit, with GAVI HSS funding, and will monitor the follow up.

This arrangement builds a knowledge-sharing platform that both countries consider mutually beneficial. The Director General of Health Services Delivery in Timor-Leste said: “We look forward to better understand all the components and approaches of Sri Lanka’s immunization programme and applying these lessons learnt at home.” The Sri Lankan Director of Health Services viewed this as “a unique opportunity for Sri Lanka to showcase our success regionally and nationally and … to build capacity of our staff in mentoring and coaching for potential future twinning arrangements”.

A similar knowledge-exchange arrangement has been established between Timor-Leste and Australia to build the capacity of Timor-Leste’s National Immunization Technical Advisory Group (NITAG). The NITAG, formed in 2015, established three technical subcommittees in 2017 (on routine immunization, new vaccine introductions and vaccination campaigns) and has already made recommendations for MR campaigns (to take place in 2018) and for the introduction of rotavirus vaccine. Members of the Timor-Leste NITAG will travel to Australia to learn first-hand how the fully established Australia Technical Advisory Group on Immunization (ATAGI) functions and makes evidence-based recommendations. WHO is providing technical and logistics support for this exchange programme.

Looking ahead

Activities and programmes that the WHO Country Office will assist with in 2018 and beyond include the following:

- HSS activities, including finalizing several key strategy documents (the National Health Workforce Plan 2018–2022, the Timor-Leste Health Financing Strategy 2018–2022, the National Medicines Policy 2017–2021, the Pharmaceutical Sector Strategic Plan); producing the country’s first National Health Accounts; revising the country’s Essential Medicines List; and establishing the country’s first National Drug Regulatory Authority. WHO will also continue to assist with the implementation of the Saúde na Família programme by providing technical expertise to conduct the second round of home visits, procuring equipment, and supporting the production and dissemination of a policy document and guidelines for service providers and health managers.
Immunization activities, including the “keep-up” campaign for measles, rubella and polio immunization among children under 5 years of age planned for July 2018. This is a prerequisite to the country being certified for measles elimination in August 2018. WHO will also continue to extend support to the twinning arrangements between the immunization programmes in Sri Lanka and Timor-Leste, and between the National Immunization Technical Advisory Groups of Timor-Leste and Australia.

Activities to improve the country’s emergency preparedness and response, including the establishment and operationalizing of an HEOC in 2018; a joint external review of the country’s ability to implement the IHR (2005); efforts to strengthen information-sharing and coordination mechanisms between agencies and sectors; and strengthen the country’s capacity to assess and manage the health impacts of environmental risks.

Implementation of the National Action Plan on Antimicrobial Resistance (2017–2020) in collaboration with the agriculture and animal health sectors. WHO will assist with policy development, AMR surveillance, training of health-care professionals, and raising public awareness about the rational use of antibiotics.

Round 3 of MDA for LF and STH. WHO will also support the training of health-care professionals in morbidity management and disability prevention of LF.

Communicable disease control activities, including the first Tuberculosis drug resistance survey (2018) to assist in planning, reprioritizing and aligning the National Tuberculosis Control Programme to pave the way for a TB-free society by 2030; adoption and implementation of the country’s National Malaria Elimination Strategy (2018–2021), with a focus on the municipalities that are still reporting malaria cases; and the implementation of annual HIV sentinel surveillance covering all 13 municipalities.

In the area of MCH, activities to strengthen newborn care through facility-based services, including training health workers in treating sick and premature newborns through the WHO Essential Newborn Care Course (ENBC), and providing newborn care through home visits.
Flagship 1: Measles elimination and rubella control by 2020

Introduction

At its Sixty-sixth session in 2013, the WHO Regional Committee for South-East Asia adopted the regional goal of measles elimination and rubella control by 2020. To accelerate progress towards this goal, the Regional Director in 2014 announced “Measles Elimination and Rubella Control by 2020” as one of her Flagship Priorities for the Region. To ensure adequate technical guidance for Member States to reach this goal, the WHO Regional Office developed a Strategic Plan for Measles Elimination and Rubella and Congenital Rubella Syndrome Control in the South-East Asia Region 2014–2020.

The goal of measles elimination and rubella control is closely linked to the SDG 3 (health) targets 3.2 to reduce child mortality and 3.8 to achieve universal access to safe, effective, quality and affordable vaccines for all. Achieving this goal will also have an overall impact on child survival and development, and thus it indirectly impacts many of the SDGs,
including SDG 1 (“no poverty”), SDG 2 (“zero hunger”), SDG 4 (“quality education”), SDG 5 (“gender equality”) and SDG 8 (“decent work and economic growth”). Measles elimination also contributes to achieving the unfinished agenda of MDG 4 (“reducing child mortality”).

Progress and results in 2017

Major achievements

Bhutan and Maldives were verified as having eliminated endemic measles following an extensive review by the South-East Asia Regional Verification Commission (SEA-RVC) in April 2017. In addition, DPR Korea and Timor-Leste reported zero measles cases due to indigenous transmission in both 2016 and 2017.

Coverage of the first dose of MCV1 in 2016 was 87% in the Region as a whole, compared with 63% in 2000, according to the WHO–UNICEF estimates (WUENIC) (Fig. 13). Five of the 11 Member States in the Region (Bhutan, DPR Korea, Maldives, Sri Lanka and Thailand) achieved more than 95% coverage of MCV1 in 2016, according to the WUENIC estimates (Table 4).

Fig. 13: Number of reported measles cases,* by Member States, and estimated percentage of children who received their first and second dose of measles-containing vaccine† in the WHO South-East Asia Region, 2003–2016

Data available at: http://www.who.int/monitoring_surveillance/data/subject/en

Abbreviations: MCV1 – First dose of measles containing vaccine in routine immunization; MCV2 – Second dose of measles containing vaccine in routine immunization; SEAR – South-East Asia Region

*Cases of measles reported to WHO and the United Nations Children’s Fund (UNICEF) through the Joint Reporting Form to Regional Office for South-East Asia Region

† Data are from WHO and UNICEF estimates for the South-East Asia Region

§ Others include Bangladesh, Bhutan, DPR Korea, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste
Similarly, overall coverage of the second dose of MCV2 in the Region was estimated at 73%, up from 65% in 2014 and 27% in 2000. An estimated 6.8 million children were vaccinated through SIAs in 2016, and an additional 107 million were reached in 2017, most of them in India and Indonesia. As at the end of 2017, all 11 Member States had introduced two doses of MCV in their routine immunization schedule and 10 Member States had introduced rubella-containing vaccine (RCV).

Along with the increase in measles vaccination coverage since 2000, there has been a corresponding decline in measles mortality. The SEA Region as a whole has seen a 73% reduction in measles deaths from 2000 to 2016. This reduction was especially dramatic from 2014 to 2016, when estimated mortality decreased from 46,900 to 27,530 – a record 41% decline in two short years.

Laboratory supported, case-based surveillance for measles and rubella is now taking place in all 11 Member States, in alignment with the Regional guidelines. The expansion of case-based surveillance in India and Indonesia will be completed nationwide in parallel with the completion of the last phases of mass MR vaccination campaigns in 2018 (see below). CRS surveillance has been initiated in all 11 Member States either through sentinel site surveillance or as part of the regular disease reporting system. The Regional Office also facilitated the expansion of the MR laboratory network from 39 laboratories in 2015 to 45 in 2016 – all of which are accredited as proficient for measles and rubella testing. All Member States in the Region now have at least one proficient national laboratory to support measles and rubella case-based surveillance.

**Laying the foundation for verification of elimination**

The Regional Framework for Verification of Measles Elimination and Rubella Control in South-East Asia is the guiding document used by the Regional Verification Commission on Measles Elimination and Rubella/CRS Control and by all the 11 national verification committees to monitor progress. Subnational risk assessments have been conducted in all 11 Member States to identify high-risk areas for measles transmission in order to target focused immunization and intensive surveillance activities in such areas.
DPR Korea and Timor-Leste are conducting intensified immunization and surveillance activities to accelerate progress towards measles elimination and rubella control, while India and Indonesia are in the process of completing mass vaccination campaigns using the MR vaccine, followed by the introduction of MR into their routine immunization programme (replacing monovalent measles vaccine). These phased-in campaigns in India and Indonesia will target a total of about 468 million children aged 9 months to 15 years by the end of 2018. In addition, Bangladesh, Myanmar and Nepal plan to conduct follow-up MR campaigns in 2018 targeting children 9–59 months of age.

Opportunities, challenges and next steps

The overarching goal of UHC and the core SDG theme of “leaving no one behind” provide a renewed opportunity to move forward in improving national immunization programmes, enhancing access to new vaccines, and helping strengthen health systems to sustain the gains made thus far. Furthermore, the global environment is conducive to accelerating efforts to address VPDs, since all key stakeholders and policy-makers agree that vaccination is the most cost-effective public health intervention, and since the GAVI Alliance continues to support Member States to increase access for more children to more vaccines at affordable and predictable prices.

However, significant challenges remain, the greatest of which is to improve national immunization programmes to enable them to achieve coverage of more than 95% with two doses of MCVs through the routine programme in all districts. At present, an estimated 4.2 million children in the Region still do not receive the first dose of a MCV each year through the routine immunization programme.

In 2017, the Regional Office supported a mid-term review of progress towards the regional goal by 2020 and to assess the quality of implementation of the strategies laid out in the Regional Strategic Plan in order to provide recommendations on how the strategies and principles should be refined to accelerate progress towards the regional goal. The review noted with cautious optimism that significant progress has been made across Member States. The elimination campaign has gathered critical momentum and national and subnational governments are committed to reaching this goal. The review also noted, however, that current performance levels, including immunization coverage rates and quality of surveillance for measles and rubella, will not be enough to achieve the 2020 targets and that Member States need to significantly shift gears to achieve these goals.

While the basic strategies articulated in the Strategic Plan are considered sound, implementation of specific strategies will require strong global and national political will and commitment to fund implementation of these strategies. Dwindling polio assets in some Member States, especially India and Indonesia, also threaten to slow down the momentum needed to achieve measles elimination and rubella control.

The mid-term review made a number of programmatic recommendations to enhance population immunity, strengthen surveillance, bolster laboratory capacity and strengthen overall immunization systems.
Table 4. Estimated coverage with the first and second dose of measles-containing vaccine (MCV), and number of reported measles cases, and measles cases per 1 million population, by country — World Health Organization South-East Asia Region, 2003 and 2016.*

| Country   | WHO / UNICEF estimated coverage* | 2003 | 2016 | No. of reported measles cases (JRF)* | Measles incidence per million population* | | | WHO / UNICEF estimated coverage* | 2003 | 2016 | No. of reported endemic measles cases (JRF)* | Measles incidence per million population* | |
|-----------|----------------------------------|------|------|-------------------------------------|------------------------------------------|------|---|----------------------------------|------------------------------------------|------|---|
|           | MCV schedule†                    |      |      |                                     |                                          |      |---|                                  |                                          |      |---|
| Bangladesh| M-9m                             | 76   | -    | 4 067                               | 30.6                                     |      |---| M-9m                             | 94                          | 30.6 | 94 |
| Bhutan    | M-9m                             | 88   | -    | 0                                   | 0.0                                      |      |---| MMR-9m                           | 97                          | 90   | 97 |
| DPR Korea | M-9m                             | 95   | -    | 0                                   | 0.0                                      |      |---| M-9m                             | 99                          | 98   | 99 |
| India     | M-9m                             | 60   | -    | 47 147                              | 44.0                                     |      |---| M-9m                             | 88                          | 76   | 88 |
| Indonesia | M-9m                             | 74   | 21   | 24 457                              | 114.4                                    |      |---| M-9m                             | 76                          | 56   | 76 |
| Maldives  | M-9m                             | 96   | -    | 75                                  | 267.3                                    |      |---| M-9m                             | 99                          | 99   | 99 |
| Myanmar   | M-9m                             | 80   | -    | 830                                 | 15.6                                     |      |---| M-9m                             | 91                          | 86   | 91 |
| Nepal     | M-9m                             | 75   | -    | 13 344                              | 537.8                                    |      |---| M-9m                             | 83                          | 25   | 83 |
| Sri Lanka | M-9-12m                          | 99   | 90   | 65                                  | 3.4                                      |      |---| M-9m                             | 99                          | 99   | 99 |
| Thailand  | M-9m                             | 96   | 92   | 4 519                               | 71.8                                     |      |---| M-9m                             | 99                          | 95   | 99 |
| Timor-Leste| M-9m                           | 55   | -    | 94                                  | 110.6                                    |      |---| M-9m                             | 78                          | 22   | 78 |
| Region overall |                      | 66   | 6    | 94 598                              | 58.9                                     |      |---|                      | 87                          | 75   | 87 |

Abbreviations: MCV=measles containing vaccine; M=measles; MR=measles–rubella; MMR=Measles–Mumps–Rubella; m=month; y=year; hyphen used (-) when MCV is not introduced in routine immunization

* Data are from WHO and United Nation’s Children’s Fund (UNICEF) estimates 2016 revision (as of July 2017).
† WHO/UNICEF joint reporting forms for the year.
§ Joint reporting form (JRF) is submitted to WHO and UNICEF by Member States with the official immunization data and reports the number of measles cases in the country for the year.
¶ Measles incidence is calculated based on the reported measles cases and population by Member States through WHO/UNICEF JRF.
## Subnational introduction in schools of West Java at 7 years.
*** In few selected provinces in Indonesia MCV2 was given at the age of 24 months.
## Data available at http://www.who.int/immunization/monitoring_surveillance/data/subject/en
Flagship 2: Prevention of noncommunicable diseases through multisectoral policies and plans, with a focus on ‘best buys’

Introduction

NCDs are estimated to account for 64% of all deaths in the SEA Region and are a leading cause of premature death and disability. In alignment with the 2011 UN Political Declaration on the Prevention and Control of NCDs, the WHO programme on NCD prevention and control focuses on four major behavioural risks (tobacco use, harmful use of alcohol, unhealthy diets and physical inactivity), four major physiological risks (raised blood glucose, raised blood pressure, abnormal lipid profile and overweight/obesity), and four major diseases (cardiovascular diseases, cancer, diabetes and chronic respiratory diseases). As requested by Member States, the Regional Office has added household air pollution as a fifth major behavioural risk factor to be addressed.

In 2017, the Region witnessed substantial progress in addressing major NCD risk factors and in strengthening health systems and governance for the prevention and control of NCDs. In collaboration with other partners, the Regional Office worked tirelessly to support Member States, including through many global, regional and national events and activities.

The Department of Noncommunicable Diseases and Environmental Health and the Department of Health Systems Strengthening at the Regional Office jointly organized the “South-East Asia Regional Forum to Accelerate NCDs Prevention and Control in the Context of the SDGs” (“Flagship 2 Forum”), which was held in Bangkok, Thailand, in October 2017. This three-day innovative forum provided an opportunity for national policy-makers and stakeholders to meet with global experts and partners to discuss how to strengthen their Member States’ capacity to implement NCD “best buys”. With support from WHO headquarters and all 11 WHO country offices in the Region, the Forum led to the development of country-specific strategic action points, based on each country’s priorities and specific needs and contexts.

Progress and results in 2017

Strengthening governance for NCD prevention and control

The Regional Office extended technical guidance to Member States to establish high-level multisectoral coordination mechanisms (e.g. national NCD steering committees) and national action plans with well-defined targets, taking into account the global and regional NCD targets. All Member States now have multisectoral NCD action plans, and nine Member States have endorsed the plans at the highest level of the government.
Advocacy with political leaders in several Member States by WHO in the Region helped increase the priority levels of NCD prevention and control in the development agendas of Member States and mobilized additional resources for this effort. In addition, missions to Bhutan and Sri Lanka by the UN Interagency Taskforce on NCDs (UNIATF) have raised the political profile of NCDs in these Member States, including to strengthen system capacity, and conduct context-specific research to address national challenges.

The Regional Office also facilitated the participation of Member States in international and regional dialogues to accelerate implementation of the 2011 UN Political Declaration as well as the 2013 Global and Regional Action Plans on NCD Prevention and Control. Three health ministers from the Region, together with other high-level officials, participated in the WHO Global Conference on NCDs in Uruguay (19–21 October 2017), which laid out the Montevideo Roadmap for the Prevention and Control of NCDs.

*Fig. 14: Existence of integrated or disease/risk factor-specific policies, plans and strategies, 2017*
Addressing NCD risk factors

1. **Tobacco use**

There has been considerable progress in the Region in tobacco control on many fronts in 2017, particularly in implementing “best buy” interventions, such as taxation, graphic health warning (GHW) labels on tobacco products and tobacco cessation services. Thailand passed a new comprehensive tobacco control law extending smoke-free jurisdictions. Maldives, Sri Lanka and Thailand have raised their taxes on tobacco. In addition, tax and economic experts were sent to Bangladesh, India and Indonesia, leading to progress in developing tobacco tax reforms. The Regional Office also supported Maldives in developing graphic health warnings for tobacco products.

In addition, several Member States in the Region received assistance from WHO in developing tobacco cessation services. These include Bangladesh, which began a training programme for primary care physicians on the WHO-recommended “brief advice” counselling model for tobacco cessation by conducting a training of trainers' workshop, and Sri Lanka, which started expanding its “Quitline” services. In addition, India received support for an evaluation of its ongoing WHO-ITU supported mCessation programme. The programme involves sending motivational text messages on mobile phones to support those trying to quit tobacco use. Other Member States were also encouraged to develop similar cost-effective cessation programmes.

WHO also supported efforts in tobacco-growing Member States to promote alternative livelihoods among tobacco farmers and workers. Sri Lanka resolved to move all tobacco farmers in the country to alternative livelihoods by 2020, while Bangladesh, India, Indonesia and Myanmar prepared action plans for alternative livelihood options for tobacco growers. In addition, WHO supported agro-economic studies in India and Indonesia to generate national evidence to help tobacco growers shift to alternate crops/livelihood options to reduce the supply of tobacco.

Following its establishment under the WHO FCTC in 2016, the Global Knowledge Hub on Smokeless Tobacco in India held an international meeting on smokeless tobacco control policy and development of action plans, with support from all three levels of WHO and the FCTC Secretariat. And in another effort to promote the sharing of knowledge and best practices between Member States, law enforcement officials from Sri Lanka went on study tours to India and Thailand to learn from their experiences in enforcing tobacco laws.

2. **Harmful use of alcohol**

In response to the relatively slow progress being made in implementing the South-East Asia Regional Action Plan to implement the Global Strategy to Reduce Harmful Use of Alcohol 2014–2025, Member States identified several directions for WHO's work on the issue. In response, a number of documents were developed to help Member States formulate
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alcohol control policies and programmes. These include a framework for an online portal on problematic alcohol use for the SEA Region, and a review of drink–driving-related morbidity and mortality in the Region. They also include a major review of the epidemiology of alcohol use in the Region, which summarizes global, regional and country-specific data on alcohol use and alcohol-related diseases, and discusses broad areas of alcohol policy interventions most relevant to the Region. The Regional Office also assisted Sri Lanka in developing a national action plan on alcohol, and Bhutan in developing advocacy infographics aimed at reducing the harmful use of alcohol.

3. Unhealthy diets and other nutrition-related issues

In 2017, the Regional Office’s nutrition programme focused on target-setting, monitoring and evaluation. Guided by global and regional initiatives, including the SDGs and the Strategic Action Plan to reduce the double burden of malnutrition in South-East Asia Region (2016–2025), 10 Member States established/revised their national nutrition targets to align with the global targets. WHO organized a regional workshop on the Global Nutrition Monitoring Framework and the nutrition targets tracking tool to strengthen country nutrition surveillance systems. In addition, a workshop was held in Myanmar to enhance capacity to formulate and monitor nutrition policy.

The regional offices for South-East Asia and the Western Pacific collaborated with FAO and other UN agencies in organizing the “Asia-Pacific Symposium on Sustainable Food Systems for Healthy Diets and Improved Nutrition” held in November 2017 to create synergies between the agricultural sector and the food environment in order to promote healthy diets during the Decade of Action for Nutrition 2016–2025.

In addition, WHO organized a regional meeting on breastfeeding, with a focus on Baby-Friendly Hospital Initiatives, to support Member States’ efforts to revive and promote breastfeeding in maternity facilities. The Regional Office also provided technical support to strengthen national efforts in promoting breastfeeding through re-invigorating the Baby-Friendly Hospital Initiative. WHO has provided technical support for legislation to regulate the marketing of breastmilk substitutes in Thailand.

In consultation with all Member States, WHO developed a South-East Asia Regional Nutrient Profile model, which provides an objective method of differentiating foods and beverages high in salt, sugar and fats. This model provides a technical template for “best buy”, populationwide interventions, such as regulations on marketing, taxation, food labelling and healthy dietary policies for schools. WHO has advocated and provided technical support for fiscal policies on SSBs in Maldives, Nepal and Sri Lanka; and for regulation of food and beverage marketing to children in Bangladesh, Indonesia, Nepal and Sri Lanka. The Regional Office continues to provide technical support for initiating the reduction of population salt intake in Bangladesh, India, Indonesia, Sri Lanka and Thailand. Maldives, Sri Lanka and Thailand had implemented an SSB tax in 2017 and Sri Lanka has also implemented a front-of-pack labelling system for beverages.
4. Physical inactivity

Member States contributed to the draft Global Action Plan on Physical Activity (2018–2030) through both web-based comments and a face-to-face regional consultation held in Bangkok in August 2017 that was co-hosted by the Thai Health Promotion Foundation. The meeting also provided an opportunity for experts from Member States to discuss the way forward in implementing the resolution on Promoting Physical Activity in the South-East Asia Region that was adopted at the Regional Committee session in 2016. The WHO Regional Office “Be the Change” initiative was conducted during the Seventieth session of the Regional Committee, with morning exercise activities led by Maldives, Bhutan and India delegations, and an energizer exercise led by Indonesia.

*Fig. 15: Prevalence of insufficient physical activity* among adolescents (13-17 years old)

![Bar chart showing prevalence of insufficient physical activity among adolescents in various countries.](image)

* defined as not active for at least 60 minutes per day on any day during the 7 days before the survey.

Data source: Global school-based student health surveys (GSHS) for the year indicated for each country.

5. Household air pollution

Air pollution continues to be the most pressing environmental health risk facing the WHO Region, and a major cause of mortality from acute respiratory tract infections in children under 5 years, as well as an underlying cause of disease and premature mortality in adults. While there are many sources of air pollution, the use of polluting fuels such as wood, crop waste and animal dung for cooking and other household needs by an estimated 61% of the population in the Region exposes household members, including the most vulnerable, to hazardous levels of pollutants such as PM of 2.5, which is fine enough to invade the lungs and cause systemic effects particularly cardiovascular effects, lung cancer and chronic obstructive pulmonary disease (CPOD).
WHO continued to support Member States in implementing the WHO Guidelines for indoor air quality: household fuel combustion, which outlines ways to reduce emissions of harmful indoor pollutants. The Regional Office coordinated country inputs to the WHO Clean Household Energy Solutions Toolkit launched in 2017, and supported the India Country Office in the conduct of a rapid assessment of household air pollution to examine household energy use, assess the current and potential adoption of clean energy technologies, and identify key stakeholders interested in intersectoral cooperation to increase clean energy use. In addition, WHO developed a training module for primary health care workers on household air pollution, as part of the regional training modules for the PEN interventions.

**Strengthening health systems to address NCDs**

The Colombo Declaration on “Strengthening health systems to accelerate the delivery of NCD services at the primary health care level”, endorsed by health ministers in the Region at the 2016 Regional Committee session, committed Member States to a set of activities and targets to strengthen the ability of health systems to provide quality NCD services. In 2017, the Regional Office conducted a mission to monitor Member States’ progress in implementing the activities outlined in the Declaration. The mission’s report shows notable improvement after 1 year in the expansion of NCD interventions at the primary health care level, with particular focus on early detection and basic case management.

Seven Member States (Bhutan, DPR Korea, Maldives, Myanmar, Nepal, Sri Lanka and Timor-Leste) have initiated primary health care services using the WHO PEN protocols.
as a template. India has expanded the number of district NCD cells (for managing NCD programmes and services) and population-based screening to more than 100 districts. Thailand continued to implement its own package of essential primary health NCD services. Myanmar expanded an initiative of early detection/screening for cardiovascular diseases, diabetes and cancers to 20 townships by the end of 2017, and plans to scale it up in the remaining 240 townships over the next 2 years. Indonesia expanded NCD training for primary health care and community volunteers using local government funds.

In order to further support the efforts of Member States in building capacity at the primary health care level in providing quality NCD services, the Regional Office developed a Regional Training Module on the PEN interventions during a workshop in November in Bhutan to standardize training. A technical consultation on using a national health systems approach to NCD management in emergency situations was also organized, in collaboration with the Health Security and Emergency Response Division.

**Strengthening and expanding NCD surveillance systems and information**

In 2017, the Regional Office worked closely with Member States and development partners to implement various NCD-related population surveys that generated crucial data to inform NCD policies and programmes. These surveys included: (1) the Global Adult Tobacco Surveys (GATS) in Bangladesh, India and Sri Lanka; (2) the Global Youth Tobacco Survey (GYTS) in Uttarakhand state of India and in Myanmar; (3) the Global School-based Health Survey (GSHS) in Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste; and (4) the WHO STEPs Survey of NCD risk factors in Bangladesh, India and Sri Lanka.

The Regional Office assisted Bhutan, Myanmar and Sri Lanka with their analysis of national NCD data to strengthen their capacity to use data to monitor programmes and inform policy. In addition to direct technical support to Member States for NCD surveillance activities, the Regional Office also facilitated the collection, analysis and reporting of data for the sixth Global NCD Country Capacity Survey, the results of which were included in the WHO global Noncommunicable diseases progress monitor 2017 report and in the regional National capacity for prevention and control of noncommunicable diseases in the WHO South-Asia Region report that was shared during the Flagship 2 Forum. The Regional Office also coordinated the collection of regional data for the WHO Report on the global tobacco epidemic 2017. These reports containing comparable data from Member States within and outside the Region have increased public and policy attention to NCDs and tobacco control.

In addition, an SEA Region Microdata Repository has been established to ensure proper archiving and accessibility to large-scale NCD-related survey data in order to increase the use of data and ensure its future availability for analysis of trends. The Regional Office also launched on World Health Day the publication, Mental health status of adolescents in the
Promoting mental health

The Region saw substantial progress in strengthening mental health programmes in 2017. The year-long campaign for World Health Day 2017, with the theme of “Depression: Let’s Talk”, as well as a special issue of the WHO South-East Asia Journal of Public Health on depression, have helped raise policy and public awareness in the Region on mental health, especially depression and suicide prevention.

The Regional Office continued to work in the area of mental health and psychosocial support (MHPSS) in emergencies, in collaboration with the WHO Health Emergencies Programme. It developed the MHPSS guidelines, a training manual for non-specialist health-care providers, and guidelines for disaster management personnel on identifying and managing psychosocial distress. WHO supported Bangladesh in providing MHPSS support to the Rohingya refugee population in Cox’s Bazar, including developing a referral system, training non-specialists to provide MHPSS services, and strengthening the district hospital’s mental health services.

WHO also supported the governments of Bangladesh and Bhutan in organizing an International Conference on Autism Spectrum Disorders and Neurodevelopmental Disorders held in Thimphu, Bhutan, on 19–21 April 2017. The conference provided a platform for policy-makers to engage with stakeholders, share best practices and promote cooperation and partnerships across the Region in conducting research and developing policies and programmes to address autism and NDDs. During the meeting, the WHO South-East Asia Regional Strategy on Autism Spectrum Disorders was introduced and endorsed by Member States through the Thimphu Declaration on Autism and Neurodevelopmental Disorders. In addition, the Regional Office developed technical guidelines on home-based interventions for the management of intellectual disability. Additional activities related to autism that WHO supported during the year include piloting of the newly developed WHO Care Givers’ Training Tool on Autism Spectrum Disorders in Bangladesh (in collaboration with WHO headquarters and the Country Office), and a situation analysis on autism spectrum disorders and available services in Bhutan.

WHO headquarters, the Regional Office and the Indonesia Country Office organized a workshop on the WHO Global Dementia Action Plan and the Mental Health Gap Action Plan (mhGAP) in November 2017 in Jakarta to discuss the process for developing national dementia action plans and participating in the WHO Global Dementia Observatory (GDO), which will serve as an international surveillance platform on dementia. Bangladesh, Maldives and Myanmar decided to participate in the first phase of the WHO GDO, while India, Indonesia and Nepal agreed to join in the second phase. The Regional Office also
developed a tool to assess the burden of dementia on caregivers, as well as published a monograph titled *Dementia: ageing gracefully: diversity of dementia*.

**Challenges, opportunities and next steps**

While the best buys interventions list outlines the scope clearly, the challenges for this Regional Flagship continue to be linked to executing them effectively. This requires collective capacity to develop/revise policy interventions, enforce and implement them, monitor their compliance and evaluate outcomes. Strengthening local and national capacity, therefore, will be the priority for the road ahead.

Important bottlenecks include financial and human resources, as well as lack of technical expertise and local evidence. As most best buys interventions require actions beyond the periphery of the health sector, engagement and ownership of stakeholders are crucial in implementing these interventions effectively. A major task for WHO is to promote and sustain multisectoral collaboration at all levels, including mobilizing collaborative efforts and resources from international development partners, to support Member States. SDGs, other global targets, and the 3rd High-level Meeting on NCD Prevention and Control at the UN General Assembly in 2018 are among the political opportunities to further strengthen the implementation of best buys in the Region.
Flagship 3: The unfinished agenda of the MDGs: ending preventable maternal, newborn and child deaths with a focus on neonatal deaths

Introduction

Millennium Development Goal 4 (MDG4) was “to reduce the under-five mortality rate by two thirds in the period between 1990 and 2015”, and MDG5 was “to reduce the maternal mortality ratio by 75 per cent” over the same period. A regional review meeting in Kathmandu in 2014 showed that the SEA Region had made significant progress in reducing both child and maternal mortality rates. However, progress in reducing neonatal mortality was slow.

Realizing the need to accelerate efforts in the Region to reduce child mortality, particularly neonatal mortality, by end-2015 to achieve MDG4, the Regional Director highlighted the urgency of addressing the issue of the unfinished MDG agenda. The Regional Flagship Priority on “Ending preventable maternal, newborn and child mortality with a focus on neonatal deaths” initiated in 2014 provided the much-needed impetus to harmonize accelerated actions in Member States to reach these MDGs.

Between 1990 and 2015, the global maternal mortality ratio (MMR) decreased by 44%, while the WHO South-East Asia Region achieved a reduction of 69% (from 525 per 100 000 live births in 1990 to 164 per 100 000 in 2015). Although the Region narrowly missed reaching the 75% reduction target, it achieved the highest MMR reduction among all WHO regions during this period. Three Member States (Bhutan, Maldives and Timor-Leste) achieved the MDG 5 target, while the rate of decline in Member States such as Sri Lanka and Thailand was slower, as their maternal mortality rates had already declined to very low levels by the start of the MDG era. In fact, Maldives, Sri Lanka and Thailand have already achieved the global SDG target of 70 per 100 000 live births for maternal mortality.

Important drivers of maternal mortality reduction are ANC, intrapartum care and institutional delivery rates. For Member States in the SEA Region, coverage of the recommended minimum of at least four antenatal visits ranges from 31% to 94%, and that of institutional deliveries from 37% to 100% (Fig. 17).

Estimates showed that the under-5 child mortality rate (U5MR) in the SEA Region had declined from 118 per 1000 live births in 1990 to 43/1000 by the end of 2015 – a 64% reduction – compared with a 52% reduction globally.

However, in 2017, the UN Inter-agency Group for Child Mortality Estimation (UN IGME) reviewed the 2016 data and found that the U5MR for the SEA Region had declined by 67% from 1990 to 2016, thereby achieving the MDG4 target of a two third reduction in child mortality for the Region as a whole. The 2016 data also show that all Member States of the Region have achieved this goal, with the exception of Myanmar. In fact, four Member States
(DPR Korea, Maldives, Sri Lanka and Thailand) have already exceeded the global SDG target for under-5 mortality, which is 25 per 1000 live births.

**Fig. 17: Increase in institutional delivery rates in the Region in the past decade (78% overall)**

![Graph showing percentage of deliveries in a health facility](image)

Source: Data for each country were taken from the latest demographic and health survey (DHS) available. The overall increase in the Region is a weighted average based on the population size of each country.

**Progress and results in 2017**

Some of the major activities undertaken to accelerate progress towards reducing newborn, child and maternal mortality include the following.

**Strengthening technical leadership and partnerships**

A key achievement was the formation of a South-East Asia Region Technical Advisory Group (TAG) in 2015 for Women’s and Children’s Health to provide the best scientific and strategic guidance to Member States. The TAG, which met three times until 2017, consists of 12 experts in the area of maternal, newborn and child health from both the global (four Member States) and regional (seven SEA Region Member States) levels. A joint statement on “Ending preventable maternal, newborn and child mortality” spearheaded by the Regional Director of the WHO SEA Region) was signed in 2015 by the regional heads of six UN agencies (WHO, UNICEF, UNFPA, UN Women, UNAIDS, World Bank). An H6 partnership was established for collaborative work in the area of reproductive, maternal, newborn, child and adolescent health (RMNCAH). An H6 Regional Working Group was formalized in 2017, which has been instrumental in coordinating harmonized support for RMNCAH activities in Member States of the Region. Joint missions were undertaken with UNICEF and UNFPA.
to jointly support Bangladesh, Indonesia, Nepal, Myanmar and Timor-Leste to understand the progress in RMNCAH programmes and identify the needs for technical assistance in priority Member States.

**Building a regional database on birth defects and stillbirths**

In 2017, the Regional Office launched an online integrated database – SEAR-NBBD: newborn and birth defects – for newborns, birth defects (an important cause of child mortality) and stillbirths using a network of around 220 hospitals in seven Member States of the Region. The database provided data on about 1.9 million births, and identified 18 000 birth defects from 2014 to 2017. With assistance from the Regional Office, the NBBD database is being integrated with surveillance for CRS in hospitals that belong to both networks (NBBD and CRS) in Bangladesh and Indonesia, and NBBD data from Bhutan and Maldives have been used to assess their progress in eliminating CRS.

The Regional Office also organized a regional meeting to review the progress of birth defect programmes in Member States, which was attended by national programme managers from 10 Member States. It provided support to individual Member States to improve the quality of their surveillance and data analysis for birth defects and stillbirths. India is being supported in its plans to expand surveillance of birth defects and Zika virus infection in newborns and stillbirths in its network of 70 sentinel hospitals across the country.

**Strengthening capacity in family planning**

A woman’s ability to space and limit her pregnancies has a direct impact on her survival, health and well-being, and is an essential component of the SDGs. Of significant concern is the fact that around 6 million girls aged 15–19 years in the Region give birth each year – mostly within marriage and with nearly half of the pregnancies unintended. The adolescent birth rate in four of the 11 Member States of the Region is more than 50 per 1000 women. To strengthen the capacity of family planning programmes in the Region, the Regional Office organized a “Regional Meeting to Strengthen Capacity in the new WHO family planning guidelines: towards universal reproductive health coverage in the SDGs era” in April 2017 under the WHO Family Planning Umbrella project to introduce Member States to new family planning guidelines, recommendations and tools. These include the fifth edition of the *Medical eligibility criteria* (MEC 2015), which establishes criteria for who is eligible for different contraceptive methods; the 2016 *Selected practice recommendations for contraceptive use*; the MEC wheel (a job aid depicting the eligibility criteria); and the WHO postpartum family planning (FP) compendium – an online resource that clinicians can use to determine a women’s eligibility for different family planning methods following a pregnancy.13

Following the meeting, Member States developed action plans to achieve relevant SDG targets, especially target 3.7 (universal access to sexual and reproductive health-care services and information) and target 5.6 (universal access to sexual and reproductive health rights). Subsequently, Bhutan, Maldives, Myanmar and Sri Lanka updated their national family planning guidelines, while Indonesia and Nepal began to expand family planning services for postpartum mothers. In addition, 10 Member States of the Region adapted the MEC wheel for inclusion in their national family planning programmes, and Indonesia developed a mobile MEC app in the Bahasa language.

Improving the quality of maternal and newborn care

The Regional Office, along with the WHO collaborating centre All India Institute of Medical Sciences (AIIMS) and the NGO Assist International, developed the POCQI (point of care quality improvement) model and training package to improve the quality of care for mothers and newborns at the time of birth in health facilities in 2016. To roll out the POCQI model, a three-day regional training of trainers workshop was held in February 2017 to train hospital teams from Member States of the Region as master trainers using the POCQI materials. This was followed by in-country training for hospital teams in Bhutan and Sri Lanka. The POCQI training package was updated to include case studies on facility-based newborn care in neonatal units of hospitals and on intranatal care in labour rooms, and version 2 was released in 2017. The WHO collaborating centre at AIIMS also launched a POCQI website with support from the Regional Office. This provides POCQI guides and other training materials, and serves as a platform for sharing knowledge and experiences on quality improvement in maternal and newborn care.14

Bangladesh and India are part of the Global Quality Equity Dignity (QED) Network for improving the quality of care for mothers and newborns. The Regional Office provided technical support to strengthen the capacity for implementing quality maternal and newborn care in facilities. In addition, the Regional Office provided technical assistance to India to strengthen its National Quality of Care Network on Maternal, Newborn and Child Health – part of a global WHO/UNICEF initiative – which enables teams of obstetricians, neonatologists and nurses across India to share experiences in improving the quality of care and learning from each other, and to develop a district model of midwife-led care.

14 Found at: http://www.pocqi.org/.
Strengthening adolescent health services

The Regional Office has created an interdepartmental Adolescent Working Group – consisting of the departments of Noncommunicable diseases, Health Systems and Communicable diseases – to support multidimensional approaches by Member States to address adolescent health issues. The Working Group has mapped out the specific priorities related to adolescent health of the different technical units within the Regional Office to identify areas in common where they can work together. Support to Member States in 2017 included assisting India with a review of its National Adolescent Health Programme at both the national level and in selected states; helping with a costing of adolescent health programmes in Bangladesh and Nepal using the One Health tool (in collaboration with WHO headquarters); and assisting Sri Lanka in adopting the recently updated WHO training package, supervisory checklist and tools to assess the coverage and quality of adolescent health services. The Regional Office also provided technical assistance to Nepal in applying the WHO “Innov8” approach to review its National Adolescent Health Programme, with a focus on inequities in coverage, addressing gender norms, applying human rights-based approaches, engaging in intersectoral action and enabling social participation. Recommendations from the review have been used to strengthen the country’s national adolescent health strategy.

Strengthening maternal death surveillance and response (MDSR)

Systematic analyses of a maternal death and contributing factors can help identify health systems barriers and inspire local solutions to prevent such deaths in the future. WHO’s MDSR methodology is a systematic approach to documenting and reviewing all maternal deaths and using the findings to improve the quality of care. Member States of the Region have been implementing maternal death reviews and are in the process of transitioning to the MDSR approach. Following a regional meeting on MDSR in 2016, the Regional Office provided support to Member States in 2017 to strengthen implementation of MDSR. All
11 Member States now have a national policy on notifying and reviewing maternal deaths, and 10 Member States have functioning review committees at both the national and subnational levels (Table 5). However, the frequency of national maternal death review committee meetings varies widely by country, from rarely to monthly.

Table 5: MDSR implementation status in the SEA Region, 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Availability of national policy to notify all maternal deaths</th>
<th>Availability of national policy to review all maternal deaths</th>
<th>National maternal death review committee in place</th>
<th>Subnational maternal death review committees in place</th>
<th>Both national and subnational review committees in place</th>
<th>Frequency of national maternal death review committee meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Yes, 2014</td>
<td>Yes, 2015</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Annually</td>
</tr>
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<td>Yes</td>
<td>Yes</td>
<td>Annually</td>
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<td>DPR Korea</td>
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<td>Yes, 2008</td>
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<td>India</td>
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<td>Yes</td>
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<td>Rare</td>
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<td>Maldives</td>
<td>Yes, 2001</td>
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<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

Source: WHO Maternal, newborn, child and adolescent health – data, statistics and epidemiology – Maternal Death Surveillance and Response. Information last updated on 15/03/2017

**Strengthening the nursing and midwifery workforce**

The Regional Office supported a regional assessment of the nursing and midwifery workforce in 2017, which will form the basis of activities to strengthen the size and quality of this workforce in Member States in the aim of improving MCH care. The Regional Office also provided support to India to mobilize resources for developing an evidence-based model to strengthen midwife-led care in order to reduce maternal and newborn mortality.

**Supporting research**

The baseline phase of a demonstration project on the feasibility of fortifying wheat flour with iron, folic acid and vitamin B12 to prevent anaemia and neural tube defects has been completed in Haryana, India and data analysis is currently under way to plan the implementation phase of the project. This phase will involve the sale of fortified wheat flour through open market channels as well as through a public distribution system of the state government.
Challenges, opportunities and next steps

The launch of the SDGs (2016–2030) opens up another era of renewed efforts to improve the health and well-being of all. The Global Strategy for Women and Children’s Health (2010–2015) was revised as the Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030) to better align with the SDGs. While many of the high-priority Member States in the Region face substantial challenges in scaling up coverage of interventions for maternal, newborn and child health and in addressing inequities, the SDGs provide another opportunity for Member States to address health system inadequacies, such as shortages of health infrastructure, human resources and essential commodities, as well as financial constraints. The SDGs also set clear targets for maternal, newborn and child mortality rates. While several Member States in the Region have already exceeded the global SDG targets, they will need to review their current situation and set their own national targets to achieve further progress. Member States need to invest more in improving the quality of care in health facilities and hospitals in order to improve the utilization of MCH services, and ensure the best health outcomes for mothers and children.

Capacity-building in POCQI for mothers and newborns in health facilities will be continued over the next two years through initial training and coaching of health-care teams using the POCQI package. The Regional Office will continue to provide assistance to Member States in preparing and implementing district models of quality improvement. The Regional Office will also work with Member States to help strengthen their national plans and adapt recent evidence-based technical guidelines for RMNCAH to progress towards the 2030 targets.

Recommendations of the SEA Region TAG for Women’s and Children’s Health will be implemented in Member States and the next TAG meeting will focus on ways to reduce maternal mortality and stillbirths. Finally, to increase the momentum and Member States’ commitment towards improving MCH, a regional Parliamentarians’ meeting is planned for 2018 to advocate for increased investments and accountability for the reduction of maternal and newborn mortality.
**Flagship 4: Universal Health Coverage, with a focus on human resources for health and access to medicines**

**Introduction and linkages to the SDGs**

UHC is about all people and communities getting the health care they need, without suffering financial hardship. UHC is recognized as the platform for progress on all SDG3 (health) targets and, by definition, is concerned with equity of access to and quality of health services. SDG3 also emphasizes the need for well-performing health systems, with targets for the health workforce and access to medicines – two priorities of the Regional UHC Flagship.

The two overall UHC indicators for SDG3 are: (1) a summary coverage index of essential health services; and (2) the percentage of the population experiencing catastrophic health spending, as a measure of financial protection. The coverage index provides a concise way of tracking progress over time within a country across a range of major health services – including reproductive, maternal, newborn and child health; infectious diseases; and NCDs. In 2017, the Seventieth Regional Committee decided to include an annual report of progress in reaching UHC and the SDG3 targets as an agenda item of the Regional Committee until 2030. This reinforces the political commitment of Member States to achieving UHC, and will help maintain its visibility.

**Progress and results in 2017**

**Improving frontline services**

To improve frontline services in the Region, two critical continuing challenges have to be met. These are a lack of access to affordable, high-quality essential medicines and a lack as well as maldistribution of skilled health workers.

*Transporting a patient to a health centre in Cox’s Bazar*
An increased focus on access to medicines

The WHO Regional Office released a major publication in 2017, *Improving access to medicines in the South-East Asia Region: progress, challenges, priorities*, which includes pharmaceutical profiles for each Member State. Member States also agreed priorities for regional collaboration to improve access to medicines at a regional consultation on access to medicines for UHC, held in August 2017\(^{15}\) shown in Box 21.

<table>
<thead>
<tr>
<th>Box 21. Priorities for improving access to quality medicines in the South-East Asia Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Collaboration on pricing and procurement of medicines</em>. Through greater information sharing on prices through an existing WHO platform, and by initiating collaboration on procurement, starting with antidotes for life-threatening cases of poisoning.</td>
</tr>
<tr>
<td>2. <em>Collaboration in regulation</em>, through the South-East Regulatory Network, SEARN, and its working groups.</td>
</tr>
<tr>
<td>3. <em>Greater capacity to work within intellectual property and competition rules, and use TRIPS flexibilities</em>.</td>
</tr>
<tr>
<td>4. <em>More rational use of antibiotics, through improved antimicrobial stewardship</em>.</td>
</tr>
<tr>
<td>5. <em>Improved monitoring of access to medicines</em>, and improved reporting on the medicines indicator in the SDGs.</td>
</tr>
</tbody>
</table>

The South-East Asia Regulatory Network (SEARN) was launched in 2016 to improve access to safe, high-quality medical products in the Region. It established four working groups in 2017 to address different elements required to assure the quality of medicines. These are as follows:

- Quality assurance and standards of medical products, including laboratories
- Good Regulatory Practices (GRP), including Good Manufacturing Practices and Good Distribution Practices
- Vigilance for medical products
- Information-sharing platform.

The Regional Office also published a technical brief on ways to improve the pharmacovigilance of traditional medicines, as well as a series of briefs on medicine-related intellectual property and trade issues.

In collaboration with WHO headquarters, the Regional Office supported several Member States, including Bangladesh, India, Myanmar and Sri Lanka, in strengthening their national regulatory authorities (NRAs). These efforts were complemented by training of national medicines regulatory authorities from eight Member States on substandard and falsified medical products to ensure product quality and safety.

\(^{15}\) Regional consultation on access to medicines for universal health coverage in the South-East Asia Region. Summary report. 16–18 August 2017, WHO Regional Office for South-East Asia, New Delhi, India [http://www.searo.who.int/entity/medicines/access_to_medicine_for_uhc_summary_paper.pdf?ua=1, accessed 30 April 2018].
An in-depth analysis of financial protection of households in eight South-East Asia Member States conducted in 2017 found that the main driver of financial hardship in seven of the Member States remains spending on medicines, and poorer households are the most likely to be pushed into poverty or into deeper poverty because of such spending. A key conclusion from the analysis, together with a review of current policies to address access to medicines, is that there would be significant benefits from increasing public spending for “strategic purchasing” of health services (this means specifying what services will be purchased, at what price, from whom and how services will be paid for), and particularly for medicines and other medical commodities.

**Strengthening the health workforce**

The regional initiative – the Decade of Strengthening Human Resources in Health (HRH) in the South-East Asia Region (2015–2024) – focuses on transformative education (changing how health workers are taught, as well as what they are taught, to be able to meet today’s health needs) and the retention of health workers in rural areas. The first review of this initiative in 2016 found that the capacity of Member States to monitor progress was weak, in part because there were few standard indicators. Member States agreed on a set of 14 HRH indicators in 2017 (selected from the WHO National Health Workforce Accounts compendium) (Box 22). These indicators have formed the basis for the second review of the initiative in 2018. In addition, seven Member States made it a priority to strengthen their national health workforce information systems, informed by WHO’s guidance on national health workforce accounts.

**Fig. 18.** Trends data for HRH

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Box 22. The 14 indicators used to monitor progress on the Decade of HRH in the SEA Region in 2017/2018

<table>
<thead>
<tr>
<th>Health worker density and distribution</th>
<th>Retention of health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Health worker density</td>
<td>○ Vacancy rate</td>
</tr>
<tr>
<td>○ Health worker density at subnational level</td>
<td>○ Share of foreign-born health workers</td>
</tr>
<tr>
<td>○ Health worker distribution by age group</td>
<td>○ Share of foreign-trained health workers</td>
</tr>
<tr>
<td>○ Female health workforce</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health professional education</th>
<th>HRH governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Graduation rate from education and training programmes</td>
<td>○ Mechanisms to coordinate an intersectoral health workforce agenda</td>
</tr>
<tr>
<td>○ Accreditation mechanisms for education and training institutions and their programmes</td>
<td>○ Central health workforce unit</td>
</tr>
<tr>
<td>○ Continuing professional development</td>
<td>○ Health workforce planning processes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HRH information systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>○ HRH information systems for tracking graduates from training institutions and labour market dynamics</td>
<td></td>
</tr>
</tbody>
</table>

Improving financial protection against catastrophic health spending

Evidence strongly suggests that increased public spending for health is a precondition for financial protection of the population against catastrophic health spending. In the Region as a whole, government spending on health as a share of gross domestic product (GDP) remains low, for two main reasons. First, most Member States in the Region have a relatively small tax base, with government revenue below 20% of GDP, compared to around 30% in Member States such as Brazil, China, South Africa and Russia. The second reason is that – independent of the tax base – the share of the budget allocated to health remains low. Five of the 11 Member States in the Region allocate less than 5% of their budget to health, while the global average, excluding SEA Member States, is 12%\(^\text{17}\). Since 2000, five Member States – Bhutan, Indonesia, Maldives, Myanmar and Thailand – have increased their government spending on health. Overall, as a consequence of increased public spending, there has been some reduction in out-of-pocket payments as a share of total health spending in six Member States of the Region since 2000. However, in seven Member States, out-of-pocket payments still account for over 30% of total health spending.

More money does not automatically translate into more health service coverage and better financial protection unless it is spent efficiently. There is good evidence that investment...

\(^{17}\) Global Health Expenditure Database for year 2015, according to WHO website on 09 July 2018. Indicator refers to population weighted Domestic General Government Health Expenditure as % of General Government Expenditure.
in frontline services is cost effective – all the “best buys” that WHO recommends can be delivered at the primary health care level. The issue remains how best to channel money to service providers so that coverage and financial protection are improved. This is where “strategic purchasing” can help. The annual Regional Office workshop on health financing in 2017, which brought together combined country teams from the Ministry of Health and Ministry of Finance to discuss opportunities for more strategic purchasing, found that there is much room for – and interest in – introducing more strategic purchasing Regionwide (Fig. 19).

**Fig. 19.** Trends in essential service coverage and financial protection in Member States of the SEA Region, 2017

<table>
<thead>
<tr>
<th>Service Coverage Index, 2017</th>
<th>Lower is better</th>
<th>Higher is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA</td>
<td>1.9</td>
<td>85</td>
</tr>
<tr>
<td>DPRK</td>
<td>2.9</td>
<td>78</td>
</tr>
<tr>
<td>MAV</td>
<td>3.6</td>
<td>72</td>
</tr>
<tr>
<td>BHU</td>
<td>4.1</td>
<td>72</td>
</tr>
<tr>
<td>SRL</td>
<td>5.3</td>
<td>66</td>
</tr>
<tr>
<td>IND</td>
<td>10.7</td>
<td>64</td>
</tr>
<tr>
<td>NEP</td>
<td>13.9</td>
<td>62</td>
</tr>
<tr>
<td>INO</td>
<td>17.3</td>
<td>52</td>
</tr>
<tr>
<td>BAN</td>
<td>19.9</td>
<td>50</td>
</tr>
<tr>
<td>MMR</td>
<td>5.3</td>
<td>49</td>
</tr>
</tbody>
</table>


**Monitoring and accountability for results**

There are many national initiatives to monitor progress towards UHC and SDG3 as part of regular health sector monitoring activities. In 2017, the Regional Office organized a regional consultation that focused on three areas where Member States have requested more support: (1) clarifying indicator targets and definitions, and implications for setting national targets; (2) how to incorporate the health SDG indicators into national monitoring frameworks; and (3) how to improve monitoring of equity. As a follow up, WHO assisted eight Member States in conducting national consultations on SDG, UHC and equity monitoring; worked with seven Member States to improve their CRVS systems, especially to improve mortality statistics that are needed to better monitor NCDs; and helped them modernize
data collection and analysis using information and communication technology (ICT), and ensure better coordination across sectors, e.g. in cause-of-death certification. In addition, the Regional Office published its second analysis of the status of UHC in Member States of the SEA Region in 2017, as well as guidance on indicators to monitor traditional and complementary medicine systems in the Region.

**Challenges, opportunities and next steps**

Since the UHC Regional Flagship was launched in 2014, there has been progress in many areas, but much more remains to be done against a complex agenda that needs sustained political and technical support. Around one third of the target of reaching 1 billion more people worldwide through UHC by 2023 in WHO’s new General Programme of Work depends on progress in Member States of the SEA Region. This is already stimulating a fresh look at priorities and ways of working within WHO.

First, in the area of improving access to medicines, there will be intensified collaboration in three areas in 2018: (1) the launch of a multicountry cooperative arrangement to jointly procure antidotes; (2) an increase in the availability of information on the prices of medicines across Member States; and (3) actions to promote regulatory harmonization and convergence through SEARN.

The second review of progress on the Decade of Strengthening HRH takes place in 2018. This will also provide an opportunity to advance HRH. Special attention will be paid to strengthening the health workforce for frontline services, and ways in which progress on transformative education and rural retention can be accelerated through better data; more evidence of strategies that work, and effective HRH governance.

Improving the quality and use of data – to monitor UHC as a whole and to improve equity analysis – will continue to be a priority. There will be an increased focus on the appropriate use of effective ICT (also called digital health or “e-health”) to improve the data available for the management of individual health care through introducing personal health records, and to monitor population health trends.

To improve the regional evidence base for UHC, the Asia Pacific Observatory on Health Systems and Policies agreed in 2017 to a new three-year programme of analytical work within the framework of UHC. This will involve documenting country experiences in the Asia-Pacific in improving frontline services, hospital services, financial protection and the capacity to monitor health system performance, including equity.
Flagship 5: Building national capacity for preventing and combating antimicrobial resistance

Introduction

AMR has been on the global agenda at the highest level through several World Health Assembly resolutions and the UN resolutions at the UN General Assembly in September 2016. In 2015, the Global Action Plan (GAP) on Antimicrobial Resistance was adopted by the Sixty-eighth World Health Assembly. All Member States of WHO globally committed to have in place by May 2017 a national action plan on AMR that is aligned with the GAP.

Progress and results in 2017

Developing, implementing and monitoring national AMR action plans

By the end of 2017, nine of the 11 Member States in the Region had finalized their national AMR action plans and the remaining two Member States were in the process of developing these. Most of these national plans meet the criteria laid out in the GAP on AMR. These criteria include establishing multisectoral governance structures – such as national AMR steering committees – with high-level representation from across the government; developing a sound operational plan and fully funded budget; and establishing a monitoring and evaluation system that is embedded in the national action plan.

A situation analysis of where Member States in the SEA Region stand in developing and implementing their national AMR action plans was published in September 2017 in a special issue of British Medical Journal dedicated to AMR in South-East Asia. The special issue also included a comprehensive analysis of AMR issues in the Region, a regional risk assessment of AMR, papers on different strategies to combat AMR, and country-specific articles on their AMR situation and experiences in developing and implementing national AMR action plans.

In addition, all 11 Member States in the Region completed a global self-assessment AMR questionnaire in 2017 that is used to monitor progress on the basic pillars of the GAP.

Establishing a regional coordination mechanism for AMR

A major development in the fight against AMR in South-East Asia in 2017 was the establishment of a One Health/AMR Secretariat in October 2017 to serve as a regional multisectoral coordination mechanism for AMR activities of three organizations – WHO, FAO and OIE. The Secretariat, located at the FAO Regional Office in Bangkok with staff, including some personnel belonging to the WHO Regional Office, will coordinate implementation
Delivering on the regional Flagship priorities and Beyond

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of AMR/One Health activities in the Region and promote intersectoral coordination at the country level to combat AMR.

**Strengthening AMR surveillance**

Since laboratory surveillance of AMR is a critical component of control programmes, the Regional Office has supported strengthening of AMR testing in laboratories of Member States. This support was provided through a regional hands-on training on standard laboratory AMR methodologies attended by laboratory staff from all the Region's Member States (except from DPR Korea and Indonesia) and also hands-on training at the national level in Maldives (2017), Timor-Leste (2017) and Myanmar (2017), as well as the establishment of a regional quality assurance programme for AMR bacteriology with help of a WHO collaborating centre (NIH-Thailand). The Regional AMR EQAS Programme (provided by a WHO collaborating centre in Thailand) became functional in 2016. The number of Member States participating in it is increasing.

The Regional Office supported annual review missions of the management of drug-resistant TB in nine Member States and surveys of pre-treatment and acquired drug resistance among HIV patients in several Member States.

Several regional projects have been launched to provide evidence on and advocate for integrated surveillance between the public health, animal and environmental health sectors. These include field studies of the transmission of AMR between animals, the environment and humans, and projects to centralize national AMR data from different sectors using the WHO-led GLASS – a platform where Member States can share information on their national AMR trends.

**Monitoring the use of antibiotics in humans**

The Regional Office conducted retrospective analyses on the extent and patterns of antibiotic use in humans in Bangladesh, India, Indonesia, Sri Lanka and Thailand. WHO also provided technical support to these Member States in analysing AMR data as a first step in establishing national antimicrobial monitoring consumption systems, and introduced these Member States to a recently developed WHO methodology for monitoring antimicrobial consumption in humans, along with technical guidelines.

**AMR-related research**

As a key step to expanding the areas of AMR-related research to be conducted or supported by WHO, the Regional Office published a document titled *Fostering research into antimicrobial resistance in India*, which discusses research and development of new antimicrobials and rapid diagnostics. The document additionally highlights that investment in research and national surveillance of resistant pathogens must be prioritized.
The Regional Office is supporting several AMR-related research studies. One is a study of the impact of the introduction of pneumococcal conjugate vaccine on containing AMR in pneumococcal strains. Another is a small study carried out in 2017 to understand the presence of antibiotic residues and resistant bacteria in wastewater and in fish and vegetables grown with wastewater in the East Kolkata Wetlands in India. The risk to human health will be studied in 2018–2019.

**Raising awareness of AMR at the national, regional and global levels**

On 13–19 November 2017, all Member States of the SEA Region actively took part in World Antibiotic Awareness Week (WAAW). The week-long campaigns, with the theme, “Seek advice from a qualified health-care professional before taking antibiotics”, involved the active participation of high-level officials, including government ministers and development partners from different sectors, and also included seminars, poster presentations, workshops, media coverage, community participation and social media. Ministers, high-level officials and multisectoral partners were actively involved in WAAW 2017 across the Region.

At the regional level, representatives from Indonesia, Myanmar and Thailand attended the Consultative Meeting on the “ASEAN Leaders Declaration of Commitment on Antimicrobial Resistance (AMR): Combating AMR through the One Health Approach”, held in May 2017 in Manila, Philippines. Health ministers from India and Indonesia also attended the first G20 Health Ministers’ Meeting in Berlin in May, which issued the Berlin Declaration of the G20 Health Ministers, which included AMR as one of three topics covered.

**Challenges, opportunities and next steps**

Many challenges to controlling AMR in the Region remain. These include the unregulated sale of cheap antibiotics for human health, the widespread use of antibiotics in the animal industry, and poor awareness among health professionals and consumers about AMR and its drivers, particularly its relationship to sanitation, hygiene and food handling. Drawing on the lessons learned and experiences gained in implementing AMR control activities in Member States of the Region in 2017, the Regional Office will focus on the following activities in 2018:

1. Continue the support for implementation of AMR national action plans in Member States, including working with Member States to periodically measure their progress in implementing the plans, using the AMR situation analysis tool developed by the Regional Office.

2. Provide technical support to Member States to strengthen the ability of NRAs to regulate and monitor the use of antibiotics.
3. Strengthen the One Health tripartite partnership between the regional offices of WHO, OIE and FAO, including by harmonizing methods of surveillance of antimicrobial use and AMR between the human health, animal health and environment sectors.

4. Conduct awareness-raising programmes and activities on AMR, including in conjunction with the WAAW in November 2018.

5. Strengthen research into AMR in the Region by promoting research on and development of new antimicrobials and rapid diagnostics.
Flagship 6: Scaling up capacity development in emergency risk management in Member States

Introduction

The SEA Region is vulnerable to different types of emergencies and disasters, including from natural hazards, such as floods, cyclones, earthquakes, tsunamis, landslides, volcanic eruptions, heat waves and drought. The 2016 World disaster report shows that, over the past decade, the Region contributed 26.8% of the total mortality due to disasters worldwide. The Region also has a high burden of outbreaks and epidemics of common infectious diseases, and emerging and re-emerging diseases, including zoonotic infections.18

Some of the major health emergencies that occurred in the year 2017 in the Region are listed in Table 6.

<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Morbidity/Mortality</th>
<th>Response from WHO Regional Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclone storm Mora (May–June)</td>
<td>Bangladesh</td>
<td>3.3 million people affected, 260 000 persons displaced, 17 000 houses damaged</td>
<td>Medical supplies, emergency kits and teams mobilized; SEARHEF funding released immediately</td>
</tr>
<tr>
<td>H1N1 influenza outbreak</td>
<td>Myanmar</td>
<td>166 confirmed cases and 17 deaths</td>
<td>Medicines and laboratory diagnostics provided</td>
</tr>
<tr>
<td>H1N1 influenza outbreak</td>
<td>Maldives</td>
<td>222 confirmed cases and 6 deaths</td>
<td>SEARHEF funding released; medicines and expert consultants provided to support epidemiological analysis and case management</td>
</tr>
<tr>
<td>Flood and landslides (May)</td>
<td>Nepal</td>
<td>&gt;100 000 persons displaced, 41 893 houses damaged and 161 deaths (including 25 children)</td>
<td>Helped establish &gt;200 health camps; provided WASH supplies and training</td>
</tr>
<tr>
<td>Flood and landslides (May–June)</td>
<td>Sri Lanka</td>
<td>683 821 people affected, 15 897 houses damaged, 224 deaths</td>
<td>WHO Country Office and Regional Office assisted with preparation of district health emergency response plans and training of field workers in surveillance, IHR and risk communication</td>
</tr>
</tbody>
</table>

18 Roots for resilience: a health emergency risk profile of the South-East Asia Region. New Delhi: WHO Regional Office for South-East Asia; 2017.
<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Morbidity/Mortality</th>
<th>Response from WHO Regional Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dengue outbreak</td>
<td>Sri Lanka</td>
<td>170 075 cases from Jan–Nov 2017 and 400 deaths</td>
<td>Technical assistance by WHO staff and consultants provided for case management, setting up a triage system for patients by level of care; equipment for diagnosis and treatment provided to hospitals</td>
</tr>
<tr>
<td>Drought</td>
<td>DPR Korea</td>
<td>18 million people food insecure, 200 000 children with acute malnutrition</td>
<td>Life-saving medical equipment and supplies provided to hospitals; CERF funds mobilized</td>
</tr>
<tr>
<td>Rohingya refugee crisis (Grade 3) (ongoing)</td>
<td>Myanmar and Bangladesh</td>
<td>688 000 Rohingyas displaced to Bangladesh since 25 August 2017; 231 deaths (including 81 children under 5 years of age). Outbreaks of cholera, measles and diphtheria. Many cases of gender and sexual violence</td>
<td>More than 100 experts sent to Cox’s Bazar, Bangladesh to work in different technical areas; SEARHEF, CFE and CERF funds released; EWARS system developed. WHO provided leadership for health sector coordination; mobilized medical equipment, emergency health kits and vaccines for series of emergency vaccination campaigns</td>
</tr>
</tbody>
</table>

CERF: Central Emergency Response Fund; CFE: Contingency Fund for Emergencies; EWARS: early warning alert and response system; IHR: International Health Regulations; SEARHEF: South-East Asia Regional Health Emergency Fund; WASH: water and sanitation and hygiene

### Progress and results in 2017

Considering the socioeconomic impact of emergencies and disasters in the SEA Region, the Regional Director identified “Scaling up capacity development in emergency risk management” as one of the Regional Flagship Priorities. The global WHO Health Emergencies Programme created in 2016 has been rolled out in the Region, and since early 2017, has been fully integrated into the WHO regional and country offices, including in the Global Management System (GSM) planning process.

The five key areas of work and expected outcomes of this Flagship Programme are as follows:

1. Advocate – increase awareness among partners on health issues and the role of the health sector in emergencies.
2. Manage – improve information and knowledge related to emergency risk management in the health sector for all types of hazards.
3. Support – strengthen the capacities of Member States to prevent, prepare for, respond to and recover from emergencies across all hazards as a result of technical and operational support.

4. Prepare and respond – put in place systems and procedures in Member States to prevent, prepare for and respond to public health emergencies.

5. Engage – relevant partners in all aspects of WHO’s work in emergency risk management.

Progress in each of these areas of work is summarized below.

ADVOCATE: awareness of key partners on health issues in emergencies is increased in the Region

A major achievement in 2017 was the publication of by the Regional Office of the report, Roots for resilience: a health emergency risk profile of the South-East Asia Region, which was released at the Regional Committee meeting in September. This scientific risk profiling is the first effort to quantify the risk to health and health systems of natural disasters (e.g. earthquakes, cyclones, floods, droughts) and disease epidemics in the SEA Region, which has often been referred to as “vulnerable”, “prone” and “high risk” for these events. This comprehensive analysis uses various indexes and methods to assign risk levels (on a 1–10 scale) to each country in the Region in terms of the risk of different types of national hazards and infectious disease outbreaks, the size of the population exposed to these risks, the country’s vulnerability (e.g. inability to withstand the impact of the event), and the capacity of the health sector to cope with the emergency. The report also outlines actions for Member States and aid agencies to take to address their vulnerabilities to disasters, including the need to conduct regular detailed risk analyses at the subnational level.

The Regional Office has actively contributed to the global dialogue and strategic plans and guidelines of different partner networks and organizations involved in emergency preparedness and response. In 2017, this included participating in national awareness and advocacy meetings for EMTs and the Global Outbreak Alert and Response Network (GOARN) held in India, Indonesia and Thailand; contributing to the development of the UN Global Health Cluster’s strategy for 2017–2019; and advocating for quality standards and quality assurance processes for EMTs at the 42nd World Congress on Military Medicine held at New Delhi in November.

MANAGE: information and knowledge related to emergency risk management in the health sector for all types of hazards are improved

Following recommendations made by the WHO Health Emergencies Programme, the Health Emergency Information and Risk Assessment Unit of the Regional Office launched a
programme of detection, verification and alert (DVA) in March 2017 to conduct assessments of the risk of potential disease outbreaks. Between March and December 2017, out of 905 “signals” (outbreak events reported in the media), 57 outbreaks in the Region were verified by WHO country offices and reported to the WHO global Event Management System (EMS). In addition, the DVA team conducted seven risk assessments, in collaboration with the WHO country offices and occasionally with WHO headquarters, in response to the following events: Cyclone Mora in Bangladesh, floods in Nepal and Sri Lanka, a dengue outbreak in Sri Lanka, influenza outbreaks in Maldives and Myanmar, and an outbreak of diphtheria in Indonesia. All of these events were classified as Grade 1 (using the WHO Emergency Risk Management Framework), with the notable exception of the Rohingya refugee crisis, which was graded as level 3 – the highest level of risk.

The Regional Office also developed and distributed a risk assessment package consisting of tools and guidance notes for Zika virus outbreaks. Topics covered in the package include: (1) assessing microcephaly in the context of Zika virus infection; (2) the potential use of AFP surveillance for Guillain–Barre syndrome and measles surveillance for Zika virus infection; (3) risk communication in the context of Zika virus infection; and (4) recommendations for developing a risk-based action plan to prevent and control Zika virus infection. The Health Emergency Information and Risk Assessment Unit also assisted Maldives in conducting training on vector identification, prevention and control of Zika virus infection; and Indonesia, Myanmar and Timor-Leste in conducting Zika virus risk assessments.

**SUPPORT: the capacity of the health sector in Member States is strengthened to prevent, prepare for, respond to and recover from emergencies from all hazards**

The Regional Office held three regional training workshops in Delhi, India in 2017 to build the capacity of MoH staff and officials and WHO Country Office staff to respond to emergencies. The first was a workshop on conducting rapid risk assessments for all types of hazards held in October. This led to several recommendations by country officials on how to sustain local capacity-building in risk assessment, including the idea of developing an e-learning course that would issue a certificate of competence for those completing the course. The second regional workshop – attended by the MoH and WHO Country Office staff – was on developing EWARS to detect infectious disease outbreaks during emergencies from all types of hazards. A mobile phone-based reporting system (“EWARS in a box”) developed by WHO was demonstrated during the workshop. The third training, held over three days in November, was on establishing and strengthening HEOCs. The workshop was attended by MoH officials and WHO staff.

To strengthen the capacity of WHO staff in the Region to assist Member States in their health response to emergencies, health emergency staff from the regional and country offices underwent training at the Regional Office through the WHO Emergency Readiness Training Programme. Participants were trained in how to perform critical functions in the
areas of programme and grant management, resource mobilization, and administration and logistics during an emergency response.

To further strengthen the Regional Office’s ability to provide immediate assistance to Member States during an emergency, the WHO Health Emergencies Programme team at the Regional Office developed a roster of 208 external experts in the five programme areas, who could be deployed to support emergency responses in the Region. In addition, an internal roster of 97 staff from the Regional Office has been developed, enabling staff to be deployed within 24 hours to emergencies within and outside the Region for a period of up to six weeks.

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**Box 23. Intensive country support to prevent infectious disease outbreaks and save lives**

**Context.** The largest single movement of individuals occurred in late August 2017, when over 700,000 Rohingya crossed over the border into Bangladesh.

**Actions taken.** Early advocacy by the Regional Office’s Health Emergencies Programme team and other relevant departments encouraged the Bangladesh Country Office to secure and quickly implement a large-scale vaccination campaign to immunize over 700,000 newly arrived Rohingya refugees against cholera in October 2017, and conduct subsequent vaccination campaigns for children against both measles and diphtheria. Coordination and cooperation across all three levels of WHO contributed to the success of these rapid and aggressive efforts. Ongoing support continues, including for a second cholera vaccine campaign.

**Results achieved.** It appears that outbreaks of cholera have been prevented. Outbreaks of measles and diphtheria have thus far been controlled. Subsequent rounds of vaccination were conducted as the influx continued steadily. Ongoing monitoring and support for surveillance is required.

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**Box 24. Strengthening WHO country office capacities to support influenza outbreak detection and response**

**Context.** Many Member States in the Region have only recently developed mechanisms and laboratory capacities to detect outbreaks of influenza and other illnesses. Influenza outbreaks were detected for the first time in Maldives and Myanmar in 2017.

**Actions taken.** Early notification by the health ministries in each Member State to the WHO country office, including requests for help in improving influenza surveillance and clinical management, were passed on to the Regional Office. Deployment of Regional Office staff to both locations helped to strengthen the capacity of both country offices and provided reassurance that the outbreaks detected represented a seasonal pattern of illness that would be expected if more robust influenza surveillance was established. Additional technical advisors in critical care and infection prevention and control (IPC) were sent to both the Member States to help support the clinicians and hospitals where the majority of cases were identified and treated.

**Results achieved.** The Member States were able to address the emergence of seasonal influenza and gained important knowledge about their own seasonal flu patterns, as well as on appropriate clinical management and IPC. Additional recommendations from the consultants provided roadmaps for improving patient care and IPC.
PREPARE and RESPOND: systems and procedures in Member States are in place to prevent, prepare for and respond to public health emergencies

The Regional Office continues to support Member States to enable them to meet the provisions of the legally binding IHR (2005) to prevent, protect against, control and provide a public health response to the international spread of infectious diseases. India, Indonesia, Thailand and Sri Lanka have already declared compliance with the IHR (2025) Core Capacities.

In 2017, all 11 Member States provided information to the WHO Secretariat using a self-assessment questionnaire, in compliance with the new IHR Monitoring and Evaluation Framework, which requires Member States to regularly review progress in meeting the IHR Core Capacities. The analysis found that, while Member States have made progress in many of the 13 Core Capacities since 2010, many acknowledged weaknesses in the areas of human resources, points of entry, chemical events and radiation emergencies.

Following the self-assessments, seven out of the 11 Member States successfully conducted JEEs on IHR (2005). Key gaps identified in these evaluations were in the areas of AMR, biosafety and biosecurity, preparedness, emergency response operations, medical countermeasures and personnel deployment, chemical events and radiation emergencies. It is the responsibility of Member States to develop a comprehensive national action plan for health security to implement the recommendations of the JEEs. Myanmar and Maldives have begun to develop their action plans with WHO support. The plans will be completed in 2018 and costed.

The FAO, WHO and OIE jointly organized an Asia-Pacific Workshop on Multisectoral Collaboration for the Prevention and Control of Zoonoses in Manila, Philippines, attended by animal health and public health officials from 19 Member States. This workshop provided an opportunity for Member States in the Asia-Pacific region to update each other on their progress in establishing functional multisectoral coordination mechanisms, in implementing prevention and control of zoonotic diseases at the country level, and in sharing experiences, including successes and challenges encountered. The Regional Office also supported several national workshops to improve the control of zoonotic diseases, using the One Health approach (in which animal and human health sectors work together). These included One Health workshops on outbreak investigation and response in Myanmar and Timor-Leste; a national workshop in Nepal on the detection, prevention and control of leptospirosis and a national “IHR-PVS Bridging Workshop” in Indonesia to link implementation of the IHR with the Performance of Veterinary Services Pathway (PVS) of the OIE in an effort to improve coordination between the animal and human health sectors in preventing and controlling zoonotic diseases.

19 Diseases that can be transmitted from animals to people
Box 25. Grade 3 emergency response: the Myanmar/Bangladesh Rohingya crisis 2017

The Myanmar/Bangladesh Rohingya crisis turned into the largest emergency situation in the Region in 2017. A population equivalent to that of Bhutan was displaced from Rakhine state in Myanmar and settled in Cox’s Bazar district of Bangladesh in camps and spontaneous settlements. The scale of the refugee influx in Cox’s Bazar district and the scarcity of resources resulted in a critical humanitarian emergency that exceeded the coping capacity of the local communities and systems.

A combination of overcrowded living conditions, poor hygiene and low immunization coverage predisposed the Rohingya population to the risk of a wide range of infectious diseases. Immediately after the onset of the crisis, the Regional Office called for a teleconference with the country offices of Bangladesh and Myanmar in order to understand the magnitude of the problem and plan a response. Public health risk assessments were undertaken in the Rohingya settlements in Cox’s Bazar and internal grading of the emergency was activated, triggering the establishment of the Incident Management Team and a series of response measures based on WHO’s Emergency Response Framework.

The Regional Office supported setting up of the Emergency Operations Centre (EOC) and the EWARS. It released US$ 175 000 from SEARHEF and deployed Regional Office staff to provide technical assistance in immunization, WASH, mental health, HIV/TB, communications, resource mobilization and operational planning.

In keeping with WHO’s role as the health sector lead, the Regional Office provided support for the establishment of critical coordination mechanisms and working groups, implementation of the 4Ws (who is doing, what, where and when) approach and tools to support more equitable distribution of health services. The Regional Office also provided continuous technical support on the development and release of key information products, including situation reports, public health situation analyses, health sector bulletins and emergency response planning.

Support was also provided for key interventions such as planning and resource mobilization for mass vaccination campaigns with bOPV, MR, vitamin A, OCV, tetanus–diphtheria (Td), pentavalent vaccine (Penta), PCV and diphtheria. The Regional Office also supported in setting up water quality monitoring field laboratories and two rounds of water quality monitoring surveillance.

The Regional Office effectively supported coordination (and continues to) across the three levels of the Organization for the response, including for key operational functions such as deployment of human resources through various avenues; WHO staff, GOARN, EMTs and Standby Partners, procurement of essential medicines and supplies, technical expertise and resource mobilization.
By the end 2017, seven of the 11 Member States in the Region had completed assessments of their foodborne disease surveillance and response capabilities, and had developed action plans to strengthen their surveillance systems. Indonesia is the first country in the Asia-Pacific region to use the FAO/WHO tool for National Food Control Systems assessments, which is based on Codex principles and guidelines. Maldives and Nepal developed food safety policies, which will be vital to strengthen their food safety programmes.

**ENGAGE: relevant partners are engaged in all aspects of WHO’s work in emergency risk management**

The WHO Health Emergency Programme of the Regional Office organized a two-day regional consultation in November 2017 in Bangkok, Thailand, entitled “Networking and Coordination of Health Partners for Emergency Response”. The meeting, attended by 86 delegates from 54 agencies and governments in the Region, was held in recognition of the need to strengthen the existing partnership networks set up to respond to health emergencies and the coordination between them in order to ensure effective, seamless and coordinated responses to emergencies. These networks include the Global Health Cluster of the UN, EMTs, GOARN, WHO Standby Partners, as well as multi- and bilateral aid agencies.

Meeting participants contributed to the development of a “Regional Framework on Operational Partnerships for Emergency Response” (currently in draft) (Fig. 20).

*Fig. 20: Schema of the key elements and implementation processes for the Regional Framework on Operational Partnerships for Emergency Response*

**Challenges, opportunities and next steps**

Given the vulnerability of the SEA Region to emergencies caused by both natural and human-induced disasters, the Regional Office’s 2018–2019 biennial workplan of the
Health Emergency Programme identifies key milestones for strengthening the capacity of Member States and WHO offices in the Region to prepare for and mount an effective health response to emergencies. These include having sustainable operational partnerships among agencies involved in emergency response, stronger emergency funding mechanisms, a readily deployable emergency health workforce, prepositioned medical supplies and equipment, and a strong incident management system across the 11 Member States and WHO country offices.

The activities that the Programme has prioritized to achieve these milestones are shown in the box below.

**Box 26. Priority activities to strengthen national preparedness and response capabilities in the Region**

1. Conduct comprehensive assessments of IHR core capacities.
2. Develop or update contingency plans to include an “all hazards” approach.
3. Establish sustainable financing mechanisms for emergency preparedness and response.
4. Conduct training and capacity-building.
5. Strengthen laboratory capacity, as well as biosafety and infection prevention and control capacity.
6. Apply One Health and other approaches to strengthen multisectoral coordination.
7. Integrate emergency procurement of medical supplies with routine procurement and supply chain systems.
Flagship 7: Finishing the task of eliminating diseases on the verge of elimination

Introduction

The WHO South-East Asia Region has the world’s second highest burden of NTDs taken as a whole, and the largest number of cases globally of several NTDs, including LF, leprosy and visceral leishmaniasis (also known as kala-azar). Among the 20 diseases categorized as NTDs, several are targeted for elimination either globally or in the Region. These include LF, visceral leishmaniasis, blinding trachoma, leprosy, rabies and schistosomiasis. In addition, yaws is targeted for global eradication. These are diseases of the poor who live on the fringes of society with little or no voice and in conditions that are highly favourable for these diseases to spread and flourish. The Regional Office has been at the forefront of efforts to eliminate NTDs in the Region and to reduce the overall burden of NTDs globally.

Progress and results in 2017

Advocacy activities on NTDs

A high-level regional ministerial meeting titled “Keeping the Promise: ending NTDs on time in the SEA Region” was held in Jakarta, Indonesia, in April 2017. This meeting focused on three thematic areas: keeping the promise – showing results; overcoming challenges – using smart solutions; and moving forward – leveraging leadership and partnerships. The meeting was attended by ministers and high-level delegates from the Region as well as partners supporting the NTD programmes in the Region. The meeting concluded with the “Jakarta Call for Action on accelerating progress towards eliminating neglected tropical diseases endemic in the South-East Asia Region”.

Two important advocacy books were published in 2017. The first one titled NTDs – from neglecting to defeating described the status of NTDs in the Region, showed progress, explained the challenges and proposed a way forward with a roadmap. The second publication is a coffee-table book titled Care over neglect.

Lymphatic filariasis

In 2016, 273 million doses of preventive chemotherapy treatments through MDA were provided to control LF in the Region as a whole. An important milestone was reached in 2017 with the achievement of 100% geographical coverage with MDA in all LF-endemic districts in all five Member States that require MDA (India, Indonesia, Myanmar, Nepal and Timor-Leste). MDA continues to be scaled down as districts achieve the elimination thresholds (<1 case per 10 000 people), and by the end of 2017, 61% of implementation units (usually a district but this differs in some Member States) in the Region had stopped MDA.
As a result of successive MDA rounds, three of the nine Member States (Bangladesh, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste) endemic for LF in the Region have been validated for having eliminated the disease. They are Maldives and Sri Lanka in prior years and Thailand in 2017. A fourth country (Bangladesh) reached the elimination threshold nationwide in 2017 and has stopped MDA, but has not yet been validated. WHO continues to provide Member States with technical support and free MDA drugs and diagnostics.

**Visceral leishmaniasis (kala-azar)**

Visceral leishmaniasis is endemic in Bangladesh, India and Nepal with a few sporadic cases seen in Bhutan and Thailand. The SEA Region is the only WHO Region that has targeted the elimination of visceral leishmaniasis as a public health problem in the global WHO NTD roadmap, and with a deadline of 2020. However, all three endemic Member States in the Region have committed to an earlier target date of 2017.

Through a combination of MDA and IRS to control the sandfly that transmits the disease, Bangladesh reached the elimination threshold of <1 case per 10 000 population in all endemic subdistricts, while Nepal reached this threshold at the district level by the end of 2017. In addition, India achieved this milestone in more than 90% of the country’s blocks. This remarkable progress in a Region that was contributing the largest share of visceral leishmaniasis cases worldwide has changed the global landscape of the disease. WHO continued providing the total requirement of liposomal amphotericin B for MDA to all endemic Member States in the Region and has worked closely with national NTD programmes in undertaking reviews and assessments to prepare the Member States for validation of elimination of this disease.

**Yaws**

With the verification of yaws elimination in India in 2016, only two Member States in the Region – Indonesia and Timor-Leste – remain endemic for the disease. Indonesia continues to make good progress in providing MDA in yaws-endemic areas and in strengthening the surveillance system to be able to detect and treat any emerging cases. In 2017 Timor-Leste started its first ever national yaws prevalence survey to properly map yaws-endemic districts and villages, which it completed in 10 out of the country’s 13 districts by the end of 2017. WHO continues to provide technical and programmatic support to both Member States.

**Schistosomiasis**

Indonesia, the only country endemic for schistosomiasis in the Region, has been undertaking a very successful MDA campaign and has managed to consistently keep prevalence at a very low level (currently at less than 1% nationally). With this success, the national programme
is now transitioning from a “control” to an “elimination” programme. WHO continues to provide free drugs for MDA and technical assistance to further strengthen national capacity and bring about necessary programmatic changes in line with national policy to eliminate the disease.

Trachoma

Trachoma is endemic in three Member States in the Region (India, Myanmar and Nepal). All three Member States have successfully completed MDA with azithromycin in trachoma-endemic areas and are in the process of conducting pre-validation assessments. Nepal completed pre-validation surveys in most of the endemic areas and has drafted a country dossier to assess if it has achieved elimination.

Leprosy

Efforts to further reduce the burden of leprosy in the Region have gained momentum in all 10 Member States reporting leprosy cases. The Region, however, continues to account for the largest number of new cases (xx in 2017) and people with visible disabilities (xx) in the world. All high-burden Member States have escalated their campaign of active case detection and early treatment, with the objective of detecting and treating cases before disability sets in and achieving the target of zero disability among children and an overall disability rate of less than one per million people at the national level.

Box 27. Major achievements in the elimination of neglected tropical diseases in 2017 in the Region

- Sustained momentum on LF elimination with a third country (Thailand) validated for elimination and the Region achieving 100% geographical coverage of MDA.
- Two Member States (Bangladesh and Nepal) out of three endemic for visceral leishmaniasis (kala-azar) in the Region achieved the elimination target and over 90% of administrative blocks in India reached this threshold.
- Completion of a yaws endemicity survey in 10 out of 13 districts in Timor-Leste.
- Preparations under way by all three trachoma-endemic Member States in the Region for validation of elimination of the disease, including pre-validation surveys.
- Organization of a ministerial meeting to sustain high-level political engagement to eliminate these diseases and publication of two advocacy books on NTDs.

Challenges, opportunities and next steps

Some of the challenges in the Region on eliminating and sustaining the achievements include the following:
Inadequate involvement of community and persons affected by leprosy, and suboptimal treatment access or compliance to treatment;

Inadequate prioritization and resourcing at the point of delivery in decentralized settings, and insufficient use of data to drive policy and programmes with timely decisions and corrective measures;

A number of LF endemic districts are unable to achieve elimination target despite multiple rounds of preventive chemotherapy;

Persistence of post-kala-azar dermal leishmaniasis (PKDL) in patients and asymptomatic persons, which is a potential community reservoir for further transmission of the disease, compounded by lengthy treatment for PKDL and lack of consensus of the role of PKDL in disease transmission.

Some of the opportunities and next steps:

- It is highly encouraging to see Head of State-level engagement on NTDs in some Member States. The Region continues to benefit from the NTDs being a Flagship Priority with high-level political engagement and leadership commitment.
- A new treatment regimen is available from 2018 that would reduce LF MDA time from the traditional 5–6 years to 2–3 years.
- New partnerships are being forged in the Region.
- The programme should seize the opportunities presented by the current climate of strong leadership, high political commitment, the availability of new resources and tools to fast-track implementation and speed up progress.
Flagship 8: Accelerating efforts to end TB by 2030

Introduction

The WHO SEA Region has a disproportionately high burden of TB accounting for nearly half of the global new TB cases emerging in the Region, while it is home to only about 26% of the world’s population (Fig. 21). Six Member States in the Region – Bangladesh, DPR Korea, India, Indonesia, Myanmar and Thailand – are among the 30 high-TB burden Member States, and two Member States – India and Indonesia – alone account for 37% of the global TB burden. Timor-Leste, while not on the list of high-burden Member States, has one of the top 10 TB incidence rates in the world (at 498/100 000), as does DPR Korea (at 513/100 000).20

Fig. 21: SEA regional burden of TB

MDR-TB poses a significant challenge to the Region, which accounts for around 35% of the estimated MDR-TB cases worldwide. Moreover, only about one in three of the estimated 117 000 MDR-TB cases among notified pulmonary cases in the Region in 20161 received appropriate treatment. Out of those MDR-TB cases started on treatment in previous years, only about half were successfully treated. Extensively drug-resistant (XDR)-TB was reported by six Member States in the Region by 2016. In addition, an estimated 35 000 people in the Region died of HIV-associated TB in 2016. Among the reported HIV-positive TB patients, 83% were on ART.

Progress and results in 2017

A Ministerial Meeting on Ending TB in the Region was held in Delhi, India, in March 2017 and was attended by nine health ministers and two high-level delegates from all 11

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Member States. Meeting participants discussed the fast-tracking of approaches to end TB, as called for in the regional acceleration plan (“Bending the TB Curve”) developed in 2016 to intensify activities in SEA to end TB, in alignment with the global End TB Strategy.21

The meeting also adopted the Delhi Call for Action to End TB in the WHO South-East Asia Region, which calls on Member States to establish high-level national initiatives to end TB by 2030, ensure full funding for TB programmes, provide universal access to high-quality TB care in all sectors, and adopt patient-centred socioeconomic support for TB patients. It also calls for initiating a regional “Innovation to Implementation” fund and for an increase in global resources for TB. Pursuant to the commitment of Member States, “Accelerating efforts towards ending TB by 2030” was declared the eighth Regional Flagship Priority by the WHO Regional Director for South-East Asia at the meeting.

Member States made a further commitment to ending TB using a multisectoral approach at the Global Ministerial Meeting on TB in Moscow in November 2017, during which the Moscow Declaration on TB was adopted. The Regional Office strongly advocated for TB control and additional resources for the Region at the meeting.

WHO also published a report on fast-tracking TB control in the Region called Bending the curve: TB in the South-East Asia Region version 2,22 which is a technical companion piece to the “Bending the TB Curve” acceleration plan for the Region. The new report provides technical justification of the strategic shifts needed to end TB and corresponding resource needs to implement the strategies. The report was disseminated during the Seventieth session of the Regional Committee in Maldives in September 2017 and at other key meetings.

Efforts by Member States to control MDR-TB received special support through the regional Green Light Committee (GLC) (MDR-TB advisory committee) Secretariat, housed in the Regional Office. To address the challenges of low detection rates and very low treatment success rates of rifampicin-resistant and MDR-TB cases in the Region, WHO is assisting Member States to adopt recent WHO recommendations regarding diagnostics, newer drugs and shorter treatment regimens for MDR-TB cases that should help improve the performance of national TB programmes. By the end of 2017, all Member States had either started implementing the new recommendations or at least initiated the process of incorporating them in the respective guidelines with possible implementation in 2018.

WHO also assisted several Member States with TB surveillance studies in 2017. These include an ongoing TB prevalence survey in Bangladesh (with support from WHO headquarters), and planned prevalence surveys in India, Myanmar, Nepal and Thailand.

22 Bending the Curve - ending TB in the WHO South-East Asia Region. New Delhi: World Health Organization, Regional Office for South-East Asia; 2017.
In addition, the Regional Office assisted with finalizing protocols for drug resistance surveillance in Bangladesh, Sri Lanka and Thailand.

The Regional Office, along with the country offices, have helped Member States mobilize additional resources for TB control from donors, particularly the Global Fund. WHO supported Bangladesh, Indonesia and Myanmar in developing workplans that align with their national TB strategic plans in order to receive funding from USAID through its “Challenge TB” programme. In supporting Member States in their efforts to control TB, WHO has enjoyed technical collaboration and strong partnerships with a number of international and national organizations, donors and other partners. These include BRAC, Global Drug Facility, the Global Fund, KNCV, Stop TB Partnership, the TB Alliance, the Union, UNITAID, USAID and others.

Challenges, opportunities and next steps

The following continue to remain major challenges to TB control in the Region:

- Slow decline in incidence rates in Member States: at the current rate of 1.5–2% decline, no Member State will be able to achieve the End TB targets.
- Only four Member States have national-level mechanisms to oversee implementation of the national strategic plans for ending TB.23
- It is expected that only two Member States in the Region will be able to meet the targets of “zero catastrophic costs” for TB-affected families by 2020.22
- Research for new tools needs much more attention and investment.

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22 A review of national strategic plans for tuberculosis in the Member States of the WHO South-East Asia Region, as of December 2017. Dr Paul Nunn (unpublished)
There is a funding gap of approximately US$ 1.3 billion for TB programmes to fully implement the strategies needed to end TB.21

Some of the opportunities and next steps

- Recognizing the urgency to address the problem of TB in the Region, Ending TB is included as the eighth Flagship Priority of the Regional Director.

- Member States show the highest commitment towards ending TB. This will be further enhanced by the High-level meeting at the UN General Assembly in 2018 which is specifically focused on the fight against TB.

- A follow-up high-level meeting in March 2018 on the Delhi Call for Action demonstrated the commitment by Member States at the highest-level to implement the Delhi Call for Action.

- Support the establishment of empowered national initiatives and share best practices of mechanisms that have made targeted, time-bound results possible with monitoring by Heads of States/Governments.
Beyond the Flagship Priorities

Brief update on other programmes of public health importance

In addition to the focus in the Region on the Flagship Priorities, there are other important public health issues that are being addressed with equal vigour. The following section highlights some of the key issues and the progress and challenges in addressing them.

1. The Global Leprosy Programme (GLP)

Based in the WHO Regional Office for South-East Asia in New Delhi, the Global Leprosy Programme – the only global programme based outside Geneva – fulfils the functions of a headquarters for leprosy control worldwide.

The global epidemiological picture of leprosy is one of a slow decline. In 2016, there was a slight increase in case detection, attributable more to improved active case-finding and to narrowing the gap between detected and actual cases, rather than to an escalation of an epidemic. A total of 217,968 newly detected cases were reported to WHO in 2016 worldwide, corresponding to a rate of 2.9 per 100,000 people, while 175,361 cases were reported to be on the treatment register at the end of 2016, for a global registered prevalence rate of 0.2 per 10,000 people. The trend in new case-detection rates over the past 10 years is shown in Fig. 22.

Fig. 22: Trend in global leprosy case-detection rates, 2006–2016

The bulk of the cases are registered in the WHO SEA Region, followed by Latin America and sub-Saharan Africa. Leprosy is increasingly becoming a focalized disease with areas of
high transmission (“hot spots”) present both in Member States with a high overall burden (e.g. India, Ethiopia) and those with an overall low absolute number of cases (e.g. Comoros, Egypt). India accounts for 62% of all reported cases globally (Fig. 23).

Children made up 8.5% of all new cases in 2016, pointing to the continuation of active transmission of the disease. The share of new patients with visible deformities (Grade 2 disabilities or G2D) at the time of diagnosis was 6% globally, and ranged from 4.6% in SEA to 14.0% in Africa. The G2D rate in 2016 was 1.75 per million people, down from 1.94 a year earlier, but still much above the 2020 target of less than 1 per million, set out in the Global Leprosy Strategy (2016–2020).

**Fig. 23: Distribution of new leprosy cases in 2016 (n=217 968)**

Key activities of the GLP in 2017 include the release of a complete package of technical documents related to the Global Leprosy Strategy, and an updated *Guide for surveillance of antimicrobial resistance*. The surveillance network for drug resistance monitoring for leprosy was also further expanded in accordance with the Global Leprosy Strategy and the Regional Flagship for combating AMR.

The Programme also introduced the DHIS2 platform for collecting and reporting epidemiological and drug management data on leprosy, thereby replacing the earlier manual data collection tool. In addition, the GLP began developing the first WHO *Guidelines for the diagnosis, treatment and prophylaxis of leprosy*, following the GRADE (Grading of Recommendations Assessment, Development and Evaluation) methodology. The new guidelines are due to be released in 2018.

The Programme also organized an informal consultation on addressing the stigma and discrimination associated with those living with leprosy – one of the three pillars of
the Global Leprosy Strategy 2016–2020. This meeting took place in New Delhi, India, in November 2017. Key outcomes included a push for meaningful involvement of persons affected by leprosy in all aspects of leprosy programme development. It also highlighted the need to apply available instruments in addressing stigma and discrimination that affects persons and communities. Where not yet done, the need to repeal obsolete and discriminatory leprosy laws was also underscored.

The Nippon Foundation remains the single largest donor to the GLP. In 2017, the Foundation provided a grant of US$ 2.3 million to support routine leprosy activities at the global, regional and country levels. In addition, eligible Member States benefited from grants from the Bangkok Declaration Special Fund and the Special Fund for Extraordinary Circumstances, both channelled through the GLP. The latter grants are designed to support innovative actions to further reduce the leprosy burden and strengthen surveillance systems in selected priority Member States.

Mr Yohei Sasakawa, Chair of The Nippon Foundation and WHO Goodwill Ambassador for leprosy elimination, continued to actively interact with decision-makers at the national and local levels in endemic Member States for ensuring that necessary investments in leprosy control continue to be made towards further reducing the burden at the global, national and local levels.

Based on discussions with various stakeholders involved in leprosy, it is likely that a global partnership to stop leprosy will be formally launched in early 2018. The impetus of the partnership is to align the work of different stakeholders by developing a streamlined agenda and to speak with a single voice with the aim of increasing global attention and resources for this disease.

2. Climate change and health

Regional training to integrate climate resilience in water safety planning

The 3rd edition of the WHO Guidelines for drinking water quality (GDWQ), published in 2004, introduced WSPs as a proactive risk-based tool to help prevent outbreaks of acute and chronic waterborne diseases. WSPs are a key component of the Water Safety Framework promoted under the Guidelines, which aims to establish health-based targets for drinking water quality, achieve them through well-implemented WSPs, and monitor compliance through effective surveillance.

The Regional Office has worked with partners to identify and train a number of master trainers in the Region in recent years. This has resulted in the development of a pool of

WSP master trainers (water supply practitioners) from Bangladesh, Bhutan, India, Nepal and Sri Lanka. These master trainers are conducting national training on WSPs, implementing WSPs in their Member States, as well as participating in WSP audits in neighbouring Member States. Through these efforts, more than 5000 WSPs have been developed and implemented in most Member States of the Region.

As water utilities continue to face the potential for increased risks posed by climate variability and change, the need for enhanced support and guidance to Member States in building climate-resilient water systems was identified. In response, WHO launched in 2017 new global guidance for incorporating climate risks into water safety planning.25

The Regional Office then organized a regional training to introduce the concepts of climate-resilient WSPs, and to train 29 master trainers from seven Member States in the Region26 on how to integrate climate change risks into water safety planning. The meeting also provided a platform to facilitate the exchange of ideas and experiences between Member States, many of whom are at different stages of integrating climate considerations into their existing WSPs. In addition, the meeting provided an opportunity for Member States to determine what the most appropriate next steps are for developing climate-resilient WSPs and identify their potential needs for WHO support.

**Building health systems resilience to climate change**

During the sixty-ninth Regional Committee Meeting in September 2016, the Maldives Minister of Health proposed climate change and health as the topic to be discussed during the Ministerial Roundtable at the next Regional Committee meeting to be held in Male, Maldives in September 2017. This was unanimously agreed upon by the other health ministers of the region due to the high vulnerability of SEA Member States to climate change.

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26 Bangladesh, Bhutan, India, Indonesia, Nepal, Sri Lanka and Thailand
To prepare for the Ministerial Roundtable, the Regional Office, along with the Maldives MoH and the WHO Maldives Country Office, organized an informal consultation in Male from 14 to 15 May, attended by climate change and health focal points from all 11 Member States in the Region. The group drafted a Regional Framework for Action for Building Health Systems Resilience to Climate Change (2017–2022), which proposes a health-systemwide approach to address climate change impacts on health, using the WHO building blocks for health systems as a framework. The Regional Framework for Action also recognizes the need to engage with other sectors that affect health, such as the environment, water and sanitation, energy, agriculture and meteorology, in building climate-resilient health systems.

The Ministerial Roundtable was held on 7 September 2017 during the seventieth Regional Committee Meeting and was attended by health ministers or other senior health officials from the 11 Member States. The ministers gave a summary of the initiatives taken in their Member States to address the health impacts of climate change and the actions they would take to strengthen existing efforts. The SEA Regional Director acknowledged the leadership of the health ministers in developing the resilience of the Region to cope with and adapt to the changing climate and promised the support of WHO in implementing the Regional Framework for Action. The Director-General of WHO reiterated that climate and environmental change is one of his priorities in the next five years and expressed his support to the health ministers.

During the Roundtable, the health ministers, the Regional Director and the Director-General signed the Male Declaration on building health systems resilience to climate change, which commits Member States to implement activities outlined in the Regional Framework for Action and commits the Regional Office to support Member States in carrying out these activities. The core action points outlined in the Male Declaration include establishing and strengthening climate change and health information systems and research; integrating climate risks with national disaster risk management; enhancing health sector preparedness for climate-related events, including securing essential services such as water and sanitation, waste management and electricity; and initiating the greening of the health sector by adopting environment-friendly technologies and using energy-efficient services.

An educational video on climate change and health was also developed and made available on the Regional Office website.
3. HIV/AIDS: a downward trend in cases and deaths

The SEA Region has the second highest number of people living with HIV among all WHO regions, with an estimated 3.5 million people. Of them, nearly 1.6 million are on ART. The overall prevalence in the Region is low at 0.3% and has been declining over the years, as have new infections and deaths (Fig. 24). There were an estimated 150 000 new HIV infections in the Region in 2016, down from 350 000 in 2001 (a 57% decline).

Due to the focus on prevention activities, most Member States in the Region have been able to avoid an explosive increase in HIV infections or deaths. About 99% of HIV infections are concentrated in five Member States – India, Indonesia, Thailand, Myanmar and Nepal – and within these Member States, the most cases occur in “key populations” (e.g. men who have sex with men, sex workers, transgender people and people who inject drugs) (Fig. 25). Indonesia, Bhutan and Myanmar have the highest incidence rates in the Region (0.16–0.21%).

Fig. 24: New HIV infections in the SEA Region, 2014–2016
The Region had an estimated 120 000 AIDS-related deaths in 2016, down from 210 000 in 2001 (a 43% decline). However, as seen in Fig. 26, the decline in mortality has stalled in the past few years. National AIDS-related death rates are highest in Bangladesh, Indonesia, Nepal and Bhutan. Increased efforts are needed to diagnose HIV and initiate treatment early to further reduce the number of AIDS-related deaths, especially in these Member States.
A major policy change in 2017 was the adoption of the WHO treat all policy (putting all people who test positive for HIV on ART, regardless of their CD4 count) in all Member States of the Region. This policy change will likely lead to significant increases in the coverage of ART among people testing positive for HIV – estimated at 47% in 2016 – and thus to reductions in new infections and HIV-related deaths.

The Regional Office also reviewed the WHO Global health sector strategy for HIV (2016–2021) and, based on this document, finalized the Regional Action Plan for HIV 2016–2021, which most Member States have used to develop their national strategic plans for the next 5 years. The focus of the regional and national plans is on meeting the global “90–90–90” targets by 2020 (90% of HIV-positive persons know their HIV status, 90% of persons diagnosed with HIV receive sustained ART, and 90% of those on ART achieve viral suppression) as a major step towards ending AIDS as a public health threat by 2030.

The Regional Office, along with WHO headquarters and all UN partners, held a think tank meeting on “Revisiting the Strategies for Interventions among Key Populations for HIV”, which brought together more than 60 experts, partners, donors, and representatives from civil society and key populations. The objective of the meeting was to strengthen the AIDS response in the context of UHC by intensifying the focus on key populations and on “leaving no one behind”. The meeting generated recommendations to guide WHO, other UN agencies, donors, communities and other partners in realigning their HIV programmes to reach those “left behind” and to increase the efficiency, responsiveness and uptake of HIV services, with a focus on key populations.

All Member States in the Region have committed to eliminating mother-to-child transmission (MTCT) of HIV and syphilis. Thailand was validated for eliminating MTCT of both diseases in 2016, while Bhutan, Maldives and Sri Lanka are well on their way towards elimination. Coverage rates for MTCT services in other high-burden Member States are increasing as reporting from the private sector improves.

The Regional Office has also supported HIV drug resistance surveillance in three Member States of the Region under the overall policy on containment of AMR.

**Recent success stories in HIV in the SEA Region**

**India: a continued decline in new infections**

From 2007 to 2015, the annual number of new HIV infections fell by 32%, and from 2000 to 2015 it declined by 66% – from 251 000 cases to 86 000. India has thus achieved Target 6A of the MGDs, which was to halt by 2015 and begin to reverse the spread of HIV/AIDS. After peaking in 2006, the annual number of AIDS-related deaths has also declined by 54% between 2007 and 2015. This was due to better awareness about HIV, early detection and scale up of ART.
**Introducing self-testing for HIV and partner notification in Indonesia**

The MoH of Indonesia has decided to introduce a strategy of HIV self-testing and partner notification, starting in five priority districts in the year 2018. This decision followed a meeting in mid-2017 during which the WHO Country Office presented the WHO *Guidelines on HIV self-testing and partner notification*, published in 2016, to the National AIDS Programme staff, key stakeholders and community organizations involved in HIV/AIDS prevention and care.

Since then, the Regional Office developed training modules for this intervention and several workshops have taken place to identify the types of service points where partner notification can be offered and determine how to offer these services. It was agreed that partner notification will be discussed during post-counselling sessions, during HIV treatment follow up, and by outreach workers when offering support for partner notification to their clients. The most effective strategies will be adopted as this approach is rolled out to other districts starting 2018. Some of the district health services have applied the partner notification approach by collaborating with local communities, CSOs and local NGOs who were part of the 2017 meeting.

**Differentiated service delivery model in Myanmar**

Myanmar is the first country in the Region to develop the concept of differentiated care for HIV services. The HIV/AIDS programme classified all townships in the country according to their HIV burden. Different service delivery models were then developed for high-, medium- and low-burden townships. The model for high-burden townships includes enhanced outreach and HIV testing for key populations, as well as decentralized HIV treatment services at the township and sub-township levels to maximize the continuum of prevention, testing and treatment.

This innovative approach was incorporated into the third National Strategic Plan for HIV/AIDS and into the Global Fund Concept Note, which was approved for funding. This experience is highlighted in the WHO report titled *Prevent HIV, test and treat all – WHO support for country impact: progress report 2016*. Myanmar is also part of the ASEAN Cities Getting to Zero Project and is expanding this from one to three cities.

**Moving ahead on hepatitis**

Viral hepatitis poses a serious public health challenge both globally and in the WHO SEA Region. The Region has an estimated 39 million people living with chronic hepatitis B infection and 10 million people with chronic hepatitis C. Viral hepatitis accounts for over 410 000 deaths in the Region each year, which is more than the number of total deaths in the Region caused by malaria and HIV combined.
With the goal of ending hepatitis as a public health threat by 2030, the Regional Office has developed a Regional Action Plan for Hepatitis (2016–2021), which was endorsed by Member States at the Seventieth session of the Regional Committee for South-East Asia in September 2017.

The Regional Action Plan lays out priority evidence-based interventions by WHO and Member States to strengthen the prevention, control and clinical management of viral hepatitis in the Region. Among the targets for 2020 in the Action Plan for the prevention of hepatitis are that 50% of all injections in Member States are administered with safety engineered devices, 90% of newborns in Member States are covered with the birth dose of hepatitis B vaccine within 24 hours of birth (to prevent MTCT), and 50% of all persons with hepatitis B or hepatitis C infection know their status (through improved testing and diagnosis).

With a major reduction in prices of DAAs for hepatitis C – making very effective treatment for this disease accessible for the first time in the Region – the Action Plan also set a target for 2018 that all high-burden Member States will have registered medicines for hepatitis B and C and negotiated prices; and for 2020 that 75% of all eligible patients diagnosed with chronic hepatitis (B and C) will begin treatment, 90% of hepatitis C patients treated will be cured, and 50% of Member States will include viral hepatitis services in their UHC benefit package.

The *Regional action plan for viral hepatitis in South-East Asia: 2016–2021* and the updated *Strategic Guidance on the Prevention, Control and Treatment of Viral Hepatitis* were disseminated through a regional workshop in April 2017 at the Regional Office, which was attended by programme managers from all Member States in the Region. WHO also prepared an advocacy document (*Viral hepatitis in South-East Asia*) that lays out key interventions to eliminate hepatitis by 2030.
The Regional Office also supported India, Indonesia, Myanmar and Nepal to develop their national strategies and action plans for viral hepatitis. Technical assistance was also provided to Bhutan for nationwide hepatitis B surveillance and to Bangladesh for undertaking an implementation science research study for hepatitis C treatment among people who inject drugs.

With a major reduction in prices of DAAs, the treatment for hepatitis C has become affordable in most Member States of the Region. WHO has supported Member States in developing national action plans to include the treatment for hepatitis B and C and also advocated in Thailand for hepatitis C treatment to be part of the universal health care package.

The experience of India in implementing government-supported hepatitis C treatment programmes in the state of Punjab has been discussed at technical forums as part of sharing good practices. The Regional Office also partnered with TREAT ASIA for the training of national programme managers from Member States on hepatitis B and C diagnosis and treatment.

To boost awareness and intensify action to control the hepatitis epidemic in the Region, the Region appointed internationally renowned actor Mr Amitabh Bachchan as the WHO Goodwill Ambassador for Hepatitis in the Region in 2017. Mr Bachchan lives with hepatitis, and has committed to working with WHO for the cause of preventing the disease in all Member States of the Region.

4. Health laboratory services

Laboratories play a critical role in disease control and containment activities, including in early diagnosis, tracing the spread of infection, initiating treatment and monitoring efforts to control a disease. The WHO Regional Office encourages and supports Member States to develop or review national health laboratory policies and strategies to help ensure political commitment and annual funding for their national health laboratory systems. One Member State that has recently drafted and adopted a national health laboratory policy, with WHO support, is Myanmar.

A primary focus of the Health Laboratory Services (HLS) unit in the WHO Regional Office has been to increase the capacity of national health laboratories in basic and advanced technologies, including serology, polymerase chain reaction and sequencing. WHO organized training courses for laboratory staff in sample collection, processing, packaging, storage and international shipment, as per the UN and International Air Transport Association norms. WHO also provided essential laboratory equipment to Member States to strengthen the infrastructure of public health laboratories, as well as essential laboratory reagents,
as needed. And to support Member States in improving their virus cell culture facilities, the Regional Office also developed and published in 2017 a guidance document on the Use of cell culture in virology in developing Member States in South-East Asia. WHO also supported Myanmar and Bhutan to develop hepatitis testing strategies in line with the Global WHO hepatitis testing strategy.

Recognizing the importance of biosafety in health laboratories, WHO provided technical support to Member States to establish safe laboratory environments. This assistance included helping Myanmar and Indonesia complete draft national biosafety guidelines, and supporting Bhutan in establishing a biosafety-level (BSL)-3 laboratory at the Royal Centre for Disease Control (RCDC) in the capital Thimphu.

To reinforce a “culture of quality” at public health laboratories in the Region, the HLS unit facilitated the participation of national public health laboratories and national blood banks of Member States in the Region under the External Quality Assessment Scheme (EQAS). The Regional Office also continues to facilitate referral diagnostic services to Member States through WHO collaborating centres for confirmation of diagnosis and characterization of isolates.

In the area of blood transfusion services, the Regional Office provided technical assistance to Myanmar to draft a national blood policy and to Maldives to revise their national guidelines on the clinical use of blood. Training was also provided in Timor-Leste for clinicians on the rational use of blood. In addition, advocacy materials, including FAQs, were developed and disseminated to all Member States during World Blood Donor Day 2017 in order to encourage voluntary blood donations and scaling up the implementation of the Global Strategy for Blood Safety.

5. Road safety

Road traffic injuries constitute a major public health burden in the SEA Region, killing approximately 316 000 people each year, which accounts for 25% of the global death toll. Road injuries are the leading cause of death among young people aged 15 to 29 years, and cost governments up to 5% of GDP in low- and middle-income Member States. Pedestrians, cyclists and motorcyclists – the so-called vulnerable road users – make up 50% of traffic-related deaths in the Region, and nearly 80% in some Member States.
The Regional Office has focused its support to Member States on vulnerable road users and the development and robust implementation of legislative tools to address key risk factors (e.g., speed, drink-driving) and promote protective measures (e.g. use of helmets, seat-belts, child restraints). The Regional Office and the Royal Thai Government organized a three-day ministerial-level meeting on Road Safety in the South-East Asia Region from 29 November to 1 December 2017 in Phuket, Thailand to accelerate action on the five pillars of the UN Decade of Action for Road Safety (2011–2020) (namely, road safety management, safer roads and mobility, safer vehicles, safer road users and post-crash response) at both national and subnational levels, with a strong focus on vulnerable road users. The specific objectives of the meeting were: (1) to prioritize road safety actions in Member States and develop innovative strategies to accelerate implementation of the five pillars of the Decade of Action (DoA); (2) to discuss the role of WHO and other partners in supporting Member States in accelerating progress towards the DoA and SDGs on road safety; and (3) achieve high-level advocacy and strengthen political commitment of Member States on road safety.

The multisectoral participation at the meeting, including from ministries of health, transportation and industry; police departments; academia; researchers; and NGOs, enhanced collaboration both between relevant ministries and UN agencies, and among other international and regional organizations involved in road safety to scale up action in the Region. The PHUKET Commitment, outlining actions for Member States and WHO to take to better protect vulnerable road users, was adopted at the meeting.

The High-level Ministerial Meeting on accelerating actions for the implementation of the Decade of Action for Road Safety in Phuket, Thailand
In line with an earlier successful capacity-building workshop in 2016, the WHO collaborative centre at Khon-Kaen University of Thailand, and the JPN Apex Trauma Centre at the AIIMS in New Delhi, held a second training workshop in Khon Kaen, Thailand in November on quality trauma care, attended by 34 experts (clinicians) from four (India, Indonesia, Nepal and Thailand) Member States of the Region. A regional workshop on road safety for journalists was organized at the country office India, New Delhi in June 2017, attended by 29 India-based participants working with organizations having international presence to improve the quality of reporting on road safety in the Region and increase the public’s awareness of the issue.

The Regional Office also provided on-site technical and financial support to several Member States for review of laws and legislation, high-level advocacy, observance of “Road Safety Week” (8–14 May), and capacity-building on road safety. In addition, the Regional Office and WHO country offices contributed to the development of the fourth Global status report on road safety.

6. WHO collaborating centres in the South-East Asia Region

WHO often requires expert advice and engages in scientific or technical cooperation with other institutions. The WHO SEA Region recognizes its collaborating centres (CCs) as an
impressive and valuable network of cutting-edge health institutions – valuable not just to the country in which the CCs are located but also beyond. The underlying philosophy in the relationship between WHO and CCs is collaboration and not outsourcing.

The designation of a new WHO CC or re-designation of an existing WHO CC is based on specific WHO programme needs. As of January 2018, there were 94 WHO CCs in the SEA Region, with the bulk of them located in India and Thailand (Fig. 28). These centres are located in more than 65 institutions across 42 cities in the Region.

Fig. 28: Number of WHO collaborating centres in the South-East Asia Region, by country, 2017

WHO technical units recognize CCs as an important resource they have at their availability to achieve their objectives as per the WHO Programme Budget. The work of the CCs is spread across multiple disciplines or areas of public health, including health promotion and education, research policy and development, MCH, TB, zoonotic diseases, reproductive health, injuries, and communicable diseases and surveillance, among others. To further strengthen the relationship between WHO and the CCs, a detailed evaluation of the collaboration between WHO and the centres has been initiated with the aim of developing a strategy to more fully involve the centres in planning and carrying out WHO activities.

Promoting health research in the Region

The South-East Asia Advisory Committee on Health Research (SEA-ACHR) has long played a valuable advisory role in the Region in guiding and shaping the Regional Office's health research agenda and activities. The ACHR is made up of experts from the Region's 11 Member States, who are appointed by the WHO Regional Director.
The 35th Session of the Advisory Committee was held on 24–26 October 2017 in New Delhi, India. This was not a “business-as-usual” meeting but instead was a far-reaching review of how the Advisory Committee can effectively support the Regional Office in developing and executing a roadmap for health research that aligns with the Region’s priorities, particularly the eight Flagship Priority Areas. The meeting brought together 13 Advisory Committee members and 40 technical experts, development partners and WHO officials. Four commissioned background papers were shared in advance, focusing on a review of the current SEA-ACHR framework and functioning and mandate of the Committee, capacity-building in research, research financing, and a regional strategy on research for health. The discussions led to the successful development of a revised vision and roadmap for the SEA-ACHR.

Activities and expected outcomes outlined in the recommendations include the following:

- development of a revised framework and SOPs for the SEA-ACHR;
- establishment of an effective Secretariat for the Advisory Committee within the Regional Office;
- benchmarking and ongoing assessments of the capacity of Member States of the Region to conduct health research and thereafter addressing the identified gaps in capacity to conduct research on health;
- development of a Regional Strategy on Research for Health, 2018–2021;
- development of an online regional portal and “virtual marketplace” for health research;
- conduct of a situational assessment of health research financing and a study of resource needs;
- conducting a feasibility assessment for establishing a health research fund.
This report describes the work of the World Health Organization in the South-East Asia Region during the period 1 January–31 December 2017. It highlights the achievements in public health and WHO's contribution to achieving the Organization's strategic objectives through collaborative activities. This report will be useful for all those interested in health development in the Region.