This report describes the work of the World Health Organization in the South-East Asia Region during the period 1 January – 31 December 2016. 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 2016
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<tr>
<td>ACT</td>
<td>artemisinin-based combination therapy</td>
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<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>
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<tr>
<td>AFT</td>
<td>ASEAN Forum on Taxation</td>
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<tr>
<td>AIIMS</td>
<td>All India Institute of Medical Sciences</td>
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<tr>
<td>AMR</td>
<td>antimicrobial resistance</td>
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<tr>
<td>ANMs</td>
<td>auxillary 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>ASHAs</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>
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<tr>
<td>CKDu</td>
<td>chronic kidney disease of unknown etiology</td>
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<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>
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<tr>
<td>WCO</td>
<td>WHO country office</td>
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<tr>
<td>COPD</td>
<td>chronic obstructive pulmonary disease</td>
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<td>CRS</td>
<td>congenital rubella syndrome</td>
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<td>CRVS</td>
<td>civil registration and vital statistics</td>
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<td>CSOs</td>
<td>civil society organizations</td>
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<tr>
<td>DFAT</td>
<td>Department of Foreign Affairs and Trade</td>
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<tr>
<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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<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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<tr>
<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>
</tr>
<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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</table>
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
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
MDA  mass drug administration
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<th>Term</th>
<th>Definition</th>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MDR-TB</td>
<td>multidrug-resistant TB</td>
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<td>MDSR</td>
<td>maternal death surveillance and response</td>
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<td>MDT</td>
<td>multidrug therapy</td>
</tr>
<tr>
<td>MERS-CoV</td>
<td>Middle Eastern Respiratory Syndrome-Coronavirus</td>
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<tr>
<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>
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<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>
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<tr>
<td>MPDSR</td>
<td>maternal and perinatal death surveillance and response</td>
</tr>
<tr>
<td>MR</td>
<td>measles and rubella</td>
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<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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<tr>
<td>NCDs</td>
<td>noncommunicable diseases</td>
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<tr>
<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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<tr>
<td>NHI</td>
<td>National Health Insurance</td>
</tr>
<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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<tr>
<td>NIEM</td>
<td>National Institute for Emergency Medicine</td>
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<tr>
<td>NIHRD</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>
</tr>
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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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<tr>
<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<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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<td>PCV</td>
<td>pneumococcal conjugate vaccine</td>
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<td>PEN</td>
<td>Package for Essential NCDs</td>
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<tr>
<td>PHEDMa</td>
<td>public health emergency and disaster management</td>
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<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>PPE</td>
<td>personal protective equipment</td>
</tr>
<tr>
<td>RC</td>
<td>Regional Committee (of WHO)</td>
</tr>
<tr>
<td>RMNCAH</td>
<td>reproductive, maternal, newborn, child and adolescent health</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>RO</td>
<td>Regional Office (of WHO)</td>
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<td>RRTs</td>
<td>rapid response teams</td>
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<tr>
<td>RSBY</td>
<td>Rashtriya Swasthya Bima Yojana</td>
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<tr>
<td>RSSY</td>
<td>Rashtriya Swasthya Surakhsha Yojana</td>
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<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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<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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<td>SEARN</td>
<td>South-East Asia Regulatory Network</td>
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<tr>
<td>SHOC</td>
<td>Strategic Health Operations Centre</td>
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<tr>
<td>SMOs</td>
<td>surveillance medical officers</td>
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<tr>
<td>STEPS</td>
<td>WHO STEPwise approach to surveillance</td>
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<td>STH</td>
<td>soil-transmitted helminths</td>
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<tr>
<td>SWAp</td>
<td>sector-wide approach</td>
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<td>TAG</td>
<td>technical advisory group</td>
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<td>Thai FDA</td>
<td>Thai Food and Drug Administration</td>
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<tr>
<td>TPP</td>
<td>Trans-Pacific Partnership</td>
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<tr>
<td>TT</td>
<td>tetanus-toxoid</td>
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<tr>
<td>UHC</td>
<td>universal health coverage</td>
</tr>
<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>
</tr>
<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>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
</tr>
<tr>
<td>US CDC</td>
<td>United States Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>VPDs</td>
<td>vaccine-preventable diseases</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<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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</tbody>
</table>
The WHO Regional Director for South-East Asia, Dr Poonam Khetrapal Singh, at a Basic Health Unit in Bhutan
The theme that runs through the opening chapter of this year’s report is that the face of public health in our Region is changing in unprecedented ways.

We are tantalisingly close to conquering health threats that have been with us for centuries. But we know they are being replaced by new and even greater challenges. And, too often, the new threats are with us before the old have been fully laid to rest. Our environment is being transformed. Climate change, if not held in check, threatens life and livelihood, and – at the extreme – the very existence of some of our countries. Urbanization brings many blessings, but too often they are shrouded in a toxic cloud of life-threatening pollution. Rapid social and demographic change means new norms of behaviour, new ways of conducting relationships, new demands for health care and changing public expectations that challenge old assumptions about the roles and responsibilities of the state, the private sector and medical professionals. People’s health is an increasingly hot topic for all governments – no longer consigned to the end of the cabinet agenda – and no longer of interest to just one minister alone. Good health will always depend on good science, but it is becoming
increasingly clear that it depends even more on sound, and evidence-based, political choices.

As we look to the future, and think about the implications for how we work together, these are some of the themes I want to explore in this report. But it is important to remember that in part it is through our own efforts – as the Member States and the Secretariat of WHO – that the face of public health is changing. We therefore should review – with real pride – what we have achieved. The results discussed in the sections that follow show that while there is an unfinished agenda from the MDGs, we are already making progress against some of the health-related Sustainable Development Goals.

**Commitments made, commitments delivered**

Life expectancy continues to rise in the South-East Asia Region. It is now 68.9 years and has risen by 3.5 years per decade since the year 2000. In 2015, three million fewer children died before their fifth birthday and almost 150 000 fewer women died as a result of childbirth in this Region than was the case in 1990. As a result of more than 1.4 million people having access to treatment for HIV/AIDS there were 70 000 fewer deaths in 2015 than there were a decade before, and almost 180 000¹ new infections have been prevented. There are many other examples we could cite to show steady progress across our Region, but equally there are many challenges, not least in terms of inequities within and between countries. Around 130 million people in the Region still lack access to essential services, and more than 60 million people are pushed into poverty each year as a result of health-care costs. A special review of inequities in health is included as a special feature in this report.

¹ www.aidsdatahub.org

*H.E. Dr Rajitha Senaratne, Minister of Health, Nutrition and Indigenous Medicine, Sri Lanka, and Dr Poonam Khetrapal Singh, Regional Director, laying the foundation stone for the MoH building*
When I assumed office as Regional Director in 2014, I saw the need to focus our work. By our estimates, the Region as a whole spends around US$ 148 billion\(^2\) a year on health, while WHO spends a little over US$ 140 million – around 0.001% of the total. While I will continue to make the case that both parties – government and WHO – should spend considerably more, the case for prioritization is obvious.

Based on my interactions with Member States I set out seven Flagship Priorities (see Box 1). They do not comprise the totality of our work. Rather, they represent issues where WHO can make a difference in terms of technical knowledge, convening power and advocacy. They combine areas where rapid health impact is possible, particularly in relation to neglected tropical (NTDs) and other communicable diseases; areas of global importance where action and solidarity across the Region is urgent, notably antimicrobial resistance; areas in which the Region has particular vulnerabilities, particularly risk management for emergencies; and priorities of concern to all countries worldwide, such as tackling NCDs and making progress toward universal health coverage (UHC). It is no accident that the Flagships closely align with several of the targets under SDG 3.

**Box 1. The seven Flagship Priorities**

- Measles elimination and rubella/CRS control by 2020.
- Prevention of noncommunicable diseases through multisectoral policies and plans – focus on “best buys”.
- The unfinished MDGs agenda: Ending preventable maternal, newborn and child deaths with focus on neonatal deaths.
- Universal health coverage with focus on human resources for health and essential medicines.
- Building national capacity for preventing and combating antimicrobial resistance.
- Scaling up capacity development in emergency risk management in countries.
- Finishing the task of eliminating diseases on the verge of elimination (kala-azar, leprosy, lymphatic filariasis, schistosomiasis and yaws).

**Neglected tropical and communicable diseases**

While NTDs do not make a major contribution to the regional burden of diseases, they are a blight on the lives of the poorest. This year Sri Lanka and the Maldives were verified to have achieved lymphatic filariasis (LF) elimination as a public health problem. Thailand has completed the final assessment survey prior to validation and Bangladesh is in the post-mass drug administration (MDA) surveillance phase. India has stopped MDA in 91 districts removing over 209 million people from the pool requiring treatment. India has become

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\(^2\) Global Health Expenditure Database, July 2017
the first country to be verified as yaws-free. As we approach the final stages in these and other diseases such as kala-azar, we see how investments in close monitoring and IT innovation are bearing fruit.

Eliminating a disease such as LF is the most literal way in which we are changing the face of public health. A disease that is no longer a problem frees up investments to address the next generation of challenges. Beyond NTDs we are seeing success in other communicable diseases: two countries – Sri Lanka and the Maldives – are now certified as malaria-free: a huge achievement. In 2016, Thailand was certified as having eliminated mother-to-child transmission of HIV and congenital syphilis, the first country in Asia to do so. In 2016, after validation of Indonesia, the SEA Region was declared to have eliminated maternal and neonatal tetanus, the second WHO region to do so. Our Region is polio-free and we will continue to do everything for it to remain this way. The biggest prize, of course, is a world free of polio. We are close: sustaining the political will and the necessary resources is now in the interests of all of us.

Measles elimination by 2020 and rubella control is another Flagship Priority. Both diseases remain a serious public health concern, but we are seeing progress: significant increases in coverage of immunization, particularly for the second dose of measles vaccine; a 61% drop in measles incidence; and since 2000 a two-thirds decrease in mortality. While reducing the number of deaths is the bottomline in any disease control programme, there are other results that we should highlight – for instance the capacity to improve surveillance and conduct the kind of subnational risk assessment that enabled Indonesia to conduct crash-immunization in 183 districts when it was urgently needed.
The unfinished MDG agenda: preventable maternal, newborn and child deaths

Our Region has seen remarkable progress in reducing child and maternal mortality. Indeed, the reduction in maternal deaths per 100 000 live births from 525 in 1990 to 164 in 2015 – a decrease of 69% – is the greatest among all WHO regions and compares with a worldwide decline of 44%. Six countries (Bangladesh, Bhutan, Indonesia, Maldives, Nepal, Thailand) achieved the MDG 4 child mortality target and four countries (Democratic People’s Republic of Korea, Maldives, Sri Lanka and Thailand) have child mortality rates below 25 per 1000 live births, the global target for the SDGs. Similarly, Sri Lanka and Thailand have levels of maternal mortality below the global SDG target for 2030.

These results speak for themselves, but as with any “unfinished agenda” the closer to the goal we get, the more effort is required to achieve results: reaching unimmunized children, tackling stubbornly high rates of neonatal mortality, and increasing institutional deliveries. But here too we are seeing progress: stronger partnerships across global health partners (H6 UN agencies – UNICEF, UNFPA, UN Women, UNAIDS, the World Bank and WHO) to promote greater synergy and coordination of approaches; better data for surveillance of neonatal mortality, birth defects and still births, reporting on 1.2 million births from 180 hospitals across 10 Member States; demand-side initiatives that promote safer delivery through cash transfers in India, Bangladesh, Myanmar, Nepal and Sri Lanka; increasing access and reducing costs to women by extending universal health coverage; and increasing the focus on home visits for postnatal care – wherein pilot districts in Bhutan have shown the potential for remarkable decreases in neonatal mortality.

Noncommunicable diseases

In terms of disease burden, noncommunicable diseases (NCDs) are not declining. Far from it, the threat they pose to individuals, communities, health systems and to national economies is increasing. But – and this is important – it does not mean we cannot talk about results and achievements. Once again we see that the face of public health across the Region is changing. Work on NCDs is no longer confined to under-resourced departments in our ministries of health. NCDs have demonstrably become everybody’s business; they are now a headline concern for heads of state and government. All countries in the Region have multisectoral action plans. Bhutan, Nepal, Sri Lanka and Thailand have convened high-level committees to monitor and support multisectoral action. We see new efforts to monitor achievements, for example in India. In Bhutan NCDs now appear in the annual performance indicators for local government. Work is extending from government across societies, expressed in several countries (India, Sri Lanka, Thailand) in the form of new NCD alliances, which bring together stakeholders from all sectors with community representatives and academia.
We can say with some confidence that these actions taken together constitute a solid platform for action, but it is the actions themselves that matter. Here too we see progress. Significant increases in taxation on tobacco (40%) and sugary drinks (20%) in the Maldives; important survey work to highlight risk behaviours in school-age children in Bhutan, Myanmar and also the Maldives; new anti-tobacco legislation (and a major drop in male smoking rate) in Democratic People’s Republic of Korea; legislation to control the marketing of food to infants and young children in Thailand, developed in partnership with UNICEF; the roll-out of HPV vaccines in several countries; and collaboration between the Ministry of Health and Ministry of Electronics and Information Technology in India resulting in 8.5 million contextualized messages to registered diabetics. The country reports in Part 2 of the report provide many more examples.

Preventing antimicrobial resistance

If there is one thing that could change the face of public health out of all recognition – and in a way that could cause untold damage – it is antimicrobial resistance (AMR). A recent risk assessment suggests that South-East Asia is likely to bear the highest burden worldwide. The signs are already there: spreading artemisinin resistance from the greater Mekong Region; multidrug-resistant TB in the Democratic People’s Republic of Korea and many other countries in the Region; and increasing rates of hospital infections from methicillin resistant staphylococcus aureus (MRSA) and other so-called drug-resistant “superbugs”.

At a global health security meeting in Bali, Indonesia
We have made progress. AMR is on the global agenda at the highest level. We have the backing of a World Health Assembly resolution. In the Region, two high-level meetings this year, one in India and the other, a bi-Regional meeting, in Japan have set out a clear roadmap for the development of national action plans. WHO has supported 10 out of the 11 Member States of the Region to undertake a situation analysis as a prerequisite for developing context-specific plans. Bhutan and Thailand have completed their action plans and established multisectoral governance structures. Another seven Member States are in the process of plan preparation, aiming to complete the process by May 2017. As with NCDs we have an increasingly solid platform for action, and I am confident that we can soon deliver more concrete results. But we must be aware of the nature of the challenge.

Recognition of the problems caused by AMR has been around for almost as long as antimicrobials themselves, so why is it so difficult to address them? The answer lies in the number of interests at stake. While many ministries of health are well aware of the problem, their colleagues in agriculture and fisheries too often remain in denial, insisting on proof of health impact rather than accepting the need to apply precautionary principles. Changing farming practice – where antibiotic use is widespread – means confronting huge economic and commercial interests. Even in the health sector, doctors are some of the worst offenders, too often claiming justification for antibiotic abuse on the grounds of clinical freedom. But even if clinical practice improves in public facilities, over-the-counter use of antimicrobials (including sub-standard products) in the private retail sector, will undermine even the most well-intentioned and rigorously enforced clinical guidelines.

Perhaps this would all matter less if there were a steady R&D pipeline of new antimicrobials. But there is not. No new classes of antibiotics have been discovered since 1987. Why? Because there is no market incentive for pharmaceutical companies to make this a priority. In conclusion, we see a combination of health systems failure, market failure and a failure of intersectoral action with deadly consequences for peoples’ health. AMR is quintessentially a governance issue, and addressing governance issues of this degree of complexity is, in my view, a key aspect of the changing face of public health.

**Emergency risk management**

The success of a programme that seeks to prevent the worst health consequences in emergencies can only really be seen when disaster strikes. Our response was severely tested and emerged with credit during the 2015 earthquake in Nepal. In 2016, Typhoon Lion-Rock struck the northern part of Democratic People’s Republic of Korea causing flash floods and landslides, displacing 60 000 people. With support from international partners, and with WHO leading the health cluster, the government took immediate relief measures with the result that within three months 18 000 homes and 34 health-care facilities were rebuilt, so that primary care continued to be delivered throughout the recovery period. In
addition, WHO provided technical and financial support during floods affecting Bhutan, Myanmar and Sri Lanka and ensured a well-coordinated response following the December earthquake in Aceh, Indonesia.

While work on the ground is what matters most to people, its success is completely dependent on preparedness – ensuring that both WHO and the countries we support have in place the structures, systems and materials needed to manage acute risks to health. Following the challenge of Ebola, WHO has gone through a phase of consolidation and reorganization. Changes in the global programme have been mirrored in the Region with the creation of a new department that brings together key elements of our emergency response: infectious hazards management, including the secretariat of the Pandemic Influenza Preparedness Framework; country health emergency preparedness, including the secretariat for the International Health Regulations (2005); health emergency and risk assessment; emergency operations, including operational partnerships and logistics; and emergency operations management and external relations.

Four countries (Indonesia, India, Sri Lanka and Thailand) declared compliance with the IHR Core Capacity requirements. A new IHR monitoring and evaluation framework was used as part of a Joint External Evaluation (JEE) to assess progress in several countries prior to State Party Annual Reporting (SPAR). This exercise, which was completed in Bangladesh, is followed by an action review and simulation exercise. Indonesia, having chaired the Global Health Security Agenda Steering Committee, hosted a key high-level meeting on Advancing Global Health Security to maintain momentum in this area and encourage countries to translate commitments into concrete action.

As the convener of the health cluster during emergencies, well-managed relationships with partners are an essential component of WHO’s leadership. A regional meeting at the end of 2016 with all 11 countries and key partner agencies ensured that all concerned are fully abreast of developments in the fast moving field of disaster risk management. More important, as a result of this meeting, we now have a clear sense of specific capacity and training needs in each country in the Region.

Universal health coverage

My report last year focussed on universal health coverage (UHC) both as a key element of the Sustainable Development Goals and as a Regional Priority. It is exciting to see in just a year quite how much has happened. UHC is increasingly accepted across the Region as the basis of health sector policy and planning and as a unifying platform for measuring progress on all SDG 3 targets. In other words, the key elements of UHC – access to services, financial protection and leaving no one behind – have become the driving principles that underpin everything we are doing and all major programmes in the health sector.
In Bangladesh, WHO has supported the development of the fourth Health, Nutrition and Population Sector Plan and the accompanying investment strategy and implementation plan. In India, the principles of UHC underpin the soon-to-be completed 15-year vision plan. More immediately in India, work has been completed on a detailed review of health financing architecture that will inform the National Health Protection Scheme. In Myanmar, likewise, UHC – based on an essential packages of services – forms the basis of the new National Health Plan.

Two UHC indicators developed by WHO and the World Bank have now been adopted for SDG monitoring: a summary coverage index of essential services and the incidence of catastrophic expenditure as a measure of financial protection. With agreement on indicators, WHO is now in a position to track progress on UHC across the Region. The first Region-wide assessment appeared in 2016\(^3\) providing a quantitative assessment of coverage of 16 service-related indicators and data on out-of-pocket expenditure (data on catastrophic expenditure is available in only half of SEA Region countries). The data showed wide variation between countries with scores on service access ranging from a low of 47/100 to a high of 82/100.

\(^3\) As an indicator of Member State and public interest in UHC and the SDGs, the publication *Health in the Sustainable Development Goals: where are we now in the South-East Asia Region?* (WHO 2016) was the third most downloaded publication in the whole of WHO in 2016, overtaken only by last year’s Regional Director’s Report for South-East Asia and the 2016 World Health Statistics.
To consolidate work on measuring the health-related SDGs, a regional meeting was planned and held in early 2017 to bring together country representatives to get the latest updates on SDG indicator targets; identify ways of incorporating them into national health measurement and accountability frameworks; and to discuss challenges of data quality, disaggregation and analysis. While in many parts of the world discussions on monitoring are just beginning, it was indicative of the traction that UHC has in our Region that several countries have had their own national discussions on monitoring and measurement.

As part of our focus on UHC I have put particular emphasis on access to medicines and human resources for health (HRH). Medicines are a major component of out-of-pocket expenditure in this Region, which our SDG monitoring shows to be still unacceptably high. A new initiative – the South-East Asia Regulatory Network initiative (SEARN) – will focus on building national regulatory capacity as a means of increasing access to safe, high quality medical products. Human resources for health (HRH), despite a great deal of work, remains a challenge in nearly all countries. There is little evidence that retention rates are improving (one of the major indicators of success) and there remains a chronic shortage of reliable data on which to base policy and inform management. It is an area in which we all have much more work to do.

The work of WHO: contribution, not attribution

This brief review shows that together we can deliver impressive results. You will see more detail both in the individual country reports that follow and in the last chapter on the Flagships and other selected programmes. It goes without saying that the credit for improvements in health outcomes and for putting in place the structures, systems, materials and people that make those improvements possible goes to the countries concerned. At the same time, it is important to say a word or two about the contribution of WHO. As I said at the outset, in both absolute and relative terms our financial contribution is tiny in relation to what is spent by the combined resources of governments, the private sector and civil society. Nevertheless, I am confident that by focusing on where we achieve the greatest multiplier effects, we are now more effective in using our scarce resources as a catalyst for change.
Let me start with two examples from India. This year WHO provided technical assistance for the design and implementation of the world’s largest HIV bio-behavioural surveillance, which will lead to a refined understanding of the epidemic and have a lasting impact on the national programme (and, I am sure, other national programmes) in the future. Secondly, WHO provided strategic policy support for setting up the pharmacovigilance systems required for the roll-out of a new drug – Bedaquiline – used specifically to treat drug-resistant TB. The results will be of value to India, but equally to the fight against MDR-TB worldwide.

WHO rarely works alone, and is increasingly active in creating partnerships between countries in the Region and beyond. There is an example from Sri Lanka where the Thailand Health Intervention and Technology Assessment Programme (HITAP), the Sri Lanka National Authority on Tobacco and Alcohol (NATA) and the Sri Lanka Medical Association (SLMA) developed a methodology for calculating the combined economic costs of tobacco and alcohol to society in Sri Lanka. Their estimate of US$1.46 billion a year or 1.95% of GDP expresses the problem in ways that will influence finance ministers, and not just in Sri Lanka. This facilitation between countries goes beyond the Region with Cuba supporting Timor-Leste on health services and health human resources development.

WHO facilitates many links between countries through regional meetings, but direct hands-on exchange of experience in times of stress can be even more influential. This happened when Nepal’s Country Office supported Sri Lanka during recent floods and landslides, when officials from Bhutan came to learn from Nepal’s experience in earthquake preparedness, and when Indonesia helped Maldives in pre-departure preparation for the annual Haj, when Bangladesh went to Sri Lanka to observe and learn from best practices in UHC and NCDs, and when faculty members from Pyongyang Medical College of Kim Il Sung University went to India and Thailand to receive hands-on training in field epidemiology and teaching method in order to start their National Field Epidemiology Training Programme.

With economic growth and institutional maturity (another aspect of the changing face of public health), countries’ needs for support change, as seen in this example from Indonesia. For the introduction of HPV vaccine as part of the school-based immunization programme in Jakarta province, the cost of vaccines is wholly borne by government (but using WHO pre-qualified vaccines). The role of WHO in the country now focuses on vaccination guidelines, and support for follow-up studies, the outcome of which will inform the further roll-out in other parts of the country.

We saw a further example of how WHO’s work is changing in the section on Universal Health Coverage and increasing access to safe and affordable pharmaceuticals: decreasing reliance on global pre-qualification of a limited number of medicines and instead building capacity at country level for effective national regulatory authorities, which can handle a much wider spectrum of medical products and technologies.
We have seen in the review of results the practical application of several of WHO’s core functions in the Region: for example, templates for preparing multisectoral action plans (for AMR and NCDs); a monitoring framework for tracking progress on the health SDGs, where SEARO has led the way for others; a new framework for monitoring and evaluation of IHR Core Capacities; and several others.

Lastly, WHO is a convener. I have reduced the number of meetings, so that the ones we do have really matter and make a genuine difference. But in addition to our technical meetings WHO – particularly through the Regional Committee – is an increasingly influential hub for health governance in the Region. What we agree – on priorities, on challenges, and on ways in which we hold each other accountable – matters more and more, within the countries of the Region and beyond. It is also the case that WHO can help by sometimes taking a long-term view. Our ministries of health have to focus on immediate needs; planning horizons are short and inevitably influenced by electoral cycles. But public health in the modern world needs to look ahead – sometimes over the horizon – to assess trends and threats and their impact for how we work in the future. I want us to capitalize on this strength.

Looking to the future

Before closing, I want to return to my main theme: the changing face of public health in our Region.

Perhaps the most fundamental and positive change is the shift from a limited number of discrete Millennium Development Goals (MDGs) to the much wider range of interdependent Sustainable Development Goals (SDGs).

I started this report by listing health challenges: the growing threat of non-communicable diseases, the health impacts of climate change, environmental pollution and unplanned urbanization; and the new demands that result from changing societal norms, public expectations and ageing populations. But there is more: the mounting toll of death and disability on our roads; the persistent challenge of hunger for some and over-nutrition for others; the scandalous neglect of mental health; the blight on communities caused by the traffic in narcotic and other drugs of abuse; the plight of migrants, the victims of human traffickers, and others forced to leave their homes by conflict and adversity; and the market and systems failures that underpin AMR and the lack of access to safe affordable medicines and technologies. Public health does not stand still. The list is long, but all these health-related issues find their place in the SDGs. The 2030 Sustainable Development Agenda is therefore of vital importance to health and to the governments of our Region. And I believe that it has the potential to change the way we work.
It is beyond the scope of this report to look at all these issues in detail, but we can already see basic components of a new health agenda taking shape. In simple terms, for each issue we need to think about three elements. First, the role of the health sector: what can be achieved through the most effective, equitable and efficient deployment of resources for preventive, curative, promotive and rehabilitative health care? Second, what health outcomes are dependent on policy and action by other sectors and actors, and what can be done to make them happen? Third, there is a set of crosscutting concerns that underpin both of the other two components: respect for human rights; a concern for equity (no one to be left behind); the primacy of evidence as the basis for decision-making, evaluation and accountability; and the need for investment in research and development.

An effective health sector that delivers equitable results

In our rush to embrace the inter-dependence of the SDGs we must not overlook the importance of the traditional health sector, which will remain the primary concern of most ministries of health. We have seen from the review of results that there is much that remains to be done: completing the elimination of NTDs; further reducing maternal, newborn and child mortality; and sustaining the gains we have made in malaria and HIV/AIDS. Several country reports in the next chapter show that we have underestimated the threat posed by tuberculosis.

But our future work in the health sector is not just more of the same and business as usual. We need to reconfigure service delivery so that clinics and hospitals can deal with multiple pathologies and continuity of care, particularly for those with chronic diseases and for the elderly. We need mature and carefully managed partnerships with the private sector, which can help deliver public health outcomes. We need new staffing profiles for the prevention and care of NCDs at the frontline. We need financial incentives that reward prevention, wellness and, increasingly in some countries, cost containment. And – the most critical factor – the health sector has to be adequately financed. Governments have to
make more effort, both to raise revenues (currently only about 15% of GDP) and spend more of this income on promoting better health (only four countries spend more than 10% of their public sector budget on health). Unless we see sustainable change, people will continue to face potentially impoverishing out-of-pocket expenditures when they fall ill.

Universal health coverage is our key instrument of change. Its primary intent is to ensure service access and financial protection, but it has broader implications for the organization of health programmes in governments and, indeed, in WHO. For UHC to fulfil its potential requires that all programmes are managed in ways that support overall national health strategies, rather than pursuing a set of separate and disparate objectives. UHC is about the health sector as a whole and all its programmes – not just the building blocks of health systems strengthening.

Lastly, while UHC by definition is concerned with equity, the way universality is interpreted in practice matters greatly – particularly in countries with refugee or other migrant populations that risk being excluded from health care, especially if they are not afforded the same rights as full citizens. For health to be a human right it must be accessible to all. This is the true meaning of universality – a concept that lies at the heart of the Sustainable Development Agenda.

**Health governance beyond the health sector: a practical approach**

Many of the health targets included as part of the SDGs require action both in the health sector itself and beyond. Resilience in the face of emergencies requires a strong health sector, but also strong links with many other parts of government. Tackling NCDs requires effective preventive and curative health services. But to reduce the most important risk factors needs action in other domains: taxation, advertising, food and beverage marketing, promotion of exercise and many others. Similarly, an ageing population will place new demands on health-care providers and require better access to assistive technologies, but a healthy and productive old age will depend equally on pension, taxation and employment policies, urban planning, transport and connectivity. When it comes to road traffic injuries, the role of the health sector, at best, is just to repair and rehabilitate – literally picking up the pieces. The real action to prevent the damage – reducing drink driving and excess speed, vehicle and road maintenance, driver and passenger safety – takes place elsewhere.

This element of the Agenda builds on the familiar themes of “intersectoral action” and “health in all policies”, but if we are to take the SDGs seriously we need to go further. In many areas we already have multisectoral action plans. But too often they are seen as being of primary concern to the ministries of health that organized their preparation; their impact on the rest of government is limited.

We need to build on the solid platform provided by the SDGs and develop a more practical agenda – issue by issue. There are also lessons to be learned from what we have
achieved so far. Progress in the fight against tobacco has required an absolutely ruthless focus on a few key outcomes (for example, in the areas of taxation, marketing and packaging). Ministries of health have been powerful advocates for change, but the key decisions are made at different levels of government.

We need to build coalitions for change. The example from Thailand in which the 10 Embassy Friends of Road Safety, supported by WHO, have successfully made the case for legislative change to Cabinet – based on their shared interest in safer roads – is a great initiative.

As I said at the beginning of this report, good health is a product of good political decisions. And good political decisions require a deeper understanding of the interests of all those involved – in building age-friendly societies, in preventing the further spread of antimicrobial resistance and, indeed, ensuring that the health sector is adequately financed. Advocacy and good intention is no longer enough. Together, we have to become more effective champions for peoples’ health.

The responsibility for policy will always rest with governments, but the changing face of public health will require new ways of working in WHO: creating new forms of partnership and building effective coalitions; at regional level, carrying out and commissioning analysis and research that provides policy-makers with the information they need to make their case; and, at country level, a widening network of relationships across government, civil society and academia.

The combination of a more equitable and effective health sector, more practical and issue-focused work across society to promote health, and continuing insistence on equity and rights, backed by good science, evidence and research represents the way forward. We have a long road to travel, but our agenda in this Region becomes increasingly clear.
The Regional Director with Sulabh schoolchildren in Delhi, India
A central aspiration of the SDGs is to “leave no one behind”. They emphasize the need to reduce avoidable inequality. Inequalities can be looked at in many different ways. In health, the most common ways are to look at inequalities in overall health; determinants of health and health service coverage by income group, by sex, by age, by education, and by place of residence. Even for these, data are currently quite limited. Before moving on to the country-specific reports, we will examine here “Who is being left behind in the SEA Region?”

1. Inequalities in health

Health-related inequalities exist within all countries in the SEA Region. This is true for the “unfinished MDG agenda”, and for new challenges such as noncommunicable diseases. The degree of inequality varies between countries as well as within a country by the variable analysed. The following two graphs (Fig. 1a and Fig. 1b) illustrate the current situation in SEA Region countries.
Tobacco use is currently from two to 13 times more common in men than women, depending on the country. By contrast, obesity is roughly twice as common among women compared with men.

**Figure 1a:** Under-five mortality varies by income group: variations in eight countries in SEA Region

![Figure 1a: Under-five mortality varies by income group: variations in eight countries in SEA Region](image)

**Source:** DHS or MICS 2009-2016

**Figure 1b:** Mortality from noncommunicable diseases is higher in men than women: trends in overall and premature NCD mortality by sex in SEA Region, 2000–2015

![Figure 1b: Mortality from noncommunicable diseases is higher in men than women: trends in overall and premature NCD mortality by sex in SEA Region, 2000–2015](image)

**Source:** WHO Global Burden of Disease 2015

The risk of premature mortality from NCDs is higher in men than women in all countries in the Region. The gap is wider for premature mortality than for overall mortality. The gap has not narrowed over the last 15 years.

2. Inequalities in determinants of health

The burden of disease from noncommunicable diseases is growing in SEA Region countries. For two major NCD risk factors, there are important differences by sex, which have implications for policy action. Tobacco use is currently two to 13 times more common...
among men than women, depending on the country. By contrast, obesity is roughly twice as common among women compared with men (Fig. 2). There are no significant differences in two of the other major NCD risk factors – raised blood pressure and raised blood glucose – between men and women.

**Fig. 2: The prevalence of two major NCD risk factors varies by sex**


3. **Inequalities in health service coverage in SEA Region**

Despite progress, many are still not getting the health services they need in the South-East Asia Region. A conservative estimate in 2016 was that at least 130 million lack access to one or more essential health services, with more lacking access to quality care.

Two important questions are: what are the gaps in service coverage, and who is being “left behind”?

The UHC services coverage index is a summary measure of coverage across a range of key services, grouped into four categories: reproductive, maternal, newborn and child health; infectious diseases; noncommunicable diseases; and service capacity and access. Figure 3a shows variations in service coverage across SEA Region countries and for the Region (57), updated for 2017 using most recent available data. All SEA Region countries still have gaps to address to reach full coverage, but – not surprisingly – some are nearer that target than others.

A conservative estimate in 2016 was that at least 130 million lack access to one or more essential health services.
Does access to care vary by income, by level of education or where people live? Existing regional data shows variations for all three stratifiers, with the largest variations being by income and education level.

*Fig. 3a:* Variations in service coverage across countries: UHC services coverage index of essential health services (last updated in June 2017)

Source: *Monitoring the Health in the Sustainable Development Goals: 2017 update*

*Fig. 3b:* Variations in overall health service coverage in SEA Region, by income, urban/rural and education

Source: *DHS or MICS 2009–2016*

The figures above illustrate inequalities in health, in risk factors and in health services in the South East Asia Region from currently available data. At the 2017 Regional Technical Consultation on Monitoring the Health-Related SDGs there was agreement on the need to make improving the availability, analysis, and use of disaggregated data a priority, in order to better monitor progress on “leaving no one behind”. Better information will allow more evidence-informed policy actions to improve health equity in the Region.
Bangladesh

Highlights

- New five-year health sector plan completed to put Bangladesh on the path towards universal health coverage and to achieve the health-related SDG.
- Essential health service package developed and essential drugs list updated as key components of the new health sector plan.
- Nation-wide TB prevalence survey confirms continued high TB burden in Bangladesh.
- First entomological survey of the *Aedes aegypti* mosquito that transmits dengue, Zika and chikungunya completed.
- Bangladesh introduced case-based surveillance for kala-azar and is on track to eliminate the disease.
- Pilot project demonstrates feasibility of HPV vaccination in Bangladesh that reaches girls both in and out of school.

A major focus of the work of the WHO Country Office in Bangladesh in 2016 has been to help shape the country’s 4th Health, Nutrition and Population Sector Plan (2017–2021) – a sector-wide plan financed by development partners and the government through a pooled funding mechanism. The sector plan will focus on meeting the targets of the
health-related Sustainable Development Goal (SDG-3), with universal health coverage at its core. A major achievement in 2016 – after years of advocacy – is the increase in domestic resource allocation for health by 120%.

**Key activities and achievements in 2016**

**Developing the building blocks for universal health coverage**

Advancing the agenda of universal health coverage is at the centre of WHO's work, and several important steps were taken in 2016 to advance the planning, build in-country capacity and develop policies to make UHC a reality.

Bangladesh launched its own first flagship course on Health System Strengthening to achieve UHC. The purpose of this week-long course – co-organized by the James P. Grant School of Public Health at BRAC University and WHO – is to build a critical mass of local policy-makers and programme implementers who understand what is needed to reform the health system in order to achieve UHC, and who can serve as leaders in implementing these reforms. WHO, along with the Health Economics Unit of the Ministry of Health and Family Welfare (MoHFW) and USAID’s Health Financing and Governance project, adapted the existing World Bank course on health system strengthening to fit the needs and priorities of Bangladesh, focusing on elements of the country’s health system that will play a critical role in advancing equitable access to health services, quality of care and financial protection.

The 25-member faculty consisted of experts from the WHO Regional and country offices (seven in all), the World Bank, as well as experts from several countries (e.g., Chile, Sri Lanka and Thailand) who presented case studies of the practical realities of strengthening health systems in their countries. Experts from academia and NGOs in Bangladesh focused on ways to apply the theories taught in the course to the Bangladesh context. Forty-three participants – many from the MoHFW, but also from other government agencies, NGOs, academia, research institutes, and development partners – attended the course.

A major activity in 2016 was the development of the country’s 4th Health, Nutrition and Population Sector Plan. WHO contributed significantly to components of the Plan, including concept notes, the Strategic Investment Plan, and a detailed but more streamlined Programme Implementation Plan. It also helped define indicators that will trigger performance-based disbursements from the pooled funding mechanism, which is managed by the World Bank.

A major pillar of the sector plan is a revised Essential Services Package (ESP) for delivery at district level and below, designed by WHO and accompanied by an extensive consultative process with all major stakeholders. The package is a comprehensive set of services and the
systems changes needed to support them at the primary level of the health system. In addition to the traditional categories of maternal and newborn care, children’s health, and communicable diseases, the package places new emphasis on noncommunicable diseases (NCDs) and mental health care. WHO also supported a costing study of implementing this package at an upazila (sub-district) health complex, as well as a feasibility analysis. The next step is to assist the government in progressively implementing ESP across the country. Another key activity this past year was the development of a revised Essential Drugs List, with WHO technical assistance, which includes all of the medicines needed to properly implement the ESP.

The MoHFW also organized the country’s first national Consultation on the Health Sustainable Development Goals and UHC in August 2016 – attended by more than 100 participants from the MoHFW, the Ministry of Finance, NGOs, research institutes and development partners. The aims of the meeting were to improve participants’ understanding of UHC; discuss how to meet the targets in the health-related SDGs; clarify the roles of different stakeholders in working towards these targets; and better understand how the new health sector plan, national development plans, and SDGs are aligned. The meeting focused on how to reach poor, marginalized and vulnerable populations, that is, to “leave no one behind”.

Making headway in controlling tuberculosis

The National TB Programme and WHO organized a joint monitoring mission in 2016 to review the programme. The findings showed that Bangladesh is doing consistently well in providing basic tuberculosis control services, with reasonable case detection and good treatment outcomes. These outcomes include a significant increase in TB and multidrug-resistant (MDR) TB case notifications since 2012, expanded use of new technologies for diagnosis (e.g. GeneXpert rapid diagnostic machines), widespread use of the electronic reporting system for TB (eTB manager), and successful implementation of TB treatment services – many carried out by NGOs such as BRAC – that are fully integrated into regular health-care services. There are, nonetheless, major challenges including the fact that more than 40% of all TB cases and 80% of MDR-TB cases are still not diagnosed, TB control
remains highly dependent on external funding, and successful active case-finding activities at the community level do not yet cover the whole country. In addition, the socioeconomic dimensions of the disease – which disproportionately affects the poor and marginalized populations – are not adequately appreciated and the coordination of TB services in urban areas is especially weak.

Another major development in 2016 with respect to TB was the completion of a nationwide TB prevalence survey. The preliminary findings suggest a prevalence of 287/100 000 population for bacteriologically-confirmed TB cases among persons aged 15 years and above. WHO is further analysing the data to estimate national prevalence and incidence rates for all forms of TB, including among children. (The current WHO estimates cited in the Global TB Report 2016 are a national incidence rate of 225/100 000 and a prevalence rate of 382/100 000.) The survey will provide information critical to address the socioeconomic dimensions of TB, along with biomedical factors, such as age and gender. As a further step in the End TB Strategy, plans were made to conduct the country’s second TB drug resistance survey in 2017–2018 to better understand the prevalence of drug resistance among new and previously-treated TB patients and determine if there should be changes in first- and second-line TB therapies to better prevent and control drug-resistant TB. WHO worked closely with the MoHFW in drafting the survey protocol.

In conversation with H.E. Mr Mohammed Nasim, Minister of Health and Family Welfare, People’s Republic of Bangladesh
Moving towards the elimination of neglected tropical diseases

Bangladesh came closer to eliminating kala-azar – a deadly parasitic infection – by its target date of 2017, with the percentage of endemic upazilas that have achieved elimination (<1 case per 10 000 population) increasing from 96% in 2015 to 98% in 2016. To meet the 2017 target, the kala-azar elimination programme introduced case-based reporting in 2016, supported by new surveillance medical officers (SMOs) hired by WHO specifically to combat kala-azar. WHO also supported the training of more than 4200 health-care workers at different levels from 100 upazilas to strengthen surveillance, early diagnosis and prompt treatment of kala-azar cases.

Progress also continues to be made in eliminating leprosy. By the end of 2015, only one district and one metropolitan area had not yet reached the elimination target of <1 case per 10 000. As of the third quarter of 2016, the reported national prevalence has declined to 0.2/100 000 people, and rates of Grade 2 deformities or disabilities (G2D) among newly-detected cases have also declined. WHO provided technical assistance in updating the National Leprosy Strategic Plan for 2016–2020 in order to meet the 2020 global target for elimination of the disease. The updated plan calls for reaching and sustaining the target of <1 case of leprosy with G2D per million people in the country by 2020; achieving zero cases of G2D among new child leprosy cases by 2020; establishing effective government ownership and coordination in leprosy control activities; improving the integration of leprosy care into other health services; and minimizing stigma and discrimination of persons affected by the disease. The MoHFW also conducted a large-scale training to increase effective referrals of leprosy cases and improve the quality of case management. More than 6100 health-care workers at the upazila and community level from the public sector and NGOs, as well as other non-State providers, such as traditional healers, village doctors, and medicine shop owners, received this training.

Building national capacity to improve birth outcomes

WHO helped Bangladesh improve its capacity to provide high-quality training in maternal, delivery and neonatal care on a number of fronts in 2016. With financial support from the country office, 57 registered midwives successfully completed a new six-month basic midwifery training programme run by the Bangladesh Nursing and Midwifery Council that aims to improve standard midwifery practices among existing nurse-midwives working at upazila health complexes. WHO staff also monitored the quality of the training and clinical performance of the trainees and provided feedback on possible course improvements.

In addition, the WHO Country Office organized a training of trainers for 156 doctors, nurses and midwives in the 11 priority districts of the Canada-funded Maternal and Neonatal Health Initiative in active management of the third stage of labour, including the use of partographs to monitor vital signs of the fetus and mother during labour. These
new trainers, in turn, trained 456 health-care workers in an effort to not only improve their technical skills and knowledge, but also to raise their awareness about the importance of active management of the third stage of labour. In addition, another 40 doctors and 60 nurses working in neonatal wards at medical college and district hospitals were trained in kangaroo mother care, to increase the survival rate of preterm low-birthweight babies.

To improve the capacity of health providers to meet the needs of families facing the devastating consequences of Zika virus infection during pregnancy, a guideline on psychosocial support for mothers and families of newborns with microcephaly and other neurological complications of Zika virus infection was developed by a panel of experts in psychiatry, microbiology, neuro-medicine and public health from WHO, Bangladesh research institutes and universities. The MoHFW, with WHO and the US CDC, organized eight training of trainers (ToT) courses for 178 doctors from 15 government medical colleges and 60 district hospitals, using the guidelines and training materials developed by WHO. This was followed by district-level training of more than 1000 doctors and nurses from 45 of the country’s 64 districts to improve their ability to provide psychosocial support at district hospitals to families affected by Zika virus.

Improving national capacity to diagnose and treat cervical and breast cancers

Breast and cervical cancers are the first and second most common cancers respectively among women in Bangladesh. To increase early detection and treatment of these cancers, WHO arranged training by the International Agency for Research on Cancer (IARC) for 60 gynaecologists on cervical cancer screening and new treatment options, and for 60 surgeons on clinical diagnosis and treatment of breast cancer, as well as an orientation for 71 programme managers on breast and cervical cancer.

The MoHFW also developed, with WHO technical assistance, a National Strategy for Cervical Cancer Control, based on the South-East Asia Regional Cervical Cancer Strategy. The strategy includes HPV vaccination as a primary prevention strategy, availability of screening and treatment for cervical pre-cancer as secondary prevention strategy, and diagnosis and treatment of invasive cervical cancer, including palliative care. It also focuses on advocacy.
and education to increase public awareness about cervical cancer, its prevention and risk factors, particularly among adolescents.

Using a two-pronged approach to reach all girls with HPV vaccine

Bangladesh plans to introduce HPV vaccination for girls nationwide, beginning in 2018 with GAVI support. The MoHFW successfully conducted a pilot introduction of the vaccine in 2016 in the district of Gazipur that consisted of school-based vaccination for all 5th grade girls (10–12-year-olds), and community-based vaccination of 10-year-old girls not in school, through routine immunization sessions at outreach sites. According to administrative data, coverage for the first dose averaged 95% for schoolgirls and 82% for those not in school, for an overall rate of 94%. WHO provided technical support in developing IEC and training materials; training health workers, managers and supervisors; and conducting a programmatic readiness assessment before the vaccination drive was launched.

A post-introduction evaluation (PIE) found that most elements required for HPV introduction were in place, but that scaling up the programme nationally will require improving vaccine storage and logistics, including additional cold chain technicians and storekeepers and added operational costs to cover extra personnel and transport. The PIE concluded that a school-based strategy, complemented with outreach sessions once or twice a year for out-of-school girls and girls who missed school sessions, will be an appropriate strategy to achieve high coverage of girls with HPV vaccine.
Addressing the growing burden of dengue and other vector-borne diseases

Dengue has become a more important public health problem in the past few years in Bangladesh. To better understand the epidemiology of this growing threat, WHO analysed over 3100 hospitalized dengue cases that occurred in 2015 and mapped their place of residence.

WHO then conducted the country’s first national survey of the *Aedes aegypti* mosquito – the vector that transmits dengue as well as chikungunya and Zika virus – focusing on the areas where these cases had originated, to identify high-risk areas for *Aedes*. WHO also developed educational materials (flyers and posters) for distribution (e.g., in schools and construction sites) in the high-risk areas identified by the survey.

Dengue incidence continued to rise in 2016, with more than 6000 hospitalized cases and 13 deaths reported in Dhaka City Corporation area.

## Box 2. Planning for the polio transition in Bangladesh

Bangladesh has maintained its polio-free status since 2006, and its AFP/polio surveillance system continues to meet international standards. In response to the detection of two vaccine-derived polio virus cases in children across the border in Myanmar and to the influx of refugees from that country, the polio team conducted mop-up campaigns for children 0–5 years of age in three upazilas bordering Myanmar in 2016, achieving 95% administrative coverage. Critical to these achievements has been a team of 64 Surveillance Medical Officers (SMOs) and District Maternal and Child Health and Immunization Officers (DMCHIOs), as well as divisional coordinators, support staff and drivers – a workforce totalling 118 throughout the country – most of whom are deployed under WHO contracts.

The polio eradication programme in Bangladesh was never fully “vertical”. While polio eradication activities remain a top priority of the programme, its resources – personnel, vehicles, laboratory equipment – have been used to support integrated immunization service delivery and disease surveillance of vaccine-preventable diseases (VPDs). The SMOs have, in particular, provided training and technical assistance to strengthen epidemiological surveillance of VPDs (including case-based measles and rubella surveillance), assist with introduction of new vaccines, improve the quality of immunization services (e.g., through micro-planning and data quality improvements), and improve the country’s emergency preparedness for infectious disease outbreaks, such as Ebola and cholera.

The programme is currently in a transition phase, with most funding from the Global Polio Eradication Initiative having ended and GAVI HSS funding now covering the bulk of its costs. In 2016, WHO developed a draft transition plan, with the goal of integrating the assets, activities and best practices of the polio programme into the national immunization programme. The plan recommends fully incorporating the SMOs and DMCHIOs into district public health teams and transitioning them onto MoHFW contracts. Polio immunization, surveillance, communication, outbreak investigation and response, and laboratory functions will be gradually mainstreamed into other public health programmes to maintain the country’s polio-free status and achieve control and eventual elimination of other vaccine-preventable diseases. The plan also recommends that the funding of the programme’s personnel and activities be covered by the new health sector plan, starting in 2018.

WHO will work with the MoHFW and key stakeholders to develop consensus and finalize a transition plan and timeline in 2017.
To improve the ability of the health sector to diagnose and treat dengue and chikungunya and prevent dengue-related complications and deaths, a series of training sessions were organized in 2016, with WHO support. A WHO senior epidemiologist conducted a training of trainers for 28 doctors and nurses in dengue clinical management and dengue surveillance and reporting at the Dhaka Medical College Hospital. These trainers subsequently trained a total of 224 doctors and nurses from districts and upazilas throughout the country. In addition, the number of dengue sentinel site hospitals was increased from 10 to 30, with WHO support. And to strengthen the capacity of the laboratories of the Institute for Epidemiology, Disease Control and Research (IEDCR) to detect, investigate and respond to cases of dengue and other vector-borne diseases, WHO provided the laboratories with diagnostic equipment and reagents and trained staff on their use.

**Partnerships**

WHO co-chairs a consortium of health development partners in Bangladesh, comprising of bilateral and multilateral donors, UN agencies, the World Bank, and the Asian Development Bank. The consortium provides a forum for exchange and discussion on operational and policy-related matters. On topics of strategic importance, it also provides an opportunity for the partners to agree on critical issues and approaches, thus being able to raise common concerns with one voice.

The World Bank supported Flagship Course on Health System Strengthening provides a good illustration of WHO forming partnerships with both Bangladeshi and foreign experts and organizations to enhance the level of expertise and range of experience they bring to capacity-building activities. Each of the course’s modules was prepared and taught jointly by an overseas expert, who often focused on theoretical concepts and case studies, and by a national partner, who provided examples on how to apply the theory to the Bangladesh health system.

*Fig. 4: Monthly reported dengue cases, Bangladesh, 2014–2016*
Box 3. WHO Country Office: towards excellence in research and technical leadership

Improving local capacity in public health and medical research

To promote a research culture and increase research skills both within the WHO Country Office and in Bangladeshi institutions, WHO established a Research and Publication Unit in January 2016, consisting of two technical officers and a team assistant. The unit is providing technical assistance to national institutes, including medical universities, the Bangladesh Medical Research Council, and the National Institute of Preventive and Social Medicine, in all stages of ongoing research projects, from protocol development to the review process, implementation, report writing and dissemination, publication in peer-reviewed journals being a major goal. As a result, five articles were published in peer-reviewed journals with joint authorship.

To further build local research capacity, the WHO Country Office has also entered into technical services agreements (TSAs) with national institutions to conduct research in several areas of public health importance. In 2016 alone, agreements totalling $1.4 million were used to conduct research on topics ranging from the prevalence of epilepsy to the effectiveness of graphic health warnings in anti-tobacco advertisements the effects of climate variability, seasonal variations and environmental events on the quality of drinking water and diarrhoea prevalence and water, sanitation and hygiene behaviours. The national TB prevalence survey and a pilot study of hepatitis C treatment among opioid drug users in Dhaka are also being conducted by local research groups under TSAs.

In addition, the country office revitalized its Research Review Committee (RRC), which reviews all research proposals before they are sent to the RRC in SEARO. This should further strengthen the skills of Bangladeshi researchers in developing robust research protocols and proposals.

Improving the quality of technical work conducted by WHO contractors

Much of the technical work conducted by the WHO Country Office – from conducting training courses to developing technical guidelines to conducting programme assessments and evaluations – is carried out through short-term contracts (APWs for external consultants and DFCs for government partners and programmes). While contractors write reports, they usually focus on process measures, such as the numbers of people trained. Determining the actual quality of contractual work – such as whether a new training of midwives actually improved their skills and knowledge – is more difficult. The Country Office has embarked on an effort to improve and better monitor the quality of work performed under its contracts.

As an initial step, WHO undertook a peer review of more than 500 contracts implemented in 2014 and 2015 to determine the quality of the work performed. For each contract, the reports and other deliverables (research protocols, guidelines, training materials, etc.) produced through the contracts were reviewed by two WHO technical staff to examine them against a set of criteria such as completeness, clarity and quality of the content, technical soundness of the methodology, and timeliness of the deliverables. As a result of this exercise, the Country Office developed clear guidance articulating more precisely the expectations of contractors in order to improve the quality of their reports and other deliverables and to better monitor their performance. In future, WHO will develop a theory of change for each programme area, with a specific results framework. Contracts will then have to fit into that framework and will be awarded only if they specifically contribute to the intended results.

As another example, WHO works closely with UNICEF in supporting the MoHFW’s immunization activities, mobilizing resources together and jointly planning and implementing activities, according to their respective strengths. For the yearly coverage evaluation surveys, for instance, UNICEF focuses on data collection in the field, while WHO
concentrates on data validation, supervision and monitoring of the field work, and analysis and interpretation of the data. Similarly, when an infectious disease outbreak is suspected, WHO uses its surveillance network to investigate the outbreak and both organizations coordinate jointly with the MoHFW to implement the response – with WHO assisting with training and UNICEF assisting with social mobilization.

**Looking forward**

To move towards universal health coverage, the detailed design and agreement on the next steps to implement the Essential Services Package at district level and below will be critical. The steps to be carried out with WHO assistance include mobilizing financing for the package and allocating funds in the MoHFW budget, developing new provider payment mechanism, developing quality assurance strategies, and preparing a monitoring and evaluation plan, among others. WHO will also continue to assist the ministry in developing and implementing an action plan to be completed in 2017 to implement the Bangladesh Health Workforce Strategy, which was finalized in 2016.

With the completion of most strategies and SOPs related to maternal, neonatal, child and adolescent health, the focus in the next two years will be on improving the quality of care and expanding these services to the country’s hard-to-reach areas and populations.

WHO will continue to act as a convener and coordinator of multi-disciplinary interventions to address antimicrobial resistance. Major areas of work will include promoting rational drug use in the health, agricultural and fishery sectors; monitoring antibiotic use; and surveillance of antibiotic resistance patterns through sentinel hospitals.

In line with the Prime Minister’s vision for a tobacco-free Bangladesh, WHO will support the government in its efforts to curb tobacco consumption through strengthened enforcement of tobacco control laws, and to advocate higher tobacco taxation.

In the area of TB control, Bangladesh plans to carry out the first nationwide TB drug resistance survey, starting in 2017. The survey protocol is currently under review with the Research Review Committee, and work will commence as soon as approval has been obtained.

A costing study related to HPV vaccination began in late 2016. The study will present several strategic options to the government for the nationwide scale-up of HPV immunization. Once decisions about the strategies are made, nationwide immunization will be initiated.

WHO will continue to support the government to maintain polio-free status, achieve measles elimination, rubella and rubella congenital syndrome control, introduce new and under-used vaccines, and attain high routine immunization coverage.
Bhutan

Highlights

- New National TB Strategic Plan developed to substantially improve early diagnosis and treatment using the directly-observed treatment, short course (DOTS).
- Country’s first student health survey conducted to provide a national picture of health risk behaviours among 13–17-year-olds.
- Electronic patient record system developed for testing in early 2017 as a major step in modernizing the country’s health information system.
- Newborn action plan and birth defects action plan developed to improve care of vulnerable newborns and those born with birth defects.

The health of the Bhutanese population has improved significantly over the past five decades – with life expectancy more than doubling, from 33 years in 1960 to nearly 70 years by 2014. Although still too high, rates of maternal and child deaths, malnutrition and communicable diseases have sharply declined in the past 20 years; mortality in children under five fell by nearly two-thirds between 1994 and 2012 (from 97/1000 live births to 37/1000) and maternal mortality
declined by more than three quarters (from 380/100 000 live births to 86/100 000). While the burden of communicable diseases is declining, Bhutan – like many other countries in the Region – is experiencing an increase in noncommunicable diseases and injuries, due to changing diets, reduced physical activity, rising consumption or use of harmful products such as alcohol, tobacco, betel nut chewing (a major cause of oral cancers), as well as increased use of motor vehicles and two-wheelers.

Health is the number one contributor to Gross National Happiness – the country’s guiding philosophy, which strives to balance economic development with spiritual well-being. The Royal Government of Bhutan is committed to achieving universal health coverage by improving equitable access to quality health-care services free of charge, as enshrined in the Constitution. The key health priorities of the current Five-Year Plan include:

- responding to the growing burden of NCDs and the consequent increased cost of care;
- further reductions in maternal and child deaths by investing in skilled birth attendants and newborn care;
- sustaining case detection and treatment of tuberculosis and HIV/AIDS;
- elimination of malaria and neglected tropical diseases;
- addressing the “double burden” of malnutrition, by reducing the high prevalence of stunting and micronutrient deficiencies (e.g., Vitamin B) and high rates of anaemia among women and children, while also tackling rising rates of overweight and obesity; and
- strengthening the country’s capacity to respond to public health emergencies caused by natural disasters and infectious disease pandemics.

WHO’s Country Cooperation Strategy (2014–2018) was designed to support Bhutan in addressing the health priorities articulated in the Five-Year Plan.

Key activities and achievements in 2016

A new plan to address the continued high burden of TB

With support from WHO, Bhutan adopted the END TB Strategy and is making progress towards ending TB by 2035. In 2016, WHO assisted the Ministry of Health (MoH) in developing a new National Strategic Plan for TB (2017–2023), and in revising national guidelines for treating TB and multidrug-resistant (MDR) TB. Two external reviews of the TB programme – a Joint Monitoring Mission conducted by WHO regional and country office staff, US CDC and MoH staff, and a review by the independent Regional Greenlight Committee (GLC) – were carried out in 2016 to inform the strategic plan and the next
grant proposal to the Global Fund. The reviews found that the standard strategy of DOTS was not working well in Bhutan and that new interventions, including the introduction of TB screening in schools, were needed. The new strategic plan focuses on early diagnosis, including for MDR-TB using GeneXpert diagnostic tests, and improving patient adherence with treatment through refresher training of health workers. WHO provided support for training of laboratory workers on the use of the GeneXpert machines as well as financial support for World TB Day activities to increase public awareness of TB.

Initiating cross-border collaboration at the local level to control malaria and other infectious diseases

A major accomplishment in 2016 was the start of cross-border collaboration on malaria control between the five countries that share borders with India. This included a meeting between health officers from endemic districts in Bhutan and their counterparts from three nearby Indian states (Assam, Arunachal Pradesh, and West Bengal) to assess and discuss the transmission patterns and epidemiology of malaria in the border areas. Malaria transmission is now limited to a few districts in the southern part of Bhutan and reaching the country’s goal of malaria elimination by 2018 will not be possible without preventing transmission from across the border from the northeastern states of India. Based on the recommendations of the meeting, an in-country assessment of malaria in the border districts of Bhutan was conducted with support from WHO, and key suggestions were made towards the achievement of the malaria elimination goal in Bhutan.
Using evidence to shape measles control strategies to help achieve measles elimination

Bhutan adopted the goal of eliminating indigenous cases of measles and controlling rubella until it is no longer a public health problem—both by 2018. As a result of a sensitive case-based surveillance system and high coverage of two doses of measles-containing vaccine (90% or higher since 2010), Bhutan has not had an indigenous case of measles since 2013. However, a number of imported cases and import-related outbreaks occurred in 2015 and 2016 in 10 of the country’s 20 districts. Genetic and epidemiological studies conducted by the Royal Centre for Disease Control with technical assistance from WHO identified the origin of the outbreak (Buddhist pilgrims) and an immunity gap among those who were children before the 1990s when measles immunization rates rose substantially. Despite high present-day coverage rates of measles-mumps-rubella (MMR) vaccine, these susceptible adults with the disease have been able to infect other susceptibles, especially children (<9 months) too young to be vaccinated. To halt the outbreak, reduce the population immunity gap, and achieve sustained measles elimination, the MoH, with WHO support, has proposed MR campaigns in six districts in early 2017 for all persons between nine months to 40 years of age.

Addressing noncommunicable diseases and their risk factors

The MoH, with support from WHO and the US CDC, conducted the country’s first school-based student health survey. This comprehensive survey uses a self-administered questionnaire to estimate the national prevalence of health-related behaviours and
protective factors among secondary school students – from alcohol and tobacco use to dietary habits, mental health, physical activity, sexual behaviours and violence. The survey was conducted among nearly 7800 students in Grades 7 to 11 (13–17-year-olds) from 25 urban schools and 25 rural areas to provide reliable national estimates by urban and rural areas. The results will be used to set priorities and advocate for resources for school health policies and programmes and to inform the government’s National School Health Strategy and Action Plan, to be prepared in 2017.

At the end of 2015, the government approved a National Policy and Strategic Framework to Reduce Harmful Use of Alcohol, a multisectoral strategy developed with technical and financial support from WHO that aims to reduce alcohol-related morbidity and mortality by 50% by the end of 2020. This comprehensive strategy includes increasing awareness about the dangers of alcohol abuse; improvements in diagnosis, treatment and rehabilitation services for problem drinkers; restrictions on alcohol sales; strict enforcement of drink-driving laws; advertising bans; and taxation and pricing policies for alcohol products. As an initial step in enacting the policy, WHO supported a meeting in 2016 of 35 key national stakeholders to discuss their organizations’ roles and responsibilities in implementing the new alcohol policy. In addition, the MoH, with WHO support, organized sensitization and consultative meetings for newly-elected local government officials, district planning and health officers, and community-based organizations in five of the country’s 20 districts. These meetings resulted in these districts declaring the control of alcohol use a priority public health action. They also reached a consensus to develop locally-relevant action
plans and to advocate for inclusion of alcohol control measures in the government’s next Five-Year Plan (to begin mid-2018) during the local government meetings. Subsequently, the government funded and organized similar meetings of local political leaders in the country’s remaining districts. These timely meetings provided an opportunity for policymakers to allocate increased resources for alcohol control measures in the next Five-Year Plan.

Following the nationwide scale-up of the WHO Package of Essential NCD (PEN) interventions in all health facilities in 2012, Bhutan conducted its first clinical audit of PEN services in 2016, with technical and financial support from WHO. The audit compared the availability of resources (e.g., health workers, diagnostics, medicines) and clinical practices (e.g., patient assessment, counselling, referrals) with those prescribed in the national PEN protocol, and also examined outcomes such as CVD risk reduction, control of hypertension and diabetes. Thirty-one randomly-selected health facilities in the country’s three regions were assessed by trained auditors using both qualitative and quantitative methods. The final report is expected by March 2017 and plans are already underway for a refresher course for health professionals on PEN services in 2017, based on the audit results.

Activities to strengthen Bhutan’s health systems

Bhutan’s transition from a paper-based health information system to an electronic (e-Health) system was accelerated 2016 with the development of an electronic Patient Information
System (ePIS), through a collaborative project of WHO and the MoH. The system will eventually enable patient medical records, including drug prescription and laboratory test information to be accessed from health facilities across the country. By increasing access to and quality of patient medical records, the new system should improve the quality and continuity of patient care as well as generate evidence-based information to determine appropriate medical interventions, make policy decisions and conduct research. A three-day e-Health action planning workshop, entitled “Weaving Health and Happiness with ICT”, was held in June 2016 with WHO financial support. At this workshop, 89 officials from the MoH, Ministry of Information and Communications, and other government agencies, along with e-Health software providers and development partners, prepared a three-year roadmap to address key elements – from governance to legislation, training, standardization and inter-operability and programme management – required to build a robust e-Health system. The pilot of the ePIS will be launched in February 2017 in Paro district in all basic health units (BHU-I and BHU-II) and the district hospital.

To inform Bhutan’s next five-year Health Plan (2018–2022), the health ministry requested a Health Systems in Transition (HiT) review, with assistance from WHO and the International Health Policy Programme (IHPP) in Thailand. A HiT review is a systematic assessment of a country’s health system – from its organization and governance to its financing, physical and human resources, service provision and health reforms. WHO has supported the entire year-long process, including organizing a series of consultative meetings with government officials, experts from the country’s medical university and other stakeholders to complete the standardized HiT questionnaire; and drafting and reviewing the study report, which is expected to be released in March 2017.

WHO also assisted the government in drafting a health research policy as part of a comprehensive National Health Bill that is being developed. To formulate the policy, a team of four regional experts conducted a review of the health research needs and capacity in Bhutan. The policy document, which calls for a national health research council to prioritize research needs in the health sector, was prepared in consultation with the country’s Advisory Committee on Health Research (ACHR) and has been peer-reviewed and submitted to the MoH for legislative clearance.

WHO also provided assistance to the MoH in carrying out a series of activities aimed at improving the safety of the country’s blood supply and blood transfusion services through a project funded by the OPEC development fund, OFID. These activities included developing national guidelines for the recruitment, education and retention of voluntary blood donors; providing training to staff from 27 hospital-based blood banks on quality assurance for blood screening at Mahidol University in Thailand; preparing a quality manual for laboratory and blood bank technicians; and creating a centralized website for blood transfusion services.
Environment and health: assessing the health risks from chemicals used by industries

According to the Annual Health Bulletin 2016, health facilities treated a growing number of cases related to occupational and environmental exposures and poisoning from chemicals from 2011 to 2015. To address this problem, WHO worked with the MoH and the National Environmental Commission on a project funded by the Strategic Approach to International Chemicals Management (SAICM) to strengthen the country’s capacity to manage key carcinogenic chemicals used in steel, iron, cement and other industries in Bhutan. Following a training programme supported by WHO, officials from the MoH, Ministry of Labour and Human Resources (MoLHR) and the Department of Trade conducted an assessment of the use and management of chemicals in workplaces in selected industries in three areas (Pasakha, Phuntsholing and Tala) in July 2016. The study identified four substances (asbestos, benzene, formaldehyde and diesel engine exhaust emissions) as priority carcinogens in these industries. As a follow-up, the MoH and MoLHR, with WHO technical assistance, conducted a study of the level of exposure of industrial workers to some of these chemicals and found that the air levels of two chemicals (silica and formaldehyde) exceeded normal limits. A walk-through survey also found generally poor environmental management by the industries and a lack of awareness about these carcinogens among their workers. The project also updated the National Chemical Profile, which assessed the legal, institutional, administrative and technical capacity of Bhutan to manage chemicals, and which will be used as a guiding document to improve the management and regulation of chemicals in the country.

These findings were presented at a Technical Working Group meeting, organized by WHO, the MoH and the National Environmental Commission. This was followed by a high-level advocacy meeting held in December 2016, attended by parliamentarians, ministers and other officials. At this meeting during which the study findings and updated chemical profile were presented in order to create awareness about the problem and to garner political support for actions to reduce occupational and environmental exposure to chemicals, while also sustaining the country’s chemical industry.

Partnerships

WHO works with sister UN agencies, bilateral aid agencies, numerous government ministries and agencies aside from the MoH, as well as national and local-level political leaders, civil society organizations, the media and academia in conducting its programme, policy and advocacy activities in Bhutan. WHO brings strategic advantages in terms of global health initiative networks, innovative health technologies, global partnerships, and

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4 Annual Health Bulletin 2016;
capacity to support national efforts to adopt best practices in health policy development, programmeme implementation and monitoring health trends in Bhutan. The following are few salient examples of how WHO has forged alliances and collaborated with other partners:

- WHO has taken the lead in establishing a technical working group in the area of maternal and child health. This group – consisting of representatives from the MoH, KGUMSB, the national referral hospital (JDWNRH), UNICEF and WHO – has met on a regular basis since it was revitalized in May 2016. This forum has been instrumental in implementing the initial steps of the Bhutan Newborn Action Plan, providing sound technical and practical advice on MCH-related issues. It has also jointly financed and organized activities, such as the roll-out of the Early Essential Newborn Care coaching programme for health workers.

Box 4. Strengthening newborn care

With the sharp decline in mortality among children beyond the neonatal period in Bhutan, two-thirds of all infant deaths now occur during the first 28 days of life. However, there are large geographical disparities in coverage of maternal and newborn care, as only around 50% of births in four of the country’s 20 districts took place in health facilities in 2012 compared with 74% nationwide and 32% of births in rural areas occurred at home versus 4% in urban areas.

In 2016, WHO collaborated closely with partners from the MOH, the country’s medical university (Khesar Gyalpo University of Medical Sciences in Bhutan [KGUMSB]), the national referral hospital, and UNICEF to undertake and jointly finance a series of activities to improve these statistics and strengthen newborn care throughout Bhutan. These activities include the development of the Bhutan Newborn Action Plan (adapted from the global Every Newborn Action Plan), which aims to significantly reduce preventable deaths in newborns in Bhutan by 2023. As an initial step, six clinicians received training at Tu Du Hospital in Ho Chi Minh City, Viet Nam, a centre of excellence on kangaroo mother care, in October 2016. This will enable them to serve as trainers to other clinicians on this technique – beginning in 2017 with UNICEF support – in an effort to strengthen the country’s care of preterm babies. A plan for the countrywide roll-out of a coaching programme for health workers of all levels in Early Essential Newborn Care was also developed to increase the use of evidence-based best practices in newborn care. And to improve continuing medical education and pre-service training of medical professionals in maternal and newborn care, WHO procured 30 high-quality maternal and neonatal mannequins for the country’s three referral and teaching hospitals.

The MoH, with WHO support, has also developed and piloted a digital tracking system for maternal and child health to enable real-time tracking of pregnant women and their young children. The system will allow health workers to reach out to pregnant women and mothers, when needed, thereby ensuring that pregnant women receive antenatal care and that all children receive their immunizations on time as well as other essential preventive health services. The system should also result in an increase in deliveries aided by skilled birth attendants.

In addition, the government developed a national Birth Defects Action Plan to improve the ability of health workers to identify birth defects at an early stage, provide appropriate care, and prevent birth defects where possible. In line with this action plan, the MoH and WHO developed clinical guidelines to help health workers identify potential Zika virus cases and provide adequate care to women and babies with possible Zika virus exposure, using WHO materials and the most up-to-date evidence.
WHO serves as the chairman of the United Nations Inter-Agency Task Team on Emergencies, along with FAO, UNDP, UNICEF, UNFPA and WFP. The task team has outlined steps to develop a joint UN contingency plan in the event of a major earthquake in the country.

As described above, WHO coordinated with the National Environmental Commission, the Ministry of Labour and Human Resources, in addition to the Chemicals Programme in the MoH, in implementing the industrial chemical project described above.

Box 5. Improving the health sector’s ability to prepare for and respond to emergencies

As a vulnerable country in one of the most seismically active regions in the world, Bhutan has prioritized improving its preparedness for and response to emergencies, such as earthquakes. Over the past year, WHO has supported the government’s ambitions to prepare the health system for such events by supporting the Ministry of Health to develop a national Health Emergency Contingency Plan with detailed readiness and response plans for the health sector in line with the country’s Disaster Management Act of 2013.

Through horizontal collaboration with the WHO Country Office in Nepal, 13 high-level government officials took part in a study tour to Nepal to learn from this country’s experience with the 2015 Gorkha earthquake and its efforts to prepare the health sector for the next major disaster. The Nepal WHO Country Office also gave Bhutan its first medical camp kit (MCK) – containing tents and essential equipment and supplies for use in areas where health facilities have been destroyed – and led a four-day training of personnel from different sectors, including the military and police, on how to install, plan for the use of, and store these temporary mobile clinics.

To further enhance the preparedness of the health system to emergencies, WHO was able to acquire funding from the European Commission Civil Protection and Humanitarian Operations Disaster Preparedness programme (DIPECHO). These funds will be used in 2017 to conduct seismic assessments of health facilities, develop SOPs for emergency response at strategic health facilities, develop mass casualty management plans, conduct mock drills at the health ministry and at health facilities, establish a health emergency operation centre, enhance capacities of emergency medical teams, and develop communications capabilities in the event of health emergencies.
Looking forward

The Health Systems in Transition (HiT) review was initiated in 2016 and completed by 2017. This year-long review process has identified gaps in each of the WHO building blocks of the country’s health system and will provide a blueprint for developing the health sector component of the country’s next Five-Year Plan.

It is expected that the first phase of Bhutan’s move from a paper-based health information system to an electronic patient information system will be completed in 2017. The scale-up of the ePIS into a national system is expected to continue in the coming years, with support, in part, from funds earmarked for this purpose from an Asian Development Bank (ADB) loan, which was leveraged with support from the WHO Country Office and SEARO.

As Bhutan looks to the future, ageing will also become increasingly important as birth rates fall, life expectancy rises and, with improved socioeconomic conditions, people live longer. Therefore, laying the basic groundwork to integrate healthy ageing in all development agenda must start now.
Democratic People’s Republic of Korea

Highlights

- The Democratic People’s Republic of Korea on track to eliminate malaria by 2022, reducing incidence by >31% in one year.
- Disease outbreaks and deaths averted by a well-coordinated rapid response to catastrophic flooding in the northeast.

The health gains made by the Democratic People’s Republic of Korea progressed steadily in 2016 due to the commitment and hard work of health workers at all levels, the resilience of the health system, and the catalytic efforts of international partners. This is evidenced by the continued progress towards the control of infectious and vector-borne diseases (e.g. measles and malaria), continued improvements in maternal and child morbidity and mortality, and the government’s rapid response to health-related emergencies.
These emergencies include Typhoon Lion-Rock, which struck the northern part of the country in August 2016, causing flash floods and landslides and displacing more than 600 000 people. Within three months of the disaster, more than 18 000 homes were rebuilt, as were 34 health facilities, and basic primary health care services continued to be provided throughout the recovery period. This rapid response is likely a main reason for the lack of disease outbreaks or increase in deaths that usually occur following a disaster of this magnitude.

The continual gains in health have been achieved in the midst of international financial and trade sanctions, which were further tightened in 2016. These sanctions have had a direct impact on the country’s socioeconomic development, including its ability to manufacture or even procure certain essential medicines and equipment; to transport goods, health workers and patients; and to upgrade the competencies of its health workforce.

Key activities and achievements in 2016

Completion of the country’s first tuberculosis field prevalence survey

Although WHO has identified the Democratic People’s Republic of Korea as a high-burden country for both tuberculosis and multidrug-resistant (MDR) TB, the true magnitude of the disease in the country is unknown. To fill in this critical gap in knowledge, the government with WHO support completed the first national field survey of TB prevalence. The study involved interviewing and conducting clinical and laboratory examinations (chest X-rays, sputum cultures), using WHO recommended tools, of 61 780 persons from a systematic representative sample of 100 clusters throughout the country. According to the preliminary results (not yet published), the TB prevalence rate is about 15% higher than was previously estimated by WHO (=634 per 100 000 population versus the earlier estimate of ≈552/100 000). Inadequate management of MDR-TB cases also continues to be a major challenge, as only around 900 of the estimated 4600 MDR
cases (i.e. 20%) currently have access to effective second-line TB medicines due to limited resources. The survey findings should inform the future direction of TB control activities, such as improvements in diagnosis, improved strategies to increase adherence to directly-observed therapy (DOT), and improved management of MDR-TB cases.

Sustaining the continual decline in malaria incidence

Through the sustained efforts of the National Malaria Control Programme, the incidence of malaria continued to decline in 2016 – with only 5113 cases reported. This is down from 7436 cases in 2015 – a 31% decrease – and from nearly 300,000 cases in 2001 after the disease re-emerged in the country. The country has thus already surpassed its target of 5877 cases by 2017 one year earlier, and is on track to reach its goal of zero cases by 2022. A mainstay of malaria control has been enhanced case-based surveillance in which all patients in the endemic districts presenting at a health facility with fever and other signs of malaria during the malarial season have their blood tested for malarial parasites, followed by appropriate treatment and indoor residual spraying (IRS) of insecticide in the households of the case and surrounding households. In 2016, WHO supported enhanced surveillance, as well as the training of malaria control officers and laboratory staff in microscopic identification of the malaria parasite.

Threats to the country reaching its goal of malaria elimination include the emergence of resistance to two key insecticides (deltamethrin and permethrin) reported from six sentinel sites, and a general lack of financial resources needed to intensify malaria control efforts during the elimination phase.
Continued strides in the control of vaccine-preventable diseases

The Democratic People’s Republic of Korea, which has not detected a single laboratory confirmed case of measles through case-based surveillance since 2010, has taken one step closer towards officially achieving measles elimination with the establishment of a National Measles Elimination Verification Committee in 2016. In moving towards rubella control, the country established surveillance of congenital rubella syndrome (CRS) in three sentinel hospital sites in 2016. However, achieving the regional goal of rubella control by 2020 will be difficult unless rubella-containing vaccine is added to the routine immunization schedule.

In line with the Global Polio Endgame Strategy, the Ministry of Public Health (MoPH) successfully switched from the trivalent oral polio vaccine (OPV) to the bivalent oral polio vaccine (containing types 1 and 3 but not the type 2) in April 2016, along with other countries using OPV. The country continues to sustain high OPV coverage (>98% for OPV3 in 2015) and a high level of AFP/polio case-based surveillance. The country has been polio-free since 1996.

In addition, the Democratic People’s Republic of Korea has continued to provide a birth dose of hepatitis B vaccine to all newborns since 2004 in order to prevent the vertical transmission of hepatitis B infection from mothers to infants.
Building skills in field epidemiology

There is a long-standing shortage of epidemiologists in the country, especially in rural areas, and until recently limited training opportunities in epidemiology were available to health professionals on a regular basis. To create a workforce of skilled field epidemiologists to be deployed throughout the country, a National Field Epidemiology Training Programme (FETP) was launched in 2016 at Pyongyang Medical College of Kim Il Sung University. Faculty members received advanced hands-on training in field epidemiology and teaching methods in India and Thailand through the WHO Fellowships programme. They in turn trained the first batch of 15 medical doctors and senior health professionals during the three-month course. The curriculum was based on the epidemiological profile of the country. The programme will train around 20 health professionals per year until 2018, at which point the college plans to replace it with a Master’s degree programme in epidemiology.

Continued progress in development and use of the country’s telemedicine system

The Ministry of Public Health, with ongoing assistance from WHO, continues to make progress with this nationwide programme, which was established in 2007 to enable specialists to provide long-distance consultations and mentoring to doctors working at county and provincial hospitals, with a focus on surgical services. In 2016 the implementation of the

<table>
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<th>Box 6. The fight against tobacco intensifies with new tobacco control law</th>
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<td>Tobacco smoking rates among men have continued to decline in recent years – from 52% in 2008 (from the STEP survey) to 44% in 2013 (Global Adult Tobacco Survey (GATS), and to 37.3 % in 2016 (KAP survey). This represents a sharp decline in male smoking rate (women universally do not smoke in the country). A contributing factor for the steady decline has been the government’s strict ban on advertisement of tobacco products even before the first national tobacco control law was passed in 2005.</td>
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<td>A major achievement in the fight against tobacco in 2016 was the passage by the Standing Committee of the Supreme People’s Assembly of an amended law, which was formulated with technical support from WHO. The new law considerably tightens regulations on smoke-free environments by specifying and expanding the types of public spaces where smoking is prohibited (including workplaces, schools, health facilities, shops, restaurants, theatres), requiring that “no smoking” signs be posted at these locations, and strictly enforcing the law and increasing the penalties on public establishments that do not comply with the regulations. The amended law also encourages the development and use of medical aids – such as traditional medicines – to help people quit smoking, and further strengthens the prohibition against tobacco promotion.</td>
</tr>
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<td>The government has conducted a public awareness campaign to inform the public of the new law and increase its awareness of the dangers of tobacco use through mass media and printed materials. WHO’s support for this campaign has included sensitization workshops that mainly target sectors other than health, attended by participants from 30–40 different institutions.</td>
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The final phase of the system started with the plans to establish a National e-Health Centre to improve coordination and provide mentoring and education at the central level. All of the country’s provincial hospitals, 222 city and county hospitals, and one Ri-level hospital are now linked to seven central hospital sites as well as to the National e-Health Centre.

Also in 2016, the standard operating procedures for telemedicine were updated and disseminated to all telemedicine sites. This was followed by national-level training on strengthening and expanding the scope of the telemedicine, conducted over the system for 700 focal points from all participating sites.

The establishment of the e-Health Centre has also enabled the MoPH to develop a centralized electronic health information system to improve the timeliness and flow of health data, especially data on births and deaths from the Civil Registration and Vital Statistics System. The next step will be to establish local network-based disease surveillance and incorporate it into the health management information system.

**Partnerships**

The emergency response to the floods in North Hamgyong province in August 2016 well illustrates WHO’s role in working closely and coordinating with other UN partners in the Democratic People’s Republic of Korea on health activities. WHO took part in a joint field assessment with other UN partners immediately following the disaster and contributed

*Emergency medical supplies being distributed in the Democratic People’s Republic of Korea*
to a joint application to the UN Central Emergency Response Fund (CERF) for financial support. WHO was also able to secure funds from SEARHEF to help establish basic health services in affected areas immediately. As lead agency of the UN’s Health Sector Working Group, the WHO Country Office played a major coordinating role in identifying the goals, objectives and strategies of health-related activities of the flood response; developing a joint workplan that assigned responsibilities for various activities among partners; and conducting a follow-up field assessment with other Humanitarian Country Team members 10 weeks after the floods. The enhanced disease surveillance system set up during the post-emergency period provided daily reporting on diarrhoea, acute respiratory tract infections, and “fever with rash”, enabling the MoPH to monitor the affected areas for any sign of infectious disease outbreaks.

**Box 7. A rapid response to a natural disaster saves lives**

Typhoon Lion-Rock struck the northeast coast of the Democratic People’s Republic of Korea in August 2016, causing flash floods and landslides and displacing more than 600,000 people in North Hamgyong and Ryanggang provinces. With support from international partners, the government undertook immediate relief measures, including providing basic health services for the affected population. WHO led the health component of the joint UN-Government field assessment that was carried out in most flood-affected areas immediately after the floods. The Health Sector Working Group, led by WHO, identified four objectives for the post-disaster period: (i) minimize morbidity; (ii) prevent mortality with a special focus on children, women, the elderly and disabled; (iii) prevent communicable disease outbreaks in the flood-affected areas; and (iv) identify and meet the specific health needs of vulnerable groups.

The strategies to meet these objectives included immediate delivery of basic health services, the provision of essential medicines and equipment, enhanced disease surveillance, and reconstruction of 34 health clinics damaged or destroyed during the floods. With technical and financial assistance from WHO and other partners, the government was able to provide basic primary care services in the affected areas throughout the post-flood period.

This work was facilitated by the immediate release of $175,000 from the WHO South-East Asia Regional Health Emergency Fund (SEARHEF), as well as US$750,000 from the UNCERF. The government’s strong commitment to diverting a large amount of resources and manpower – including nearly 250,000 construction workers to rebuild health facilities, homes and roads – was critical in managing the disaster. This rapid response is credited with preventing any reported deaths or disease outbreaks from occurring as a result of the floods.

**Looking forward**

Major activities planned for 2017 and beyond to which WHO will be providing support include:

- Strengthening the capacity of the country’s extensive network of primary health care facilities to reach universal health coverage by providing them with a package of basic life-saving equipment and medicines. One area of focus for these facilities will be to improve the screening, diagnosis and management
of noncommunicable diseases such as hypertension, cardiovascular diseases, diabetes and cancer, which have emerged in recent years as leading causes of morbidity and mortality. This will include establishing an NCD surveillance system; conducting education, communications and advocacy activities to increase public knowledge of NCDs and their common risk factors; and increasing the capacity of health facilities – including at the Ri (village) and county levels – to manage NCDs by providing essential life-saving medicines and equipment, and training of health workers.

- Strengthening the skills and knowledge of different categories of health professionals. This includes improving in-service training using innovative approaches, such as distance education via the telemedicine system, to reach the extensive health workforce of over 200 000 scattered throughout the country. WHO will also focus on ways to improve the country’s medical education and postgraduate training system for health professionals based on the country needs.

- Making further improvements to the malaria and TB control programmes. To meet its goal of zero malaria cases by 2022, the government, with WHO support, will develop a new National Malaria Strategic Plan for 2018–2022, which will focus on enhancing malaria surveillance to monitor the disease burden, and on improving case-based investigations. WHO will also assist the government in developing a new TB Strategic Plan (2018–2022), which must address the gap in access of MDR-TB patients to effective second-line drug therapies.

- Building core capacities to implement the International Health Regulations (IHR 2005). An IHR self-assessment conducted in 2016 found that the Democratic People’s Republic of Korea has fallen short in meeting the eight Core Capacities required to fully implement the IHRs in order to detect and respond to infectious disease emergencies. Areas of weakness include laboratory diagnosis and coordination and surveillance for all hazards. Planned activities in 2017 to strengthen these capacities include a joint external evaluation to further examine weaknesses and to develop an action plan, and the construction of a national reference laboratory. This laboratory will include a Biosafety Level 3 (BSL3) facility that will enable the detection and isolation of highly pathogenic microbial agents, with appropriate biocontainment.
India

Highlights

- The Ministry of Health & Family Welfare and the states endorse national framework to achieve the Sustainable Development Goal for health.
- India officially declared free of yaws by WHO.
- India is third in the world in terms of largest graphic health warnings on packets of all tobacco products sold in the country.
- India develops detailed plan and budget to transition partner supported polio network into a broader public health programme, reflecting government priorities.
- Government commits to ending TB by accepting new higher estimates of TB incidence, introducing new drug to treat MDR-TB, and engaging the private sector in case finding and treatment.
- Government commits to combating antimicrobial resistance and prepares to finalize Multisectoral National Action Plan for AMR.
- India selected for demonstrations of two important medical innovations: use of fractional doses of IPV vaccines in outbreak response campaigns and new “re-use prevention” syringes to improve drug injection safety.
WHO’s work in India is guided by the WHO Country Cooperation Strategy (CCS) (2012–2017), which has three strategic priorities:

- supporting an increased role of the Government of India in global health;
- promoting access to and utilization of affordable, efficiently-networked and sustainable quality services by the entire population; and
- helping India to confront the double burden of noncommunicable diseases and infectious and vector-borne diseases.

For every budget period, a maximum of 10 priority programme areas – consuming at least 80% of the budget – are selected through a consultative process with the Ministry of Health & Family Welfare (MoHFW), guided by the CCS, the National Health Policy, and the WHO Regional Flagship Priorities. Like other country offices, the collaborative work of WHO India is implemented through five technical categories (infectious disease control; noncommunicable diseases; emergency preparedness; health system strengthening; and reproductive, maternal, newborn, child and adolescent health (RMNCAH)). However, the uniqueness of WHO’s support to the MoHFW is its additional on-the-ground, large presence in the form of the National Polio Surveillance Project (NPSP) to support the control of polio and other infectious diseases, the Revised National Tuberculosis Control Programme technical support network, and state and zonal coordinators for neglected tropical diseases. WHO’s major focus has been at the policy level and advocacy is high on the agenda. Beyond the health ministry, WHO works closely with the government planning institute (NITI Aayog), the Finance Ministry, state governments in a number of states, academic institutions, NGOs and civil society organizations (CSOs).

**Key activities and achievements in 2016**

**Adoption of national framework to achieve the health SDG**

The Government of India and WHO jointly organized a two-day “National Consultation on Transitioning from MDGs to SDGs” in May 2016, attended by around 250 participants from the MoHFW, several other ministries, state governments, academic institutions and development partners. During the meeting, 33 of India’s 36 states and Union Territories became signatories to the “Delhi Commitment on SDGs for Health”, which provides a framework for states to use in developing their own strategies and implementation plans to achieve the targets of the health SDG (SDG 3).

In committing India to achieving these targets, including universal health coverage, the document pledges to “achieve a unified and responsive health system capable of providing people-centred comprehensive health services (preventive, promotive,
diagnostic, curative, rehabilitative and palliative) across the levels of care and through the life course; augment human and financial resources for health; make essential medicines and vaccines available for all; ensure that functioning systems for early warning, detection and response to public health emergencies are in place; invest in health data collection, analysis and research so that evidence could inform policies and strategies...; and establish mechanisms for transparency and accountability and ensure periodic progress review of targets and indicators... so that no one is left behind.”

WHO is currently providing technical support to the MoHFW and to several individual states in developing SDG 3-specific strategies.

Announcement of a new National Health Protection Scheme

The government announced in 2016 a new health protection scheme, which will be an expansion of the current insurance programme for the poor and socially vulnerable populations, called Rashtriya Swasthya Bima Yojana or RSBY. The new programme will cover more individuals – from the current estimated 100 million people to around 400 millions and will provide a greater level of funding. In particular, the annual cap of financial support per family will increase more than three-fold (from 30 000 Indian rupees to 100 000), with an additional sum of 30 000 rupees for senior citizens. The programme – co-funded by the federal and state governments – will be launched in 2017 (the senior citizen component began in 2016). WHO’s support in designing this new insurance programme included preparing a detailed background report on current health financing in India and conducting in-depth analyses on how this programme will complement existing state-run health insurance programmes.

During a visit to a laboratory of the Indian Council of Medical Research
Implementing WHO ‘s global injection safety campaign for medicines

India is one of three countries in the world (along with Egypt and Uganda) that is introducing safety-engineered, single-use syringes for therapeutic injections – which account for around 80% of all injections given in India – through a project conducted under the WHO global injection safety campaign. Unlike auto-disable (AD) syringes used for vaccinations, which require a fixed dose, “re-use prevention” (RUP) syringes are specifically designed for varying doses. The project, which began in July 2016, involves introducing RUP syringes in all public health facilities in the state of Punjab. The WHO-prequalified syringes being used in the project are produced locally, and it is expected that, if successful, the project will stimulate additional local production of the RUP syringes. This should greatly increase the availability and affordability of these devices, thereby reducing the number of infections, such as hepatitis B and C, transmitted through medical injections.

Completion of new National Health Accounts

The Government of India produced its first National Health Accounts (NHA) in 10 years in 2016, using 2013–2014 data.\(^5\) According to the estimates, around 4% of the country’s gross domestic product (GDP) is spent on health care, with the majority of these expenditures paid out-of-pocket by households (64%). The government pays 29% – two-thirds of this by state governments – which comes to INR 1042 (=US$ 16) per capita or 3.8% of total government spending. WHO provided technical support by serving on the NHA Steering Committee as the sole international partner and on several technical committees.

Box 8. Supporting ‘visionary planning’ for the health sector

The Government of India has recently mandated that all sectors develop a 15-year visionary plan (in addition to short-term strategic and operational plans) to provide a longer-term outlook and long-term goals, and to plan what’s needed in the mean time to reach them. WHO is supporting the government planning agency – the National Institute for Transforming India or NITI Aayog – and the MoHFW in developing this vision for the health sector. The vision takes a comprehensive and holistic view of the health system and what changes are needed – including such reforms as expanding contracting with private sector health providers – while also suggesting specific milestones and targets (e.g., the number of new health facilities that will be needed to reach universal health coverage). Areas of focus to strengthen public health services and capacities will include surveillance and disease control, transforming the country’s service delivery model to focus on cost-effective primary health care services with appropriate referrals, and ensuring protection of patients against financial hardship for essential health services.

Creation of dedicated Human Resources for Health Cell within the MoHFW

As a key step in developing policies to strengthen the country’s health workforce, the government created a dedicated Human Resources for Health (HRH) Cell in the MoHFW, with WHO technical support. The new unit will focus on policy development and strategic planning for the country’s vast health workforce. One of its major tasks is to develop a national real-time, electronic registry of all health professionals working in all sectors (public, at the state and Union levels, private and NGOs). To further inform government policy regarding human resources for health, WHO is preparing an analysis of the health workforce requirements in India, as well as a document that proposes changes in the types of mid-level health professionals, including the development of nurse practitioners to work in the primary health care facilities where doctors are not available.

Making gains in the control of HIV/AIDS, TB and hepatitis

**HIV/AIDS**

The HIV/AIDS programme in India has made significant progress in recent years – achieving a 66% reduction in new cases from 2000 to 2015 and a 55% decline in AIDS-related deaths from 2007 to 2015. On World AIDS Day in December 2016, India celebrated one million people on antiretroviral therapy (ART), making it one of the world’s largest ART programmes.

A mid-term appraisal conducted in 2016 of the fourth phase of the National AIDS Control Programme (NACP IV, covering 2012–2017), gave India high marks for its achievements in expanding access to HIV treatment. These achievements include: (i) moving towards earlier initiation of ART by reducing the threshold for eligibility to a CD4 count of <500; (ii) providing lifelong ART for all HIV-infected pregnant women; (iii) placing all persons co-infected with HIV and TB on ART, regardless of their CD4 count; (iv) offering a one-pill-a-day fixed-dose combination therapy to improve treatment compliance; and (v) providing second-line and third-line ART drugs to treat drug-resistant cases and to bring the programme up to global standards. To reach the NACP IV’s goals of reducing new infections by 50%, the assessment recommended scaling up the prevention of mother-to-children transmission of HIV, adopting a “Test and Treat” strategy to immediately place HIV-positive persons on ART, and strengthening surveillance.

To make further gains in controlling HIV, WHO, along with the US President’s Emergency Plan for AIDS Relief (PEPFAR), is supporting projects in six districts in the states of Maharashtra and Andhra Pradesh to pilot the “90-90-90” strategy adopted by UNAIDS. This strategy uses a “continuum of care cascade” that includes all steps that HIV-infected

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individuals need to take to achieve viral suppression – from testing to initiation of ART and uninterrupted continuation of therapy – in order to reach the targets of 90% of HIV-positive persons knowing their HIV status, 90% of HIV-positive persons receiving sustained ART, and 90% of these on ART achieving viral suppression. The project should inform decisions about the roll-out of this strategy nationwide.

**Tuberculosis**

The control of TB has become a top priority of the government, including the Prime Minister, due in part to the publication of new global estimates of the TB disease burden, which raised the estimated annual incidence in India by 27% – from 2.2 million new cases a year to 2.8 million cases – estimates that have been accepted by the MoHFW. These new estimates have prompted the government to develop a new National TB Strategic Plan (2017-2025) that aligns with the global End TB Strategy. The main features of the new plan include early and accurate diagnosis using new tools such as rapid molecular methods; appropriate treatment of all TB patients using new drugs and new regimens; use of information and communication technologies to increase patient adherence (e.g., reminders sent via text messaging); increased private sector engagement in the care and reporting of TB patients; social protection schemes; and prevention strategies to address airborne infection control, contact tracing and latent TB infections. Operational and technical guidelines of the national TB programme have also been revised, with WHO technical support, to reflect these policy changes.

*Directly observed treatment, short course (DOTS) for TB*
The new global estimates partly reflect an improvement in TB surveillance in India and have revealed at least 600,000 “missing cases”, mainly treated in the private sector. Private sector TB patients have been difficult to monitor and manage due to significant under-reporting to public health authorities, inappropriate diagnostic and treatment methods, lack of free access to TB drugs, and the lack of strategies to ensure adherence to treatment regimens (e.g., DOTS). To improve the quality of TB services provided in the private sector and the reporting of cases, the government, with WHO support, is piloting innovative models of government and private sector collaboration in four districts in the states of Maharashtra, Bihar and Gujarat. Strategies include introducing vouchers for free diagnosis and drugs to private clinic patients and establishing a system of tiered referrals to access these services. In one district alone, 50,000 new cases have been reported from the private sector since the pilot began. Based on these results, the government plans to expand this model nationwide in the new National TB Strategic Plan.

Several advances in diagnosing and treating drug-resistant TB were also made in 2016. The TB programme began rolling out GeneXpert machines for rapid diagnosis of resistant cases, reaching 628 by the end of the year (≈10% of the estimated need). The first new TB drug in its class in 40 years – bedaquiline – was approved for use in the public sector under strict criteria to treat pre-XDR (extensively drug-resistant) and XDR-TB cases in several cities. In addition, the country’s first national TB drug resistance survey, supported by WHO, was completed. It will help inform future decisions about medicines to use to treat TB.

WHO provides technical assistance to the national TB programme through its Technical Support Network of more than 60 consultants deployed at the central level and in states, who help with planning, training, TB surveillance and monitoring and evaluation, with financial support from the Global Fund. An independent assessment of the network conducted in 2016 concluded that it has played a key role in the country’s progress in controlling TB and in transferring technical knowledge and skills to the states. The assessment recommended that the Global Fund continues to support the network as a strategic investment.

**Hepatitis**

The MoHFW and WHO organized a global event on World Hepatitis Day in July 2016 in Mumbai to raise awareness about these diseases among the general public, health-care providers and policy-makers. More than 150 people attended the event, including senior health ministry officials, health and water and sanitation officials from state governments, WHO officials from headquarters, SEARO (including the Regional Director) and the country office. The focus of the event was on increasing the detection of hepatitis B, C and other types – as many people are unaware they are infected – through sound surveillance, including screening and follow-up.

In May 2016, WHO verified that India had eradicated yaws.
Making inroads in eliminating neglected tropical diseases

In May 2016, WHO verified that India had eliminated yaws, following an assessment by an international team of experts. The last cases reported were in 2003, following seven years of intensive efforts to eradicate the disease through case finding and treatment of cases and their close contacts with injectable benzathine penicillin. Since then, active case searches, sero-surveys among 1–5-year-olds, and programmatic activities have not identified any new cases or evidence of ongoing transmission.  

To accelerate the elimination of lymphatic filariasis (LF) and validate the impact of mass drug administration that the government has been implementing since 2004 in endemic areas, transmission assessment surveys were conducted following training by WHO for more than 500 national-level trainers, state and district programme managers, entomologists, laboratory technicians and other health professionals. Eighty-six districts passed the assessment, meaning that 194 million people no longer require preventive chemotherapy for LF. Prevalence surveys of soil-transmitted helminths that took place in 22 of the country’s 36 states and Union Territories led the MoHFW to conclude that mass administration of deworming medicine (albendazole) for all 1–19-year-olds, which began in 2015, will need to be conducted every six months for the next four or five years in 29 states and Union Territories to reach the elimination target by 2020.


Scouring for yaws in rural areas of India
Progress in expanding the National Immunization Programme

The introduction of new vaccines continued in 2016, with the nationwide scale-up of inactivated polio vaccine (IPV) (as the third polio vaccine dose), preceded by the switch from trivalent to bivalent OPV. Four states (Andhra Pradesh, Haryana, Himachal Pradesh and Odisha) also introduced rotavirus vaccine in 2016. WHO provided technical assistance for these introductions with preparedness assessments, training and monitoring of their implementation.

Box 9. Transition from polio to other public health priorities accelerates in India

Even before polio was officially eradicated in India in 2014, the country has been successfully using the vast infrastructure created for polio eradication – including a staff of 1000 people and a network of diagnostic laboratories – to tackle other pressing health needs. The WHO National Polio Surveillance Project (NPSP) infrastructure and the tools created for polio eradication (e.g., micro-planning to reach every child, case-based surveillance) have been deployed in the past several years to improve immunization coverage rates (through the Mission Indradhanush initiative); eliminate maternal and neonatal tetanus; accelerate the surveillance and control of malaria and neglected tropical diseases, such as kala-azar; strengthen the country’s integrated disease surveillance programme; and assist with introduction of new vaccines, including the recent pilot of HPV vaccination in Punjab.

The transition of this network from polio to other public health priorities has accelerated since eradication was achieved in 2014. The government has already begun to assume funding of key elements of the programme, including 100% funding of the WHO-initiated network of polio laboratories – which have expanded to include measles and rubella testing – and the salaries of many of the Surveillance Medical Officers investigating potential polio cases.

In 2016, India developed with partners a detailed plan and budget to complete the transition of the NPSP from a polio-focused programme funded primarily by external partners to a government-funded resource that also addresses other key public health issues. The transition plan covers a period of 10 years in two phases (2017–2021 and 2022–2026), after which time the NPSP will be phased out. The plan lays out the activities and programmes that the NPSP will support; the types of technical assistance that WHO, UNICEF and other partners will continue to provide; a reduction in the NPSP workforce; and the gradual shifting of financing from partners to the government. WHO’s Independent Expert Oversight Advisory Committee commended India in 2016 for its great progress in making this transition and in sustaining this important resource.

The WHO Country Office – through its network of medical officers from the National Polio Surveillance Programme (NPSP) – also assisted with a pilot school-based introduction of HPV vaccine in two districts in the state of Punjab among schoolgirls in Class 6 (around 11 years of age). In preparing for the introduction, great emphasis was placed on pre-empting misinformation about the safety of the vaccine and on monitoring adverse events following immunization (AEFIs) to avoid problems due to false reports of AEFIs (including rumours of deaths) that had caused earlier pilot HPV introductions in other states to be halted. In addition, the Government of Punjab established a technical expert group to provide advice on the HPV introduction and serve as a credible resource to the media and the public, and conducted sensitization workshops for professional medical associations.
and the media. The vaccination campaign achieved high coverage and demonstrated to the public the vaccine’s safety, leading the Government of Punjab to decide to introduce the vaccine statewide.

As a step towards the elimination of measles and rubella, three states (Karnataka, Tamil Nadu and Pondicherry) transitioned from outbreak-based surveillance of both diseases to more stringent case-based surveillance. Planning is underway for nationwide large-scale “catch-up” MR vaccination campaigns starting early 2017.

Addressing noncommunicable diseases and their risk factors

The National Multisectoral Action Plan (NMAP) for the prevention and control of NCDs, developed with WHO technical support, was endorsed by all relevant ministries in 2016. The plan – the first of its kind in India – outlines the role that different sectors should play in reducing NCD risk factors and in promoting healthy diets and lifestyle behaviours. The document also guides states and Union Territories to develop their own operational plans to prevent and control NCDs and to strengthen the health system’s ability to provide quality NCD services.
Two key developments in the control of tobacco use in India – where nearly half of the men use tobacco – occurred in 2016. On 1 April 2016, the size of graphic pictorial warnings on all tobacco products, including cigarettes and chewing tobacco, increased from 20% to 85% of the principal display area on both sides of the packages – placing India third in the world in terms of the size of health warnings on tobacco products (up from 136th place). India also hosted in November the seventh Conference of Parties (COP7) to the WHO Framework Convention on Tobacco Control, a week-long meeting attended by more than 1,000 participants from 136 countries. The meeting, as well as the government’s appointment as COP Bureau President for the next two years, helped establish India’s leadership in tobacco control. The meeting culminated in the “Delhi Declaration”, which urges countries to strengthen tobacco control by, among other measures, imposing taxes on tobacco products, combating the illicit trade of tobacco, and sharing best practices and lessons learned.

The government also launched, with WHO assistance, an innovative “mDiabetes” project in 2016 to increase the population’s knowledge of diabetes, promote healthy diets and active lifestyles, and improve management of the disease. Subscribers receive text messages on their mobile phones over a six-month period that are tailored to their needs, based on their responses to a series of prompted questions given through this automated service. Around 106,000 registered users have received 8.5 million contextualized SMS messages up to December 2016.

Addressing health security and antimicrobial resistance

As a key step to improving India’s capacity to detect and report infectious diseases, the report of a Joint Monitoring Mission on the country’s Integrated Disease Surveillance Programme (IDSP) was published. Recommendations in the report call for reprioritizing the list of diseases included in the system, redesigning the electronic portal system and dashboard for real-time visualization of data, and increasing the number of trained epidemiologists and laboratory technicians, among others.

Considerable progress was made in 2016 in securing the commitment of the Government of India to combat antimicrobial resistance and in developing a comprehensive, multisectoral plan to do so. In February, the government and WHO jointly organized an international conference, “Combating Antimicrobial Resistance: A Public Health Challenge and Priority”, attended by more than 350 participants. A National Action Plan for AMR, adapted from the Global AMR Action Plan, was drafted during a national consultation held in December, in which 80 participants from the National Centres for Disease Control, WHO, several ministries (health; agriculture; environment, forest and climate change), hospitals, academia, research institutes, and partners, including the FAO, took part. The Action Plan includes a roadmap with responsible institutions and tentative timelines. Approval and implementation of this comprehensive plan will constitute an important step in the prevention and control of AMR in India.
Box 10. India demonstrates the feasibility of using fractional-dose inactivated polio vaccine during an emergency response

The world’s first use of a fractional dose of IPV in an outbreak response campaign took place in Hyderabad in June 2016. Fractional IPV (fIPV) consists of one-fifth of the standard dose and must be administered intra-dermally, making it more complicated to administer than the standard IPV dose given intra-muscularly. Clinical trials in other countries have shown that two fractional doses of IPV elicited a similar or stronger immune response than a single full intra-muscular dose. A global shortage of IPV – which all OPV-using countries are supposed to introduce (as the third polio dose) as part of the Polio Endgame Strategy – has resulted in dozens of countries having to delay IPV introduction and to a reduction in the global IPV reserve established for outbreak response.

Within 14 days of circulating vaccine-derived polio virus type 2 having been discovered in a sewage treatment plant in Hyderabad – constituting a public health emergency – the state of Telangana conducted a mass vaccination campaign using fIPV for all children six weeks to three years of age in two districts. More than 311 000 children were vaccinated – for an estimated coverage rate of 94% – and no major safety concerns or issues with administration or handling of the vaccine were reported. The campaign demonstrated the feasibility of rapidly planning and implementing a mass polio campaign using intra-dermal fractional IPV in an emergency situation – findings that will aid other parts of India and other countries in planning and implementing polio vaccination campaigns using this strategy. The WHO NPSP played a critical support role in the campaigns, with 29 medical officers assisting with microplanning, training of health workers and monitoring.

Partnerships

The WHO Country Office for India has a long history of working with health ministries at the Union and state levels, with other government ministries and sectors apart from health, NGOs and CSOs, as well as with many international partners – from UN agencies to bilateral aid agencies and international NGOs – on various projects and programmes. Several examples of such partnerships are highlighted below.

WHO established and chairs a Health Partners Group in order to improve the exchange of information and ideas and enhance collaboration among partners working in the health sector in India. The group, which includes UN agencies (e.g., WHO, UNICEF, UNFPA, UNDP, UNAIDS, UN Women), bilateral aid agencies (e.g., USAID, US CDC), several foreign embassies, international and local NGOs, and the MoHFW, meets every two to three months.

The WHO Country Office has worked closely with other development partners, including the other “H4” UN partners (UNICEF, UNFPA and UNAIDS) to meet common objectives and address health sector challenges. Examples include: (i) collaboration with UNICEF to promote the integrated management of pneumonia and diarrhoea in childhood and quality of care around birth, and to support the government with introduction of new vaccines and efforts to increase vaccination coverage; (ii) working with UNFPA to promote modern methods of contraception and promote healthy ageing; and (iii) mobilizing UN Women, UNFPA and UNICEF to advocate to the MoHFW to strengthen the health sector’s response to violence against women in India.
At the state level, WHO has been actively working with state ministries of health in addressing issues related to polio, HIV, TB, malaria and neglected tropical diseases. In addition, in collaboration with the UN Resident Coordinator’s Office, WHO is assisting four states in developing detailed health sector plans, based on the SDG 3 framework described above. The Country Office has also been engaged in policy dialogue at the state level and has supported selected activities, upon the request of state governments, such as injection safety and introduction of HPV in Punjab, and health financing and strengthening of NCD services in Kerala and Maharashtra.

**Looking forward**

- The renewed emphasis by the government on strengthening health systems and advancing Universal Health Coverage and the strong endorsement of the Sustainable Development Goals augur well for the country.

- Building on the “Delhi Commitment on SDGs for Health” framework, developed jointly by the Health Ministry and the states, WHO will support select states in developing their own strategies and implementation plans towards achieving health-related SDGs.

- Development of the new CCS is progressing well. The new CCS will take advantage of new opportunities that have arisen in India, especially a new National Health Policy to be finalized in 2017.

- WHO will support, through NPSP, major developments expected during the year: ‘intensification of Mission Indradhanush’ towards the goal of full immunization coverage by 2018; countrywide launch of the Measles-Rubella (MR) campaign, and the introduction of pneumococcal conjugated vaccine (PCV) in the routine immunization programme.

- In addition, India’s transitioning of the NPSP infrastructure from polio to public health will accelerate and further expand to support the country achieve the kala-azar, leprosy and malaria elimination targets as also provide technical assistance to the Integrated Disease Surveillance Programme.

- The results of the Global Adult Tobacco Survey (GATS) will further guide the strong and innovative tobacco control efforts in the country.

- Major policy level changes are expected in the near future: passage of the Mental Healthcare Act, with its emphasis on a rights-based statutory framework for mental health in the country; approval of the National Multisectoral Action Plan for prevention and control of Common NCDs; finalization and endorsement of the multisectoral National Action Plan for AMR; development of National Action Plan on Hepatitis C; finalization of the TB National Strategic Plan 2017-2025, the National Framework for Joint TB-Diabetes Collaborative Activities, the National Strategic Plan for HIV and STI 2017-2024, and the National Strategic Plan for Malaria Elimination 2017-2022.
Indonesia

Highlights

- Indonesia validated as having eliminated maternal and neonatal tetanus.
- Human papilloma virus (HPV) vaccine introduced in Jakarta province and decision taken to introduce measles-rubella and pneumococcal conjugate vaccines nationwide, and Japanese encephalitis vaccine in Bali.
- Mass measles immunization campaign vaccinates 3.6 million children in high-risk districts in push towards measles elimination.
- Indonesia hosts international Earthquake Response Simulation to test coordination of international and national emergency medical teams.
- High-level international forum of Global Health Security organized to improve global preparedness and response to infectious disease outbreaks and bioterrorism.
The Government of Indonesia’s activities in the health sector are guided by the National Health Agenda (2015–2019), which has the goal of achieving universal health coverage by 2019. The health agenda is also aimed at meeting the health-related Sustainable Development Goal (SDG 3) and its specific targets. Towards that aim, the Ministry of Health (MoH) has set up a special SDG Unit to monitor progress towards these targets and produced the 2016 Health SDG Profile to provide a baseline of indicators against which to measure progress.

Also in line with the health agenda is the government’s new “Healthy Indonesia” initiative to improve the population’s health status using three main strategies: i) shifting the focus from mainly curative care services provided solely by the health sector to a more holistic, multisectoral and integrated approach based on the social determinants of health and focusing on health promotion, prevention, and community empowerment; ii) strengthening and expanding the country’s health infrastructure; and iii) reaching universal coverage of the National Health Insurance (NHI) programme – a single payer insurance system designed to cover all Indonesians with a comprehensive package of health services financed by premiums and government subsidies for the poor. By the end of 2016, NHI membership had reached 171.6 million people, while challenges remain concerning its escalating costs and financial sustainability, as well as its governance.

To better and more efficiently meet the technical assistance needs of the country in line with these developments, the WHO Country Office is implementing a series of internal reforms through an initiative funded by the Bill & Melinda Gates Foundation. These reforms involve resetting the agenda and priorities of the country office, restructuring the teams and programmes, and redistributing staff to increase efficiencies and foster inter-programme collaboration. For example, all infectious disease programmes – from HIV/AIDS to TB, neglected tropical diseases and immunization – will now fall under one team within the country office.

Key activities and achievements in 2016

Expanding immunization programme

Despite the fact that Indonesia has graduated from GAVI support and finances all of its vaccines, the Expanded Programme on Immunization (EPI) introduced one new vaccine on a pilot basis in 2016 (HPV), and made decisions to introduce three others – measles-rubella (MR), pneumococcal conjugate vaccine (PCV) and Japanese encephalitis (JE) – beginning in 2017.

The pilot introduction of HPV in Jakarta province in October came in recognition of the high burden of cervical cancer in Indonesia, which is the second most common cause of cancer-related deaths among women (after breast cancer). The vaccine was introduced as
part of the school-based immunization (BIAS) programme for 75,000 girls in Grade 5 who will receive two doses 12 months apart. The vaccination has been well accepted, with an estimated coverage rate of 92% for the first dose and no reported refusals or objections on religious ground. The introduction will be expanded to two districts in Yogyakarta province in 2017. WHO will continue to provide support for follow-up studies and evaluations that will inform the subsequent roll-out of HPV vaccination to the rest of the country.

With the goal of eliminating measles and controlling rubella and congenital rubella syndrome by 2020, the EPI conducted a measles vaccination campaign in 183 high-risk districts in 2016, during which 3.6 million children aged nine months to five years were vaccinated. MR vaccine – replacing monovalent measles vaccine – will be introduced in 2017, starting with nationwide catch-up campaigns that will vaccinate more than 70 million children over two years – followed by its introduction into the routine schedule.

The programme also plans to introduce JE vaccine in Bali – where the disease is endemic – in 2017, beginning with catch-up campaigns for all children nine months to 15 years of age, followed by its introduction into the routine immunization schedule at nine months. PCV will also be introduced on a pilot basis into the routine schedule.

Indonesia continues to demonstrate its strong commitment towards implementing the Polio Endgame strategies. The EPI conducted a National Immunization Day in March 2016, vaccinating 22 million children. This was followed by the switch from the trivalent to the bivalent oral polio vaccine in April 2016 and the introduction of one dose of inactivated polio vaccine (IPV) into the routine schedule.
Box 11. Indonesia eliminates maternal and neonatal tetanus (MNT) in 2016

WHO validated Indonesia as having eliminated MNT in May 2016, following validation that the last of the country’s four health regions – encompassing the remote areas of Papua, West Papua, Maluku and North Maluku provinces – had reached the elimination threshold (<1 case/1000 live births).

Key to the success of MNT elimination was the ability to reach even the remotest areas with tetanus toxoid (TT) vaccination of women by strategically targeting and mapping out all high-risk communities and by designing innovative strategies to reach every family. These strategies involved finding every opportunity to provide TT vaccine to women of childbearing age, such as in churches, during polio immunization days, during routine immunization sessions or other child health services, and during vaccination campaigns in response to disease outbreaks (e.g., pertussis).

WHO provided technical support by deploying local consultants in the highest risk areas. They helped with targeting and mapping of these communities and in implementing and enhancing the quality of supplemental vaccination campaigns conducted in these areas.

Combating neglected tropical diseases

The MoH is committed to eliminating yaws and schistosomiasis (which is now limited to two districts in Central Sulawesi province) by 2019. Towards that end, the MoH convened a high-level, inter-ministerial meeting in October, involving several ministries (agriculture, internal affairs, forestry and environment, and village development), as well as the army, police, WHO and other partners, and provincial and district governments in the remaining endemic areas to discuss strategies to accelerate elimination of the disease. This led to the development of an elimination workplan for the remaining province and districts.

To galvanize efforts to eliminate leprosy and eradicate yaws, WHO supported a mid-term evaluation of both programmes in December 2016, conducted by international and local experts. The evaluation found the need to improve and expand active case finding and early detection for leprosy; ensure more complete coverage of mass drug administration for yaws, including in hard-to-reach areas and among certain populations (e.g., indigenous tribes); and provide additional training of health workers in recognizing, diagnosing and treating these diseases. The evaluation also recommended increased funding from different levels of government, especially in prioritized districts and provinces; promoting partnership with NGOs in leprosy and yaws control programmes; and including persons and communities affected by leprosy and yaws in the planning, implementation and monitoring of these programmes.

Efforts to eliminate lymphatic filariasis continued in 2016, with additional annual rounds of MDA, which had reached 71% of the country’s geographical areas by 2015 (up from 44% in 2014). The MoH’s target is 100% geographical coverage with MDA between 2016 and 2020 in order to achieve LF elimination by 2020.
Continuing progress in controlling malaria

WHO also facilitated a joint review of the malaria programme. By 2016, 247 of the country’s 514 districts – accounting for 69% of the nation’s population – had been declared malaria-free, and the number of cases declined 50% from 2011 to 2015 to around 217 000 cases, mainly in certain highly-endemic areas. However, progress has been uneven, with continued high burden in several parts of eastern Indonesia and areas of persisting stubborn transmission in Java.

The review credited the programme’s progress with good collaboration between health offices at the provincial, district and community levels and between health, civil society and other sectors to implement malaria control and environmental interventions. It also credited the distribution of 20 million long-lasting insecticide-treated bednets (LLINs) in highly-endemic areas over the past 10 years; the strategy of integrating screening and treatment for malaria and LLIN distribution with antenatal care in many endemic districts; tracking, diagnosing and treating malaria in mobile and migrant populations, including those working in remote forested areas; and improved quality of diagnosis. Among other things, the review recommends sustained high-level political commitment and financing of malaria control efforts; implementing integrated vector control, especially in Papua; conducting quality assurance for diagnosis, medicines, equipment and supplies; and delegating authority to non-doctors to ensure access to diagnosis and treatment, particularly in remote, higher incidence and under-resourced areas.

Controlling TB, HIV and hepatitis C

As per the National Strategic Plan for TB (2015–2019), which adopts the approaches and targets of the global End TB Strategy, the MoH ramped up expansion of the rapid diagnostic GeneXpert machines to significantly improve diagnosis of TB, including rifampicin-resistant cases. The MoH procured 504 machines for use throughout the country. Indonesia is also one of the first countries in the Region to introduce the new second-line TB drug, bedaquilline, for drug-resistant cases.

The country’s first in-depth review of the epidemic of HIV was conducted in December 2016 among national and international stakeholders and experts in HIV from local universities, provincial health offices, the MoH, the WHO Country Office and headquarters, and UNAIDS. The review was based on data from the country’s HIV Second Generation Surveillance system – targeted surveillance that focuses on high-risk populations and behaviours and that combines HIV sentinel site surveillance with HIV/AIDS reporting, STI surveillance and behavioural survey data. During the review, stakeholders reached a consensus that HIV/AIDS is mostly concentrated in Indonesia in key populations, such as sex workers, men who have sex with men, transgendered persons (Waria), and people who inject drugs; and that the epidemiological pattern differs in Papua and West Papua from...
the rest of the country, with more women infected, but at a lower level. The review also concluded that sexual partners of key populations should be considered “non-key but affected populations”, since they are also at high risk of contracting HIV. The results of the review will be used as the epidemiological baseline for the review of the country response on HIV to be conducted in January 2017 to evaluate the impact of the country’s HIV control programme.

An important advance was made in the treatment of hepatitis C in Indonesia in 2016, with the adoption of direct-acting antivirals (DAAs), following new WHO recommendations. The WHO Country Office and the Indonesian Association for the Study of the Liver assisted the MoH in updating the national hepatitis C treatment guidelines to make DAAs the mainstay of hepatitis C treatment. By the end of 2016, around 1000 people were on DAA treatment and the MoH had procured these drugs to treat 6000 new patients in 2017.

Addressing antimicrobial resistance

At the World Health Assembly in 2015, Indonesia committed to developing a Multisectoral National AMR Action Plan by May 2017. To meet this commitment, the MoH conducted a situation analysis of AMR, using a tool developed by the WHO Regional Office, and hosted a national workshop, with WHO support, to reach a consensus on a common approach to developing and implementing the national action plan. More than 60 participants attended the meeting, including AMR focal points from several government ministries and agencies (e.g., MoH, National Agency for Food and Drug Control, Ministry of Fisheries and Maritime Affairs, Ministry of Defence), and representatives from professional associations, academia and civil society.

The country also launched an AMR awareness campaign to increase understanding and awareness of AMR among health professionals, local government officials, health consumers, the media and other stakeholders through a collaboration between the MoH, an NGO (Yayasan Orangtua Peduli (YOP)) and WHO. Activities included advocacy meetings and public seminars at the provincial and district levels, development and screening of educational videos on AMR, and educational workshops for the national media to help raise public awareness about the rational use of antibiotics. Another objective of this campaign was to encourage collaboration between key stakeholders, such as health professional associations, to raise awareness among their patients and the public about this issue.

Health system strengthening

The National Health Insurance (NHI) programme is experiencing problems related to provider payments – consisting of capitation for primary health care services and reimbursement for higher level care – as well as with interruptions in the supply of drugs. The government is addressing these challenges by conducting a review of the Case-Based Group system.
(similar to diagnostic-related groups) used to determine reimbursement rates for hospital care; and establishing new levels of payment to health-care providers, including different levels for private versus public providers. WHO and the World Bank are coordinating support from various UN agencies and development partners in these efforts to advance universal health coverage. WHO also provided technical support for cost-effectiveness analyses using the Health Technology Assessment (HTA) method to inform government decisions about which interventions should be included in a more defined and sustainable benefits package.

A major development in ensuring the quality of the health workforce and their education has been the establishment in 2015 of an independent Accreditation Agency for Higher Education in Health (LAM-PTKes) to accredit training programmes for doctors, nurses, dentists and other health professionals. In 2016 WHO helped the agency build its capacity and obtain international recognition by supporting three workshops for staff facilitated by international experts.

**Strengthening planning and capacity in combating noncommunicable diseases**

The MoH finalized the country’s first National Multisectoral Action Plan on the Prevention and Control of NCDs (2016–2020). The WHO Country Office provided support in developing the plan and in laying the groundwork for its implementation by organizing three technical consultancies conducted by senior staff of WHO headquarters and the Regional Office: (1) a technical review of the draft Action Plan; (2) a status review of the integration of NCD prevention and management services into primary health care; and (3) a needs assessment of NCD surveillance and monitoring. These reviews found gaps in the planning and delivery of NCD services, revealing the need to improve managers’ competencies in implementing NCD prevention and control. In response, the MoH collaborated with WHO in conducting a training of trainers for more than 40 health professionals from the national and provincial levels and from academia. These trainers will, in turn, develop a training programme for provincial and district-level managers.

The government also released the report of the Global School Health Survey (GSHS), conducted in 2015 with WHO support, among more than 11 000 students aged 13-17 years from 26 of the country’s 34 provinces. Key findings include a tobacco use rate of 25% among males 13–17 years old (and 2% of females), an overweight rate of 15% among all students, and a rate of physical inactivity (spending three or more hours a day watching TV or otherwise sitting down) of 30%. Violence and injury rates were high—with 29% of all students reporting a serious injury in the previous 12 months. Comparing the results between this survey and the last one conducted in 2007 (which focused on 13–15-year-olds), rates of overweight among these younger teens had increased 50% (from 10% to 15%), with tobacco use increasing slightly (from 11% to nearly 13%) mainly due to increased rates among girls. The report
provided recommendations to expand the Ministry of Education’s school health programme to more than 80% of schools, as desired by the President of Indonesia.

Box 12. Supporting activities to inform multisectoral tobacco control policies

WHO supported a number of activities in 2016 to inform policies to curb tobacco use in Indonesia – where 67% of men smoke – and to facilitate the involvement of multiple sectors and partners required to meet this challenge.

Two major research studies conducted with WHO technical and financial support were completed on tobacco taxation and tobacco agriculture. The taxation study, conducted in partnership with the University of Indonesia, examined trends in tobacco taxation in the country and proposed a roadmap laying out different options and timelines to simplify the current multi-tiered tax structure for tobacco products, based on different revenue and policy assumptions. The study report has been submitted to the Ministry of Finance. The agricultural study was conducted with the National Institute of Agriculture in Bogor to determine the extent to which the agricultural sector and farmers are dependent on tobacco growing to be economically viable, and the feasibility of their moving away from tobacco to growing other crops. The study concluded that crop diversification among tobacco growers is feasible and, in fact, is already occurring, since farmers use the same land to grow food crops during non-tobacco growing seasons. The study also found that farmers’ income from tobacco has been eroding for years, due to unregulated pricing, and that less than 0.7% of agricultural land is currently used to grow tobacco.

A key development in efforts to control tobacco in Indonesia occurred in 2016 when the Supreme Court ruled in favour of a petition brought by several anti-tobacco advocacy organizations to challenge the Ministry of Industry’s plans to significantly increase cigarette production. The organizations that brought the lawsuit used global and national data on the growing epidemic of tobacco-related diseases and deaths in Indonesia, as well as the national health law, to successfully make their case and thwart the industry’s plans.

The result of the tax study, along with the reform of the dedicated tax for health in Philippines, were discussed at a High Officials’ Forum held in December by the Coordinating Ministry of Human Development and Culture to make the case for using tobacco taxes to support the expansion of universal health coverage. The Forum – attended by policy-makers from eight ministries (including MoH, Law and Human Rights, Labour, Finance), as well as from the Offices of the President and Vice-President – was unanimous on the need for health and non-health sectors to harmonize their tobacco-related policies with the aim of reducing tobacco consumption. Importantly, the non-health ministries involved in the Forum have assumed a key role in advocating for the use of tobacco taxes to fill in the financial gaps of the national health programme. WHO will continue to support these efforts in 2017.

Improving multisectoral preparedness and response to public health emergencies and natural disasters

Several events took place in 2016, with WHO support, to improve Indonesia’s capacity to prevent and respond to public health emergencies in a collaborative way across sectors of the government and society. These include a national workshop and table-top exercise in September 2016 to improve the country’s preparedness for and response to pandemic influenza – using risk management guidelines and a country contingency plan for pandemic influenza. This was followed by a field simulation exercise of pandemic influenza that took
place in a military hospital. The aim of these events, involving more than 120 participants from multiple ministries, the military, NGOs and local communities, was to improve the coordination and collaboration between the military and civilian sectors in responding to future influenza pandemics.

In addition, the MoH and Ministry of Agriculture, with assistance from WHO and FAO organized a forum on the “One Health” approach to integrating human and animal health activities to reduce the risk and manage outbreaks of zoonotic diseases. The forum produced a roadmap for the control of zoonotic diseases and guidelines for sharing information on virology and epidemiology of these diseases between the human and animal health sectors.

Indonesia also hosted an Asia-Pacific Earthquake Response Simulation Exercise, a four-day event held in Yogyakarta in which more than 200 participants from emergency medical teams (EMTs) and emergency response organizations from Indonesia and 24 other countries took part. This was the first such exercise in the Asia-Pacific Region to test and simulate the collaboration between national and international EMTs and WHO’s role in EMT coordination. Such coordination is critical to ensuring a strong response to a sudden disaster, such as an earthquake, that often results in a large number of EMTs and rescue teams arriving from overseas to assist. The exercise was also a learning opportunity for the newly-established EMT Coordination Cell within the MoH. The exercise tested the interoperability of local responders and government decision-makers with international teams (e.g., OCHA, ASEAN).
In 2016, Indonesia served as Chair of the Steering Committee of the GHSA: a partnership of countries, international organizations and civil society groups funded by the US Government to strengthen global efforts to prevent, detect and respond to global infectious disease outbreaks and bioterrorism, and to accelerate the progress of countries in fully complying with the International Health Regulations (2005).

In June, the country hosted a three-day high-level Global Health Security meeting in Bali on “Advancing Global Health Security: From Commitments to Actions”, attended by 250 participants from 52 countries – mainly from Asia and Africa – and 28 organizations. The goal of the meeting was to consolidate recommendations made by various initiatives and partners, such as the G7, ASEAN and the World Bank, and find ways to transform them into concrete actions. The meeting also provided an opportunity for African participants to share their experiences with recent outbreaks of Ebola, yellow fever and other epidemic diseases, as well as best practices in translating the findings from Joint External Evaluations (a new evaluation framework for IHRs) into actionable and measurable outcomes. Discussions were also held on a draft global preparedness framework designed to harmonize the approaches of countries, WHO and other partners to disease outbreak preparedness and control and evaluation benchmarks.

In addition, the Government of Indonesia convened a series of meetings during the year related to coordination and implementation of 11 GHSA action packages (action plans for technical areas such as zoonotic diseases, real-time surveillance, laboratory diagnosis, epidemiology workforce development). Indonesia is the technical lead in developing the zoonotic disease action plan, with technical and financial support from WHO.
Partnerships

The WHO Country Office has successfully formed collaborative relationships with a broad range of partners both within and outside of the government in numerous sectors besides health, and with both national and international organizations in addressing key health challenges in Indonesia. The following are some salient examples:

- Through meetings and multiple discussions, WHO helped enlist numerous government ministries besides the MoH to work towards the control of tobacco in a harmonized fashion. These include the Coordinating Ministry of Human Development and Culture, the Ministry of Law and Human Rights, the Ministry of Finance and the Ministry of Women’s Empowerment. Several of these ministries have now become key advocates for developing anti-tobacco policies;

- As one of two co-Chairs representing development partners, communities and CSOs on the country cooperation mechanism (CCM) of the Global Fund for AIDS, TB and Malaria, WHO works with other CCM members to coordinate the development and submission of funding requests, oversee implementation of the grant, participate in discussions about the National Strategic Plan for TB at the country level, and convene with all stakeholders to agree upon the division of funds to implement various grant activities.

- WHO works with a range of national and international partners in jointly planning and implementing the One Health project to increase collaboration between the health and agriculture sectors in controlling zoonotic diseases. These partners include the MoH, Ministry of Agriculture, FAO, US CDC, USAID, and the Australian Government’s Department of Agriculture.

- The pandemic influenza simulation required extensive collaboration and coordination with both civilian and military sectors, while the earthquake simulation also involved coordination led by WHO of dozens of domestic and international EMT and response teams.

Looking forward

Some of the major activities that will take place in 2017 with WHO support include:

- Further efforts to eliminate lymphatic filariasis by 2020 through mass drug administration;

- Catch-up vaccination campaigns of measles-rubella vaccine for more than 70 million children in 2017 and 2018, followed by introduction of the vaccine into the routine immunization schedule, as well as the continued roll-out of the HPV vaccination in provinces beyond Jakarta;
• Continuing implementation of the National Strategic Plan for TB by radically improving case notification – to identify the estimated two-thirds of cases presumed to be undiagnosed – by intensifying case finding, enhancing partnerships between the government and various stakeholders and providers, and continuing the roll-out of new diagnostic tools (e.g., GeneXpert machines) and drugs;

• Development of a Civil Registration and Vital Statistics system to improve the registration and reporting of births and deaths;

• Continual efforts to build a strong, integrated national health security system that ensures full implementation of the IHRs and that contributes to the GHSA; and

• Further roll-out of training for health professionals throughout the country in diagnosing and treating NCDs at the primary health care level.
Maldives

Highlights

- Maldives certified by WHO as free of lymphatic filariasis, making it the first country in the South-East Asia Region to reach this milestone.

- Government finalizes 10-year National Master Health Plan (2016–2025) with roadmap to achieve health-related Sustainable Development Goals that are aligned with global climate change and tobacco control goals.

- Quality of Care Framework for assessing and improving health facilities approved by government as a key step to ensuring quality of health care throughout Maldives.

- Government imposes large tax increases on tobacco products (40%) and sugary energy (58%) and fizzy drinks as measures to reduce noncommunicable disease risk.

- Government launches multi-sector, multimedia road safety campaign to stem the rise in road traffic-related injuries and deaths.

- New National Health Accounts 2014 shows the increased public spending through the new health insurance programme appears to have significantly reduced the size of out-of-pocket expenditure in the country.

- National policy and plans developed to improve country’s health-care waste management.
The Republic of Maldives continues to experience rapid development and economic growth, driven to a large extent by a vibrant tourism industry, with support from the fisheries and service sectors. In parallel with its economic growth, the country has registered an impressive record in improving health outcomes, with rising life expectancy; rapid deceleration of infant, child and maternal mortality; the control of communicable diseases – including the elimination of malaria and now lymphatic filariasis – and high immunization coverage rates. Against this record of success, the country’s health sector faces significant challenges, from the growing rates of noncommunicable diseases, now accounting for more than 80% of total deaths, to the rising demands of an ageing population for quality health services, a heavy reliance on expatriate health professionals, and the country’s vulnerability to the impact of climate change.

As discussed in this report, the government is making good progress in addressing these challenges. A key factor is the national health insurance scheme that has reached near universal coverage, doubling the government’s health-care spending, while significantly reducing out-of-pocket payments by households.

Key activities and achievements in 2016

Setting the strategic agenda for the health sector

The Ministry of Health (MoH), with technical support from WHO, developed a National Health Master Plan for 2016–2025 that outlines the principles and national health goals for the next 10 years, and provides strategic guidance to the public and health partners in further developing programmes and business plans to improve the population’s health and the country’s health system. Two frameworks were used in developing this plan – the determinants of health approach, which examines factors affecting health and strategies needed in the long-, medium- and short-term to address them; and the health systems building blocks framework. The goals articulated in the plan are to: i) build trust in the national health system, ii) reduce disease and disability among the population, and iii) reduce inequities in access to health-care services and medicines. These will be achieved through actions that fall under three focus areas: governance, public health protection (i.e. disease and injury prevention), and health-care delivery (ensuring high-quality care from the primary to tertiary levels).

A highly consultative and participatory process was used in developing the plan, involving a broad range of stakeholders, including academia, NGOs, various government ministries, international development partners and UN agencies, as well as Members of Parliament.
Developing standards and an assessment tool to ensure quality of care in health facilities

A major component of the 2015 Health Services Bill called for establishing an independent process to rate all of the country’s public and private health facilities in order to ensure the quality of care that they are providing. As a critical step in this process, the government approved the Maldives Quality of Care Framework, developed by the MoH in 2016, with WHO support. The framework consists of a comprehensive set of 125 standards, covering everything from infrastructure to the availability and competence of health personnel, the availability of medicines and equipment, adherence to protocols for a range of health services, patient safety and infection control, continuity of care and patient rights. The framework also includes a spreadsheet-based assessment tool to be used in scoring each health facility based on adherence to these standards.

The framework is a result of an extensive literature search, several rounds of consultations with stakeholders, and field visits to all types of public and private health-care facilities. It reflects the aspirations of the MoH and the people of Maldives for health care that is holistic, comprehensive, caring and professional. The MoH has created a national team of 70 assessors and trained them in the use of the framework, which will ultimately be used in accrediting the country’s health facilities.

Documenting the shift in financing the health sector

The Health Economics Unit of the MoH, with support from WHO, finalized the National Health Accounts, using data from 2014, to map out the funds that flow into the health system from various sources and how they are routed to different types of health providers and health-care services. The NHA 2014 dissects the dramatic changes that have occurred since the near universal roll-out of the government-funded health insurance scheme (with no individual spending limits). From 2011 to 2014, government spending on health rose 130% (from 1315 million Maldivian Rupee to 2922 million MVR) – making up 68% of total
health spending. At the same time, the percentage of health spending paid out-of-pocket by households declined from 45% to 30%. Total spending from all sources has risen by 50% in these three years – to 12 641 MVR per person or US$ 810 – almost double the average of upper-middle-income countries (US$ 436).

**Fig 5. Changes in health spending and financing from 2011 to 2014, Maldives**

The percentage of health spending paid out-of-pocket by households declined from 45% to 30%.

**Improving Maldives’ preparedness and response to Zika virus infection and other public health emergencies**

In light of the announcement of Zika virus infection as a public health emergency of international concern (PHEIC) and the reports of cases in Maldives among tourists and the local population in 2016, WHO helped the MoH strengthen its capacity to detect and respond to Zika virus and other potential emerging infectious diseases. The WHO Country Office provided technical assistance in developing a Zika virus surveillance plan, including surveillance and sample collection protocols, and provided the National Reference Laboratory at the Indira Gandhi Memorial Hospital with a PCR machine for diagnosing Zika virus and other pathogens. Other activities to strengthen the capabilities of the central laboratory included updating standard operating procedures for molecular diagnostic assays for influenza and other emerging diseases, and onsite training of laboratory technicians on their use.

In addition, the MoH conducted, with WHO support, a nationwide awareness-raising and vector control campaign to reduce the risk of both Zika virus and dengue. The campaign combined communications activities – to raise public awareness on ways to eliminate mosquito breeding sites and protect oneself from mosquito bites – with vector control activities, such as insecticide spraying, larval control measures, and clean-up campaigns.
to reduce breeding sites. Communication methods included social media (e.g., Facebook, Twitter, Viber), and the distribution of handouts in the local language (Dhivehi) as well as in several other languages to reach the migrant worker population. The campaign involved the participation of communities, public health workers and hospital staff, including clinicians. Risk communications workshops were also held for various stakeholders, including the media, to increase their understanding of these diseases as a public health concern and the actions that the MoH and WHO are taking to address them.

WHO also assisted the MoH in updating the dengue clinical guidelines and in training medical officers from Male and the atolls in order to strengthen the prevention and clinical management of dengue throughout the country.

Moving towards ending tuberculosis

Following the endorsement of the Regional Strategic Plan based on global End TB Strategy, Maldives reaffirmed its commitment to achieving Zero TB by 2020 – 10 years ahead of the regional target of 2030. To support this commitment, the WHO Country Office facilitated a review of TB disease burden estimates in Maldives, using expert opinion and an indirect estimation method involving modelling, in the absence of a TB prevalence survey. The review yielded new estimates that raised the incidence rate by 56% – from the 2014 WHO estimate of 41 per 100 000 population to 64 per 100 000 (C.I. of 57–74) in 2015 \(^8\) – and raised the issues of under-reporting and missing cases.

The government’s commitment to end TB by 2020 and the new estimates led the MoH to update the National Strategic Plan for Tuberculosis (2014–2020) to enhance and accelerate the activities needed to meet this goal. The revised plan calls for the availability of quality TB services in 100% of health facilities; higher sustained case-detection rates; expansion of diagnostic services – including use of rapid diagnostic tests – from just the national hospital to all regional laboratories; establishing a facility to treat multidrug-resistant TB cases; and screening migrant workers, prison inmates and other high-risk groups for TB. The review of the TB burden and updating of the strategic plan were conducted through a multisectoral, participatory process involving hospitals, academia, CSOs, professional associations, and other government ministries and departments. The national public health laboratory also procured, with WHO support, the country’s first Gene Xpert to enhance its ability to diagnose TB, including drug-resistant cases.

Building on achievements in reducing maternal, infant and child mortality

To improve the quality of the already-established Maternal Death Review, the MoH launched a Maternal Death Surveillance and Response and “near miss review” system to continue to

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\(^8\) National Strategic Plan for TB Control 2014–2019, (update – September 2016); MoH, Maldives
address factors contributing to any avoidable deaths. This followed a regional meeting on Maternal and Perinatal Death Surveillance that the WHO Country Office hosted in 2016. And although the country’s infant mortality rate has declined to 8/1000 live births, the MoH sought WHO support to further improve the quality of health-care services around childbirth. This led to training workshops for 20 medical officers and more than 80 nurses on delivery and newborn care, as well as workshops for island nurses and public health workers to advocate for early initiation of breastfeeding, exclusive breastfeeding, and avoidance of pre-lacteal feedings.

In addition, an online Birth Defects Surveillance system became operational at the national referral hospital and six regional hospitals in 2016.

**Confronting antimicrobial resistance**

AMR has been identified as an emerging issue in Maldives, though the extent of the problem is not fully known. The country has already established a multisectoral National AMR Committee and, with WHO support, conducted a Situation Analysis on Containment of AMR. The situation analysis led to the development of a roadmap – with technical and financial assistance mobilized by WHO – that addresses the gaps identified in the analysis, including the need to develop an AMR National Action Plan as a priority. The MoH also conducted awareness raising activities on the rational use of antibiotics with WHO support, including an AMR Awareness Week that targeted health-care providers, pharmacists and the general public.

**Addressing noncommunicable diseases and injuries**

The Health Protection Agency of the MoH, with WHO support, developed a National Tobacco Cessation Toolkit to ensure that tobacco cessation services – such as querying all patients about tobacco use, providing counselling on ways to quit smoking, and offering therapies such as nicotine replacement therapy – are available in all regional and atoll hospitals and become part of routine clinical practice. The toolkit – adapted from the WHO “5As and 5Rs” tobacco intervention toolkit and other sources – is a comprehensive package of patient counselling protocols, guidelines and patient education materials.

As part of the NCD Action Plan launched in 2015, specialized NCD clinics have been established at all six regional hospitals, to provide outpatient diagnostic, preventive
and treatment services for major NCDs (e.g., diabetes, chronic respiratory diseases and hypertension).

Maldives has the world’s highest burden of thalassaemia – a genetic blood disease requiring regular blood transfusions – with 18% of the population carrying the gene that causes the disease. To improve the skills and knowledge of health workers to diagnose and treat the disease, WHO assisted the MoH in developing a standardized training package and SOPs for the identification, prevention and management of thalassaemia, and supported the training of health-care providers conducted by the Maldives Blood Services. WHO is also helping to review and strengthen the national blood transfusion services, including revising the National Blood Transfusion Policy and Strategy in order to establish regional blood banking and storage facilities and ensure the regular availability of blood at all levels of the health system.

The country also launched a multisectoral nationwide Road Safety Campaign in 2016, in an effort to stem the rise in trauma cases from traffic accidents. The campaign was jointly conducted by the Transport Authority of Maldives, police and defence forces, and the Ministry of Health with support from the WHO Country Office, and was launched in Fuvamulah – the third largest city in Maldives and which has the second highest number of two-wheelers. The campaign included the placement of billboards with safety messages, a motorbike rally that promoted the use of helmets, and the release of short video messages to be used on TV, social media and during training sessions. The multisectoral campaign also highlighted the role of the health sector in addressing road traffic injuries and in strengthening emergency and referral trauma care. In addition, the country’s injury surveillance system is being revitalized to measure the real magnitude of this growing problem and monitor the results of road safety interventions.
Box 13. Government of Maldives increases duty and taxes on tobacco products and sugary energy and fizzy drinks

The government has increased taxes and import duties on cigarettes by 40%, on energy drinks by 58% and fizzy drinks by 16%, starting in 2017. In addition to the health benefits that are expected to result from the impact of higher taxes on reducing the consumption of these products, the tax increases are projected to add around 210 million MVR (=US$ 13.6 million) per year to government revenues, with a portion expected to go to the Public Health Fund, set up by the MoH to promote healthy lifestyles and support health promotion programmes.

Two key activities conducted jointly by the MoH and WHO led up to and informed the decision to raise these taxes. First, they prepared a report for the Presidential Office that provided evidence of the projected changes in consumption and revenues in order to inform and provide a rationale for the tax increases. Then a High-level Advocacy Forum on Tobacco Control was held in September 2016, attended by more than 100 participants, including the Vice-President (as chief guest), senior officials from several ministries (health, gender and family, home affairs), Members of Parliament, ambassadors, officials from various UN agencies, CSOs and experts from the Region. The Forum was a unique platform to share best practices and evidence from the Region and from Member countries, and an important factor in the government’s policy decision to increase taxes.

In addition to the tax hikes, the government announced a ban on the sale of energy and fizzy drinks in all schools and medical facilities.

Addressing food safety

Given the dependence of the country on imported food items, WHO supported the Maldives Food and Drug Authority (MFDA) in developing regulations and a registration system for food and health supplements. The WHO Country Office, together with the Regional Office of the Food and Agriculture Organization (FAO), provided technical support to improve the MFDA’s capacity to develop a food control mechanism to regulate food imports. This mechanism encompasses pre-border controls, border controls (permits, admissibility and inspection procedures), and post-border or in-country controls. In addition, MFDA officials and importers received training in these regulations, and WHO facilitated advocacy meetings on the WHO-FAO International Network of Food Safety Authorities (INFOSAN) and the Codex Alimentarius Committee.

Addressing climate change and health

The WHO Regional Office and headquarters together developed a Climate and Health Country Profile for Maldives for 2015, as part of a WHO and UN Framework Convention on Climate Change (FCCC) collaborative project to promote cross-sector collaboration and dialogue regarding climate hazards, health risks and strategies to address them. To further improve the resilience of the health sector and promote the use of renewable energy, WHO

conducted a feasibility study of the use of solar panels to power health facilities, which concluded that the investment in solar panels could be paid back in as little as 3.6 years.10

A groundwater quality assessment was conducted in selected islands of Laamu with support from the WHO collaborating centre, the National Environmental Engineering Research Institute (NEERI) in India, which measured chemical and biological concentrations to determine the potability of ground water. The assessment found fecal contamination of groundwater in all the islands, which may be due to leakages from septic tanks caused by corrosion and poor maintenance. This pointed to the need for regular monitoring of water quality in Maldives and the need to sustain ground water both for human use and to protect ecosystems.

Box 14. Maldives becomes the first country in the Region to receive WHO certification for eliminating lymphatic filariasis

The WHO Regional Director, Dr Poonam Khetrapal Singh, handed over to the Government of Maldives a certificate in July 2016 declaring that the country had eliminated lymphatic filariasis, following validation in May by an independent committee. This makes Maldives the first country in the South-East Asia Region to achieve LF elimination. This achievement – which comes on the heels of the country being declared malaria-free in 2015 – demonstrates the effectiveness of evidence-based strategies in controlling LF that included enhanced case-finding, ensuring that patients complete their treatment regimen, the systematic elimination of breeding habitats of the LF vector, morbidity management, and repeated rounds of mass drug administration as preventive chemotherapy.

The certificate was awarded during a ceremony attended by the country’s Vice-President, several Cabinet Ministers, diplomats, and more than 200 guests. Recognizing this achievement, Dr Singh commended the government’s unwavering and sustained political commitment and thanked the generations of health workers who have worked tirelessly over the years to help eliminate the disease. She also acknowledged the country’s steady progress in controlling other infectious diseases, including measles, congenital rubella and leprosy.

During the ceremony, the Vice-President, His Excellency Mr Abdulla Jihad, and Dr Singh released a brochure entitled A Nation Unburdened: Elimination of LF in Maldives and a short video describing how Maldives was able to ensure a future free of this devastating and stigmatizing disease.

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10 Rapid Feasibility Assessment of installation of Solar PV in health facilities report.
Partnerships

The WHO Country Office recognizes the need to collaborate with partners beyond the Ministry of Health to address many of the country’s complex health issues and to comply with the SDG Agenda. Consequently, WHO has partnered with a wide range of groups and individuals, from numerous ministries to UN agencies, NGOs and CSOs, the private sector and ambassadors. Some salient examples:

- Engaging with multiple stakeholders: The WHO Country Office facilitated the participation of multiple stakeholders in formulating the new National Master Health Plan, including NGOs, several ministries and agencies, academia, international development partners, UN agencies and Members of Parliament. And to develop a national food safety policy, WHO worked with the Maldives Food and Drug Authority and the Regional Office of FAO.

- Working with other ministries: The MoH and WHO partnered with the ministries of finance, education, gender and family, and economic development to gather evidence required to inform the government’s decision to raise taxes on tobacco products and
WHO also worked closely with the Ministry of the Environment and Energy, along with the MoH, in developing and rolling out a new national health-care waste management policy and related strategies and plans.

- Collaborating with other UN agencies: The Low Emission Climate Resilient Development (LeCRED) programme is an example of a successful partnership of multiple UN agencies that brings together a range of technical expertise to address complex problems. The partnership includes seven UN agencies: WHO, UNDP, UNICEF, UNOPS, UNFPA, UN Women and FAO.

- Reaching out to ambassadors: The Country Office has worked with ambassadors to facilitate two bilateral agreements between the Maldives MoH and health ministries of other countries. One is an MoU between Mahidol University in Thailand and the Maldives MoH to collaborate on a public health training programme and a nurse training programme. This agreement, which includes faculty from Mahidol and Chiang Mai universities coming to teach in Maldives, as well as Maldivian nurses receiving training in Thailand, came about after a visit supported by WHO of a high-level MoH delegation to Thailand. The second agreement concerns a decision by the Indian embassy to reopen five scholarships and assured seats per year to Maldivians in MBBS degree programmes at different government medical colleges in India.

- Engaging the private sector: Private providers and health facilities were fully engaged in the development of the Quality of Care Framework to assess health facilities, participating in and contributing to all meetings and consultations. WHO is also currently exploring the possibility of engaging private companies, such as telecommunication companies, resort owners, and large and middle-size business holdings, in health programmes in such areas as food safety, vector control and promoting healthy lifestyles, within the Framework of Engagement of Non-State Actors (FENSA).

**Looking forward**

Building on the country’s commitment to take the SDG Agenda and the National Master Health Plan forward, a national consultation to develop an NMHP monitoring framework is planned for the near future. The MoH also plans to roll out a nationwide healthy lifestyle campaign focusing on the prevention of NCD risk factors and strengthening of NCD service delivery at the primary health care level, in line with the Colombo Declaration to strengthen NCD service delivery adopted during the Regional Committee session in September 2016. Activities are also being implemented to ensure that Maldives builds on the success of its immunization programme and receives the Certificate for Elimination of Measles in due course. In addition, the MoH is gearing up to host the Seventieth Session of the WHO Regional Committee for South-East Asia in September 2017.
Myanmar

Highlights

- The Ministry of Health and Sports develops national health plan through consultative process with regions, ethnic groups and other stakeholders to set Myanmar on the path to universal health coverage.

- Country develops strategic plan to end preventable maternal mortality and evidence-based intervention package to cover maternal, neonatal and child health services.

- Three national strategic plans – for control of TB, HIV and malaria – developed or launched in 2016 and Global Fund funding secured to implement all three.

- National immunization programme introduces pneumococcal conjugate vaccine and inactivated polio vaccine nationwide.

In April 2016 the National League for Democracy (NLD), assumed power in Myanmar. The newly elected government put health as a major development priority in its manifesto, thus providing the opportunity for unprecedented focus on the strengthening of the health system and services in the country.
Key activities and achievements in 2016

Planning for universal health coverage

A major undertaking by the Ministry of Health and Sports (MoHS) in 2016 was the drafting of a National Health Plan (NHP) for 2017–2021 (Fig. 6) in collaboration with development partners including WHO. The NHP focuses on achieving universal health coverage of an Essential Package of Health Services – the first comprehensive set of health services to be developed in Myanmar.

Instead of taking a vertical, programme-by-programme perspective, the NHP uses a health systems approach that cuts across health programmes and which focuses on four strategic areas: i) service delivery; ii) infrastructure development (including medicines); iii) human resources for health; and iv) health financing. In developing the plan, the government solicited the ideas and views of a broad range of national and local-level stakeholders through consultative meetings organized throughout the country (see Box).

As a key input into the NHP, the government asked WHO to convene an international panel discussion on UHC, with particular focus on best practices and lessons learned from ASEAN and other developing countries. The two-day meeting, held in early December 2016, included speakers from Cambodia, India, the Philippines, Sri Lanka, Thailand and the United Kingdom. Panel members agreed with the overall framework of the NHP and also provided useful inputs to inform activities for each of the strategic areas.

**Fig. 6: Conceptual framework of the National Health Plan, Myanmar**

Development of the Essential Package of Health Services, led by the World Bank, in collaboration with the MoHS, WHO and other partners, will continue into 2017. The NHP calls for national roll-out of the package in three phases over a 15-year period. The
Developing evidence-based strategies to reduce maternal and infant deaths

Myanmar reported the third highest maternal mortality rate among the 11 countries in the South-East Asia Region in 2015 and the second highest mortality rates among newborn and children under five, despite significant declines in rates in the past two decades. The country took important steps in 2016 to address this issue, in line with the Global Strategy on Women, Children and Adolescent Health (2016–2030) and the Sustainable Development Goals. The MoHS, with technical assistance from WHO and UNFPA, developed an “Ending Preventable Maternal Mortality Strategy for Myanmar” (2017–2021) and an accompanying roadmap by adapting a global guidance document to the Myanmar context. A key achievement in developing this strategy was the design of an evidence-based intervention package for reproductive, maternal, newborn, child and adolescent health (RMNCAH), based on a number of global guidelines and reviews.

Another major development was the design and implementation of the country’s first Maternal Death Surveillance and Response (MDSR) system, based on WHO global guidelines. The system is designed to identify, report, and determine the cause of all maternal deaths through real-time surveillance – using a combination of verbal autopsies and clinical audits at various levels – and to use this information to respond with actions to reduce maternal deaths. WHO helped build local capacity for this endeavour by sending MoHS officials to a regional MDSR meeting in Maldives and on a study tour to Sri Lanka to observe its highly-regarded MDSR system. WHO also assisted with data collection and analysis used in designing the system, and, together with UNFPA, supported the development of national MDSR technical guidelines and a training and advocacy package of materials. Roll-out of the MDSR system in 17 states and regions began in September 2016.

Myanmar also hosted the eighth Asia-Pacific Conference on Reproductive and Sexual Health and Rights in February 2016, attended by more than 600 health professionals from 33 countries in the Asia-Pacific Region who shared their technical knowledge, experiences,
innovative ideas and research findings. WHO organized a session on “Moving from MDGs to SDGs to improve maternal and child health”.

Box 15. Involving stakeholders at all levels in developing the next National Health Plan for Myanmar

A unique aspect in preparing the National Health Plan for 2017–2021, which focuses on achieving universal health coverage with a basic package of health services, was the highly consultative process the government undertook to obtain information and seek the views and ideas of a wide range of stakeholders – from the central to the sub-national level. The MoHS organized a series of consultative meetings with parliamentarians, health-related ministries, state and regional authorities, and development partners, as well as with NGOs and ethnic health organizations (EHOs).

The involvement in the planning process of EHOs – the main health-care providers in the country’s ethnic-group-dominated states and zones – was especially significant and constitutes a potentially important contribution by the health sector to the peace process. This exercise enabled the MoHS to examine disparities in the access and quality of health services by region and state. It was also a first step in determining what will be needed to decentralize the health system as part of the government’s longer-term vision to decentralize the public sector.

Accelerating the control of tuberculosis

Myanmar is classified by WHO as one of 30 high-TB burden countries, with a triple high burden of TB, HIV-associated TB, and multidrug-resistant (MDR) TB. Revised estimates based on the 2009–2010 TB prevalence survey resulted in a doubling of the national incidence rate (from 178/100 000 in the 2008 Global TB Report to 384/100 000 in the 2011 report) and tripling of the prevalence rate (from 162/100 000 to 525/100 000). The findings also revealed low rates of detection of TB (≈25% of culture-positive cases) by the standard methods of smear examination and symptoms screening.

These revised estimates led to a paradigm shift in how TB is detected and treated in Myanmar in the past five years – from passive to active surveillance and from a focus on treatment of serious TB cases to a patient-centred, community-based approach that expands service coverage to the entire population and reaches people where they live. The new strategies also include using more sensitive tools to detect cases and treating all TB cases, including MDR-TB. These new approaches are reflected in the country’s National TB Strategic Plan (2016–2020) that was developed with WHO technical support and launched by the health minister in October, with the goal of ending the TB epidemic in Myanmar by 2035. The new Strategic Plan was the basis for a Joint Concept Note for HIV and TB to the Global Fund, which resulted in new funding for the next four years to implement the plan.

Other activities conducted to accelerate TB control included the expansion of active case detection using portable X-ray equipment to target hard-to-reach populations; the continual roll-out of Xpert MTB/Rif rapid diagnostic machines to expand TB diagnostic
services; nationwide expansion of access to treatment services for drug-resistant and TB/ HIV cases; and revision of the Drug-Resistant TB Guidelines and Childhood TB Guidelines. WHO provides policy guidance, coordination and technical assistance as the Secretariat of the TB Technical and Strategy Group and through its network of 66 local contractors located in each region and state.

Developing plans to end HIV/AIDS as a public health threat

The MoHS finalized a new National Strategic Plan for HIV and AIDS (2016–2020), under the leadership of the National AIDS Programme. Myanmar – a fast track priority country for HIV/AIDS control – has seen its HIV prevalence rate decline by 18% since 2005 (to 0.6% of adults or around 225,000 cases), with cases concentrated among key populations, such as people who inject drugs, sex workers and men who have sex with men. The new strategic plan adopts the global “90-90-90” targets (90% of people living with HIV know their status, 90% who know their status are under treatment – compared to 55% at present – and 90% under treatment achieve viral suppression). The plan includes two additional goals: 90% of the key population share access to preventive services and 90% of people living with or at risk of HIV report no discrimination in health, educational and workplace settings.

In conjunction with the National Strategic Plan, a series of technical guidelines and plans were initiated or completed in 2016, in for HIV and AIDS, collaboration with several partners, including UNAIDS, UNICEF, US CDC, and ICAP (Columbia University). These include national guidelines for clinical management of HIV, and on HIV testing services, SOPs for methadone maintenance therapy, and sub-national HIV plans for Yangon and Mandalay.
WHO’s support is provided by a team of 56 contractors – all nationals – serving as project coordinators, field assistants and data assistants in many of the country’s regions and states. This team, working under the leadership of the National AIDS Programme and with partners, plays a major role in the HIV service delivery and monitoring of the country programme.

**Intensifying control of malaria and dengue**

Myanmar made considerable headway in 2016 in planning for the elimination of malaria by 2030. The National Malaria Control Programme, with WHO technical support, developed both a long-term National Malaria Elimination Plan for 2016–2030 and a five-year National Malaria Strategic Plan (2016–2020) for the first phase in the elimination process. The five-year Strategic Plan was informed by an external review of the National Malaria Control Programme, a cross-border malaria situation analysis, a mapping of migrant populations, and a community- and health facility-based malaria knowledge attitude and practice (KAP) survey, – all supported by WHO. These studies enabled the programme to “micro-stratify” the country by level of malaria transmission risk (high, moderate, low and potential transmission areas and malaria-free zones) in order to target specific malaria interventions, such as malaria case management and vector control, in high-risk areas.

The goals of the new Strategic Plan include reducing malaria incidence to <1 case per 1000 population at risk in all states and regions by 2020; eliminating *falciparum* malaria in areas where there is multidrug resistance, including artemisinin resistance; and strengthening malaria surveillance. All technical and coordination meetings and workshops that led to the development of the plan were led by the Malaria Technical and Strategy Group, on which WHO serves as Secretariat.
A concept note based on the new plan led to renewed funding for malaria from the Global Fund for the next four years (2017–2020). To align with the new Strategic Plan, the National Malaria Treatment Guidelines were updated with WHO support and a series of supporting documents (e.g., surveillance guidelines, microscopy SOPs, strategic plan for the National Malaria Reference Laboratory, monitoring and evaluation plan) were prepared.

In response to the growing incidence of dengue in the past several years, including a record-breaking outbreak in 2015 with nearly 36 000 cases reported over a nine-month period, the country’s first National Strategic Plan for the Prevention and Control of Dengue (2016–2020) was developed and costed out under the joint leadership of the Dengue Control and Prevention Programme and WHO. Key priorities of the plan are to: i) strengthen dengue surveillance; ii) implement effective integrated vector management; iii) improve the ability of health-care workers and laboratory technicians to diagnose, treat and appropriately refer dengue patients; and iv) increase national capacity to predict, detect early on and respond quickly to outbreaks.

Expanding and improving the national immunization programme

Two new vaccines were successfully introduced in the Expanded Programme on Immunization (EPI) in 2016 – pneumococcal conjugate vaccine (PCV) and inactivated polio vaccine (IPV). WHO provided technical support in developing guidelines and IEC materials for introduction of both vaccines and in conducting a readiness survey before the PCV introduction was launched. The country also developed plans for introducing Japanese encephalitis (JE) vaccine in 2017 – to begin with nationwide “catch-up” campaigns for children nine months to 14 years of age, followed by its national introduction into the routine immunization schedule in 2018.

In addition, the MoHS was awarded HSS funding from GAVI for 2017–2019 to strengthen the EPI, with a focus on improving vaccination coverage in hard-to-reach and marginalized populations, including in conflict areas and among migrant populations. The funds will be used to provide midwives with motorcycles or transportation funds to conduct outreach sessions, provide refresher training in immunization, strengthen cold chain management and data management systems, conduct advocacy activities for national and local leaders, and conduct regular EPI review meetings at all levels.

Strengthening preparedness and response to infectious disease and other emergencies

Efforts to strengthen the country’s ability to implement the International Health Regulations (IHR) (2005) and to respond to public health emergencies of international concern (PHEIC), such as Zika virus infection and pandemic influenza, continued in 2016 with WHO technical support.
The MoHS identified a new IHR focal point and upgraded the position to both oversee implementation of IHR at the national level and serve as an official channel of communications between WHO and government entities. The ministry also completed an IHR self-assessment, which found a need to improve the capacity of rapid response teams and points of entry (PoE) staff to detect and quickly respond to PHEICs, and to improve surveillance system guidelines, especially for pandemic influenza. In addition, the MoHS updated the emergency preparedness plan for ports of entry, authorized the Yangon International Seaport as a new IHR port of entry, and conducted tabletop exercises on PHEIC for staff from several of the country’s ports of entry.

In response to the global threat of Zika virus, the MoHS and WHO organized a two-day meeting in October to conduct an assessment of the risk of Zika virus in Myanmar, using a guidance manual developed by SEARO. Twenty-six MoHS and WHO experts from the fields of public health, virology, vector control, and infectious disease epidemiology took part in the assessment. The meeting concluded that the entire country is at risk of Zika virus transmission, though urban areas are most at risk. It also identified the needs and gaps to optimize Zika virus detection and response in high-risk areas. Following the meeting, WHO procured diagnostic kits and reagents for Zika virus laboratory testing and additional vector control equipment.

To improve Myanmar’s ability to handle the health response to natural disasters, WHO, which co-leads the National Health Cluster with the MoHS, helped the Ministry to further develop its Early Warning Alert and Response System (EWARS), pre-position emergency health and diarrhoeal kits in disaster-prone areas, and develop a Humanitarian Response Plan and Health Cluster Strategy with other health cluster partners. The WHO Country Office also helped strengthen the capabilities of several subnational health clusters (in Rakhine, Kachin and Shan states) that were established in the aftermath of the protracted humanitarian crisis in Rakhine as well as in response to Cyclone Komen in 2015, seasonal monsoon flooding, and sporadic occurrences of armed conflict (in Rakhine). This assistance included coordinating the support of health partners to the Rahkine State Public Health
Department to ensure that health services were available to people displaced by the violence.

The health cluster in Rakhine State – co-led by WHO and the State Public Health Department – has proven to be a critical enabling platform for responding to outbreaks of vaccine-derived polio virus and JE. The state health cluster organized multiple coordination and planning meetings to implement the response to the polio outbreak, which involved five vaccination rounds for 360,000 children under the age of five. The state health cluster also coordinated a JE vaccination campaign conducted in response to an outbreak in August 2016 for more than 66,000 children aged nine months to 15 years.

Addressing noncommunicable diseases and injuries

Two important national surveys of NCD risk factors – the Global Youth Tobacco Survey and the Global School-based Students’ Health Survey – were conducted in 2016, with technical support from the US CDC and WHO. The tobacco survey found that 26% of boys and 4% of girls 13–15 years of age used tobacco products, and that two-thirds of students received school-based education on the dangers of tobacco use. According to the school-based health survey, the prevalence of overweight and obesity increased significantly from 2007 to 2016, while the rate of sufficient physical activity declined.

*Screening for NCDs at a public health facility in Yangon, Myanmar*
The MoHS formulated and costed out a comprehensive cancer control plan with technical support from the IAEA’s Programme of Action for Cancer Therapy (PACT), IARC and WHO. The plan – covering all cancers – identified as priorities the need to increase the training of health professionals in cancer prevention, early diagnosis and treatment; improve radiation safety for both health workers and patients; and create a population-based cancer registry. A meeting was held for national and international partners to mobilize technical and financial support to implement the plan, during which a two-year detailed workplan and budget were drafted. Myanmar is also one of six countries worldwide to participate in the Joint UN Cervical Cancer Programme, which will begin in 2017.

In response to the rapidly rising rates of traffic accidents in Myanmar – which now has the Region’s second highest traffic fatality rate (20/100 000 people) and has seen a 71% increase in traffic-related deaths from 2005 to 2015 – the country’s trauma registry and injury surveillance system was revitalized and expanded, with WHO technical and financial support. Improvements to the system, which consists of five sentinel hospitals, included establishing a coordinating unit for injury surveillance at the University of Public Health in Yangon; creating a project within the MoHS to oversee the system; collecting data from all other data sources to generate injury surveillance reports; and expanding its scope to include injury prevention as well as improving the quality of acute trauma care.

Partnerships

WHO collaboration with both international partners, including UN sister organizations, and local partners and stakeholders in Myanmar was strengthened in three key ways in 2016:

- Using existing funding platforms: WHO played a key coordinating role in establishing the H6 Forum – consisting of WHO, UNICEF, UNAIDS, UNFPA, UN Women and the World Bank. The H6 Forum will serve as the technical arm for the new Global Financing Facility (GFF) project in Myanmar, which will use funds raised by capital markets (Sustainable Development Bonds) to implement activities laid out in the National Health Plan. WHO will also be collaborating with several UN partners, including UNICEF, IAEA, IARC, UNAIDS and UN Women, on the Joint UN Cervical Cancer Programme.

- Using technical platforms: WHO serves as the co-coordinator with the MoHS of the National Health Cluster and on three state-level health clusters (Rakhine, Kachin and Shan) that were established to respond to health emergencies, as described above. WHO also serves as the Secretariat of the Malaria Technical and Strategy Group, which consists of four donor agencies and 31 implementing partners, and which regularly holds quarterly meetings to jointly plan and monitor malaria control activities.

- Using existing UN/partner support processes: The Country Office is actively contributing to the new UN Development Assistance Framework, guided by the SGD Framework.
And as part of the UN’s support to members of Parliament to increase their knowledge in key technical areas of the Myanmar Parliament Strategic Plan, WHO held a three-day seminar on the significance of health and development for 30 parliamentary health committee members, other Parliament members and MoHS staff.

Box 16. Working with local stakeholders in developing a health plan for Rakhine State

On 17 June, 2016, the Rakhine State Government held a workshop on “Current and Future Activities of International Development Partners’ work in Rakhine State”. This led to the development of a five-year Rakhine State Socio-Economic Development plan (SEDP), using a holistic and consultative process and with technical assistance from international partners.

For the health component of the plan, WHO participated in the technical working group that conducted a situational analysis and developed a logframe, based on the goal of achieving universal health coverage. As part of the situation analysis, medical officers from all 17 townships took part in a workshop to conduct a SWOT analysis. In addition, a series of consultative meetings were held with health-care providers, health volunteers, NGOs, CSOs, and community and religious leaders from throughout the country to capture and prioritize the diverse health needs of the population. The resulting health section of the SEDP identifies four main strategic areas where improvements need to be made in order for Rakhine State to achieve universal health coverage: (1) human and other resources for health, (2) integrated service provision, (3) health information and evidence-based systems, and (4) governance and partnership, including inter-ministerial collaboration. The SEDP has been submitted to the Union government and is awaiting final approval.

Looking forward

In the coming year, the WHO Country Office will continue to assist the MoHS, in collaboration with other development partners, in further developing key components of the National Health Plan, including detailed action plans and the Essential Package of Health Services, as well as with the first phase of the plan’s roll-out, starting in 2017.

WHO will also focus its assistance on specific essential services for hard-to-reach and low-performing states and regions, such as immunization services in Nagaland region and Sagaing and Rakhine states. In addition, the Country Office will support a nationwide JE vaccination catch-up campaign scheduled for 2017, as well as preliminary activities for its introduction into the routine immunization programme.
Nepal

Highlights

- Nepal receives Bloomberg award for progress in enacting strong tobacco control measures.
- Government passes landmark Immunization Act declaring vaccination the right of every child and sets up a public-private fund to ensure sustainable financing for immunization.
- National HIV Strategic Plan 2016–2021 is launched to accelerate testing and treatment of people living with HIV in line with WHO’s recommendation, “Treat all irrespective of CD4 count”.
- Twenty-eight per cent of districts declared “Fully Immunized”, with all children in these districts having received all basic vaccinations.
- All six “hub” hospitals and satellite hospitals in the Kathmandu Valley equipped with fully updated and tested hospital preparedness and response plans for emergencies and pre-positioned emergency medical supplies.
- National risk assessment for Zika virus infection completed.
All of WHO’s work in Nepal is guided by and is aligned with the Nepal Health Sector Strategy (NHSS) (2016-2021). The Strategy, agreed to by all external partners, aims to provide a basic package of quality health services to all of Nepal’s citizens free of charge, including the unreached, disadvantaged and vulnerable groups. To operationalize this Strategy, the Ministry of Health has prepared a series of programme-specific health plans and strategies, including the Nepal Every Newborn Action Plan (NENAP), a National Strategy on Reaching the Unreached (2016–2030) to address the country’s health inequities, a Leprosy Elimination Strategy (2017–2021), a National Tuberculosis Strategy, a National HIV Strategic Plan (2016–2021) and a comprehensive Multi-Year Plan for Immunization (2017–2021).

Implementing and measuring the progress and impact of these programmes require improved data and health information systems. Towards that end, the Ministry of Health, with support from WHO and partners, conducted a series of health surveys (including a Demographic and Health Survey (DHS) and a National Nutrition Survey), launched a maternal and perinatal death surveillance system to better detect and report these deaths and their causes, and converted the national health management information system (HMIS) and Early Warning Reporting System (EWARS) to the standard district health information system (DHIS-2) platform in order to improve programme monitoring and ensure a timely response.

Nepal’s progress in implementing the NHSS has been affected by two important developments. The first is the country’s continuing recovery from the major earthquake that
struck in April 2015, which has required a sustained response, including the reconstruction of 359 health facilities in 2016. The second development is the country’s decision to “federalize” or decentralize the government to the provinces and local levels.

This change will greatly determine how the various programmes supporting the NHSS will be financed, implemented and monitored. While decentralization could increase local ownership and ultimately improve coverage of health services, it could also lead to disruptions in services. If not planned well and if the functions of the different levels of government are not clearly defined. WHO has been providing technical assistance to the MoH to develop a workable governance and management structure for the health sector as it transitions toward this new federal system.

Key activities and achievements in 2016

Assistance with post-earthquake recovery

The WHO Country Office continued its focused technical support in 2016 in the 14 districts most affected by the 2015 earthquake through the work of 10 WHO Emergency District Support (WEDS) officers. These medical officers – all Nepali nationals – assist district public health officers in strengthening disease surveillance (including investigations and containment of outbreaks and verification of rumours about adverse health events and deaths), monitor the recovery of health services and reconstruction of health facilities, coordinate other health sector partners, and review and update the Health Sector Contingency Plan for emergencies. In 2016, they conducted more than 800 monitoring visits to 454 health facilities, investigated 33 infectious disease outbreaks (e.g., influenza-like illness, cholera, typhoid), and helped WHO conduct a “winter needs assessment” in the 14 earthquake-affected districts.

Preparing for future natural disasters

New data have revealed that the devastating 2015 quake did not release all of the stress that had built up due to friction of tectonic plates, leading scientists to fear that a new earthquake could strike at any time. WHO – by coordinating funding from various donors and providing
technical assistance – is assisting the country to establish a strong disaster preparedness and response system from the local to the central level to minimize the risks and impacts of future disasters on human health. The primary focus has been on strengthening the capacity of the National Health Emergency Operation Centre established on the MoH premises and three regional operational centres (in Pokhara, Surkhet and Doti).

Other actions completed in 2016 to increase the health sector’s disaster readiness include pre-positioning emergency medicines, supplies and equipment in six designated “hub” hospitals in Kathmandu; training 1,665 health staff at the six hub and 70 satellite hospitals in Kathmandu Valley in different aspects of emergency care (e.g., primary trauma care, hospital preparedness for emergencies, basic first aid); and the development of Health Sector Contingency Plans in six additional districts – bringing the total to 70 out of 75 districts having these plans in place.

In addition, a survey of hospital safety was conducted with assistance from the WEDS officers in hub and satellite hospitals in three districts in the Far and Mid-Western Development Regions – the likely epicentre of the next major earthquake – to assess and improve their ability to withstand the effects of an earthquake. This survey helped the WHO country office prepare a proposal for donor funding to improve the resilience of hospitals in these regions.

The earthquake and the psychological trauma that many suffered in its aftermath has also served as a catalyst for the MoH to work towards substantially improving the country’s mental health services. With technical support from WHO, the Ministry is revising the National Mental Health Policy and drafting mental health legislation to ensure compliance with human rights of people living with mental health issues. It also updated the essential drugs lists to include psychiatric medicines, and began a pilot project in three districts to integrate mental health services in primary health care facilities. The project involves training health workers using the WHO Mental Health GAP Intervention Guide to enhance their ability to provide basic mental health care and to identify and refer patients requiring expert care to specialists.

**Strengthening Nepal’s capacity to detect and respond to infectious disease emergencies: moving towards compliance with the International Health Regulations**

As part of the global WHO emergencies reform instituted in the wake of the Ebola outbreak, the Nepal Country Office created in 2016 a new WHO Health Emergencies team that consolidates the personnel and activities related to IHRs, pandemic influenza preparedness, and emergency risk management. This new team conducted a series of activities to strengthen the Government of Nepal’s Core Capacities to implement the IHRs. These
Box 17. Key updates on ongoing activities since 2015

- Through the Full Immunization Declaration Initiative – a unique effort begun in 2012 to motivate communities to have all of their children fully immunized – 21 of the country’s 75 districts (28%) have been declared “fully immunized” as of December 2016. This declaration follows a rapid coverage assessment by district monitors to confirm that 100% of children throughout the district have received all vaccine doses in the immunization schedule. The declaration was accompanied by a joyous celebration attended by government ministers and other elected officials. The country’s goal is for all 75 districts to achieve full immunization by the end of 2017.

- Implementation of Nepal’s Antimicrobial Resistance Action Plan continued in 2016. The number of laboratories performing AMR testing increased from 15 to 21 during the year and the number of pathogens under surveillance rose from six to eight. Professionals from the network of AMR laboratories received annual refresher training on the latest technologies to update their skills in antibiotic susceptibility testing, recording and reporting, with assistance from WHO in funding, designing and facilitating the training.

- Following the launch by the Minister of Health of the WHO Package of Essential Noncommunicable (PEN) Interventions for primary health care in Kailali district in October 2016, the piloting of PEN interventions expanded to a second district (Ilam) in January 2017; it is planned to expand to another eight more districts with funding support from the Ministry of Health. In addition, the MoH and the WHO Country Office organized the country’s first High-level Committee Meeting on Noncommunicables in September, chaired by the Chief Secretary and attended by Secretaries of key line ministries (e.g., education, agriculture, trade, environment, police) related to NCDs. The committee is responsible for providing Cabinet-level policy directions and implementation of the NCD Multisectoral Action Plan by ensuring that NCD-related action points are included in each ministry’s annual workplan and budget. Further demonstrating the priority of addressing NCDs in Nepal, a new NCD unit was created within the MoH. The challenge faced by the government will be to successfully engage other (non-health) sectors and nongovernment stakeholders to accelerate implementation of the NCD Action Plan, which includes public education and awareness raising on NCDs and their risk factors, behavioural change communications, and taxation of unhealthy products such as tobacco and alcohol, among other measures.
include assisting the Food and Agriculture Organization of the United Nations in piloting a Field Epidemiology Training Programme to enhance the ability of health and veterinary officials to investigate infectious disease outbreaks, providing critical laboratory supplies and technical support to expand the capacity of the National Public Health Laboratory to confirm the etiology of outbreaks, facilitating and leading a national risk assessment for Zika virus infection in collaboration with the MoH, and supporting the development of an enhancement plan for the health desk at the country’s major port of entry (Tribhuvan International Airport).

**Polio surveillance network supports broader range of activities**

The nationwide polio surveillance network supported by WHO – under the MoH’s Immunization Preventable Disease Unit or IPD – has helped keep Nepal polio-free through high-quality surveillance and polio immunization activities. This network, supported by 15 field-based surveillance medical officers covering all of Nepal’s 75 districts, has broadened its scope beyond polio by supporting the routine immunization programme – which continues to sustain high levels of coverage (>85%) – and by helping the country meet its goal of eliminating measles by 2019. The network provided technical assistance in 2016 for a mass measles-rubella immunization campaign conducted in 61 districts, which achieved a coverage rate of more than 95% (campaigns in the 14 earthquake-affected districts took place in 2015). In addition, the network has become the go-to technical resource for surveillance and outbreak investigations and response for other communicable diseases, including Japanese encephalitis, upon request from district authorities.

**Development of a new HIV strategy to achieve the global “90-90-90” target**

The Ministry of Health has adopted the UNAIDS programme’s ambitious target that by 2020, 90% of all people living with HIV will know their HIV status, 90% among them will receive sustained antiretroviral therapy (ART), and 90% of those on ART will achieve viral suppression (undetectable viral load). To meet this target, the Health Minister, H.E. Mr Gagan Kumar Thapa, launched a new National HIV Strategic Plan (2016–2021) on World AIDS Day (1 December) 2016. This strategic plan is the result of a 10-month long process involving a series of consultations with technical experts, representatives of key populations and civil society organizations, as well as technical support from the Nepal and Thailand WHO country offices and the SEA Regional Office. As it implements the new plan, the MoH faces a number of challenges, including the heavy dependency of the National HIV Programme on foreign aid (90% in 2014), the minimal involvement of the private sector in the programme, a lack of HIV services in many areas, and the need to integrate HIV/AIDS into other health services at the national and local levels.
Strengthening Nepal’s health systems

The Ministry of Health, with technical support from WHO, made significant progress in strengthening health information systems in 2016. The Health Management Information System and Early Warning Reporting System have switched to the international standard district-based platform, DHIS-2. The MoH also completed a comprehensive Health Facility Survey, based on standard tools, including the WHO-recommended Service Availability and Readiness Assessment (SARA).

This was a major effort supported by multiple partners, including WHO, that provides a comprehensive picture of the availability, quality and distribution of health services provided by different types of health facilities, based on a sample of nearly 1000 health facilities of all levels and interviews with more than 4000 health-care providers in both the public and private sectors.\(^{11}\) The survey found that almost all health facilities offer child curative care, family planning services, and antenatal care, but it highlighted a number of problems with the availability and quality of services (e.g., only 22% of facilities offered all vaccinations), the availability of health personnel (with 49% of primary health care centres having vacancies in medical officer positions at the time of the survey), and stockouts of essential medicines.

WHO has provided assistance to the government in rolling out a new National Maternal and Perinatal Surveillance and Response (MPDSR) Programme in six districts to better understand the causes of maternal and newborn deaths and develop interventions to reduce these deaths. The programme has involved development of a national MPDSR

guideline, training of health personnel at the hospital and community level to determine causes of maternal deaths from verbal autopsies, developing a web-based reporting system to capture and analyse the data, and the establishment of district MPDSR committees. Following verbal autopsies conducted in the six districts, MPDSR committees have already developed action plans that call for, among other things, increasing the availability of antenatal care (ANC) services in all outreach clinics, strengthening the referral system for complications, providing further training of health workers, and ensuring that there are always health workers on site during service hours to conduct ANC check-ups.

In the priority area of adolescent health, the MoH, with WHO support, revised the National Adolescent Development and Health Strategy in 2016, based on an assessment conducted in 2015 of the country’s adolescent health programme. The assessment, which used the online Innov8 tool and was conducted with support from WHO headquarters and the Regional Office, focused on equity of adolescent health services, gender, human rights and social determinants of health. The revised strategy now includes the concept of “leave no one behind”, and addresses the demand for, coverage and quality of adolescent health services.

As a critical step in strengthening the country’s health workforce, the MoH, with WHO assistance, completed a prototype electronic Health Workforce Registry in 2016 – the first country in the Region to do so. The registry – endorsed by stakeholders in a meeting in December – will enable the government to count and track all health workers at all levels of the health system on a regular basis. This system uses the open-source software IHRIS and follows the WHO recommended minimum data set for health workforce registries (including data on educational level and training, position, salary information and place of employment). The registry will assist the government in preparing and implementing Nepal’s Human Resources for Health Master Plan (2017–2030), which is being developed with WHO technical support to improve the availability, geographical distribution, training and quality of health professionals throughout the system. Besides providing better data to inform health workforce-related policy decisions, the registry will also help establish the interoperability of various e-Health information systems being developed in Nepal.

**Producing Nepal’s National Health Accounts using international standard System of Health Accounts**

The Government of Nepal completed a new National Health Accounts report in 2016, with considerable support from the MoH, WHO, the German bilateral aid agency (GIZ), the Nepal Health Economics Association and the Nepal Health Research Council. While this is the 4th set of NHAs produced in Nepal since 2012 which includes three-year NHA study period 2006/2007, 2007/2008 and 2008/2009, it is the first to use the international standard System of Health Accounts 2011 framework that systematically tracks the flow of...
expenditures in the health system. The results show that in 2012, the per capita spending on health (minus capital costs) was Nepalese rupee 2,745 (=US$ 34) and total health expenditures made up 5.5% of gross national product. The main source of health financing continues to be the people of Nepal, whose out-of-pocket payments made up 56% of current health expenditures – all expenditures except capital costs – while the government contributed 18% and international donors another 13% (see Fig. 7).

*Fig. 7: Sources of health financing 2011/2012*

The largest single use of health funding was for pharmaceuticals, accounting for 40% of spending, while curative services accounted for 28% and preventive services 13%. Hospitals received 24% of all current health expenditures, with more than half of this going to private hospitals, while ambulatory care providers received 19% (see Fig. 8)

*Fig. 8: How health funds are spent 2011–12*
The challenge in the future will be for the government to institutionalize the preparation of NHAs on a regular basis – which can take years to put the proper technical and governance systems in place – as well as the use of their findings to inform policy.

Addressing climate change and air pollution

To improve the resilience of the health sector to respond to climate change, the MoH has prepared a Health National Adaptation Plan (2016–2020) and established a new unit on Diseases Control, Climate Change and Environmental Health under its Curative Division to research and address climate change impacts on health. The unit has already completed a study to assess the effects of climate change on diarrhoeal diseases in Nepal (the report is currently under review). In addition, Climate Resilient Water Safety Plans are currently being implemented in water supply systems in four project sites.

To address the growing problem of air pollution and its health effects in Nepal, a number of consultative meetings of stakeholders were held to raise awareness about this issue and to foster collaboration to address it. WHO headquarters and the Nepal Country Office organized an international experts meeting and national workshop that were held back-to-back in December 2016 in Kathmandu on the topic of household energy use and sources and their health effects.

Partnerships

Nepal has a strong record of close collaboration and coordination among partners, including WHO, and between partners and the government in planning and implementing health sector activities to ensure that they are aligned with the country’s national health strategies and plans. The WHO Country Office serves as the Secretariat of and actively participates in the External Development partners (EDP) network – a group of eight UN and bilateral agencies working in health that has met every two weeks since 2004 to coordinate activities, agree on technical approaches and find opportunities to work together. The EDP network also organizes Joint Consultative Meetings three times a year to discuss key issues and monitor progress. To further coordinate partner activities, the Government reactivated in 2016 an annual Health Sector Development Partners Forum, which brings together a broader set of partners, including NGOs and CSOs.

Examples of initiatives on which WHO has worked closely with other EDP partners in 2016 to support the government include implementation of the MoH’s e-Health strategy and adaptation and customization of the DHIS-2 software for its health management information system (with USAID, UNICEF, and the British (DFID/NHSSP) and German (GiZ) aid agencies); implementation of the Maternal and Perinatal Death Surveillance System in six districts (with UNICEF and DFID/NHSSP); and the design and conduct of the Nepal Health Facility Survey (USAID, DFID/NHSSP and UNFPA).
Box 18. South-South collaboration to improve disaster preparedness and response in the South-East Asia Region

As a result of its efforts over the past decade to prepare for and respond to natural disasters and its experience with the major earthquake in 2015, Nepal has become a regional leader in disaster readiness and response, sharing its knowledge and experience with other countries in the Region. The Bhutan Government sent a high-level 13-member delegation for a week-long study tour in December 2016. The delegation visited “hub” hospitals where emergency preparedness projects are being implemented by a WHO-led consortium with support from the European Commission’s Disaster Preparedness programme (DIPECHO). They also visited the National Health Emergency Operations Centre at the Ministry of Health, the Humanitarian Staging Area (HSA) at the Tribhuvan International Airport, and the districts most affected by the quake and its aftershocks (Gorkha and Sindhupalchowk). There they had the opportunity to observe first-hand the extent of damage caused by the earthquake and the recovery and reconstruction activities, and also interact with district health officers, health sector partners and personnel at the damaged health facilities. Armed with the knowledge and experience gained from this visit and the technical assistance of the Nepal WHO Country Office, the Royal Government of Bhutan and WHO prepared a successful proposal to DIPECHO for a similar project to strengthen Bhutan’s health sector response readiness and resilience to natural disasters.

In addition, the Nepal Country Office has also lent its expertise to Bhutan in setting up medical camp kits (MCKs) – temporary mobile clinics developed by WHO that contain essential equipment and supplies for the delivery of primary health care services in areas where health facilities are destroyed. WHO procured an MCK for Bhutan and provided a four-day, hands-on training in November 2016 to MoH personnel and emergency response partners from Bhutan on installing and storing MCKs.

The WHO Country Office also provided support to its counterpart in Sri Lanka with the health sector response to floods and landslides that occurred in June 2016 in four districts in the southwestern part of country, including Colombo. The WHO Nepal National Professional Officer for emergency risk management assisted the Sri Lanka Country Office in coordinating the activities of the MoH, Ministry of Defence and other health cluster partners to more effectively and efficiently use the resources received from UN CERF. The Sri Lanka Office also procured an MCK from Nepal, using its own resources.

Looking forward

In the coming year, WHO, along with other partners, will focus on supporting the government in the following areas:

- The transition of the health sector to a federal system, which will require establishing stronger governance and management structures at the local and provincial levels. WHO, along with other partners, is assessing the technical assistance needs and exploring possible collaboration to better support this transition.

- Making improvements to health systems and services to make the right to health care articulated in the Constitution a reality and to reach the goals of the new Nepal Health Sector Strategy (NHSS). Critical improvements include increasing the availability of free
essential medicines, and ensuring that clinical protocols and standards are available and adhered to in all districts and in health facilities at all levels.

- Preparing a new WHO Country Cooperation Strategy (2018–2022) that will take into account the Sustainable Development Goals and the NHSS. WHO is also working closely with other UN agencies on the development of the new UN Development Assistance Framework (UNDAF) (2018–2022) to address key health sector challenges, especially risk factors for NCDs and wider social determinants of health.

- Planning for the transition of the polio network into the public health system, for which in 2016, the MoH established a National Polio Legacy Committee. There is wide-ranging consensus on the value of the polio network and discussions are ongoing on its potential in the post-polio era.
Sri Lanka

Highlights

- WHO certifies Sri Lanka as free of malaria and lymphatic filariasis, and validates maternal and neonatal tetanus elimination in 2016.
- Action Plan for Noncommunicable Diseases and the Region’s first NCD Alliance launched.
- Sri Lanka becomes first country in the Region to mandate sugar content labels on sugary drinks as a diabetes prevention measure.
- Tax on tobacco products increased to 90% of retail price – one of the highest.
- Maximum prices fixed for 48 essential medicines to ensure their affordability.

Sri Lanka made public health history in 2016 by achieving significant health milestones and received international accolades for its achievements in improving public health. The country received three WHO certificates for the elimination of malaria, lymphatic filariasis and maternal and neonatal tetanus. The elimination of malaria was globally acclaimed as a remarkable public health achievement, setting a precedent for malaria control in other tropical countries. Technical guidance from WHO helped the country in adapting strategies to
counter new challenges in controlling the disease, paving the way for success. Sri Lanka’s public health successes were highlighted at the WHO Regional Committee for South-East Asia in September 2016, which the country hosted after a gap of 11 years. The country’s achievements are a testament to robust leadership, unwavering political commitment and strong partnerships dedicated to ensuring healthy lives and positive well-being for all. WHO’s partnership with the government will continue to build on these milestones and provide strategic direction in overcoming key challenges to advance the public health agenda.

Key activities and achievements in 2016

Achieving elimination of lymphatic filariasis

In 2016, Sri Lanka and Maldives became the first countries in the SEA Region to be certified by WHO as having eliminated lymphatic filariasis. Since the National LF Programme began a targeted campaign in 2002 to eliminate the disease, in line with the WHO global target for LF elimination by 2020, the country has followed a strategy combining intensive surveillance, early detection, and treatment with mass drug administration (preventive chemotherapy) in the country’s eight LF-endemic districts. WHO’s support has included conducting training for health-care workers on early case detection and morbidity management, and supporting transmission assessment surveys and programmatic reviews.

This targeted elimination campaign resulted in a drastic reduction of the LF transmission rate to 0.03% by 2008, bringing elimination status within reach. In May 2016, WHO officially announced that Sri Lanka had achieved the elimination of LF as a public health problem.

Addressing the growing burden of noncommunicable diseases

Launch of the National Multisectoral Action Plan for Prevention and Control of NCDs and creation of the NCD Alliance

Noncommunicable diseases are the leading causes of mortality, morbidity and disability in Sri Lanka, accounting for 75% of all deaths in the country. Consequently, NCD prevention and control measures are a key priority for the government. While there is sufficient

political commitment for NCD prevention and control, efforts to address these diseases have been hampered by a lack of prioritization, monitoring and evaluation. A key milestone was reached in April 2016 with the launch of the National Multisectoral Action Plan for Prevention and Control of NCDs (2016–2020). The plan lays out nine specific targets by 2025 (e.g., per cent reductions in salt intake, alcohol and tobacco use, and hypertension, and per cent increases in the availability and use of treatment services and essential medicines), as well as the actions to reach them, and the roles and responsibilities of various sectors and agencies. WHO provided technical assistance for development of the action plan, advising on actions and strategies to prioritize, providing cost estimates, and developing a monitoring framework.

In addition, Sri Lanka became the first country in the South-East Asia Region to establish an NCD Alliance – a key recommendation of the Global NCD Action Plan. The Alliance, launched by the Minister of Health, H.E. Dr. Rajitha Senaratne, during the WHO Regional Committee session in September 2016, consists of major NCD-affiliated organizations, including the Diabetes Association of Sri Lanka, Sri Lanka Heart Association, Sri Lankan

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**Box 19. Conquering malaria: Sri Lanka’s breakthrough**

The elimination of malaria in Sri Lanka is a public health success story 80 years in the making. In September 2016 country received WHO certification for having successfully eliminated malaria.

WHO is a long-standing partner of the MoH’s Anti-Malaria Campaign (AMC) and supported the development of strategic plans and technical guidelines, as well as malaria surveillance, monitoring, capacity-building and research. During the 1990s, the AMC changed strategies, moving from vector control to parasite control. Early diagnosis, prompt treatment, and intensive disease surveillance were key contributing factors to decreasing the parasite reservoir.

Sri Lanka recorded its last indigenous case of malaria in October 2012. After three years of maintaining zero indigenous cases, the country applied for WHO certification of malaria elimination in 2015. Three missions were conducted to review the country’s elimination status and Sri Lanka was finally certified as malaria-free.

The Anti-Malaria Campaign is working closely with local authorities and international partners to screen high-risk populations entering the country in order to prevent the re-introduction of the disease. WHO is firmly committed to supporting the MoH to keep Sri Lanka malaria-free and sustain this public health achievement.

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H.E. Dr Rajitha Senaratne, Minister of Health of the Democratic Socialist Republic of Sri Lanka, receiving the WHO malaria elimination certificate

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Cancer Society and Ceylon National Association for Prevention of Tuberculosis and Chest Diseases. It will empower civil society organizations to stimulate the government’s response to the growing NCD burden and serve as an advocacy tool for people at risk of or living with NCDs. WHO will continue to provide technical guidance to the Alliance in expanding and in working together to improve NCD health care.

Measuring and curbing NCD risk factors

In August 2016 Sri Lanka became the first country in the WHO South-East Asia Region to successfully introduce a “traffic light” labelling system to raise awareness about the sugar content of packaged food and beverages in an effort to reduce the incidence of diabetes in the country. The new law, which has started with sugary beverages such as carbonated soft drinks, requires that containers display a colour code according to the amount of sugar per millilitre (with red for drinks containing more than 11 grams of sugar per 100 ml, yellow for 2–11g/100ml and green for less than 2g/100ml). The traffic light labelling system is based on WHO’s nutrient profiling methodology.

In addition, three NCD risk factor-related surveys were conducted or completed with WHO support: 1) a STEPS survey to investigate the prevalence of risk factors for NCDs, 2) a Youth Tobacco Survey to monitor tobacco use among young people, and 3) a School Health Survey to better understand young people’s health behaviours. These standardized global surveys will provide an insight into the health status of the population and guide the development of NCD prevention and control policies.

Increasing taxes to combat tobacco use

Every year, over 20 000 people die due to tobacco-related diseases in Sri Lanka. The country took a further step to curb tobacco use by increasing taxes on tobacco products from the prior 67%–72% to 90% of retail price – one of the highest rates in the world. The total price of a pack of 20 cigarettes has more than doubled since 2009, and at Sri Lankan rupee 700 (=US$ 5.30), it is the highest price in South Asia and among the highest in the entire Asia-Pacific Region.

WHO commissioned five technical papers to investigate the affordability of cigarettes in Sri Lanka and to develop a pricing formula for cigarettes – which takes into account income, inflation, affordability, and other parameters – with a view towards driving down cigarette consumption. WHO’s research provided the necessary technical guidance and strengthened the case for the subsequent tax increase.

The government also banned smokeless tobacco products and is now planning to require plain packaging of tobacco, ban the sales of loose cigarettes, and employ a licensing system for tobacco sales.

Addressing chronic kidney disease of unknown etiology in Sri Lanka

Sri Lanka is one of several countries in the world (along with certain Central American countries and parts of India) where chronic kidney disease of unknown etiology (CKDu) is a serious public health problem. It is estimated that thousands of Sri Lankans – primarily from farming communities – are affected by CKDu, which causes severe illness and premature mortality in young and middle-aged adults.

In April 2016, WHO and the Presidential Task Force on CKDu jointly convened a three-day international expert consultation to develop a consensus on recommendations for addressing this disease. This was followed by a workshop organized by WHO and the National Science Foundation of Sri Lanka in October, during which a national case definition
for CKDu and a protocol for community-based CKDu surveillance were developed. The standardized case definition has been adopted by nephrologists, clinicians and epidemiologists throughout the country. It will enable the MoH to strengthen surveillance and to accurately map out an epidemiological picture of CKDu in the future.

**Using a pricing formula to control the rising cost of medicines**

The rising cost of medicines is a growing concern in Sri Lanka, and the escalating NCD burden increases the urgency of addressing this issue to advance the public good. The WHO Country Office conducted a comprehensive analysis of Sri Lanka’s pharmaceutical price control methods and explored alternative mechanisms to control drug prices. Based on this analysis, WHO recommended that the government employ a combination of pharmaceutical policies that take into account both the supply and demand consequences of price controls on pharmaceuticals.

Consequently, the Government of Sri Lanka issued a notice by an extraordinary decree (“gazette”) on 21 October 2016 that set a ceiling on retail prices for 48 medicinal products considered essential in treating NCDs and other common ailments, based on a pricing formula. The revised pricing policy protects patients’ rights to access affordable medicines in Sri Lanka.

**Maintaining achievements in controlling communicable diseases**

Although Sri Lanka is a relatively low-prevalence country for tuberculosis, with an estimated annual incidence rate of 65 per 100 000 population, there is a wide disparity in rates by district that demands action. TB-HIV co-infection and multidrug-resistant TB also present challenges. In 2016, WHO worked closely with the MoH to revise the National TB Manual in order to improve the diagnosis and case management of TB patients in line with WHO’s global End TB Strategy.

Sri Lanka eliminated leprosy as a public health problem in 1995. However, recent surveillance data reveal a rising trend in child leprosy cases and relapses. WHO is assisting the MoH to develop and implement a new national strategy to end leprosy, with funding from the Bangkok Declaration Special Fund set up by the Sasakawa Memorial Health Foundation in 2013 to re-energize leprosy control efforts in the remaining endemic countries.

**Transforming mental health services**

Mental health care in Sri Lanka has seen significant progress in the last 15 years. Increased political commitment and funding towards mental health following the Tsunami resulted in many developments in the sector, including a shift to community-based care and a rise

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in the number of trained mental health professionals. However, major challenges remain in the multidisciplinary service delivery and increasing the quality of mental health services, particularly in vulnerable communities. To reduce gaps in mental health treatment and address the growing trends of depression, alcoholism and suicide, WHO is collaborating with other UN agencies and grassroots organizations to develop community-based psychosocial programmes to reduce health inequality.

**Partnerships**

Ensuring healthy lives and promoting positive well-being for all is a universal goal which goes beyond the mandate of the Ministry of Health. As such, WHO works in collaboration with other UN agencies, other ministries, international partners, the private sector and academia, in addition to the MoH. The public health achievements this year were made possible through a multi-pronged approach involving multiple stakeholders. Some examples of the WHO Country Office working in close partnership with a variety of organizations and agencies are:
Box 20. Strengthening the emergency response capacity of the health sector

On 15 May 2016, Sri Lanka faced a flood and landslide disaster that affected 22 of the country’s 25 districts and an estimated 301 600 people, causing extensive damage to infrastructure and property and severely affecting livelihoods.

Within 24 hours, the WHO Country Office mobilized funds to deploy mobile medical teams in disaster-affected areas. In addition, the country office donated almost US $50 000 to provide essential health services, strengthen the government’s communication capacity and deliver mental health and psychosocial services.

In the aftermath of the disaster, WHO worked closely with the government to strengthen the health sector’s emergency response capacity and secured additional emergency funds from the SEARHEF and the UN CERF to deliver life-saving medical relief and humanitarian support. Four medical camp kits (MCK) to serve as mobile hospitals during emergencies were also provided using these funds.

The Country Office also assisted with establishing three Health Emergency Operations Centres to ensure a precise and focused emergency response within the health sector in future.

- Collaboration with the Thailand Health Intervention and Technology Assessment Programme (HITAP), the National Authority on Tobacco and Alcohol (NATA), and the Sri Lanka Medical Association in developing a framework and methodology to calculate the health and social costs of alcohol and tobacco use. The results – estimating that tobacco and alcohol combined cost society US$ 1.46 billion or 1.95% of the GDP in 2015 – prompted the government to increase taxes on alcohol and tobacco, and to ban smokeless tobacco products.

- Assisting a number of community-based organizations with their advocacy, community mobilization and other activities. These include the Consumer Action Network Mental Health Lanka (CANMH Lanka,) which advocates for improved mental health services and rehabilitation efforts across all districts; the Ampara Special Needs Network (ASNN) (supporting programmes to train volunteer teachers working with people with disabilities); and the Alcohol, Drug and Information Centre (conducting community mobilization and awareness programmes on alcohol and drug abuse).
Working with the National Council for Road Safety, under the Ministry of Transport & Civil Aviation, to develop a national action plan for road safety and to review existing road safety legislation in Sri Lanka.

Collaborating with a diverse range of partners, UN agencies, Parliament, Youth Parliament, Ministry of Social Empowerment and Welfare and the Ministry of Primary Industries, to conduct a series of sessions to promote healthy lifestyles in the workplace. The sessions empowered working professionals to take ownership of their own health, fostered healthy lifestyle values, and promoted positive changes in daily routines.

During the floods, WHO worked closely with the Ministry of Disaster Management, Ministry of Health and the armed forces to provide immediate humanitarian support to those affected by the floods and to identify health-care gaps. In the aftermath of the floods, WHO worked with the Government of Sri Lanka, the World Bank and the European Union to conduct a post-disaster needs assessment to evaluate the extent of damage caused by the floods and areas requiring further intervention.

Looking forward

The Sustainable Development Goals provide a unique opportunity for the country to improve partnerships and promote a multisectoral approach to ensure the healthy lives and well-being of the Sri Lankan population. The National Performance Framework for the health sector, developed this year, outlines the national health indicators and targets for Sri Lanka to achieve the health SDG (SDG 3). This framework will be the basis for directing and monitoring progress towards realizing Sri Lanka’s vision of sustainable development in the health sector.

Building on the achievements in disease control in 2016, the country needs to further strengthen its health-care services in order to achieve the planned elimination of diseases: mother-to-child transmission of syphilis by 2017, mother-to-child transmission of HIV and measles and congenital rubella syndrome by 2018, and rabies by 2020.

It is proposed that a Human Resources for Health (HRH) unit be established in 2017 in the Ministry of Health to improve coordination with various MoH departments, the Ministry of Higher Education and other ministries in charge of recruiting, training, planning, monitoring and financing the health workforce. The HRH unit will have a broader mandate to estimate the country’s health workforce needs and to plan for the required number of health personnel in a coordinated and sustainable manner. WHO will support this new unit by providing strategic advice and technical guidance aligned with the Global Strategy on Human Resources for Health: Workforce 2030.

The Country Office is committed to supporting Sri Lanka in identifying critical areas for improvement and supporting evidence-based policy-making. A national study on
knowledge, attitudes and practices relating to use of antibiotics will be carried out in 2017 with support from the Fleming Fund. The data will inform policies to address this growing public health issue. Additionally, a National Salt Survey, planned for 2017, will determine the sodium consumption patterns in the country and guide policies to promote healthy diets and salt reduction schemes.

The President of Sri Lanka, H.E. Mr Maithripala Sirisena, has declared 2017 as the ‘Year of Alleviation of Poverty’ for the country. Greater investments in public health will lay the foundation for addressing social inequalities and uplifting marginalized communities in order to ensure that no one is left behind. WHO will continue to support the country as it builds on its past successes and capitalizes on this opportunity to achieve equity in health, universal health coverage and quality services for all.
Thailand

Highlights

- Thailand becomes first country in the Asia-Pacific Region to be WHO certified for eliminating mother-to-child transmission of HIV and syphilis.
- New plan developed with goal of eliminating malaria by 2024.
- First plan in the Region for Disaster Preparedness for People with Disabilities developed.
- Thai Cabinet approves stronger road safety legislation to tackle the world’s second highest traffic fatality rate.

Thailand has seen dramatic improvements in the health of its population in recent decades. With its vibrant primary health care system, progressive health promotion programme, and establishment of universal health insurance in 2001 – leading to continuously improving health-care coverage and a dramatic fall in out-of-pocket expenditures, Thailand is well-placed to address many of the health-related Sustainable Development Goals. Despite these achievements,
persistent challenges remain, including rising rates of noncommunicable diseases, the threat posed by growing antimicrobial resistance to gains made against infectious diseases, and the national tragedy of high rates of road traffic injuries and deaths.

The role of the WHO Country Office in Thailand is primarily to harness the intellectual capital and credibility of WHO at all levels (including other regions) in order to help solve the country’s public health challenges. In 2016 the Country Cooperation Strategy (CCS) for 2017–2021, focusing on five priorities agreed to with the government, was developed following extensive consultations with a broad range of stakeholders. The new CCS is aligned with Thailand’s national strategic plans, the Regional Flagship areas, the UN Partnership Framework, and the SDGs. These five priorities are: (1) antimicrobial resistance, (2) global health diplomacy (including international trade and health), (3) migrant health, (4) noncommunicable diseases and (5) road safety.

**Key activities and achievements**

**Disaster preparedness for people with disabilities**

Thailand became one of the first countries in the world to develop a disaster preparedness plan specifically for people with disabilities. The plan follows the 2013 WHO Guidance
on Disability and Emergency Risk Management for Health and is aligned with the Incheon Strategy to “Make the Right Real” for Persons with Disabilities in Asia and the Pacific, approved by governments in the ESCAP region in 2012. The goal of the plan is to make sure that people with special needs are not forgotten during emergencies; that is, a blind or hearing-impaired person receives notifications via appropriate means of communication; each community is aware of its residents with disabilities, including ones using wheelchairs; and communities can ensure that during evacuations people with disabilities are prioritized and given special assistance. WHO played a catalytic role in bringing together a wide range of stakeholders from several ministries and disability advocacy groups to develop the plan, based on the global guidelines that WHO had translated.

Strengthening laboratory capacity to detect emerging infectious diseases, including Zika virus infection

Thailand’s ability to manage potential threats from emerging infectious diseases, such as Zika virus infection, was considerably improved in 2016, including in the areas of surveillance, laboratory diagnosis, case investigation, clinical management and risk communication. WHO’s main focus has been to strengthen the country’s laboratory capabilities to detect emerging pathogens by providing financial support for a series of meetings and training workshops. These included: i) a workshop on Biological Safety Cabinet (BSC) Certification for 16 Thai participants; ii) training for 27 Thai laboratory staff on safe practices for transporting highly pathogenic specimens; iii) a conference on “Strengthening Laboratory Networks for Emerging Infectious Diseases (EIDs)”, in which 135 Thai participants discussed a national laboratory strategy for EIDs, including linkages with antimicrobial resistance; iv) a Biosafety and Bio-risk Management Training Course for 61 participants, which focused on the development of bio-risk management workplans and their integration with efforts to control AMR; and v) a training workshop on implementing an External Quality Assurance (EQA) Programme for medical laboratories for 20 medical technologists and scientists from Thailand and the Philippines.

Development of a health warning system for heat-related illnesses

The number of heat-related illnesses reported in Thailand – mainly among agricultural workers – rose 170% between 2010 and 2013 (from 1020 to 2742), and as the planet warms, the number of heat waves is projected to increase from 10 days in 1990 to 70-210 days by 2100, depending on the level of carbon emissions. As part of the country’s national Strategic Plan on Climate Change and Public Health described in last year’s Annual Report of the Regional Director and following recommendations from a qualitative

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17 United Nations Economic and Social Commission for Asia and the Pacific
assessment of health vulnerability and adaptation to climate change risks in Thailand supported by WHO in 2015, the government developed an alert system for heat-related illnesses to provide an early warning to those most at risk of illness or death from excessive heat exposure. The system consists of several elements or steps, including: (1) weather forecasts of high temperatures and humidity from the Thai Meteorological Department; (2) assessments of future weather patterns in terms of health outcomes; (3) determination of heat-stress thresholds for action; and 4) graded alerts or actions for communication to the general population and specific target groups about an impending heat wave, as well as to government agencies about the possible severity of health impacts.¹⁹ WHO played a key role in spearheading the development of this system, in collaboration with the Ministry of Public Health (MoPH) and the Ministry of Natural Resources and the Environment, where the Thai Meteorological Department is located.

*Fig. 9: Days of warm spells in Thailand, projected to 2100*

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**Plan for accelerating malaria elimination**

The Government of Thailand completed a plan, with WHO technical support, to eliminate malaria by 2024 and to achieve WHO certification by 2026, ahead of the global target of 2030. Four main strategies will be used to achieve this goal: (1) improving surveillance technologies, such as real-time surveillance through web- and app-based tools for appropriate and timely responses; (2) incorporating the monitoring of drug efficacy into routine nationwide malaria surveillance to monitor trends in multidrug resistance (MDR); (3) collaborating with national research agencies to develop better malaria prevention tools, such as insecticide-treated materials (nets, jackets) developed using nano-technology; and (4) empowering communities to better protect themselves from malaria by using grassroots organizations to conduct assessments of the communities’ level of risk and

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¹⁹ <http://www.searo.who.int/thailand/areas/environmentalhealth/en/>
adopter appropriate, locally-accepted preventive measures. WHO is providing support to this effort through its participation on the National Malaria Elimination Steering Committee and in three of its four technical working groups (Surveillance and Response, Partnerships at the National and International Levels, and Community Empowerment).

Putting hepatitis prevention and control on the public health agenda

WHO provided substantial support to the MoPH in 2016 to create a specific programme to control hepatitis and to develop a national strategy. Although Thailand was one of the first countries in the Region to include hepatitis B vaccine in its National Immunization Programme (in 1992) and its universal health insurance scheme covers treatment for hepatitis C, this is the country’s first national strategy developed specifically to address hepatitis infections as a group. The strategy focuses on controlling hepatitis B and C and includes the use of newly-developed direct-acting antiretrovirals (DAAs) to treat hepatitis C, which are considerably more effective, have fewer side-effects and require a shorter course of treatment than the current drug regimen used in Thailand.

WHO also led the development of an investment plan for hepatitis C treatment, which uses modeling to project the impact – on incidence, morbidity and mortality – of different options concerning who to treat and at what stage of their disease. Once the government negotiates prices with producers of these drugs, which can range from a few hundred to tens

With H.E. Prof. Piyasakol Sakolsatayadorn, Minister of Public Health, Royal Government of Thailand, and Dr Michele Sidibé, Executive Director of UNAIDS
of thousands of dollars for a full course of treatment, the total costs of the different options can be estimated to help the government decide which treatment strategy to pursue.

**Monitoring progress with the control of tuberculosis**

WHO helped to organize and fund a mid-term, international review of the Thai National TB Programme, which included a specific focus on multidrug resistant TB. As part of this review, WHO supported an updated epidemiological review of TB and coordinated an assessment conducted by the independent Greenlight Committee. The review found that progress in controlling TB was uneven in the country, and noted, in particular, the urgent need to invest in and use rapid diagnostic technologies (e.g., Gene-Xpert machines), the need to establish a single real-time monitoring and surveillance system, and to step up the screening, diagnosis and treatment of MDR-TB cases. The review findings were presented at two high-level meetings (with the Minister of Health and the Governor of Bangkok), at which WHO staff and the WHO country representative were able to provide technical leadership in discussions on ways to strengthen the TB Programme.

**Combating antimicrobial resistance**

In support of the National Strategic Plan on AMR developed with the oversight of the Thai Food and Drug Administration in 2015, and following a decision that AMR will be a priority area for the 2017–2021 Country Cooperation Strategy, the FDA and WHO developed a five-year CCS-AMR Programme (2017–2021). The Programme focuses on three areas: 1) the generation and dissemination of evidence concerning the prevalence of AMR to agencies implementing the national strategic plan; 2) strengthening and developing (as needed) platforms for monitoring and evaluating AMR, and 3) strengthening the national capacity to generate evidence concerning AMR and its causes. This work will require collaboration with animal health authorities, including with the Food and Agriculture Organization. In addition, the International Health Policy Programme (IHPP) received financial and technical support from WHO for a research project on the use of antimicrobials in humans and animals that will be used to inform the development of a legal framework to support the monitoring of antibiotic use in Thailand.

**Supporting legislation to improve road safety in Thailand**

As part of the Global Road Safety Initiative funded by Bloomberg Philanthropies, WHO conducted a comprehensive review of all road safety laws and their enforcement in Thailand in 2016. One of the key recommendations from the review was to establish a working group to review road safety legislation with the aim of tightening laws, where necessary, to better address the country’s extremely high traffic fatality rate.
WHO subsequently played a pivotal role in establishing the working group, which consists of 18 members from a range of government agencies (e.g., several MoPH departments, national police, highways department, emergency medicine institute), research institutes and academia, as well as WHO. The working group, with help from experts in different areas, drafted a comprehensive package of amendments to substantially strengthen current laws in five areas: drink driving, speed limits, licensing of drivers, regulations for publicly-operated vehicles, and seat belts. Key changes in the legislation include lowering the blood alcohol limit for young or new drivers from 0.05 g/dl to 0.02 g/dl, reducing speed limits in urban areas, strengthening testing for driver’s licences, revoking licences for violators, requiring seat belts for all vehicle passengers, and increasing overall fines for violations.

Upon review by the Road Safety Directing Centre in the Interior Ministry, the amendments were endorsed by the Cabinet in October and are currently under review by the legislative council, the final step in becoming law.

Addressing risk factors for noncommunicable diseases

WHO provided technical support to finalize phase 2 of the Thai Healthy Lifestyle Strategic Plan (2017–2021) in 2016. This plan is in line with the Global NCD Action Plan and aims to reduce premature mortality from NCDs by 2025 using a multisectoral approach and by implementing WHO-recommended “Best Buys”.

*With Prof. Wipada Kunaviktikul, Dean, Faculty of Nursing, Chiang Mai University, at the International Conference on Optimizing Health Care: Quality Teamwork in Education Research and Practice, in Chiang Mai, Thailand*
The report of the Global Youth Tobacco Survey, conducted in Thailand in 2015 with technical and financial support from WHO, was published jointly by the MoPH and WHO in 2016. The survey, conducted in a nationally representative sample of nearly 1900 students from 30 schools, most of them 13–15-year-olds, found that 17% of boys and more than 5% of girls smoke cigarettes – a slight decrease among boys but an increase among girls since the last survey in 2009. The overall smoking rate among all students remained about the same at 11%. The survey also found easy access among children to cigarettes, despite a ban on tobacco sales to minors.

These findings were used to develop a new tobacco products control bill, drafted to help the country meet the requirements of the WHO Framework Convention on Tobacco Control (FCTC). The new Act, passed in early 2017, includes a number of provisions designed to strengthen tobacco control in Thailand. These include banning the sale of “loose” cigarettes (used by 40% of young smokers), raising the legal age for purchasing tobacco from 18 to 20 years, putting plain packaging on cigarette packages, and requiring disclosure of ingredients of tobacco products.

### Box 21: Ambassadors form alliance to address road safety in Thailand

Thailand has the second highest rate of traffic fatalities in the world – at 36.2 deaths per 100,000 population – and by far the highest rate in South-East Asia. An estimated 24,000 people die from road accidents in the country each year, or 66 per day. Numerous foreign nationals have been among those killed or injured on the road.

The WHO Country Office – under its Road Safety Initiative funded by Bloomberg Philanthropies – formed an alliance of foreign ambassadors to advocate for and provide technical support to improve this situation. The Embassy Friends of Road Safety currently consists of 10 ambassadors from European countries, the USA, Canada, and Brazil. The aims of this innovative alliance are to: (1) share experiences and lessons learned from their countries’ efforts to reduce traffic deaths and injuries through meetings and sharing of resources; (2) provide expertise and coordinate technical assistance for road safety improvements; and (3) speak with one voice on strategies to improve road safety in Thailand. A working group of technical staff (e.g., health or cultural attachés) from the participating embassies has been established to ensure follow-up of these activities.

The Alliance has been active since its creation in May 2016. It has held a series of meetings, including with government officials to inform them about the Alliance, and with the Thai National Accident Prevention Policy Board to review a set of amendments aimed at strengthening road safety laws that have been approved by the Cabinet. The Alliance also sent a joint statement to the Ministry of Foreign Affairs in December urging the government to pass the new regulations, set clear measurable targets for road safety improvements and assign responsibility to appropriate agencies to meet these targets, and promote a safe driving culture through mass communications and public education. The Alliance has begun sending resources, such as manuals and guidelines, from Member countries to the clearing house on the Bloomberg project website and is supporting a newly-formed association of journalists focusing on road safety.

This unique model of ambassadors establishing an alliance to promote a specific cause could potentially be utilized to address other important health and safety issues in Thailand as well as in other countries.

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20 Source: Global Status Report on Road Safety. 2015.
Thailand is also one of the few countries in the Region to propose a tax on sugary drinks as a means of reducing the rate of obesity, diabetes and other NCDs. WHO staff took part in a technical seminar on the tax and conducted advocacy activities, including TV interviews during World Health Day and press releases to promote it. The proposed tax, currently with the Ministry of Finance, would be imposed (the amount still to be determined) on sodas, energy drinks, juices and other sweetened beverages, with the level of tax increasing with the amount of sugar.

Partnerships

Examples of partnerships that WHO has established with other UN agencies, as well as with organizations and government agencies outside of the health sector, include the following:

- The WHO Country Office worked in close collaboration with the national Road Safety Directing Centre (RSDC), consisting of key ministries, government agencies and other national partners, to advance road safety legislation in Thailand. This partnership between WHO and the RSDC led to an expedited action on road safety legislative improvements; a process that would otherwise take at least two or three years was completed in only one year.
The unique alliance of foreign ambassadors is initiated by WHO to jointly promote road safety for the citizens of Thailand and foreign nationals living and travelling in Thailand, through engaging foreign embassies and coordinating efforts with collaboration in campaigns, projects and other road safety initiatives.

With increased concern for Thailand’s health security and the health of migrants, key partners joined forces to increase access to immunization services for migrant children living with parents or caretakers on Sansiri construction sites.

WHO mobilized the UN System in Thailand, and specifically partnered with UNICEF to support the passage of the Control of Marketing of Infant and Young Children Food Act. WHO also collaborated with the US CDC on NCD surveillance, the field epidemiological training programme, and for the prevention and control of cardiovascular disease.

Box 22: WHO certifies Thailand as having eliminated mother-to-child transmission of HIV and syphilis

Thailand became the first country in the Asia-Pacific Region and only the second non-OECD country in the world to receive validation for eliminating mother-to-child transmission of HIV and syphilis in June 2016. Certification followed an independent expert mission to the country in April, made up of experts from nine countries, supported by WHO, UNAIDS and UNICEF staff who were co-opted to join the mission. The number of infants infected with HIV through mother-to-child transmission was found to be 85 in 2015, down from around 1,000 in the year 2000 – a decline of more than 90%. (Since the treatment for prevention of mother-to-child transmission (PMTCT) is not 100% effective, elimination of transmission is defined as a reduction in transmission to a level where it no longer constitutes a public health problem.)

This major achievement was accomplished through a combination of high-level political commitment, evidence-based changes in PMTCT treatment to improve its effectiveness and lower its costs, and the country’s move towards universal health coverage, eventually covering all pregnant women and their children living in the country. In 1995, when the HIV prevalence rate among pregnant women peaked at 2.3%, zidovudine (AZT) was too costly and difficult to administer on a large scale in Thailand. Clinical trials and pilot programmes conducted by the government with technical partners showing the effectiveness of a short-course of the drug, coupled with efforts to produce it locally, made it financially possible for the Thai government to provide this treatment as a routine part of antenatal care services. This resulted in a tripling of the budget for PMTCT services (HIV screening plus AZT for HIV+ women and their infants) and two out of three pregnant women receiving these services by 2001.

Advances towards universal health coverage further accelerated PMTCT coverage rates, beginning with the establishment of the country’s universal health insurance scheme in 2001. This was followed by the decision to make health-care services free in 2007, and the extension of health insurance in 2013 to all documented and undocumented migrants, as part of the Government’s commitment to the Global Plan towards the Elimination of New HIV Infections among Children by 2015 and keeping their mothers alive. This has allowed all pregnant women in the country, regardless of their legal status, to receive free antenatal care, delivery and PMTCT services. Coverage rates for PMTCT services among pregnant women rose from less than 50% in 2002 to 94% by 2009 and to 98% by 2016, while the proportion of infants of HIV+ mothers receiving treatment reached 99.6% by 2015. These efforts have prevented an estimated 17,000 new HIV infections in infants between 2000 and 2015.

Looking forward

Through the recently launched Country Cooperation Strategy (CCS) (2017–2021), WHO will continue to contribute to improving the health of all people in Thailand by working with the Ministry of Public Health, other government ministries and nongovernmental stakeholders on critical health priorities, and by stimulating high-value policy work, knowledge generation, advocacy and capacity-building in the focus areas (AMR, migrant health, NCDs, road safety and global health diplomacy). Some of the major activities in the coming year and beyond include:

- Continuing efforts to improve road safety with national partners, including advocating for and supporting the implementation of the package of legislative amendments to strengthen road safety regulations. Thailand’s decision to host the next World Safety Conference demonstrate its commitment to addressing this serious problem with support from global partners.

- Working closely with national partners to implement the national multisectoral Thai Healthy Lifestyle Strategy (2017–2021) and to help Thailand achieve the nine NCD targets outlined in the plan.

- Assisting with an IHR Joint External Evaluation that is expected to take place in 2017.

- Support for an expanded lymphatic filariasis transmission assessment survey (TAS) to enable Thailand to declare national elimination of this important disease in 2017. The survey will take place in 2017 in the last province believed to be endemic (Narathiwat in southern Thailand), as well as in other potentially at-risk provinces.
Timor-Leste

Highlights

- The Prime Minister, H.E. Dr Rui Maria de Araújo, given the World No Tobacco Day Award in 2016 for his exemplary leadership in anti-tobacco initiatives.
- Government approves comprehensive tobacco control law, followed by anti-smoking advocacy campaign.
- Primary health care programme (Saude de Familia) to reach all families succeeds in visiting and registering 90% of the country’s households.
- Timor-Leste adopts WHO package of essential services to combat major noncommunicable diseases.
- New immunization schedule launched with five new vaccinations, including a hepatitis B birth dose and measles-rubella vaccine.
- Country launches public awareness campaign and training of health professionals to combat antimicrobial resistance.
- Government steps up efforts to combat gender-based violence: develops National Action Plan and National Guidelines for Health Care Providers and conducts public advocacy campaign.
A recent study on measuring the health-related Sustainable Development Goals in 188 countries found the largest improvements in 33 health-related SDG indicators (between 1990 and 2015) occurred in Timor-Leste, Bhutan and Colombia. By 2013, Timor-Leste had reduced child mortality by two-thirds – meeting the Millennium Development Goal 4 – and eliminated neonatal tetanus. It has also remained polio-free. Timor-Leste has also been identified as one of the countries with the potential to eliminate local transmission of malaria by 2020, having achieved a reduction in the malaria incidence rate of more than 75% from 2000 to 2015.

Nonetheless, many health challenges remain in the country and universal health coverage is yet to be achieved, particularly in rural areas. Although health services are provided free of charge to the population, poor, less educated and more remote populations still have less access to care and suffer from higher mortality rates. Rates of malnutrition among children, though reduced in recent years, remain high. Timor-Leste also suffers a high burden of tuberculosis in the South-East Asia Region, with an estimated prevalence of 820 per 100 000 population and incidence of 498 per 100 000.

The Ministry of Health (MoH) continues to work hard to deliver on the commitment enshrined in the Constitution to provide free universal health care through a decentralized health-care system. During an address to Parliament, the Prime Minister, H.E. Dr Rui Maria Araújo, declared that “transforming our world for better health and well-being requires investment in social capital, economic development, environmental sustainability, strengthening partnership and active participation from all segments of society by promoting access to health, education, professional training and education, information, social justice and culture, as well as by managing and promoting its natural resources in a sustainable manner, so as to ensure quality of living in the present and to protect the needs of future generations”.

The work of the WHO Country Office focuses on strengthening health systems to ensure universal health coverage and is aligned with the country’s development and health plans, including the National Health Sector Strategic Plan (2011–2030), as well as the health-related SDGs, and the United Nations Development Assistance Framework (UNDAF) for 2015–2019. WHO’s support addresses a wide range of areas – from communicable diseases to reproductive, maternal, newborn, child, adolescent health and nutrition; emergency preparedness and response; and the growing challenges of noncommunicable diseases, mental health, injuries and disabilities.

25 Timor-Leste. Country Profile. Data are as reported to WHO, available at www.who.int/tb/data
Key activities and achievements in 2016

Advancing plans to achieve the health SDG

Timor-Leste is the only country in the Asia-Pacific Region that is a member of the High-Level Champions Group for the Sustainable Development Goals – a group of Presidents and Prime Ministers from nine countries formed in 2015 to rally support for implementation of the SDG Agenda. During the Timor-Leste Development Partners Meeting in July 2016, the Prime Minister reiterated that Timor-Leste is “deeply committed to achieving the targets and indicators that feed the Sustainable Development Goals”. As an initial step, the government established an SDG Task Force in 2016 to map out strategies to achieve the 17 goals in Timor-Leste, working closely with all government agencies, civil society organizations, and development partners. WHO supported the Ministry of Health in developing a Health SDG Profile for Timor-Leste, which provides an overview of the country’s current status regarding the 13 targets of the health SDG (SDG-3) and a baseline for all 26 SDG-3 indicators.26

Prioritizing noncommunicable diseases

In 2016, the MoH adapted the WHO Package of Essential NCD interventions (WHO PEN), following a situation analysis conducted by WHO and a national consultation. The Timor-Leste PEN package, which will be implemented in phases beginning in 2017, includes a series of protocols developed with WHO support for various levels of the primary health care system (community health centres (CHCs), health posts 1 and 2, and mobile clinics).

These include protocols for the following services: domiciliary visits; integrated management of diabetes and hypertension; management of asthma and chronic obstructive pulmonary disease; management of cardiovascular diseases; health education and counselling on healthy behaviours; and assessment and referral of women with suspected breast cancer. WHO also supported training of 37 health professionals from two municipalities (Dili and Ernera) to enhance their clinical skills in managing NCDs and in setting-up these services in their health facilities. In addition, the MoH established an NCD health information system as part of the national Health Information System, which now uses the DHIS-2 platform.

Addressing the country’s high smoking rates through advocacy and public education

In late 2015, the government approved a comprehensive tobacco control law to address the country’s high tobacco use rates – around 70% among men and 29% among women.

A series of activities were conducted in 2016, with WHO support, by the MoH, civil society organizations, the media and others to move the anti-tobacco agenda forward and enforce the new law. On World No Tobacco Day in May, the MoH declared all health facilities as no-smoking zones and had “Tobacco Free Zone” signs posted in all facilities. Also on that day, the National Alliance for Tobacco Control (a group of CSOs) organized a national advocacy workshop on the new tobacco control legislation for participants from government agencies, educational institutions, the media, NGOs and CSOs. The National Alliance, as well as health professional associations (medical, nurses and public health) and a public health students’ association, conducted public anti-tobacco advocacy campaigns, with technical and financial support from WHO. In addition, WHO supported a multimedia campaign to raise awareness among young people of the dangers of tobacco use during International Youth Day, which included broadcast, print and web-based messages.

Several training courses were also held to increase the capacity of health facilities and CSOs to provide tobacco-related services. These include: (1) a training for 14 CSOs that are members of the National Alliance for Tobacco Control on the epidemiology of tobacco-related diseases, the harmful use of tobacco and tobacco control interventions; and (2) an orientation for staff of a rural health service operated by a fair trade coffee cooperative that serves 20,000 families (Clinic Cafe Timor in Ermera) on the consequences of tobacco use, the general principles of tobacco cessation, and strategies to motivate patients to quit smoking.

Strengthening health care for HIV/AIDS, TB and hepatitis

The MoH developed a series of strategies and guidelines in 2016, with WHO technical support, to improve the country’s diagnostic and treatment services for HIV, TB and hepatitis. These include a new Strategy for HIV/AIDS (2017–2021), which adopts the strategy now recommended by WHO of “Test and Treat” (putting all HIV-positive patients on antiretroviral therapy, regardless of their CD4 count), and aims to eliminate mother-to-child transmission of HIV and syphilis, among other goals. New Guidelines on Treatment, Care and Support for HIV/AIDS were developed to enable health workers to implement the new strategy.

The development of new Guidelines for Paediatric and Extra-Pulmonary TB represents an important step in the control of tuberculosis in Timor-Leste. TB case detection in children has declined significantly since 2010, indicating significant problems in diagnosing the disease in children at most levels of the health-care system. These guidelines, which reflect the latest international recommendations, were developed to improve the detection and successful management of active cases in children by strengthening the skills of clinicians to diagnose and treat childhood TB. The guidelines focus on methods for clinical diagnosis, but also include such tools as X-ray and the rapid diagnostic Xpert MTB/RIF.

The MoH also prepared the country’s first national guidelines for “Screening, Treatment and Care of Viral Hepatitis in Timor-Leste”, which include guidance on testing and screening...
for hepatitis B and C, management of acute hepatitis, and treatment and care of chronic hepatitis B and C infections.

**Strengthening services for women and children**

A Maternal Death Surveillance Review System was established at the national hospital (Hospital Nacional Guido Valadares) and five referral hospitals, with support from WHO and UNFPA. Its purpose is to count and investigate every maternal death in order to understand the true magnitude of maternal mortality at subnational levels, its causes, and the impact of actions to reduce it. The system also includes the practice of verbal autopsies in two municipalities (Ermera and Dili).

In another effort to reduce maternal mortality and improve birth outcomes, WHO, again in partnership with UNFPA, developed a costed improvement plan for emergency obstetric and neonatal care (EmONC), based on an assessment of current EmONC services and capabilities at community health centres and hospitals. The plan calls for the appointment of a technical committee and coordinator to provide oversight; development of national standards and treatment pathways, including referral protocols; training of health workers by a national team of trainers using a comprehensive training package to be developed; a review of the essential medicines list; improvements in physical infrastructure at hospitals and health centres where these services are provided; and supportive supervision and
mentoring. It also calls for improvements in blood transfusion and laboratory services at the national hospital and five referral hospitals and procedures to ensure that there is surgical back-up whenever the obstetrician/gynaecologist is off duty or on leave.

WHO also partnered with the Timor-Leste Midwives Association to provide refresher training in clean and safe delivery to nurse-midwives throughout the country. Approximately 100 nurse-midwives have undertaken this three-day course in four municipalities, and training in the remaining nine municipalities is planned for 2017.

Gender-based violence is considered a serious problem in post-conflict Timor-Leste, with one national survey showing that 47% of women aged 15–49 years reported experiencing violence by a male partner in the prior 12 months.27 The government has taken several major steps to address this issue in recent years, including developing a National Action Plan on Gender-Based Violence (2017-2021). WHO, together with UNFPA, assisted with drafting the health sector response section of the plan and in developing National Guidelines for Health Care Providers to Address Gender-based Violence. WHO also supported, in collaboration with UN Women and national NGOs, local advocacy and educational activities conducted during the global 16 Days of Activism against Gender-Based Violence campaign that took place from November 25 to December 10.

Expanding the national immunization programme

Timor-Leste’s immunization programme (EPI) was significantly expanded in February 2016, with the addition of five vaccines to the child immunization schedule. These include a birth dose of hepatitis B vaccine, inactivated polio vaccine (IPV) for the third polio vaccine dose, two doses of measles-rubella vaccine – replacing a single dose of measles vaccine – and a DPT booster dose at 18 months of age. To help meet the regional goal of eliminating measles and rubella by 2020, the EPI developed a national plan for measles elimination and rubella and CRS control, with WHO technical assistance. WHO also boosted the capacity of the National Measles and Rubella Laboratory by providing equipment, reagents and training to its staff. Based on its performance, the laboratory was accredited by WHO for the year 2016–2017.

WHO also provided technical assistance to the EPI in developing several planning documents. These include a new comprehensive Multi-Year Plan for 2016 to 2020, plans for the transition from GAVI support, and a national poliovirus containment action plan.

Accelerating the elimination of neglected tropical diseases

WHO successfully mobilized funds from the Korean aid agency, KOICA, to support implementation of the country’s Integrated Neglected Tropical Disease (NTD) Control and Elimination Programme, targeting the elimination of lymphatic filariasis and yaws and the control of soil-transmitted helminthiasis (STH) for the period 2016–2021. To reach these targets, the NTD programme carried out a round of mass drug administration nationwide in 2016 for both LF and STH, reaching more than 800 000 people. This was the first of five annual rounds that will be needed to eliminate LF and control STH. The NTD programme also conducted training for health professionals from all 13 municipalities on morbidity management and disability prevention for lymphatic filariasis.

Combating antimicrobial resistance

Efforts to combat AMR were stepped up on several fronts in 2016, led by the MoH with technical and financial support from WHO. First, a national focal point for AMR was appointed, as were focal points (doctors, nurses or pharmacists) for each of the country’s 13 municipalities, who then underwent training in different aspects of AMR. The MoH also established a National AMR Task Force to coordinate the AMR activities of different government ministries and sectors. The MoH and WHO then conducted a “Situation Analysis to Review System-wide AMR Prevention and Containment in Timor-Leste” and held a consultative meeting, attended by central and municipal-level officials from the MoH, officials from relevant ministries, including the Ministry of Agriculture and Fisheries (including the Animal Husbandry department), and the Ministry of Commerce, Industry and Environment, as well as staff of WHO and FAO, to discuss its findings. In addition, the
national hospital (HNGV), with WHO technical assistance, developed antibiotic guidelines for use by its clinical staff.

The health ministry also launched a year-long AMR educational campaign in 2016 in all 13 municipalities to raise awareness among the public, health professionals and the media about AMR and how to prevent it. The campaign included broadcasting messages on antibiotic resistance on television and radio; the distribution of IEC materials to all health facilities, private and public pharmacies; posting large billboards at prime locations across the capital of Dili; and the use of social media to spread key messages. A series of national and regional-level workshops on AMR were also organized for the media and for health professionals (doctors, nurses, laboratory technicians and pharmacists) during the campaign.

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Box 23. Leaving no one behind: an update on Timor-Leste’s Primary Health Care Programme (Saude na Familia)

“Saude na Familia”, an innovative outreach programme modelled on the Cuban primary health care system, was launched in 2015 as a key part of the government’s efforts to provide free universal health care. It is designed to bring a Comprehensive Service Package for Primary Health Care to households through domiciliary visits conducted by medical teams each made up of a doctor, midwife and nurse professional. The programme is in the spirit of the Sustainable Development Goal of “leaving no one behind” by reaching out to large numbers of people who are still being “left behind” in Timor-Leste in terms of access to health care.

By the end of 2016, 90% of families had received at least one home visit to assess the health status of household members, provide antenatal care for pregnant women, provide health education, and refer people requiring further care to a health facility. The programme is in the process of digitizing all of its records. WHO, which assisted in developing the service package and domiciliary visit guidelines, continued to provide operational support and essential primary health care equipment to all health facilities (health posts, community health centres, and the national and referral hospitals) in 2016.

In addition, WHO, in collaboration with UNICEF, provided technical and financial support for the production of a book and video that documented stories from the field since the programme was launched. The stories underscore the fact that many of these cases would have never come to light had it not been for the domiciliary visits conducted by the programme. These stories illustrate that, although in its nascent stages, Saude na Familia, once fully implemented, should have a significant impact on reducing maternal and child mortality, getting people with communicable and noncommunicable diseases onto treatment and improving the overall health of the population.
Preparing for emergencies

To increase Timor-Leste’s ability to prepare for and respond to emerging disease outbreaks and meet the core requirements of the International Health Regulations, a series of capacity-building activities took place in 2016 with WHO support. Rapid response teams consisting of doctors, nurses and public health officials, were established at the national level and in each municipality to respond to emergencies. WHO provided training to the teams as well as RRT kits containing items for team members to survive under difficult living conditions. A workshop on IHR and standard operating procedures for points of entry was conducted for 35 staff at designated points of entry (airports, seaports and borders), and surveillance staff at the national and municipality level received training on the country’s Early Warning and Response System (EWARS). To address pandemic influenza, the government established a Coordinating Committee on Influenza at the Human-Animal Interface, and developed a Country Implementation Plan on Pandemic Influenza Preparedness.

WHO also supported a risk assessment for Zika virus, which found that if Zika virus is introduced, the risk of its spread would be high, given the environmental conditions. The assessment identified four municipalities, with a total population of 530 000 people that would likely be most at risk, and recommended that efforts to detect the disease and prevent its spread should focus on these municipalities during the dengue season. The report also identified the need to improve the detection of Zika virus introduction (through awareness raising among general practitioners, improvements in laboratory detection capacity and by setting up a real-time reporting system); the need to focus prevention efforts on high-risk areas and on travellers going in and out of affected countries; and the need to prepare for a scale-up in detection and response if the risk increases. Laboratories have also been provided with Zika virus testing equipment and WHO testing guidelines.

To better prepare the country for natural disasters, WHO provided technical assistance to the MoH for El Nino preparedness and response. WHO also supplied the MoH with an Inter-Agency Health Kit (IEHK), a Diarrhoeal Disease Kit and a medical camp kit to enable the health sector to provide medical services immediately following a disaster where health facilities are destroyed or damaged. The country’s Emergency Health Cluster/Coordination Group, which WHO co-chairs with the MoH, continues to function and hold quarterly meetings.

Partnerships

The WHO Country Office has maintained strong collaborative relationships with other UN agencies, development partners, academia and civil society organizations, as well as with several government departments and ministries. These include not only the Ministry of Health, but also the Prime Minister’s Office, and the ministries of education, state
administration, and social solidarity. These partnerships have played a key role in assisting WHO in mobilizing substantial donor resources to meet the country’s priority health needs. Examples include a grant for US$ 6.3 million from KOICA to support the National NTD Programme, GAVI support for the immunization programme (US$ 1.2 million), and EU funding (US$ 1.2 million) for activities to strengthen health systems.

Box 24. WHO World No Tobacco Day Award

During World No Tobacco Day in May 2016, H.E. Dr Rui Maria de Araújo was presented with a World No Tobacco Day Award – only one of two such awards given to political leaders in the South-East Asia Region in 2016 – in recognition of his unrelenting support for anti-tobacco initiatives.

Since becoming Prime Minister in 2015, Dr Araújo has been instrumental in strengthening and implementing tobacco control laws in a country where 70% of men and 42% of 13–15 year olds consume tobacco products and where tobacco companies have repeatedly flouted national laws to promote their products. Dr Araújo played a pivotal role in the passage of new legislation that establishes a range of measures to reduce the demand for tobacco products. These include banning smoking in all enclosed public spaces, workplaces and on public transport to ensure protection from involuntary exposure to tobacco smoke; regulating the contents of tobacco products by setting maximum limits for tar, nicotine and carbon monoxide; introducing mandatory health warnings on tobacco product packages; prohibiting tobacco sales in specified locations and to children under 17 years; setting minimum specifications for package size and price; and prohibiting all forms of advertising and promotion of tobacco products.

The new law also lays out the responsibilities of government agencies, health-care providers and schools to conduct training and health education and to “contribute to conditions favourable to the prevention and control of smoking”. The responsibilities of the MoH include offering counselling and free smoking cessation services.

In addition, a National Council for Tobacco Control, under the direct authority of the Prime Minister, was established in 2016 to monitor implementation of the law, advise the government, and support anti-smoking campaigns. The council is required to submit periodic progress reports to the National Parliament.

WHO has partnered with UN agencies and other development partners for coordinated support to many of the MoH’s priority programmes and projects. These include immunization, IMCI and Saude na Familia with UNICEF; implementation of the latest Demographic
Health Survey with USAID, World Bank, UNICEF and UNFPA; and strengthening the Health Management Information System and water safety projects with Australian Aid. The WHO Country Office has especially developed a close collaborative relationship with UNFPA on all reproductive, maternal, neonatal and child health activities, health-related gender-based violence activities, and youth health initiatives. The two partners harmonize their workplans, together with the MoH, attend all related MoH meetings as one team, and work closely on implementing technical assistance activities.

WHO also collaborated with nine other UN agencies to install a solar energy system at the UN House in Dili. This has attracted the interest of government departments, and is a good example for promoting renewable energy initiatives in the future, including, for instance, use in remote health facilities to power cold chain equipment.

A few illustrative examples of how the Country Office has worked with domestic and international partners from academia and civil society include:

- Collaborating with the Cuban Brigade and Timor-Leste’s National University (UNTL) to improve the quality of medical education by providing educational materials, equipment and orientation of faculty members on major public health issues in the country. In addition, WHO technical staff supported the Cuban Brigade in conducting a 16-week course on national public health problems for members of the National Medical Association.

- Working with professional associations (medical, public health nurses, midwifery) to provide training to their members related to major public health programmes, including
HIV, TB, malaria and immunization. This also includes WHO’s efforts to reach out to the Timor-Leste Midwives Association to provide training to their members throughout the country in safe delivery practices.

- Supporting a range of partners in conducting public education about tobacco, such as the National Alliance for Tobacco Control, health professional associations and the media. Members of the media were also important partners for raising awareness on other health-related topics, including road safety and antimicrobial resistance.

Looking forward

The Government of Timor-Leste is in the process of harmonizing the SDGs in the government’s planning and budgeting process, including the Strategic Development Plan, and this work will continue into 2017. The government has recently established a SDG Task Force, led by the Prime Minister’s Office and including representatives from each ministry and secretariat of state, to coordinate and monitor the implementation of the SDGs and report on the progress on their implementation to the Council of Ministers twice a year.

Many of the activities described above will continue into 2017. Key activities that the MoH will implement in 2017 and beyond with WHO support include:

- Implementation of the first phase of the Timor-Leste PEN Programme to control NCDs, which will take place at three levels of primary health care (domiciliary visits, selected health posts, selected community health centres) in Dili and Ermera from January to December 2017. Based on the lessons learned, the programme will be scaled up nationwide in the following years.

- Continued efforts to eliminate LF and yaws and control soil-transmitted helminthiasis, including Round 2 of mass drug administration for LF and STH, training of health professionals on morbidity management and disability prevention for those affected by LF, and mapping of yaws endemicity.

- Establishment of a national Health Emergency Operation Centre, training of staff on how to set up WHO medical camp kits, and technical support to address the health effects of El Nino through the existing health cluster coordination mechanism.


- The establishment of a diabetic clinic at the national hospital.

- Development and finalization of standards and treatment pathways and a comprehensive training package for intrapartum and postpartum care.
Visit of the IEOAC team to the Regional Office in New Delhi
At the Castle Street Hospital in Sri Lanka
Delivering on the Regional Flagship Priorities and Beyond

The Flagship Priorities are to focus attention and direct resources to address the most pressing needs of the Region; seven such priorities were identified (Box 1).

Flagship 1: Measles elimination and rubella control by 2020

Introduction and linkage to the Sustainable Development Goals

Despite steady progress in immunization coverage with measles vaccine in the South-East Asia Region, measles remains a serious public health concern (see Fig. 10). Given that we have a safe and efficacious vaccine and realizing that it is technically feasible to eliminate measles, the Sixty-sixth session of the Regional Committee for South-East Asia, in 2013, adopted the regional goal of measles elimination and rubella control by 2020.

Under the Sustainable Development Goal for health (SDG-3), immunization is inextricably linked to the health Target 3.2 on child mortality reduction, and Target 3.8 related to the universal access to safe, effective, quality and affordable vaccines for all.
Progress and results in 2016

Achievements

The Regional Strategic Plan for Measles Elimination and Rubella Control in the South-East Asia Region (2014–2020) was developed in 2015. Based on this Plan, by 2016, national measles elimination and rubella control strategic plans have been revised or updated in Bhutan, Maldives, Myanmar, Nepal, Sri Lanka and Timor-Leste to meet the regional goal, while Bangladesh, India and Indonesia are in the process of finalizing them.

Accelerated efforts by countries in implementing their strategic plans have resulted in an 85% coverage with the first dose of measles-containing vaccine (MCV1) in 2015, compared with 63% in 2000. Five out of 11 SEA Region countries reported more than 95% coverage for MCV1. Similarly coverage for the second dose of measles-containing vaccine (MCV2) was reported to be 71%, compared with 27% in 2000. An estimated 18.4 million children were reached through supplementary immunization activities in 2016. All 11 countries are administering two doses of MCV through the routine immunization programme and eight countries have already introduced rubella-containing vaccine. As a consequence of these activities, there has been a 66% reduction in mortality due to measles in the Region in 2015 compared with 2000, while reported incidence has declined by 61% during the same timeframe.

Laboratory-supported, case-based surveillance for measles and rubella has been initiated in all countries in the Region, with India and Indonesia still in the process of
expanding case-based surveillance until they complete MR vaccination campaigns in 2018. Regional surveillance standards for measles, rubella and other vaccine-preventable diseases (VPDs) have been developed and support provided to Bhutan, India, Maldives, Myanmar, Nepal and Timor-Leste to revise their national MR surveillance standards to meet the regional standards. Subnational risk assessments, using a tool developed by WHO, have been conducted in 10 countries to identify high-risk areas for measles transmission and to plan risk mitigation activities accordingly. The risk assessment tool was used by Indonesia to conduct “crash” immunization in 182 districts. Similarly Bangladesh and Myanmar are using the tool to identify areas with low immunity against measles and rubella and have intensified routine immunization in these areas.

The MR laboratory network expanded from 39 laboratories throughout the Region in 2015 to 45 in 2016, with all laboratories accredited as proficient for measles and rubella. All countries in the Region now have at least one proficient national laboratory to support measles and rubella case-based surveillance.

**Laying the framework for elimination verification**

Unlike polio eradication in which all countries must achieve eradication before the Region can be certified as such, and no individual country can be declared polio-free even if it has eradicated the disease, verification of measles elimination can be conducted county by country. However, it must be done systematically and based on sound scientific evidence. A Regional Verification Commission on Measles Elimination and Rubella Control (RVC), comprising regional and global experts in the subject matter, was established in 2016 to provide technical guidance to the Region to achieve this goal. To support the RVC at the country level, national verification committees (NVC) are being established to review progress on measles elimination and rubella control in individual countries. A regional framework for verification of measles elimination and rubella control in South-East Asia has been developed to serve as the guiding document for the national committees and regional commission.

Countries have generated population immunity profiles by age and developed appropriate plans to close the immunity gaps. India and Indonesia are putting in place plans to conduct wide-age-range mass vaccination campaigns with measles and rubella vaccine, followed by the introduction of rubella vaccine into their routine immunization programme. The campaigns in India and Indonesia will target about 468 million people over the next two years. Intensified immunization activities to close the immunity gap for measles and rubella for all age groups in Bhutan and Maldives are ongoing. In addition, Bangladesh plans to conduct a follow-up measles and rubella vaccination campaign targeting children 9 of 59 months of age in November 2017.
Opportunities, challenges and the next steps

The overarching goal of universal health coverage and the core theme of the SDGs of “leaving no one behind” provide a renewed opportunity to press forth on 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 right for accelerating efforts to combat VPDs, since vaccination is the most cost-effective public health intervention and the GAVI Alliance continues to provide support to advance the goal of access to more vaccines by more children.

However, significant challenges remain, the greatest of which is to improve routine immunization programmes to the extent that more than 95% coverage with two doses is reached in all districts. Each year, nearly 5.5 million children in the Region do not receive the first dose of a measles-containing vaccine through the routine immunization programme. A resurgence of measles cases in Bhutan and Sri Lanka points to a changing epidemiology of measles in countries with strong EPI programmes and the need for innovative approaches to close immunity gaps in the adult population. Only 57% of measles outbreaks were investigated in the Region in 2016 due to challenges with human resources constraints, funding, and sample collection and transportation. Operational research in these areas is ongoing.

The effort towards eliminating measles is muted at best. A global goal has not yet been established and the global Measles and Rubella Initiative (MRI) has not succeeded in raising significant funds to support measles elimination and rubella control activities in countries. Additional efforts to mobilize resources will be required in the Region in order to achieve the regional goal of measles elimination and rubella control by 2020. In countries with a high birth cohort, such as Bangladesh, India, Indonesia, Myanmar and Nepal, these activities have been supported through the network of Surveillance Medical Officers funded by the Global Polio Eradication Initiative. With a decline in polio funding expected over the next three years, followed by a complete cessation of funding, transition plans must be developed to ensure that polio programme assets continue to support and further strengthen measles and rubella surveillance and immunization activities. It is increasingly clear that more national resources will need to be invested to achieve the goal of measles elimination and rubella control.

Nevertheless, efforts continue unabated to raise additional funds, encourage countries to strengthen routine immunization services and surveillance quality and to embark on need-based mass vaccination campaigns in order to accelerate progress towards the 2020 goal. The focus for the coming year is to assess whether some of the smaller countries, such as Maldives and Bhutan, have achieved elimination status or not, while continuing to provide support to larger countries to intensify measles elimination and rubella control activities. The leadership shown by Member States to work towards achieving measles elimination and rubella control is indeed encouraging and also a matter of pride for the entire Region.
Flagship 2: Prevention of noncommunicable diseases through multisectoral policies and plans, with focus on ‘Best Buys’

Noncommunicable diseases such as cardiovascular diseases, cancer, diabetes and chronic respiratory diseases are the leading causes of death and disability in the SEA Region, accounting for an estimated 8.5 million lives lost annually. Moreover, the probability of premature death from NCDs in the SEA Region is the highest of all Regions. Modernization, demographic changes and increases in the prevalence of risk factors, in particular unhealthy diets, tobacco use, harmful use of alcohol and physical inactivity, all contribute to the rising burden of NCDs in the Region. Mental, neurological and substance use disorders and malnutrition in all forms also present a huge health burden in the Region.

Linkage to SDGs

The SDGs provide commitment, guidance and a monitoring framework for NCD prevention and control in the Region. NCDs, mental health and nutrition relate to at least seven SDG targets in three Goals (including SDG 2 – hunger, SDG 3 – health and well-being, and SDG 11 – cities). The ambitious Target 3.4 aims to reduce premature deaths from NCDs by one-third by 2030, which exceeds the Global Voluntary Target of reducing NCD mortality by at least 25% by 2025. SDGs and global and regional NCD targets all call for increased multisectoral partnerships, advocacy, leadership, capacity-building, and strong governance.

Achievements, progress and results

Member States in the Region have shown progress in NCD prevention and control with concrete actions in 2016. Excellent collaboration between Member States and the Regional Office has contributed greatly to the progress seen in this area. All Member States in the Region have a multisectoral action plan, and 2016 was the year with the greatest advancement on NCD policy formulation. Bangladesh, India, Indonesia, and Maldives finalized and revised their action plans on NCDs. Bhutan, Nepal, Sri Lanka and Thailand established high-level steering committees to monitor and support multisectoral interventions, while India developed a monitoring framework. Nepal initiated implementation of its NCD multisectoral plan, while Bhutan incorporated NCDs in the annual performance indicators for local governments. Sri Lanka and Thailand have established innovative NCD Alliances as a platform for multisectoral engagement. In addition, several SEA Region Member States launched initiatives in 2016 to improve NCD-related data systems, reduce common risk factors and strengthen NCD-related health systems with a focus on primary health care.

The launch of Sri Lanka’s NCD Alliance: The Whole-of-Society on 4 September 2016 was a landmark event where a platform was created to bring together all stakeholders and all sectors to help create healthy lifestyles and health communities (please see page 116, Sri Lanka country report for further details).
Addressing NCD risk factors

There are many important NCD risk factors that can be addressed easily and yield rapid and significant return on their investments. The South-East Asia Region Member States are making great progress in this direction as demonstrated by the following:

- **Unhealthy diets:** The Strategic Action Plan to Reduce the Double Burden of Malnutrition in the South-East Asia Region (2016–2025) was developed and endorsed by the Sixty-ninth session of the Regional Committee. SEARO, together with Member States, has developed the South-East Asia Region Nutrient Profile model, a tool to differentiate healthy from unhealthy foods. Bangladesh finalized its National Nutrition Action Plan, while Maldives revised its national guidelines on infant and young child feeding, and developed a Food-based Dietary Guidelines. WHO worked with UNICEF in supporting legislation on the Control of Marketing of Infant and Young Children Food Act in Thailand. Sri Lanka developed and implemented pre-term growth standards to track the growth of pre-term infants. India’s Food Standards and Safety Authority legislated standards for wheat flour fortification, while Bhutan is in the process of finalizing its salt reduction strategy and roadmap.

- **Tobacco:** India hosted the Seventh Session of the Conference of the Parties of the WHO Framework Convention on Tobacco Control (COP7) from 7–12 November, 2016. The meeting provided an opportunity for SEA Region Member States to be more proactive in advancing regional priorities for tobacco control, including the adoption of the Delhi Declaration on Tobacco. WHO, together with the Convention Secretariat and the Ministry of Health of Maldives, organized a pre-COP7 Regional Workshop in Malé in September 2016 to help enhance the SEA Region’s position at COP7. With support from WHO, significant progress has been made in tobacco control in a number of countries. To name a few, India, in collaboration with the International Telecommunication Union (ITU), launched the QUITLINE and mTobacco Cessation Programme; Maldives raised its tobacco tax; Sri Lanka ratified the Protocol to Eliminate Illicit Trade in Tobacco Products; and Timor-Leste enacted its first tobacco control law.

- **Alcohol:** Nine of the 11 Member States have an alcohol policy in place. WHO helped Sri Lanka revise its national alcohol policy. Bhutan, Myanmar and Sri Lanka received support to attend the WHO–Thai Health Promotion Foundation Workshop on Technical Support for Alcohol Policy Development in selected low- and middle-income countries. Screening and providing interventions for alcohol-related problems at frontline services is now a core strategy in the effort to strengthen countries’ health-care systems to address NCDs.
Physical inactivity: The level of physical inactivity and sedentary lifestyle is still high in the Region, particularly among young people. On a positive note, there were more major policy and community initiatives to promote physical activity in 2016 than ever before. The Sixty-ninth session of the Regional Committee in September 2016 not only adopted a resolution on Promoting Physical Activity in the South-East Asia Region, it also demonstrated healthy meeting practices (see Box 36). With co-sponsorship from WHO, Thailand hosted the International Society on Physical Activity and Health Congress in November 2016, leading to the adoption of the Bangkok Declaration on Physical Activity for Global Health and Sustainable Development. Thailand’s Prime Minister also led a nationwide physical activity promotion campaign. Through collaboration with the Royal Government of Thailand, a training of trainers was conducted in Bhutan and guidelines for establishing outdoor gymnasiums to promote physical activity were developed.

Strengthening health-care systems to address NCDs

Health care for NCDs requires comprehensive and continuous services, covering the whole spectrum of promotion, prevention, treatment, rehabilitation, and long-term care. At the Sixty-ninth session of the Regional Committee, the Region’s health ministers adopted the Colombo Declaration to serve as the framework for strengthening frontline services to address NCDs. Nepal and Timor-Leste began training health workers to implement the first phases of the package of essential NCDs (PEN) services. In Bhutan, a PEN clinical audit was conducted as a first step to improve the quality of services. A minimum package of services for cardiovascular diseases, chronic respiratory diseases and cancers is now in place in most countries of the Region. Medical insurance now covers essential medicines for NCDs in Indonesia, Maldives, Nepal, and Thailand.

Strengthening mental health programmes

Among the many regional initiatives to address mental health problems are the Regional Strategy on Autism Spectrum Disorders and the Regional Strategy on Suicide Prevention. SEA Region Member States received an orientation on the new version of the Mental Health Gap Action Programme (mHGAP 2.0). Important tools and guidelines have been developed for the following: (i) reducing the harmful use of alcohol, (ii) the prevention and management of substance use, (iii) Autism spectrum disorders and dementia, and (iv) mental health and psychosocial support (MHPSS). Bangladesh, Bhutan, Indonesia, Maldives and Sri Lanka have recognized mental health as a public health priority. In addition, WHO assisted Bangladesh, Maldives and Timor-Leste in aligning their national mental health policies with gender, equity and human rights goals and strategies.
Box 25. Leading by example – Be the Change activities at the Sixty-ninth session of the Regional Committee

The Regional Director’s special programme, “Be the Change”, was launched on World Health Day on 7 April, 2016 to promote a healthy lifestyle in the workplace. The programme was further promoted at the Sixty-ninth Session of the Regional Committee. The Sri Lanka President and all health ministers attending the Regional Committee participated in yoga and morning exercises. There was also a demonstration of traffic light food labelling, and physical activities were conducted during meeting breaks. Most health leaders in the Region are championing similar programmes, thereby serving as role models to effect a chain of change in the Region.

Improved data for decision-making and growing research

Comparable data on population-level NCD risk factors are now available, enabling all countries to track their progress and inform policy decisions. School health surveys are regularly conducted in Bhutan, Myanmar and Sri Lanka. Myanmar conducted the Global Youth Tobacco Survey in 2016, and adult tobacco surveys were initiated in Bangladesh and India. In addition, all Member States participated in the Global Tobacco Control Report 2016. Eight Member States have received training to set up population-based cancer registries. Finally, the Regional Office has collaborated with Bangladesh’s National Institute
of Neurosciences for the first epilepsy prevalence study in the country, and with the George Institute in Australia for a salt intake survey in Indonesia.

Challenges and opportunities

The perception of NCDs as a “health sector business” is rapidly giving way to the understanding that the prevention and control of these diseases is an integral component of any socioeconomic development agenda. Sectors beyond health – both government and nongovernment – have significant potential in participating in population-wide and individually-targeted interventions for NCDs and their risk factors. Making quality NCD and mental health services accessible and affordable will require further efforts, particularly focusing on vulnerable groups and the poor. As the momentum for NCD prevention surges towards the 2025 NCD targets and the 2030 SDGs, maintaining political commitment and mobilizing sufficient financial and human resources remain one of the major challenges to adequately meet the requirements of an effective NCD programme.
Flagship 3: The unfinished MDGs agenda: Ending preventable maternal, newborn and child deaths with focus on neonatal deaths

Of the Millennium Development Goals, Goal 4 was to reduce child mortality by two-thirds from 1990 to 2015, and Goal 5 was to reduce maternal mortality by three-fourths. When the MDG era ended in 2015, seven of the 11 Member States in the Region had achieved the MDG 4 target, and three Member States had achieved the MDG 5 target. The MDG era saw tremendous efforts by countries to address child and maternal mortality and acquired extraordinary momentum as countries pushed to achieve the MDGs.

The MDGs were replaced in 2015 with the even more ambitious Sustainable Development Goals, of which although there is only one health goal among the 17 SDGs the health targets 3.1 and 3.2 aim to achieve by 2030 in all countries a reduction in the maternal mortality ratio to 70/100 000 live births, a neonatal mortality rate at least as low as 12 per 1000 live births and under-five mortality of 25 per 1,000 live births or less.

The UN Secretary-General launched the revised Global Strategy for Women’s, Children’s and Adolescents’ Health to build upon the achievements of the MDG era and address the unfinished agenda for child and maternal mortality by aligning the SDG targets to do just that.

The Flagship and its linkage to the SDGs

The Flagship aims to further narrow the gap between the MDG targets and achievements for child and maternal mortality in several countries. 28

The ambitious SDG and the Global Strategy targets include, inter alia, reductions in maternal and child mortality and a renewed focus on adolescent health. Furthermore, childhood obesity, noncommunicable diseases in women (in particular cardiovascular disorders and cancers of the cervix and breast) and gender-based violence are also important considerations within the overall vision of “leaving no one behind” in the SDG era. Almost all of the 17 goals and 169 targets have some relevance to the determinants of reproductive, maternal, newborn, child and adolescent health (RMNCAH). Towards this end, the Flagship signifies the Region’s strong commitment to end preventable mortality, avert illness, ensure well-being and usher in a more productive and empowered future.

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28 WHO, 2016: Remarkable progress, new horizons and renewed commitment: Ending preventable maternal, newborn and child deaths in South-East Asia Region
Highlights of achievements in 2016

Significant achievements in mortality reduction

The year 2016 began on a positive note with remarkable progress seen at the close of the MDG period and the start of the SDG era:

- **Child mortality:** Overall the SEA Region achieved a 64% reduction in under-five mortality during the MDG period. Regional estimates in 2016 show that compared with a total of 4,570,000 deaths among children under five in the Region in 1990, the toll in 2015 was estimated to be 1,558,000 or three million fewer deaths – a truly remarkable achievement. Seven Member States (Bangladesh, Bhutan, Indonesia, Maldives, Nepal, Thailand and Timor-Leste) achieved the target of reducing child mortality by two-thirds. In fact, four SEA Region countries (the Democratic People's Republic of Korea, Maldives, Sri Lanka and Thailand) have already surpassed the SDG under-five target of fewer than 25 deaths per 1000 live births.\(^3\)

- **Maternal mortality:** The Region was able to reduce maternal mortality from 525 per 100,000 live births in 1990 to 164 per 100,000 by 2015, registering the best progress made in reducing the maternal mortality rate during the MDGs era among all WHO regions. Overall, 149,000 fewer maternal deaths occurred from 1990 to 2015 in the region. The SEA Region’s achievement of a 69% reduction in maternal mortality exceeded the global reduction of 44%.\(^29\) Three Member States (Bhutan, Maldives and Timor-Leste) achieved the target (reduction by three quarters), and two countries (Sri Lanka and Thailand) have already surpassed the SDG target of 70 deaths per 100,000 live births or less.\(^3\)

Neonatal mortality, however, has been the most difficult part of the challenge of ending preventable child mortality. The regional neonatal mortality rate declined by 54% (from 53/1000 live births in 1990 to 24/1000 in 2015) in the MDG era. Although this is better than the global decline of 47%, 51% of under-five deaths in the Region continue to occur during the neonatal period, which calls for accelerated action in this area.\(^3\)

To build upon these achievements and accelerate efforts to meet the SDG goals and targets, WHO continues to work closely with Member States by providing technical assistance, where needed, and even providing catalytic financial resources for targeted activities.

From MDGs to SDGs: accelerating further actions to meet the SDG targets for child and maternal mortality reduction

A Regional publication, “Remarkable progress, new horizons and renewed commitment – ending preventable, maternal, and newborn and child deaths in South-East Asia Region”, which showcases the achievements and future plans for child and maternal health, was released during the Sixty-ninth session of the Regional Committee in September 2016. After the UN released the revised the “Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030)”, the Regional Committee adopted a resolution, SEA/RC69/R3, to reiterate the Region’s commitment to accelerate efforts for more inclusive and dynamic actions on women’s, children’s and adolescents’ health and development. In addition, the Regional Technical Advisory Group on Women’s and Children’s Health held its second meeting in November 2016 to provide guidance on how best to accelerate the implementation and monitoring of actions to advance the unfinished agenda of MDGs 4 and 5 and achieve progress towards the SDG targets.

It is clear that the health sector alone cannot deliver on all the goals of sustainable development, and thus partnership with other sectors is vital. In this aim, the SEA Regional Office established the H6 platform (UNICEF, UNFPA, UN Women, UNAIDS, World Bank, WHO) and two meetings with the technical focal points from these organizations have been held by the end of 2016. A Regional H6 Working Group has also been established to facilitate coordinated and harmonized support from UN agencies to countries for implementation of the Global Strategy. The H6 UN partners are helping high-priority countries establish national-level H6 platforms for collaborative work in RMNCAH areas. In addition, WHO and UNICEF conducted joint country missions in selected countries to review and strengthen RMNCAH programmes and identify common areas for collaboration at the country level.

The SEA Region newborn and birth defects (NBBD) online database for integrated surveillance for newborn health, birth defects and stillbirths was scaled up to include about 180 hospitals across 10 Member States. Data have been reported on 1 182 000 births, 33 000 stillbirths and about 10 000 birth defects. SEARO conducted training to improve data quality for the network hospitals enrolled in the SEAR-NBBD database.

A series of activities to strengthen research, improve surveillance, and improve the quality of maternal and newborn care was conducted in 2016. These include a demonstration project conducted jointly by WHO headquarters and the US CDC involving fortification of wheat flour with iron, B12 and folic acid to prevent anaemia and neural tube defects in India to test the feasibility and sustainability of fortification. They also include implementation of a maternal death surveillance and response (MDSR) system in Member States, along with issuance of recent guidelines for perinatal death reviews. In addition, SEARO introduced a model for improving the quality of care for mothers and newborns.

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30 SEARO database for birth defects (unpublished)
at the time of birth at health facilities and organized a regional workshop on its use for hospital teams from the countries as well as prepared a training package to aid national capacity-building. A training package for screening and management of cervical cancer has also been prepared, and recent guidelines on antenatal care have been incorporated in the SEARO Maternal Health Pocket Book.

A significant addition to the new Global Strategy on Women’s, Children’s and Adolescents’ Health is the focus on adolescent health, which was missing from the previous strategy. Support was provided to Member States to scale up the implementation of adolescent-friendly health services and further expand these services under a broad package that includes HPV vaccination (in selected countries) and the prevention of risky behaviours that affect sexual and reproductive health and noncommunicable diseases.

Challenges, opportunities and next steps

While countries in the Region have generally made significant progress in the areas of maternal and child health, much more needs to be done to reach the SDG goals in several countries. Many of these countries face substantial challenges in developing accelerated action plans to address maternal and child health needs. RMNCAH interventions and the coverage of services have increased overtime, but inequities between and within countries are apparent with huge gaps in financing and implementation of high-quality services. Ensuring best practices and quality of care around childbirth is critical for both mothers and newborns in order to save the maximum number of lives and prevent stillbirths. More resources and efforts are needed to scale up initiatives to enhance the quality of care around birth in all hospitals and health-care centres. In addition, there are health system challenges in many countries that not only require a coordinated, multisectoral approach but also strong political leadership to galvanize efforts at the country level.

In order to strengthen RMNCAH services, WHO’s focus will continue to be on improving maternal death surveillance and response, as well as in building capacity in Member States in screening and management of cervical cancer, using a recently-developed training package. Member States will also be supported in adapting recent guidelines on antenatal care and the Maternal Health Pocket Book. The SEAR-NBBD online database for integrated surveillance of newborn health, birth defects and stillbirths will be scaled in consultation with ministries of health. It has also been proposed that SEARO develop tools and a methodology for the systematic evaluation of NBBD surveillance in Member States.

The Regional Office is also taking the lead in building country capacity to implement standards of care covering both routine care and management of complications for women and their babies during labour, childbirth and the early postnatal period. This includes the care of small babies during the first week of life by concentrating efforts on “at birth care”, i.e. care during and in the immediate period after birth. The next steps will be to support countries to take these standards to scale.
Considering that adolescent health is a strong focus in the revised Global Strategy for Women’s, Children’s and Adolescents’ Health, the SEA Region will explore how to further improve adolescent health and other services in countries. The SEA Region has an estimated adolescent population of 350 million, whose demographic dividend waits to be tapped by Member States.

To track progress against the Global Strategy, the Regional Office will work closely with the H6 partners to review and update relevant regional data to align with global indicators. Sixty indicators that monitor the implementation of the Global Strategy along with a subset of 16 key indicators have been selected to provide a snapshot of progress towards the global targets across maternal, newborn, child and adolescent health, and towards the overarching objectives of “Survive, Thrive and Transform”.

The ultimate success of SDG 3 and the Global Strategy will depend on coordinated actions across sectors, particularly nutrition (Goal 2), education (Goal 4), gender equality and empowerment of all women and girls (Goal 5) and water and sanitation (Goal 6). SEARO will strive to reorient its approach to create connections, pathways and synergies with these sectors. WHO will continue to support Member States to not only “strive” to end all preventable maternal, newborn and child deaths, but also to embrace the expanded “thrive” and “transform” vision and action areas of the Global Strategy.
**Flagship 4: Universal health coverage with a focus on human resources for health and essential medicines**

**Background and linkages to the SDGs**

Universal health coverage is about all people and communities getting the health care they need, without suffering financial hardship. UHC has a special place in the Sustainable Development Goal for health because it provides a unifying platform for progress on all SDG 3 targets, and because – by definition – it is concerned with equity. SDG3 also emphasizes the need for well-performing health systems to make sustained progress. It includes targets for the health workforce and access to medicines – already priorities in the Regional UHC Flagship. Two UHC indicators developed by WHO and the World Bank were adopted as part of SDG monitoring in 2016: (1) a summary services coverage index of essential health services, and (2) the incidence of catastrophic spending as a measure of financial protection. The 16 tracer indicators for the coverage index span reproductive, maternal, newborn and child health; infectious diseases; noncommunicable diseases; and service capacity and access. The index offers a concise way of tracking progress within a country across a range of key services over time.

**Progress and results in 2016**

**The first integrated assessment of UHC in the SEA Region**

The SEA Region was the first Region to publish a preliminary analysis of the status of UHC in Member States in 2016. For coverage it used the coverage index methodology.\(^{31}\) For financial protection, it used data on the percentage of health expenditures paid for out-of-pocket, as a proxy for financial protection, since data on catastrophic spending was available in only half of SEA Region countries. In the Table 1, for financial protection, in 2017 we use pre-payment as a percentage of total health expenditure as the indicator. It is sobering to note that this remains low, and OOP remains high, in many countries in the Region.

The estimates show that all countries have gaps to address in order to reach full service coverage, but not surprisingly some are nearer that target than others. Country scores range from 46/100 to 77/100. Data on NCD service coverage is scarce. It is sobering to note that in many countries of the Region, OOP remains stubbornly high.

\(^{31}\) Reference to latest technology: WHO methods and data sources for a coverage index of essential health services (draft), Department of Information, Evidence and Research, WHO Geneva, February 2017
Table 1. Status of UHC in SEA Region countries as assessed by WHO and World Bank, updated March 2017

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Note: for both indicators a HIGHER score is better. NA = not available.

Sources: 1. Health in the Sustainable Development Goals, WHO SEARO, 2017 (forthcoming)
2. Global Health Expenditure Database accessed 3 March 2017

Improving frontline health services

Two essential inputs required to improve health-care service delivery are health workers and essential medicines.

The Regional Office’s work on strengthening the health workforce focuses on transformative education and retention of health workers in rural areas (“rural retention”). In 2016 the first review of progress on the Decade of Health Workforce Strengthening (2015–2024) was held in the SEA Region. The review showed that all countries are taking action to improve rural retention and education using WHO recommendations, but in many cases progress appears slow, and so far evidence of its impact is limited. This is partly because the capacity to monitor progress remains weak and thus improving information on human resources for health (HRH) is a priority.

High-level leadership and engagement with non-MoH actors is also needed to maintain momentum on this agenda, since it requires political as well as technical action. The review found that more engagement of multiple stakeholders is needed. For example, most countries in the Region do not yet involve the private sector in developing national HRH plans, even when it plays a major role in health workforce education and employment. However, action is being taken to improve education standards – for example, through accreditation of training institutions in at least seven countries in the Region. Finally, if the SDG goal of more equitable access to care is to be reached, there is a need to link HRH strategies more explicitly to efforts to improve frontline services. The new global HRH strategy and the findings from the UN Commission on Health Employment and Economic Growth, both published in 2016, can be used to reinforce regional action on human resources for health.

As part of efforts to improve access to quality medicines, the SEARN – the South-East Asia Regulatory Network – was launched in November 2016 (see Box).
The presence of medical products of poor quality in the market is the result of limited regulatory capacity of countries to enforce best practices in product development, production and distribution. SEARN aims to improve access to safe, high-quality medical products by enhancing information sharing, collaboration and convergence of good regulatory practices for medical products across the Region. National regulatory authorities from all 11 Member States have joined this voluntary network. The Network’s priority deliverables will be agreed to at its next meeting in April 2017. More information can be found at: http://www.searo.who.int/entity/medicines/regulation/en/.

In addition, SEARO increased direct country support to strengthen the capacity of individual national regulatory authorities (NRAs). This included assistance with the development of NRA institutional development plans, such as in Bangladesh and Sri Lanka, and by encouraging more harmonized investment in those plans by other development agencies. These approaches were complemented by regional training of national NRA staff to detect substandard and falsified medical products, in order to ensure product quality and safety.

Access to medicines is also affected by who pays for them. An analysis of pharmaceutical expenditures in the Region showed that the governments’ share of total pharmaceutical expenditures ranges from as low as 6% to as high as 91%. As a result, medicines are a major component of out-of-pocket spending in the Region. National strategies to advance UHC should include ways to reduce OOP spending on medicines.

**Improving financial protection: supporting moves from plans to practice**

In terms of reducing high out-of-pocket payments as a share of total health spending, there are modest reductions in four countries in the Region, and a significant reduction in the Maldives according to latest estimates. Overall, as a Region, government spending on health as a share of GDP remains low, though it is gradually rising in Myanmar and Timor-Leste. One constant challenge is that ministries of health and finance often have different views on required health spending levels and value-for-money, as well as concerns about inefficiencies and waste. A multicountry health financing workshop in 2016 brought together combined country MoH-Ministry of Finance teams to share actual experiences with health financing reforms. In 2017, the next financing policy dialogue will focus on opportunities for more active or “strategic” purchasing of services, as opposed to pure “input-based budgeting” that is current practice in most countries. In addition, a new Asia network of senior budget officials from ministries of health and finance will focus on ways to improve public financial management in health, and ensure financial sustainability in the context of rising costs for public health services and long-term care.
Monitoring and accountability for results

The Regional Office launched the Regional Health Information Platform (HIP) in late 2016. This new regional repository of country data can be used to query, chart, map and download health indicators. It also features monitoring dashboards – including indicators of progress towards universal health coverage and the health-related SDGs. The platform is powered by DHIS2 and Tableau software, compatible with many country health information systems in the Region, and is linked to the Global Health Observatory (GHO) maintained by WHO headquarters.

Ageing populations and the rising burden of noncommunicable diseases in the Region are putting more pressure on national information systems. Countries are asking for support with recording patient-level data where continuing care, for example for diabetes, is needed. In 2016, support was provided to six countries in the Region to develop ways to manage patient data, so that chronic health conditions can be monitored over time, and records can follow patients as they move between health facilities.

Opportunities, challenges and next steps

Accelerating access to NCD services is part of advancing UHC. Most recommended NCD interventions can be delivered through frontline services. Extending the range of services has major implications for the ways current services are organized and managed, as well
as on the education, distribution and workload of frontline health workers, and on access to new medicines. This will be a focus area in 2017.

Next steps to improve access to essential medicines will include actions to improve their affordability (e.g., country plans to reduce OOPs, greater price transparency); analysis and support for different procurement options, especially for smaller countries; and efforts to strengthen countries’ regulatory capacity through collaboration via SEARN and through individual country support.

Improved data will also continue to be a priority in 2017: for monitoring UHC as a whole; for improved equity analysis, and for monitoring progress on health workforce strengthening and access to medicines. In addition, with the move of the Secretariat of the Asia Pacific Observatory on Health Systems and Policies to the Regional Office in 2016, there will be new opportunities for policy-relevant analysis and synthesis of experience across countries in the Asia-Pacific Region in making progress on UHC.

The Regional Office works with other regional and global partners, including development agencies such as UNICEF, JICA and the Asian Development Bank, global partnerships, such as the Health Data Collaborative, and NGOs, such as the Asia eHealth Information Network (a regional NGO network of information system experts), to coordinate investment and technical assistance to countries to implement costed health information system and eHealth plans. Strategic investments are also being made by SEA Region countries to better integrate HIS and civil registration and vital statistics systems.
Flagship 5: Building national capacity for preventing and combating antimicrobial resistance

Background

Antimicrobial resistance is on the rise globally. The greatest cause for concern is resistant bacteria, where common respiratory infections, skin sores or diarrhoea could be untreatable, and life-saving surgeries more risky. Inappropriate use, widespread abuse for commercial gains, and a host of other misuses of antibiotics in animal and human health have led to drug resistance. AMR could potentially result in approximately 10 million deaths globally each year by 2050 if the current situation continues unchecked. According to 2016 World Bank estimates, AMR could also result in a decline in annual global GDP by 1.1%–3.8%, thereby having a major impact on global poverty, and the decline in global livestock production could range from 3% to 8% per year. The rise of antibiotic-resistant pathogens will not be contained without close interaction between the human health, animal health and environmental health sectors.

In response to this crisis, the Sixty-eighth World Health Assembly in May 2015 endorsed a Global Action Plan to Combat Antimicrobial Resistance (GAP-AMR). The goal of the GAP-AMR is to minimize the morbidity and mortality due to antibiotic-resistant infections and preserve the effectiveness of antibiotics in the treatment of common bacterial infections. To achieve this goal, the GAP-AMR plan sets out five strategic objectives:

- Improve awareness and understanding of antimicrobial resistance through effective communication, education and training;
- Strengthen knowledge and the evidence base through surveillance and research;
- Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures;
- Optimize the use of antimicrobial medicines in human and animal health; and
- Develop the economic case for sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions.

Development of this plan was guided by the advice of countries and key stakeholders, based on several multi-stakeholder consultations at different global and regional forums. All Member States of the Region committed to have in place, by May 2017, a national action plan.

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34 https://amr-review.org/background
plan on antimicrobial resistance (NAP-AMR) that is aligned with the global action plan. WHO is required to report to the World Health Assembly on the development, implementation, monitoring and evaluation of the NAPs developed by Member States.

Significantly, global leaders met at the United Nations General Assembly in New York in September 2016 to commit to fighting antimicrobial resistance together, recognizing its considerable global impact on social stability and security. This was only the fourth time in the history of the UN that a health topic was discussed at the General Assembly. Heads of State and Heads of Delegations addressed the seriousness and scope of the situation and agreed on sustainable, multisectoral approaches to addressing antimicrobial resistance.

Propelled by the global momentum, SEARO has reinforced its commitment to support Member States in combating AMR by providing advocacy, capacity-building and technical assistance, and by supporting resource mobilization and leveraging other resources and partnerships. A brief summary of key activities and achievements in the Region to take the AMR agenda forward in 2016 is presented below.

**Linkage to the SDGs**

Although not explicitly expressed as an SDG target or goal, addressing AMR is mentioned in the preamble of the SDG document as a key factor in accelerating the progress made in combating epidemics. It will not be feasible to reach SDG 3 and its proposed targets without effective antimicrobials that:

1. combat infections that are key determinants of infant, child (under-five) and maternal mortality;
2. address communicable disease epidemics; and
3. are used in procedures for cancer treatment and organ transplants to fight infection.

Effective antibiotics are a key resource for health systems and are critical to their sustainability.

**Key activities and achievements in 2016**

Two high-level meetings were held in India and Japan to strengthen advocacy and secure the engagement of key sectors for the AMR agenda at the national, regional and global levels. Notable outputs of these meetings are: (1) A Regional AMR meeting in New Delhi, India, on 23–25 February, 2016, during which a regional roadmap for developing national action plans for AMR was proposed; and (2) a meeting in Tokyo on 14–16 April 2016, which issued a Bi-Regional Communiqué on AMR that mainly prioritized the development of NAPs and the associated AMR agenda in tandem with the SDGs.
In 2016, as a prerequisite to developing their national action plans, WHO supported 10 of the 11 Member States in the Region in conducting a situation analysis of their national AMR control programme. Such an assessment provides the starting point for the development, implementation, and monitoring of progress of national AMR prevention and containment programmes. Member States piloted the situation analysis tool developed by SEARO, which has seven focus areas that are consistent with the strategic objectives of the GAP-AMR: (1) the existence of a National AMR Action Plan that is in line with GAP-AMR; (2) AMR awareness raising; (3) national AMR surveillance; (4) antimicrobial stewardship and surveillance of antimicrobial use and consumption in the community; (5) infection prevention and control in health-care settings; (6) research and innovation to combat AMR; and (7) One Health engagement.

The findings of the situation analysis show that most countries in the Region are in the development phase (phase 2) or early implementation phase (phase 3) of the programme with respect to the seven focus areas included in the analysis. Notably, Bhutan and Thailand have completed their GAP-aligned national action plans, with multisectoral governance structures in place and endorsement by their governments. Other Member States are in the process of developing their plans, some of which will be completed in time for the May 2017 commitment.

To further understand the regional AMR situation and provide guidance on the way forward, several initiatives were launched by the Regional Office in 2016. These include:

- A review of the use of antibiotics in the Region;
- Development of a roadmap to improve national surveillance for AMR using an information technology-based solution;
- A risk assessment on the capacity for antibiotic resistance to spread in South-East Asia countries, which concluded that this Region is likely to bear the highest burden of AMR worldwide;
- The formulation of antimicrobial policy interventions in food-animal production in the Region, in collaboration with WHO’s regional partners, FAO and OIE, in an effort to operationalize the One Health approach;
- A review of antibiotic residues in the environment to assess the magnitude of and risk implications for antibiotic resistance and to explore potential solutions.

Some of the key achievements that occurred in 2016 with Regional Office support to further the AMR agenda are:

- A roadmap was developed to assist Member States in strengthening their national AMR prevention and containment programmes;
Member States agreed to conduct a review of their AMR-related activities and progress in strengthening their national AMR containment programme on a regular basis (e.g., every one or two years) with technical support from SEARO, as stated in the Regional Committee session in 2016;

- A Coordination Group for Antimicrobial Resistance in the Regional Office was established to coordinate AMR activities across different departments;

- Siriraj Hospital at Mahidol University in Bangkok, Thailand, was designated as a WHO collaborating centre for AMR prevention and containment;

- Resources were mobilized from the Fleming Funds, the Global Health Security Agenda (GHSA), US CDC and USAID, among other donors, and partnerships strengthened to combat AMR; and

- A series of articles on AMR issues in the SEA Region was completed for a special edition of the *British Medical Journal* to be published by June 2017.

### Challenges and the way forward

The Regional Office acknowledges the grim picture of AMR in the Region. This includes poor public health infrastructure, poor sanitation and hygiene, weak food regulatory systems and improper food handling, less than optimal policies in many areas with limited enforcement capacity, a high burden of disease, widespread antibiotic use in animal farming, and the unregulated sale of cheap antibiotics. However, high-level ministerial commitment to tackle AMR in countries of the Region is very high, and national health authorities are taking steps to strengthen their AMR containment programmes and recognize the complexity of the AMR issue and the needs. The Region needs to translate this high-level commitment into tangible actions.

There is room for substantial efforts to build sustainable national programmes to contain AMR: programmes that rely on good governance where all aspects of the AMR global action plan are working in a coordinated manner and that is aimed at changing behaviour, reducing use antibiotics while acknowledging that many people do not have access to safe and effective antibiotics, and implementing the right policies with the ability to enforce them.

The Region has benefited for the past two or three years from a global and regional momentum that led to the statement at the UN General Assembly in September. Actions necessary to maintain this momentum include:

- Awareness raising among the general population and health professionals in order to change behaviour concerning the use of antibiotics;
- Addressing the paucity of data needed by policy-makers, including country-specific estimates of the AMR burden, and the cost-effectiveness and cost-benefits of various interventions;

- Continued monitoring by the Regional Office of the implementation of national AMR action plans to measure progress over time, as the Regional Office has committed to doing following the World Health Assembly resolution in 2015. Key elements to be monitored include the effectiveness of Monitoring and Evaluation systems built into the NAPs and domestic funding to sustain AMR containment programmes; and

- Mobilizing and leveraging resources with partnerships.
Flagship 6: Scaling up capacity development in emergency risk management in countries

This Flagship aims to cover the socioeconomic impact of emergencies and disasters in the SEA Region. The five key objectives of this flagship programme are:

- Advocacy – highlighting the role of the health sector in emergencies and working better with partners using a more inclusive approach;
- Information management – using a systematic approach to collecting, analyzing and reporting information for action;
- Technical and operational support – providing support to countries to strengthen capacities in this area;
- Preparedness and response – (of) WHO offices aligned with the work of health ministries and partners; and
- Partnership – engaging with partners and improving our relationships with those we have worked with, as well as exploring new opportunities to collaborate with others.

Regional profile on emergencies

The South-East Asia Region is vulnerable to different types of emergencies and disasters. Countries in the Region face a broad range of natural hazards, including floods, cyclones, earthquakes, tsunamis, landslides, volcanoes, heat waves and droughts. They have also been faced with various outbreaks of emerging and re-emerging diseases, including waterborne, vector-borne, vaccine-preventable, respiratory and zoonotic diseases. In addition to epidemics and high endemicity of dengue and chikungunya, some of the recent outbreaks and threats faced by countries in the Region include different strains of Influenza A (H1N1, H5N1, H9N2), MERS-CoV, Nipah virus, Japanese encephalitis, and Crimean-Congo haemorrhagic fever.

The 2015 World Disasters Report shows that over the past decade, the Region contributed to 24% of the global mortality due to disasters. Disaster risks in the Region are further amplified by increasing vulnerabilities resulting from unplanned urbanization; changing socioeconomic and demographic profiles; development in and around high-risk areas; climate change and environmental degradation; and the health service challenges of accessibility, affordability, quality and safety. If not addressed adequately, disasters seriously threaten the Region’s sustainable development.
Activities and achievements in 2016

WHO and emergency reform

Following the deliberations of the WHO Executive Board in January 2016, the Director General, Deputy Director-General and Regional Directors issued a statement committing to urgent reform of the WHO emergency work in a comprehensive way “through the establishment of one single programme, with one workforce, one budget, one set of rules and processes, and one clear line of authority” and “an independent mechanism of assessment and monitoring of the performance of the Organization, reporting to the Governing Bodies”. The reform of WHO’s work in emergencies has been guided by an Ebola Interim Assessment Panel, the Director-General’s Advisory Group on Reform of WHO’s Work in Outbreaks and Emergencies with Health and Humanitarian Consequences, and a Review Committee on the Role of the International Health Regulations (IHR) 2005 in the Ebola Outbreak and Response. The reform is also aligned with the report of the United Nations Secretary-General’s High-level Panel on the Global Response to Health Crises.

This global momentum for reform of WHO’s emergency work has been mirrored at the regional level. In 2016, the Regional Office established a new WHO Health Emergency (WHE) department headed by a Regional Emergency Director, and developed a new workplan. The department has five functional units, reflecting the structure of the global WHE programme that was adopted at the World Health Assembly in May 2016:

- Infectious hazards management (IHM), which includes high-threat pathogens, expert networks and, at headquarters, the Secretariat of the Pandemic Influenza Preparedness Framework;
- Country health emergency preparedness and the International Health Regulations (CPI), which includes monitoring and evaluation of national preparedness capacities, planning and capacity-building and, at headquarters, the Secretariat of the International Health Regulations (2005);
- Health emergency information and risk assessments (HIM), which includes event detection and verification, monitoring of health emergency operations, and data management and analytics;
- Emergency operations (EMO), including the Incident Manager’s roles and responsibilities, operational partnerships and readiness, and operations support and logistics; and
- Emergency operations management and administration and external relations (MGA).
Emergency response activities

Although there were not any severe, large-scale emergencies (Grade 2 or 3) in the Region in 2016, SEARO provided technical and financial support through SEARHEF to Bhutan, Myanmar, Sri Lanka and DPR Korea following floods and landslides. There was also a well-coordinated response by Indonesia to the Aceh earthquake of December 2016 that killed more than 100 people. In each case, funds from SEARHEF were released within 24 hours to support the operations of the emergency response in all affected countries.

Key activities and achievements in SEARO’s emergency response programme in 2016 include the following:

Increasing support for country preparedness

SEARHEF was established in 2008, and has been used to provide immediate financial support to nine out of the 11 Member States in 31 emergency operations, with disbursements totalling US$ 4.75 million from 2008 to 2016. At the Sixty-ninth session of the Regional Committee in September 2016, Member States approved expanding the scope of SEARHEF to include a preparedness stream that would strengthen key aspects, such as disease surveillance, health emergency workforce and health emergency teams. It is anticipated that support for basic preparedness activities may cost US$ 200 000 per country every two years (per biennium). Thus, the minimum amount (corpus) per biennium may be set at US$ 2.2 million. The target date for implementation of the SEARHEF preparedness funding stream is 1 January 2018. SEARO will consequently develop a resource mobilization plan to further support regional needs under the Health Emergencies Programme.

Operational partnerships

In October 2016 SEARO organized a training on Emergency Medical Team (EMT) Coordination in New Delhi. The goal of the training was to develop and strengthen National EMTs so that they can be quickly deployed for any emergency in the Region. SEARO will also participate in the global dialogue and Strategic Advisory Group meeting on EMT in February 2017.

IHR (2005)

WHO continues to help countries meet the provisions of the legally-binding International Health Regulations (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 been declared compliant with the IHR (2005) Core Capacities. As of 2016, the new IHR Monitoring and Evaluation (M&E) Framework is being used to review country progress in implementing IHR Core Capacities. The Regional Office has initiated support to Member States to conduct comprehensive assessments of Core Capacities for emergencies (emphasizing food safety, chemical and radio-nuclear events) using the new...
M&E framework, which includes four components: a joint external evaluation (JEE), state party annual reporting, an after-action review and simulation exercise. These assessments will continue from 2017 to 2019.

**Engaging with global networks and partnerships**

SEARO has been actively contributing in the ongoing dialogue and development of guidelines and strategic plans for the Global Health Cluster, coordinating with the Inter-Agency Standing Committee of humanitarian partners (IASC), and strengthening of the Global Outbreak Alert and Response Network (GOARN). The Regional Office also participated in the meeting of the Global Health Cluster to develop its multi-year strategy for 2017–2019.

**Flagship meeting**

SEARO convened a regional meeting from 29 November–1 December 2016 with representatives of all 11 Member States and partner agencies to strengthen regional capacity in emergency risk management. The meeting provided an opportunity to orient the Member States on global developments on emergencies and the WHE Programme, review their progress in improving emergency risk management capacities, review regional activities on emergency risk management, and discuss strategic directions for the emergency risk management Flagship programme.

**Challenges and the way forward**

Some of the key challenges that countries identified during the regional meeting include gaps in all-hazard preparedness and response capacity (food safety, chemical and radiological events), trained manpower, inter-sectoral coordination, adaptation of technical guidelines, contingency funds for response and funding for preparedness activities, supply chain management and information and communications technologies (ICT) for emergencies, and risk communication capacity. Priority actions identified for 2017–2019 for Member States and partners to address these challenges include:

- conducting comprehensive assessments of IHR Core Capacities;
- developing or updating contingency plans to include an “all hazards” approach;
- establishing sustainable financing mechanisms for emergency preparedness and response;
- implementing training and capacity-building strategies;
- strengthening laboratory, biosafety and infection prevention and control capacity;
implementing One Health strategies (for human and animal health coordination) and other approaches to strengthening multisector coordination; and

integrating emergency procurement with routine procurement and supply chain mechanisms.

Member States also identified strategic directions and activities for Flagship 6 at the meeting and requested support from SEARO for the following activities:

- Strengthening strategic partnerships in the Region for disaster risk reduction (DRR), emergency preparedness and response (EPR), and other global initiatives;
- Developing a common framework for information management systems for emergencies;
- Strengthening operational response by developing a roster of experts and Emergency Medical Teams (EMTs), and establishing and networking emergency operations centres;
- Adapting and institutionalizing an Incident Management System (IMS);
- Development of an emergency health logistics and supply chain management system;
- Media and risk communications training;
- Conducting comprehensive assessments of Core Capacities for emergencies (emphasizing food safety, chemical and radio-nuclear events), including joint external evaluations, benchmark assessments, and other components of the IHR M&E framework; and
- Defining priority infectious diseases and threats for the Region and providing technical assistance for their timely detection and response.
Flagship 7: Finishing the task of eliminating diseases on the verge of elimination

This Flagship area covers several neglected tropical diseases – lymphatic filariasis, kala-azar (visceral leishmaniasis), leprosy, yaws and schistosomiasis – that are endemic in the Region and are targeted for either eradication or elimination under the WHO NTD Roadmap. In reality, these are diseases of neglected and marginalized people from the lowest socioeconomic strata in developing countries. Interventions to eliminate and, where possible, eradicate these diseases not only improve public health, but also help to ensure equity and social justice, arguably making NTD prevention and control one of the most important pro-poor, people-centred public health programmes in existence.

The Flagship and its linkage to SDGs

Neglected tropical diseases are included under the health SDG, specifically in Target 3.3, along with AIDS, TB and malaria. This Flagship programme also directly or indirectly contributes to several other SDGs (e.g., 2 (hunger), 4 (education), 6 (water and sanitation), 8 (work and economic growth), 10 (inequities), and 11 (cities and communities)). Addressing NTDs is not only a unique entry point for some of these SDGs, it also serves as a litmus test for achieving equity and universal health coverage.

Achievements in 2016, progress and results

Significant progress and important achievements were made in the Region in 2016. India became the first country to be verified by WHO as yaws-free and, similarly, Maldives and Sri Lanka became the first countries to be validated for eliminating lymphatic filariasis (LF) as a public health problem.

Significant progress was also seen in other countries in 2016. Thailand started the final lymphatic filariasis transmission assessment survey required for a formal validation of elimination of LF as a public health problem. Bangladesh completed mass drug administration in all LF-endemic districts and entered the post-MDA surveillance phase. Timor-Leste achieved 100% MDA coverage and has been brought on track towards the 2020 elimination target. India stopped MDA in 86 districts, removing 194 million people from the population requiring treatment. The success in LF in the Region has shifted the global LF map significantly.

Kala-azar is endemic in three countries in the Region (Nepal, Bangladesh and India), with sporadic cases in Bhutan and Thailand. Nepal has completed three successive years of maintaining the disease incidence below the elimination target of one case per 10 000 population. By the end of 2016, Bangladesh achieved the target in 98 out of 100 upazilas, and India did so in 524 out of 611 endemic blocks (86%).
The six countries in the Region with a high leprosy burden are piloting new, innovative approaches to improve case detection and reduce Grade 2 disabilities. A software programme has been developed for India to enable it to implement a real-time leprosy surveillance and monitoring system and improve programme performance. The surveillance and monitoring experience gained from India may be useful, with adaptation, in other high-burden countries in the future.

**Fig. 12: Kala-azar situation in SEA Region, 2016**

Source: Country reports to WHO, 2016

**Opportunities, challenges and next steps**

Most Member States in the Region have shown strong leadership and political commitment to ending NTDs, while in some countries the health ministers themselves are actively
involved in monitoring progress towards NTD elimination goals. Domestic investments and national budgets earmarked for NTDs are also increasing in many countries. However, there are challenges to translate this political commitment into concrete actions in larger countries with decentralized governments, more specifically, in channelling sufficient funds and human resources to combat these diseases.

As the elimination efforts reach the last mile, the endemic high-burden pockets are being targeted, and to do that effectively, the need for more robust real-time data at the lowest administrative level is emerging stronger than ever. This requires further strengthening of surveillance and monitoring systems and increasingly making innovative use of IT infrastructures and other novel technologies.

WHO and partners are collaborating with national governments to provide technical guidance and support to identify remaining challenges and to address them. Some of these include identifying LF-endemic areas that fail to achieve or sustain the elimination target, the emergence of new kala-azar foci, ongoing leprosy transmission and increasing rate of Grade 2 disabilities, and the difficulty in further reducing the burden of schistosomiasis in the small endemic pockets where it still exists in the Region.

SEARO is working with WHO country offices and headquarters to monitor the programmes more closely and troubleshoot emerging problems. Work is in progress to develop real-time monitoring tools and data visualization platforms at different administrative and programmatic levels to enable constant monitoring and immediate course correction. Regional technical advisory groups for each of these diseases are meeting more frequently to conduct in-depth reviews of progress, identify bottlenecks, and guide WHO and national programmes accordingly.
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 also being addressed with equal vigour. The following section highlights some of the key issues and the progress and challenges in addressing them.

1. Ending tuberculosis: bending the curve

TB seen as a bigger threat to the Region than previously thought

New estimates of the tuberculosis disease burden released in 2016 for the South-East Asia Region show that the Region accounts for more than 45% of the global TB incidence and nearly 40% of global deaths, while it is home to only about 25% of the world’s population. An upward revision of estimates was seen this year because of a revision in India’s 2015 estimated disease burden. Similar upward revisions have also occurred in prior years as a result of prevalence surveys conducted in Indonesia (2014), Myanmar (2009) and Thailand (2012). Six Member States in the Region – Bangladesh, DPR Korea, India, Indonesia, Myanmar and Thailand – are on the list of 30 high-TB burden countries, and two countries, India and Indonesia, alone account for 37% of the global TB disease burden. Timor-Leste, while not on the list of high-burden countries, has among the top 10 incidence rates in the world, along with DPR Korea.

Multidrug-resistant TB (MDR-TB) poses a significant challenge, with less than one in three of the estimated 110 000 MDR-TB cases among the notified pulmonary cases in the Region having received appropriate treatment. And out of those who started on treatment in previous years, less than half were successfully treated.Extensively drug-resistant (XDR) TB was reported by six countries in the Region by 2015. An estimated 74 000 people died of HIV-associated TB in 2015. Among HIV-positive TB patients reported, 78% were on antiretroviral therapy.

37 The upward revisions to estimates of the burden of TB disease in India for the period 2000–2015 follow accumulating evidence that previous estimates were too low. This evidence includes household surveys, a state-wide TB prevalence survey, studies of anti-TB drug sales in the private sector, notification data and new analysis of mortality data.
The current situation calls for bolder action and an accelerated response to TB in the Region

In response to the new information on the high TB disease burden in the Region, “Bending the TB Curve” is an acceleration plan to intensify activities in the Region to end TB in alignment with the global End TB Strategy. This will be a multi-partner initiative that will bring together, on a common platform, partners from national, regional and global levels, including bilateral and multilateral donors, foundations, technical institutions, parliamentary groups, civil society organizations, and other key stakeholders.

A high-level meeting was held during the World TB Day event in Delhi in March 2016 to discuss the fast-tracking of approaches to end TB, followed by a technical briefing session during the Sixty-ninth session of the Regional Committee in September. A commentary titled “New evidence of the tuberculosis burden in Asia demands national action” was published in The Lancet.38

The Regional Strategic Plan for TB (2016–2020) continues to guide Member States in updating their national strategic plans. The Regional Office is also working with countries on modelling exercises to determine the resources needed to fast-track interventions to achieve the End TB targets by 2030. These in-country exercises were complemented by a regional modelling workshop organized in Delhi in December 2016 by the Global Fund and the Stop TB Partnership, and facilitated by SEARO. Several Member States participated in the workshop and were sensitized on modeling processes and real-time monitoring of data. WHO SEARO and country offices continue to coordinate with partners to provide technical and financial support for national TB control programmes.

It is vital to have better TB disease burden estimates, and countries are taking steps in this direction. Bangladesh and the Democratic People's Republic of Korea completed TB prevalence surveys in 2016, and India, Myanmar and Nepal are expected to start similar surveys in 2017. To address the challenges of low detection rates of rifampicin-resistant and MDR-TB cases as well as very low treatment success rates for these cases in the Region, SEARO is also assisting Member States in adopting recent WHO recommendations regarding diagnostics, newer drugs and shorter treatment regimens for MDR-TB cases that should help countries improve the performance of their TB programmes.

2. Ending the HIV/AIDS epidemic

The Region bears the second largest burden of HIV in the world, with an estimated 3.5 million people living with HIV. Concerted efforts and effective partnerships among national programmes, development partners and civil society led to the scale-up of HIV treatment that is now accessible to 1.4 million people living with HIV in the Region. From over

38  www.thelancet.com Published online October 13, 2016 http://dx.doi.org/10.1016/S0140-6736(16)31853-0
200,000 annual AIDS-related deaths a decade ago, mortality is now down to 130,000 per year. Expansion of prevention and treatment has resulted in averting almost 120,000 new HIV infections in 2015 compared to 2001.

More needs to be done to accelerate progress towards the goal of ending AIDS as a public health threat in the Region. The milestone of reaching “90-90-90” by 2020 will require strategic investments and innovations for HIV testing, treatment and retention in care. Countries in the Region have demonstrated that this can be done. Thailand achieved elimination of mother-to-child transmission of HIV and syphilis in 2016, thanks to unwavering national commitment, a focus on high impact interventions, the use of a health systems approach in addressing HIV/AIDS, and monitoring progress to demonstrate results.

With the HIV/AIDS epidemic concentrated in key affected populations – men who have sex with men, sex workers, transgender people and people who inject drugs – all of whom are stigmatized, it is imperative to provide enabling environments to ensure safe spaces where people can access HIV testing and treatment without fear of stigma, discrimination or punitive actions. Public health interests have to be preserved and the right to health care ensured for all, as laid out in the UHC guiding principle of “leaving no one behind”.

Five countries in the Region – India, Indonesia, Myanmar, Nepal and Thailand – account for 99% of the HIV burden. The Democratic People’s Republic of Korea has not reported a single HIV case to date. The Regional Office provided technical support in updating national strategies and implementation of new HIV testing and treatment approaches in Bangladesh, India, Indonesia, Myanmar, Nepal, Sri Lanka and Timor-Leste. Innovative service delivery models are critical to improving access to HIV services, and Myanmar has been leading on this front, with support from SEARO and the Country Office.

As treatment expands, HIV drug resistance is expected to increase. To mitigate the impact, the Regional Office and country offices have provided support in monitoring early warning indicators for drug resistance in all countries. The Regional Office also assisted with drug resistance surveys in Myanmar and Nepal, and in developing survey protocols for such studies in India and Indonesia.

Member States renewed their commitment to end AIDS by 2030 when they endorsed the Global Health Sector Strategies for HIV and STIs (2016–2021) at the World Health Assembly in May 2016. To reach the goals of the Global Strategy and provide a framework for technical support to Member States, SEARO developed a Regional Action Plan for HIV 2016–2021.

This is an exciting and a sobering time for the global HIV response. While we have scientific advances to overcome HIV and know how to expand services to those who need them the most, international investments in the disease response are declining. While most countries in the Region have increased domestic funding for HIV/AIDS, there are countries that are still dependent on external resources. This is especially true for community-based
services that are a cornerstone of country HIV programmes. Working together, WHO and Member States can build on the successes and work on innovations to position the HIV response within the UHC agenda to ensure integrated health service delivery and chronic care models that will accrue benefits not only to the fight against HIV, but also to overall health and well-being.

3. Malaria

According to the WHO World Malaria Report 2016, the current malaria situation in the South-East Asia Region shows that 1.4 billion people are at risk of malaria, with 237 million at high risk. The SEA Region carries the second highest malaria burden, after the African Region. Furthermore, this Region has the highest burden of plasmodium vivax malaria cases, with 58% of the estimated global vivax cases occurring in the South-East Asia Region. In 2015 a total of 1,480,206 confirmed malaria cases (through microscopy and/or rapid diagnostic tests), and 620 malaria-related deaths were reported in the SEA Region. The biggest share of reported cases were from India (89%), followed by Indonesia (9%), and Myanmar (2%) (Fig 13).

Fig. 13: Annual incidence of confirmed malaria cases per 1000 population in the South-East Asia Region, 2015

However, the Region has made significant progress in reducing the malaria burden, with the number of reported confirmed cases decreasing by 44% from 2,480,206 in 2010 to 1,493,934 in 2015. Reported deaths declined by 74% (from 2,421 to 620) during the same period. In fact, the Millennium Development Goal of halting and reversing the incidence and death rates of malaria was achieved in the South-East Asia Region, as well as globally.
And while all 11 countries in the Region had been endemic for malaria in the past, two countries have already eliminated the disease:

- Maldives recorded its last indigenous case in 1984 and was certified by WHO to be malaria-free in December 2015;
- Sri Lanka reported its last indigenous case in 2012 and was certified by WHO to be malaria-free in September 2016 – a huge public health success. Sri Lanka thus became the first country in the Region to eliminate malaria in the 21st century, despite a prolonged armed conflict. The history of Sri Lanka’s malaria elimination effort is a vivid illustration of the sustained effort required; while malaria incidence had been reduced to 17 documented cases by 1963, due to a relaxation of efforts, the disease resurged within six years to over 500,000 cases in 1969.

All the nine remaining malaria-endemic countries in the Region have committed to eliminating the disease by 2030 at the latest, and WHO estimates that at least three countries (Bhutan, Nepal, Timor-Leste) can reach zero indigenous cases by 2020. Most countries have made significant progress towards this goal, and in 2015 reported malaria cases plummeted in several countries, including Myanmar, Thailand and Timor-Leste. No malaria-related deaths have been reported from Nepal since 2012, nor from Bhutan since 2013.

In 2016, three countries (Bangladesh, Indonesia and Myanmar) conducted reviews of their malaria programmes. Three countries (India, Myanmar and Thailand) updated and launched their national strategic plans towards malaria elimination, while others are in the process of doing so.

Despite significant progress, a number of important challenges remain. First of all, funding for malaria in the Region decreased from US$ 170 million to US$ 92 million between 2010 and 2015. All nine remaining endemic countries are seeking external funding from the Global Fund. However, new allocations are often less than previous grants, except for the Greater Mekong Subregion, as discussed below.

Secondly, multidrug resistance including artemisinin-based combination therapies (ACT) has been detected in five countries in the Greater Mekong Subregion consisting of Viet Nam, Cambodia, Myanmar, Thailand and Lao People’s Democratic Republic, forcing them to change their strategy from containment to a six-country (along with Yunnan province in China) multi-partner effort to eliminate P. falciparum malaria by 2025 and all malaria by 2030. This strategy is coordinated by the WHO Mekong Malaria Elimination Hub and based on the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015–2030). Monitoring malaria drug resistance throughout the Asia-Pacific Region in order to monitor the potential spread and emergence of new strains is a high WHO priority. Consequently, malaria drug resistance data from all endemic countries of the South-East Asia and Western
Pacific regions were reviewed during a joint meeting of the three existing drug resistance monitoring networks (Greater Mekong Subregion, Pacific and BBINS – Bangladesh, Bhutan, India, Nepal and Sri Lanka), and monitoring plans for 2017 have been agreed upon.

*Fig. 14: Malaria multidrug resistance in the Greater Mekong Subregion, 2015*

Resistance of malaria-transmitting mosquitoes to insecticides is a further threat to eliminating the disease in the Region. Data on insecticide resistance have been collected from all countries, and a vector control expert has been recruited by SEARO to support Member States with their response.

While cross-border collaboration for malaria elimination is an integral part of the Greater Mekong Subregion effort, including among mobile and migrant populations, a functioning mechanism for such collaboration still needs to be established in South Asia. A meeting in 2016 brought together five countries with long common borders – Bangladesh, Bhutan, India, Myanmar and Nepal – as well as partners and experts. Meeting participants determined the objectives and components of such collaboration – namely information exchange, increasing access to malaria interventions in border areas, and financing – and agreed on a common way forward. Since the meeting, situation analyses and mapping of the malaria risk have been conducted in each country, and Global Fund Country Coordinating Mechanisms in the countries have assured their support. Next steps will include forging agreements between relevant sectors (health, interior, foreign affairs) to work across borders, and developing joint workplans, including between border districts where relevant.

### 4. Air pollution

Air pollution continues to be the most pressing environmental health risk facing the Region. Cardiovascular disease, chronic obstructive respiratory diseases, and lung cancer
in adults and acute lower respiratory tract infections in children under-five are among the key avoidable causes of diseases and premature death attributable to air pollution. The health impact of air pollution highlights considerable inequities, disproportionately affecting the most vulnerable and disadvantaged in society. Women and young children are among the most vulnerable, particularly to household air pollution from the use of wood, animal dung and crop waste as cooking fuels.

Table 2. Selected indicators of air pollution in SEA Region Member States, 2012–2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Mortality rates attributed to household and ambient air pollution (per 100 000 population)</th>
<th>Age-standardized mortality rate attributed to household and ambient air pollution (per 100 000 population)</th>
<th>% population using solid fuel for cooking</th>
<th>Number of cities reporting PM2.5 monitoring data</th>
<th>Reported range of annual PM2.5 in cities</th>
<th>Modelled median annual PM3.5 ug/m³ (rural and urban)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh Both sexes</td>
<td>68.6</td>
<td>109.3</td>
<td>89</td>
<td>8</td>
<td>37–106</td>
<td>84 (53–131)</td>
</tr>
<tr>
<td>Bhutan Both sexes</td>
<td>58.9</td>
<td>90.3</td>
<td>36</td>
<td>1</td>
<td>43</td>
<td>48 (30–79)</td>
</tr>
<tr>
<td>Democratic People's Republic of Korea Both sexes</td>
<td>238.4</td>
<td>238.9</td>
<td>92</td>
<td>No data</td>
<td>No data</td>
<td>27 (8–92)</td>
</tr>
<tr>
<td>India Both sexes</td>
<td>133.7</td>
<td>187.2</td>
<td>64</td>
<td>122</td>
<td>6–176</td>
<td>62 (41–95)</td>
</tr>
<tr>
<td>Indonesia Both sexes</td>
<td>85</td>
<td>128.7</td>
<td>39</td>
<td>1</td>
<td>33</td>
<td>14 (9–23)</td>
</tr>
<tr>
<td>Maldives Both sexes</td>
<td>15.3</td>
<td>25.4</td>
<td>&lt;5</td>
<td>1</td>
<td>11</td>
<td>16 (8–29)</td>
</tr>
<tr>
<td>Myanmar Both sexes</td>
<td>128.2</td>
<td>184.6</td>
<td>93</td>
<td>14</td>
<td>17–78</td>
<td>51 (32–80)</td>
</tr>
<tr>
<td>Nepal Both sexes</td>
<td>103.2</td>
<td>161.3</td>
<td>80</td>
<td>49</td>
<td>No data</td>
<td>64 (33–123)</td>
</tr>
<tr>
<td>Sri Lanka Both sexes</td>
<td>125.4</td>
<td>126.8</td>
<td>74</td>
<td>11</td>
<td>36</td>
<td>27 (14–51)</td>
</tr>
<tr>
<td>Thailand Both sexes</td>
<td>64</td>
<td>53.5</td>
<td>23</td>
<td>26</td>
<td>13–32</td>
<td>25 (16–37)</td>
</tr>
<tr>
<td>Timor-Leste Both sexes</td>
<td>91.6</td>
<td>138.9</td>
<td>93</td>
<td>No data</td>
<td>No data</td>
<td>15 (3–65)</td>
</tr>
</tbody>
</table>

The year 2016 saw a continuing momentum in the awareness among policy-makers of the important health consequences of air pollution. However, much work is needed in designing, financing and implementing effective health-orientated interventions. Progress is being guided by the roadmap adopted by the Sixty-ninth World Health Assembly for

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(2) Percentage population using solid fuel for cooking - The 2013 data on household energy use is available from the Global Health Observatory here: http://apps.who.int/gho/data/node.main.135  
(3) Number of cities reporting. Range of annual PM2.5 and Modelled median PM2.5 – these data are abstracted from WHO Global Urban Ambient Air Pollution Database (update 2016) http://www.who.int/phe/health_topics/outdoorair/databases/cities/en/
responding to the adverse health effects of air pollution, which has four pillars: (i) expanding knowledge, (ii) monitoring, (iii) leadership and coordination, and (iv) institutional capacity strengthening.

Progress in 2016 included improved air pollution data modelling that enabled new disease burden estimates to be made at the country level and the levels of air pollution in over 100 cities in South-East Asia. The data show that countries in the Region face considerable challenges due to high ambient levels of air pollution, particularly in highly-populated metropolitan areas, as well as high continued use of solid fuel for household cooking, resulting in household air pollution. An average of 63% of all households in the Region still rely on this energy source.

Member States have given their high-level commitment to tackle household air pollution as part of their multisectoral national action plans for NCD prevention and control. A number of countries are taking additional health-focused initiatives. The Ministry of Health in India has established an innovative high-level multisectoral steering group on air pollution. The group formulated a set of recommendations for coordinated actions to reduce the major sources of air pollution and to strengthen the existing health infrastructure and capacity to mitigate its health impacts. The resulting “Delhi Commitment on Air Pollution” is an important instrument for further coordinated improvements in the country. The Indian Government also took steps to improve access to clean fuel by low-income groups, particularly liquid petroleum gas (LPG) for those living below the poverty line.

In Bhutan, the Ministry of Health piloted a multisectoral training course to impart the knowhow on monitoring household air pollution and to explore interventions to reduce its health impacts. In Sri Lanka, awareness-raising about air pollution was conducted by the Sri Lankan Medical Association at their annual meeting. Finally, Nepal hosted an expert meeting to develop the WHO Clean Household Energy Solutions Toolbox, which is designed to assist countries in implementing the WHO Air Quality Guidelines on Household Fuel Combustion.

5. Climate change and health

SDG 13 on climate change sends a wakeup call to “…take urgent action to combat climate change and its impacts”. The health sector has clear roles in many of the SDG-13 targets. These include 13.1 (strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries); 13.2 (integrate climate change measures into national policies, strategies, and planning); and 13.3 (improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning). The Regional Office supported Member States to
create awareness and develop capacity to address the negative impacts of climate change long before the adoption of the SDGs.

During the year, SEARO focused on helping countries develop Health National Adaptation Plans for climate change (HNAP), and organized a regional training on developing HNAPs in November 2016. Nepal adopted its HNAP in late 2016. Bhutan, India, Indonesia, Sri Lanka and Thailand have started the HNAP development process, while the remaining countries will do so in 2017. As part of a WHO-DFID project on building adaptation to climate change in health, studies were initiated in Bangladesh and Nepal to understand the effects of climate variability, seasonal change and environmental events on water and sanitation, and water-borne diarrhoeal diseases. Climate and Health country profiles for Bhutan, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka and Timor-Leste were developed for the first time in 2016.

Concerning interventions at the country level, national training on climate change and health was provided for health and non-health professionals in Bhutan and Sri Lanka, using SEARO’s training package on the subject. Bangladesh conducted a vulnerability assessment of WASH services to climate change in four urban areas and introduced climate-resilient water safety plans into water supply systems. Nepal has been piloting the implementation of climate-resilient water safety plans in four projects covering three ecological Regions (mountain, hill and terai).

There are notable success stories in the Region with regard to countries’ response to climate change. For example, in Nepal a dedicated section for Diseases Control, Climate Change and Environmental Health has been established under the curative division of the Ministry of Health. The country also developed three different training manuals on climate change and health for policy-makers, managers and communities, as well as a training manual and guidelines on climate-resilient water safety planning. A study on “Assessing the effects of climate factors on diarrhoeal diseases at national and subnational levels in Nepal” shows that a 1 °C increase in temperature causes a 4.4% increase in diarrhoea cases. Another study tested the use of rainwater harvesting systems as a climate change adaptation strategy in Arghakhanchi district, which showed promising results.

Similarly in the Maldives, a low-emission, climate-resilient development project implemented in Laamu Atoll (LeCRED) is testing different climate and health initiatives. Activities conducted by this project included an assessment of drinking water quality, development of a strategy for health-care waste management, and a study of the feasibility of the use of solar panels in health facilities. In addition, Maldives completed a dengue outbreak assessment and launched a nationwide vector control campaign. Maldives also procured interagency emergency health kits (IEHK) in preparation for potential future climate-related events.

Through collaboration with UNDP, SEARO assisted Bangladesh, Myanmar, Nepal and Timor-Leste in developing project proposals on “Building resilience of health systems in
Asian LDCs to climate change” for funding from the Global Environment Facility. The project will begin in 2017.

6. Road safety

Road traffic injuries kill approximately 316 000 people each year in the Region, accounting for 25% of the global death toll from road accidents. Traffic injuries constitute the leading cause of death among young people between the ages of 15 and 29 years, and cost governments up to 5% of GDP in low- and middle-income countries. Pedestrians, cyclists and motorcyclists – the so-called vulnerable road users – make up 50% of deaths in the Region, and nearly 80% in some countries.40

Road safety relates to many of the SDGs. SDG Target 3.6 aims to reduce road traffic mortality by half by 2020, while Target 11.2 endeavours to provide access to safe, affordable, accessible and sustainable transport systems for all by 2030. These SDGs align well with the UN Decade for Action on Road Safety (2011–2020).

Substantial assistance was provided in 2016 to WHO Members States in the Region in the area of road safety. SEARO has focused on vulnerable road users, as well as the development and robust implementation of legislative tools to address key risk factors, such as excessive speed, drink–driving, and the non-use of helmets, seat-belts and child restraints. In that vein, the Regional Office assisted Bangladesh, India, Maldives, Myanmar, Sri Lanka and Thailand to review their road safety legislation and propose changes. SEARO also helped strengthen capacity in six countries in the areas of quick ambulance transportation and in quality clinical post-crash care and trauma care. With WHO assistance, Bangladesh, Maldives, Thailand and some states in India launched Road Safety Programmes. WHO also organized, with the International Centre for Journalists (ICFI), a regional training course in Colombo in December for journalists on road safety and a one-day event for Sri Lankan journalists. Similar advocacy events for road safety were also held at SEARO.

One of the innovative approaches that WHO has utilized is to simultaneously harness the skills and facilities of two renowned trauma centres – Khon-Kaen University in Thailand, a WHO collaborating centre, and JPN Apex Trauma Centre at the All Indian Institute of Medical Sciences (AIIMS) in New Delhi – to conduct training in trauma care for senior doctors, nurses, senior public health administrators from six countries of the Region. Clearly-defined roles for each centre left no room for confusion and thus led to the smooth implementation of the training. In addition, the unique strengths of each centre could be showcased, greatly benefiting the participants. Building and leveraging cross-sectoral partnerships consisting of health facilities, NGOs and academia have been at the core of road safety programmes of Member States.

40 WHO Global Status Report on Road Safety, 2015
Some of the main challenges to improving road safety in the Region include an insufficient focus on road safety among political leaders, archaic laws, poor implementation of existing laws and regulations concerning key risk factors, and delayed and poor-quality post-crash care. The recent upsurge in activities related to the Decade of Action for Road Safety, the Brasilia Declaration on Road Safety (2015) and the upcoming meeting on Injury prevention in Thailand in 2018 have helped create a positive buzz and opportunities for the road safety agenda.

7. The Global Leprosy Programme (GLP)

The Global Leprosy Programme (GLP) is a unique WHO programme, being the only global programme based outside Geneva. Though technically it is a unit of the WHO South-East Asia Region, it has a worldwide responsibility and fulfills the functions of a headquarters for leprosy control.

Its core functions include global monitoring of the leprosy epidemic. In 2015, a total of 211,973 new leprosy cases were notified to WHO, which corresponds to a global case-detection rate of 2.89 per 100,000. At the end of the year, 176,176 cases were reported to be on the treatment register, corresponding to a global prevalence of 0.24 per 10,000 population. Both the registered prevalence and incidence rates show a slowly declining trend over the past decade (Fig. 15). The bulk of the cases are registered in the South-East Asia Region, followed by Latin America and sub-Saharan Africa (Fig. 16). Leprosy is increasingly becoming a focalized disease with areas of high transmission (“hot spots”) present in countries with both a high and low absolute disease burden.

Fig. 15: Trends in global leprosy prevalence (rate), 2006–2015
One of the key events of 2016 was the launch of the Global Leprosy Strategy 2016–2020 "Accelerating towards a leprosy-free world", and its Operational Manual. A tailored M&E guide was also developed during the course of the year. These three key documents are available in English, French, Spanish and Portuguese.

Fig. 16: Distribution of new leprosy cases in 2015 (n=211,973)

The main focus of the strategy is on reducing the disease incidence which should reflect in a reduction of new cases presenting with visible deformities or childhood leprosy. In addition, partners are also encouraged to develop and introduce new tools for preventing and managing the disease and its complications. Addressing stigma and discrimination is also expected to achieve accelerated control of leprosy.

A synthesis of all data on antimicrobial resistance in leprosy, compiled during the consultation on antimicrobial resistance surveillance held in October 2016, pointed out the need for expanding the current surveillance network that was set up in 2009. The expansion was prompted both in terms of laboratories and countries involved but also in terms of scope, widening the number of samples tested out of the total cases detected, and implementing a continuous surveillance model for secondary resistance. This is also in line with the space that antimicrobial resistance in leprosy has been given as part of the key areas of interventions under the Global Leprosy Strategy 2016–2020.

The Nippon Foundation remains the single largest donor to GLP. In 2016, the Foundation provided a grant of US$ 2.3 million to support core leprosy activities at global, regional and country level. In addition, through the Bangkok Declaration Special Fund and the Special Fund for Extra-ordinary Circumstances, grants between US$ 42,000 and US$ 180,000 were provided to high-burden countries. The latter grants are designed to support innovative actions towards further reducing the leprosy burden and strengthening surveillance systems in selected high-burden countries.
The Global Leprosy Programme has also been involved in bringing stakeholders together. Increased advocacy and participation in major global and regional events has led to increased attention to leprosy. The agendas of different stakeholders are increasingly aligned and the development of a global partnership to stop leprosy transmission is being pursued.

8. Strengthening WHO collaborating centres

WHO often requires expert advice and engages in scientific or technical cooperation with other institutions. The South-East Asia Region recognizes 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 WHO CCs is collaboration and not outsourcing.

The designation of a new WHO CC or a re-designation of an existing WHO CC is based on specific WHO programme needs. As of December 2016, there were 96 CCs in the SEA Region, with the bulk of them in India and Thailand. These CCs are located in more than 65 institutions across 42 cities in the Region (see Fig. 17).

**Fig. 17: Country distribution of WHO collaborating centres in the SEA Region, 2016**

![Country distribution chart](http://apps.who.int/whocc/Reports.aspx)


WHO technical units recognize the CCs as a valuable resource they have at their availability to achieve their objectives as per the WHO Programme Budget. The work of the WHO CCs is spread across multiple disciplines or areas of public health (Fig. 18).
The Regional Office organized a regional consultation from 19–21 October 2016 in New Delhi to which representatives from all WHO CCs in the Region were invited. Of the 120 participants, 82 were representatives of CCs. The goal of the meeting was to strengthen the association and explore efficient ways to maximize the inputs from the collaborating centres to the work of WHO in the Region.

One of the key outcomes of the consultation was the realization that a lack of communication was an issue between the technical units and the WHO CCs. Therefore, a detailed evaluation of the collaboration between WHO and the CCs is planned with the aim of developing a strategy for the future engagement of these collaborating centres.


Apart from above-mentioned categories, there were many in the ‘others’ category, where the number of collaborating centres ranged from 1% to 4%. ‘Others’ category included occupational health, cancer, health information, statistics, vector biology, HIV/AIDS, diarrhoeal diseases, blindness, environmental health, pharmaceuticals, diabetes, disability, etc. (CDS-communicable diseases & surveillance; MCH- maternal and child health)
This report describes the work of the World Health Organization in the South-East Asia Region during the period 1 January – 31 December 2016. 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.