This report describes the work of the World Health Organization in the South-East Asia Region during the period 1 January – 31 December 2015. 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 2015

31 December
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<td>ACT</td>
<td>artemisinin-based combination therapy</td>
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<tr>
<td>AEFI</td>
<td>adverse events following immunization</td>
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<td>AFP</td>
<td>acute flaccid paralysis</td>
</tr>
<tr>
<td>AFRIMS</td>
<td>Armed Forces Research Institute of Medical Sciences</td>
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<td>AFT</td>
<td>ASEAN Forum on Taxation</td>
</tr>
<tr>
<td>AIIMS</td>
<td>All India Institute of Medical Sciences</td>
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<tr>
<td>AMR</td>
<td>antimicrobial resistance</td>
</tr>
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<td>ANMs</td>
<td>auxillary nurse midwives</td>
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<tr>
<td>APAs</td>
<td>annual performance agreements</td>
</tr>
<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>
</tr>
<tr>
<td>ASHAs</td>
<td>accredited social health activists (India)</td>
</tr>
<tr>
<td>BENAP</td>
<td>Bangladesh Every Newborn Action Plan</td>
</tr>
<tr>
<td>BHTF</td>
<td>Bhutan Health Trust Fund</td>
</tr>
<tr>
<td>BMJ</td>
<td>British Medical Journal</td>
</tr>
<tr>
<td>CCS</td>
<td>(WHO) country cooperation strategy</td>
</tr>
<tr>
<td>CKDu</td>
<td>chronic kidney diseases of unknown etiology</td>
</tr>
<tr>
<td>CLSI</td>
<td>clinical &amp; laboratory standards institute</td>
</tr>
<tr>
<td>CME</td>
<td>continuing medical education</td>
</tr>
<tr>
<td>cMYP</td>
<td>comprehensive multi-year plan</td>
</tr>
<tr>
<td>WCO</td>
<td>WHO country office</td>
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<td>COPD</td>
<td>chronic obstructive pulmonary diseases</td>
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<tr>
<td>CRS</td>
<td>congenital rubella syndrome</td>
</tr>
<tr>
<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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<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>
</tr>
<tr>
<td>ECHO</td>
<td>ending childhood obesity</td>
</tr>
<tr>
<td>CPD</td>
<td>continuing professional development</td>
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<tr>
<td>EDM</td>
<td>essential drugs and medicines</td>
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<tr>
<td>EIDs</td>
<td>emerging infectious diseases</td>
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<td>EOCs</td>
<td>emergency operations centres</td>
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<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<td>ERAR</td>
<td>emergency response to artemisinin resistance</td>
</tr>
<tr>
<td>EWARS</td>
<td>early warning alert and response system</td>
</tr>
<tr>
<td>FCTC</td>
<td>Framework Convention on Tobacco Control</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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</tr>
<tr>
<td>FDC</td>
<td>fixed dose combination</td>
</tr>
<tr>
<td>FETP</td>
<td>field epidemiology training programme</td>
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<tr>
<td>GAVI</td>
<td>The Global Alliance for Vaccines and Immunizations</td>
</tr>
<tr>
<td>GBS</td>
<td>Guillain-Barré Syndrome</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
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<tr>
<td>GFF</td>
<td>Global Financing Facility</td>
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<td>GHSA</td>
<td>Global Health Security Agenda</td>
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<tr>
<td>GMP</td>
<td>good manufacturing practices</td>
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<tr>
<td>GMS</td>
<td>Greater Mekong Subregion</td>
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<tr>
<td>GNB</td>
<td>Gross National Happiness (of Bhutan)</td>
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<td>GPW</td>
<td>Global Programme of Work</td>
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<td>GTS</td>
<td>Global Technical Strategy for Malaria</td>
</tr>
<tr>
<td>HDI</td>
<td>human development index</td>
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<tr>
<td>HiAP</td>
<td>health-in-all policies</td>
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<tr>
<td>HIS</td>
<td>health information systems</td>
</tr>
<tr>
<td>HITA</td>
<td>health intervention and technology assessment</td>
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<tr>
<td>HIV-AIDS</td>
<td>human immunodeficiency virus-acquired immune deficiency syndrome</td>
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<tr>
<td>HMM</td>
<td>Health Ministers’ Meeting</td>
</tr>
<tr>
<td>HNPSDP</td>
<td>Health, Nutrition, and Population Sector Development Plan</td>
</tr>
<tr>
<td>HPA</td>
<td>Health Protection Agency</td>
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<tr>
<td>HPV</td>
<td>human papilloma virus</td>
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<tr>
<td>HRH</td>
<td>human resource for health</td>
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<tr>
<td>IDSP</td>
<td>integrated disease surveillance programme</td>
</tr>
<tr>
<td>IEHK</td>
<td>Interagency Emergency Health Kit</td>
</tr>
<tr>
<td>IHPP</td>
<td>International Health Policy Programme</td>
</tr>
<tr>
<td>IHR</td>
<td>International Health Regulations (2005)</td>
</tr>
<tr>
<td>IMCI</td>
<td>integrated management of childhood illness</td>
</tr>
<tr>
<td>IPC</td>
<td>infection protection and control</td>
</tr>
<tr>
<td>IPV</td>
<td>inactivated polio vaccine</td>
</tr>
<tr>
<td>IRS</td>
<td>indoor residual spraying</td>
</tr>
<tr>
<td>ISPAH</td>
<td>International Society on Physical Activity and Public Health</td>
</tr>
<tr>
<td>ISQua</td>
<td>International Society for Quality in Health Care</td>
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<td>ITAG</td>
<td>Immunization Technical Advisory Group</td>
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<td>JMM</td>
<td>joint monitoring mission</td>
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<td>JSSK</td>
<td>Janani Shishu Suraksha Karyakarm</td>
</tr>
<tr>
<td>JSY</td>
<td>Janani Suraksha Yojana</td>
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<tr>
<td>LeCRED</td>
<td>Low Emissions and Climate Resilient Development</td>
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<tr>
<td>LF</td>
<td>Lymphatic filariasis</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>MCKs</td>
<td>medical camp kits</td>
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<td>MCV</td>
<td>measles-containing vaccine</td>
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<td>MDA</td>
<td>mass drug administration</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MDR-TB</td>
<td>multidrug-resistant TB</td>
</tr>
<tr>
<td>MDSR</td>
<td>maternal death surveillance and response</td>
</tr>
<tr>
<td>MDT</td>
<td>multidrug therapy</td>
</tr>
<tr>
<td>MERS-CoV</td>
<td>Middle Eastern Respiratory Syndrome-Coronavirus</td>
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<td>MMR</td>
<td>measles-mumps-rubella</td>
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<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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<td>MoHW</td>
<td>Ministry of Health and Family Welfare</td>
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<td>MPDSR</td>
<td>Maternal and Perinatal Death Surveillance and Response</td>
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<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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<td>NCDs</td>
<td>noncommunicable diseases</td>
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<td>NDMC</td>
<td>National Disaster Management Centre</td>
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<td>NGOs</td>
<td>nongovernmental organizations</td>
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<td>NHAs</td>
<td>National Health Accounts</td>
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<td>National Health Insurance</td>
</tr>
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<td>NHSS</td>
<td>Nepal Health Sector Strategy</td>
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<td>NHSSP</td>
<td>Nepal Health Sector Support Programme</td>
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<td>NIEM</td>
<td>National Institute for Emergency Medicine</td>
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<td>NIHRD</td>
<td>National Institute of Health Research and Development</td>
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<td>NITAG</td>
<td>National Immunization Technical Advisory Group</td>
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<tr>
<td>NMRA</td>
<td>National Medicine Regulatory Authority</td>
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<td>NPIPP</td>
<td>national pandemic influenza preparedness plans</td>
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<td>NPSP</td>
<td>National Polio Surveillance Project</td>
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<td>NRL</td>
<td>national reference laboratory</td>
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<td>NTDs</td>
<td>neglected tropical diseases</td>
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<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<td>OOP</td>
<td>out-of-pocket</td>
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<tr>
<td>PCR</td>
<td>polymerase chain reaction</td>
</tr>
<tr>
<td>PCV</td>
<td>pneumococcal conjugate vaccine</td>
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<tr>
<td>PEN</td>
<td>Package for Essential NCDs</td>
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<td>PHEDMa</td>
<td>Public Health Emergency and Disaster Management</td>
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<td>PKDL</td>
<td>post-kala-azart dermal leishmaniasis</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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</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>
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<tr>
<td>RC</td>
<td>Regional Committee (of WHO)</td>
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<tr>
<td>RMNCAH</td>
<td>reproductive, maternal, newborn, child and adolescent health</td>
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<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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<td>RSBY</td>
<td>Rashtriya Swasthya Bima Yojana</td>
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<td>RSSY</td>
<td>Rashtriya Swasthya Surakhsha Yojana</td>
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<td>SAM</td>
<td>Senior Advisers’ Meeting</td>
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<td>SARI</td>
<td>severe acute respiratory infection</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SEA</td>
<td>South-East Asia</td>
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<td>SEAR</td>
<td>South-East Asia Region (of WHO)</td>
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<td>SEARHEF</td>
<td>South-East Asia Regional Health Emergency Fund</td>
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<td>SHOC</td>
<td>Strategic Health Operations Centre</td>
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<td>SMOs</td>
<td>surveillance medical officers</td>
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<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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<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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<td>TPP</td>
<td>Trans-Pacific Trade</td>
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<td>TT</td>
<td>Tetanus-toxoid</td>
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<td>UHC</td>
<td>universal health coverage</td>
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<td>UN Women</td>
<td>United Nations Entity for Gender Equality and the Empowerment of Women</td>
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<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
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<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<td>US CDC</td>
<td>United States Centers for Disease Control and Prevention</td>
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<td>VPDs</td>
<td>vaccine-preventable diseases</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHO-SEARO</td>
<td>World Health Organization - South-East Asia Regional Office</td>
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<tr>
<td>WSPs</td>
<td>water safety plans</td>
</tr>
<tr>
<td>YLL</td>
<td>years of life lost</td>
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Delivering on our promises

It is my pleasure to present the Regional Director’s Annual Report on the work of WHO in the South-East Asia Region for the period January to December 2015. I was pleased that the revised format of the Regional Director’s Annual Report presented to the Sixty-eighth session of the WHO Regional Committee for South-East Asia held in Timor-Leste in September 2015 was well received. This year’s report follows the same format, but gives more emphasis on the work on health in our Member States. I commend the Member States, the staff of WHO country offices and the staff of the WHO Regional Office for their hard work that enabled us to show the tangible progress highlighted in the subsequent parts of this report.

Once more we were reminded of the disaster-prone nature of our Region with the devastating earthquake in Nepal in April and the serious flooding in Myanmar in July 2015. These again go to show how important it is for us to be prepared to mount an effective response in the aftermath of a disaster. While we see that improvements in national preparedness and capacity-building have paid dividends, there is need for sustained efforts to rebuild, and to “build back better”; otherwise unnecessary suffering will continue. I take heart that the SEA Region has developed the Benchmarks for Disaster Preparedness following the 2004 Tsunami and all countries now use it to continuously strengthen their preparedness and response capacity.
A REGION IN TRANSITION

The country reports in Part II of this document make it clear that much is already happening. In making progress toward universal health coverage (UHC), no country is starting from zero. In our regional meetings we heard many examples of how countries are extending services to more people; increasing the range of services available; and deepening financial protection.

However, before highlighting some key messages for the health sector, it is important that we do not forget to take note of the progress in health and, at the same time, to also note that progress in health is influenced by many factors in the broader regional and global environment.

We have seen a political transition in Myanmar; a new Constitution in Nepal, and a new government that has put increased health investment on the agenda in Sri Lanka. More broadly on the economic front, sustained economic growth in many countries has created more fiscal space for social spending. We have also seen in recent years, for example, how in Indonesia economic growth has facilitated the removal of fuel subsidies, allowing closer alignment between national policies and social sector spending.

In the Region as a whole, there soon will be only one low-income country as others transition to lower-middle and middle-income status. While it is clear that economic growth brings many opportunities, there is no guarantee that increasing fiscal space alone will be enough. Indeed, there are many other competitors for scarce resources, not least as a result of the broader SDG agenda. As a health community, we have to continue to make the case that investment in health is necessary, not just in its own right but also as a powerful driver of a successful economy.

While much of the changing context presents opportunities, we have to be aware of threats that will impact on health. Despite landmark global agreements on climate change, we are already seeing the impact of a changing climate in countries such as Bangladesh, Bhutan and Maldives. Health can also be seriously affected by political events beyond the control of ministries of health, such as tighter international sanctions.

Despite the challenges the health landscape of the Region is changing. The Region is making rapid progress in many disease control programmes altering the epidemiology of diseases in the Region. Bangladesh introduced two new vaccines, pneumococcal conjugate vaccine (PCV) and, like all other countries, inactivated polio vaccine (IPV) into its routine immunization programme, and Bhutan adopted a Mental Health Strategy and Action Plan (2015-2023) and a three year Action Plan for Suicide Prevention. The DPR Korea initiated the first nationwide tuberculosis prevalence survey; and India declared elimination of Maternal and Neonatal Tetanus (MNT). Indonesia launched its first national mass drug administration as a major step to eliminate Lymphatic Filariasis by 2020; Maldives was certified malaria free, and Myanmar reached more than 13 million children aged 9 months to 15 years with MR vaccine, while Nepal was awarded the Child Survival Award by the GAVI Alliance.

Notable progress is made in tobacco control: WHO’s “World No-Tobacco Award” was awarded to Sri Lanka Health Minister; Thailand Cabinet approved the new Tobacco Products Control Act, and Timor-Leste enacted the Comprehensive Tobacco Control Legislation. Therefore, despite the many challenges countries face, there is a clear commitment by Member States to give health a prominent place in their national development agenda.

Regional integration has many potential advantages but it will bring its own pressures to bear on the health sector, for example, the growing competition for skilled health professionals. Moreover, with economic growth, an increasing number of countries in the Region will no longer need, or be eligible for,
external funding. Self-reliance is, of course, welcome, but it requires that we think ahead – notably to ensure continuing supplies of medicines, vaccines and other essential health commodities.

While we must be cognizant of the challenges and risks, we also need to look to the opportunities that the future presents. The future is exciting with the progress in health development and the huge potential for more investments in health as more Member States move up the economic ladder. Furthermore, the era of the Millennium Development Goals ended with many successes to be proud of and, more importantly, the launch of the era of Sustainable Development Goals by the UN Secretary-General in September 2015 presents us with the future where we need to go.

THE FUTURE: LEAVING NO ONE BEHIND

The opening paragraphs of the UN General Assembly Declaration endorsed by 193 Heads of States and Governments in September 2015 set the scene for defining 17 new Sustainable Development Goals and 169 targets, which, in the words of the Declaration, will build on the Millennium Development Goals and “complete what they did not achieve”.

The Sustainable Development Goals’ health goal, which is Goal 3, is broadly framed: ensure healthy lives and promote well-being for all at all ages. It includes 13 specific targets. While several of these follow on from the MDGs, the SDG health agenda is more ambitious both in its scope as well as level of ambition. Where the MDGs saw health in isolation, the new agenda frames health as both a contributor to sustainable development as well as an important beneficiary. In this sense, the multiple linkages between the goals are as important as the goals themselves.

It is my view that this new agenda provides us with a great opportunity to accelerate progress in health, to make universal health coverage a reality, and to improve the lives of millions of our fellow citizens. In this year’s Annual Report, I therefore want to highlight what the new SDG health agenda will mean for countries in the Region and how it will affect the way we work in WHO.
Universal health coverage, long championed by WHO, is now at the heart of 2030 agenda for sustainable development. In fact, the Declaration ‘Transforming our World’ by the UN General Assembly clearly states:

“To promote physical and mental health and well-being and to extend life expectancy for all, we must achieve universal health coverage and access to quality health care. No one must be left behind...”

This places UHC as the target that both underpins and is key to the achievement of many of the others. Figure 1 sets out the targets under Goal 3 in a way that distinguishes those that have been carried forward and enhanced from the MDGs; those that have been added – including targets on NCDs, mental health, substance abuse, road traffic accidents and environmental pollution; and means of implementation – including human resources and access to medicines – of the Flagship Priorities in this Region. Goal 17 is a cross-cutting goal on means of implementation that is relevant to all the others. It covers financing, partnership, technology assessment and data, monitoring and accountability.

As for the SDGs as a whole, the health agenda emphasizes the importance of equity, that is, leaving no one behind. The health SDGs are ambitious; they require new ways of working within (and beyond) the health sector. It will take time to think through and develop new approaches to service delivery, but we should not forego the opportunity that the SDG agenda provides for us to do so.
WHAT DOES IT MEAN TO LEAVE NO ONE BEHIND?

While the theory is easy, practice is considerably more challenging. Data on overall or average achievements disguise significant inequities. Formal statistics tell us about the numbers of people who do not receive specific services, but they tell us remarkably little about who these people are and why they are excluded. When it comes to services for NCDs there is little information even about access to services.

Beyond the bare statistics we know more from practical experience. We know that those who are excluded are often members of minority populations that suffer discrimination on the basis of ethnicity, gender and sexual orientation as well as other personal characteristics and beliefs. We have learned much from programmes such as HIV-AIDS, in which reaching excluded populations is a key element of programme strategy. We know too that those who are left behind when it comes to receiving health services are those who tend to live on the margins of society and thus miss out on other benefits such as education. Even in those countries in our Region where governments guarantee health care...
and financial protection for everyone, practice tells us that there remains some segments who do not, cannot afford to, or choose not to claim their rights.

Exclusion is a governance issue, closely linked to accountability. Everyone needs to be counted. Imaginative use of new information and communications technology is an important resource. But while better quality and disaggregated information – linked to more nuanced systems of planning – is obviously necessary, data alone is insufficient. Exclusion needs to be addressed in setting priorities, as it has been in Thailand where border and migrant health has been added as an area of cooperation with WHO. We need to know more about barriers to access on both the supply and demand side. Understanding exclusion needs to be part of the training for health workers. Financial incentives in the health sector (for example, reimbursement of travel expenses to pregnant mothers in selected hard-to-reach townships in Myanmar) need to be geared not just to overall performance but equally to measurable reduction in inequalities.

**UNIVERSAL HEALTH COVERAGE: A MORE INTEGRATED APPROACH TO HEALTH SYSTEMS DEVELOPMENT**

It is clear that to take UHC further we need to ensure an approach to health systems development that recognizes the links between different elements of the agenda. We can no longer afford to think about individual building blocks, such as human resource development or information systems, in isolation from, say, financing, the changing range of services to be delivered, or from access to medicines.

Access to medicines and human resource development are major priorities for all countries. It is important at a policy level to highlight the fact that if we are re-thinking service delivery, increasing the priority given to NCDs, or introducing new forms of treatment, then human resource policies must go hand-in-hand. Similarly, we cannot think about improving access to medicines without considering (the often neglected) role of pharmacists.

We also have to recognize that in too many countries the problems that beset the public sector health workforce have just not been effectively tackled. Training investments continue to be squandered by irrational transfer policies, patronage and political influence. Task shifting empowers health workers with the requisite training to take on new tasks. It makes more efficient use of scarce resources, but in too many instances it is still resisted by medical professionals. The net effect is to exclude people from receiving essential and sometimes life-saving services.

Therefore to achieve universal health coverage and to deliver on the Sustainable Development Goals, there are critical elements in the continuum of identifying priorities, mapping national action plans and framing strategic approaches in the health sector. Some of the key elements to ensure the successful achievement of UHC are outlined as follows.

(i) MAKING PRIORITY SETTING MORE SYSTEMATIC AND EXPLICIT

Better health is a result of political choices. Value for money and cost-effectiveness are important tools for policy-makers, but we have learnt that they are not the
only ones. Had we relied on cost-effectiveness alone we
would not see more than 15 million people living with
HIV and AIDS on life-saving treatment. Ethics, a sense
of fairness, “reaching the furthest behind the first”, and
realizing the right to health … all these matter.

Priority setting is central to UHC. The key message is
that, irrespective of the precise methodology, it is
critical that the process is systematic and that the way
decisions are made is as explicit as possible. Secondly,
priority setting will have little impact if it is not linked
to resources through budgets and plans, and thereby to
service delivery.

Making decisions on which treatments should be
funded as part of an essential package, or which new
technologies should be purchased for hospitals, have
serious economic consequences. Many stakeholders,
nationally and internationally, with different interests
are involved. The institutional mechanisms put in place to
ensure independence and objectivity require as much
care as the technical methodology to be used.

In our Region, the Health Intervention and Technology
Assessment Programme (HITAP) in Thailand was initially
established as a not-for-profit semi autonomous
unit under the Ministry of Public Health to give it the
requisite independence. More recently, HITAP has set
up an international unit to provide support to other
countries in the Region and beyond.

(II) RETHINKING FRONTLINE SERVICES

The MDGs have conditioned the way we think about
first-contact health-care services, focusing primarily
on a limited number of programmes and conditions. The
much broader SDG agenda requires that we
revisit some of our current assumptions. Addressing
noncommunicable diseases and different aspects of
mental health, including substance abuse, in addition to
maternal, newborn and child health and communicable
diseases, will place new demands on frontline health
workers, on community health workers and other
outreach staff, on referral systems, on supply, logistical
and information systems, and indeed on the physical
design of facilities. In the country reports we learn
of several new initiatives in this regard, such as pilot
districts selected for roll-out of WHO’s Package for
Essential NCD (PEN) interventions in Bangladesh and
several other countries, 700 healthy lifestyle clinics
throughout Sri Lanka, new diabetes units in district
hospitals and basic health units in Bhutan.

Despite new services coming onstream, several countries
report that first-line services remain under-utilized
while referral hospitals are overcrowded with too many
patients who would be better treated elsewhere. There
is a risk, therefore, that new interventions are added
without thinking about the way the health service as
a whole functions. Similarly, we see a growing concern
about service quality, but we have little evidence as to
which of the many approaches to improving quality that
are being promoted are the most effective.

The SDG agenda thus presents us with an opportunity to
rethink service delivery. Frontline services are key, but
it is increasingly evident that we cannot see frontline
services in isolation. In many countries, citizens have
the right to visit any provider of their choice. In these
circumstances, insisting on a gatekeeper function
may not be possible. At the same time, much can be
done to increase the attractiveness, effectiveness and
reputation of frontline services.

(III) FINANCING FOR HEALTH

In my report last year I made the point that there is a
disconnect between the many statements we hear to
the effect that good health is an essential element of
poverty reduction and national development, and the
level of resources that governments are prepared to
commit to make better health a reality.

Only three governments, (Maldives, Nepal and Thailand)
spend more than 10% of their budget on health. At the
same time as government revenues as a percent of GDP
are still relatively low, absolute level of spending on
health remain severely constrained.

There are signs of progress, particularly in the six
countries in which out-of-pocket payments are
decreasing, but the overall trend across the Region is still upward. Some countries such as Thailand have raised additional resources through "sin taxes". Others will hopefully follow this example. In November 2015, the Bhutan Health Trust Fund (BHTF) formally took over responsibility to fund supplies of drugs and vaccines for the whole country. The majority of financing for the Fund comes from the government but it is also supported by donors and, more recently, receives a contribution deducted from employee salaries.

A cornerstone of Indonesia’s plans to achieve UHC is the national health insurance programme (Jaminan Kesehatan Nasional) which is on track to become one of the world’s largest single-payer health insurance systems.

(iv) Financial protection is not just about insurance

The financial data at the beginning of Part II show figures for the proportion of people in seven Member countries pushed into poverty by health spending. Over the Region as a whole we estimate that impoverishing expenditure affects at least 60 million people. Reducing this unacceptable total must be held clearly in our sights as a key element of the UHC agenda.

WHO defines catastrophic expenditure as occurring whenever 40% of household spending, after subsistence needs are met, is spent on health care. In most parts of the world, rates of catastrophic expenditure exceed impoverishing expenditures, but not so in this Region. Relatively modest expenditures can push people over the brink. This means that the kind of expenditures that push people into poverty are not one-off events such as someone needing hospitalization after an accident or a heart attack; it is people having to pay regularly for medicines, especially for NCDs.

An estimated 60% of out-of-pocket payments in this Region are spent on medicines. This, therefore, means that efforts to reduce the costs of treatment become an important component of financial protection. We know too that in countries where pharmacists are present in health facilities, costs and unnecessary prescribing are reduced. Human resource policies too can thus make their contribution to protecting the poor.

In some countries, financial protection is based on the poor receiving free or highly subsidized services. What we are learning, however, in several countries is that there are many millions more who live, often precariously, just above the poverty line. They are not eligible for free services and thus are very vulnerable – particularly when they are dependent on daily wages – when illness strikes.

Financial protection, therefore, is key to the overall concern of UHC and the SDGs to leave no one behind. Progress, however, cannot depend on financing policy alone. The first step will always be to ensure adequate services that meet peoples’ needs. So first, get the supply side right. Thereafter, all aspects of health systems development can contribute to ensuring that no one is financially disadvantaged when they fall ill.
(V) INFORMATION AND MONITORING CONTRIBUT TO ACCOUNTABILITY

Given the number of SDG goals and targets, our key challenge will be to strike a balance between collecting the information needed for monitoring progress and informing policy without over-burdening countries with unnecessary reporting. From the perspective of health we have achieved a great deal in recent years to streamline data collection. It is now critical that we ensure close alignment between any new SDG and UHC monitoring with national monitoring and evaluation frameworks and the minimum core indicators we have agreed for UHC. I would also draw your attention to the 5-point Call to Action on Health Measurement and Accountability Post-2015 prepared with support from WHO, the World Bank and USAID.

The next step, however, will be critical. That is: to start the process of setting country-specific targets in relation to each element of the SDG health agenda. WHO will actively support this process.

Lastly, we often assume that better accountability automatically flows from the collection of monitoring data. Sadly, there are too many instances when it does not. Data is too often collected and compiled for its own sake and not used for decision-making or accountability. We have to be increasingly concerned not just about data collection but also think carefully about how information can be made accessible and available to the public, to parliamentarians and grassroots organizations at all levels of the health system. Accountability is about defining responsibility for taking action when things do not go according to plan, such as when out-of-pocket payments increase; when drug supplies fail; when staff transfers disrupt services; when efforts to improve healthy lifestyles are undermined by advertising or adverse trade policies … to cite just a few examples.

(VI) MORE PRODUCTIVE PARTNERSHIPS

Many of us working for governments sometimes underestimate the important role of other stakeholders in the health sector and the potential for more productive partnerships with the private sector, NGOs and civil society. In most of our countries, with only few exceptions, the private sector is a significant provider and financier of health care. Services offered range from unregulated low-quality services at one end of the spectrum to world-class, high-cost tertiary care at the other.

A deeper and more comprehensive understanding of the health-care market is now essential for effective policy-making. For example, in countries with rapidly growing middle class the trend as peoples’ income increases is to automatically shift from public to private services for personal health care. For the majority, payment will be direct, thus increasing the contribution of out-of-pocket payments to total health expenditure – but with limited risk of impoverishment. In other countries, where health workers work in both public and private facilities (but earn their main income from the latter), patients who can ill afford it end up risking impoverishment by paying out of pocket for what should be free or highly subsidized services.

A further example: with growing demand for sophisticated diagnosis and treatment, private providers increasingly invest in hi-tech equipment, which often remains under-utilized. Instead of using scarce resources to duplicate the same services, a contractual arrangement between the public and private sectors can have benefits for both sides.

The general point is that to date the regulation of cost and quality has been the mainstay of policy in relation to the private sector. While effective regulation is essential, particularly to guard against commercial interests undermining public sector priority setting, a broader-based approach to partnership has potential advantages.

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1 Health and Measurement and Accountability Post-2015: A five-point Call to Action endorsed at the Summit on Measurement and Accountability for Results in Health, Washington DC, June 2015
Both the private sector and nongovernmental organizations can play a role in the way we rethink service provision. Recent examples in the Region include discussions in Sri Lanka as to how private general practitioners could become part of a primary care network. In Nepal, the Ministry of Health has signed memorandums of understanding with NGOs to provide hospital and outreach care in remote areas and to work in partnership with government staff in other areas, including districts affected by the 2015 earthquake.

THE HEALTH SDGS REQUIRE ACTION BEYOND THE HEALTH SECTOR

UHC is a powerful unifying concept for our work in the health sector. The WHO definition of UHC also includes access to the services that address the social determinants of health. However, the SDG agenda makes it clear that to make real inroads into the health of people in our countries we need to think beyond the health sector in isolation.

There is much that needs to be done across sectors to improve health: in the field of nutrition and diet; decreasing exposure to harmful and environmental pollutants; reducing the harmful effects of sedentary lifestyles through greater physical activity and exercise; and stopping tobacco use and reducing alcohol consumption. Beyond these direct areas of intervention policies in many other sectors – such as agriculture, housing, employment, social security and pensions, finance and trade – have a significant impact on health and on providing effective and affordable health services. It goes without saying that this is a huge agenda.

The country reports point to several closely related lessons, which I would like to highlight.

The first is that effective intersectoral action requires political leadership from the highest levels of government. In Timor-Leste new tobacco control legislation has been made possible not just through sustained advocacy by WHO but through the personal engagement of the Prime Minister. In the Democratic People’s Republic of Korea, a country where 44% of all adult males smoke, it has required high-level government support to ban smoking in all health facilities and places of learning – a first step in a country where the growing prevalence of NCDs makes further efforts increasingly urgent. In Bhutan, the country’s leadership has been pivotal in encouraging more active lifestyles, and India’s strong and active leadership contributed much to the shaping of the Global Strategy for Women’s, Children’s and Adolescent’s Health, 2016-2030, which was launched by the UN Secretary General in September 2015. Globally, the urgency to address the threat of antimicrobial resistance has benefited from the fact that heads of state and government have promoted the agenda. Similar levels of involvement by the leadership are needed in each of our countries.

Linked to the first lesson is the importance of national ownership. Again, looking at Timor-Leste, 90% of the funding for the National Survey for Noncommunicable Diseases using the WHO STEPS approach came from domestic resources. Similarly, realizing the burden of tuberculosis and the emerging issue of drug resistance to available TB drugs, India gave a big push for early diagnosis by launching at once more than 300 GenXpert machines to aid TB diagnosis with plans to expand further. The issue of ownership also looms large as part of the Global Health Security Agenda. Progress in building the capacities specified in the International Health Regulations (2005) has been slow in this Region (and worldwide). Success requires the cooperation of several sectors. As health security climbs up the global health agenda it will be critical that the desire to create global structures is matched with similar enthusiasm and resources for building national capacity.

The third lesson is the need for specificity when engaging political leadership. There is little to be gained by talking about intersectoral action, health in all policies, governance for health or the social...
determinants of health as general concepts. Rather, a growing body of experience shows that political leaders need to rapidly understand the magnitude of different problems, their relative priority and the feasibility and cost of proposed solutions. Armed with this kind of information they can bring the right actors together and use their political skills to make things happen. To reduce dietary salt intake, for instance, needs one set of institutional actors, reducing import tariffs and wholesale mark-ups on essential drugs a different set, and banning tobacco advertising yet another.

I have attempted to provide you a glimpse of the many activities for health in our Region, both at the regional and country levels. We should be proud of our achievements and, as we forge ahead towards the goals and vision of the SDGs, we know that the future is bright. And I look forward to strengthen our close bonds and the fruitful collaboration that we have always enjoyed with our Member States.
Before we begin to focus on the work in countries, let us look at an important issue, namely, health financing in the WHO South-East Asia Region. In last year’s annual report we presented a snapshot of the region’s progress towards the achievement of the MDG-related targets. This year we focus on health financing. Overall, health financing in the SEA Region as a proportion of national gross domestic product (GDP) is relatively low, and this could impact the range and quality of services available to the people.
According to latest available data, total health expenditure in the Region from all sources between 2010 and 2013 was around 4% of the GDP of Member countries, with Maldives having the highest overall spending on health and Timor-Leste the lowest (Figure 3). Not taking Maldives into account, the regional average (mean) stood at 3.5% during this period. This is low compared with countries such as Turkey (5.6%), South Africa (8.9%) and Chile (7.7%). Between 2010 and 2013, total health spending in relation to GDP increased in most countries in the Region only slightly, with the exception of Maldives, where it increased by 5% (Figure 2).2

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2 Global Health Expenditure database, WHO website, 2016
In 2013 out-of-pocket payments accounted for less than 30% of total health spending in Bhutan, Thailand and Timor-Leste – countries which have universal health insurance or a policy of free health care. On the other hand, Bangladesh, India and Myanmar had more than 50% of health expenditures paid out of pocket (Figure 4). Out-of-pocket expenditure is associated with greater financial barriers to health care and can lead to households becoming impoverished. Between 2010 and 2013, OOP expenditure as a percentage of total health expenditure actually decreased in Bangladesh, India, Indonesia, Myanmar, Nepal and Thailand, while it increased substantially in Bhutan and Maldives (Figure 5).

**DESPITE IMPROVEMENT, GOVERNMENT SPENDING ON HEALTH REMAINS LOW**

Reducing OOP expenditures as a share of the total health expenditure depends mostly on substantially increasing public funding for health. Government health spending remains low in many countries. Only Maldives, Nepal and Thailand spend
Figure 4. Out of pocket expenditure as % of total health expenditure in SEA Region, 2013

Figure 5. Change in out-of-pocket expenditure percentage to total health expenditure in SEA Region, 2010–2013
more than 10% of their government budget on health-related activities (Figure 6). In addition, the size of government budgets determines their potential to allocate more resources to health. An analysis of the averages of six countries in the Region shows that government revenues equal only about 15% of GDP, while government revenues in European and Central Asian countries reached an average of 34.5% of GDP (in 2012). In short, the combination of small government budgets and insufficient budget allocation to health limits the increase in resources spent on health.

Figure 6. Government spending on health as % of total government spending, SEA Region 2010–2013

FINANCIAL PROTECTION AGAINST CATASTROPHE HEALTH EXPENDITURES IS NOT BEING SUFFICIENTLY ADDRESSED IN SEVERAL COUNTRIES

Health care systems funded largely through out-of-pocket expenditures tend to be associated with impoverishment and exclusion from care of those who are unable to pay for health services. Without public subsidies guaranteeing the availability and affordability of basic services, many people are being pushed into poverty.

3 Global Development Indicators, World Bank website, 2016
The Government of Bangladesh is constitutionally bound to provide health care for its citizens, and this priority is reflected in its key policy documents, including "Vision 2021", the Seventh Five-Year Plan, and the National Social Protection Strategy. The Prime Minister of the People's Republic of Bangladesh, H.E. Sheikh Hasina, has expressed her commitment to the goal of Universal Health Coverage (UHC). The Government is also committed to the new global Sustainable Development Goals (SDGs) and used the 2015 Bangladesh Development Forum – a high-level government event attended by many partner organizations – to discuss how to achieve these goals in the country. The SDGs, as well as the goal of UHC, are guiding the development of the Fourth Health, Nutrition, and Population Sector Development Plan (HNPSDP), due to be completed in mid-2016.
MAJOR HEALTH MILESTONES
ACHIEVED IN 2015

Following the launch of Global Financing Facility (GFF) in July 2015, Bangladesh moved quickly to develop a national plan of action to access GFF support for “Every Woman, Every Child” to reach the SDG targets related to reproductive, maternal, newborn, child and adolescent health, with a target launch date for January 2016. The GFF – which was led by the World Bank – uses funds raised from capital markets (Sustainable Development Bonds) supplemented by donor financing, to fund accelerated efforts to end preventive deaths among mothers, infants and children. Bangladesh and India are the first countries in the WHO South-East Asia Region to take advantage of this new mechanism. Bangladesh will use this to implement the maternal and child health goals being outlined in the HNPSDP.

The National Immunization Programme carried out a smooth introduction in March 2015 of two new vaccines – pneumococcal conjugate vaccine (PCV) and inactivated polio vaccine (IPV). This increases to 10 the number of diseases targeted by this highly-regarded programme.4

To date, more than 90% of the planned community clinics – over 13 000 – have been constructed or renovated and are functioning in rural areas throughout the country. This system of community clinics – one-stop facilities that provide a package of essential health, family planning and nutrition services close to where people live – is the government’s flagship programme to reach universal health coverage and is being recognized globally as a model, including during a special session of the World Health Assembly in 2014.5 To ensure access to quality health care for the population through these clinics, however, will require significant increases in the number of qualified health workers and in their retention rates.

The Ministry of Health and Family Welfare (MoHFW), with WHO support, is implementing a nationwide survey of the prevalence of tuberculosis, involving 100 000 individuals living in 125 urban and rural clusters. The survey is seen as a critical step to better understand the TB disease burden in Bangladesh and improve the control of this disease. Cases are categorized by reviewing the laboratory results on microscopy, GeneXpert and culture, and comparing them with the radiological findings. The draft survey report is expected by the end of 2016.

MAJOR HEALTH CHALLENGES

Hiring and retaining skilled health workers, especially outside of major cities, remains a considerable challenge. This particularly applies to obstetricians, anaesthetists and midwives for round-the-clock emergency obstetric and neonatal care. While maternal mortality rates have declined markedly from 574/100 000 live births in 1990 to 176/100 000 in 2015,6 and births attended by skilled health workers increased nearly three-fold in 10 years (from 16% in 2004 to 42% in 2014),7 the rates of maternal mortality and births unattended by skilled personnel remain too high.

Rates of adolescent pregnancy are also high, and are linked to early marriage as well as the lack of information and supportive services for adolescent girls and young women. Making further progress in this area and reaching the related UHC targets will

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4 Tuberculosis, diphtheria, pertussis, tetanus, polio, hepatitis B, haemophilus influenza type B (Hib), measles, rubella and pneumococcal pneumonia.
7 Bangladesh Demographic and Health Survey 2014 (https://www.k4health.org/sites/default/files/bdhs_2014.pdf)
**BOX 1. PROGRESS IN SELECTED REGIONAL FLAGSHIP PRIORITIES**

**MEASLES ELIMINATION AND RUBELLA CONTROL**

With the aim of reaching these goals by 2018 (two years ahead of the regional target date), Bangladesh in 2015 has reduced the incidence of measles and rubella (MR) to 1.5 and 1.2 per one million people, respectively. This has been accomplished by reaching 90% of children with MR vaccine by the age of 23 months through routine vaccination (begun in 2012), supplemented by mass MR vaccination campaigns in 2014. Ninety-eight per cent of suspected measles cases were tested serologically, indicating a sensitive surveillance system with few missed cases. In 2015 the MoHFW identified the immunity profile and interventions needed to reach measles elimination, established a national measles elimination verification committee, and conducted training for mid-level managers in districts with less than 90% measles vaccination coverage.

**PREVENTION OF NONCOMMUNICABLE DISEASES**

The government, with WHO support, developed a multisectoral NCD Action Plan based on the results of the 2010 NCD Risk Factor Survey. Implementation of the Package of Essential NCD interventions (PEN) expanded to a third upazila (sub-district) in 2015. A national campaign was begun in 2015 to reduce dietary salt intake. It involved the education ministry, NGOs and universities, and received considerable media attention. This has begun to increase awareness among health professionals, political leaders, and the public about the problems related to high sodium intake.

**BUILDING CAPACITY TO COMBAT ANTIMICROBIAL RESISTANCE (AMR)**

AMR is a growing public health threat in Bangladesh, with many common pathogens now resistant to first-line drugs and increasingly to second- and third-line therapies. Hospital-acquired infections from resistant bacteria, as well as from drug-resistant malaria and kala-azar, are also on the increase. To combat this growing menace, a National Steering Committee for AMR, headed by the Minister of Health, was established in 2015 and endorsed a national AMR Strategy that was developed by a technical committee convened by the MoHFW.

**ELIMINATION OF NEGLECTED TROPICAL DISEASES**

Continual progress is being made in eliminating kala-azar and lymphatic filariasis (LF), with the latter targeted for elimination by 2017. Cases of kala-azar, including post-kala-azar dermal leishmaniasis (PKDL), declined by 20% between 2014 and 2015 (from 1068 to 853 cases) and 96 of the 100 endemic upazilas have achieved elimination (defined as <1 case per 10,000 population), up from 92 districts in 2014. All but one of the 19 districts endemic for LF in 2005 were declared non-endemic by 2014, based on transmission assessment surveys.
require greater effort and investment – including resources from the GFF – to train, recruit and retain a skilled health workforce, including nurses and midwives, throughout the country. The present ratio of 5.8 health professionals (physicians, nurses and midwives) per 10 000 population is far below the international standard. There is also an urgent need to redress the imbalance between doctors and nurses since for every nurse, there are about 2.6 doctors in the country.9

Work is also needed to strengthen the country’s disease surveillance and response system and to meet the requirements of the International Health Regulations, IHR (2005), by mid-2016. While the country has made good progress towards most of the eight core IHR capacities, several of them need further strengthening to comply with the Regulations. An early warning system for disease outbreaks is still to be put in place; the timeliness of surveillance reports remains an issue; and a national public health emergency response plan has yet to be developed. Hospitals still need to implement infection prevention and control plans and develop procedures for the isolation of patients. Procedures for responding to emergencies at designated points of entry into the country are in the process of being finalized, with impetus received from the country’s recent response to the Ebola and Zika outbreaks in West Africa and the Americas.

Despite substantial progress in controlling tuberculosis in recent years, it remains a major public health problem in Bangladesh. Bangladesh is one of the 22 high-burden TB countries worldwide, with the fourth highest number of deaths and seventh highest number of new cases.10 In 2014, the estimated TB prevalence was 404/100 000 while incidence was 227/100 000.11 These figures are likely to be underestimates, especially among children. While TB is considered to be a major contributor to under-five morbidity and mortality, only 3.5% of reported cases in 2015 were in children under 15, compared with global estimates of 10%–20% of total cases occurring in this age group. Multidrug-resistant TB cases are also increasing with limited access to appropriate treatment. Thus, achieving the national TB control goals will require increasing access to early diagnosis and treatment of all TB cases.

Given the competing priorities of communicable diseases, maternal and child health, and nutrition, further attention is needed to increase the ability of the health system and other sectors to deal with the growing burden of noncommunicable diseases (NCDs) and to reduce their risk factors. Progress has been made in providing health education on NCDs and on early detection and treatment at health facilities. However, preventive services are lacking at all levels of the health system, as is the participation of non-health sectors in addressing this growing problem. A multisectoral strategy for NCDs has been developed and is currently awaiting government approval.

As one of the world’s most vulnerable countries to extreme weather events, Bangladesh must also face the growing threat of climate change. According to the 2007 report of the Inter-governmental Panel on Climate Change, predicted rises in sea levels would flood 17% of the country. This would result in 20 million refugees by 2050, exacerbate existing health inequities, and negatively impact the availability and quality of water supplies. Global warming could also increase the incidence of diarrhoeal diseases such as cholera, as well as vector-borne diseases such as dengue.

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10 TBfacts.org.
11 WHO Global TB Report 2015 (apps.who.int/iris/bitstream/10665/191102/1/9789241565059_eng.pdf)
12 Ibid
ADDRESSING KEY HEALTH CHALLENGES

PROGRESS TOWARDS UNIVERSAL COVERAGE OF ESSENTIAL HEALTH SERVICES

A series of advocacy and educational activities were conducted in 2015 with WHO support, to create awareness within the health sector and beyond about UHC. These sought to face the health system challenges to meet the UHC goal. These include UHC orientation workshops for professionals in health and other sectors, including finance; educational visits to countries including Thailand and Indonesia that are further advanced in achieving UHC; and conferences, brainstorming sessions, and training on UHC for high-ranking government officials.

The government – with WHO as the key development partner – is also developing an affordable and sustainable package of essential health services to be provided in health facilities at the district level. Diagnosis and management of hypertension and diabetes will be important components of this essential services package. Furthermore, to achieve UHC, the government has endorsed the Bangladesh Every Newborn Action Plan (BENAP), a part of a global effort to reduce newborn deaths (such as through resuscitation and prevention of umbilical cord infections), improve the care of premature and low-birth-weight infants, and manage neonatal sepsis and other infections. Plans are underway to implement BENAP.
ADDRESSING THE SHORTAGE OF HEALTH PROFESSIONALS

The government, with WHO support, has launched two new six-month training programmes to help make BENAP a reality. The first is a course for community-based skilled birth attendants to enable safe delivery at home, while the second is a post-basic midwifery course to enable nurse-midwives to become registered midwives posted at upazila health complexes. To systematically address the overall shortage of health workers and advance the goals of UHC, the government has developed a Health Workforce Strategy and is also formulating an action plan that will be incorporated into the HNPSDP.

IMPROVING HEALTH EMERGENCY PREPAREDNESS AND RESPONSE AND IHR IMPLEMENTATION

Following a quick succession of floods, landslides and a cyclone in 2015 in Chittagong Division, a joint needs assessment was conducted by the Humanitarian Coordination Task Force, with WHO as health cluster lead, and pre-positioned essential drugs and supplies were distributed. Based on the lessons learnt from this experience, health emergency preparedness and response plans were developed for Chittagong Division as well as Khulna Division.

The country also made considerable efforts to meet IHR compliance including: passing legislation and procedural rules to enable its implementation; developing and implementing an IHR Action Plan; and finalizing a multi-hazard preparedness and response contingency plan for Dhaka International Airport, a Port Health Action Plan for Chittagong Seaport and an action plan for the National Influenza Centre. A series of workshops and orientations were also held for health staff on different emerging infectious diseases (including Ebola, MERS-CoV, avian influenza, nipah) and on the IHR (2005).

MAINTAINING STRONG PERFORMANCE OF THE NATIONAL IMMUNIZATION PROGRAMME

The National Immunization Programme continues to achieve high vaccination coverage, including 93% for the 3rd dose of pentavalent (DPT-HepB-Hib) vaccine by the age of 23 months with 85% of all children fully immunized. Contributing to the programme’s success has been a WHO team of 95 technical and supportive staff working at the national, divisional and district levels to assist in planning, implementing and monitoring its activities. This includes 35 surveillance medical officers (SMOs) who assist with surveillance activities to monitor vaccination coverage and the incidence of vaccine-preventable diseases.

MITIGATING THE NEGATIVE HEALTH EFFECTS OF CLIMATE CHANGE

To mitigate the negative health effects of climate change, the government with WHO technical support has advanced on a number of fronts to improve the resilience of the country’s infrastructure, especially its water and sanitation systems, to extreme climate

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BOX 2. PREPARING FOR POTENTIAL OUTBREAKS OF EMERGING INFECTIOUS DISEASES, INCLUDING EBOLA AND ZIKA VIRUS

The government of Bangladesh, with WHO support, has taken important steps in the past 18 months to prepare for potential outbreaks of emerging infectious diseases (EIDs) at any time. This was in response to the recent outbreaks of Ebola Virus Disease in West Africa and Zika in the Americas. Once Ebola was declared a public health emergency of international concern by WHO in August 2014, an international team of civil aviation experts and WHO assisted the Dhaka International Airport in evaluating its readiness plans to detect and handle public health emergencies, including Ebola. Staff at all main points of entry into the country (e.g., airports, border crossings and seaports) were also trained in the early detection of Ebola, infection prevention and control, isolation, case management, and the proper use of personal protective equipment. Considerable efforts were made to increase the capacity of medical laboratories in the country to diagnose and properly handle Ebola and other emerging infections. These include training in infection control for more than 1000 laboratory and hospital personnel, and developing guidelines and standard operating procedures on sample collection, storage and transportation; clinical and laboratory diagnosis of EIDs; laboratory waste management; and bio-safety and infection control for laboratory and hospital personnel. In October 2015, a team from WHO and the MoHFW found substantial evidence of the country’s readiness to respond to an Ebola case using a risk-based approach, as well as local capacity for molecular diagnosis of the virus.

Preparing to deal with disease outbreaks
events. It has developed a national water supply and sanitation strategy that takes into account climate issues, and established a new unit for climate change, environment and disaster management that puts experts formerly from different agencies under one roof. Climate-resilient water safety plans (WSPs) – which use a systematic risk management approach to ensure the safety of drinking water from catchment to the point of consumption – have been introduced in two towns with vulnerable water supply systems (Faridpur and Barguna) and are being implemented in four more towns.

The government is also working with communities to raise awareness about the health impacts of climate change and to equip all future public buildings, such as schools, with climate-resilient water and sanitation facilities to enable their use as emergency shelters during floods and other natural disasters. In addition, a system is being developed to regularly monitor the effects of climate change, including sea level rise, saline water intrusion, groundwater depletion, flow reduction in rivers, and changes in rainfall patterns.
The Royal Government of Bhutan has made great progress in strengthening governance and government accountability through annual performance agreements (APAs) between the Prime Minister and all sectors of the government, including the Ministry of Health (MoH). This innovative, results-based planning process sets specific targets and indicators to be achieved during each fiscal year for each sector of the government. There are, for example, 43 targets for the Ministry of Health for fiscal year 2015, most of which are aligned with the WHO Country Office, Bhutan, workplan. These targets include ensuring the availability of essential drugs and consumables in at least 95% of health facilities and the development of the Health Impact Assessment Guidelines. All planned activities and programmes must fall under these targets, which are also linked to the budget. To make the government further accountable in meeting its goals, each ministry receives a score based on progress against its targets, and progress reports are issued every two weeks and posted on a website.14 The system was launched at the national level in 2015. Following an end-of-year evaluation, the planning process was strengthened to better define the targets, indicators and reporting mechanisms to allow its roll-out at the local level in 2016. Most of the MoH’s targets for 2015 have been achieved.

14 http://www.gpms.gov.bt/
Also in 2015, the government endorsed the global Sustainable Development Goals (SDGs) and targets, which are closely aligned with the country’s Gross National Happiness (GNH) philosophy and its nine “domains”. Good health is widely accepted as the single most important determinant of well-being in Bhutan and health makes up 14% of the GNH index – the highest contributor of all nine domains. Bhutan hosted one of the largest international conferences on GNH in 2015, which was attended by about 500 participants from 48 countries.

**MAJOR HEALTH MILESTONES ACHIEVED IN 2015**

- The immunization programme successfully introduced inactivated polio vaccine (IPV) in July 2015 in accordance with the global Polio Endgame Strategy.

- A national nutrition survey conducted in 2015 with UNICEF support revealed remarkable progress in the population’s nutrition status. From 2010 to 2015, the rate of stunting in children under five years declined from 33.5% to 21%, and the proportion of those underweight fell from 13% to 9%. The percentage of children aged between six and 23 months old with anaemia was nearly cut in half (from 81% to 44%). Similarly, the proportion of women of reproductive age with anaemia fell from 55% to 35%. Despite this progress, stunting and anaemia remain important public health issues.

- Significant progress was made to address mental health in Bhutan with the development and government endorsement of a Mental Health Strategy and Action Plan (2015–2023), National Policy and Strategic Framework to Reduce Harmful Use of Alcohol, 2015–2020, and a three-year Action Plan for Suicide Prevention, which led to the establishment of a National Suicide Prevention Programme in the Ministry of Health.

- Following the earthquake in Nepal in April 2015, the government rapidly deployed an emergency care team – which had been trained with WHO support – to the area of the epicentre. The team’s visit was a learning exercise on emergency response, and the earthquake prompted a review of and improvements to the country’s national disaster preparedness system. These include the purchase of Bhutan’s first government-owned helicopter, the training of medical and nursing staff of the Jigmi Dorji Wangchuk National Referral Hospital in emergency preparedness and response, and the development of plans for further strengthening of the capacity of hospitals and help centres to respond to emergencies.

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BOX 3. ACHIEVING SELF-FINANCING FOR ESSENTIAL DRUGS AND VACCINES THROUGH THE BHUTAN HEALTH TRUST FUND

The Royal Government of Bhutan assumed most of the financing for DPT-HepB-Hib (pentavalent) vaccine (previously supported mainly by the GAVI Alliance), as well as 100% of the financing for all 481 essential medicines (starting in 2016). These costs will now be covered by the Bhutan Health Trust Fund (BHTF) – a unique mechanism that helps the country provide free medical care to its population with the aim of achieving universal health coverage. The BHTF has been capitalized with contributions from foundations, multilateral organizations, NGOs and private citizens, with matching contributions from the government on a one-to-one basis. The aim of the Fund is to finance and sustain primary healthcare services in Bhutan with the interest earned from investments of the Fund’s capital.

To strengthen the Trust Fund and to ensure its sustainability in the face of skyrocketing health-care costs, the government conducted a review of the Fund, developed an advocacy package and produced a roadmap document for the next 10 years – all with WHO assistance. An advocacy conference for donors was held in October 2015 to present the roadmap document and some additional revenue was also raised.

A situation analysis conducted in July 2015 with WHO assistance demonstrated the government’s ability to adequately provide essential medicines throughout its system of hospitals, basic health units, sub-posts and outreach clinics. More than 95% of 32 essential medicines were found to be available in all public health facilities and less than 5% of these items were out of stock.

H.E. Lyonpo Sangey Ngedup, former Health Minister of Bhutan, receiving WHO’s excellence in public health award for BHTF
The unfinished MDG agenda: To improve neonatal health and survival, the government developed a Newborn Action Plan, based on a WHO-supported survey on neonatal resuscitation and immediate birth care conducted in all hospitals as well as on a bottleneck analysis conducted with UNICEF support. It also established a long-term relationship with the All India Institute of Medical Sciences (AIIMS), New Delhi, to provide training and improve the quality of hospital care for newborns, beginning with a training of trainers in Bhutan on facility-based newborn care for 12 doctors and nurses.

Combating antimicrobial resistance: Bhutan’s first National Policy on Antimicrobial Resistance and AMR Action Plan were developed with WHO assistance and endorsed by the MoH and the Ministry of Agriculture and Forests (MoAF). Training was also provided to 22 laboratory staff on lab-based AMR surveillance, the WHONET software (a database software for managing and analyzing AMR susceptibility test results and other clinical and laboratory data) and hands-on practise using CLSI (Clinical & Laboratory Standards Institute) standards.

Eliminating neglected tropical diseases: In 2014 Bhutan co-signed an MoU with Bangladesh, India, Nepal and Thailand for the regional elimination of kala-azar by 2017. It also developed and disseminated a National Strategic Plan for the Prevention and Control of Zoonotic Diseases, and developed guidelines for integrated vector management. However, detailed policy guidance and strategies need to be developed for preventing and controlling vector-borne diseases apart from malaria (e.g., dengue, kala-azar, Japanese encephalitis and Zika).

Major health challenges

Bhutan has achieved the MDG targets for reducing maternal and under-five mortality rates. Maternal mortality rates fell from 380/100,000 live births in 1994 to 86/100,000 in 2012, while under-five mortality fell from 97/1000 live births in 1994 to 37.3/1000 in 2012.\textsuperscript{16} Despite these gains, the rates of preventable maternal and child deaths remain relatively high. According to the National Health Survey of 2012, more than 70% of all infant deaths occur in the first 28 days of life, indicating gaps in critical birth and post-natal care. There are also large disparities in coverage of maternal and newborn care: only 49%–55% of births in four of the country’s 20 districts took place in health facilities in 2012 (compared with 74% in the country overall), and 32% of deliveries occurred in the home in rural areas, compared with only 4% in urban areas.

These deficiencies are, in most cases, not due to a lack of access to health care – given the infrastructure of health facilities throughout the country and the policy of free health care – but rather to a critical shortage of qualified specialists, with only 12 local obstetricians/ gynaecologists and five paediatricians in the entire country.

\textsuperscript{16} National Health Survey 2012, MoH, Bhutan
There is also a shortage of qualified midwives, and the training programme for nurse-midwives and medical assistants needs to be extended and strengthened to meet international standards. Another factor hindering reductions in preventable maternal and child mortality is the country’s inadequate system of surveillance and reporting of maternal and child deaths and its limited vital registration system, which lacks adequate capacity to identify cause of death, especially at the primary and secondary levels of care.

Besides the shortage of qualified health personnel for maternal and newborn care, the chronic lack of human resources in the health sector overall – both in terms of quantity and skills – continues to be one of the major health challenges facing Bhutan. This shortage includes general practitioners, specialists, nurses, midwives and health programme managers. With only one (newly-established) medical school, the country will continue to rely on other countries to train its medical doctors. The Health Human Resources Master Plan (2011–2023) calls for doubling the health workforce in the next 12 years, while another MoH assessment identified even greater human resource needs. The country must meet these needs at the same time as its health care costs are skyrocketing: with the government’s health expenditure having increased more than 200% (from Nu. 2 billion to Nu. 3.96 billion) between 2009–2010 and 2012–2013.

Despite great reductions in the incidence of malaria and measles in the past 15 years, cases of both diseases continue to occur, largely among the growing number of migrant workers coming from areas where these and other communicable diseases are endemic. This poses a challenge to the country’s plans to eliminate both malaria and measles by 2018. In 2015, 104 cases of malaria were reported (64% of which were imported) and smaller outbreaks of measles occurred in four districts (also mostly due to imported cases). New data also indicate increases in the incidence of multidrug-resistant (MDR) TB (which make up 5% of all new TB cases and 35% of treatment cases) and hepatitis B among the general population.

NONCOMMUNICABLE DISEASES (NCDs) now account for 70% of the country’s disease burden, including cardiovascular disease, chronic respiratory disease and cancers. About 36% of adults have hypertension, 27% of men and 40% of women are overweight or obese, and 6.4% have diabetes. According to the Bhutan Cancer Report 2015, detection of new cancer cases increased by more than 200% from 2009 to 2014 (from 211 to 639). The prevalence of NCD risk factors is growing, and include the harmful use of alcohol (according to the 2014 STEPS survey, 29% of men and 14% of women engage in binge drinking), high intake of dietary salt, use of betel nut (associated with hypertension and oral cancer), and low intake of fruits and vegetables. Challenges in reducing these risk factors and controlling NCDs include easy access to affordable alcohol and poor monitoring of alcohol sales to minors, the ready availability and high use of packaged junk food in markets, the culturally-accepted norms of chewing betel nut and drinking alcohol, and inadequate resources to effectively enforce laws and policies targeting risk factors such as alcohol and tobacco use.
ADDRESSING KEY HEALTH CHALLENGES

With continued financial support from the Global Fund and bilateral agencies, including the government of India, Bhutan is making consistent progress in the prevention and control of malaria, including reaching the elimination threshold for parasitic incidence of <0.1 per 1000 population per year. Vector control has been a key factor in reducing malaria, as well as in reducing the risk of outbreaks of dengue, Zika and chikungunya. A pillar of the malaria control programme has been the establishment of community action groups in endemic districts. These groups, made up of community volunteers, regularly survey mosquitoes, help keep the environment in their community clean, and act quickly to contain the disease by spraying insecticide within a one-kilometre radius of any new case. As Bhutan enters the elimination phase, attention must be paid to strengthen disease and entomological surveillance along the border, in collaboration with India.

BOX 5. STRIDES IN BATTLING NCDs AND THEIR RISK FACTORS

The WHO STEPS survey of noncommunicable disease (NCD) risk factors conducted in 2014 and published in 2015 has provided Bhutan with critical information with which to develop a comprehensive strategy – the Multisectoral Action Plan for the Prevention and Control of NCDs – in 2015 to address this growing problem and to provide baseline data against which to measure the strategy’s success. Based on the Action Plan, a broad range of activities that demonstrate the government’s commitment to battling NCDs and their risk factors took place in 2015, including:

- the development and government endorsement of a National Policy and Strategic Framework to reduce the harmful use of alcohol and the expansion of a project on community actions for reducing the harmful use of alcohol from one district to four more districts;
- implementation of the WHO Package for Essential NCD (PEN) interventions in all the country’s health facilities;
- the establishment of diabetic clinics in all 24 of the country’s district hospitals and in around half of all basic health units;
- establishment of the country’s first population-based cancer registry at the National Referral Hospital in Thimphu – to be expanded to regional hospitals in 2016 – and publication, with WHO support, of its first report on cancer;
- expansion of the popular “open air gyms” in strategic locations in Thimphu, Chhukha, Sarpang and Samdrupjongkha districts, and procurement of gymnasium equipment to enable expansion of these gymnasiums to all the 20 districts in the country in 2016; and
- strengthening the MoH’s Health Promotion Unit through training and purchase of equipment, and implementation of health promotion activities, including the observance of International Health Days.
BHUTAN

33% practise exclusive breastfeeding at six months, thus contributing to child malnutrition. To support exclusive breastfeeding for the first six months of a baby’s life, the government passed a new law in March 2016 mandating six months paid maternity leave for all mothers working in the civil service. Bhutan now has one of the strongest legal frameworks in place for working mothers among the countries in the South-East Asia Region and one of the strongest in the world.

strengthening human resources
for health

In 2015 the Khesar Gyalpo University of Medical Sciences of Bhutan (KGUMSB), which was created in 2013 to address the country’s shortage of medical professionals, published the Bhutan Medical Journal, the first of its kind in the country. WHO assisted in building the capacity of its editorial board through overseas training for several of its members. The

IMPROVING THE DETECTION AND TREATMENT
OF TUBERCULOSIS, WITH A FOCUS ON MDR-TB

With support from the Global Fund and WHO, Bhutan made significant improvements in 2015 in its ability to recognize and respond to multidrug-resistant TB cases, which now make up around 5% of all TB cases. The national TB Control Programme revised its MDR-TB management guidelines, trained about 50 clinicians from across the country on managing MDR-TB cases, made plans to introduce GeneXpert machines in four major referral hospitals for the rapid diagnosis of TB and rifampicin-resistant cases, and installed a line-probe assay machine at the Public Health Laboratory to improve the timely diagnosis of MDR-TB cases.

STRENGTHENING LAWS TO SUPPORT
BREASTFEEDING FOR WORKING MOTHERS

The National Nutrition Survey in 2015 found that while 78% of women initiate breastfeeding, only

51% practise exclusive breastfeeding at six months, thus contributing to child malnutrition. To support exclusive breastfeeding for the first six months of a baby’s life, the government passed a new law in March 2016 mandating six months paid maternity leave for all mothers working in the civil service. Bhutan now has one of the strongest legal frameworks in place for working mothers among the countries in the South-East Asia Region and one of the strongest in the world.

STRENGTHENING HUMAN RESOURCES
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and patient-centred care, to be achieved through innovative, learner-centred, integrated and humanistic training curricula and research activities. The MoH also developed a Health Human Resources Master Plan in 2011 to increase the number and skills of health professionals through long- and short-term training programmes, including training in other countries in the Region. During 2015, 30 international training courses were supported by WHO benefiting 129 government officials under various public health and clinical faculties with approximate investment of US$ 0.56 million. To further strengthen the skills of the health workforce as well as the country’s regulatory and accreditation capacity, the Bhutan Medical and Health Council, with WHO support, instituted an online continuing medical education programme, in collaboration with the medical school.

Bhutan is one of the few countries in the Region where its well-established system of traditional medicine is fully integrated into the modern ( allopathic) medical system, with both types of practitioners working in the same health facilities. WHO supported strengthening of the system in 2015 by funding Master’s degree training in traditional medicine of two traditional doctors at the University of Mongolia, procuring machines for the local production of traditional medicines, and by procuring books for the National Institute of Traditional Medicine.
Democratic People’s Republic of Korea

Economic and social sector development in the Democratic People’s Republic of Korea, while improving, has been significantly affected by international financial and trade sanctions, which were increased in 2014. The sanctions have had an impact on the country’s ability to procure essential medicines and equipment; transport goods, health workers and patients; and upgrade the skills of its health workforce. The relatively low proportion of the government budget allocated to health services (6.4%) also makes it more difficult to provide the necessary range of health services free of charge for its population of 24.6 million.

Despite these hurdles, the country, with international partner support, has continued to make steady gains in many health indicators, including maternal and child health, the control of infectious and vector-borne diseases (e.g. measles and malaria), and the capacity to respond to health-related emergencies.

18 Ministry of Public Health 2015
MAJOR HEALTH MILESTONES ACHIEVED

Measles has been largely controlled and may have already been eliminated, according to the SEA Region Immunization Technical Advisory Group. Since a major measles outbreak in 2007, there has largely been zero reporting of cases, apart from a small outbreak in mid-2014 that was rapidly controlled. This success is attributed to the country’s very high measles vaccination rate among one-year-olds (99%) and the disease surveillance system’s ability to detect and control outbreaks. To further enhance surveillance, case-based measles-rubella surveillance was introduced in 2015.

Further declines occurred in child mortality rates, with infant mortality falling 23% from 19.7/1000 live births in 2006 to 14.8/1000 in 2014, and deaths in under-five children declining from 26.6/1000 to 19.9/1000. High immunization coverage rates and near-universal coverage of antenatal services by skilled health workers have contributed to these gains, as has the increased capacity of health facilities to provide life-saving care to newborns and infants. Further improvements are needed, however, to reduce maternal mortality, which has remained relatively unchanged in 2015 at an estimated 81/100 000.19

The first tuberculosis prevalence survey was initiated in 2015, in which 70 000 people across the country would be interviewed and undergo radiological exams. Results of the survey, expected by the end-2016, will enable the government to better understand the country’s TB disease burden in order to accelerate its control.

MAJOR HEALTH CHALLENGES

SHORTAGES OF ESSENTIAL MEDICINES, EQUIPMENT AND SUPPLIES

The country has an extensive health infrastructure and workforce from the primary health care to the tertiary care levels. It includes more than 7200 clinics or polyclinics (which provide both traditional and allopathic medical care) at the village and (urban) neighbourhood level; and 600 county hospitals and 133 general or specialized hospitals at the central and provincial levels. However, the health system’s ability to provide high-quality health care at all levels to adequately implement important public health programmes, and to fulfill its ambition to access advanced technologies, is severely compromised by insufficient funding and import restrictions.

19 Source: WHO General Health Statistics Profile, DPR Korea (http://www.who.int/gho/countries/prk.pdf?ua=1).
The Democratic People’s Republic of Korea was malaria-free for about 25 years from the early 1970s to 1997. A major outbreak began in 1998 near the border with the Republic of Korea and rapidly spread to the southern and central parts of the country, including Pyongyang, establishing *Plasmodium vivax* malaria transmission. By 2001 there were nearly 300,000 reported cases, and more than 240,000 cases the following year. The government responded with a malaria control strategy in which mass preventive primaquine treatment was the mainstay. WHO also supported the Ministry of Public Health (MoPH) to re-establish expertise in a range of areas involved in malaria control. By 2007, the number of cases had declined to 7,436 and the malaria incidence rate had fallen from 24.6/1000 population at risk in 2001 to 0.62/1000.

Control measures began to ebb in 2008 due to a decline in funding. This resulted in an increase in malaria incidence, which reached 23,537 cases in 2012. With Global Fund support, malaria control activities were stepped up again. In 2011, WHO facilitated a review of the National Malaria Strategic Plan for 2009–2013. The review led to the development of a new malaria pre-elimination strategy for 2013–2017, which places increased emphasis on reducing malaria transmission at the village level. Villages with ongoing malaria transmission were identified and targeted for the distribution of insecticide-impregnated bednets for households and insecticide-treated clothes for agricultural and night-time workers; indoor residual spraying for vector control; and early detection and prompt treatment of all suspected or confirmed malaria cases (with chloroquine or primaquine). Once the plan, supported with Global Fund financing, was rolled out in 2013, the upward trend was reversed and malaria incidence declined by 68% from 2012 to 2015 (to 7,405 cases), putting the country on track to meet its target of 5,877 or fewer cases by the end of 2017. In 2015, the government, with technical support from WHO and UNICEF, secured an additional US$8.8 million from the Global Fund for 2015–2018 to help implement its pre-elimination strategy.

**BOX 6. MALARIA INCIDENCE REACHES THE LOWEST LEVEL SINCE ITS RESURGENCE IN 1998**

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Further reduction in maternal mortality and neonatal and infant mortality is a challenge due to the difficulties faced with ensuring continuous and adequate supplies of essential medicines and life-saving equipment. The control of TB, including drug-resistant cases, has also become more challenging due to a lack of rapid diagnostics for TB, assured access to second-line anti-TB drugs, infection control measures, and the clinical management skills of peripheral-level health workers. The lack of additional resources is also delaying the introduction of new vaccines into the national immunization programme, including rubella, pneumococcal and rotavirus vaccines, which were included in the comprehensive multi-year plan for immunization (cMYP) for 2011–2015. The national scale-up of a pilot of the WHO Package of Essential Noncommunicable Diseases (PEN) interventions is being held back by a lack of essential medicines and decentralized laboratories with relevant diagnostic and screening capacity. The country has revised its essential medicines list, but is not able to obtain many of the drugs on it.

Furthermore, fuel shortages and the lack of adequate transport have affected the timely delivery of medicines and other health commodities, limited supervisory visits at the local level, and prevented the patient referral system from functioning effectively.

HEALTH WORKFORCE CHALLENGES

With more than 200 000 health professionals at all levels, the country’s public health system has a relatively high ratio of health professionals to its population. This includes a physician-to-population ratio of 33/10 000, compared with a regional average of 5.4/10 000. This workforce consists of nearly 80 000 doctors (including 70 000 “household doctors” who provide ambulatory community- and home-based primary health-care services), more than 93 000 nurses, 7 400 midwives and nearly 15 000 pharmacists and pharmacist assistants. However, the mix of professionals is unbalanced, with nearly as many physicians as nurses (with a doctor-nurse ratio of 1:1.2). Creating more nurses and midwives relative to doctors would reduce pre-service training costs and otherwise increase efficiencies.

The quality of health services has also been affected by a lack of systematic capacity-building of the health workforce to update the technical skills of health workers and expose them to new life-saving technologies and advances in clinical management. Limited training opportunities and shortages of new equipment and medicines to be trained on have especially affected the quality of secondary and tertiary care services provided in provincial and county hospitals.

BURDEN OF TUBERCULOSIS

With an estimated incidence of 442/100 000 population and prevalence rate of 552/100 000, the Democratic People’s Republic of Korea remains a high TB-burden country. By expanding the scope and quality of its services, including expanding the DOTS programme, the national TB programme has increased its capacity to detect, diagnose, treat and follow up TB cases. This is shown by an increase in the estimated case-detection rate to >93% in 2014 and a treatment success rate among smear-positive cases of =92%.

However, there is a growing concern about the health system’s ability to adequately treat and control the rising number of multidrug-resistant (MDR) TB cases, estimated at 3 800 cases per year, as only around 800 of these patients have access to second-line drugs each year.

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21 Global TB Reports, WHO
GROWING BURDEN OF NONCOMMUNICABLE DISEASES AND HIGH SMOKING RATES

NCDs account for an increasing burden of adult morbidity and mortality. While more attention is now being paid to this problem, the national capacity to detect, prevent and treat NCDs at the community and national levels remains limited. Contributing to the burden of NCDs is the relatively high and increasing smoking rate among men (44%). This is due to the availability of cheap locally-produced cigarettes, the acceptance of smoking in society, and the apparent limited awareness among the public of the dangers of smoking.

VULNERABILITY TO NATURAL DISASTERS

The country is prone to long-term drought in its southern provinces and torrential rainfalls followed by floods in the northern provinces during the summer months. The population living in the remote northern provinces is especially at risk, due to poor infrastructure and the lack of preparedness of the health system to respond to the population’s health needs during such emergencies. The 2015 drought in five provinces, which affected 50% of the population, led to serious health consequences, especially among children, who suffered from waterborne diseases and chronic malnutrition due to the lack of food, safe water and adequate sanitation.

ADDRESSING KEY HEALTH CHALLENGES

UPGRADING AND EXPANDING THE SKILLS OF THE HEALTH WORKFORCE

As a critical part of its assistance to specific public health programmes, WHO has helped enhance and update the skills of health professionals working in critical health programmes – including maternal and child health, TB and malaria control, immunization, and primary health care – through several training programmes. To build national capacity in applied epidemiology, a national field epidemiology training programme (FETP) – consisting of a six-week long course – will be launched, with WHO support, at Pyongyang Medical College of Kim Il Sung University in 2016 for 15 national trainees.

A fellowship programme funded by WHO, the Republic of Korea and GAVI that sends health professionals for

22 Adult Tobacco Survey 2013, Ministry of Public Health

Quality postnatal care for healthy babies
short-term training overseas to build specific skills, continues to grow. In the two-year period of 2014–2015, 38 groups with a total of 157 fellows received hands-on and didactic training in India, Indonesia, the People’s Republic of China, Mongolia, Sri Lanka, Thailand, in such areas as data analysis, malaria entomology, clinical management of drug-resistant TB, health systems management, and immunization. This is an increase from 56% in the number of fellows from the previous two-year period.

WHO also supported in-service training provided in 2015 by the MoPH (with added funding from the Republic of Korea and UN CERF) of more than 4200 health professionals and 160 health managers working in village, county and provincial hospitals to enhance their skills in such areas as integrated management of childhood illnesses (IMCI), maternal and child health, and NCD prevention and control.

OVERCOMING OBSTACLES TO THE PROVISION OF HEALTH CARE

Due to difficulties in transporting patients to higher levels of care for referrals, the government launched an innovative telemedicine programme in 2007 to enable specialists to provide long-distance consultations to doctors working from county and provincial hospitals. The system, which operates through an intranet, connects all of the country’s five central hospitals, 30 provincial hospitals and 193 county hospitals. To improve the programme’s coordination and functioning, the government has established a National Telemedicine Centre, with WHO support. This central facility connects to each of the provinces and counties, enabling it to coordinate tele-consultations with appropriate specialists as well as tele-mentoring. The government also plans to use the centre’s network to provide online continuing medical education (CME) and to develop a real-time health information system.

Koryo medicine, the traditional medicine system of the county, is integrated into the health-care facilities at all levels and provides an estimated 70% of all primary health-care services in the country. WHO has helped strengthen the capacity of the Academy of Koryo Medical Sciences in diagnostics, clinical management and research through the training of traditional medicine doctors and the provision of diagnostic equipment, such as digital X-ray machines and biochemical analysers. In addition, the Democratic People’s Republic of Korea, with support from the WHO Regional Office for South-East Asia, hosted a two-day regional meeting on traditional medicine in October 2015 to discuss regional strategies to improve quality assurance of traditional medicine and its integration into allopathic health systems (see box).

RESPONDING TO NATURAL DISASTERS

In August 2015 torrential rains in Rason City resulted in the collapse of all of its buildings in one night, displacing 140,000 residents. WHO sent inter-agency emergency health kits from its emergency stockpiles within 24 hours of the disaster, as well as life-saving equipment and medical supplies. WHO also mobilized funds from the South-East Asia Regional Health Emergency Fund (SEARHEF) within 72 hours of the request. The government was able to mobilize national and international resources to rebuild the city’s infrastructure and by the end of October 2015 all displaced people had moved back into their homes.

ADDRESSING NCDs AND HIGH SMOKING RATES

A pilot project of the WHO Package of Essential NCD (PEN) interventions that began in 2014 in two sites was shown in a 2015 evaluation to be an effective approach in the country for the prevention, diagnosis and treatment of NCDs and its risk factors, including diabetes, cardiovascular disease, hypertension and COPD. However, scaling up the WHO PEN nationwide – as envisioned by the government – will require an assured, sustainable provision of decentralized laboratories with diagnostic capabilities in NCDs, as well as essential medicines.
BOX 7. REGIONAL WORKSHOP ON TRADITIONAL MEDICINE

As a key step in implementing a resolution on traditional medicine adopted by WHO Regional Committee for South-East Asia in September 2014, the Democratic People’s Republic of Korea hosted a two-day regional workshop in October 2015 on how to integrate traditional medicine into national health-care systems appropriately, and in support of a new global WHO traditional medicine strategy for 2014–2023. The workshop was attended by 36 participants, including senior officials and researchers from both the traditional and modern medicine realms in the Democratic People’s Republic of Korea, traditional medicine experts from 10 countries in the Region, and staff from the WHO regional and country offices. The purpose of the workshop was to: i) share experiences on integrating traditional medicine into national health systems; ii) discuss the availability, use, quality and safety of traditional medicine services; and iii) define ways to improve the monitoring and evaluation of traditional medicine as part of national health systems.

The outcome was a regional action plan covering research, monitoring, adverse events reporting and workforce development. The action plan calls for developing a set of indicators to monitor outcomes of traditional medical services, including improved adverse events reporting.

The meeting also presented an opportunity for the country to showcase the research activities and health services of its traditional medical system. Participants made a day-long field visit to the Koryo Academy of Medical Sciences, a children’s hospital, breast cancer institute and a village-level hospital.

Emphasizing the importance of traditional medicine in health care in the SEA Region, H.E. Kang Ha-guk, Minister of Public Health
In the control of tobacco use, a major achievement was made when the government declared that all health facilities and education institutes (schools and universities) must be tobacco-free. This new regulation was the result of a series of sensitization workshops organized by the MoPH with WHO support, and attended by health and education officials, teachers, and policy-makers. WHO has also supported the development, translation and wide dissemination of posters, stickers and other education materials to increase public awareness about the harmful effects of smoking and promote smoking cessation. More advocacy for tobacco control is needed at the highest levels, with the involvement of more sectors, as well as a comprehensive communication strategy.
In recent years, India has enjoyed steady economic growth – at an average annual rate of 7.26% over the past five years – and a more than two-fold increase in gross national income. The country’s human development index (HDI) also rose over this period from 0.462 to 0.609. There have also been impressive gains in health in the past several years, including a five-year gain in life expectancy between 2000 and 2012 (from 62 to 67 years), and sharp declines in maternal mortality (from 437/100 000 live births in 1991 to 167/100 000 in 2011–2013)\textsuperscript{23} and under-five mortality (from 126/1000 live births in 1990 to 49/1000 in 2013).\textsuperscript{24}

Substantial reductions in the incidence of and mortality from major infectious diseases, such as tuberculosis, malaria, pneumonia and diarrhoeal diseases, have also been achieved. Initiatives such as Janani Shishu Suraksha Karyakarm (JSSK) and Janani Suraksha Yojana (JSY)—two programmes designed to encourage women to seek antenatal care, delivery services and care for newborns and infants by guaranteeing free care and other incentives—as well as major disease control programmes have played a critical role in these achievements.

However, improvements in health have been uneven within the country. More work remains to be done to further reduce maternal and child mortality rates in all parts of India, increase vaccination coverage rates, reduce malnutrition, and improve access to clean water and adequate sanitation. Improvements made during the MDG period (1990–2015) demonstrate that with sound strategies and targeted interventions significant progress can be made. India is poised to carry forward this momentum into the 2030 Agenda for Sustainable Development.

\textsuperscript{23} India MDG Report 2011
\textsuperscript{24} Sources: WHO Statistical Profile for India. http://www.who.int/gho/countries/ind.pdf
Sample Registration System Statistical Reports, Registrar-General of India
MAJOR HEALTH MILESTONES ACHIEVED IN 2015

• In 2015 India celebrated five years since the last case of wild polio was reported in the country and made significant progress in implementing the global Polio Endgame strategy with plans for the nationwide introduction of IPV and switch from the trivalent to the bivalent OPV (in April 2016).

• WHO validated the elimination of maternal and neonatal tetanus in 2015 from India, following an in-depth review of the data on neonatal tetanus incidence and community-based validation surveys. This landmark achievement was the result of TT vaccination of pregnant women and a dramatic rise in safe deliveries (from 52% in 2007 to 76% in 2009).

• Malaria incidence has declined sharply in the past 20 years – from an estimated 3 million cases per year in the mid-1990s to 1.1 million cases in 2014, and from a rate of 2.57 cases per 1000 population in 1990 to around 1 case per 1000 in 2014. With this progress, India is inching closure to its MDG target of reducing malaria incidence by three fourth from the 1990 levels. Fifteen of the country’s 36 states and territories are now targeted for malaria elimination by 2020.

• In less than one year, the percentage of children fully immunized nationwide climbed from 65% to 70%, thanks to an intensive government initiative (Mission Indradhanush) to improve vaccination rates in low-performing areas through catch-up campaigns combined with efforts to strengthen routine immunization in these areas.

• India in 2015 reached its MDG targets to reduce the prevalence and mortality of tuberculosis by 50% from 1990 levels. The prevalence rate fell from 465/100 000 in 1990 to 195/100 000 in 2015, while TB-related mortality (including HIV+TB) fell from 38/100 000 to 17/100 000.

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**BOX 8. PROGRESS IN SELECTED REGIONAL FLAGSHIP PRIORITIES**

**MEASLES ELIMINATION AND RUBELLA CONTROL**

With technical support from WHO, laboratory-supported outbreak-based measles-rubella (MR) surveillance has been established by the Ministry of Health and Family Welfare (MoHFW) in the entire country, using a network of 13 WHO-accredited MR laboratories. Plan of action was developed and preparatory work progressed well towards the goal of introducing MR vaccine, phased in by State, to start in the second half of 2016.

**ELIMINATING NEGLECTED TROPICAL DISEASES**

An international verification team from WHO headquarters confirmed India’s claim of yaws-free status in 2015. Cases of kala-azar declined by 11% in 2015 from 2014, and 78% since 2006, through a combination of case detection and treatment (with a single dose of liposomal amphotericin B), and indoor residual spraying. Kala-azar incidence is now down to around 8200 cases per year, and 80% of endemic blocks (488 out of 611) have already achieved elimination status (<1 case/10,000 population per year). Nearly 88% (224 out of 255) of the districts endemic for lymphatic filariasis (LF) have achieved a microfilaria rate of <1%. Of these, 72 districts have passed the transmission assessment survey and have stopped mass drug administration. Leprosy has also been eliminated in 84% of all districts. The government has set goals to eliminate kala-azar and leprosy by 2017 and LF by 2020.

**COMBATTING ANTIMICROBIAL RESISTANCE**

The government committed to developing and implementing a National AMR Action Plan that involves identifying a focal institution for AMR; creating a coordination mechanism for One Health; and using a comprehensive approach towards preventing and controlling AMR that covers all pillars of the Global Action Plan for AMR and that involves the agricultural, environmental, civil society, industry and private health sectors. The government is now in the process of establishing governance mechanisms, including an AMR Steering Committee and a national technical group at the MoHFW, as well as a working group at the National Centre for Disease Control (NCDC), to oversee the development and implementation of the AMR National Action Plan.
MAJOR HEALTH CHALLENGES

Current levels of government spending for health will make it challenging for India to meet its goals to further reduce maternal and child mortality rates, control major diseases such as TB and malaria, and achieve universal health coverage. The government spends around 4% of its budget on health – one of the lowest levels in the Region – which converts to US$ 19 per capita or 1.2% of GDP. As a result, out-of-pocket payments for health care accounted for around 58% of total health spending in 2014 – the second highest in the Region. Around 60 million people have been pushed into poverty to pay for health-care expenses. Inadequate government health spending and large segments of the population still living in poverty contribute to the fact that, despite significant improvements in child and maternal mortality in recent years, 1.3 million children under-five died in 2014 and 44,000 mothers died as a result of pregnancy or childbirth.27

There are also substantial inequities in access to health services and health outcomes within India. For instance, maternal mortality rates range from 61/100,000 live births in the state of Kerala to 300/100,000 in Assam – a five-fold difference – while infant mortality averages 43/1000 in rural parts of India compared with 26/1000 in urban areas. Similarly, immunization coverage rates in 2013–2014 for the first dose of measles vaccine ranged from 53% in Nagaland to 96% in Goa. To improve access to health services and address the issue of affordability, the government has created safety net programmes, such as the Rashtriya Swasthya Bima Yojana (RSBY), which covers hospital costs for the poor. Several states have established their own government-funded health insurance programmes or schemes that offer free medicines or free diagnostics. However, all of these programmes remain fragmented and still leave a substantial number of poor people without coverage.

In addition, India faces challenges with its health workforce in terms of shortages of health professionals working in the public sector, their distribution within the country, and their quality and mix of skills. The majority of health professionals, including doctors and nurses, work in the private sector and/or in urban areas. Up to 80% of specialist positions in public health facilities remain vacant at any point of time. These shortages greatly affect the population’s access to health care in many parts of India.

Despite great progress in the past two decades, India still carries a substantial burden of communicable and vector-borne diseases and faces significant challenges in controlling them further. Eliminating neglected tropical diseases (NTDs) such as kala-azar and lymphatic filariasis, which persist in the poorest and most marginalized parts of the country, will require enhanced monitoring and surveillance, intensive preventive chemotherapy, vector control and increased funding. More than 1.1 million new cases of malaria still occur each year – with 91% of India’s population at some risk – though only 14% now live in high-risk areas. Achieving the global target of eliminating the disease by 2030 in India will require improved surveillance, new area-specific strategies tailored to different levels of risk, increased cross-border collaboration, and more involvement of communities and the private sector. In addition, despite reaching the MDG targets in TB incidence and mortality reductions, an estimated 2.2 million TB cases and 251,000 deaths still occur annually, making it the third leading cause of years of life lost (YLL) to premature mortality in the country. Dramatically reducing the TB burden will require scaling up the use of new rapid diagnostic methods, more effective

26 http://apps.who.int/nha/database/ViewData/Indicators/en
27 Sample Registration System Statistical Reports 2013, Registrar-General of India
28 SRS bulletin, RGI, July 2016.
29 Rapid Survey of Children, 2013-14
30 Rural health statistics 2015 - HMIS
treatment strategies (including for resistant cases), and increased efforts to engage the private sector – which treats an estimated one third of all TB cases – in treatment programmes.

At the same time, rapid urbanization, environmental factors, lifestyle changes and behavioural risks are contributing to a rise in noncommunicable diseases (NCDs) in India. The four main NCDs (cardiovascular disease, cancers, diabetes, and chronic respiratory diseases) accounted for 55% of all deaths in persons 30–70 years old in 2013.32 A rate of tobacco use of 47.9% in men (20.3% in women) and an age-standardized hypertension prevalence rate of 26% in adults are risk factors contributing to this growing problem.33

**ADDRESSING KEY HEALTH CHALLENGES**

**PROGRESS TOWARDS THE GOAL OF UNIVERSAL HEALTH COVERAGE (UHC)**

There were several key developments in 2015 aimed at reducing inequities in health care access and moving towards UHC. To advance the policy dialogue, the MoHFW and WHO organized a Universal Health Coverage Day in December 2015. This assembled more than 100 stakeholders from the Central and state governments, NGOs, academia and UN agencies, to discuss key issues and find solutions to accelerate advancing the UHC agenda in India.

The government is planning to expand the coverage and benefits of the Rashtriya Swasthya Bima Yojana insurance scheme. The scheme was launched in 2008 by the Ministry of Labour to cover the costs of secondary hospital care for families living below the poverty line. It was transferred to MoHFW in April 2015. It is in the process of being redesigned and will likely be given a new name. The scheme will increase the annual cap in expenditures per family by more than three-fold from 30,000 to 100,000 Indian Rupees for secondary and tertiary care, and open up the eligibility to more people.

WHO’s support for UHC and health system

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31 Source: TB profile on WHO website: https://extranet.who.int/sree/Reports?op=Replet&name=%2FWHO_HQ_Reports%2FG2%2FPROD%2FEX%2FTBCountryProfile&ISO2=IN&LAN=EN&outtype=html
33 WHO Global Status Report on NCDs, 2014 (http://apps.who.int/iris/bitstream/10665/148114/1/9789241564854_eng.pdf?ua=1)
strengthening included serving on task forces to review and improve the delivery of primary health-care services and develop a new national health policy, which will be released shortly.

WHO is also supporting the government to prepare a new national health accounts reports to inform decisions about health budget and financing. WHO is collaborating with select state governments to improve the delivery of health-care services with the aim of achieving UHC.

STRENGTHENING AND EXPANDING THE IMMUNIZATION PROGRAMME

The introduction of new vaccines continued in 2015. Further, plans were also developed and ground work initiated to prepare for the introduction of IPV, MR and rotavirus vaccine in 2016. Hib-containing pentavalent vaccine is now in the routine immunization schedule in all 36 states and Union Territories of the country.

Of particular importance is the government’s new initiative, Mission Indradhanush, to improve immunization coverage rates in 201 low-performing districts throughout India in order to reduce the current large discrepancies in vaccination coverage within the country. This initiative targets 400,000 high-risk settlements such as urban slums and nomadic sites. The goal is to achieve 90% overall coverage nationwide with the routine childhood vaccines by 2020, using the strategies and lessons learned from the successful National Polio Eradication Programme.

Mission Indradhanush involves mass vaccination campaigns to “catch up” unimmunized or partially immunized children in these districts, as well as efforts to improve the performance of the routine immunization programme. Already, between April 2015 and January 2016, 3.7 million children were fully immunized in two phases of vaccination drives, increasing the proportion of 12–23-month-olds throughout the country who are fully immunized from 65% to 70% in less than one year. As one of several partners, which include UNICEF and Rotary International, WHO is supporting the MoHFW with risk analysis to prioritize districts for each phase, in microplanning and training for the campaigns, and in the monitoring and evaluation process to provide real-time data on the coverage and quality of the campaigns. In all, the WHO India Country Office has deployed more than 300 medical officers as trainers and nearly 2000 people to serve as monitors for this initiative.

ACCELERATING THE CONTROL OF NTDs

The Government of India conducted a series of activities and instituted policy and programme changes in 2015–2016 to better enable it to meet the target dates for eliminating these diseases (2017 for kala-azar and leprosy and 2015 for lymphatic filariasis). The government improved the quality of the vector control programme targeting kala-azar and its indoor residual spraying (IRS) operation – as a result of independent monitoring by WHO polio surveillance officers – and replaced DDT with synthetic pyrethroids. A new diagnostic method (filaria strip test) was introduced and 300 district and state programme officers were trained on its use to conduct transmission assessment surveys.

In addition, the MoHFW conducted a prevalence survey of soil-transmitted helminths (STH) in children in eight states and developed a national action plan for STH elimination. Nationwide deworming days were also launched (using albendazole provided by WHO) as part of the government’s Clean India (Swachh Bharat) campaign. WHO has served as the lead agency in providing strategic guidance and technical support to these programmes, harnessing partner support and coordinating the procurement and donation of drugs for individual and mass treatment of these diseases.

34 INCHIS survey (complete reference and date).
In 2015 India celebrated five years of being polio-free. The attainment of polio-free status in India is one of the greatest achievements in the annals of public health. It led to the entire South-East Asia Region of WHO being certified polio-free on 27 March 2014. The country’s success was the result of remarkable commitment at all levels: from the highest echelons in national and state governments to the heroic 2.3 million vaccinators who mobilized communities and reached each child up to the age of five with polio drops.

The WHO National Polio Surveillance Project (NPSP), along with other partner organizations, played a critical role in India’s success in eradicating this disease. The NPSP network consists of 270 field units at the state and divisional levels spread across the country. Its staff of nearly 1000 includes around 350 surveillance medical officers (SMOs), supported by administrative assistants and others. The SMOs are assisted by 950 field monitors working at the block or sub-district levels in 12 states. The project supports Central and state governments in building and maintaining a sensitive surveillance system for acute flaccid paralysis (AFP) and poliovirus; planning, training and monitoring OPV campaigns; and conducting polio research activities. The network has established nearly 42 000 AFP reporting sites and is supported by eight national laboratories.

In the past few years, the WHO NPSP infrastructure has been instrumental in a number of other public health activities and successes in India. These include measles elimination and rubella control activities; strengthening routine immunization for improved coverage through programmes such as Mission Indradhanush; improving surveillance of adverse events following immunization (AEFI); and the introduction of new vaccines, including pentavalent, IPV and rotavirus vaccines. For these activities, the network has helped to identify populations at risk, develop operational guidelines, train health workers, and monitor programme implementation including providing real-time data for corrective action.

During the Ebola crisis, a team of 26 SMOs from NPSP assisted with case investigations, the establishment of surveillance for rapid case detection, workforce training and raising community awareness about the disease in the affected countries of West Africa. NPSP teams have also played a key role in accelerating the elimination of kala-azar by conducting broad-scale monitoring of IRS operations in 54 districts in the four remaining endemic states. Results of the evaluation – which involved monitoring 2000 IRS squads and visiting approximately 22 000 homes across 1950 villages – led to rapid improvements in the kala-azar elimination programme and informed the development of a new strategic plan to meet the goal of eliminating the disease by 2017.

Going forward, WHO will fully leverage the polio legacy and the vast NPSP infrastructure to strengthen the ability of the country’s health system to attain universal health coverage and to sustain and expand its public health achievements. The end of polio in India was a turning point. Achieving universal health coverage will not be easy, but then again, neither was the elimination of polio. The energy, resources, technological innovations and strong partnerships that were developed and fostered in the fight against polio will be the true legacy of the polio eradication programme.
MAKING FURTHER INROADS IN THE CONTROL OF MALARIA AND TB

In early 2016 the Ministry of Health and Family Welfare launched a new framework for malaria elimination to align with the WHO Global Technical Strategy for Malaria (2016–2030). The new framework stratifies geographical areas by level of malaria burden and calls for stepped-up implementation of strategies specific to each level of risk in order to achieve malaria elimination by 2030. These risk-specific control strategies have been incorporated into revised operational guidelines. The new framework also focuses on case-based surveillance in areas where the transmission has declined to very low levels, cross-border surveillance and coordination, screening of migratory populations for malaria, and improving quality assurance of malaria diagnostics.

Major advances were also made to combat TB in 2015 with WHO support. These include the adoption of a daily fixed dose combination (FDC) regimen to treat drug-sensitive cases, scale up the use of Gene Xpert technology for rapid diagnosis of all forms of TB, and implementation of new technical and operational guidelines for TB control. The TB programme also developed new guidelines for screening health-care workers, and for the introduction of the new anti-TB drug, Bedaquiline. In addition, the MoHFW, with WHO support, began a national TB drug resistance survey to estimate the burden of MDR-TB. The government also launched a pilot programme to test effective models of government and private sector collaboration in the treatment of TB patients, with the aim of scaling them up nationwide.

STRENGTHENING REPRODUCTIVE, MATERNAL, NEWBORN, CHILD AND ADOLESCENT HEALTH (RMNCAH)

The MoHFW has taken action on a number of fronts to further reduce maternal and neonatal deaths – which account for 52% of all under-five deaths – especially through the National Health Mission. The Ministry is now implementing a comprehensive RMNCH+A Strategy, which is increasing investments in human resources and infrastructure in order to improve the population’s access to maternal and newborn health services. Nearly 900 000 accredited social health activists (ASHAs) have been deployed in villages throughout India to mobilize community members to seek childbirth and child health services, organize outreach services, and help them claim financial assistance through intervention programmes such as Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakram (JSSK), all of which have helped increase coverage and improve health outcomes.

To improve the quality of care around birth at the country’s 18 000 public sector facilities providing these services, WHO is supporting the development of facility-based quality standards and protocols for maternal and newborn care, using a health systems approach. WHO is also assisting the government to improve the skills of skilled birth attendants – who now deliver an estimated 79% of all newborns in India – by establishing quality standards for in-service training of auxiliary nurse midwives (ANMs). The Maternal Deaths Surveillance and Response (MDSR) system is also being strengthened at the facility and community level with support from WHO. This will not only help to determine the causes of maternal deaths, but will also document the delays in providing critical care. And to eliminate mother-to-child transmission of HIV throughout India, the Maternal & Child Health Division, the National Health Mission, and the National AIDS Control Programme, with WHO support, have joined forces to develop a national action plan and technical guidelines to scale up PTCT services nationwide.

In order to shift from vertical programmes to a more holistic, child-centred approach, efforts are underway to incorporate the integrated plan for the prevention of pneumonia and diarrhea into the country’s Integrated Management of Newnataal and Childhood Illnesses (IMNCI) Strategy, which is being revitalized.
and scaled up. The government has also pilot-tested an Early Child Development Programme, adapted from the WHO-UNICEF Care for Child Development Package, in the states of Maharashtra and Haryana to assess its effectiveness and feasibility for scale-up. Evidence shows that the interventions – designed to enhance the skills of caregivers in feeding, communicating and playing with their infants to improve cognitive, social and physical development – significantly increased good caregiving practices, improved the nutritional status of children and reduced the rate of maternal depression. In addition, WHO is helping to develop strategies and a training programme for the national scale-up of the government’s Rashtriya Kishor Swasthya Karyakram (Adolescent Health Programme), which is a multisectoral initiative to promote good health and prevent risky behaviours among adolescents.

**ADDRESSING NONCOMMUNICABLE DISEASES**

The MoHFW approved in 2015 the National Multisectoral Action Plan for the Prevention and Control of NCDs and organized with WHO a meeting attended by 25 government ministries to discuss ways to take the plan forward. The government has also shown leadership in tobacco control including the implementation of WHO FCTC, banning smokeless tobacco products packages, setting up a tobacco cessation Quit Line at a research institute in New Delhi, and establishing tobacco products testing labs at three existing drug/food laboratories. Studies have been conducted to evaluate the impact of policy initiatives, such as “tobacco-free movies”, and on tobacco economics and taxation. The next Global Adult Tobacco Survey is planned for 2016.

**MOVING TO FULL COMPLIANCE WITH THE INTERNATIONAL HEALTH REGULATIONS (IHR) 2005**

A national meeting was held in Goa on IHR implementation with stakeholders from all relevant sectors, resulting in an action framework to reach IHR requirements by the June 2016 deadline. At the request of the Government of India, a Joint Monitoring Mission (JMM), which included WHO, was conducted in late 2015 to review the country’s integrated disease surveillance programme.
(IDSP) at both the national and subnational levels and make recommendations that will strengthen the core capacities outlined in both the IHRs and the Global Health Security Agenda. The government is expected to implement the JMM recommendations over the next five years. WHO has also assisted the government in completing the IHR self-assessment for submission to WHO headquarters. Key information on IHR events are now being posted on the websites of the Ministry of Health & Family Welfare and National Centre for Disease Control (NCDC).

The Joint Monitoring Group under the Directorate-General of Health Services held a series of meetings to review and develop a preparedness plan for Zika virus disease. This plan involves including Zika surveillance through the IDSP network; forming and training rapid response teams (RRTs) in the states; increasing the number of diagnostic laboratories capable of Zika testing from two at present (the NCDC and National Institute of Virology) to 12; and deploying a decentralized, community-oriented approach towards vector control. In addition, WHO and the US Centers for Disease Control are helping to strengthen the country’s birth defect surveillance system through the training of surveillance officers and the development of guidelines and standard reporting forms. The system has now been expanded to around 90 sentinel sites, including medical schools and tertiary hospitals.
The Government of Indonesia is fully committed to implementing the global Sustainable Development Goals (SDGs). The Ministry of Health has named a special staff and team to Minister of Health and has developed more than 200 targets and indicators for the health-related goal, or Goal 3. These indicators – including further reductions in maternal and child mortality and the prevention of HIV, tuberculosis, obesity and hypertension – are aligned with the country’s goals for universal health coverage, as well as the health-related MDGs that were not reached by 2015.

The Global Health Security Agenda (GHSA) is a partnership of countries and international organizations funded by the Government of the United States of America to prevent, detect and respond to biological threats ranging from infectious disease outbreaks to bioterrorism. Bangladesh, India, Indonesia and Thailand are country partners of GHSA, and Indonesia in troika with Finland and USA will be the Chair of the Steering Group in 2016. Indonesia will thus play an important role in strengthening the collaboration between countries and encouraging them to make political commitments to improve the prevention and response to these threats.
MAJOR HEALTH MILSESTONES ACHIEVED

- The Ministry of Health made significant strides in reaching the Polio Endgame targets, starting with subnational catch-up vaccination campaigns, through which children under five received two doses of OPV. The country remains polio-free, along with the rest of the South-East Asia Region.

- Indonesia is on the verge of eliminating maternal and neonatal tetanus (MNT), reporting only 69 cases in 2013. MNT elimination has already been validated in three of the country’s health regions, which account for 89% of the cities or districts and 97% of the country’s population. This was achieved by focusing on providing TT vaccine to pregnant women through antenatal care services – which are utilized by almost all pregnant women (96%) in the country – as well as through annual school-based TT and dT vaccination for girls and boys in the early primary grades. The MoH is working with WHO to strengthen capacity in the remaining high-risk districts – located in Papua – to eliminate MNT by increasing TT immunization coverage and improving neonatal tetanus surveillance.

- Significant progress has been made in reducing the incidence of malaria in order to reach the goal of malaria elimination by the regional target in 2030. The country has seen a nearly 50% decline in new cases in six years (from >418 000 in 2009 to ≈217 000 in 2015), as well as a reduction in the percentage of the population living in areas at high risk of malaria transmission (from 7.1% in 2010 to 2.2% in 2015). This was achieved by strengthening malaria surveillance and scaling up prevention and treatment, including bednet distribution campaigns, indoor residual spraying, early case detection, and empowering communities to monitor and control mosquitos through village committees. The MoH has developed a timeline to reach malaria elimination in all districts by 2025 and in all provinces by 2027 to achieve elimination status for the entire country by 2030.

- The country launched its first national campaign of mass drug administration (MDA) for lymphatic filariasis in October 2015 as a major step to reach LF elimination by 2020. The National LF programme is currently collecting data on MDA coverage before the next campaign scheduled for October 2016.

*Early diagnosis is vital to prevent the negative impact of diseases such as diabetes*
BOX 10. STRENGTHENING CAPACITY TO DETECT AND RESPOND TO INFECTIOUS DISEASE OUTBREAKS, INCLUDING EMERGING INFECTIOUS DISEASES

Indonesia is one of two countries in the South-East Asia Region that did not ask WHO for an extension in the time to achieve the eight essential core capacities required to implement the International Health Regulations IHR (2005). Nonetheless, the government, with WHO support, further improved in 2015 its capacity to detect and respond rapidly to infectious disease outbreaks, including new emerging diseases such as Zika, Ebola and MERS-CoV.

The Early Warning Alert and Response System (EWARS) – first introduced in Indonesia in 2009 – is now fully operational in all 34 provinces. The system, which contains 21 outbreak-prone diseases, migrated this year from off-line to an online, web-based system in 28 provinces, allowing anyone to access information down to the district level. The new system also allows for more rapid reporting while improving the accuracy and completeness of the data. This was a major undertaking to recruit and train sufficient personnel and procure equipment and space for the online EWARS to operate.

The next crucial step in early detection and rapid response to potential disease outbreaks is laboratory confirmation. The country’s network of emerging infectious disease laboratories was revamped, following an assessment of each laboratory and the development of new standards. With WHO support, the revamped network – now consisting of 23 laboratories, including the National Institute of Health Research and Development (NIHRD) – received training in biosafety and biosecurity for laboratory diagnosis of outbreak-prone diseases, specimen collection and transport (with a focus on Ebola), and polymerase chain reaction (PCR) laboratory diagnosis.

EWARS would never work without well-trained rapid response teams (RRTs) that go into the field to investigate reports of outbreaks and collect samples for laboratory testing. To improve the capacity of the country’s RRTs – which include province-level teams in all provinces and many district-level teams as well – the Ministry of Health, with WHO support, revised the RRT guidelines and organized trainings in three batches for RRTs throughout the country to update them on new emerging infectious diseases, such as Zika and MERS-CoV, and to refresh their skills.

Simulation exercises of a MERS-CoV outbreak were also conducted at hospitals and the airports to further build capacity in responding to such emergencies. In addition, WHO provided technical assistance to staff at points of entry and the MoH to update them on the new emerging diseases and on joint monitoring tools. As a sign of Indonesia’s progress in outbreak detection and response, four MoH staff members were invited to take part in an external evaluation and monitoring mission of disease outbreak and response capacity in Bangladesh, Mozambique and USA.
MAJOR HEALTH CHALLENGES

The availability and quality of health services varies considerably from place to place in Indonesia. In many, especially remote, rural areas, health facilities lack adequate numbers of health workers, there are shortages of essential medicines and equipment, and the training and performance of health workers is inadequate. Some programmes tend to suffer from poor implementation because of inadequate leadership and the lack of sustainable community involvement. Improving this situation has been more challenging since the government decentralized its public services in the early 2000s, turning over the responsibility for the delivery and financing of health care to local governments.

Decentralization has reduced the MoH’s ability to direct, invest in, and monitor health activities and programmes at the local level. Consequently, the amount of local government expenditures per capita for health care varies widely by district or municipality, with some areas investing very little for primary health-care services. Similarly, the numbers, distribution and quality of different types of health professionals working in the public sector vary greatly within the country. The ratio of doctors to the population, for instance, ranges from 156/100 000 people in Jakarta to only 8.9/100 000 in West Sulawesi, with a national average of 38.1/100 000. This results in a shortage of health workers in many areas.

Despite significant reductions in recent decades, communicable and vector-borne diseases continue to exact a toll on the country’s population. According to the 2013–2014 National TB Prevalence Survey, there were an estimated 1 million new cases of all forms of TB each year (for a rate of 399/100 000 population) and a prevalence of 1.6 million cases (647/100 000) in 2014 – substantially higher than previous estimates. Neglected tropical diseases such as leprosy, lymphatic filariasis (LF) and yaws remain endemic in parts of the country. The incidence of leprosy – at more than 17 000 cases per year – did not change much between 2005 and 2014 and remains the third highest national incidence rate in the world after India and Brazil. Yaws exists in 64 villages, especially in Papua and East Nusa Tenggara, with 1521 cases found in 2014. LF continues to be endemic in many areas and schistosomiasis is considered endemic in two districts. In addition, the incidence of dengue and chikungunya appear to be increasing (to around 50/100 000 for dengue in 2015).

The growing morbidity and mortality from noncommunicable diseases (NCDs), along with infectious diseases, creates a double burden for Indonesia’s health sector. NCDs account for more than 60% of total deaths and the probability of someone between the ages of 30 and 70 dying from one of the four main NCDs (cardiovascular disease, cancers, diabetes and chronic respiratory disease) is 23%.

Underlying these statistics is the high smoking rate among men (67% for men as against 3% for women), high rates of hypertension (28% among adults aged 25–64 years) and unhealthy diets, including high intake of refined sugar and sodium.

Road accidents killed an estimated 38 000 people in Indonesia in 2013 and are the number one cause of deaths in people between the productive ages of 15–45 years.

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36 Source: 2014 NCD country profile, WHO.
37 Global Health Observatory Data Repository (http://apps.who.int/gho/data/node.main.A997).
ADDRESSING KEY HEALTH CHALLENGES

ESTABLISHMENT OF A NATIONAL SINGLE-PAYER HEALTH INSURANCE PROGRAMME FOR UHC

A cornerstone of Indonesia’s plans to achieve universal health coverage is the National Health Insurance (NHI) programme (Jaminan Kesehatan Nasional) – a scheme launched in 2014 that is already the world’s largest single-payer health insurance system. This programme incorporated existing health insurance schemes for formal sector employees and the local government social insurance programmes that were created in many areas after decentralization in the early 2000s. The system is financed by premiums, with those for the poor fully subsidized by the national government.

Beneficiaries receive a comprehensive package of health services that they can obtain from the public and selected private health-care providers, who are paid prospectively (on a capitation basis) for primary health-care services and reimbursed for hospital care. About 30 million new beneficiaries signed up in 2015 for a total of 155.4 million people (62% of the population) covered, including 88 million poor and near-poor people. Nearly 20,000 primary health facilities and 1,815 hospitals (out of around 2,400) have contracts with the NHI to provide services. To pay for the programme, the government health budget has risen sharply in the past two years to around 3% of the GDP (as per WHO global health expenditures database for 2014).

The government’s goal is to have the entire population of Indonesia insured by 2019. While many poor and near-poor have quickly been enrolled, the programme is finding it challenging to sign up and retain people who must pay premiums, including formal sector workers. Another major challenge is the escalating costs of the programme, due in large part to its very broad benefits package, that is threatening the programme’s sustainability. To address this problem, the government is in the process of developing a more sustainable benefits package, based on a series of cost-effectiveness analyses of different

Leaders for health – addressing key health challenges with H.E. Nila F Moeloek, Minister of Health
health interventions. To conduct these analyses, the MoH has adopted the Health Technology Assessment (HTA) methodology, with technical and financial assistance from WHO, the Thai Health Intervention and Technology Assessment Programme (HITAP), the National Institute for Health and Care Excellent (NICE) in the United Kingdom, and USAID, and with oversight by a National Committee for HTA. With coordination from WHO, these partners are building the country’s capacity to conduct HTAs through technical assistance and training of the Centre’s staff, trainings for policy-makers and universities, and study tours (e.g., to the UK). Three studies using HTA have already been completed. These are: (i) comparing the cost-effectiveness of two different screening methods for diabetes (using plasma vs. capillary blood glucose) as part of an analysis of PEN interventions; (ii) a study of peritoneal vs. renal dialysis; and (iii) a study comparing the use of sildenafil (the generic name for Viagra) with the standard treatment for pulmonary hypertension (which found the former to be more cost-effective).
HEALTH WORKFORCE CHALLENGES

The MoH, with WHO support, began implementing in 2015 a two-year Action Plan for Transformative Education and Rural Retention of Health Professionals to address problems of chronic shortages of health personnel in many, especially rural, areas and the uneven quality of the health workforce. A key strategy in the plan to improve the recruitment and retention of health workers in rural areas is to increase the numbers of medical, nursing and midwifery students who come from rural areas, including instituting an affirmative action policy for applicants from rural areas. To improve and better assure the quality of their training – and thus the quality of health services they will provide – the plan also calls for adapting pre-service training curricula to better meet the needs of rural communities, offering online continuing professional development (e-CPD) for rural health workers, interprofessional training (in which professionals from different disciplines, such as nursing, medicine, laboratory science and pharmacy learn from each other), and continual professional development of teaching staff of medical and nursing schools.

To further assure the quality of health services, the government, with WHO support, is instituting a series of accreditation processes for: (i) health professional training institutions (e.g., medical and nursing schools), in collaboration with the Ministry of Education; (ii) the hospital accreditation body itself (KAS) so that it is now accredited by the International Society for Quality in Health Care (ISQua); and (iii) non-physician health-care workers, who will now have to be registered through professional councils.

COMBATING INFECTIOUS AND VECTOR-BORNE DISEASES

To accelerate the control and elimination of TB in Indonesia, the MoH has developed a new five-year plan based on revised disease burden estimates and the global END TB strategy. In order to determine the extent of drug-resistant TB, the MoH began preparation for the first national drug-resistance survey among TB cases to be launched early 2016, and results expected by the end of 2017.

With the aim of controlling rubella, the NIHRD conducted a study of the impact and cost-benefit of introducing measles-rubella (MR) vaccine and, based on the results, the government has made plans to introduce the vaccine in 2017. In addition, MR surveillance has expanded – with an increase in the number of laboratories capable of testing measles and rubella from four to seven – and sentinel site surveillance for congenital rubella syndrome (CRS) has begun in 13 provincial hospitals across 10 provinces. WHO has played a key role in providing technical and financial support to improve the surveillance of vaccine-preventable diseases in Indonesia, including expanding the network of regional laboratories to reduce the dependence on Jakarta.

The government has made significant gains in reducing the burden of neglected tropical diseases transmitted by mosquitoes with focus on enhanced case detection, mass drug administration (MDA) and health promotion in affected communities. Following the first national campaign of mass drug administration for lymphatic filariasis (LF) in October 2015, MDA campaigns will be conducted every year until 2020 to achieve 100% geographical coverage of MDA in Indonesia and LF elimination by 2020.

The government has also set a timeline of 2017 to eradicate yaws, with certification of elimination to follow in 2020. To eliminate schistosomiasis in the country’s two remaining endemic districts (Poso and Sigi), the MoH is holding annual coordination and advocacy meetings on the Integrated Schistosomiasis Programme for all relevant stakeholders and government agencies. In addition, integrated vector control management is being strengthened and intensified to control dengue, chikungunya, Japanese encephalitis and other vector-borne diseases.
EIFFORTS TO CONTROL NCDs AND REDUCE THEIR RISK FACTORS

The finalization of the country’s first National Multisectoral Action Plan on Prevention and Control of NCDs (2016–2020) was a major accomplishment. The National Health Budget for 2016 was substantially increased, in part to implement the NCD action plan. To improve the current uneven implementation of the WHO package of Essential NCD (PEN) interventions – first introduced in 2011 – in primary health-care facilities, nearly 3 000 staff of community health centres (or puskesmas) will receive training in the PEN interventions, starting in 2016.

To reduce dietary risk factors for NCDs, the government has held national multisectoral meetings on ways to control the intake of salt, sugar and fat and is in the process of drafting a long-term strategic plan. A number of activities at both the national and local level have also taken place to reduce the use of tobacco in accordance with the WHO MPOWER (see box 11).

ADDRESSING HIGH ROAD FATALITY AND INJURY RATES

Progress has been made on different fronts in Indonesia’s implementation of the global Decade of Action on Road Safety (2011–2020). As an initial step in developing a monitoring and evaluation system for this programme, the MoH, with WHO support, launched a pilot injury surveillance system in a trauma centre in Jakarta to obtain more accurate statistics on the numbers of injuries and deaths caused by road accidents (using Chapter 20 of the ICD).

BOX 11. NATIONAL AND LOCAL EFFORTS TO CURB TOBACCO USE

Indonesia has advanced the cause of reducing tobacco use this past year through regional, national and local actions. At the national level, WHO partnered with the Ministry of Law and Human Rights to convene a National Consultation on Trade and the Right to Health to build multisectoral support for tobacco control in the country. This first-of-its-kind forum brought together officials from different ministries, including Health, Industry, Trade and Finance, to sensitize them and discuss the impact of policy decisions of non-health sectors on health and human rights and ways to work together to meet the goals of the WHO MPOWER. A focal point was named and follow-up activities have been planned for the coming years. WHO also helped create a consortium of research institutes to generate evidence to inform tobacco-related policies and regulations. Studies currently being conducted through this consortium include a study of tobacco-related health costs and a study of the economics of tobacco agriculture.

At the regional level, the Ministry of Finance and WHO organized a meeting of officials from nine ASEAN Member countries to discuss the possibility of including excise taxes on tobacco, alcohol and sugary drinks in the agenda of the ASEAN Forum on Taxation (AFT). As a result of this meeting, these excise taxes now are a regular item on the AFT agenda.

At the local level, a number of district and municipal governments have established local smoking bans and bans on outdoor advertising and promotion of cigarettes. Outdoor advertisement for tobacco has been banned, for example, in the cities of Jakarta (population: 9.7 million) and Bogor and in Kulonprogo district – all with the strong support of local political leaders and civil society. In Kulonprogo, the mayor formed a team to monitor implementation of the ban, and remove any visible tobacco advertisements and replace them with stop-smoking banners. He himself publicly removed a giant tobacco billboard and replaced it with anti-smoking messages. In Bogor city, the local authorities – alerted by civic groups – removed all advertising for a sporting event sponsored by a cigarette company, causing it to move the event to another city. Bogor city also proved that banning tobacco ads from billboards will not necessarily reduce local government revenues. In fact, billboard revenues (from other types of industries) actually increased by 350% from 2009 to 2013, after the ban was imposed.
than the current reporting system does (which doesn't necessarily distinguish traffic injuries from other types of injuries). Besides providing baseline data, this study will examine the quality of care at the accident site and in the emergency room and can thus inform improvements in post-crash care.

The MoH also completed an evaluation of a pilot accident prevention programme involving health screening of inter-provincial bus drivers during major holidays such as Eid when population mobility is high. The drivers are screened before their shift at health clinics placed at bus stations for such potentially-dangerous conditions as high blood pressure, drug and alcohol in their system, and high blood glucose levels, using guidelines developed with WHO assistance. Drivers who do not pass the examination are replaced immediately with a substitute driver. As a result of a positive evaluation of this programme, which is a collaboration between the MoH, local health centres, the police and the Ministry of Transportation, it is being expanded to more cities.

In the area of advocacy of road safety, WHO joined a private insurance company to develop Indonesia Road Safety Awards that are presented each year – one for each of the five “pillars” of the Decade of Action Strategy, such as improving road safety infrastructure, improving the behaviour of road users, improving post-crash care – to local governments for innovative strategies to reduce road injuries and deaths. The award ceremony provides an opportunity to increase awareness of this issue and for districts to learn from each other about successful strategies. The scoring system developed (by WHO) for this award is being adapted for the monitoring and evaluation of the nationwide implementation of the UN Decade of Action for Road Safety 2011–2020 in the country.
Maldives

In 2015 Maldives celebrated the 50th anniversary of its independence from the United Kingdom and of its partnership with WHO. Maldives continues to enjoy steady economic growth at 6%–8% per year – driven largely by its luxury tourism and fishing industries – and has the highest gross national income per capita in the South-East Asia Region at US$ 6410 (2011–2015).\(^{38}\) One consequence of this growth has been the impressive improvements in the health status of the people of Maldives, including an increase in life expectancy from 67 years in 1996 to 78 years in 2014,\(^{39}\) a 79% decrease in under-five mortality between 1990 and 2013 (from 48/1000\(^{40}\) live births to 10/1000), and a more than 90% reduction in maternal mortality (from 430/100 000 in 1990 to 31/100 000 in 2013) – meeting the child and maternal mortality Millennium Development Goals.\(^{41}\) Total health expenditure has also risen sharply in the past 20 years (to US$ 1260 in 2013),\(^{42}\) including both government and out-of-pocket expenditures. A universal social health insurance programme (called Aasandha) – funded entirely by the government and without annual caps per person – was established in 2014 to provide free access to health care for the entire population.

The Ministry of Health and Gender was split into two separate ministries: the Ministry of Law and Gender, and the Ministry of Health. A new permanent Minister of Health was also appointed around this time, following a series of Acting Ministers, an arrangement that had affected the implementation of a number of health policies and programmes.

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\(^{38}\) World Bank data from: www.data.worldbank.org/indicator/NY.GNP.PCAP.CD.

\(^{39}\) World Bank data from: http://data.worldbank.org/indicator/SP.DYN.LE00.FE.IN.

\(^{40}\) Maldives Key Indicators, 2006, Ministry of Planning and National Development, Statistics Section

\(^{41}\) WHO Statistical Profile, Maldives (Website..).

\(^{42}\) www.who.int/countries/mdv/en
MAJOR HEALTH MILESTONES ACHIEVED

- WHO is expected to declare Maldives to have eliminated lymphatic filariasis (LF) in mid-2016 – the first country in the South-East Asia Region to attain this status. This follows the submission to a validation committee of the South-East Asia Regional Office of an LF elimination dossier documenting evidence of the control and disappearance of the disease. This was achieved through vector control (spraying), community education and repeated rounds of mass drug administration (MDA).

- Maldives has not reported a single case of measles or congenital rubella since 2010, nor any case of neonatal tetanus, pertussis and diphtheria. It is thus well positioned to eliminate measles and congenital rubella by its proposed target date of 2018 – two years ahead of the regional target. The low incidence of vaccine-preventable diseases is due to the near universal coverage of childhood immunizations, which has included measles-mumps-rubella (MMR) since 2007 and IPV (as the second polio vaccine dose) since March 2015. To comply with the Global Polio Endgame Strategy, the immunization programme started preparation to switch from the trivalent to the bivalent oral polio vaccine scheduled to be launched in April 2016. The programme’s strong performance is assisted by continuing upgrades of its cold chain system, a web-based vaccine supply management system, and a steady supply of vaccines in health facilities throughout the country.

- A National Mental Health Policy, strategic plan and action plan – developed with WHO support – have been finalized and approved by the government, making Maldives one of the few countries in the Region to place a high priority on improving mental health services. The goal of the policy is to establish a comprehensive network of community-based mental health services integrated into primary care that are supported by specialist care at secondary and tertiary hospitals. The plan also calls for a Mental Health Coordinator and psychologist/counsellor based in every atoll.

- Key steps were taken in the fight against noncommunicable diseases and their risk factors in 2015, including the development of a MultiSectoral NCD Action Plan (2015–2020), establishment of the country’s first cancer registry, and the implementation of a peer-to-peer anti-smoking campaign geared towards young people.

MAJOR HEALTH CHALLENGES

Noncommunicable diseases accounted for 81% of total deaths in Maldives in 2011 and a major portion of the total morbidity. Major risk factors include high rates of overweight and obesity – with obesity rates of 25% among men and 54% among women – unhealthy diets, smoking (especially among men), high blood pressure and low levels of physical activity. About 35% of men and 3% of women smoke cigarettes, according to the 2011 STEPS survey, as do 11% of 13–15-year-olds (both sexes combined). Studies have documented a high prevalence of mental illness (3938/100 000 population) and current mental health policies and services are vastly inadequate to face this challenge. Other serious public health problems the country is facing include high rates of drug and narcotic use, a dramatic increase in road traffic accidents and fatalities – with often limited treatment services available for serious injuries – and the highest prevalence rate of thalassemia in the world (at 16% of the population). The growing incidence of these health conditions and associated health-care costs is placing considerable strain on the universal health insurance programme, threatening its financial sustainability. Another major cost driver is overseas treatment, much of it for NCDs, which recently accounted for only 0.3% of the total annual insurance claims but 19% of the total insurance payouts.
MALDIVES DECLARED MALARIA-FREE ON THE 50TH ANNIVERSARY OF ITS INDEPENDENCE AND PARTNERSHIP WITH WHO

The WHO Regional Director for South-East Asia, Dr Poonam Khetrapal Singh, awarded the Government of Maldives a certificate in December 2015 declaring that the country had eliminated malaria. Maldives thus became the first country in the Region to be certified malaria-free. Maldives had not reported an indigenous case of malaria since 1984. This was accomplished through a dedicated cadre of health workers travelling from island to island who educated the public about reducing mosquito breeding sites, the distribution of bednets and their use, indoor and outdoor spraying, and through the high-quality epidemiological and entomological surveillance that was maintained over three decades, resulting in eradication of the anopheles mosquito. The elimination of malaria was validated by an independent committee.

The certificate was awarded during a ceremony attended by His Excellency President Abdulla Yameen and more than 500 participants to mark 50 years of collaboration between Maldives and WHO, coinciding with the 50th anniversary of the country’s independence. Noting the progress made by the country in controlling other diseases besides malaria, including filariasis, measles and rubella, the Regional Director called Maldives a “shining example” for other countries and praised it for its strong political commitment to health, proficient planning and implementation, active community involvement and close partnership with WHO. The ceremony included a photo exhibition capturing five decades of achievements in health and the partnership between Maldives and WHO.
The government has greatly expanded its health workforce in the past 10 years, in part to meet its commitment of having a health centre manned by a physician on every island. In 2010, there were nearly 500 doctors and more than 1800 nurses working in the country, at a rate of 16 doctors per 10,000 population. However, there are problems keeping track of, coordinating, and assuring the quality of the health workforce, as well as with high turnover rates. Many of these issues are exacerbated by the country’s heavy reliance on expatriate health professionals, who accounted for 82% of physicians and 55% of nurses in 2010. A more rigorous and independent system for registering all health professionals and monitoring the quality of services they provide, based on set standards, is needed.

Maldives, consisting of an archipelago of atolls, is highly vulnerable to climate change and natural disasters, including storm surges, tsunamis, flooding and earthquakes. This is evidenced by a 62% loss in GDP in the year following the December 2004 Tsunami. Climate and environmental changes are considered responsible for an increase in the number of reported cases of dengue, typhoid and scrub typhus. Following the Tsunami of 2004, the government focused heavily on disaster preparedness and risk reduction, and created the National Disaster Management Centre (NDMC). However, the NDMC needs strengthening, following a decline in its functioning over the past several years, along with a reduction in support from development partners. (The current government has proposed a new Disaster Management Bill that will strengthen the NDMC and preparedness activities.) In addition, health facilities need to reduce their impact on the environment – including better waste management and a switch from high- to low-carbon energy sources – and improve their resilience to climate change.

Improvements in the quality of maternal and newborn care are also needed, including emergency obstetric services, in order to further reduce preventable maternal and newborn deaths. And while annual TB incidence has declined to a low endemic phase (41 per 100,000 population in 2014), Maldives does not yet have the capacity to detect drug-resistant TB. There is also a risk of TB transmission increasing as a result of the growing population of migrants from high-prevalence countries, its prevalence among drug users, and overcrowded conditions in the main atoll of Male.

ADDRESSING KEY HEALTH CHALLENGES

ASSURING THE QUALITY OF HEALTH SERVICES AND THE HEALTH WORKFORCE

The Maldives Parliament passed two major Bills in 2015 – formulated with WHO support – to help ensure the quality of health-care services and providers. Part of the Health Services Bill outlines the establishment of an independent process for rating health facilities, based on quality of care standards, indicators and assessment tools. The law will establish a Quality Commission that will likely be independent of the Ministry of Health. The Health Professionals Act aims to strengthen the regulation of all health workers, including expatriates, in the country. It will do so by restructuring regulatory bodies – including the Medical Council, Nursing Council, and Allied Health Workers Council – to increase their independence and bolster standards. These bodies will require that all health professionals be registered, establish standards for professional training (e.g., nursing school training), serve as the gatekeepers for the expatriate health professionals, and investigate and respond to
complaints about health workers. WHO is providing further support to the country to develop guidelines and other tools for the implementation of both laws.

The Ministry of Health, to better track the health workforce at any given time, is developing an online Health Workforce Registry – essentially a real-time census of all public sector health staff that will be updated regularly. This system will enable the MoH to better identify and address short- and long-term gaps in the deployment of health workers throughout Maldives.

ADDRESSING NONCOMMUNICABLE DISEASES AND THEIR RISK FACTORS

The government took an important step in the fight against NCDs this year by developing and disseminating an NCD Action Plan (2015–2020) and incorporating the prevention and control of NCDs into the Maldives UN Development Assistance Framework (UNDAF) document for 2016–2020. The NCD Action Plan outlines a holistic approach that includes policy, legal and structural changes necessary to address the complex social determinants of NCDs and their risk factors, and involves the participation of both health and non-health stakeholders. The MoH also launched the country’s first cancer registry at the Indira Gandhi Memorial Hospital (IGMH), the national referral hospital. A population-based cancer registry will be developed in a later phase. The national cervical cancer screening and management programme, located at IGMH, was also strengthened through in-country and regional training of the programme’s staff and the procurement of new equipment. In addition, the MoH launched an innovative peer-to-peer campaign conducted by young people to increase awareness of the dangers of smoking tobacco (see Box 13).

ADAPTING TO CLIMATE CHANGE

Implementation of the three-year “Low Emissions and Climate Resilient Development” (LeCreD) project –
a multisectoral Multi-Donor Trust Fund project funded by the Danish Government—continued on the country’s second largest atoll of Laamu in collaboration with seven UN agencies. The aims of this pilot project are to test the feasibility of switching to more environmental-friendly policies and practices, reduce disaster risk, and improve the ability of the island—including its health infrastructure—to mitigate and adapt to the harmful effects of climate change.

Project activities that WHO supported in 2015 include the development of policies and guidelines for low-carbon medical waste management systems (e.g., by replacing incineration with more environmentally-sustainable methods such as auto-claving); a Hospital Safety Index survey to assess the ability of the island’s regional hospital and health centers to adapt to the effects of climate change; a vulnerability assessment of atolls to disasters; and an assessment of the quality of ground water in Laamu. With support from WHO, a National Environment Health Action Plan was finalized, which provides a blueprint for collaboration between environmental and health policy-makers and other stakeholders.

As next steps, the project, with continued WHO support, will formulate hospital safety plans (based on the survey results) to better prepare hospitals for inevitabilities such as flooding from sea swells. The project will also develop water safety plans and implement changes in waste management practices and energy sources used by health facilities to reduce their carbon footprint.

**ENHANCING CAPABILITIES IN OUTBREAK CONTROL AND RESPONSE, AND EMERGENCY AND DISASTER RISK REDUCTION**

In response to the country’s first case of Zika (in an expatriate worker), WHO conducted an epidemiological assessment in January 2016 with experts from Thailand Armed Forces Research Institute of Medical Sciences (AFRIMS), a WHO Collaborating Centre in that country, and developed plans for “enhanced surveillance” and for strengthening laboratory capacity in Maldives to include diagnosis of the Zika virus. The government has since organized a nationwide vector control campaign, as well as a Zika education and communications campaign via social and broadcast media, to raise awareness of the disease among health-care workers and the public. To enable laboratory testing of Zika, as well as other emerging pathogens, WHO supported the procurement and installation of a PCR machine at the national laboratory at IGMH.

To meet the June 2016 deadline for compliance with the International Health Regulations (2005) requirements, a mid-term review of the IHR 2014–2016 Action Plan and an assessment of the country’s preparedness to deal with health emergencies were carried out. The

**Cardiac resuscitation training is key to successful application of the procedure**
IHR review identified the need to improve coordination and strengthen event- and laboratory-based disease surveillance, as well as local capacity in emergency response and crisis communications. WHO provided standard operating procedures, training and communication materials, assessment tools and personal protective equipment (PPE) kits to support these improvements.

Maldives also completed a benchmark assessment of its emergency and disaster risk reduction capabilities. Based on its findings, WHO assisted with training in risk communication for the media and health officials to improve the media’s ability to alert and communicate with the public during a natural disaster. In addition, the WHO Country Office procured and pre-positioned the country’s first Inter-agency Emergency Health Kit (IEHK), containing enough medical supplies to treat 10 000 people for three months during an emergency.

**IMPROVING PATIENT REFERRALS**

The health ministry has invested heavily in a telemedicine system to put health providers outside of Male in touch with specialists—in an effort to reduce the need for patients to travel to Male or overseas for specialty care. Since use of the system has been sub-optimal, the MoH, with WHO support, conducted a comprehensive review to identify strategies to increase its use, including new orientation and training of health professionals. WHO also provided support for the procurement of land ambulances for selected regional hospitals to reduce the transfer time for referral patients from the boats to hospitals.

*Immunization and preparedness for disease outbreak are both important preventive steps*
In partnership with UNFPA and WHO, the MoH finalized and disseminated a National Reproductive Health Strategy, which focuses on sustaining gains in maternal, newborn and child health and enhancing the quality of care using a continuum of care approach. To further reduce mortality and morbidity of newborns, WHO assisted the MoH in initiating a birth defects surveillance system, which has now expanded to regional hospitals.
Elections in November 2015 ushered in a new government in Myanmar led by the National League for Democracy. During the transition period between the election and the inauguration, the incoming government released its manifesto on the many important policy reforms that the new government will bring in, including a broad range of reforms in health. Some of the priorities in health, among others, are to expand basic healthcare provision, reduce the incidence of tuberculosis, malaria, hepatitis, HIV, diabetes, high blood pressure, and heart disease through preventive programmes. The government will strive to ensure that there are sufficient drugs for treatment, and enable government hospitals and clinics to provide high quality modern treatment methods, raise the qualifications of government health staff (including doctors, nurses, and midwives), and ensure health care is provided with ethical standards. The government will also develop health care provision for the elderly and for people with disabilities, systematically improve healthcare management systems and promote and further develop traditional medicine. Furthermore, the government will increase national health budget, and enable reduction in the level of out-of-pocket expenditure incurred by the public for medical treatment.

Another major event in 2015 was the widespread flooding caused by monsoon rains and a cyclone that affected 86% of the country and temporarily displaced 1.7 million people. The country’s response to the health and medical needs of the victims is described hereinafter.
MAJOR HEALTH MILESTONES ACHIEVED

- The MoH organized Myanmar’s first-ever Health Forum in July 2015: a meeting that brought together more than 500 participants from the health and development sectors to discuss how to move forward to meet the country’s goal of reaching universal health coverage (UHC) by 2030. The theme of the meeting was “Invest in Health: The Key to People-Centred Development”. A communique issued on the Health Forum highlighted the key areas of agreement; they include,

  - A commitment for a multi-sectoral approach through inclusive, effective collaboration and coordination, as well as the involvement from all branches and levels of government to attain the goals of improving the health of the population,
  - Myanmar’s health system needs urgent strengthening and health services coverage needs to be expanded. To do that the Forum recognizes that substantial investment, especially in the rural and hard-to-reach areas with focus on equitable and affordable quality services, will be needed to achieve the goals of UHC
  - The Ministry of Health not only needs more capacity to suitably manage the health system, but also needs to decentralize some of its decision-making to the subnational level for a more responsive, nation-led, well-governed, proactive and needs-driven health system,
  - To establish a centre of excellence for Health Policy to enable policy dialogue among stakeholders so that all stakeholders, including civil society, can contribute and share lessons learnt to strengthen consistency in national health policy across all levels of the government

- Myanmar took major steps to ensure that the country remains polio-free and to comply with the global Polio Endgame strategies. IPV was successfully introduced in December 2015 into the routine immunization programme as the third polio vaccine dose. The government also conducted a series of high-quality OPV campaigns in late 2015 and early 2016 to prevent circulation of the virus and increase coverage in low-performing areas. These include reactive vaccination in Rakhine State in response to two cases of vaccine-derived polio, mop-up campaigns in low-coverage areas and a subnational campaign covering 87 townships.

- The control of vaccine-preventable diseases (VPDs) continued to be strengthened in 2015 with the development of a new comprehensive multi-year plan (cMYP) for immunization for 2017 to 2021 and further improvements to VPD surveillance. WHO has recruited regional surveillance
**BOX 15. PREPAREDNESS IS KEY TO EFFECTIVE RESPONSE TO FLOODS**

Monsoon rains, followed by Cyclone Komen, in July 2015 caused widespread flooding across 12 of Myanmar’s 14 states and regions, or 85% of all states/regions. The four most affected areas—Chin and Rakhine states and Magway and Sagaing regions – were declared natural disaster zones. In all, an estimated 125 people were killed and 1.7 million were temporarily displaced by the floods and landslides. The disaster completely destroyed 24 rural health centres and sub-centres and partially destroyed another 220 health facilities, including 21 hospitals. Access to the remaining health facilities was impeded by the damage to many roads and bridges. In addition, the destruction of water and sanitation facilities, coupled with crowding and unsanitary conditions of those displaced, increased the risk of infectious diseases.

The MoH, with the assistance of WHO and partner organizations, organized a prompt and efficient response in the hardest-hit areas to provide life-saving medical care and restore essential health services. Rapid response teams from the MoH – consisting of 120 medical doctors, nurses and health assistants – were deployed to the disaster zones. The teams assessed damage and impact, organized mobile and referral clinical services, and conducted disease surveillance in collaboration with local health staff. Ten inter-agency emergency health kits (IEHKs), each consisting of medicines, supplies and equipment to provide primary health-care services to 10,000 people for three months, were sent to the most severely-affected townships in Rakhine State. Within a week, the Ministry of Health and humanitarian agencies had resumed essential health services in the affected areas, including immunization, maternal and child health services and the provision of ART to HIV-AIDS patients.

As the health cluster lead agency, WHO played a key role in planning and coordinating the recovery efforts in collaboration with the MoH and aid agencies, and took part in the post-disaster needs assessment led by the National Natural Disaster Management Committee. WHO also contributed emergency funding to the response.

The quality and speed of the response to this emergency was the result of a series of actions that the MoH, with WHO assistance, had undertaken in recent years to institutionalize emergency readiness for health. The country established a National Emergency Operations Centre in 2014 within the MoH, as well as strategic health operation centres in selected states and regions. These centres help orchestrate the redeployment of MoH staff from all over the country to areas affected by a disaster or emergency. Since 2013, medical supplies and equipment have been pre-positioned in Rakhine State for the treatment of trauma cases as well as for routine services. Other preparedness activities conducted in 2013 and 2014 included strengthening of the country’s early warning system; training of approximately 100 government health staff on disease surveillance and on conducting risk assessments to identify priority actions during emergencies; and establishing a common and efficient reporting system for different levels of the health system and for health organizations to report and share disease surveillance information. In 2014 the MoH reviewed and updated its national health emergency preparedness and management plan. To improve coordination of the many aid agencies and partners operating in Myanmar, the MoH also performed a mapping of all partners, using the 3-W method, and strengthened coordination mechanisms among health partners.
Despite significant progress made in the past 25 years in reducing preventable maternal and child mortality, the country was not able to meet the MDGs 4 and 5 by 2015. Maternal mortality declined from 453/100 000 live births in 1990 to 178/100 000 in 2015 (as per the UN’s MMR estimate from its latest report of 2015) compared with the MDG target of 113/100 000. The mortality rate in children under five was cut by half (from 110/1000 live births to 50/1000) between 1990 and 2015 due to sharp reductions in deaths from diseases such as measles and diarrheal disease, but nevertheless fell short of the target of 37/1000. Neonatal deaths now account for 53% of under-five mortality, though pneumonia and diarrhoea remain important causes of child (non-neonatal) deaths (=20%).

While significant progress has been made in the past two decades in reducing the incidence of malaria, TB and HIV-AIDS, these diseases remain important public health problems in the country. Malaria-related deaths were reduced by 93% and cases by 70% (as per the World Malaria Report 2015) between 2007 and 2014. However, Myanmar continues to have the greatest burden of malaria in the Greater Mekong Subregion (GMS), with >152 000 confirmed cases in 2013 and an estimated 680 000–1 900 000 cases. The country has seen little change in TB incidence rates in 25 years, at an estimated 369/100 000 people in 2014 (and a prevalence rate of 457/100 000). In addition, an estimated 50 000 new cases are undetected each year. And although the TB death rate has been cut by nearly two thirds from 1990 levels – from ≈135/100 000 among HIV-negative people to 49/100 000 – TB is still the third leading cause of premature deaths. In addition, the country has a burden of ≈186 000 people living with HIV. However, the HIV-AIDS epidemic has stabilized since 2000, with a current prevalence rate among 15–49-year-olds of 0.61%. Also, due to a dramatic expansion of HIV services with Global

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68 Global Tuberculosis Control Report 2015: apps.who.int/iris/bitstream/10665/191102/1/9789241565059_eng.pdf
69 Source: WHO Statistical Profile, Myanmar: https://extranet.who.int/sree/Reports?op=RepletEname=%2FWHO_HQ_Reports%2FG2%2FPROD%2FEXT%2FTBCountryProfile&ISO2=MM&LAN=EN&rountype=html
Fund support, 69% of patients requiring antiretroviral therapy (ART) (or >85,000 people) are now receiving this treatment.

At the same time, noncommunicable diseases (NCDs) now account for 59% of total deaths in Myanmar, due to both reductions in communicable diseases and increases in the incidence of NCDs. Only one NCD (strokes) ranked among the top 10 causes of premature deaths in 1990, but by 2013 there were four in the top 10 (strokes, heart attacks, lung cancer and COPD). An estimated 79.8% of men and 29.1% of women used tobacco, with higher prevalence of smokeless tobacco users, (62.2% men and 24.1% women) then smoke products (43.8% for men and 8.4% for women) and 21% of adults have hypertension. Addressing the growing NCD burden will require a shift in focus to primary prevention of risk factors through public education and regulation, as well as increased capacity of the health system – especially at the primary health-care level – to screen for, diagnose and treat these diseases.

Major disparities in access to quality, affordable health-care services between urban centres and rural areas – where 77% of the population lives – remain a formidable challenge. Many rural areas, especially hard-to-reach areas with majority ethnic populations, lack basic health services, sufficient health personnel and access to affordable essential medicines. Total health-care spending – at US$ 20 per capita in 2013 and 1% of GDP – remains among the lowest in the Region. The majority of this spending – 70% in 2013 – was paid out of pocket, with the government allocating only 1% of its budget in 2015 to health.

In addition, a large amount of government health spending has gone to hospitals as compared with primary health-care services; from 1990 to 2011, there was a 60% increase in the number of hospitals compared with a 22% increase in rural health centres.

Contributing to the inadequate provision of health services in rural areas is the difficulty in recruiting and retaining health professionals to work in these areas. In recent years, the government has significantly increased the number of sanctioned positions in underserved areas to meet the new targets for the minimum numbers of doctors, nurses and other health workers per population. However, retaining health workers in these posts has been a major challenge, resulting in a significant portion of positions for doctors and nurses lying vacant at

50 GBD Profile (Lancet 2015 summary): http://www.healthdata.org/myanmar

Skilled nursing is vital to quality health care
any given time. The criteria and qualifications for new medical and nursing students need to be revisited to improve rural retention rates, including increasing the proportion of those who themselves come from these underserved areas.

**ADDRESSING KEY HEALTH CHALLENGES**

Efforts to address the gaps in human resources for health: To address the problem of recruitment and retention of health workers in rural areas and to better match the size, composition and distribution of the health workforce with the health needs of the population, the MoH has conducted a systematic analysis of the health workforce and its educational needs. This comprehensive review examined the numbers of different types of health professionals being produced by medical, nursing and other professional schools, the quality of their education, and its relevance – including the background and suitability of the students for positions that are needed and the mix of skills they acquire. The review also looked into the in-service training needs of different types of health professionals. Based on this analysis, the MoH has prepared an Action Plan for Transformative Education for Health to implement changes in the number of graduates produced each year, the criteria for their selection, the content of their training, and other key issues. As an initial step, WHO is assisting the MoH in revising the medical school curriculum with the health needs of the population.

Through a series of consultations, the MoH, with support from the World Bank, WHO and other partners, is developing an Essential Package of Health Services, as part of its efforts to achieve universal health coverage by 2030. The package will be implemented in phases, beginning with a basic package (within five years), followed by an intermediate one (within 10 years) and finally a comprehensive package by 2030.

**MAKING FURTHER GAINS IN THE CONTROL OF MALARIA AND HIV/AIDS**

With the goal of eliminating malaria by 2030 and in response to the emergence of artemisinin-resistant malaria in Myanmar and other countries in the Greater Mekong Subregion (GMS), the National Malaria Control Programme has stepped up efforts to eliminate falciparum malaria from areas with proven artemisinin resistance and those surrounding areas that are at risk. These efforts are being supported by two Global Fund projects – the Regional Artemisinin Initiative and the New Funding Model. The WHO Emergency Response to Artemisinin Resistance (ERAR) hub, established in Cambodia, oversees the coordination of malaria response in the Subregion, including in Myanmar. WHO is also providing technical support to the MoH to develop its next National Malaria Strategic Plan (2016–2020) – to be aligned with the GMS Malaria Elimination Strategy – and to strengthen surveillance, supervision, monitoring and evaluation activities, as well as revise the micro-stratification guidelines.

Based on a systematic review of the country’s response to HIV, the the National AIDS Programme in 2015 developed a new national strategy that articulates different service delivery models for high-,
middle- and low-HIV burden areas to maximize the effectiveness and efficiency of its programmes and services. Other activities the programme conducted with WHO and other partners include revising and updating the ART Management Guidelines – to include management of TB/HIV co-infection and methadone maintenance therapy (MMT) – and training of MoH staff throughout the country on their use; expanding and decentralizing delivery sites for MMT to the township level to improve access to these services among intravenous drug-users; and the development of the first National Laboratory Policy and National Laboratory Strategy Plan.

STRENGTHENING REPRODUCTIVE, MATERNAL, NEWBORN, CHILD AND ADOLESCENT HEALTH (RMNCAH)

A key achievement in 2015 was the development of a National RMNCAH++ Approach and Framework – which includes both communicable and noncommunicable disease services – along with the development of materials and training for its implementation. With WHO support, the MoH developed guidelines, training manuals and IEC materials on RMNCAH services. It also conducted a series of cascade trainings for health providers and maternal and child health promoters on intervention packages that make up the RMNCAH++ Approach, including Integrated Management of Childhood illnesses, counselling in adolescent reproductive health, and male involvement in reproductive health. The government also developed new national strategic plans for child health (2015–2018), the control of birth defects (2014–2018), and for young people’s health (2016–2020).
Throughout 2015 the Federal Democratic Republic of Nepal continued to feel the after-effects of the devastating earthquake in April, which killed 8980 people, injured 22 302, and completely destroyed 462 public sector health facilities and partially damaged another 765. Foreign donors have pledged US$ 4.4 billion for reconstruction of damaged infrastructure. A National Reconstruction Authority has been established to coordinate the implementation of the reconstruction activities. Serious challenges include preparing and deploying the needed human resources, monitoring the construction work, and establishing coordination among all stakeholders. The humanitarian response in the earthquake’s aftermath was rendered more difficult by the intermittent disruption of movement across borders in the latter half of 2015. This affected the importation of fuel and cooking gas into Nepal, as well as essential goods, including medicines and medical supplies. With supplies of medicines running low at all levels by December 2015, WHO donated essential medicines and coordinated donations from partners, to help reduce stockouts of essential drugs.

The shortage of essential goods resulting from the border closure, the aftermath of the earthquake, and the cold winter led to a protracted emergency, especially among people displaced by the earthquake in the most-affected and remotest areas. At the start of March 2016, more than 26 000 people from 12 of the 14 hardest-hit districts were still living in 82 temporary camps for internally displaced persons. Many children attend school in tents, and health services are still being delivered in tents or prefabricated temporary structures in places where health facilities were damaged.
Another major development in 2015 was the approval of the country’s new Constitution, which declares the right of all citizens to equitable access to basic health care free of charge, as well as a right to their health information. The Constitution also places emphasis on improving the country’s delivery of emergency health-care services. Important government functions will devolve from the Federal government to the provinces, although it is as yet unclear how this will impact the health-care system.

**MAJOR ACHIEVEMENTS IN HEALTH**

The GAVI Alliance awarded the Government of Nepal its Child Survival Award in 2015 for meeting the Millennium Development Goal 4 target to reduce child mortality by two thirds from the 1990 levels. Mortality in under-five children declined from 162/1000 live births in 1996 to 38/1000 in 2014 (77% reduction), while infant mortality fell from 108/1000 to 33/1000.\(^52\)

Much of the decline occurred in older infants and toddlers. Neonatal mortality is still a major concern. Considerable progress has also recorded in reducing maternal mortality.

The government launched its new Nepal Health Sector Strategy (NHSS) (2015–2020), which carries forward the vision of the National Health Policy 2015. This strategy advocates equal access and rights to health care for all people and calls for the achievement of universal health coverage. The Strategy – developed in the context of the sector-wide approach (SWAp) and agreed to by external development partners – prioritizes reaching the unreached, disadvantaged and vulnerable groups with quality health services while also reducing their financial burden to access these services. Its stated goal is to improve the health status of all of its people “through an accountable and equitable health service delivery system”. The NHSS also emphasizes strengthening research and promoting evidence-based decision-making at all levels of the health system.

The National Immunization Programme introduced the pneumococcal conjugate vaccine (PCV) in January 2015, making it one of the first countries in the South-East Asia Region to introduce this.

Water safety plans have been implemented in 110 sites covering 500 000 people. These plans focus on improving water quality and, in selected sites, on reducing climate-induced hazards as well. Baseline data were collected to be able to measure water quality improvements over time.

**MAJOR HEALTH CHALLENGES**

Despite the remarkable gains in health outcomes that Nepal has achieved in the past few decades, there remain significant inequities in the population’s access to and use of health services, especially quality health care. Many of the barriers to accessing health services are physical or institutional, including the lack of health facilities in accessible locations, their limited operating hours, shortage of health workers and medicines, and the lack of transport, especially in remote rural areas. These problems are exacerbated by frequent landslides in many areas, making travel to

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health facilities during some months of the year nearly impossible. However, there are also serious financial barriers to receiving health care, due to high user fees, cost of medicines and unaffordable transportation. In fact, out-of-pocket expenses – while decreasing since 2000 as a percentage of total health expenditure – still accounted for nearly half (48%) of all health spending in 2014. Sociocultural barriers, especially gender inequality, also pose challenges to women obtaining necessary health care.

Related to the gaps in the provision and quality of health care is the need to improve the training, recruitment, deployment and retention of the country’s health workforce. The considerable turnover of health workers in more remote areas and the resulting brain drain is especially challenging. At present, 22% of health worker positions in the public sector are vacant.

Increasing threats from natural disasters, including earthquakes, floods and landslides, as well as adverse effects of climate change also pose a significant challenge to public health. Many efforts by the Ministry of Health and Population (MoH&P) over the past several years to improve emergency preparedness with the support of WHO and other

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**BOX 16. PROGRESS IN SELECTED REGIONAL FLAGSHIP PRIORITIES**

**MEASLES ELIMINATION AND RUBELLA CONTROL BY 2020:** The immunization programme conducted MR-OPV vaccination campaigns in mid-2015 for all under-five children in 14 districts most affected by the earthquake, and achieved more than 90% coverage. The measles and rubella (MR) vaccination campaigns are continuing in 2016 in the country’s remaining 61 districts. The second dose of MR vaccine was also introduced into the routine immunization programme in September 2015. The number of sites for measles case-based surveillance was expanded from 300 to 432 in 2015, and nine suspected measles outbreaks were reported and investigated with support from WHO. These measures will help the nation to meet its goal to eliminate measles and control rubella and congenital rubella syndrome by 2019.

**ELIMINATING NEGLECTED TROPICAL DISEASES:** Since 2010, Nepal has sustained the elimination of leprosy as a public health problem at the national level (defined as a prevalence of <1 per 10 000 population) and efforts have been made to eliminate the disease at the district level through early case detection and treatment, among other strategies. The country has also reached the elimination level for kala-azar (visceral leishmaniasis) in all endemic districts for the past three years, and has introduced Liposomal Amphotericin B as a standard treatment. Nepal is fully committed to combatting lymphatic filariasis (LF). Mass drug administration campaigns were continued in 41 LF-endemic districts, and morbidity management and disability prevention activities were expanded to all 61 endemic districts.

**BUILDING CAPACITY TO COMBAT ANTIMICROBIAL RESISTANCE:** In recognition of the growing problem of over-the-counter availability and overuse of antibiotics, as well as the serious threat to public health posed by the increase in multidrug-resistant cases, the government launched an action plan to fight antimicrobial resistance (AMR). The plan focuses on improving AMR surveillance and increasing awareness about the rational use of antibiotics among health-care workers, veterinarians, farmers, the food industry and regulators. During the year, the AMR network of laboratories performing AMR tests increased from 15 to 20, and the number of pathogens under surveillance increased from five to eight. Technicians from these laboratories received refresher training on AMR testing, and necessary laboratory supplies were procured, all with WHO support.
THE WORK OF WHO IN THE SOUTH-EAST ASIA REGION

partners paid off during the April 2015 earthquake. These efforts included establishing a national Health Emergency Operations Centre, and pre-positioning medicines, supplies and equipment for rapid response teams and at the designated hub hospitals, especially in the Kathmandu Valley. Nonetheless, the earthquake was a stark reminder that the country needs to make further improvements in emergency preparedness and response. The earthquake also highlighted the urgent need to focus on neglected areas of health, such as noncommunicable diseases and disability. Even as doctors treated the physical wounds, it is the deeper, psychological trauma that will require long-term care through enhanced psychosocial support and mental health services.

Like many countries in the Region, Nepal is experiencing a growing burden of noncommunicable diseases, posing a major challenge to its health-care system. More people now die from NCDs and injuries than from infectious diseases. This can be attributed to high rates of several key NCD risk factors, including tobacco use (smoke or smokeless) among 48% of men aged 15–69 years and among 25% of 13–15-year-old boys, the majority of Nepalese reported habitual salty diet, hypertension in one quarter of the adult population (88% of whom are not under medication), and inadequate consumption of fruits and vegetables among nearly all Nepalese.54 There is also a large and growing burden of mental illness – accounting for an estimated 18% of the NCD burden – as well as a high rate of road accident fatalities and injuries.

A likely contributor to respiratory illnesses is the high levels of both outdoor and indoor air pollution in the country. According to the 2016 Environmental Performance Index published by the World Economic Forum, Nepal ranks 177 out of 180 countries in terms of air quality. Air pollution has emerged as the country’s most important environmental health risk. The situation is especially critical in Kathmandu, due to population growth and rapid urbanization. In addition, 64% of Nepal’s households use firewood and 18% use liquefied petroleum gas as fuel, indicating a high incidence of indoor air pollution.55

Although Nepal has a very low proportion of greenhouse gas emissions, it is and will continue to be disproportionately affected by climate change. The burden of malnutrition and diarrhoeal diseases is expected to increase as a result of climate change. Currently, vector-borne diseases such as malaria, dengue, chikungunya, Japanese encephalitis, kala-azar and LF are endemic in the Terai (lowlands) and hill regions of Nepal, with an estimated 80% of the population at risk. As a result of climate change, the incidence of these diseases will increase due to the movement of mosquitoes carrying these diseases into highland areas.

54 Noncommunicable disease risk factors: STEPS Survey Nepal, 2013
ADDRESSING KEY HEALTH CHALLENGES

MAKING HEALTH SYSTEM IMPROVEMENTS: The development of the Nepal Health Sector Strategy (2015–2020) has provided a framework to realize the country’s ambitious goal of providing a basic package of quality health services to all of its citizens free of charge. WHO supported an exercise to estimate the cost of the NHSS, which came to US$ 2 billion over five years. The country is also ready to pilot a premium-based insurance scheme with subsidized premiums for the poor, known as the Social Health Security Programme, in three districts.

With the aim of improving quality assurance of health services, licensing examinations for nurses and pharmacists were initiated in 2015 by the national nursing and pharmacy councils. A plan was also put in place to improve the capacity of the National Medicines Laboratory to enable it to receive National Reference Laboratory (NRL) accreditation as per WHO standards.

COMBATTING THE GROWING BURDEN OF NCDS: The Government of Nepal has signalled its political commitment to focus on NCDs by endorsing the new National Multisectoral Action Plan for the Prevention and Control of NCDs (2014–2020), and appointing the Prime Minister’s Chief Secretary as chairman of the National NCD Steering Committee. A country-specific protocol for the WHO Package of Essential NCD (PEN) interventions was developed and piloted in one district. This will help increase the population’s access to essential medicines, technologies and counselling services to control major NCDs, such as diabetes, heart attacks and strokes. The focus on NCD risk factors will be on reducing tobacco use and dietary salt intake using a multisectoral approach.

STRENGTHENING THE COUNTRY’S HEALTH INFORMATION SYSTEM: To improve the quality of health data to better inform decision-making, the government – with assistance from WHO, UNICEF, the Nepal Health Sector Support Programme (NHSSP) and the German aid agency (GIZ) – developed a National eHealth Strategy using the WHO toolkit, and a district-based health information system using the DHIS-2 platform was brought near completion. It also endorsed a national Maternal and Perinatal Death Surveillance and Response (MPDSR) system, developed

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Multi stakeholder coordination vital to coordinated response in emergencies

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guidelines for its implementation, and made plans to launch it in five pilot districts. This system – designed to provide real-time, actionable data on a continuous basis – aims to reduce maternal and neonatal mortality by identifying and tracking all maternal and perinatal deaths within 24 hours, investigating the causes of death and contributing factors (mainly through systematic verbal autopsies), and taking appropriate measures to reduce these deaths based on the findings. WHO is also supporting the Ministry of Federal Affairs and Local Development and the Ministry of Health and Population in strengthening the civil registration and vital statistics system.

STRENGTHENING COMMUNICABLE DISEASE SURVEILLANCE: Following the 2015 earthquake, post-disaster syndromic surveillance was set up in more than three dozen hospitals in the 14 most-affected districts. The MoH&P also made a number of improvements to the country's early warning alert and response system (EWARS), including expanding it to more sites, improving the timeliness and completeness of reporting, reviving the EWARS website, and publishing weekly EWARS reports. In the wake of the Ebola outbreak in West Africa, the government initiated health screening of travellers at major points of entry and also established a health desk at the international airport in Kathmandu. It also investigated and responded to outbreaks of H1N1 influenza, hepatitis E and cholera.

STRENGTHENING THE PERFORMANCE AND FINANCIAL SUSTAINABILITY OF THE NATIONAL IMMUNIZATION PROGRAMME: The Government of Nepal has enacted new laws and policies to strengthen its National Immunization Programme and ensure that all Nepalese children are fully vaccinated. In January 2016, it passed a landmark Immunization Law that establishes a public-private National Immunization Fund to ensure the financial sustainability of the immunization programme as new, costlier vaccines are introduced. The law also ensures the right to vaccination for all children, improves oversight of immunization services, and sets tighter standards for vaccine testing and use.

Progress has also been made in meeting the government’s goal of fully immunizing all children in all 75 districts by 2017 through its “Full Immunization Initiative”. The initiative uses the “appreciative inquiry” technique to motivate communities to seek full immunization for their children. It encourages community members to see themselves as catalysts for change and thus to take more ownership and responsibility to achieve their goals such as universal immunization. By February 2016, 16 districts had been declared fully immunized.
In the immediate aftermath of the Nepal earthquake in April 2015, WHO in collaboration with health cluster partners played a key role in assisting the government in coordinating a medical relief operation. This was based on a rapid assessment of the disaster’s impact on health facilities and the health needs of the population in the affected areas. Personnel from across the globe were mobilized and deployed at the national and district levels. Within six hours of the earthquake, WHO provided four pre-positioned Inter-agency Emergency Health Kits (IEHK). These were essentially small mobile clinics, each containing tents and enough medical equipment and supplies to provide medical care to 10,000 people for three months and staffed by government health workers. By October, 40 of these temporary health facilities were operating in the earthquake zone to ensure the continuity of health services in areas where hospitals were destroyed or no longer safe. WHO also helped the government establish a rapid hospital-based syndromic surveillance system of outbreak-prone communicable diseases in the 14 quake-affected districts.

In the post-emergency phase, WHO has continued to assist Nepal in filling important gaps in health services. Following the withdrawal of the UN Office for the Coordination of Humanitarian Affairs (OCHA), 12 medical officers have been deployed as WHO Emergency District Support (WEDS) Officers to provide critical technical support to the districts in monitoring and responding to the health needs in all 14 earthquake-affected districts. The WEDS team has helped district health offices in assessing the MCKs and adapting them for the winter. They have also helped investigate infectious disease outbreaks and reported deaths, monitor the supply of essential drugs and vaccines in health facilities, and support the expansion of the EWARS system to all 14 districts most affected by the earthquake.
DISASTER RISK REDUCTION AND PREPAREDNESS: Soon after the earthquake, the MoH&P accelerated efforts to improve its emergency preparedness in collaboration with WHO and other partners. The country updated the SEA Region Benchmarks for Preparedness and Response Readiness of the Nepal Health Sector, and will organize with WHO a national conference in April 2016 to distill the lessons learnt from the post-earthquake response. The government is also establishing five regional health emergency operations centres, pre-positioning medical camp kits (MCKs) at these centres as well as equipment and supplies for emergency medical teams. All districts are required to develop district health contingency plans, which use a “multi-hazard” approach. As of April 2016, 63 of the country’s 75 districts have such plans in place. The country will also need to conduct simulation exercises to test and update the emergency plans of central referral hospitals and hub hospitals outside the Kathmandu Valley, and provide additional training in patient triage and management.

ADDRESSING THE IMPACT OF CLIMATE CHANGE ON HEALTH: Nepal has conducted a national assessment of climate change effects on health – the Vulnerability and Adaptation Assessment for Health – and prepared a Health National Adaptation Plan: Climate Change and Health Strategy and Action Plan (2016–2020) to improve the resilience of the health sector in response to climate change. Also, in September 2015, the Ministry of Urban Development and WHO co-organized the first National Conference on Climate Change and Water, Sanitation and Hygiene. Participants at the conference discussed ways to manage, save and purify water sources, including through the utilization of rainwater, reusing waste water, and conservation of forests and recharge methods.
The election of H.E. Mr Maithripala Sirisena, the former Minister of Health as President of Sri Lanka in January 2015 has further strengthened the government’s commitment to improving the health of the Sri Lankan population. Since the new government assumed power, it has committed to increase health spending as a percentage of the gross domestic product (GDP) from 1.5% to 3% of GDP. Several new health laws and initiatives were enacted within its first 100 days in office. These include laws establishing an independent national drug regulatory authority, and mandating large pictorial warnings on cigarette packs. The government’s strong commitment to health is also demonstrated by the appointment of a medical professional as Minister of Health, Nutrition and Indigenous Medicine.
**MAJOR HEALTH MILESTONES ACHIEVED**

- With the goal of strengthening regulation and quality control of all medicines and medical devices available in Sri Lanka, the government established a new, independent National Medicine Regulatory Authority (NMRA) in 2015. The new agency, which combines the national regulatory and national laboratory authorities previously under the Ministry of Health, was established as part of the government’s plan to encourage local production of medicines. The intent is for the NMRA to be able to perform all six functions of a fully-functional national regulatory authority, including monitoring good manufacturing practices (GMP) for locally-produced medicines. WHO is providing technical assistance to the new agency in several areas, including developing guidelines and protocols for assessing GMP, and building capacity of quality assurance laboratories.

- The Health Minister, Dr Rajitha Senaratne, was honoured with the WHO “World No-Tobacco Day Award” in December 2015 for Sri Lanka’s legislative actions on tobacco control, including mandating that pictorial warnings about tobacco cover 80% of cigarette packs and increasing taxes on tobacco products.

- Sri Lanka has applied for WHO certification on the elimination of malaria in 2016, since there has not been any reported indigenous case of the disease in the country since October 2012.

- The country has maintained a low prevalence of HIV/AIDS (<0.1%) among adults. It is also preparing to receive WHO validation for having eliminated mother-to-child transmission of HIV. This is the result of a prevention of mother-to-child transmission (PMTCT) programme launched in 2013 that is now being implemented nationwide to screen all pregnant women for both HIV and syphilis. This new universal antenatal screening policy has led to a 14-fold increase in the number of pregnant women tested between 2012 and 2015 (from around 17 000 to more than 262 000), and helped achieve in 2015 a coverage rate of 71% nationwide. All babies delivered to women diagnosed with HIV infection since 2011 have tested negative for HIV following antiretroviral therapy for the mothers and nevirapine therapy for the infants.

- In support of the Global Polio Endgame Strategy, the immunization programme introduced IPV in July 2015 for the third polio vaccine dose and switched to the bivalent oral polio vaccine.

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**BOX 18. PROGRESS IN SELECTED REGIONAL FLAGSHIP PRIORITIES**

**MEASLES ELIMINATION AND RUBELLA CONTROL**

Sri Lanka continues to achieve high coverage of MR vaccine (99%) through the routine immunization programme. As a step towards achieving the goal of measles elimination by 2020, the terms of reference and membership of the national committee for certification of polio eradication have been expanded to enable it to undertake verification for measles-rubella.

**ELIMINATION OF NEGLECTED TROPICAL DISEASES**

Sri Lanka achieved elimination status for lymphatic filariasis (microfilaria rate of <1%). The country eliminated leprosy as a public health problem at national level more than a decade ago.

**BUILDING CAPACITY TO PREVENT AND COMBAT ANTIMICROBIAL RESISTANCE**

In 2015 the Ministry of Health created a National Steering Committee on Antimicrobial Resistance to oversee coordination between relevant units within the ministry and other entities and sectors that are working on or have an impact on AMR. This includes agriculture and animal health, medical professional associations, and academic and research institutions. The ministry also organized a national AMR workshop to strengthen the capacities of national AMR focal points (laboratory directors) and to develop an AMR action plan.

**Figure 9. Proportional mortality in Sri Lanka (% of total deaths, all ages, both sexes), 2014**

- Cardiovascular diseases: 40%
- Injuries: 14%
- Communicable, maternal, perinatal and nutritional conditions: 11%
- Chronic respiratory diseases: 8%
- Cancers: 10%
- Other NCDs: 10%
- Diabetes: 7%

Total deaths: 138,000
NCDs are estimated to account for 75% of total deaths
MAJOR HEALTH CHALLENGES

The disease burden of noncommunicable diseases continues to grow in Sri Lanka relative to the burden of communicable diseases. NCDs now account for 75% of the total deaths; with cardiovascular disease (40%), cancers (10%) and chronic respiratory diseases (8%) being the three leading causes. Premature mortality due to NCDs is most prominent in men, who die from NCDs at nearly double the rate of women (=30 000 deaths per year vs. =15 000 among women).57 Mental illnesses, chronic kidney diseases of unknown etiology (CKDu) within the farming community and diabetes – now prevalent in 8% of adults – are also important causes of morbidity and mortality.58 Factors contributing to the growing NCD burden, which affects both affluent and non-affluent communities, include rapid urbanization and lifestyle changes. This is reflected in a smoking rate among men of 31%, a prevalence of overweight of 26% in adults, and a hypertension rate among adults of 28%.59

While Sri Lanka has an extensive infrastructure of public sector health facilities, there are considerable pressures on the health-care system to expand and improve services. The growth in NCDs has created a need for primary health-care facilities – traditionally focused on maternal and child health and treatment of infectious diseases – to increase their capacity to screen for, diagnose and appropriately treat NCDs. Greater longevity – life expectancy at birth has increased from 68 years in 1980 to 76 in 2014 and is nearly 80 years for women60 – has added to the NCD burden and created additional demands on the health-care system to meet the needs of an ageing population. In addition, the public now demands a higher quality of health-care services as people are exposed to newer, more advanced health care with the proliferation of private health-care institutions and access to the Internet.

The shift in health care needs has contributed to shortages of specialists in the public sector in such critical areas as psychiatry, geriatrics, palliative care and ophthalmology, especially in rural areas. There are also issues in retaining health professionals in underserved areas and in recruiting them to work in primary health care vs. hospital settings. This has led to inadequate primary care services in some parts of the country, and has contributed to the public increasingly seeking health care in the growing private health sector. As a result, the out-of-pocket payments for health care now account for almost 50% of total health expenditures, placing a financial burden especially on the poor. Reforms are, therefore, needed to reduce inequities in health-care access, improve the quality of care, and build a system geared towards the needs and expectations of the public.

Sri Lanka also faces challenges in eliminating or further controlling vaccine-preventable and other infectious diseases. A recent measles outbreak causing more than

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57 WHO NCD country profile for Sri Lanka: http://www.who.int/nmh/countries/lka_en.pdf?ua=1
59 WHO Diabetes country profile and NCD country profile.
60 Index Mundi (at: http://www.indexmundi.com/sri_lanka/life_expectancy_at_birth.html).
6000 cases was a setback to the goal of eliminating the disease by 2020. However, the number of cases declined dramatically in the first few months of 2016. A review in 2015 of the EPI and vaccine-preventable disease (VPD) surveillance has recommended steps to strengthen case-based surveillance supported by laboratory diagnosis, and to improve the linking of laboratory and epidemiological data as well as increase oversight of private sector vaccination. These improvements must be made at the same time now that the government is assuming nearly all of the financing for the immunization programme, including for new costly vaccines such as HPV, since Sri Lanka graduated from GAVI support.

The country is also very vulnerable to natural disasters, notably landslides and floods, as well as to the effects of climate change. These climate effects may include an increase in the magnitude and frequency of outbreaks of diseases such as dengue and leptospirosis.

ADDRESSING KEY HEALTH CHALLENGES
ACCELERATING A MULTISECTORAL, COORDINATED RESPONSE TO NONCOMMUNICABLE DISEASES

A Joint Mission of the UN Inter-Agency Task Force on the Prevention and Control of NCDs took place in October 2015 in Sri Lanka to increase awareness of and support for NCD prevention and control in the country and to review its efforts to curb these diseases. Following the mission, Sri Lanka was selected by WHO as one of the “fast-track” countries to receive coordinated and sustained technical support from all three levels of WHO (headquarters at Geneva, regional and the country office) to finalize and implement the country’s Multisectoral Action Plan for NCDs.

The government, with WHO, the World Bank, other UN partners and civil society, carried out a detailed costing of its NCD action plan and identified activities
to prioritize. The finalized national action plan was launched on World Health Day on 7 April 2016. WHO will continue to provide support to the government in implementing the plan to address key risk factors and to strengthen the capacity of health systems to prevent and control NCDs.

WHO continues to support the country’s implementation of the WHO Package of Essential NCD (PEN) interventions, which began in 2009 to strengthen preventive and treatment services for NCDs at the primary health-care level. Sri Lanka has adopted a unique model of providing NCD services (e.g., screening and diagnosis, health education, one-on-one counselling, and disease management) through a network of nearly 700 “healthy lifestyle clinics”, which are standalone, NCD-specific clinics to which patients are referred.

DEVELOPING A MODEL PROGRAMME TO COMBAT ALCOHOL-RELATED HARM

The Ministry of Health, with the National Authority on Tobacco and Alcohol and WHO, launched a comprehensive pilot Alcohol Prevention Programme in the Kilinochchi district in northern Sri Lanka in October 2015 to serve as a potential model for the rest of the country. This innovative community-based programme incorporates case detection and referral (using a team dedicated to alcohol preventive activities that monitors family issues in each community), motivational support for clients undergoing detoxification and their families, clinical management at the primary-care level, and rehabilitative care at a regional alcohol rehabilitation centre. The rehabilitation programme uses a family-oriented approach and a buddy system to provide intensive support to clients following detoxification as well as monthly follow-up visits. It is also establishing an occupational centre to help clients develop life-skills.

BUILDING NATIONAL CAPACITY FOR EVIDENCE-BASED HEALTH PLANNING

The MoH, with WHO and other partners, is undertaking a thorough, evidence-based process to develop its new Health Master Plan for the next 10 years (2017–2026). A key step in this process has been the development of national capacity to conduct health economic analysis by creating a Health Economics Cell within the MoH, with technical assistance and training from WHO. The new unit has completed the National Health Accounts (NHAs) for 2013 and is in the process of producing NHAs for 2014 and 2015, making Sri Lanka one of only two countries in the Region with in-house capacity to produce NHAs.

These reports can inform the next Master Health Plan by providing solid evidence of how much the country is spending for health care; how the funds are distributed – by health programme, by hospital vs. primary health care, by public vs. private sector providers – and what percentage of health spending is funded by the government, external donors, and patients through out-of-pocket payments. The results can be used to show to what extent the distribution of health funding by programme and sector (public vs. private) match government priorities and policies, which programmes need additional funding, and how public funds can be reallocated to better meet the government’s goals and priorities.

Cost-benefit analysis of different health interventions – using the Health Intervention and Technology Assessment (HITA) methodology – is another activity being undertaken by the government to inform health policy (see box). In addition, WHO is assisting the MoH in conducting a review of different aspects of the health system and identifying gaps to meet universal health coverage targets, and in developing a national strategic health policy framework to outline the vision and policy direction for the Health Master Plan.
**BOX 19. USING HEALTH INTERVENTION AND TECHNOLOGY ASSESSMENT (HITA) TO INFORM HEALTH POLICIES AND PROGRAMMES**

The Sri Lankan government has embarked on a series of cost-benefit analyses to inform decision-making about different health interventions, based on the WHO-developed Health Intervention and Technology Assessment (HITA) tool and methodology that has been used most prominently in Thailand. With technical support and training from a team of Thai experts and SEARO, the research team from the National Alcohol and Tobacco Authority (NATA) calculated the direct and indirect costs of alcohol and tobacco use to health, society and the economy. The results showed that in 2014, the direct and indirect costs of tobacco and alcohol-related cancers alone were US$ 96 million and $48 million, respectively. They also showed that the overall costs were more than the taxes collected from the sale of alcohol and tobacco. The research team will next be conducting cost-benefit studies on injuries related to alcohol consumption and on alcohol- and tobacco-related morbidities treated in out-patient settings.

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**ADDRESSING HUMAN RESOURCES FOR HEALTH NEEDS**

Following the establishment of a Human Resources Coordinating Committee in 2014, the MoH held a national meeting in 2015 to discuss human resource-related issues and identify priorities for interventions in areas related to transformative education and the retention of health workers in rural areas.

**IMPROVING SURVEILLANCE FOR CHILDBIRTH-RELATED EVENTS**

WHO has assisted the MoH in developing two new surveillance systems to better report, prevent and/or respond to adverse events related to childbirth. A system for conducting maternal “near-miss inquiries” – based on the airline industry’s method for investigating near-miss incidents – is being pilot-tested in one province, with plans for a nationwide rollout in 2016. This system involves a vigorous review – using WHO guidelines and protocols – of all women who nearly died but survived a complication that occurred during pregnancy, childbirth or following a termination of pregnancy. A web-based Birth Defect Surveillance System to better monitor the prevalence and trends in birth defects is being pilot-tested in 11 hospitals in one province, with technical assistance and equipment...
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provided by WHO. This system allows the Family Health Bureau to access information on the approximately 6000 children born each year directly from hospital wards, including private hospitals. With the advent of the Zika epidemic in the Americas, the birth defect surveillance system has been reviewed and microcephaly surveillance is now being conducted throughout the country. A national action plan on birth defect prevention has also been developed with WHO support.

STRENGTHENING NATIONAL PREPAREDNESS AND RESPONSE TO NATURAL DISASTERS AND EMERGENCIES

Following the 2004 Tsunami, Sri Lanka was the first country in the South-East Asia Region to develop its own Public Health Emergency and Disaster Management (PHEDMa) training course for health professionals. In 2015 a new curriculum covering the latest practices and skills in health emergency management was introduced and the 10th annual course was held, which included participants from Maldives, Indonesia and Thailand. The programme also held its first national PHEDMa refresher training course. In addition, the government is updating its National Strategic Plan for Health Sector Disaster and Emergency Preparedness and Response, with WHO’s Safe Hospital Initiative as one of its priority areas. WHO supported a review of and training for the Safe Hospital Initiative and is helping with the development of a strategic framework to strengthen this programme, which is aimed at ensuring that hospitals can remain functional – with water, power, transportation and other systems running – during natural or man-made disasters.
In 2015 Thailand’s Ministry of Public Health (MoPH) began to work on a new National Health Plan for 2017–2021. Work also progressed on the development of a new UN Partnership Framework and National Economic and Social Development Plan, as well as a new Country Cooperation Strategy (CCS) between the Royal Thai Government and the World Health Organization. The development of these plans, all covering the period of 2017–2021, provides an opportunity to ensure that their strategic objectives are aligned with each other, as well as with the new Sustainable Development Goals.

These planning activities are moving ahead against the backdrop of the development of a new national Constitution and a roadmap towards national elections in 2017. Another significant event in 2015 was the establishment of the ASEAN Economic Community – an effort to create an integrated economy and single market among ASEAN countries – that is expected to increase the movement of people across borders.

WHO’s work in Thailand focuses on a number of priority areas agreed to with the Royal Thai Government. The current CCS covers six priorities: i) building networks for implementing the integrated control of noncommunicable diseases (NCDs); ii) improving the effectiveness of the national road safety programme through multisectoral and international collaboration; iii) addressing border and migrant health issues; iv) strengthening national capacity and coordination in disaster management; v) addressing the health needs of an ageing population; and vi) building national capacity in negotiations regarding trade and health.
MAJOR HEALTH MILESTONES ACHIEVED

• Thailand successfully contained the importation of the Middle Eastern Respiratory Syndrome-Coronavirus (MERS-CoV) in 2015 by rapidly diagnosing and treating the first laboratory-confirmed case in the country and immediately tracing and monitoring all 176 of the individual’s contacts.

• The Thai Cabinet approved a new Tobacco Products Control Act, which is pending approval from the Legislature. This comprehensive law will limit where tobacco products can be sold and consumed, strengthen regulation on tobacco product package, ban advertising, and reduce the exposure of non-smokers to second-hand smoke by limiting areas where people are allowed to smoke.

• The MoPH conducted an external review of its National Malaria Programme, with support from WHO. The review’s recommendations have been incorporated into the National Malaria Elimination Strategy (2017–2026). In response to the multidrug resistance situation in Thailand and in the Greater Mekong Subregion, the national malaria treatment guidelines have been updated and a new first-line artemisinin-based combination therapy (ACT) will be introduced in 2016.

• WHO launched a five-year Road Safety Initiative, funded by Bloomberg Philanthropies, to strengthen road safety legislation and improve road safety measures such as prevention of drinking and driving and promotion of use of seat-belts and child safety seats.

• In line with the Global Polio “Endgame” Strategic Plan 2013–2018, IPV was introduced into the national EPI programme for children at four months of age.

• Thailand finalized a National Strategic Plan on Public Health and Climate Change (2015–2020) to serve as a national framework to address health-related consequences of climate change. These include increasing temperatures, changes in rainfall (leading to more frequent flooding), increases in the frequency and intensity of extreme events, and rising sea levels – all of which may affect the transmission of some important infectious diseases. The strategic plan focuses on strengthening key health system functions to mitigate or avoid the negative effects of climate change62 (see figure 10).

MAJOR HEALTH CHALLENGES

Thailand has a double burden of communicable and noncommunicable diseases. Among the top 10 causes of morbidity and mortality, nine are noncommunicable diseases. These diseases make up an estimated 71% of total deaths, including cardiovascular disease (29%), cancers (17%), chronic respiratory disease (9%) and diabetes (4%). Injuries – most of them from traffic accidents63 – account for approximately another 11% of all deaths. Thailand has, in fact, the second highest death rate from traffic accidents in the world– estimated at 36.2 per 100 000 population – and by far the highest rate in the South-East Asia Region. Also contributing

**BOX 20. PROGRESS IN SELECTED REGIONAL FLAGSHIP PRIORITIES**

**MEASLES ELIMINATION AND RUBELLA CONTROL:** The number of measles and rubella cases has significantly decreased from 1056 and 152 in 2014 to 301 and 24 cases in 2015, respectively.61 Based on epidemiological data showing that 40% of reported measles cases in prior years occurred in children less than seven years old, the age at which the second dose of MCV was administered was lowered from seven (or grade 1 in school) to two-and-a-half years. To further close the gap, a national MMR vaccination campaign targeting 3 million children aged 2.5–7 years was launched from May to September 2015. Efforts to make MCV coverage data available at a subnational level are being pursued to guide targeted interventions that will enable Thailand to achieve measles elimination by 2020.

**ELIMINATION OF NEGLECTED TROPICAL DISEASES:** With the goal of eliminating lymphatic filariasis in Thailand, the MoPH completed its second transmission assessment survey in the only province (Narathiwat) where the disease may still be endemic.

**BUILDING CAPACITY TO PREVENT AND COMBAT ANTIMICROBIAL RESISTANCE:** The Thai Food and Drug Administration (Thai FDA) developed a national plan to combat AMR, which covers laboratory surveillance, infection prevention and control, rational drug use, research and antibiotic use in animals. The plan is closely aligned with the objectives of the WHO Global Action Plan for AMR. In addition to the Thai FDA, responsible agencies include the departments of Disease Control, Medical Sciences and Medical Services in the Ministry of Public Health and the Ministry of Agriculture and Cooperatives.

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61 Thailand JRF reports for 2014 and 2015.

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Figure 10. Health Systems Functions to mitigate negative effects of Climate Change, a schematic diagram

to NCDs is the country’s relatively high smoking rate among men (39%), including male youths (25.5%), and high consumption levels of alcohol among men.64

While Thailand has achieved reductions in maternal and child mortality and morbidity to levels rivalling those of developed countries, and has significantly reduced incidence and deaths from communicable diseases in the past two decades, several of these diseases still account for a substantial disease burden in the country. Thailand is among the 22 highest-burden countries for tuberculosis, with an estimated prevalence rate (in 2014) of 236/100 000 and incidence of 171/100 000, 13% of which is among persons who are HIV-positive.65

The number of malaria cases has been reduced from approximately 150 000 in 2000 to only 37 921 cases in 2014. As a result, only 8% of the population now live in high-transmission areas, while 50% live in malaria-free zones.66 The emergence of artemisinin-resistant malaria and the increase in cross-border movements of people from malaria-endemic countries to Thailand pose challenges to the country meeting its goal of eliminating the disease by 2025.

While the incidence of measles is coming down rapidly, there remains a risk of periodic outbreaks due to population movements in and out of the country, which could increase with the establishment of the ASEAN Economic Community and pose a challenge to the country meeting its goal of eliminating measles by 2020. Therefore, ensuring the availability of data on measles vaccination at the subnational level to identify gaps in coverage will be important in 2016 and beyond. It will also be critical to strengthen

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63 Source: WHO NCD profile for Thailand. http://apps.who.int/iris/bitstream/10665/128038/1/9789241507509_eng.pdf?ua=1
67 WHO estimates for 2014: http://apps.who.int/nha/database/ViewData/Indicators/en

Innovative insurance schemes have helped achieve universal health coverage
collaboration with neighbouring countries for timely information-sharing and enhanced surveillance of vaccine-preventable diseases, including measles.

Thailand has achieved universal health coverage (UHC) through the establishment in 2002 of three public insurance schemes that together now cover 99% of the population. UHC has resulted in an increase in the proportion of total health expenditures paid by the government to 86% and a decline in out-of-pocket expenditures to only 7.9% of health spending—the second lowest in the Region. The incidence of catastrophic health expenditures due to medical expenses has now declined to very low levels. However, the country faces a challenge in keeping universal health coverage sustainable, especially with the rapidly ageing population and rise in NCDs. It also faces a challenge in extending health coverage to the estimated 2–4 million non-Thai migrants living in the country. Thailand’s rapidly ageing population—with 15% currently over 60 years, and projected to grow to 30% by 2032—along with its policy of decentralization create potential geographical inequities in access to integrated health and social care services for the elderly.

**ADDRESSING KEY HEALTH CHALLENGES**

**CONTROLLING NONCOMMUNICABLE DISEASES**

WHO is working with the International Health Policy Program (IHPP), a research group within the MoPH, on the “NCD Net” project. This is a multipartner project designed to achieve the “Thai Healthy Lifestyle Policy” goals by focusing on preventative and health promotion measures to reduce the risk of NCDs. In 2015, the NCD Net project supported a series of activities related to tobacco control, including a new Global Youth Tobacco Survey and Global School Health Survey, an expert consultation to explore alternative livelihoods for tobacco farmers and workers to meet the obligations of the WHO FCTC, and a literature review on tobacco industry strategies in Asia to understand how best to develop measures to counteract these strategies. Other project activities included a study of the implementation of government policies

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68 Situation of Thai Elderly 2013, DoH, MoPH, Thailand
BOX 21. THE GLOBAL ROAD SAFETY INITIATIVE IN THAILAND

In February 2015 the Government of Thailand was selected through a competition by the Bloomberg Philanthropies to participate in its Global Road Safety Initiative. The initiative in Thailand, led by WHO, is providing technical assistance and funding over five years (2015–2019) to strengthen national road safety legislation and implement road safety interventions (e.g., helmet use for motorcyclists, seat-belt use, speed reduction measures, and drinking and driving prevention) in the city of Bangkok.

To improve information on road accident-related deaths, the National Road Safety Data Management System was upgraded with new software to enable it to integrate traffic fatality data from several sources, including the MoPH, the Royal Police and a major insurance company. The system was pilot-tested in 2015 and is set for nationwide roll-out in 2016. The Road Safety Initiative also conducted training courses for multidisciplinary Surveillance Rapid Response Teams in 20 localities across Thailand to strengthen their ability to investigate traffic injuries. This led to revised traffic accident investigation guidelines and new recommendations for community measures and traffic checkpoints.

To increase the media’s coverage of traffic accidents and better promote road safety to the public, a media coverage assessment was conducted and long-term fellowships starting 2016 were awarded to up to 10 journalists from leading media outlets in Thailand to improve their reporting skills on road safety.

The initiative also supported a pilot project in four provinces to promote the use of child restraints (e.g., child car seats) through provincial hospitals. With the aim of improving road safety laws and their enforcement, the initiative conducted an institutional and legal assessment to identify needed improvements, held a road safety advocacy and legal development workshop, and helped establish a working group that will undertake the groundwork for a formal legislative subcommittee to advocate for and propose more effective road safety laws.

and actions to create a healthy food environment and prevent obesity and diet-related NCDs; the piloting of a national curriculum for health-care workers to promote physical activity, based on the Thai Physical Activities Guidelines developed in 2014; and establishment of a national database of all NGOs working on NCD-related issues in Thailand.

ADDRESSING BORDER AND MIGRANT HEALTH ISSUES

Since 2011, the WHO Thailand Country Office has been implementing an EU-funded project, “Strengthening Health Security in Thailand by Improving the Health Status of Myanmar Refugees and Displaced Persons in Thailand”. Work on the project in 2015 included support to establish and scale up health information centres for migrants along the Thai-Myanmar border in Tak province, and helping to maintain a health information system operating in camps for displaced persons.
on the border. WHO also began a new Border and Migrant Health Programme with the MoPH’s Bureau of Policy and Strategy. The programme conducted a situation and knowledge gap analysis on health-care financing for migrants, the findings of which will be used to inform the development of a joint workplan for implementation in 2016. The programme also supported a competition for young adults to develop short films aimed at fostering a positive attitude towards migrants and displaced persons in Thailand, including support for the development of migrant-friendly health services. Eight winners took part in a study tour to Delhi, India, to broaden their outlook by learning and interacting with people from different cultures and to exchange views with youth groups in India working on social and health development issues.

STRENGTHENING NATIONAL CAPACITY AND COORDINATION IN DISASTER MANAGEMENT

The National Institute for Emergency Medicine (NIEM), working closely with the MoPH Bureau of Public Health Emergency Response and WHO, established a national Public Health Emergency Operation Centre within the Office of the Permanent Secretary of Health to facilitate coordination of the public health response to an emergency or disaster. The MoPH also developed health-care delivery and public health disaster preparedness and risk reduction plans for the health sector, along with standard operating procedures to coordinate responses between relevant health agencies. In addition, the NIEM adapted and piloted the global “Hospital Safety Index” measurement system as a step towards establishing a comprehensive national hospital safety programme. Hospital safety criteria will also be included in the national hospital accreditation process.

Following the successful identification and containment of the first imported case of MERS-CoV, the government took further steps to improve disease surveillance at points of entry and in health-care facilities; sensitize rapid response teams; and improve communication of appropriate messages about recognizing and responding to suspected MERS-CoV cases for communities, travellers and health-care workers. Ebola-related activities included a joint MoPH-WHO review of national Ebola preparedness, a joint WHO-MoPH workshop on risk communications for response to Ebola and other emerging infectious diseases, and a SEARO workshop on clinical management and infection prevention and control for Ebola.

ADDRESSING THE HEALTH NEEDS OF AN AGEING POPULATION

In 2015 the MoPH conducted an in-depth literature review and analysis on ageing as the first step to developing a national framework to address the health needs of the ageing Thai society. An analysis of the needs of the ageing population and the implications on health system planning and development will also inform the development of the next National Economic and Social Development Plan (2016–2022).

BUILDING NATIONAL CAPACITY IN NEGOTIATIONS REGARDING TRADE AND HEALTH

This initiative, managed by the MoPH’s International Health Policy Programme (IHPP) and WHO, aims to strengthen the country’s capacity to generate evidence on the impact of trade policies on health in order to improve its ability to conduct transparent and participatory trade negotiations that take health effects into consideration. Examples to illustrate this work include an analysis of the health consequences of Thailand joining the Trans-Pacific Trade (TPP) Agreement or finalizing the Thai-EU trade agreement, and an analysis of the potential impact on the health sector of the new ASEAN Economic Community.
This work can also help answer such questions as to whether it is legal for Thailand to mandate plain packaging of tobacco products, and what the impact would be on prices if the intellectual property rights for a drug or a biological material is extended to prevent generic drugmakers from entering the market for an additional number of years.

The initiative also supported a national conference on trade, investment and intellectual property as they relate to the health sector, which was attended by more than 100 participants from different ministries and universities in Thailand. A training workshop for staff from multiple ministries was also held on technical barriers to trade and how they can be used to curtail public health regulations on unhealthy products such as tobacco, alcohol and sugary drinks and food products.
The Prime Minister of the Democratic Republic of Timor-Leste, H.E. Dr Rui Maria de Araújo, is a medical doctor, health policy expert and former health minister who has personally become engaged in several of the new health initiatives launched by the government. The new government continues to follow the policies in the National Strategic Development Plan (2011–2030) and the accompanying National Health Sector Strategic Plan, which lays out a vision for improving the State’s ability to provide free universal health coverage through a decentralized primary health care system as is enshrined in the country’s Constitution.

During his swearing-in ceremony in February 2015, the Prime Minister summarized the challenges facing Timor-Leste’s health sector: “Having been trained as a doctor, I am familiar with the conditions in which health professionals work in Timor-Leste … often having to contend with a lack of equipment, hygiene and infrastructure. We cannot have medicine stored in a warehouse instead of in hospitals and health clinics. It is unacceptable not to have materials for surgery or to carry out X-ray examinations because those materials have not been purchased on time or are waiting for authorization.”

Timor-Leste is a lower middle-income country with a gross national per capita income (2014) of US$ 2680. Economic growth has been strong, averaging more than 10% per year since 2007, with the petroleum sector contributing almost 80% of GDP and more than 90% of government revenue. The new government has initiated a number of ambitious health programmes, not the least of which is an initiative to provide a comprehensive package of community-based primary health-care services to all its people.

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69 World Bank http://data.worldbank.org/country/timor-leste#cp_wdi
70 Democratic Republic of Timor-Leste 2013 Development Partners’ Meeting Background Paper, op.cit.
MAJOR HEALTH MILESTONES ACHIEVED

A national primary health-care programme and comprehensive service package was launched to provide community- and home-based primary health care to the population, modelled on the Cuban primary health-care system (see box).

“The WHO Regional Office for South-East Asia presented to H.E. Mr. Kay Rala Xanana Gusmão the Award for Excellence in Public Health in 2015 at the Sixty-eighth session of the WHO Regional Committee for South-East Asia held in Dili in September 2015, one of the largest international meeting ever held in the country. The SEAR Award for Excellence in Public Health was given to HE Mr. Kay Rala Xanana Gusmão in recognition for his vision for strengthening the national healthcare system to provide universal health care. The award cited the country’s progress in building its health workforce, especially its corps of public sector physicians, which has increased nine-fold in six years.”

The country achieved the Millennium Development Goal 4 by reducing mortality in under-five children by more than two thirds (from 172 per 1000 live births in 1990 to 55/1000 in 2013) and infant mortality from 130/1000 in 1990 to 46/1000 in 2013.72 The national immunization programme was also substantially expanded with the addition of five vaccines into the routine immunization schedule.

The government made significant progress in controlling tobacco use through a year-long, multifaceted anti-tobacco campaign with the strong participation of top government officials. These measures also culminated in comprehensive tobacco control legislation enacted in December 2015.

Timor-Leste has maintained a low incidence rate of malaria – which declined by more than 75% from 2000 to 2014 – and is set to enter the “pre-elimination phase” by 2018.

BOX 22. PROGRESS IN SELECTED REGIONAL FLAGSHIP PRIORITIES

MEASLES ELIMINATION AND RUBELLA CONTROL

The EPI added rubella vaccine to the infant immunization schedule (by replacing measles with measles-rubella vaccination at nine months). It also conducted a national MR/OPV vaccination campaign in July and August 2015 for children aged between nine months and 15 years, during which more than 484 000 children received the MR vaccine. Case-based MR surveillance was established and the capacity of the national laboratory to conduct serological testing for measles and rubella was strengthened, with WHO support, though training and the provision of equipment and reagents.

ELIMINATION OF NEGLECTED TROPICAL DISEASES

The Ministry of Health (MoH) is committed to eliminating these diseases by 2020, and has launched a nationwide programme of mass drug administration (MDA) for lymphatic filariasis (LF), yaws and soil-transmitted helminths (STH) with support from WHO. Support also continued for the country’s leprosy programme, which is focused on eliminating the disease in the two municipalities where leprosy is still endemic.

BUILDING CAPACITY TO COMBAT ANTIMICROBIAL RESISTANCE

The Ministry of Health named a national AMR focal point in 2015; conducted training workshops for 160 clinical and laboratory personnel on the rational use of antibiotics; and translated and distributed WHO technical, advocacy and educational materials regarding antimicrobial resistance.
**MAJOR HEALTH CHALLENGES**

With 70% of its population living in small, dispersed villages isolated by mountainous terrain and a poor road network, reaching health-care services to the population remains a formidable challenge in many areas. This problem is reflected in continual high maternal mortality rates, which range by area from 140 to 500 deaths per 100,000.\(^{73}\) It is also reflected in the fact that only 1.1% of women aged 30–49 years have ever had a screening test for cervical cancer.\(^{74}\) In addition, health services are lacking for persons with disabilities, including those living with mental illness.

Timor-Leste continues to have a high burden of communicable and vector-borne diseases. It has one of the highest tuberculosis incidence rates—498 per 100,000 population—in the South-East Asia Region.\(^{75}\) Although classified as a low-prevalence country for HIV/AIDS, rates of sexually-transmitted diseases overall remain high, including in 10% of female sex workers and 16% of clients of sex workers.\(^{76}\)

Neglected tropical diseases, including lymphatic filariasis, yaws and soil-transmitted helminths (STHs), also persist throughout the country, with LF prevalence at 17.5% and 29% of children having STHs.\(^{77}\) Although the national incidence of leprosy is now below the threshold used to define elimination status (<1/10,000), the disease remains endemic in two municipalities (Dili and Oe-cusse). Dengue outbreaks are also a major public health concern, occurring every year from January to March.

The country’s children also continue to suffer from high rates of malnutrition. According to the Timor-Leste Food and Nutrition Survey report published in 2015, 38% of children under five years of age are underweight, and rates of stunting (50.2%) and wasting (11%) in these children are the highest in the Region.\(^{78}\) Micronutrient deficiencies—including iron, vitamin A and iodine—are also common in young children, and 63% of 6–59 month-olds have anaemia.

And while trends show improvement, malnutrition among women remains a serious concern, with 39% having anaemia.

Adding to the continual burden from communicable diseases are noncommunicable diseases such as cardiovascular disease and cancers, which now account for 44% of all deaths.\(^{79}\) The recently-published NCD STEPS Survey revealed a high prevalence of NCD risk factors, significant gaps in the provision of NCD health care, and the need to strengthen health promotion for NCDs. About 70% of men aged 18–69 years use some form of tobacco—one of the highest rates in the world—as do 29% of women. Similarly, the prevalence among Timor-Leste youth was highest in the Region, with 61.4% boys and 15.4% girls aged 13–15 years.

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\(^{74}\) STEPS Survey 2014 (do link)

\(^{75}\) World Tuberculosis Report 2015, World Health Organization


\(^{77}\) National Parasite Survey 2012


\(^{79}\) WHO NCD Profile (do link).
Nearly 90% of adults are exposed to second-hand smoke in homes and 51% in workplaces. The survey also revealed a large gap between recommended and actual consumption of fruits and vegetables, with only 23% consuming the recommended five or more servings per day.

Timor-Leste is also highly vulnerable to natural disasters such as cyclones, earthquakes and the consequences of rising sea levels, and has limited coping and adaptive capacities to mitigate the impact of these potential disasters. As a result, the World Risk Report 2014 rated Timor-Leste the 11th most-at-risk country in the world.

ADDRESSING KEY HEALTH CHALLENGES

EXPANDING AND ACCELERATING THE CONTROL OF VACCINE-PREVENTABLE DISEASES

In 2015, five new vaccinations were added to the routine immunization schedule, with considerable support from WHO. These are measles-rubella (MR) at nine months of age, IPV for the third polio vaccine dose, a birth dose of hepatitis B, and booster doses of DPT at 18 months and DT at six years of age. The capacity of the EPI was strengthened in several other respects. These include the establishment of the country’s first National Immunization Technical Advisory Group (NITAG) to guide immunization policy decisions; implementation of a hospital-based study of rotavirus to inform future decisions about rotavirus vaccine use; and a study tour organized by WHO for 15 central- and district-level immunization officers to Sri Lanka to learn from its experience in sustaining high immunization coverage. (Timor-Leste’s coverage rates remain stagnant at 77% for the third dose of DPT-hepB-Hib among 12–23-month-olds and 57% for fully-immunized children).

With WHO technical support, the Ministry of Health launched a computerized system to monitor coverage rates in real time during the recent MR/OPV vaccination campaign. The system – into which municipal health offices enter raw immunization data each day during the campaign – enabled MoH officials at all levels, as well as the Prime Minister’s Office, to monitor coverage on a daily basis and to take immediate corrective action in areas experiencing problems. Establishment of this system contributed to the campaign’s coverage rate of more than 96% for both OPV and MR vaccines. The software was developed through a collaborative effort between the Ministry of Health and the Who Regional Office and Country Office.

EXPANDING THE PUBLIC HEALTH INFRASTRUCTURE AND HUMAN RESOURCES TO SUPPORT PRIMARY HEALTH CARE

The new community-based PHC programme would not be possible without the steady growth in the reconstruction of health centres and posts in the country in the past 10 years. There are now 309 health posts – one for every 1500–2000 people – and 69 community health centres (each with 10–15 beds), or one for every 15 000–20 000 people. At the

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80 World Risk Report 2014 (link).
Figure 12. Screen shot of real-time vaccination coverage data monitoring system

BOX 23. BRINGING HEALTH-CARE SERVICES TO THE DOORSTEP: PRIMARY HEALTH CARE PROGRAMME (SAUDE NA FAMILIA)

In April 2015, the Ministry of Health embarked on an ambitious national programme to bring a “Comprehensive Service Package for Primary Health Care” to the community and even to the household level. In this innovative outreach programme—modelled on the Cuban primary health-care system—teams of doctors and nurse-midwives working out of health centres and posts initially visit all families throughout the country in both rural and urban areas to register them and assess the health status of each member. The teams assess the environmental conditions of the home, perform medical histories and physicals, provide antenatal care for pregnant women, identify and refer people requiring further care to a health facility, and provide health education and promotion services. Families are thereafter visited once a month. The government aims to have all families visited and registered by the end of 2016.

The programme—developed in collaboration with the Cuban Medical Brigade, WHO, UNICEF, the World Bank and several other development partners—is based on the principle of equal justice and underscores the responsibility of the government to guarantee health care for all its citizens. By bringing primary health care directly to the people and identifying those requiring follow-up care, Saúde na Família, once fully implemented, should have a significant impact on reducing maternal and child mortality, getting people with communicable and noncommunicable diseases on to treatment, and improving the overall health status of the population. WHO’s support includes providing technical assistance in developing the service package, domiciliary visit guidelines and the domiciliary visit register, technical and financial support (through the EU-WHO UHC Partnership) to train health professionals in conducting home visits, and financial support to procure basic PHC equipment for health centres and posts throughout the country.
same time the country has built up a corps of primary care physicians. They have received medical school training in collaboration with the Cuban government, both in Cuba and recently at the University of Timor-Leste Medical School. From an initial corps of 100 local doctors working in the public sector in 2009, the corps has grown to 900 with the eventual goal of having 1000 in its ranks.

STRENGTHENING DISEASE SURVEILLANCE AND RESPONSE TO NEW INFECTIOUS DISEASE THREATS

A series of trainings, development of guidelines and other activities took place in 2015, with WHO support, to enable Timor-Leste to detect and respond effectively to disease outbreaks, including diseases that could potentially be imported from overseas such as Ebola and MERS-CoV. Case-management guidelines were developed for Ebola and MERS-CoV. Trainings were conducted on the Early Warning Alert and Response System (EWARS) for surveillance officers and healthcare workers; on outbreak investigation and response (for surveillance officers from community health centres); and on infection protection and control (IPC) in healthcare settings. Health workers also received training on Ebola preparedness and response, which included simulation exercises, training on the Ebola case-management guidelines, and an Ebola media workshop.

In parallel, the government established surveillance for severe acute respiratory infection (SARI) at the country’s main referral hospital (Hospital Nacional Guido Valadares, or HNGV), as well as influenza-like illness surveillance in five community health centres in Dili. To meet the IHR (2005) requirements by 2016, WHO assisted the government to develop an IHR Plan of Action, conduct an assessment of IHR Core Capacity at designated points of entry, and draft a Public Health Emergency Contingency Plan for the points of entry. Finally, with support from WHO as the lead agency for emergency risk management, simulation exercises were conducted in Dili to better prepare the

**BOX 24. ACTIVE INVOLVEMENT OF THE PRIME MINISTER IN MAJOR HEALTH INITIATIVES**

Prime Minister H.E. Dr Rui Maria de Araújo, has played a key role in advocating for and participating in many of the nation’s new health initiatives, and in enhancing their visibility and chances of success. He officially launched both the Comprehensive Service Package for PHC programme and the MR-OPV vaccination campaign, administering the first vaccination himself. He also played a major role in promoting the vaccination, routine immunization and anti-tobacco campaigns by recording messages that were broadly disseminated through broadcast and social media, and billboards and the print media.
country to respond to natural disasters such as floods and earthquakes.

ADDRESSING NCDs AND THE COUNTRY'S HIGH SMOKING RATES

The country’s first survey of NCD risk factors was conducted in 2014 and the report published in 2015. 2015 also saw the implementation of an intensive anti-tobacco campaign, which was a multi-media initiative supported by stakeholders ranging from a Parliamentary committee to health professional associations, several government ministries (including education, finance and social solidarity), the Secretary of State for Youth and Sport (SSYS), NGOs and health development partners. The campaign involved a heavily publicized media launch in January 2015, a month-long advertising blitz using TV, radio and print media, the recruitment of medical and other allied health students to serve as advocates and peer educators; and the strong participation of political leaders, including the Prime Minister, in delivering anti-smoking messages.

Smoking in government offices was banned in July 2015 and the UN complex was declared a tobacco-free zone. Comprehensive tobacco legislation was passed by the government in December 2015. The legislation bans smoking in public places, establishes smoke-free zones, imposes taxes on tobacco products, requires warning labels on cigarette packages, and bans tobacco advertising and sponsorships. WHO played a major support role in its advocacy, in developing the media campaign and evidence-based messages, and supporting the drafting of the tobacco control legislation.

DEVELOPMENT OF HEALTH POLICIES AND STRATEGIES

The MoH launched a National Nutrition Strategy to address the continual problem of malnutrition and micronutrient deficiencies in children and women. It also developed, with WHO support, the following: a National Strategy Plan for TB (2015–2020), in line with the global End TB Strategy; a National Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) Strategy (in collaboration with UNICEF and UNFPA); a comprehensive hepatitis prevention, control and treatment strategy; a National Mental Health Strategy; a Ten-Year Strategic Development Plan for Hospital Nacional Guido Valadares; and a National Strategy for Environmental Health.

H.E. Rui Maria de Araújo, Prime Minister, highlights the value of vaccination through a media campaign
Delivering on the Regional Flagship Priorities and Beyond

On assuming office in February 2014, the Regional Director, Dr Poonam Khetrapal Singh, laid out four clear Strategic Directions to focus and prioritize the work of WHO in the Region. The principle behind this was to identify the most critical public health needs in the Region and maximize the return on investment into measurable and tangible results using the scarce resources available. Furthermore, the Strategic Directions not only identify regional priorities but also enable the work in the Region to align well with the global strategies set out in WHO’s Twelfth Global Programme of Work (GPW). The four Strategic Directions are:

1) addressing persistent and emerging epidemiological and demographic challenges;
2) advancing universal health coverage and robust health systems;
3) strengthening emergency risk management for sustainable development; and
4) articulating a strong regional voice in the global health agenda.

Despite narrowing down the focus to four key Strategic Directions, the issues requiring attention under each of these are many. Therefore, to further sharpen the focus, one or two key regional priorities were identified under each of the Strategic Directions, based on the need and feasibility of their being successfully implemented. A total of seven Flagship Priorities were identified.

The sections hereinafter provide a concise update on the progress made in each of these Flagship Priority areas.
THE FLAGSHIP PRIORITIES

1. Measles elimination and rubella control by 2020
2. Prevention of noncommunicable diseases through multisectoral policies and plans, with focus on ‘Best Buys’
3. The unfinished MDGs agenda: ending preventable maternal, newborn and child deaths with focus on neonatal deaths
4. Universal health coverage with focus on human resource for health and essential medicines
5. Building national capacity for preventing and combating antimicrobial resistance
6. Scaling up capacity development in emergency risk management in countries
7. Finishing the task of eliminating diseases on the verge of elimination (kala-azar, leprosy, lymphatic filariasis and yaws).
FLAGSHIP 1.

Measles elimination and rubella control by 2020

Significant progress has been made towards the goal of measles elimination and rubella/CRS control in the South-East Asia Region, with WHO playing the leadership role in providing technical support to Member States. A Strategic Plan for Measles Elimination and Rubella and Congenital Rubella Syndrome (CRS) Control in the South-East Asia Region: 2014–2020 has been developed and shared with Member States. Countries are now developing national plans for measles elimination and rubella control using the framework of the regional Strategic Plan.

A Regional Verification Commission for measles elimination was established in 2016 and national verification committees have been formed in all Member States with the exception of the Democratic People’s Republic of Korea. These committees will monitor and verify progress towards measles elimination and rubella control and will support the country in meeting these goals.

Towards that aim, WHO has been providing regular and robust support to Member States to improve routine immunization and thereby raise vaccination coverage, not only for the measles-containing vaccine but for all vaccines in national immunization programmes. Strengthening surveillance, including expanding and enhancing the quality of laboratories in Member States, is another key area of support that the Regional Office is providing.

The programme continues to provide support to strengthen routine immunization so that all countries can reach the optimal target of 95% coverage for both doses of measles.

BOX 25. NOTABLE ACHIEVEMENTS IN THE REGION IN MEASLES ELIMINATION AND RUBELLA/CRS CONTROL

The following milestones have been achieved in the Region:

• Two doses of measles-containing vaccine (MCV) have been introduced into the routine immunization programme in all Member States.

• Rubella-containing vaccine has been introduced in eight of the 11 Member States. In addition, India plans to introduce MR vaccine in 8–10 of the country’s 36 states and territories in 2016.

• About 83 million children up to the age of 15 were vaccinated against measles and rubella in Bangladesh, Myanmar, Nepal and Timor-Leste through nationwide campaigns with support from WHO and other partners in 2014–2015.

• Four countries have achieved the coverage target of 95% for two doses of measles-containing vaccine in 2015 (the Democratic People’s Republic of Korea, Maldives, Sri Lanka and Thailand), while another three are close to reaching this target (Bangladesh, Bhutan and Myanmar).

• The measles and rubella laboratory network has expanded from 23 in 2013 to 39 in 2015, with plans in place to expand it to 45 in 2016.

• Sentinel site surveillance for CRS was expanded to Indonesia, Maldives and Nepal in 2015, while India, Myanmar and Timor-Leste are in the process of establishing CRS surveillance. CRS surveillance is already taking place in Bangladesh, Bhutan, the Democratic People’s Republic of Korea, Sri Lanka and Thailand.
FLAGSHIP 2.

Prevention of noncommunicable diseases through multisectoral policies and plans, with a focus on ‘Best Buys’

Given the wide range of NCDs and their associated risk factors, it is not possible for any country to deal with all of them. Therefore, WHO identified key risks that would yield the best returns on investment to prevent and control NCDs. These risk factors are known as “best buys”. When the SEA Region developed its NCD Action Plan for 2013–2020, it set out 10 regional targets as shown in Table 1., with the overall goal of reducing NCD mortality by 25% in the Region by 2025. WHO’s support in key areas is summarized below.

HEALTH PROMOTION AND REDUCTION OF NCD RISK FACTORS

Tobacco use

The Dili Declaration on Tobacco Control was adopted at the Sixty-Seventh session of the Regional Committee for South-East Asia in September 2015, reflecting the high political commitment in the Region for accelerating implementation of the WHO Framework Convention on Tobacco Control (FCTC) and the accompanying MPOWER measures. WHO also facilitated many meetings and workshops at the national and regional levels on different types of tobacco control interventions, including ways to counter tobacco industry interference, regulating smokeless tobacco, stopping the illicit tobacco trade, taxation of tobacco products and seeking alternative livelihoods for tobacco farmers.

In collaboration with Member States, significant progress has been made to implement tobacco “Best Buys”. Laws mandating or expanding graphic warnings on cigarette packs were passed in Bangladesh (to cover 50% of the package), Nepal (increasing package coverage from 75% percent to 90%), India (increasing the size of the warning from 40% on the front of the pack to 85% on both sides), and Sri Lanka (increasing package coverage from 60% to 80%). In addition, smoke-free public spaces were expanded in the Democratic People’s Republic of Korea and Myanmar, and taxes on tobacco products were increased or simplified in Bangladesh and Sri Lanka.
**TABLE 1: REGIONAL TARGETS FOR THE PREVENTION AND CONTROL OF NCDs**

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>INDICATORS</th>
<th>TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OUTCOME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. NCDs mortality</td>
<td>Probability of dying between 30 to 70 years from four major NCDs</td>
<td>25% reduction</td>
</tr>
<tr>
<td><strong>BEHAVIOURAL RISKS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Tobacco use</td>
<td>Prevalence of tobacco use among 18+</td>
<td>30% reduction</td>
</tr>
<tr>
<td>3. Harmful use of alcohol</td>
<td>Total adult per capita consumption (15+)</td>
<td>10% reduction</td>
</tr>
<tr>
<td>4. Salt intake</td>
<td>Mean salt (sodium) intake per day among 18+</td>
<td>30% reduction</td>
</tr>
<tr>
<td>5. Physical inactivity</td>
<td>Prevalence of insufficient physical activity among 18+</td>
<td>10% reduction</td>
</tr>
<tr>
<td>6. Household air pollution</td>
<td>Proportion of households using solid fuels for cooking</td>
<td>50% reduction</td>
</tr>
<tr>
<td><strong>PHYSIOLOGICAL RISKS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Raised blood pressure</td>
<td>Prevalence of raised blood pressure among 18+</td>
<td>25% reduction</td>
</tr>
<tr>
<td>8. Diabetes and obesity</td>
<td>Prevalence of raised blood glucose/diabetes among 18+</td>
<td>No increase</td>
</tr>
<tr>
<td></td>
<td>Prevalence of overweight and obesity among 18+</td>
<td></td>
</tr>
<tr>
<td><strong>NATIONAL RESPONSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Therapy &amp; counselling</td>
<td>Proportion of eligible population receiving therapy &amp; counselling</td>
<td>50%</td>
</tr>
<tr>
<td>10. Medicine &amp; technology</td>
<td>Health facilities with essential medicines &amp; basic technologies</td>
<td>80%</td>
</tr>
</tbody>
</table>


**Harmful use of alcohol**

In line with the Regional Action Plan on NCD Prevention and Control and the Regional Action Plan and Strategy to Reduce the Harmful Use of Alcohol (endorsed by the Sixty-Seventh Regional Committee in 2014), many Member States have developed or revised their own policies or plans, including setting targets, to address alcohol problems in recent years. These include Bhutan, India and Sri Lanka. The Regional Office also supported the development of road safety laws in Bangladesh in 2015 which also includes drink-driving sections; similar support was also given to Sri Lanka for similar activity in the same year.

**Unhealthy diets**

The Region suffers a double burden of persistent under nutrition and a growing problem of overweight and obesity. The Ending Childhood Obesity (ECHO) Commission’s South-East Asia Regional Consultation, which was held in September 2015 in New Delhi, and the informal consultation of Member States that followed, advocated for early prevention of childhood obesity in the Region. Guidance on the compatibility of salt reduction with salt iodization have been published and disseminated to all countries, while technical support was provided to Indonesia for a sodium intake survey.
The Regional Office also worked closely with ASEAN and other international partners to develop a regional nutrition and healthy diet agenda. SEARO is preparing a Regional Nutrient Profile Model for all Member States to reduce unhealthy diets through implementing WHO’s set of recommendations on the marketing of foods and non-alcoholic beverages to children, food labelling and fiscal measures to promote healthy diet. Policy actions, with technical support from WHO, to reduce salt, sugar and fat consumption are currently underway in five Member States.

**Physical inactivity**

WHO has supported public campaigns and facilities to address physical inactivity in all population groups in Member States. The outdoor gym model has been shown to be an outstanding success in Bhutan. SEARO has advocated for the healthy city approach in urban development to promote physical activity, such as the “garden in the city” programme in Delhi and Pyongyang. Bangladesh conducted the global school-based health survey and designed programmes to address physical inactivity among children. The 15th year of WHO’s Global School Health Initiative commenced in South-East Asia in Bangkok in November 2015, wherein physical activity was renewed for all age groups and in schools. WHO is supporting Thailand in hosting the Sixth Congress of the International Society on Physical Activity and Public Health (ISPAH) to take place in November 2016.

**Household air pollution**

The Regional Office is committed to supporting Member States in addressing household air pollution as a key contributor to many NCDs. Household air pollution largely results from the use of biomass fuel (such as wood, crop waste and animal dung) as the primary source of energy for cooking. SEARO organized the SEA Regional Workshop on Air Quality and Health in New Delhi in December 2014 to raise awareness about and introduce the WHO Guidelines on Household Fuel Consumption, and discuss interventions at the country level to address household air pollution. The Regional Office also helped enhance national and regional efforts in implementing the World Health Assembly resolution on Health and the Environment: Addressing the Health Impact of Air Pollution (resolution WHA68.8) and related activities. A pilot training workshop was also conducted in Bhutan to develop and strengthen the national effort to tackle household air pollution.

**HEALTH SYSTEMS STRENGTHENING FOR EARLY DETECTION AND MANAGEMENT OF NCDs AND THEIR RISK FACTORS**

The Regional Office’s main intervention to strengthen the delivery of NCD services is through implementation of the WHO Package of Essential NCD interventions for Primary Health Care (PEN). PEN intervention has been launched, and scaled up, in Bhutan, Indonesia and Sri Lanka at the national level and on a pilot basis in Bangladesh, the Democratic People’s Republic of Korea and Myanmar. Nepal has adapted the PEN protocol and plans to implement a pilot project in 2016.

Following the adoption of the RC Resolution on Cancer Prevention and Control: the Way Forward in 2015, SEARO is in dialogue with the International Agency for Research on Cancer (IARC), Lyon, France, and other partners to strengthen technical support for the development of cancer registries and surveillance in South-East Asia. Bhutan and Maldives have recently strengthened their cancer registration systems. Bhutan is the only country that has introduced HPV vaccination into the routine immunization programme thus far, while pilot HPV studies are underway in Bangladesh and Nepal with WHO support. In addition, India recently announced plans to introduce HPV vaccine into the routine immunization programme at the provincial level.
SURVEILLANCE, MONITORING AND EVALUATION AND RESEARCH

All Member States of the Region have carried out an NCD risk factor survey in the past three years, including tobacco surveys for both adults and youths. A regional pool of survey equipment (glucometer, survey tablet etc.) has been created to facilitate NCD surveillance activities in Member States. SEARO has also prioritized and strengthened its own technical capacity on NCD and tobacco surveillance with assistance from other international agencies.

FLAGSHIP 3.

The unfinished MDGs agenda: Ending preventable maternal, newborn and child deaths with a focus on neonatal deaths

There has been significant progress in reducing under-five and maternal mortality in the Region since 1990, especially in the last decade. Seven countries – Bangladesh, Bhutan, Indonesia, Maldives, Nepal, Thailand and Timor-Leste – have achieved the MDG 4 target to reduce under-five mortality by two thirds from 1990 to 2015. In addition, it is estimated that at least five countries – Bhutan, Maldives, Sri Lanka, Thailand and Timor-Leste – have achieved the MDG 5 goal to reduce maternal mortality by three fourths by the end of 2015. Nonetheless, the Region as a whole was not able to meet the targets for MDGs 4 and 5.

There have been several initiatives in the last two years to strengthen the maternal and child health programmes, with a focus on reducing neonatal deaths. These initiatives include the following:

THE SEAR TECHNICAL ADVISORY GROUP ON REPRODUCTIVE, MATERNAL, NEWBORN, CHILD AND ADOLESCENT HEALTH (RMNCAH+)

A South-East Asia Region Technical Advisory Group on RMNCAH – comprising 12 eminent global and regional experts – was established in 2015 to provide guidance on how best to accelerate the implementation of strategies to reduce newborn, child and maternal mortality. Its first meeting was held in December 2015.
with the participation of all Member States, partner agencies, professional associations and academia.

REGIONAL LEADERSHIP SUMMIT OF H6 AGENCIES AND JOINT REGIONAL STATEMENT

A regional summit of “H6 agencies” (WHO, UNICEF, UNFPA, World Bank, UNAIDS and UN WOMEN) was convened in December 2015 to jointly commit and articulate a harmonized approach to support Member States in implementing the UN Secretary General’s Global Strategy for Women’s, Children’s and Adolescents’ Health. A joint regional H6 statement on “Ending Preventable Maternal, Newborn and Child Mortality” was released with a pledge to work with governments to help strengthen their leadership and capacity to undertake time-bound action to end preventable mortality in Member States.

WHO-UNICEF JOINT COUNTRY MISSIONS

WHO and UNICEF reviewed the various country programmes and conducted joint missions to Bangladesh, Indonesia and Nepal in 2015 to review their progress in implementing national newborn action plans within the overall RMNCAH plans. Areas where technical assistance was expected from WHO and UNICEF and their responsibilities for action were agreed upon in order to support the three countries.

IMPROVING THE QUALITY OF RMNCAH CARE

A regional framework for improving the quality of care for RMNCAH was developed in collaboration with Member States and partner agencies, and published in 2015. WHO provided support to India and Sri Lanka to undertake an assessment of the quality of care of maternal, newborn, child and adolescent health services, using WHO assessment tools. In Sri Lanka, WHO assisted the government to adapt the quality assessment tools, conduct assessments in selected hospitals, and revise national standards for adolescent health services. The assessments identified several significant gaps in the quality of care provided and confirmed the feasibility and usefulness of the WHO tools.

STRATEGIC PLANNING AND COSTING

The Regional Office supported Bangladesh and Myanmar to update their national plans and guidelines for newborn, child and adolescent health, and assisted Timor-Leste in updating its IMCI guidelines. SEARO also assisted Bangladesh and India in developing integrated approaches to prevent childhood pneumonia and diarrhoea. Since evidence-based strategic planning and costing is essential to implement national RMNACH programmes, a regional workshop on the use of a computer-based tool, OneHealth, was organized by WHO and UNICEF in April 2015 to train resource persons from the Region on the use of this software. Bangladesh, Myanmar and Indonesia received follow-up support from WHO to use OneHealth to plan and cost their national newborn action plan. A Regional Strategic Framework for the Comprehensive Control of Cervical Cancer has also been developed, printed and disseminated.

CAPACITY-BUILDING AND TRAINING

A WHO pocketbook on maternal health care in small hospitals was finalized, in consultation with regional experts. SEARO also finalized a training package on the prevention and management of cervical cancer and organized a regional workshop to train facilitators from Member States on its use. WHO provided hands-on training on the management of cervical cancer to teams from Nepal and Sri Lanka, and trained health staff from selected districts in Nepal on cervical cancer screening. In addition, SEARO, in collaboration with the Department of Immunization, Vaccines and Biologicals, WHO/HQ, is supporting the introduction of HPV vaccine in selected districts in Nepal and Bangladesh, including helping them to adapt the toolkit for assessing adolescent health interventions developed for GAVI
HPV demonstration programmes and to conduct the assessments prior to HPV introduction.

**BIRTH DEFECTS SURVEILLANCE AND PREVENTION**

Birth defects are important causes of mortality and morbidity among newborns and children. Regional efforts for the prevention and control as well as surveillance of birth defects continued in 2015. WHO assisted Maldives in developing a national plan for the prevention and control of birth defects, making it the ninth country in the Region to have national plans for birth defects. SEARO also finalized and published a regional communications strategy for the prevention and control of birth defects to guide countries in preparing communication plans for advocacy, social mobilization and behaviour change communication regarding birth defects prevention and management. Policy briefs on birth defects have been prepared for various stakeholders to use for advocacy and raising awareness.

In the area of birth defect surveillance, the SEAR new-born birth defects (SEAR-NBBD) web-based reporting system for integrated newborn birth defects surveillance was strengthened and expanded (to include surveillance of stillbirths) in 2015 and more hospitals were enrolled in hospital-based surveillance. The Regional Office also supported training for hospital staff on birth defects surveillance in Bangladesh, India and Myanmar and is preparing a birth defects surveillance training manual and guide for hospitals.

**STRATEGIC INFORMATION**

The Regional Office finalized and published several documents concerning maternal, newborn, child and adolescent health. These include a report on progress in reaching MDG 5 in the Region (in consultation with Member States); country factsheets on adolescent pregnancy to highlight its contribution to maternal, newborn and child mortality; updated country reports on maternal death surveillance and response; and factsheets on the status of family planning in the region’s Member States.

**FLAGSHIP 4.**

*Universal health coverage with focus on human resource for health and essential medicines*

**COLLECTING BETTER INFORMATION ON WHO IS BEING LEFT BEHIND**

Universal health coverage (UHC) is about all people getting the care they need without suffering financial hardship. The SDGs emphasize that no one “is left behind”. In 2015, the Regional Office provided estimates of those who were “getting left behind” in terms of access to health care across the 11 Member States. The data revealed that despite progress over the past 10 years, an estimated 130 million people in the Region still do not have access to at least one of the seven essential health services, and an estimated 60 million people are impoverished as a result of health-care costs.

To maintain awareness about the inequities in healthcare coverage in the Region, service coverage data were disaggregated by income, education and geography in 2015 (Figure 13). Interestingly, the smallest inequalities were found between rural and urban areas, perhaps reflecting the difficulties of delivering services to large numbers of people now living in urban slums. The Regional Office also initiated new national

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2 The seven services are in the spider graphic: family planning; antenatal care – four visits; skilled birth attendance; post-natal care; immunization (DPT3); antibiotic treatment for pneumonia under-5; improved drinking water.
Figure 13. Inequality in coverage of health services by quintiles and geography, SEA Region, 2010–2015

analyses of financial protection, catastrophic spending and impoverishment, and now has this information for six of the 11 Member States. Looking ahead, a more nuanced understanding of who is being left behind and why will be central to developing effective policy responses.

Such information needs to be easily available to policy-makers, nongovernmental organizations and the general public, and helps to stimulate debate about how to improve access to care. With that aim, SEARO in 2015 developed a UHC monitoring dashboard to more easily visualize data on health outcomes, health services, equity and financial protection for countries in the Region.

**ACTIONS TO ADDRESS FRONTLINE HEALTH SERVICES**

Making progress on UHC depends as much on improving service delivery as it does on financing reform. Two essential inputs to service delivery are health workers and essential medicines.

The Regional Office’s work on strengthening the health workforce focuses on transformative education and improving the retention of health professionals in rural areas. One factor that influences retention of health workers is the availability of more attractive work opportunities overseas. Migration from countries in the Region to OECD countries is still significant, and this affects the effectiveness of strategies to retain health workers within the country. The WHO Global Code of Practice on the International Recruitment of Health Personnel, or “the Code”, was adopted in 2010, and the second round of reporting on its implementation was completed in 2015 with six countries in the Region participating (up from three the first time). An inter-country workshop reviewed progress on the Code in the six countries and concluded that the Code remains relevant even if progress is slow. Findings from the workshop are summarized in the box below.

Despite significant political commitment in the Region to this HRH agenda, such as at the Ministerial Roundtable at the Regional Committee session in Dili in 2015, and many examples of actions to improve the education and rural retention of health workers, it does seem that progress on strengthening the health workforce is still slow in many countries. A survey conducted in 2016 will provide more data on this issue. This HRH agenda involves multiple partners and networks, including, as example, the Asia Pacific Alliance for Action on Human Resources for Health (AAAH) as well as the Asia-Pacific Observatory on Health Systems and Policies.

In terms of medicines, information on the supply, availability, use, regulation and policy of medicines was updated in four countries in 2015 through surveys of health facilities. These situation analyses have generated data that is useful to other regional flagship programmes, most notably those to combat

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**BOX 26. RESULTS FROM THE SECOND ROUND OF REPORTING ON PROGRESS IN IMPLEMENTING THE GLOBAL CODE OF PRACTICE ON THE INTERNATIONAL RECRUITMENT OF HEALTH PERSONNEL IN SIX SEA REGION COUNTRIES**

The review found a few common trends, despite differences between countries in the degree of self-sufficiency in producing local health workers and in the pace of implementing the Code. Translation of the Code into national languages is helping to raise awareness about it among policy-makers. Countries are paying increased attention to strategies to address rural retention of health workers and the education of health professionals. There are examples of active management of in- and out-migration of health workers, as well as efforts to strengthen HRH (human resources for health) information systems. Countries reported that they can capture in-migration of foreign health workers through registration and licensing, as required by their respective health professional councils. However, they find it difficult to track out-migration except by active management, such as through government-to-government agreements.

* Bangladesh, Bhutan, Indonesia, Maldives, Myanmar, and Thailand
antimicrobial resistance and noncommunicable diseases. For example, in the facilities surveyed, the percentage of patients with upper respiratory tract infections who were unnecessarily prescribed antibiotics ranged from 11% to 67%. The availability of five common medicines used to treat NCDs in public sector facilities is shown in Figure 14.

An important step was taken in 2015 towards the creation of a network of regional regulators. A regional meeting concluded that such a network could promote cooperation between national regulatory authorities and serve as a platform to exchange information on policies and procedures designed to assure the quality and safety of medical products. As recommended by the meeting WHO-SEARO serves as the initial secretariat for this network.

In other service delivery-related actions, the Regional Office organized a consultation on community-based health services in mid-2015, which concluded that the transition from the MDGs to the SDGs, universal health coverage, and the emphasis on addressing inequalities all mean that community-based services will play an important role in future health systems. The consultation also emphasized the need to view community-based services as a whole – that is, as linked to the rest of the health system – to encourage research on the impact of different models of community-based health services, and to include community-based services in policy dialogues on UHC.

Member States adopted a resolution on Patient Safety Contributing to Sustainable Universal Health
Coverage in 2015. This reflects recognition among policy-makers that health services in the Region are not as safe as they could be, and that patient safety can be used as an entry point to improve the quality of care needed to support universal health coverage. As a next step, countries – starting with Sri Lanka, Thailand and Timor-Leste – are conducting self-assessments of policies and systems in place to promote patient safety, using a tool developed by SEARO.

The Regional Office also organized a regional workshop on Traditional Medicine in Pyongyang in the Democratic People’s Republic of Korea in October 2015. This was attended by senior national officials and researchers from all 11 countries. Participants agreed to five actions to be implemented in the South-East Asia Region over the next five years to improve the integration of traditional medicine into national health systems and to better ensure the quality of traditional medical care services. The actions focus on improving information on the availability and use of traditional medicine systems and services, and on developing a core set of indicators.

**IMPROVING THE EVIDENCE BASE ON FINANCIAL PROTECTION**

In 2015 the Regional Office focused primarily on strengthening the evidence base to inform health financing policy for universal health coverage. Six countries in the Region now have estimates of catastrophic spending and impoverishment due to household health expenditures: Bangladesh, India, Indonesia, Sri Lanka, Thailand and Timor-Leste. The most important causes of impoverishment were found to be out-of-pocket payments for medicines (especially for NCDs) and the use of private providers.

To increase country capacity to produce data on trends in national health expenditures on a regular basis, WHO-SEARO supported workshops on national health accounts at country and regional level, using the system of health accounts (SHA11), which includes disease-specific accounts. WHO-SEARO also provided technical support to three countries in conducting cost-benefit and cost-effectiveness analyses using the Health Intervention and Technology Assessments (HITA) methodology to answer specific policy questions. These HITA studies included an analysis of the social costs and health impact of tobacco and alcohol consumption in Sri Lanka to inform disease prevention policy, and a cost-effectiveness analysis of population-based diabetes screening at different ages in Indonesia. Findings from these studies were presented at the Prince Mahidol Awards Conference on Priority Setting for UHC held in Bangkok in early 2016.

**BOX 27. MEASUREMENT AND ACCOUNTABILITY: THE FIVE-POINT CALL TO ACTION FROM THE 2015 CONFERENCE ON MEASUREMENT AND ACCOUNTABILITY FOR UNIVERSAL HEALTH COVERAGE**

1. Increase level and efficiency of investment in country health information systems by government and development partners; align partner investments with a single country platform by 2020.

2. Strengthen country institutional capacity to collect, analyse and use data at all levels.

3. Ensure that countries have well-functioning sources for generating population data, including civil registration and vital statistics (CRVS), censuses and surveys, with all births and 80% of deaths registered by 2030.

4. Maximize use of the data revolution to achieve real-time disease surveillance, and to produce national health accounts and health workforce accounts.

5. Promote country and global governance with citizen and community participation for accountability: by 2020; country civil society organizations (CSOs) are actively engaged in country reviews of progress.
MONITORING AND ACCOUNTABILITY FOR RESULTS: LEVERAGING THE INVESTMENTS OF OTHER AGENCIES

A key outcome of the inter-country Conference on Measurement and Accountability for Universal Health Coverage held in Indonesia in 2015 was the adoption of the global Post 2015: Five Point Call to Action. Member States expressed widespread support for strengthening national health information systems (HIS), based on the action points. Importantly, the Call to Action is also supported by many development agencies and the Asia eHealth Information Network, a consortium of HIS professionals from Member States. This is a real opportunity to develop a more unified approach to strengthening national monitoring and accountability systems in the SDG era. SEARO is working with WHO country offices to provide continuing technical support to countries to improve their health information systems.

FLAGSHIP 5.

Building national capacity for preventing and combating antimicrobial resistance

The Sixty-eighth World Health Assembly in May 2015 endorsed a global action plan to combat antimicrobial resistance. All governments committed to have in place, by May 2017, a national action plan on antimicrobial resistance that is aligned with this global action plan.

Since 2010, the South-East Asia Region has recognized antimicrobial resistance as a serious threat to public health and Regional Committee sessions have adopted several resolutions on its prevention and containment. These include the 2011 Jaipur Declaration on Antimicrobial Resistance, which encourages all Member States to develop and implement a multisectoral national plan to combat AMR. In addition, in 2014, a...
follow-up meeting was held as well as identifying AMR as one of the Regional Flagship Priorities by the Regional Director.

The goal of the AMR programme 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. Two objectives were identified to achieve this goal: i) to report on the development, implementation, monitoring and evaluation of AMR national action plans (as assigned by the Sixty-eighth World Health Assembly in 2015), and ii) to provide advocacy, capacity-building and technical assistance, as well as assist with resource mobilization and leveraging other resources and partnerships to combat AMR.

The resolution SEA/RC68/R3 adopted by the Regional Committee for South-East Asia at its Sixty-eighth session in 2015, emphasizing the urgency about taking concrete steps towards the control and prevention of AMR, called upon Member States to treat AMR as one of the top priorities on their national health agenda and develop and implement multisectoral national action plans.

Some of the key activities carried out according to the objectives set are shown in Box 28.

**FLAGSHIP 6.**

*Scaling up capacity development in emergency risk management in countries*

The WHO South-East Asia Region is vulnerable to natural and environmental disasters. The 2015 World Disaster Report shows that, over the past decade, the Region contributed to 24% of the global mortality from disasters. This figure is much lower than the previous decade, when 72% of disaster-related deaths worldwide occurred in the Region, contributed in large part by the 2004 Tsunami. The Tsunami, which affected several Member States in the Region, became a turning point for investment and capacity-building in emergency risk management.

The South-East Asia Regional Health Emergency Fund (SEARHEF) was established in 2008 as part of

**BOX 28. KEY ACTIVITIES UNDERTAKEN BY SEARO ON THE AMR AGENDA**

- A series of international meetings on AMR was organized by WHO and other partners, including a regional meeting to develop a regional AMR roadmap and guide countries in developing national action plans that will be held in February 2016 in Delhi;
- A Coordination Group for Antimicrobial Resistance was established at the Regional Office to coordinate AMR activities across different departments;
- Technical support was provided to countries to develop national action plans and, to support this, a pool of consultants were trained and made available;
- A regional monitoring and evaluation tool for AMR was developed and is currently being used by Member States;
- Siriraj Hospital at Mahidol University in Bangkok, Thailand, is in the process of being designated as a WHO collaborating centre for AMR prevention and containment;
- Resources have been mobilized from the Fleming Funds, the Global Health Security Agenda (GHSA), US CDC and USAID, among others, and partnerships strengthened to combat AMR; and
- A special edition on AMR issues in the SEA Region is being planned for publication in collaboration with the British Medical Journal (BMJ).
the regional commitment to strengthen emergency risk management. This fund has provided immediate financial support for a swift response to Member States during a total of 23 emergencies in nine countries as of December 2015.

WHO has also continued to support countries to enable them to 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. All Member States in the Region, with the exception of Indonesia and Thailand, requested a second extension (till June 2016) to establish and strengthen their core capacities to meet the provisions of the IHR 2005. According to an assessment of regional progress in meeting the IHR requirements conducted in 2014, the SEA Region received a score of 82% for the eight core capacities and 76% for points of entry and hazards reduction. This was higher than the global averages of 76% and 73% respectively.

The following are the expected results or capabilities of improved emergency risk management in the Region:

1). **Advocate**: Awareness among key partners on health issues in emergencies improved in the Region;

2) **Manage**: Information and knowledge management in the health sector for emergency risk management improved across all hazards;

3) **Support**: Capacities of countries in emergency risk management in the health sector are in place to prevent, prepare, respond to and recover from emergencies across all hazards;

4) **Prepare and respond**: Capacity for preparedness and response to public health emergencies in place in WHO and Member States; and

5) **Engage**: Competent partners across sectors are engaged in all aspects of SEARO’s work in emergency risk management.

Key activities conducted in 2015 to take the emergency risk management agenda forward include the following:

**Advocate**: In 2015, a situation analysis on the implementation of the Asia Pacific Strategy for Emerging Diseases (APSED) 2010 was conducted and each Member State in the Region was briefed on its status towards fulfilling the IHR (2005) core capacity requirements. WHO also updated IHR monitoring/evaluation and costing tools to include Ebola Virus Disease. In response to the Ebola epidemic in West Africa, all countries established an Ebola advocacy and awareness programme and a multisectoral Ebola coordination committee as part of their preparedness measures for the disease. In addition, SEARO provided all Member States with updated WHO guidance on the development of national pandemic influenza preparedness plans (NPIP) and informed them about the WHO Pandemic Influenza Preparedness Framework.

**Manage**: The Regional Office upgraded its Strategic Health Operations Centre (SHOC) to equip it with the most up-to-date hardware and software. This will help the Region to take the lead in coordinating information management and communications and to better assist Member States in responding to public health emergencies. In addition, 10 Member States in the Region were updated through a regional workshop on the current standards for public health emergency...
operations centres (EOCs). The Regional Office is actively involved in discussions on the ongoing reforms to WHO’s emergency response operations.

Support: A joint assessment was conducted by the Regional Office, country offices and national health authorities in nine Member States to ensure that they are ready to effectively and safely detect, investigate and report potential disease outbreaks. The findings were provided to all Member States to enable them to take corrective action. WHO also assisted 10 countries in 2015 in conducting regional benchmark assessments for emergency preparedness and response.

To play a proactive role in the response to the Ebola outbreak in West Africa in 2014–2015, the Regional Office provided Member States with epidemiological updates on the outbreak and information and technical guidelines on different areas of preparedness, including public awareness, surveillance at points of entry, infection prevention control, shipment of infectious materials, clinical case management, and hospital preparedness in case of an Ebola outbreak. SEARO also finalized and disseminated a regional checklist on country preparedness for Ebola for Member States to use in conducting self-assessments. With coordination from SEARO, more than 40 health professionals from WHO offices and ministries of health of Member States were deployed to Ebola-affected countries since October 2014 to assist in the response.

More recently, as a response to the Zika virus outbreak, WHO is assisting Bhutan, Maldives and Timor-Leste in conducting Zika risk assessments.

In response to the 2015 earthquake in Nepal, the health cluster immediately activated and deployed nearly 100 staff from SEARO and other WHO offices and provided medical supplies and equipment for earthquake relief operations. SEARO also transferred US$ 175 000 from the SEARHEF to Nepal within six hours of the earthquake for response and recovery operations and established a technical advisory group (TAG) to the Regional Director on post-earthquake recovery in that country.

Prepare and respond: WHO supported a series of trainings in emergency response for government employees of Member States and for WHO staff. All Member States received training on conducting risk assessments of acute public health events, with a focus on emerging infectious diseases. Two trainings – one in Delhi, India, for three countries (Indonesia, Myanmar, and Thailand), and one in Jakarta, Indonesia, attended by 34 participants from four countries (Indonesia, Maldives, Nepal and Timor-Leste) – were conducted on the clinical management of avian influenza A (including H7N9) and severe acute respiratory infection (SARI). These trainings not only helped enhance the capacity of Member States to appropriately manage avian influenza but also strengthened regional and global clinical networks and linkages between health-care and public health systems.

A global surge training for emergencies for WHO staff from the Regional Office, country offices and headquarters (including staff from the WHO Global Services Centre in Kuala Lumpur, Malaysia) were conducted to help the three levels of the Organization to better coordinate and respond during emergencies. This was followed by a Regional Surge Training Workshop attended by 50 staff from the 11 WHO country offices representing different areas of expertise, during which a draft multi-hazard response plan for the SEA Region was developed.

Engage: In developing its emergency risk management activities and plans, the Regional Office has engaged in discussions with potential technical partners and donors, including the US CDC, the Australia Department of Foreign Affairs and Trade (DFAT), and the European Commission. Through this engagement, SEARO has been able to obtain funding commitments to support some of its emergency risk management activities. The Regional Office has also been actively involved in the planning and implementation of global initiatives such as the Global Health Security Agenda (GHSA).
FLAGSHIP 7.

Finishing the task of eliminating diseases on the verge of elimination (kala-azar, leprosy, lymphatic filariasis and yaws)

LYMPHATIC FILARIASIS (LF)

All LF-endemic countries, except Indonesia and Myanmar, have achieved 100% geographical coverage with mass drug administration (MDA). With support from the Regional Office, Timor-Leste has restarted MDA that had been discontinued in 2007 due to budgetary constraints. Indonesia launched annual national MDA campaigns in 2015, sharply increasing treatment coverage by reaching 142 of the 190 districts (75% of the total) that require treatment.

Over 50% of the implementation units (districts) requiring LF treatment in the Region overall have stopped MDA after achieving the LF elimination target (a microfilaraemia rate of <1%) (Figure 15). Three countries – Maldives, Sri Lanka and Thailand – have submitted country dossiers for validation of LF elimination. Elimination of LF as a public health problem in Maldives and Sri Lanka have been achieved and validated by WHO. WHO continues to provide for free the total requirement of quality-assured albendazole and diethylcarbamazine for MDA to all LF-endemic countries in the Region. WHO also started distributing free diagnostic kits in 2015 to test for *Wucheria bancrofti* in LF transmission assessment surveys.

Figure 15. Regional progress towards LF elimination through MDA (2016): Number of implementing units in the SEA Region requiring, starting and stopping MDA

Source: Annual reports from national LF elimination programmes
Kala-azar is endemic in three countries in the Region (Bangladesh, India and Nepal), with sporadic cases also reported from Bhutan and Thailand. The kala-azar elimination target of less than one case per 10,000 population has been achieved in all endemic districts in Nepal (for the last three consecutive years), in 96 out of the 100 endemic upazilas in Bangladesh (96% success rate), and in 488 out of 611 endemic blocks in India (80% success rate). Blocks in India reporting more than one case per 10,000 population are now limited to just three states, with 90 blocks in Bihar, 27 blocks in Jharkhand and six blocks in West Bengal. In view of the progress seen in the Region, SEARO has developed a protocol and guidance document for validation of elimination of kala-azar as a public health problem. WHO has been providing the total requirement of Ambisome – the first-line drug recommended by WHO for the treatment of kala-azar – to all endemic countries in the Region.

**YAWS**

Yaws elimination in India has been verified by an international verification team based on the country dossier that was submitted and WHO has formally acknowledged India to be yaws free. This is a major public health achievement, not only for India and the Region but also globally. With the success in India, yaws remains endemic in only two countries in the Region: Indonesia and Timor-Leste. Both countries have developed and started implementing national plans to achieve yaws elimination by 2020 and have adopted WHO’s new recommendation to provide MDA with a single dose of azithromycin to the population at risk of yaws. Indonesia has completed MDA in seven districts and plans to cover the remaining 64 districts.
**BOX 29. MAJOR ACHIEVEMENTS IN ELIMINATING NEGLECTED TROPICAL DISEASES**

- India has been formally acknowledged as yaws-free following an international expert mission that verified it.
- Elimination of LF as a public health problem in Maldives and Sri Lanka have been validated by a regional expert committee and formally acknowledged by WHO.
- Over 50% of the LF endemic implementing units in the Region have successfully brought down the microfilaraemia rate to less than 1% and stopped MDA.
- MDA restarted in Timor-Leste after a gap of around seven years.
- Annual LF MDA campaigns started in Indonesia in 2015 reaching all but 42 districts that require treatment.
- Nepal completed three consecutive years of sustaining kala-azar incidence at less than 1 per 10 000 population in all endemic districts.
- About 96% of kala-azar endemic upazilas in Bangladesh and 80% of endemic blocks in India have achieved the elimination target.
- MDA for yaws in Indonesia and endemicity mapping in Timor-Leste has begun.

by the end of 2016. Timor-Leste has begun work on a national survey to map yaws endemicity and estimate the size of the population requiring treatment, with the intention of providing MDA by the end of 2016. It is expected that both countries would enter the surveillance phase in 2017.

**LEPROSY**

All 11 Member States are maintaining the achievement of leprosy elimination defined as prevalence of less than one case per 10 000 population at the national level. However, the Region continues to report a large number of leprosy cases with a slowly declining trend (Figure 17), and six countries are considered to be “high burden” with over 1000 new cases annually (Bangladesh, India, Indonesia, Myanmar, Nepal and Sri Lanka). Similar to the global phenomenon seen in leprosy, the South-East Asia Region also shows slow progress in detection of new cases, with evidence of late detection and ongoing transmission. The high burden areas are, however, limited to a few geographical locations in each country, providing an opportunity to focus the efforts to reduce the transmission. The special fund arising from the “Bangkok Declaration-towards a leprosy free world” has supported five countries with projects aimed at strengthening active case detection and bringing down the transmission, as well as promoting early case detection with reduction in visible deformity due to leprosy. SEARO has escalated its work to support Member States in accelerating leprosy elimination and is working on tools to strengthen data collection, real-time monitoring, and patient follow-up [see also Global Leprosy Programme, page 132].

From the above summaries it is clear that, despite challenges, progress is being made in the Regional Flagship Areas. The Regional Office is committed to ensure that maximum resources are available towards the achievement of the Flagship goals. More importantly, it is heartening to note that the Flagship Priorities not only align well with WHO’s Twelfth Global Progamme of Work but also with the newly-launched
Sustainable Development Goals (SDGs), and Goal 3 in particular.

**Beyond the Flagship Priorities:**

**Other disease control programmes of public health importance**

While the regional Flagship Priorities receive focused attention, WHO continues to address other important diseases of public health importance in the Region.

**TUBERCULOSIS**

The Region achieved the MDG targets of halting and reversing the incidence of tuberculosis, halving the 1990 TB prevalence rate and halving the mortality rate as well (Figure 18).

TB notifications in the Region have steadily increased from 2.3 million in 2013 to 2.6 million in 2014 and the overall treatment success rate has been more than 88% since 2009.

The Sixty-seventh World Health Assembly approved WHO’s post-2015 Global TB Strategy on 19 May 2014, with the ambitious target of reducing the number of TB-related deaths by 95% and the TB incidence rate by 90% between 2015 and 2035. In line with the global End TB Strategy, Member States in the Region have adapted the vision, milestones and targets outlined in World Health Assembly resolution WHA67.1 to the Regional Strategic Plan 2016–2020: Ending TB in the South-East Asia Region, and have started adopting interventions in line with the global strategy with the aim of ending TB in the Region by 2035. Some countries are piloting newer and faster approaches to control TB, including innovative strategies such as involving the private health-care sector in TB control programmes, using new technologies such as GeneXpert for rapid
diagnosis, as well as newer drugs and regimens, particularly for drug-resistant TB.

**HIV/AIDS**

Overall, the HIV epidemic remains at a low level in the Region and has stabilized in many countries, with the region-wide HIV prevalence rate remaining at 0.3% for some time. The estimated number of people living with HIV (PLHIV) was 3.5 million in 2014, including 1.3 million women aged 15 years and above. Five countries – India, Indonesia, Myanmar, Nepal and Thailand – contribute to 99% of the regional HIV-AIDS burden.

Reported condom use among key populations varies widely across the Region, but there is evidence of a well-established condom promotion and distribution programme in several countries. The number of facilities offering HIV testing services and the number of individuals tested for HIV continue to increase across the Region. However, coverage of HIV testing services for key populations remains low, according to available surveillance data from 2011 to 2014. HIV testing as part of antenatal care services is also low in all countries except Thailand.

The number of people on antiretroviral therapy has increased steadily across the Region, from 650,000 in 2010 to 1.24 million in 2014. However, ART coverage remains low at 36% among all PLHIV in the Region as a whole (Figure 19).

Countries continue to improve the delivery of HIV services by integrating them with other health services wherever possible. Combined HIV and TB services are being scaled up in India, Indonesia, Myanmar and Thailand. One-stop service with methadone maintenance therapy (MMT) is being scaled up in Myanmar with the goal of achieving nationwide coverage by 2016. Prevention of mother-to-child transmission (PMTCT) services have been in place in Thailand since 2003 as part of maternal and child health-care programmes.

**MALARIA**

The Millennium Development Goal of halting and reversing the incidence and death rates of malaria has been achieved in the South-East Asia Region as well as globally. Despite a population of 1.4 billion people
being at risk of malaria in the Region, the number of reported confirmed malaria cases decreased by 45% (from 2.9 million to 1.6 million) between 2000 and 2014 and reported deaths declined by 85% (from 5482 to 812). Three countries – India, Indonesia and Myanmar – accounted for 96% of cases reported in 2014. No malaria-related deaths have been reported from Nepal since 2012 and from Bhutan since 2013.

In May 2015 the World Health Assembly endorsed the Global Technical Strategy for Malaria 2016–2030 (GTS). The strategy has the vision of a world free of malaria and sets the ambitious targets of reducing malaria incidence and mortality rates globally by 90% from 2015 to 2030 and eliminating the disease in at least 35 countries by 2030. The three pillars of the GTS to reach these goals are: (i) universal access to malaria prevention, diagnosis and treatment; (ii) accelerate efforts towards elimination; (iii) transform malaria surveillance into a core intervention.

Member States in the Region have committed to eliminating malaria by 2030 at the latest and have made significant progress towards this goal. Many countries, including India and Thailand, have updated their national strategic plans for malaria control based on the GTS. Maldives have been malaria-free for several decades, and in December 2015, WHO officially certified Maldives as a malaria-free country. Sri Lanka has reported no locally-acquired cases since October 2012 and has requested WHO for certification of elimination. Bhutan, which is in the pre-elimination phase, reported 19 indigenous cases in 2014, while cases in the Democratic People’s Republic of Korea, which is also in the pre-elimination phase, dropped sharply since the disease re-emerged in the early 2000s.

In response to the rise in multidrug-resistant malaria, including resistance to artemisinin-based combination therapies, the Greater Mekong Subregion has recently
launched the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015-2030). This is a six-country, multi-partner effort to eliminate malaria by 2030 and *P. falciparum* malaria by 2025 that is based on the GTS and coordinated by WHO. Resistance of malaria-transmitting mosquitoes to insecticides is a further threat to the ongoing efforts to eliminate the disease in the Region, while sustainable financing and adequate workforce are key challenges to national malaria control programmes. A mechanism for cross-border collaboration for malaria elimination in South Asia is currently being established under WHO’s leadership.

**IMMUNIZATION**

The Region continued to make progress in 2015 in introducing new vaccines into national immunization programmes. Bangladesh and Nepal introduced the pneumococcal conjugate vaccine (PCV10). Pilot introductions of rotavirus vaccine are underway in Thailand and in four states of India. Demonstration projects to introduce human papilloma virus vaccine (HPV) are also currently underway in Bangladesh and Nepal, while Bhutan has already included HPV in its routine programme.

The South-East Asia Region was declared polio-free in 2014 and continues to retain its polio-free status. As part of the Polio Endgame strategy to withdraw OPV type 2, all countries prepared national action plans for the switch, and at least 10 countries introduced at least one dose of the inactivated injectable polio vaccine (IPV) into their routine immunization schedule.

**GLOBAL LEPROSY PROGRAMME**

The WHO Global Leprosy Programme, which operates from the Regional Office with worldwide responsibility, monitors the leprosy situation globally and advises WHO regions on addressing programmatic challenges. The programme also provides technical support to countries to improve their leprosy control measures, with a particular focus on major endemic countries. In 2014, 213,899 new leprosy cases were reported from...
Figure 21. New leprosy cases reported in 2014, by WHO Region

121 countries; 18,869 (9%) of them were children and 14,110 (7%) showed visible deformities at the time of diagnosis. There is a need to improve early case detection to be able to cut transmission of the infection more quickly.

Almost three fourths (72%) of all new leprosy cases reported in 2014 were from the South-East Asia Region. The underlying trend in the detection of new cases in different WHO regions shows a marginal decline, pointing towards a limited reduction in transmission.

The Global Leprosy Strategy 2016–2020—"Accelerating towards a leprosy-free world"—was developed through a consultative process involving many stakeholders. The main focus of the strategy is on further reducing the prevalence of the disease at subnational levels by focusing on reducing transmission through early and active case detection and prompt treatment of all cases with multidrug therapy (MDT). Key targets of the strategy include zero disabilities among new childhood cases of leprosy and a reduction of new cases with visible deformities at the time of diagnosis to less than one per million population by 2020. Addressing the stigma and discrimination from leprosy and promoting inclusion of leprosy patients is another pillar of the strategy.

The Global Leprosy Programme is also supporting operational research to develop a shorter and improved treatment regimen (e.g., a uniform MDT). The programme also developed, in collaboration with national programmes and experts, a monitoring system and has trained a pool of English-speaking monitors who are readily available to Member States to help strengthen their leprosy services.

Mobilizing resources for leprosy programmes at different levels of WHO is an important function of the

Figure 22. Trends in new leprosy cases with visible deformities, by WHO Region, 2005–2014
Global Leprosy Programme. The Programme raised US$ 2.3 million to support various leprosy control activities in the WHO regions in 2015, as well as US$ 1.5 million from The Nippon Foundation through the Bangkok Declaration Special Fund mechanism. This Special Fund has supported innovative initiatives in seven countries in the South-East Asia and Africa regions to reduce the leprosy disease burden. Proposals from four more countries in Africa for use of the Fund’s resources were approved and the funds released in 2016.

**DRINKING WATER SAFETY**

WHO SEARO has been working with partner countries in South East Asia for 10 years, through the WHO/ DFAT Water Quality Partnership for Health, to implement water safety plans and develop supporting institutional and regulatory frameworks. Water safety plans (WSPs) are a risk based approach to managing water supplies to improve drinking-water quality and consequently health through preventing and/or treating contamination and preventing recontamination.

Work has included development of training materials and manuals (many translated into local languages), training programmes, WSP pilots, models and scale-up, regulations, water quality surveillance and WSP auditing for continuous improvement.

The number of new WSPs implemented in the region in 2015, with WHO support is approaching 400, additional 5.6 million people now enjoy safe water.

In each country, model WSPs have been created to demonstrate what a WSP looks like and what improvements can be achieved through effective water safety planning. One such example is Bajo Town in Wangduephodrang District, Bhutan. Bajo Town had major water quality problems, so much so that residents were openly protesting to local government. As a result of a partnership between the Government of Bhutan and the OPEC Fund for International Development (for finance) and WHO (technical advice and support), Bajo Town now has an improved treatment plant, empowered operators (empowered to make decisions on chlorination dosage based daily water quality testing) and safer water. Customer satisfaction surveys (included as part of WSP verification) indicate a high level of satisfaction with water quality, where the average faecal coliform contamination reduced by 74%, still subject for further improvement through strengthening SWP compliance. The water supply system improvements using WSPs targeted funds to achieve water safety impacts. In this case, WSPs enhanced investment competition for funds but also gave incentives to develop strong WSPs so fund conditionality was mutually beneficial, a model for more direct links between WSPs and infrastructure improvement planning in the future.

<table>
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<th>Country</th>
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<th>Population served by new WSPs</th>
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<td><strong>TOTAL</strong></td>
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This report describes the work of the World Health Organization in the South-East Asia Region during the period 1 January – 31 December 2015. 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.