



**World Health
Organization**

Regional Office for South-East Asia

END IN SIGHT

ACCELERATING THE END OF HIV, TUBERCULOSIS,
MALARIA AND NEGLECTED TROPICAL
DISEASES IN THE SOUTH-EAST ASIA REGION

2016

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WHO Library Cataloguing-in-Publication data

World Health Organization, Regional Office for South-East Asia.

End in sight: accelerating the end of HIV, tuberculosis, malaria and neglected tropical diseases in the South-East Asia Region.

1. Acquired Immunodeficiency Syndrome 2. HIV. 3. Tuberculosis. 4. Malaria.
5. Neglected Tropical Diseases. 6. Public health.

ISBN 978-92-9022-527-0

(NLM classification: WC 503)

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Printed in India

FOREWORD



South-East Asia has reached a point where it is feasible to contemplate the end of major communicable diseases once and for all. Progress in combating communicable diseases has an outsized effect on regional development, as HIV, tuberculosis, malaria and neglected tropical diseases all primarily affect the most marginalized and poorest communities. As these diseases deepen poverty and inequality, reduce productivity and economic growth and increase financial burdens on affected households and the public sector, bringing these diseases to an end will enable South-East Asia to move towards a future that is healthier, more secure and more just.

With leaders from the Region having embraced the Sustainable Development Goals last year, the focus on major communicable diseases has shifted from control to elimination. The United Nations Open Working Group on the SDGs stated that the goal of ending AIDS, TB, malaria and neglected tropical diseases has the potential to have an unprecedented impact on human development. However, in spite of spectacular achievements in infectious disease control in this region during the last two decades and future opportunities offered by the specific SDG target of ending communicable diseases, elimination of these

diseases may still remain out of reach for this region.

Communicable diseases such as HIV, TB and malaria remain among the leading causes of illness, death and impoverishment in our region, and infection levels continue to rise in many settings and populations. Unless focused efforts are undertaken to build on the gains to date, communities that remain vulnerable to neglected tropical diseases such as leprosy, kala-azar and filariasis will continue to be left behind.

This report focuses on the historic opportunity for the WHO South-East Asia Region to end the scourge of communicable diseases for good. Taking account of the fork in the road we now face – with renewed commitment on the one hand and complacency and potential failure on the other – the report offers a roadmap for success in our efforts to end major communicable and neglected tropical diseases. The report focuses on a series of “game-changers” that have the potential to act synergistically to take our public health response to the next level and put us on the road to success. As these game-changers reveal, if we hope to end communicable diseases we must focus first on the most marginalized, use strategic information to make our efforts smarter and more focused, increase domestic funding for health, and combine broad-based, systematic approaches with a disease-specific focus that drives progress and ensures accountability for results. Communities are essential partners in this undertaking.

It is my fervent hope that this report spurs the kind of action we will need to end HIV, TB, malaria and neglected tropical diseases in our region. Inspired by a vision of a healthier future for South-East Asia, let us rededicate ourselves to this ambitious, but achievable, task.

A handwritten signature in black ink, appearing to read 'Poonam Khetrpal Singh'.

Dr Poonam Khetrpal Singh
Regional Director



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ABBREVIATIONS

ACT	artemisinin-based combination therapy
AIDS	acquired immune deficiency syndrome
AMR	antimicrobial resistance
ART	antiretroviral therapy
DEC	diethylcarbamazine
DOTS	directly observed therapy
G2D	Grade-2 disabilities
GMS	Greater Mekong Subregion
GTS	Global Technical Strategy
HIV	human immunodeficiency virus
HTM	HIV, TB and malaria
IBN	impregnated bed nets
IRS	indoor residual spraying
LF	lymphatic filariasis
LLINs	long-lasting insecticidal mosquito nets
MDA	Mass Drug Administration
MDGs	Millennium Development Goals
MDR-TB	multidrug-resistant TB
MDT	multidrug therapy
MMDP	morbidity management and disability prevention
MSM	men who have sex with men
NGOs	nongovernmental organizations
NTDs	neglected tropical diseases
PLHIV	People living with HIV
PKDL	post-kala azar dermal leishmaniasis
PrEP	pre-exposure antiretroviral prophylaxis
PWID	people who inject drugs
SDGs	Sustainable Development Goals
SEA	(WHO) South-East Asia (Region)
STH	soil-transmitted helminths
TAS	transmission assessment surveys
TB	tuberculosis
UHC	universal health coverage
UNAIDS	Joint United Nations Programme on HIV/AIDS
VL	visceral leishmaniasis
WHO	World Health Organization

T

ransitioning from Control to Ending Communicable Diseases

Following substantial gains in reducing the toll of leading infectious diseases under the Millennium Development Goals (MDGs), the world has now embarked on a historic effort to end epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases by 2030.¹ Never before has the global community committed to finally end such a broad array of diseases that have for decades been leading causes of death and disability.

Over the last 15 years, notable progress has been achieved in reducing the burden of infectious diseases in the 11 countriesⁱ of the South-East Asia Region.² Ensuring continued gains against infectious diseases in the SEA Region is vital, not only to the future health of the Region's people but also to global aspirations for 2030, as the SEA Regionⁱ countries are home to a quarter of humanity and account for a significant burden of communicable diseases.

However, hopes for a healthier future in the Region are tempered by a sober reality. Despite some SEA Region countries having made striking progress in combating communicable diseases, the Region as a whole may find it difficult to achieve the targets under Sustainable Development Goal (SDG) 3 for ending

communicable diseases at the current rate of progress. In transitioning from the goal of incremental progress to ending epidemics of some of the world's most important causes of death, smarter approaches and new ways of addressing serious health challenges will be needed.

Once addressed, it appears feasible for the SEA Region to end epidemics of HIV, tuberculosis and malaria by 2030 and substantially reduce neglected tropical diseases by 2020 as targeted in regional strategies.ⁱⁱ The report outlines key strategic actions that will allow the SEA Region countries to overcome longstanding bottlenecks and make rapid progress towards ending the epidemics of major communicable diseases causing illness and death.

This report offers a roadmap for success, focusing especially on the needs of the people left behind — most marginalized and vulnerable communities. Instead of the 'business as usual' approach, renewed political commitment, mobilization of sufficient resources, shifting the response to local areas, and smart policy and programming will be needed to enable the Region to travel the final mile towards ending the epidemics of major communicable diseases.

i Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste

ii The word 'end' or 'ending' Health in 2015: MDGs to SDGs has been used to connote ending epidemics of infectious diseases as mentioned in SDG Target 3.3, and as elaborated by WHO (Health in 2015: MDGs to SDGs)



WHO / SEARO / SANJIT DAS

2030

New approaches can help the SEA Region to end epidemics of HIV, tuberculosis, malaria by 2030 and substantially reduce neglected tropical diseases by 2020 as targeted in regional strategies

Ridding the SEA Region countries of the burden of HIV, tuberculosis, malaria and neglected tropical diseases is critical to hopes for realizing the Asian Century

AT THE CROSSROADS

It is said that the 21st century will be the Asian Century – a recognition of the extraordinary pace of the Region's economic growth and development.³ However, prosperity and wellbeing of 1.9 billion people of the SEA Region will depend on how rapidly fruits of development reach the poorest of the poor and how equitable is the economic growth.⁴

Universal good health is one of the prerequisites for accelerated development. Without it, the productivity of societies is diminished and underlying inequities get exacerbated. Ridding the SEA Region countries of the burden of HIV, tuberculosis, malaria and neglected tropical diseases is critical to hopes for realizing the Asian Century.

The Region is literally at the crossroads. While progress is being made to improve health systems and tackle major challenges, the poor and marginalized get inadequate attention. Gains against key communicable diseases have made it possible to envisage a future in which these diseases do not pose a public health threat to the SEA Region countries, a future in which no one should be left behind. It is possible only through urgent, strategic action. And this is the choice countries have to make.

LANDMARK SUCCESS IN HALTING EPIDEMICS

Communicable diseases globally are on the decline, as the global burden of disease shifts from communicable to non-communicable diseases.⁵ MDG 6 played a catalytic role in this historic transition, elevating the fight against communicable diseases on the global political agenda and driving action to expand access to essential prevention and treatment tools.

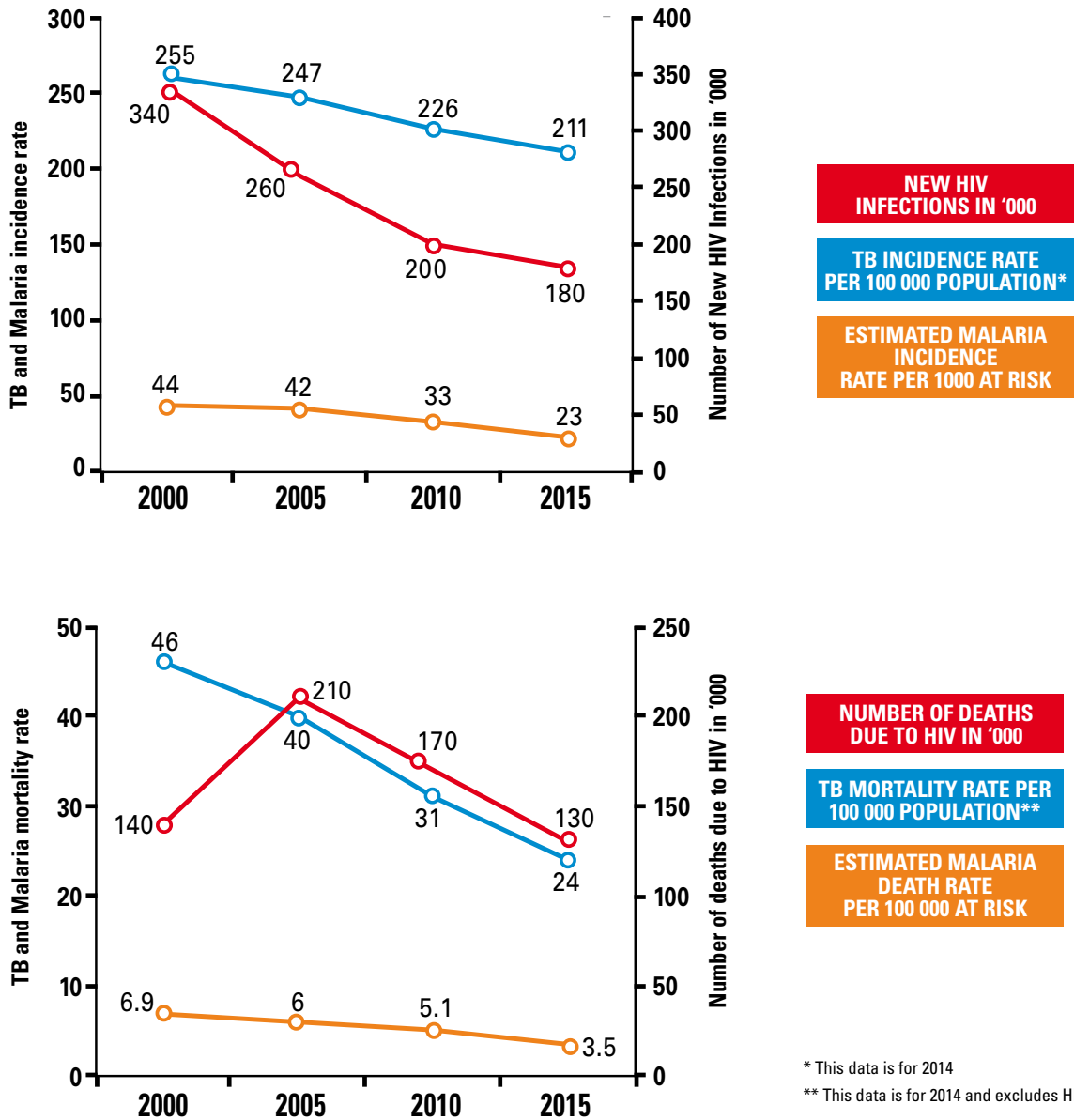
Adopted in 2000, at a time when the death toll due to AIDS was rising at an alarming rate and TB as well as malaria continued to remain high, MDG 6 aimed

to achieve control of these epidemics, by halting and eventually reversing trends in infection and the disease itself.⁶ As Figure 1 illustrates, the SEA Region, like most parts of the world, reached the MDG 6 target, blocking the upward trajectory of these epidemics and steadily reducing associated morbidity and mortality over time. Although neglected tropical diseases were not specifically named in the MDGs, heightened global attention towards the diseases of the marginalized resulted in increased awareness, investment and consequent decline of leprosy, visceral leishmaniasis, lymphatic filariasis and other neglected tropical diseases at the national level in spite of subnational variations. In part, WHO's Global Plan to Combat NTDs (2008-2015) contributed to this decline.

HIV: Globally, new HIV infections fell by 34% from 2000 to 2015, with AIDS-related deaths declining by 45% since peak mortality occurred in 2004.⁷ The reduction in new infections in the SEA region has been greater than the global level.^{8,9} Four high burden countries in the SEA Region – India, Myanmar, Nepal and Thailand – experienced reductions in new HIV infections of at least 25% from 2001 to 2015, while new infections remained stable or reduced in comparatively low-prevalence countries – Bangladesh, Bhutan, Maldives and Sri Lanka. New infections continue to increase in Indonesia and some parts of India as well as key populations such as MSM. Overall, the SEA Region accounts for less than 10% of annual global new infections, and 130 000 people in the Region died of AIDS-related causes in 2015.⁹

MALARIA: Globally, the number of malaria cases fell from an estimated 262 million to 214 million in 2000-2015.¹⁰ In the SEA Region, reported confirmed cases of malaria have declined by 45% since 2000, although the breadth of the malaria challenge in the Region (1.6 million confirmed cases in 2014) remains considerable.¹⁰ Maldives was certified by WHO to be malaria-free, with no reported

Figure 1: Declining trends of HIV, TB and Malaria in the SEA Region



SOURCE: WHO/UNAIDS GARRP 2015; WHO DATA REPOSITORY; WORLD MALARIA REPORT 2015

83%

New cases of visceral leishmaniasis in four endemic countries (Bangladesh, Bhutan, India and Nepal) in the SEA Region have dropped by 83% between 2007 and 2015

case since 1984; and Sri Lanka has not reported any indigenous malaria case since November 2012.¹⁰ Bhutan, which is in the pre-elimination phase, had 19 indigenous cases in 2014. Reported cases in the Democratic People's Republic of Korea, which is also in the pre-elimination phase, dropped sharply from 23 537 in 2012 to 11 212 in 2014 (52% decrease). India, Indonesia and Myanmar remain high-burden countries and accounted for 96% of the Region's cases in 2014. Reported malaria mortality fell by 85% from 2000 to 2014 in the SEA Region.¹⁰

TUBERCULOSIS: Although TB prevalence and mortality declined in the SEA Region since 2000, the regional TB challenge remains enormous. Home to 26% of the world's population, coupled with developmental challenges, the SEA Region accounts for 41% of incident TB cases globally, with an estimated 4 million new TB cases and 460 000 TB-related deaths occurring in the Region in 2014 alone.¹¹ There are indications that the regional TB burden may be greater than previously understood; recent surveys found higher TB rates in Indonesia and Myanmar than previously estimated, and there are fears that surveys currently being conducted in other SEA Region countries may render similar findings.

LEPROSY: Despite all 11 SEA Region countries having achieved elimination of leprosy as a public health problem at the national level (prevalence rate dropping to below 1 per 10 000 people) by 2010, the disease continues to pose challenges in many subnational settings. About 72% of new leprosy cases worldwide occur in this Region, with India and Indonesia accounting for a bulk of them.¹²

VISCERAL LEISHMANIASIS (KALA-AZAR): Fast progress is being made towards the elimination as a public health problem of visceral leishmaniasis (kala-azar), with new cases dropping by 83% between 2007 and 2015 in four endemic countries – Bangladesh, Bhutan, India and Nepal. As the Region is poised

to reach its elimination target by 2017, pre- and post-elimination surveillance now becomes a pressing priority.¹³

LYMPHATIC FILARIASIS: The Region is home to nearly half of the 60 million people worldwide who are infected by lymphatic filariasis (LF), an important cause of permanent disability in the Region. Maldives and Sri Lanka have eliminated LF as a public health problem, while Thailand and Bangladesh are in surveillance phase after Mass Drug Administration (MDA) of preventive therapy in all endemic areas. India, Nepal and Timor-Leste have achieved 100% geographic coverage. Indonesia and Myanmar have not achieved 100% geographic coverage.¹⁴ Challenges exist in terms of coverage, low intake of drugs and persistent infections in parts of India and Indonesia.

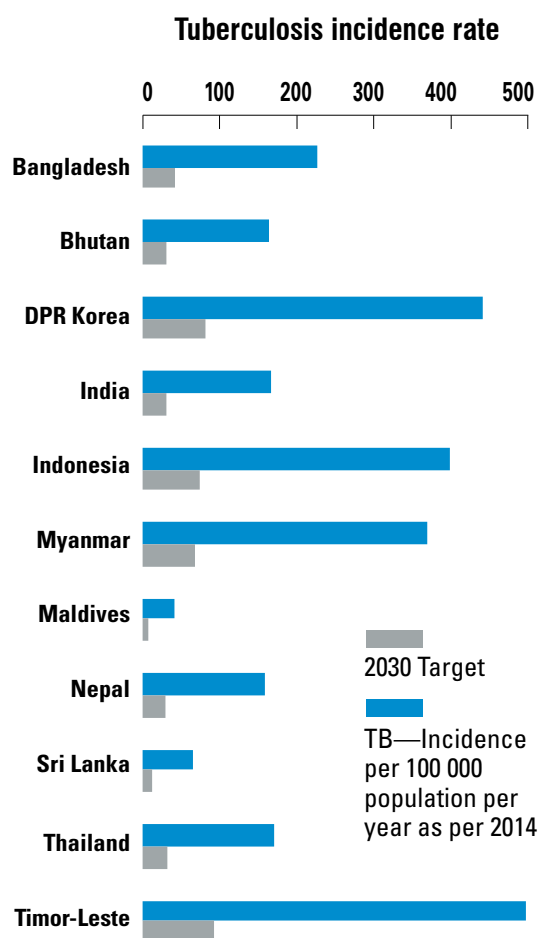
YAWS: While yaws has been eliminated in India, it remains a public health problem in Indonesia and Timor-Leste. Indonesia has started mass treatment with a single oral dose of azithromycin, an antibiotic administered as part of MDA. The campaign is expected to be completed in all endemic districts by the end of 2016. Timor-Leste has started working on national survey towards mapping of yaws endemicity.

SOIL-TRANSMITTED HELMINTHS: Of an estimated 870 million children in need of treatment against STH globally, 372 million are in the SEA Region with India accounting for 64% of them. The target was to reach 50% of the children requiring treatment by 2015 and up to 75% by 2020. Most SEA Region countries have achieved 75% of the target although challenges remain in India and Indonesia.¹⁵

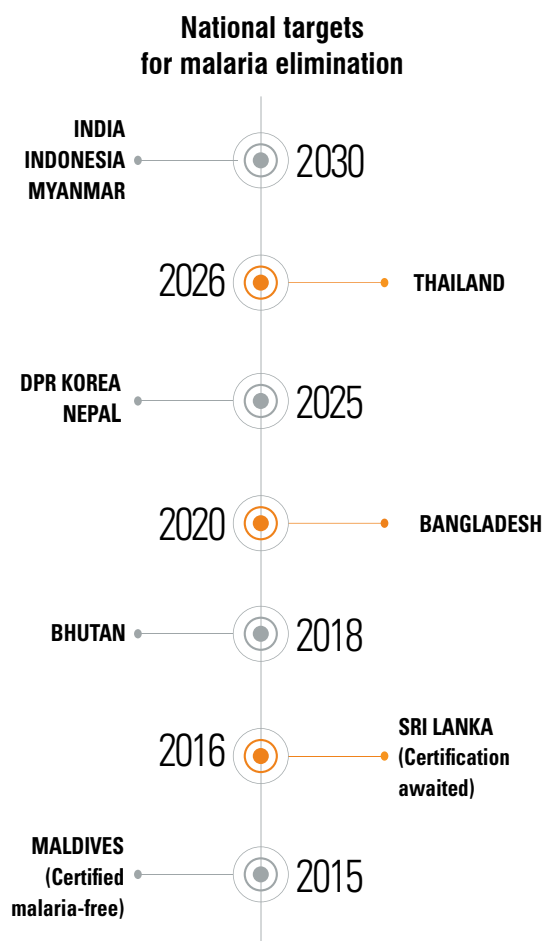
SCHISTOSOMIASIS: Its prevalence is restricted to Indonesia, only in two districts in Central Sulawesi with about 20 000 populations at risk. The schistosomiasis elimination programme is, however, challenged by difficult geographical terrain, lack of safe water supply and sanitation in households in

Although all 11 SEA Region countries had achieved elimination of leprosy as a public health problem at national level by 2010, the disease continues to pose challenges in many subnational settings

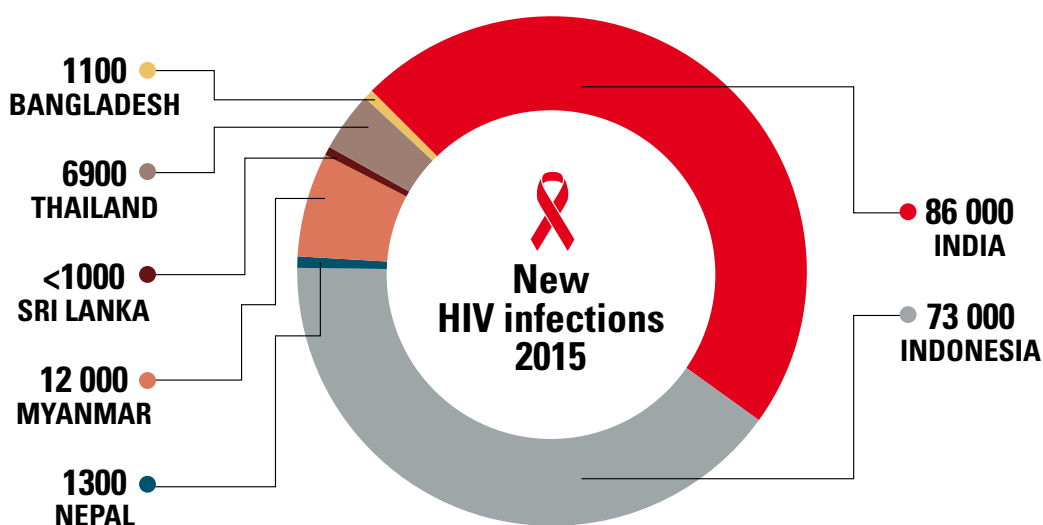
Figure 2: **HIV, TB and malaria targets for 2030**



SOURCE: WHO SEAR, ANNUAL TB REPORT 2016



SOURCE: WHO SEARO, BASED ON COUNTRIES' MALARIA NATIONAL STRATEGIC PLANS



SOURCE: UNAIDS, AIDSIINFO

By 2030, the target is to reduce new infections of HIV by 90% in the region

endemic areas, poor local ownership as well as difficulties in snail control.

The progress in health outcomes associated with communicable diseases in 2000-2015 can be traced to several factors, including increased resources and political commitment, evidence-based interventions and service delivery, enhanced guidance and technical support, improved data and monitoring, community mobilization and engagement (especially among the most vulnerable and disadvantaged groups), and inter-sectoral collaboration as well as sub-regional and regional cooperation, advocacy, international partnership and enhanced funding. For instance, increased availability of antiretroviral therapy (ART) dramatically improved health outcomes for people living with HIV and boosted HIV prevention efforts. Similarly profound results have been achieved through adoption and implementation of Directly Observed Therapy (DOTS) strategy for TB and key anti-malaria approaches such as malaria rapid diagnostic tests, artemisinin-based combination therapy (ACT) and long-lasting insecticidal mosquito nets

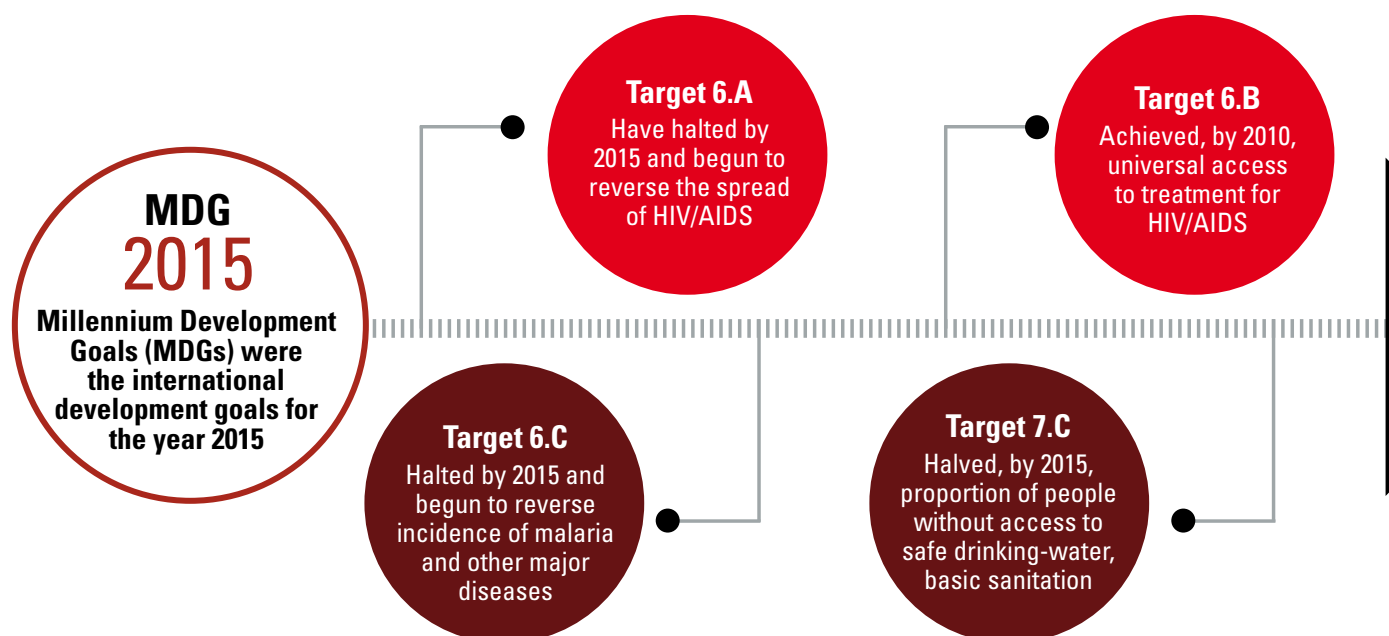
While striving for transition towards a more integrated, comprehensive approach to health and development, the SEA Region will need to maintain an important focus on key communicable diseases

(LLINs). Sustained active case search and treatment in remote areas relying, in part, on strong community engagement and health education, resulted in India becoming yaws free. Focus on preventive chemotherapy and integrated vector control resulted in Maldives and Sri Lanka eliminating lymphatic filariasis as a public health problem, while vector control and treatment for kala-azar helped Nepal to achieve regional elimination targets in 2014.

MOVING FROM CONTROL TO ENDING COMMUNICABLE DISEASES

Encouraged by the momentum achieved against communicable diseases under the MDGs, the global community has now embraced an even more ambitious target (Figure 2) – ending epidemics of key infectious diseases (Figure 3). The ambitious, universal nature of health targets set under SDG 3 demands greater investments in health systems, including strategies to achieve universal health coverage (UHC). However, while doing so, attention will have to be paid to ensure that the needs of those last in the queue are prioritized within UHC. The global

Figure 3: **Beginning of the Endgame—Sustainable Development Goals and**



health vision advanced by the SDGs – to “ensure healthy lives and promote well-being for all at all ages” – can only be realized if health efforts are more closely linked to the broader development agenda of eradicating poverty and inequity. Towards a more integrated, synergistic approach to development, nearly 20 targets in non-health-specific SDGs are linked to health in one way or the other.¹⁶

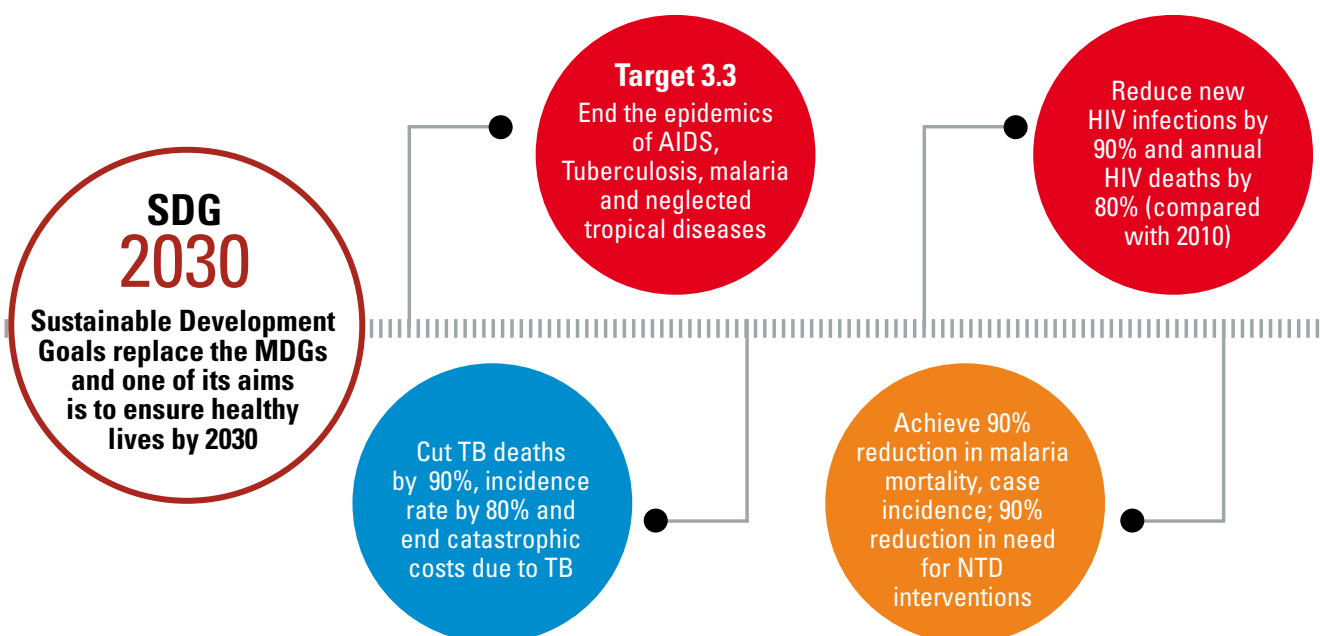
While striving for transition towards a more integrated, comprehensive approach to health and development, the SEA Region will need to maintain an important focus on key communicable diseases. Not only is the end of communicable diseases not assured, but evidence indicates that failing to build on achievements during the MDG era may lead to rebounding incidence and deaths. In the case of HIV, for example, while implementation of proven, scaled-up prevention and treatment strategies has the potential to reduce new HIV infections by 86% by 2030 and AIDS-related deaths by 83%, merely continuing the current effort against HIV in the region will lead to a devastating increase in HIV incidence

and mortality in the coming years.¹⁷

Accordingly, while integrating the response to communicable diseases more closely with broader health and development initiatives, efforts to accelerate progress towards ending key communicable diseases must also build on and align with key disease-specific strategic frameworks. These include WHO’s End-TB Strategy; Global Technical Strategy for Malaria 2015-2030; Global Leprosy Strategy 2016-2020; UNAIDS 2016-2021 Strategy; Global Programme for the Elimination of Lymphatic Filariasis and revised regional strategic plan for elimination of kala-azar by 2017.

To achieve a world free of infectious disease epidemics, both SEA Region and the world as a whole need to move from a mindset focused on disease control – that is, a mere reinforcement and expansion of MDG 6 – to something far more ambitious and consequential: ending communicable diseases as a public health threat. This transition demands that our efforts must become even smarter, more rigorous and better resourced, as reflected in concrete, time-bound targets and clear accountability for results.

other global strategies aim to ensure healthy lives by 2030



Towards Ending HIV, Tuberculosis and Malaria: Opportunities and Challenges

While recent gains are inspiring, it is evident from history that lack of vigilance in the face of declining incidence and prevalence of infectious disease can easily lead to an even more serious epidemic resurgence. Moreover, regional trends often mask intra-regional and sub-national disparities. Often broad regional gains against infectious diseases do not get reflected in several subnational settings and among vulnerable populations.

This section of the report looks at each of key communicable diseases addressed in SDG Target 3.3, assessing the most recent epidemiological and coverage trends and identifying the main obstacles for addressing the disease. Winning the fight against each of these diseases will require a combination of disease-specific approaches and smart use of cross-cutting catalyzers or 'drivers of change'.

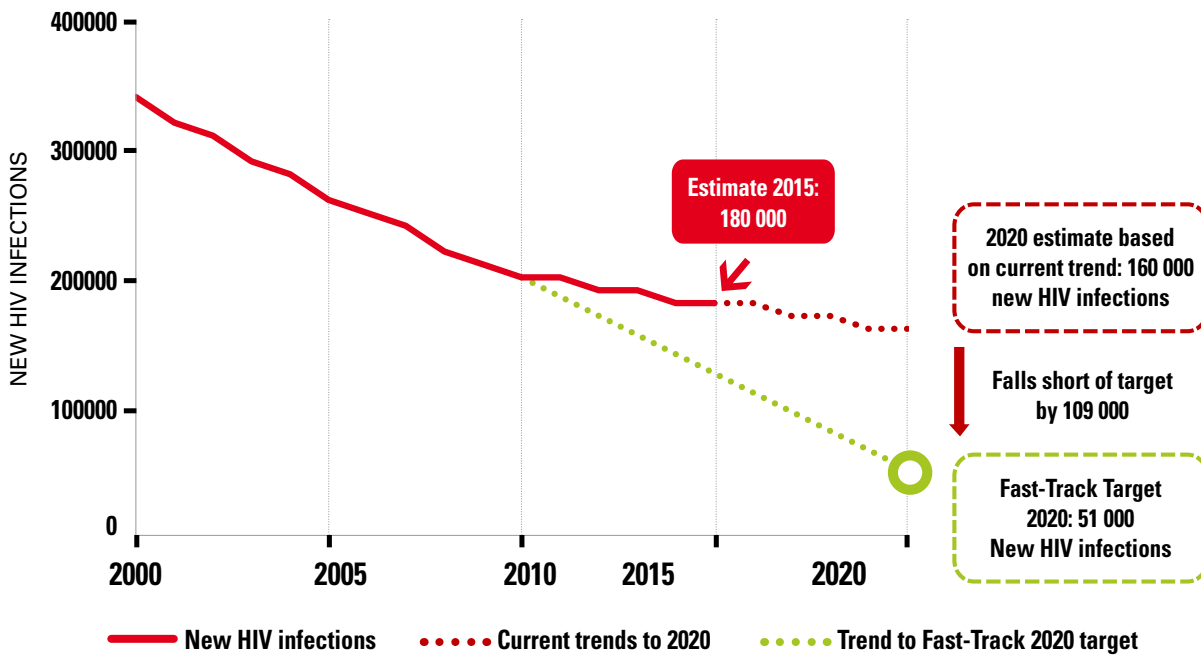
THE ENDGAME: ACCELERATING PROGRESS TOWARDS ENDING KEY COMMUNICABLE DISEASES

HIV: Compared with other regions in the world, the overall adult HIV prevalence in the SEA Region is low (0.3 %) but the burden is high, with 3.5 million people

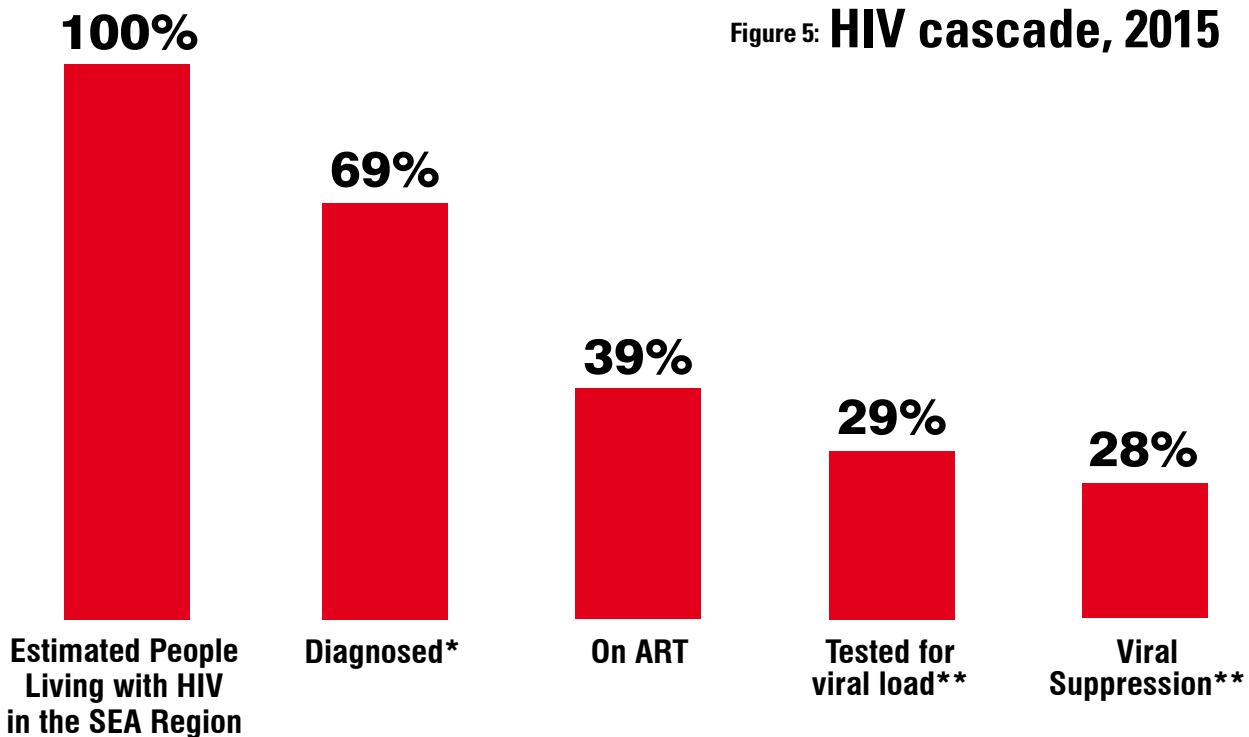
living with HIV in 2015.⁹ An estimated 180 000 new infections occurred in the SEA Region in 2015, with India, Indonesia, Myanmar, Nepal and Thailand accounting for 99% of the HIV burden.⁹

Recognizing the need to 'front-load' investments and fast-track programmatic scale-up, the global community has embraced new AIDS targets to enable the response to outpace the epidemic itself, towards the ultimate goal of ending the epidemic. The commitments set forth in the '2016 Political Declaration on HIV and AIDS: On the Fast-Track to Accelerate the Fight against HIV and to End the AIDS Epidemic by 2030' call for urgent action in 2016-2020 to achieve saturation coverage of priority prevention and treatment approaches.¹⁸ Central to hopes for ending the AIDS epidemic is achievement of the 90-90-90 target: 90% of people living with HIV knowing their HIV status; 90% of people who know their HIV-positive status on treatment; and 90% of people on treatment with suppressed viral load.¹⁹ In addition to 90-90-90, the 2016 Political Declaration calls for the use of a combination of approaches to reduce the annual number of new HIV infections and AIDS-related deaths to fewer than 500 000 by 2020 and achieving the goal of zero discrimination.¹⁸

Figure 4: **New HIV infections in the SEA Region**



SOURCE: UNAIDS HIV ESTIMATES 2016 AND GAPRR 2016



SOURCE: WHO/SEARO COUNTRY FACT SHEETS HIV/AIDS 2015

NOTE: *Number and percentage diagnosed is based on a regional proportion calculated on the basis of country estimates. Data was not available for Myanmar, Sri Lanka and Timor-Leste (2014)

**Data on number and percentage of PLHIV tested for viral suppression was only available for Nepal, Sri Lanka and Thailand (2014)

The substantial progress achieved in reducing HIV epidemic and mortality is a result of the massive scale-up of HIV prevention, care and treatment interventions at national and sub-national levels, particularly access to ART. Price negotiations, improved procurement mechanisms, increased use of generics and voluntary licensing agreements all contributed to make HIV medicines and related commodities more affordable. The emergence of simpler, safer ART regimens and innovative point-of-care diagnostics has increased opportunities for further decentralization of HIV treatment services.

Current trends, while encouraging, are not yet sufficient to end the epidemic (Figure 4). At present, however, Thailand is the only country in the Region nearly on track to reach the target of 90-90-90 by 2020.

More than half of people living with HIV are unaware of their status, and far too many people are diagnosed with HIV late in the course of infection, when they have symptoms and their immune systems are already compromised. Undiagnosed infection also increases the risk of onward HIV transmission.

Only 39% of people living with HIV in the Region were receiving HIV treatment in 2015 (Figure 5). Although India is the world's largest producer of generic antiretroviral therapy and is often rightly referred to as the 'pharmacy of the developing world', only 43% of people living with HIV in India are receiving antiretroviral therapy (Figure 6).⁸ In Indonesia, results are even more concerning, as only 9% of people living with HIV were receiving antiretroviral therapy in 2015.⁸ Many people receiving antiretroviral therapy do not undergo regular viral load testing, and many do not remain engaged in care or adhere to

prescribed regimens (Figure 5).

Thailand's experience underscores the importance of using strategic information to drive progress. Through a careful analysis of outcomes along the HIV cascade, Thailand has identified bottlenecks and taken steps to prioritize expanded testing services, the provision of treatment to all those diagnosed with HIV, and intensified prevention efforts, including provision of pre-exposure antiretroviral prophylaxis or PrEP.²⁰

Low levels of domestic support for HIV programmes in most countries, coupled with continued dependence of most countries on unpredictable external funding, jeopardizes both the gains made to date as well as sustainability of national programmes. Moreover, HIV

At present, Thailand is the only country in the region nearly on track to reach the target of 90-90-90 by 2020

THAILAND SHOWS HOW TO ENSURE CHILDREN ARE BORN HIV-FREE

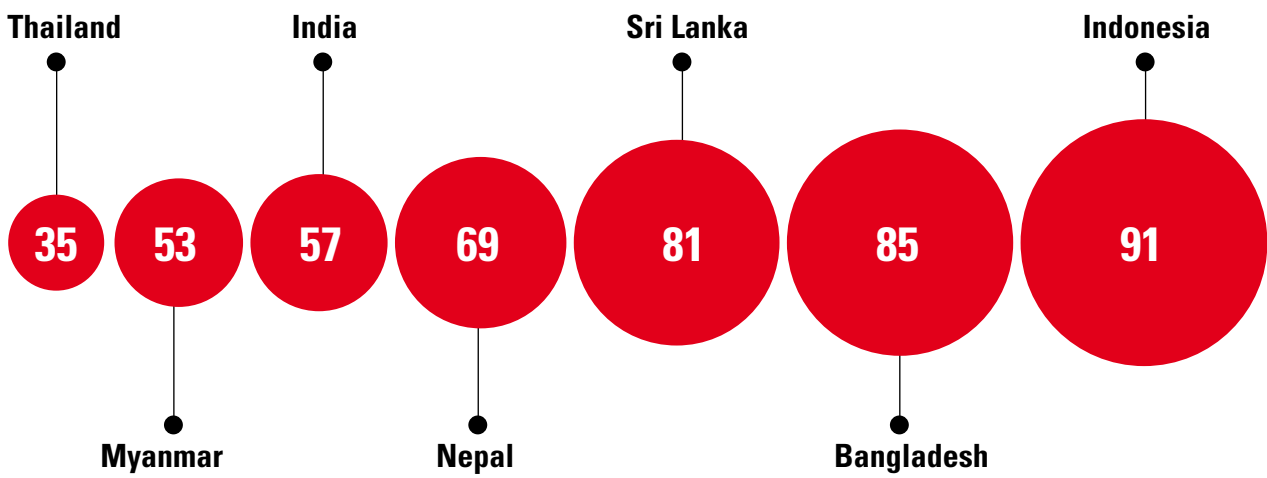
Having eliminated mother-to-child transmission of HIV and syphilis, Thailand in June 2016 became the first country in Asia and the Pacific Region and also the first with a large HIV epidemic to ensure an AIDS-free generation. In Thailand, 98% of all pregnant women living with HIV have access to antiretroviral therapy, which in turn has reduced the rate of mother-to-child transmission to less than 2% – comparable to rates achieved in high-income countries. The number of Thai children newly infected with perinatally acquired HIV fell from 1000 in 2000 to 85 in 2015 – a decline of more than 90%. Strong investments in maternal and child health, free antenatal services for all pregnant women, HIV counseling and testing at all health centres and ART for infants as soon as possible after birth helped Thailand achieve this landmark. retention and survival rates on ART.



WHO / SEARO / FRANSISKUS PARULIAN SIMBOLON

Figure 6: Gap in access to HIV treatment

Percentage of people living with HIV yet to get treatment (2015)



SOURCE: UNAIDS AIDSINFO ONLINE

spending, while presently inadequate, is frequently not focused on the settings and populations in greatest need, reducing the effectiveness of spending and diminishing the Region's ability to make faster progress towards the goal of ending AIDS by 2030. A large proportion of HIV spending (19% to 96%) on prevention is not targeting the key population.⁹

'Business as usual' will not help achieve the ambitious Fast-Track HIV targets set in the 2016 Political Declaration. A major expansion of services, with particular efforts to reach high-risk and marginalized populations, is urgently required. Countries should take immediate steps to align national efforts with the latest normative guidance and scientific evidence, including adoption of WHO's recommendation for initiation of antiretroviral therapy for all who test HIV-positive, regardless of CD4 count.²¹ National responses in the SEA Region countries will also require extensive mobilization of human, institutional and strategic international partners as well as significant commitments from both national and international sources. All SEA Region countries must develop a dynamic and robust HIV information system, including case-based surveillance, to facilitate better understanding of localized epidemics and help focus investments on populations and locations with potential for maximum impact. Existing structural barriers (social, cultural, legal, political, economic and physical) that increase vulnerability to sexually transmitted diseases and lower access to care need to be dismantled.

TUBERCULOSIS: Although effective treatment for TB has been available for decades, TB remains a major global health challenge. In May 2014, the World Health Assembly in its resolution WHA67.1

adopted the Global Strategy and Targets for Tuberculosis Prevention, Care and Control after 2015 (End TB Strategy) based on a bold vision of a world without tuberculosis and targets for ending the global tuberculosis epidemic. According to the strategy, the following targets need to be achieved by 2035:²²

- 95% reduction in number of TB deaths
- 90% reduction in TB incidence rate
- Zero TB-affected families facing catastrophic costs due to TB.

To reach these targets, which use 2015 as a baseline, the annual decline in global TB incidence rates must accelerate from 1.5% annually in 2015 to at least 10% annually by 2025 (Figure 7). In addition, the proportion of people with TB who die from the disease must decline from the current rate of 15% in 2015 to 6.5% by

All SEA Region countries must develop a dynamic and robust HIV information system, including case-based surveillance, to facilitate better understanding of localized epidemics and help focus investments on populations and locations with potential for maximum impact

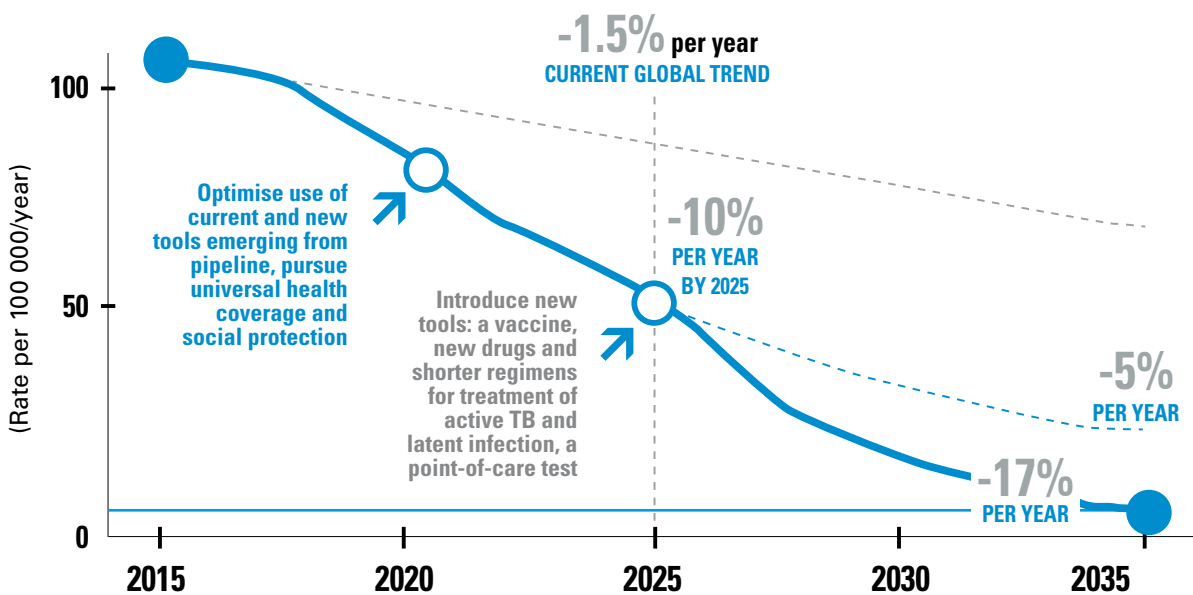
NOTIFICATION BY PRIVATE PRACTITIONERS IMPROVES TB TREATMENT IN INDIA

Case notification has improved under the MDGs – rising from 2.3 million in 2013 to 2.6 million in 2014 – with India making notification by private practitioners mandatory and creating a web-based reporting system in 2012. The regional treatment success rate among newly diagnosed TB cases (88%) is similar to the global average (86%). Unique partnerships with national and international NGOs have helped mobilize communities and involve private practitioners in care and treatment. Political support played a role in prioritizing TB in national health agenda. All these will remain important building blocks for ensuring success as the SEA Region countries work to navigate the TB endgame.



WHO / SEARO / DAVID ORR

Figure 7: Tuberculosis incidence rates
Dramatic decline in incidence is required to end TB by 2035*



*The 2035 targets set under WHO's End TB Strategy are aligned with SDG target to be achieved by 2030

2025.²³ These targets are aligned with the SDG target of reducing TB incidence rate by 80% by 2030.¹¹

However, the task ahead is formidable, as the TB burden in the SEA Region is enormous and diverse. Together, the Region accounts for 41% of the global incidence of TB, with India and Indonesia representing 23% and 10% of the global total, respectively. The disease hits people in the most economically productive age group (15-49 years) and is among the top 10 causes of death in seven of the 11 member countries of the SEA Region.¹¹ In 2014, about 4 million people in the SEA Region became ill with TB and the total prevalence was estimated at 5.4 million. Close to 460 000 people in the Region died due to TB in 2014.¹¹ The SEA Region is home to nearly one third of world's MDR-TB cases among notified pulmonary TB cases in 2014, even though the SEA Region has a relatively low MDR-TB rate in newly detected cases (2.2%) and a moderate rate among retreatment cases (16%). Of 4 million new cases in 2014, 210 000 (5.2%) were HIV positive and about 62 000 died due to HIV-associated TB.²⁴

Progress in fighting TB is not uniform across the Region, and efforts to reduce TB-related morbidity and mortality suffer due to programmatic gaps and weaknesses. A large number of TB cases in the SEA Region countries – more than 1 million – are either not diagnosed or diagnosed in the private sector but not notified.²⁴ Only 57% of individuals with newly diagnosed TB complete their prescribed treatment regimens, and the treatment completion is much lower (17%) among cases of MDR-TB.²⁴

To accelerate and sustain progress towards ending TB, the SEA Region countries will need to invest more in TB control and take steps to close the major gaps (Figure 9). Closing the funding gap is necessary to develop the capacity to ensure universal access to high-quality care for all people with TB, introduce new

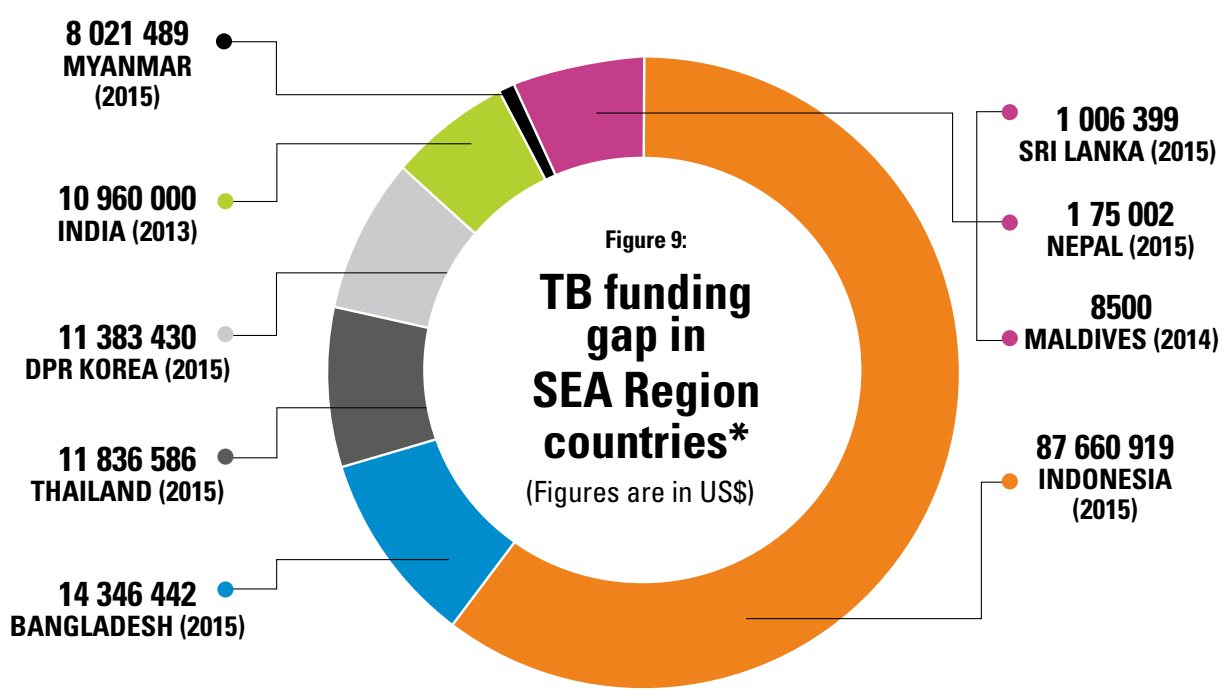
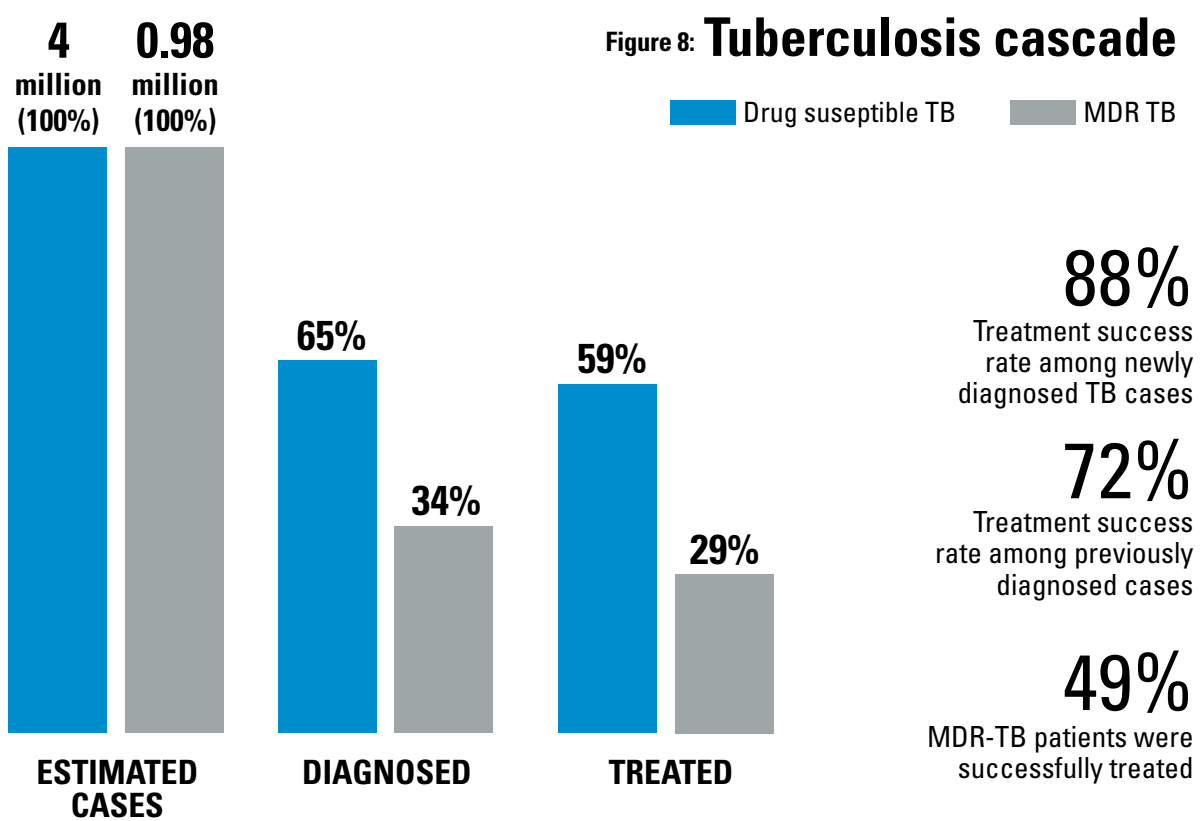
technologies for rapid diagnosis, extend TB efforts beyond the health sector, scale up civil society involvement and address co-morbidities experienced by people with TB. Management of drug resistant TB should be mainstreamed into TB control programmes for better utilization of available resources.

The current rate of decline in TB incidence is slow and at this rate the region will miss the End TB strategy targets (Figure 10). To achieve the required 10% decline in incidence by 2025, medical as well as social challenges associated with TB must be addressed. As a developmental and a biomedical challenge, TB requires

COMMUNITY VOLUNTEERS HELP TB SCREENING IN REMOTE PARTS OF INDONESIA

South Nias Regency, with over 100 remote islands, is one of the most under-developed areas in Indonesia. TB patients in these islands often struggle to access care due to the lack of trained medical personnel and high transportation costs. To overcome these handicaps, indigenous community volunteers have been recruited and trained to screen for symptoms of TB as part of a comprehensive maternal child health and nutrition programme. Volunteers refer suspected cases to a health facility for smear microscopy, facilitate transportation and, after detection, help initiate and follow up regarding treatment. Through this approach, more than 50 000 people were screened for symptoms of TB in 112 villages in just three quarters, resulting in the detection of 225 smear-positive TB patients including children. Such active case finding activities contributed to an 86% increase in TB notifications in 2015 compared with the previous year.

The task ahead is formidable, as the TB burden in the SEA Region is enormous and diverse. Together, the region accounts for 41% of the global incidence of TB



*Gaps estimated by countries to implement National Strategic Plans. Actual gaps to meet SDG targets are unknown

multi-sectoral action to address social determinants such as poverty, under-nutrition, stigma, discrimination and overcrowded living spaces of the poor – all of which increase vulnerability to TB and reduce access to timely, high-quality diagnosis and treatment services. Existing health systems should be reinvigorated to provide universal access to rapid diagnostic and quality-assured treatment and care, reduce out-of-pocket expenditure, better address TB among children, improve management of co-morbidities (e.g., diabetes, smoking), scale up coordinated TB-HIV activities and ensure the private sector's full engagement in managing TB cases.

Empowering communities has the potential to extend TB service delivery to vulnerable groups and hard-to-reach, underserved areas. Involving the community in the planning and implementation of services will help ensure that TB activities meet the needs of the community. Such community engagement and leadership can also increase awareness of, and demand for, TB prevention and treatment service.

MALARIA: During the MDG era, it was estimated that global malaria cases dropped from 262 million in 2000 to 214 million in 2015, while malaria deaths fell from 839 000 to 438 000 – a decline of 48% in 15 years.¹⁰

Although WHO's Africa Region is estimated to account for 88% of all malaria cases, malaria remains a serious problem in the SEA Region as well.¹⁰ About 234 million people in the Region are at high risk of malaria, and the Region is estimated to account for 10% of all global malaria cases (Figure 11). India contributed 70% of confirmed malaria cases in the Region in 2014.¹⁰ The proportion of cases due to *P. falciparum* varies greatly

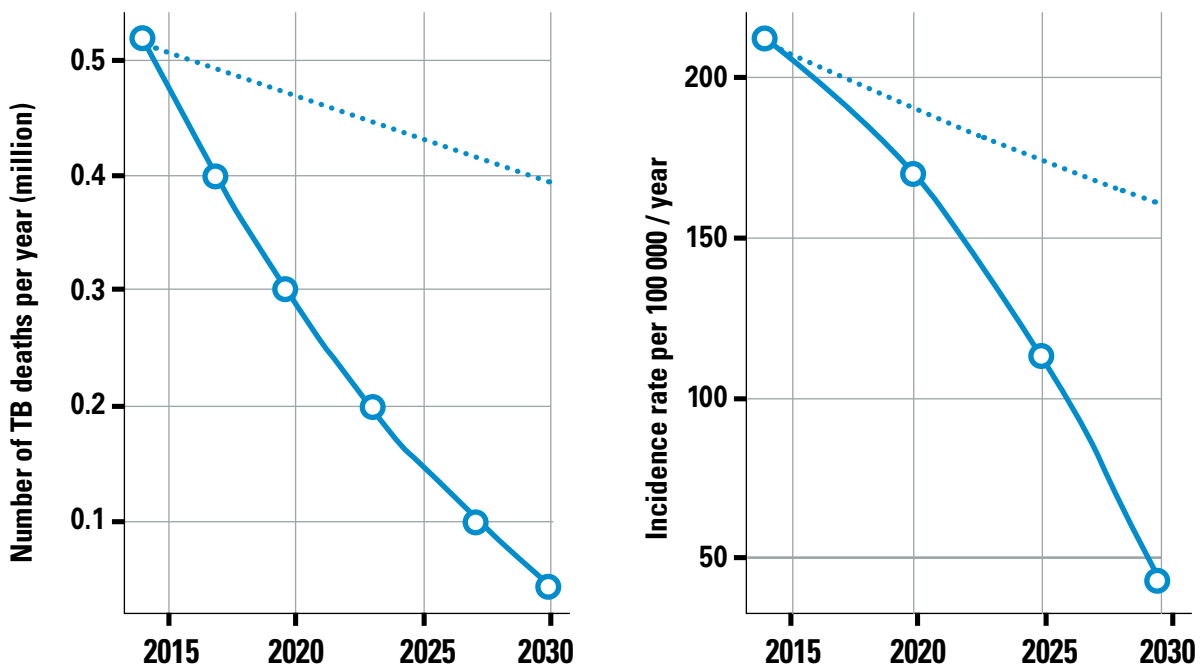
within the Region, from 15% to 79% in eight countries with transmission of more than one plasmodium species. Cases are exclusively due to *P. vivax* in the Democratic People's Republic of Korea, with *P. vivax* presenting specific biological challenges that make it harder to diagnose, treat, control and eliminate than *P. falciparum*. The SEA Region has the largest burden of *P. vivax* malaria, with 74% of the global share.

In the context of global health agendas, the fight against malaria has become ambitious and bolder, envisaging a world free of malaria. The Global Technical Strategy for Malaria (GTS) 2016-2030, endorsed by the World Health Assembly in 2015, has fixed targets of reducing both malaria mortality and case incidence globally by at least 40% by 2020 compared to 2015, by at least 75% by 2025 and by at least 90% by 2030, and to eliminate malaria from at least 10 countries by 2020 and 35 countries by 2030.²⁵

High-burden SEA Region countries have taken steps to lay the groundwork to end malaria. India's first national roadmap to end malaria, the National Framework for Malaria Elimination (2016–2030) calls for interrupting indigenous transmission of malaria in all the states by 2027 and making the country malaria-free by 2030, outlining a phased set of milestones for states.²⁶ Myanmar is finalizing a 5-year strategy, the National Strategic Plan for Intensifying Malaria Control and Accelerating Progress towards Malaria Elimination (2016–2020), aimed at reducing malaria morbidity and mortality by 85% and 75% respectively by 2020 relative to 2015 baseline figures, with the ultimate aim of eliminating malaria by 2030.²⁷ Similarly, in Indonesia, the Strategic Plan 2015-2019 of the National Malaria Control Programme targets

Fight against malaria has become ambitious and bolder, with global goal of a world free of malaria by 2030

Figure 10: Projected trajectory of TB deaths and incidence rate by 2030 in SEA Region



SOURCE: ENDING TB IN THE SEA REGION: STRATEGIC PLAN 2016-20

— Continuous line represents decline needed to reach targets
 Dotted line represents the current trend

10%

About 231 million people in the Region are at high risk of malaria, and it accounts for 10 per cent of all global malaria cases

country-wide elimination of malaria by 2030, progressing in a phased manner with different intervention packages in areas of different malaria endemicity, including improved use of malaria rapid diagnostic tests (RDTs), case management and mass campaigns for long-lasting insecticidal nets (LLINs) and indoor residual spraying (IRS). The objective is to accelerate progress in high endemic areas, while putting the main focus on surveillance in areas close to having achieved elimination.²⁸

In 2015, Maldives became the first country in the Region to be certified malaria-free and Sri Lanka is on the way to attain this status with the last indigenous malaria case reported in October 2012. In Bhutan, only 19 indigenous cases were recorded in 2014 (against 15 indigenous cases and 30 introduced cases in 2013), while in the Democratic People's Republic of Korea, which is also in the pre-elimination phase, reported cases dropped sharply from 23 537 in 2012 to 11 212 (52% decrease).¹⁰

High-burden countries have successfully stepped up action to reduce their malaria burden, but are currently still far from ending the malaria threat (Figure 11). While reported malaria cases were over 1 million in 2014, India is projected to achieve a decrease of up to 75% in malaria case incidence by 2015 compared to 2000. Myanmar reported a 68% reduction of reported morbidity between 2008 and 2014, with approximately 150,000 reported cases in 2014. In Indonesia, the number of malaria cases has fallen sharply to about 250 000 in 2014.¹⁰

All malaria endemic countries in the SEA Region are accelerating efforts towards eliminating malaria. Regional and national strategies are focused on enhancing coverage of key interventions that have proven effective in prevention,

diagnosis and treatment of malaria, prioritizing reduction in transmission in highly endemic areas so as to flatten the epidemiological landscape. Interventions include LLINs and IRS as well as RDTs and treatment with artemisinin-based combination therapies (ACT). In 2012–2014, six countries (Bangladesh, Bhutan, Democratic People's Republic of Korea, Myanmar, Nepal and Timor-Leste) reported delivering sufficient insecticide-treated mosquito nets (ITNs) or IRS to protect more than 60% of their populations at high risk (Figure 12).¹⁰

In 2014, seven out of 10 countries reported delivering sufficient quantities of antimalarial medicines to treat all reported

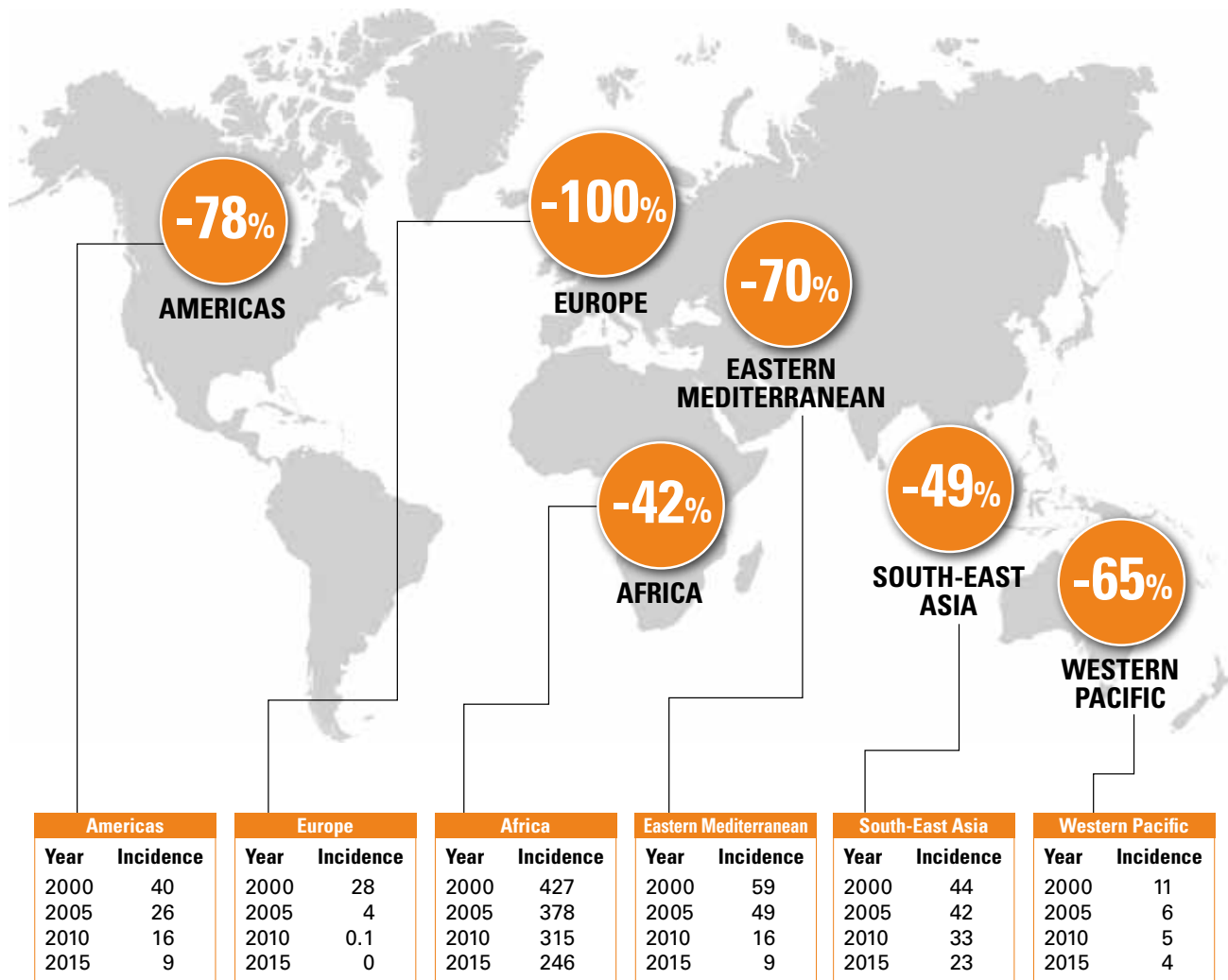
MEETING THE CHALLENGE OF KEEPING THE MALDIVES MALARIA-FREE

In December 2015, Maldives became the first country in the SEA Region to be certified by WHO as having attained the status of being malaria-free. The country's vector control programme began in 1966, and no case of malaria has been reported since 1984, in part due to the critical role played by community support and participation. Although no imported cases were reported in 2015, continued vigilance will be essential to prevent a re-emergence of the disease. WHO has strongly supported national efforts to achieve and sustain malaria-free status, and the country has maintained strong epidemiological and entomological surveillance over the past three decades. The integrated Vector Borne Disease Control Unit is now tasked with controlling all vector-borne diseases: malaria, filariasis, dengue and chikungunya.

In 2015, Maldives became the first country in the Region to be certified malaria-free and Sri Lanka is on the way to attain this status with the last indigenous malaria case reported in October 2012

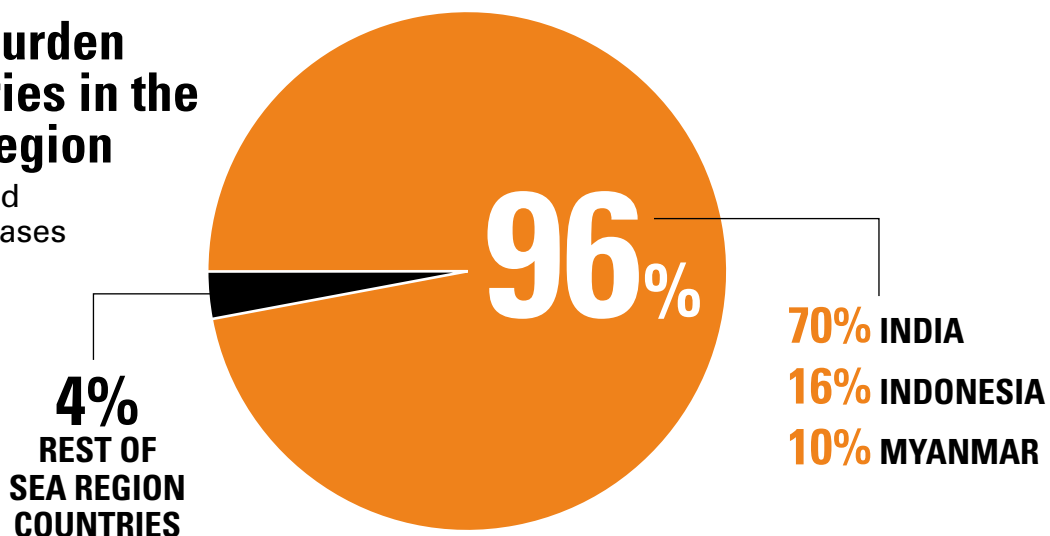
Figure 11: Regional trends in malaria incidence

(% change in estimated incidence rates per 1000 at risk of malaria)



High burden countries in the SEA Region

Confirmed malaria cases



To end malaria as a public health threat by 2030, the SEA Region must confront two critical challenges – the rise of antimicrobial resistance and persistence of cross-border malaria, both of which call for focused interventions

cases in public health facilities. In addition surveillance is being significantly strengthened, with a switch to case-based surveillance with investigation of each malaria case in areas implementing an elimination programme.

To eliminate malaria by 2030, the SEA Region must confront two critical challenges – the emergence of antimalarial drug and insecticide resistance, and the increasing significance of cross-border malaria in the context of malaria elimination, both of which call for focused interventions. In India, there is widespread resistance among some mosquito vectors to DDT and patches of resistance to pyrethroids and organophosphates (malathion). Indonesia and Myanmar are also reporting resistance to pyrethroids; in Myanmar, there is also confirmed resistance to DDT and organophosphates.

The emergence of *P. falciparum* resistance to artemisinins in five countries of the Greater Mekong Subregion (GMS): Cambodia, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam has become a health security threat to the region and beyond. Artemisinin resistance has increased the likelihood of resistance development to the partner medicines used in combination with artemisinins, so that in some areas of the GMS resistance to artemisinin-based combination therapies (ACTs) has become a reality.

The rise of malaria multidrug resistance including ACT resistance has prompted WHO to take action. In 2009, WHO –with support from partners– launched the containment project on the Cambodia-Thailand border, and in 2013 the GMS-wide Emergency Response to Artemisinin Resistance in the Greater Mekong Subregion Project, focusing on the scale-up of coordinated action in all 6 GMS countries: Cambodia,

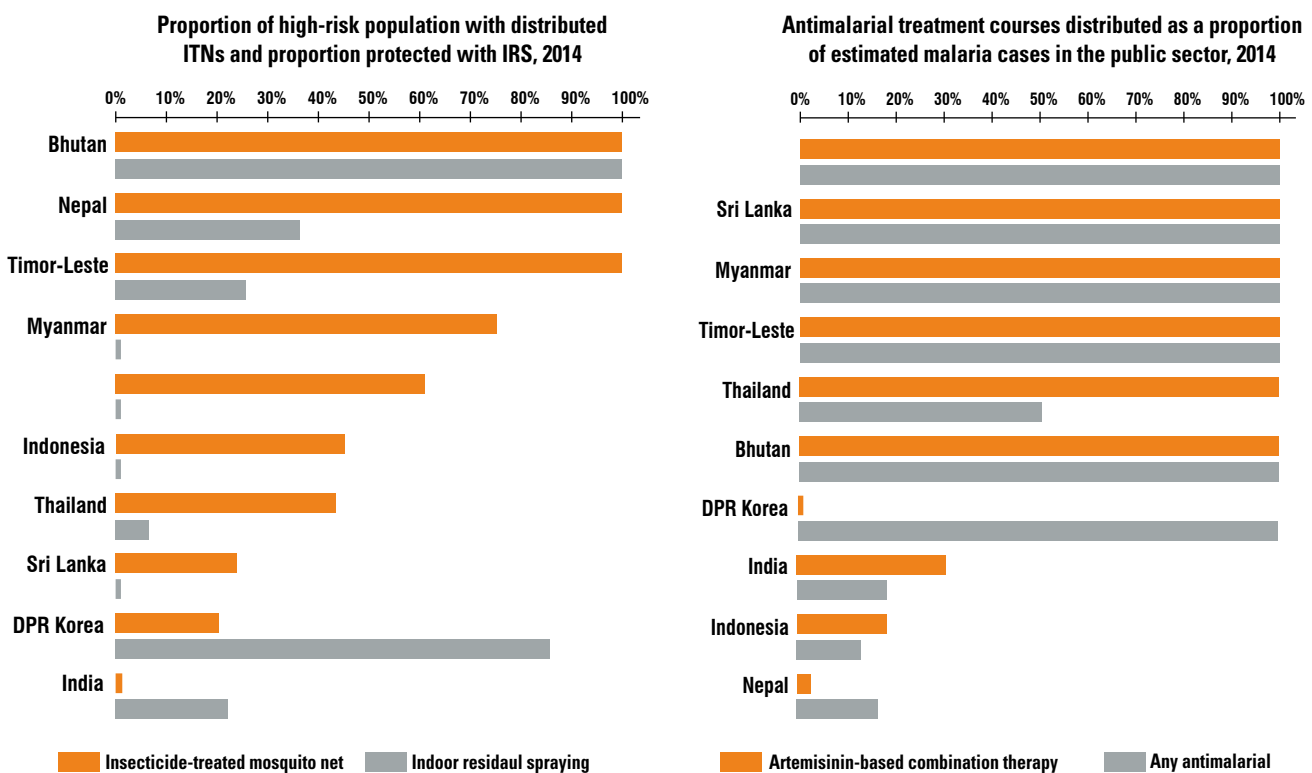
Yunnan Province/China, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam, with WHO coordinating and providing technical support. In 2015, during a World Health Assembly side event, the Strategy for Malaria Elimination in the Greater Mekong Subregion (2015–2030) was launched, putting into practice the strategic transition from containment of malaria multi-drug resistance to accelerated elimination of malaria in the GMS by latest 2030, and the subsequent implementation of post-elimination vigilance to prevent re-establishment of malaria in areas where transmission has been interrupted.²⁹

Global targets to greatly reduce malaria burden and eliminate malaria where feasible by 2030 will flounder unless malaria is significantly reduced/eliminated in the SEA Region, which has the second highest malaria burden after the African Region. As the malaria reduction progresses, the disease burden is largely remaining in vulnerable and marginalized populations living in pockets such as underserved or difficult to access geographical areas including border areas and conflict zones and among tribal populations. Even as the region celebrates important gains in reducing the malaria burden, rejuvenated decisive efforts are needed to ensure that those most vulnerable are not left behind, and each malaria case is being detected. Given the current large differences in malaria burden and malaria programme stages in different countries of the SEA Region, the goal to eliminate malaria from the region also calls for an urgent intensified dialogue around tackling malaria across neighbouring countries' borders, through sharing of information and coordinated control and preventive measures.



WHO / SEARO / KAREN REDDY

Figure 12: Coverage of malaria interventions



SOURCE: WORLD MALARIA REPORT 2015

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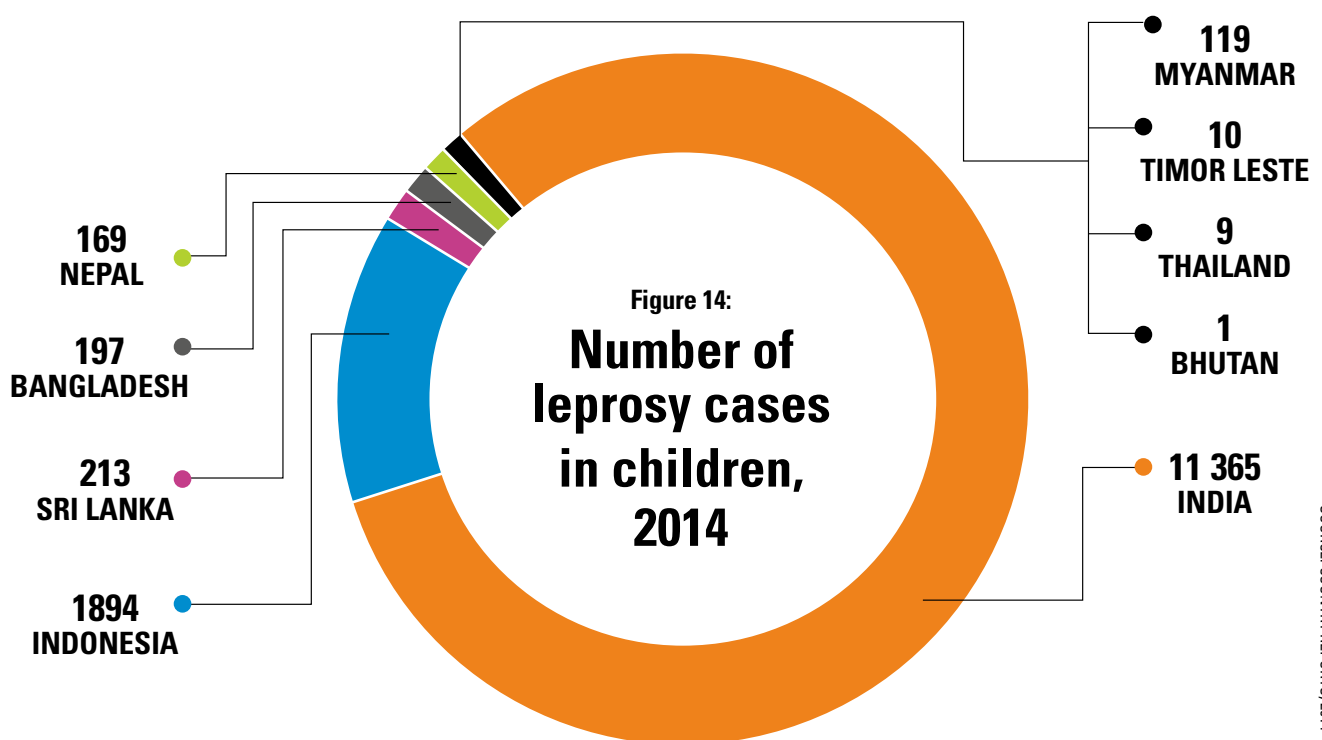
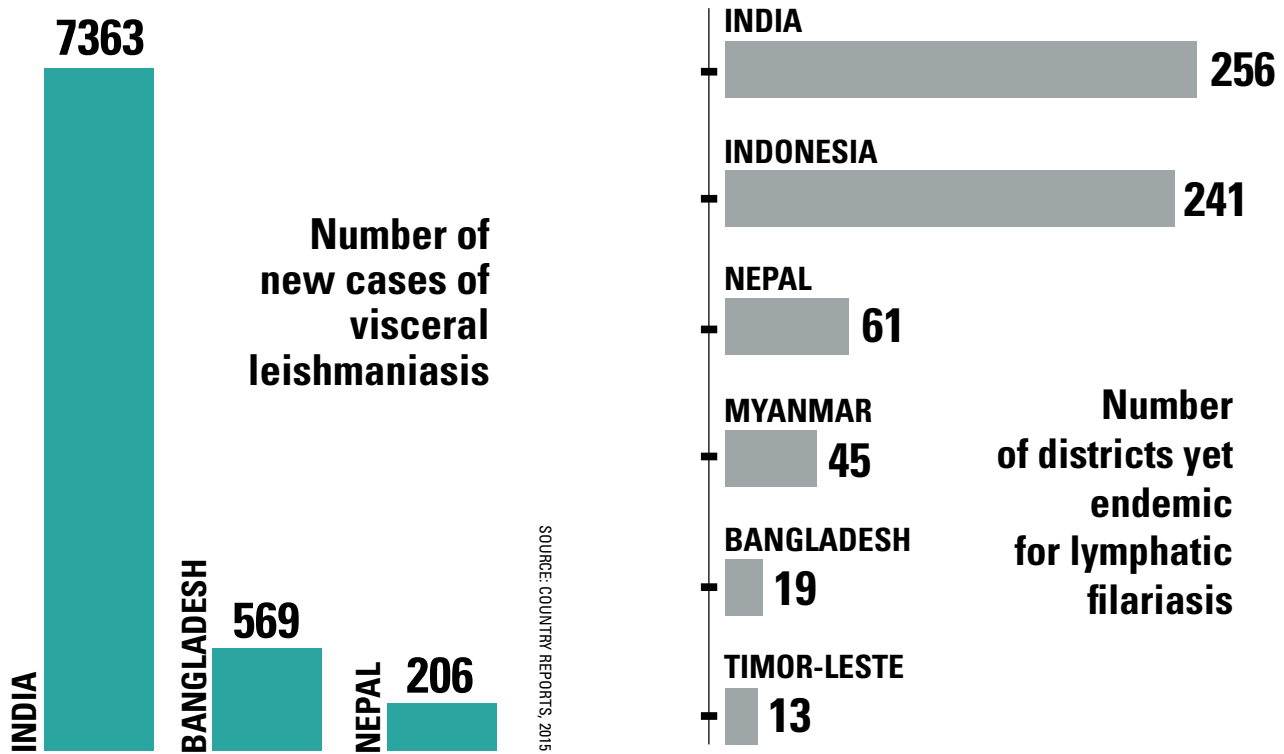
inishing the Task of Eliminating NTDs

Although NTDs collectively claim fewer lives than AIDS or TB, their human toll is devastating. Most cause severe disabilities and deformities as well as loss of income and employment to people already living in poverty. Physical disabilities resulting from some of these diseases lead to stigma, prejudice and discrimination. Elimination of these diseases will serve as a litmus test for the Agenda for Sustainable Development, which is grounded in principles of equity, fairness and a commitment to the most vulnerable.³⁰

NTDs are preventable and mostly treatable, and the number of countries, regions and communities affected by NTDs is progressively shrinking. Nevertheless, NTDs

continue to pose important health challenges in many regions and will not be eliminated without focused efforts, as past experience has shown that fragmented or inadequately sustained efforts are insufficient. For example, although leprosy was eliminated as a public health problem in every country in the Region by 2010, it continues to occur and cause disabilities in an unacceptably large number of people in well-defined geographic areas or population groups. The SDGs now provide the SEA Region – and the world as a whole – with the opportunity to bring additional focus, commitment and vigilance to the challenge of ending NTDs.

Figure 13: **Visceral leishmaniasis and lymphatic filariasis in SEA Region, 2015**



India and Indonesia continue to report over 10 000 new leprosy patients annually, accounting together for 68 per cent of newly diagnosed and reported cases globally

In the push to end NTDs, the SEA Region has the chance to build on important gains made over the last two decades, as countries in the SEA Region have made notable progress towards reducing the burden of key NTDs, particularly leprosy, lymphatic filariasis (LF), visceral leishmaniasis (VL or kala-azar) and yaws (Figure 13 and 14). Schistosomiasis, another NTD, persists as a problem in Indonesia.

Although the SDGs call for ending NTDs by the deadline of 2030, the SEA Region's regional NTD strategy aims to reach this goal much earlier – by 2020. To achieve these ambitious aims, countries and partners will need to combine technical, economic, social, operational and political strategies to achieve lasting results. This chapter examines roadmaps, challenges and game-changers for leprosy, LF and VL.

LEPROSY

Although leprosy by 2010 had registered national prevalence of less than one case per 10 000 population in every country in the Region, meeting the technical benchmark for elimination as a public health problem at the national level, a large number of cases continue to occur among certain population sub-groups and geographical locations. India and Indonesia continue to report over 10 000 new leprosy patients annually, accounting together for 68% of newly diagnosed and reported cases globally. The annual

new case detection rates for leprosy have plateaued since 2010 (Figure 15), but Grade 2 disabilities (GD2) have shown a slight increase, indicating late detection of cases. Leprosy among children continues to be high, indicating ongoing transmission (Figure 16).

This situation has emerged, partly because many observers and policy-makers wrongly interpreted achievement of the 2005 elimination target as meaning that no new cases of leprosy were possible.³¹ This misconception, combined with neglect of a targeted approach and lack of urgency, resulted in complacency with respect to leprosy-related programme implementation, resource mobilization and research required for further reduction of the disease burden.

Post-elimination strategies between 2005 and 2015 focused on achieving a further 'reduction of disease burden'. New targets were defined in terms of a decrease in Grade-2 disability (G2D), along with reducing the occurrence of new cases through early detection, treatment and resultant decreased transmission. The Global Leprosy Strategy (2016-2020) envisages zero transmission of leprosy, zero G2D among leprosy-afflicted children, and an overall target of reducing new leprosy cases with G2D to less than one case per million population³² (Figure 17).

Key to recent achievements have been widespread and free availability of chemotherapy in the form of multidrug



THE NIPPON FOUNDATION

Figure 15: Trends of new leprosy cases and registered prevalence in SEA Region, 2004-2014



SOURCE: COUNTRY REPORTS, 2004-14

In all, nine out of 11 countries in the Region are endemic with LF, which is a leading cause of permanent disability in many parts

therapy (MDT), robust public health strategies, collaboration among major partners, and political commitment from endemic countries. The prevalence of leprosy in the SEA Region decreased by 73% from 2001 to 2014.¹²

The global strategy for 2016-2020 prioritizes early detection of cases to avert disability, places a special focus on children to reduce disabilities and reduce transmission, emphasizes detection among higher risk groups in highly endemic areas or communities, and aims to improve health care coverage and access for marginalized population groups. Key actions to accelerate progress towards elimination include screening all contacts of leprosy-affected persons, exploring new treatment regimes, stronger mission mode, enhanced communication strategies with active participation of the community on new case detection and treatment completion. Persistent detection of leprosy in children demonstrates the continued presence of undetected patients. Timely detection can help interrupt transmission in the community and prevent deformities.

Ending discrimination against people affected by leprosy, including through the repeal or reform of discriminatory laws and policies, is an urgent priority. India has recently repealed its discriminatory laws, but such laws and policies remain in a few countries in the Region. Such forms of discrimination and social ostracism may contribute substantially to delayed diagnosis, which in turn facilitates transmission within families and communities.

LYMPHATIC FILARIASIS (LF)

Approximately 57% of the 1.1 billion people living in LF-endemic areas are in the SEA Region.³³ In all, nine out of 11 countries in the Region are endemic for LF, which is a leading cause of permanent disability in many parts of the Region.

WHO's global strategy to eliminate LF as a public health problem has two components – interrupting the cycle by Mass Drug Administration (MDA) and minimizing morbidity and disability among those who are already infected.³⁴ It involves rolling out preventive chemotherapy to reduce the number of infected people to a threshold below which transmission is no longer sustainable. India accounted for 62.3% of people in the SEA Region who received treatments between 2000 and 2014, and the country accounted for 70.3% of all people requiring MDA in the SEA Region.⁷ The second leg of the strategy recommends a basic package of care to every affected person in endemic areas to manage morbidity and prevent disability.

Preventive chemotherapy (consisting of albendazole and diethylcarbamazine (DEC)) helps ensure that infected individuals reduce the number of parasites in the blood and prevent mosquitoes from transmitting infection. To enable roll-out of the intervention, all endemic countries in the SEA Region have mapped the geographic distribution of the disease to support the delivery of MDA annually for five years or more, as recommended. In 2014, 588 million people in the SEA Region were targeted for MDA, and 389.2 million

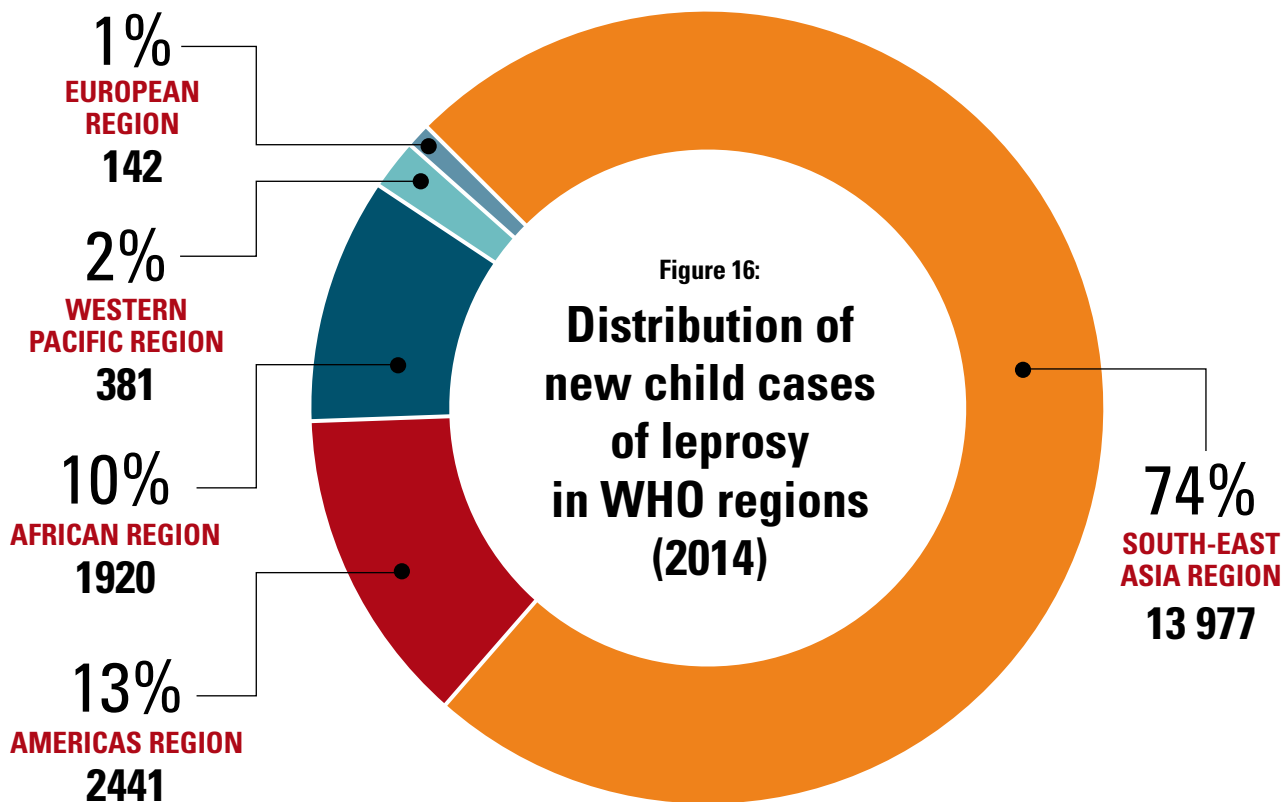
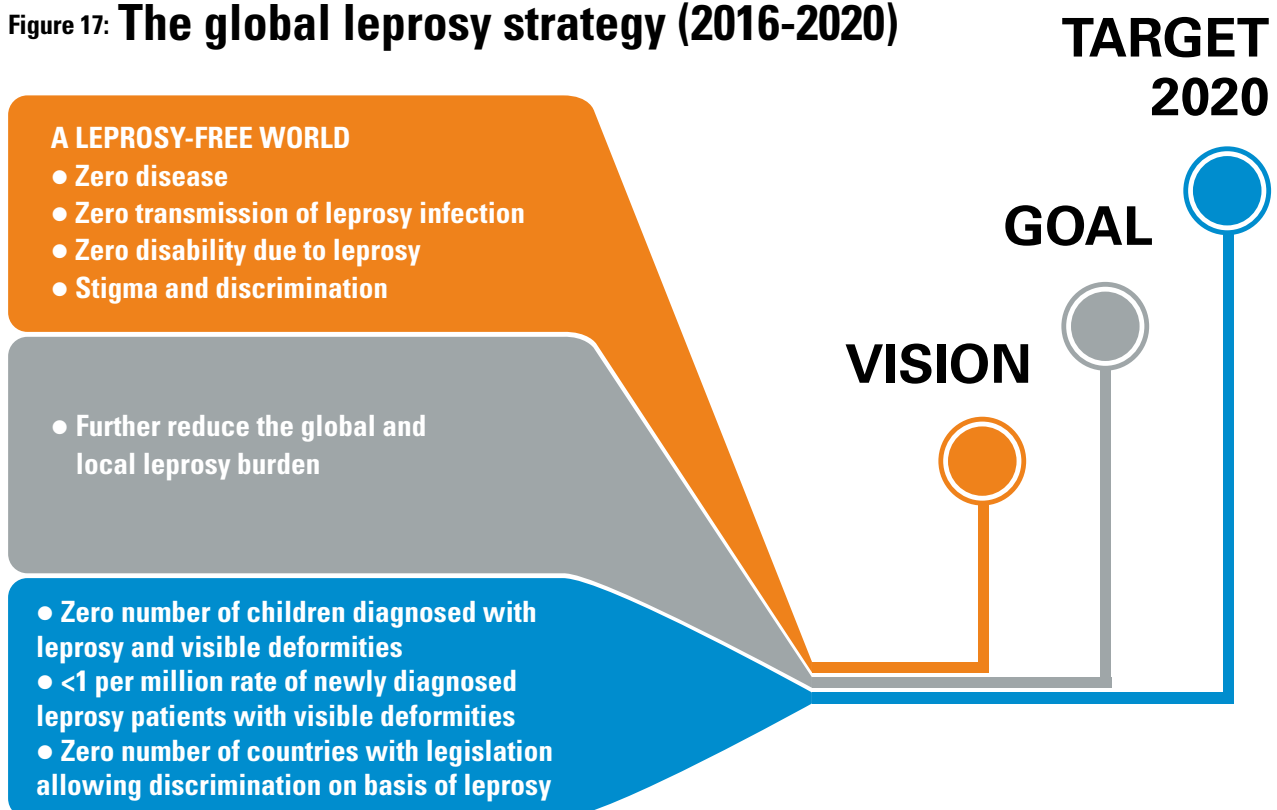


Figure 17: The global leprosy strategy (2016-2020)



In the SEA Region, 147 million people are at risk of contracting the life-threatening disease, kala-azar, which spreads through bites of infected female sandflies

(66.2%) were treated.³⁴ MDA is being gradually scaled down based on results of Transmission Assessment Surveys (TAS) in most of the endemic countries in the Region.

Countries are making progress towards achieving the target of eliminating LF in the Region by 2020.³⁴ Maldives and Sri Lanka have been validated as having eliminated LF as a public health problem, while Thailand and Bangladesh are in the process of validating elimination. India, Nepal and Timor-Leste have achieved 100% geographical coverage of MDA, whereas Indonesia and Myanmar are making good progress in this direction (Figure 18).

However, some “hot spots” of high prevalence remain despite several rounds of MDA in a few countries. Though coverage of MDA may be high, compliance is low in several LF endemic areas. Some districts where MDA has been stopped based on transmission assessment survey are subsequently found to show signs of ongoing transmission based on the results of later surveys. Attention is needed to apply effective tools and strategies to accurately determine when transmission has been interrupted and to implement effective post-intervention surveillance.

In addition, particular challenges confront efforts to roll out MDA in urban districts, as many urban dwellers do not perceive a personal risk of LF and see it largely as a problem of rural people. Special advocacy and awareness interventions are needed to address this

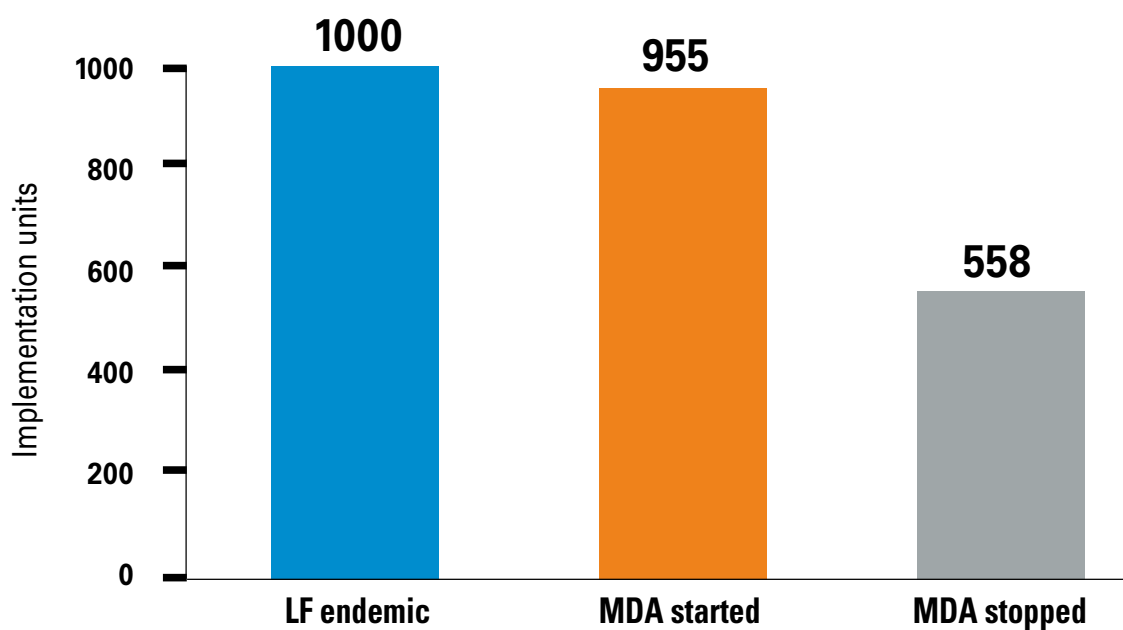
problem. Interventions are also needed for those people for whom preventive chemotherapy arrives too late. Morbidity Management and Disability Prevention (MMDP) is an integral part of the LF elimination that countries need to ensure for receiving the validation. National programmes will also have to formulate curative, surgical and rehabilitative interventions for people facing LF-induced disabilities.

VISCERAL LEISHMANIASIS (KALA-AZAR)

Visceral leishmaniasis (VL), also known as kala-azar, is an old public health problem in South Asia, which is fast moving towards elimination. In the SEA Region, 147 million people are at risk of contracting this life-threatening disease, which spreads through bites of infected female sandflies. The disease is endemic mainly in Bangladesh, India and Nepal, with sporadic cases also reported in Bhutan and Thailand.

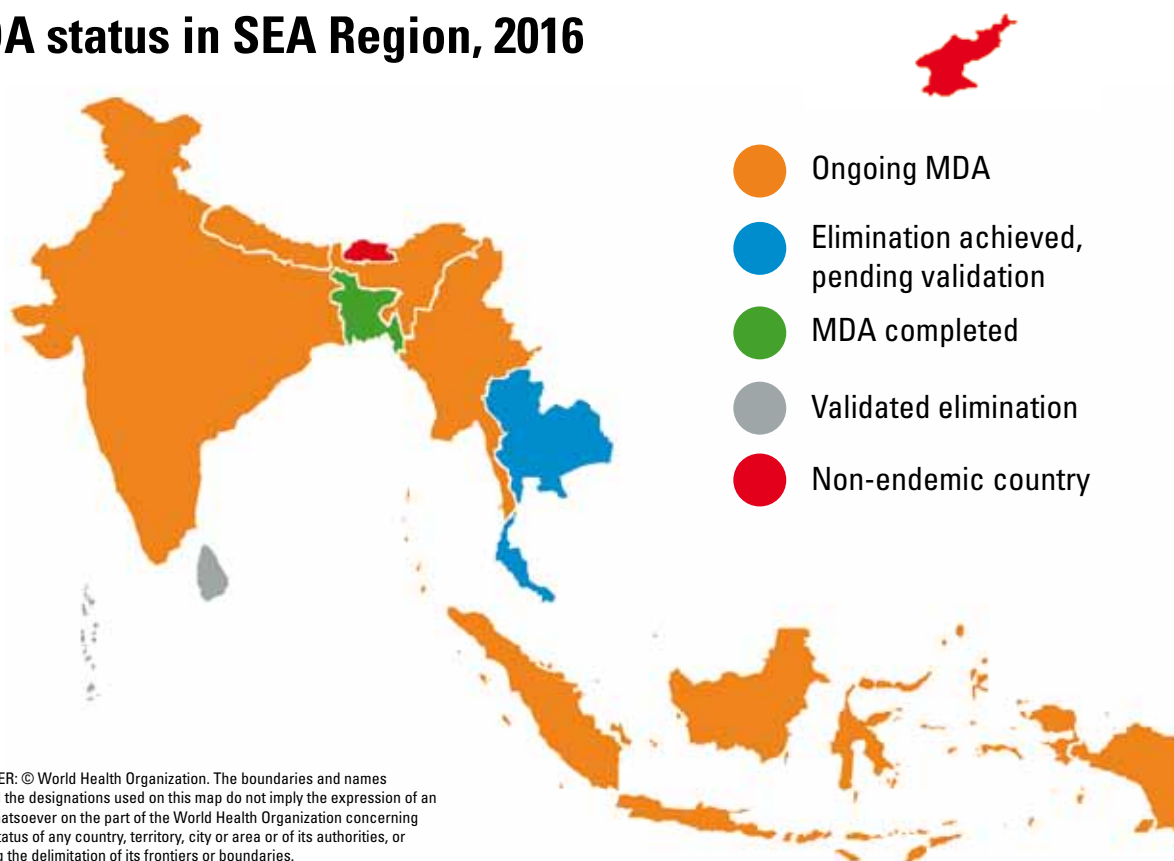
The disease is endemic in 109 districts in the Region – 52 blocks in India, 45 *upazilas* in Bangladesh, and 12 districts in Nepal. Across the Region, the number of cases has declined substantially, from 50 898 cases in 2007 to 8138 cases in 2015 – a drop of 83% (Figure 19). In India, the reported number of new cases has dropped by 78% and the number of deaths by 95% between 2011 and 2015. In 2015, fewer than 10 000 cases were reported in the SEA Region for the first time in 40 years. Bangladesh reported 569 new cases

Figure 18: Mass drug administration for lymphatic filariasis in SEA Region (2015)



SOURCE: WHO SEARO

MDA status in SEA Region, 2016



DISCLAIMER: © World Health Organization. The boundaries and names shown and the designations used on this map do not imply the expression of an opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

SOURCE: WHO SEARO

New challenges are emerging as endemic countries move into the last lap towards elimination of VL. Distribution patterns of the disease are changing and new foci are emerging from regions not covered under elimination programmes, such as mountains, valleys and even urban areas

in 2015 – the lowest level in the past 20 years – with a mortality rate below 1%.¹³

To eliminate VL as a public health problem, the SEA Region must reduce the incidence of the disease to less than one case per 10 000 population at sub-district level (*upazilla* in Bangladesh, block in India) and at district level in Nepal. Nepal has made significant progress, having eliminated VL at the district level and sustaining these gains for three years, will move to the validation process. Bangladesh has achieved the elimination target in over 96% of endemic *upazillas*, while India has achieved elimination in about 72% sub-districts (blocks).

An important reason for the progress is the availability of a more effective and safer single-dose regimen (Liposomal amphotericin test B) as well as rapid diagnostic tests. Governments, partnering with civil society and pharmaceutical companies through WHO, have focused on implementing control strategies based on early diagnosis and case management, integrated vector management, disease surveillance through passive and active case detection, social mobilization and capacity-building. The coverage and quality of interventions like indoor residual spraying for vector control have also improved, in part by involving communities and civil society partners in implementation.

However, new challenges are emerging as endemic countries move into the last lap towards elimination of VL. Distribution patterns of the disease are

changing and new foci are emerging from regions not covered under elimination programmes, such as mountains, valleys and even urban areas. Although endemic regions in three countries are confined to the Lower Gangetic plains – north-eastern India, south-eastern lowland of Nepal and the Ganga delta in Bangladesh – localized transmission has also been reported from hilly areas in India and Nepal, perhaps due to the effects of climate change.^{35,36}

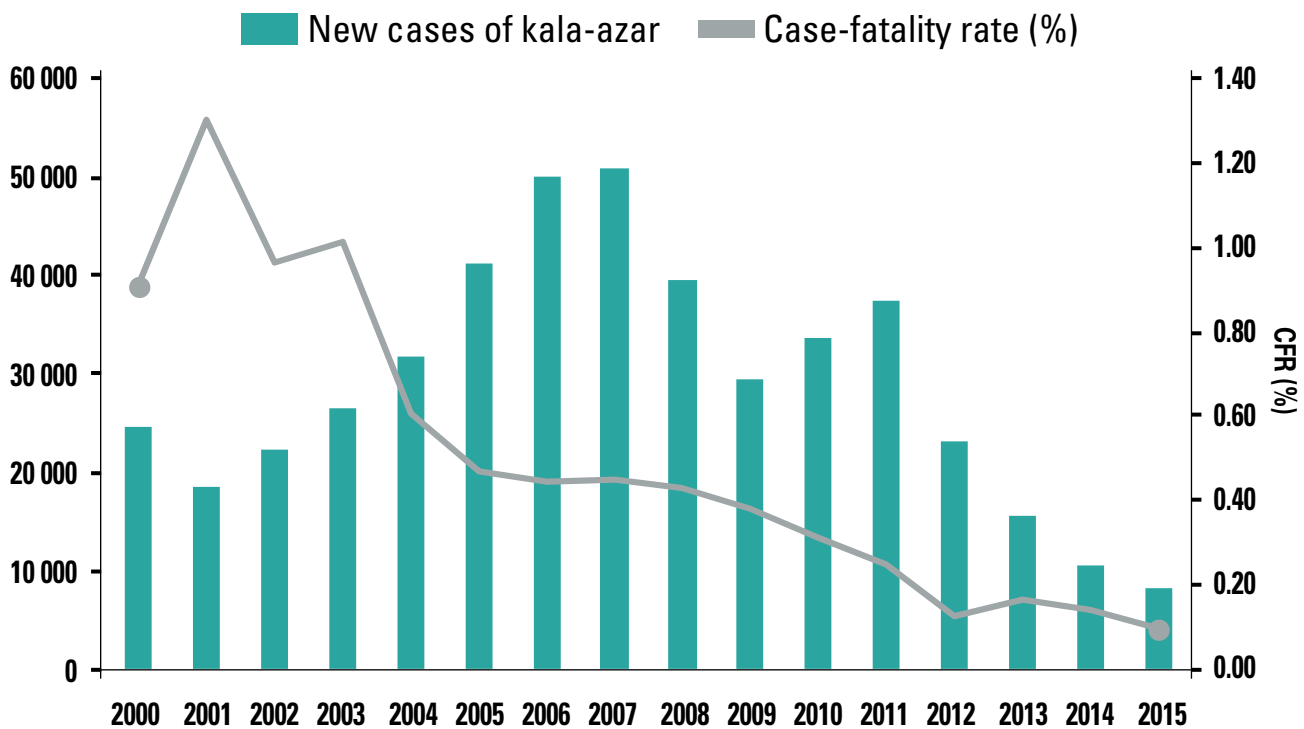
Another challenge relates to cases of post-kala-azar dermal leishmaniasis (PKDL), which may serve as a source of infection through sandfly and thus maintain transmission. Effective reporting of PKDL cases and interventions are needed to ensure effective treatment in endemic areas. While the endemic regions are in three different countries, geographically these areas are contiguous, with movement of people across borders, underscoring the importance of cross-border surveillance.

Though the three NTDs highlighted represent a diverse group of diseases, they also have important commonalities and are amenable to an integrated approach. They are largely concentrated in geographically focused regions, and mostly affect the poorest and most underserved communities. All three diseases also result in widespread social stigma and discrimination. Integrated strategies, accelerated action on raising funds and renewed political commitment are needed to reach the goal of eliminating these diseases.



WHO / SEARO / ANDY CRAIGS

Figure 19: Trends in new cases of kala-azar and case-fatality rate in the SEA Region



SOURCE: COUNTRY REPORTS 2000-2015

Game-changers

in the Quest to End Communicable Diseases

The UN Open Working Group on SDGs-observed that the SDG 3.3 target has a unique potential to make a difference to human development for the post 2015 agenda on an unprecedented scale. Since the target strives to end three major epidemics – and covers further diseases – it could, along with target 3.2 (child mortality), be the SDG target with the greatest impact in terms of reducing mortality.³⁷

The targets are stiff and pose a great challenge to the Region. Unless new ‘game-changing’ approaches common to these diseases in questions are adopted we are unlikely to meet the targets in this Region.

This chapter outlines key ‘game-changers’ that can potentially build a strong, sustainable foundation for ending communicable diseases in the SEA Region. Each of these game-changers should be immediately implemented, adequately resourced, sustained over time, and supported by strong political commitment, inter-sectoral action and meaningful community engagement.

LEAVE NO ONE BEHIND: Focus first on the most marginalized

Ending communicable diseases will be impossible unless responses meet the needs of the most marginalized. Each of these diseases primarily affects marginalized populations. The Region’s HIV epidemic, for example, is largely concentrated among key populations: female sex workers, men who have sex with men, people who inject drugs and transgender persons. Such groups are notably less likely than other people living with HIV to obtain HIV testing and treatment services even when freely available.³⁸ Likewise, TB is most common among the economically disenfranchised. Malaria is often heavily concentrated among certain ethnic groups and in specific geographical areas.³⁹ Cases of neglected tropical diseases are similarly most frequent among groups that are the most geographically, economically and socially marginalized.⁴⁰ ‘Business as usual’ will be insufficient, as mainstream health services, as currently configured, have proven inadequate to the task of reaching marginalized and stigmatized populations.



WHO / SEARO / ANUBHAV DAS

SDG 3.3

UN Open Working Group on SDGs observed that the SDG 3.3 target has the unique potential to make a difference to human development for the post-2015 Agenda on an unprecedented scale

KNOW YOUR EPIDEMICS AND DISEASE TRENDS: Know your response at the local level

Traditionally, the collection, analysis and reporting of disease trends have occurred at the national level. However, given the extraordinary heterogeneity of the prevalence and incidence of communicable diseases in the SEA Region, there is, in reality, no such thing as a 'national' epidemic. National epidemiological statistics are merely an aggregation of reports on multiple local epidemics, many of which differ markedly from one another.

In Indonesia, for example, the Papua Province has very high malaria incidence (31.93 cases per 1000 population in 2014), while two provinces (Bali, DKI) are already free of locally transmitted malaria, and 369 districts are in the elimination phase of the disease (under 1.0 cases per 1 000 population).⁴¹

Focusing on national disease trends often obscures important differences among localities and invites a 'one-size-fits-all' approach to widely varying local epidemics. Stable disease prevalence at the national level can also invite complacency and obscure sub-national increases in incidence and prevalence that warrant a strong and immediate public health response.

Understanding variations in disease burden and unmet need for services within and between localities better enables decision-makers to allocate finite resources to maximize impact. Focusing programmes on locations and populations most in need of services also increases the return on public health investments.

Careful programmatic monitoring is essential to ensure that public health efforts achieve their desired results, and this most usefully should occur at the local level. Effective public health

initiatives inevitably involve a 'cascade' of steps including timely diagnosis, linkage to appropriate services, adherence to prescribed public health measures, and achievement of the ultimate goal of the intervention (e.g., complete cure in the case of TB, viral suppression in the case of antiretroviral therapy). Data systems should be capable of measuring and reporting outcomes at each step of the service cascade in close to real time, to alert policy-makers and programme implementers to bottlenecks or gaps that need to be addressed. Locally relevant, real-time data will be critical to hopes for traveling the last mile to end communicable diseases in the Region.

ADAPT HEALTH DELIVERY TO THE NEEDS OF PEOPLE: Invest in decentralized community health systems by strengthening community-based organizations

Health systems in the SEA Region confront multiple challenges, including an acute shortage of skilled health workers – the backbone of any health system. Some countries in the SEA Region have among the lowest health work force penetration in the world – 5.7 health professionals per 10 000 population in Bangladesh, and 6.4 in Nepal, well below the minimum threshold of 22.8 per 1 00 000 population.⁴²

While working to educate and deploy new cadres of skilled health professionals, the SEA Region countries also urgently need to use additional innovative strategies to extend the health workforce. Community health workers as well as community health organizations offer key, underutilized resources for task shifting in delivery and promotion of essential health services and specifically to reach vulnerable populations who are not always well-served by mainstream health systems.

National epidemiological statistics are merely an aggregation of reports on multiple local epidemics, many of which differ markedly from one another

The SEA Region has incubated some innovative community-centered approaches to communicable diseases. For instance, a sex worker cooperative in Sonagachi (Kolkata, India) has proven effective in empowering sex workers to take steps to improve their health, and resulting in reduced rates of HIV acquisition among sex workers.⁴³

To enable a nearly five-fold increase in ART uptake in less than six years and achieve a coverage of ART higher than the global average, Myanmar decentralized services to township and peripheral sites, using a model whereby stable patients are transferred for ongoing management to township sites. This approach has brought services closer to those who need them while decongesting primary treatment sites. Task shifting to community workers and community organisations are essential for rapid scaling up. Community service delivery is most effective when it builds on the strong and ongoing engagement of local communities, such as through participatory processes for the development of health action plans in specific communities.

COMPLEMENT THE UHC FRAMEWORK WITH STRATEGIC COORDINATED BODY: Ensure targeted services to reach populations and locations by priority diseases

While working to leverage this broad-based, cross-cutting health safety net, the

SEA Region countries should complement expanded health coverage with a renewed, laser-like focus to end each communicable disease. India's National AIDS Control Organisation even within the Ministry of health offers an example of the kind of specific focus, urgency, flexibility and multi-sectoral approach needed to complement and effectively marshal broad-based health coverage and service delivery mechanisms to those unreached in a time-bound fashion.

The need for such inter-sectoral linkages is apparent. In the case of TB, for example, poor nutrition is an important risk factor for TB, a common consequence of TB and associated with increased risk of mortality and poor treatment outcomes.⁵ This highlights the need for partnerships with stakeholders in the nutrition and food security field. Inter-sectoral approaches are also critical for addressing environmental factors such as water, sanitation and hygiene (WASH), which influence not only vulnerability to infection but also the ability of infected individuals to cope with disease.

This will ensure special efforts to roll out coverage at the outset to those in greatest need in time. Thailand's elimination of mother-to-child transmission of HIV, officially certified in 2016, became possible in large measure due to the country's pioneering national health insurance programme, which covers 99.9% of Thai citizens as well as undocumented migrant workers.⁴⁴

99.9%

Thailand's elimination of mother-to-child transmission of HIV, officially certified in 2016 was built in large measure on the country's pioneering national health insurance programme that covers 99.9% of Thai citizens

TRANSLATE TECHNOLOGY INTO CONCRETE HEALTH GAINS:

Remove barriers to early adoption of innovations

Ours is an era of extraordinary biomedical breakthroughs, including the development of ART, new treatments for age-old killers such as malaria, and faster, simpler diagnostic tools that open the doors to life-saving treatments. This exciting time of biomedical promise continues, as the world contemplates additional advances, such as long-acting therapeutic tools, gene therapy and individualized treatments for cancer and other diseases.

Key technologies have the potential to revolutionize management of communicable diseases and accelerate progress towards ending these diseases. For example, the GeneXpert platform is a simple, affordable mechanism for overcoming one of the principal challenges to TB control – diagnosing TB, especially multi-drug-resistant strains, in a timely manner. Technologies for monitoring HIV viral load by point of care tests help health providers and community workers detect and address adherence problems and emerging treatment failure. Recent trials on preventive chemotherapy for LF, which relies on albendazole and diethylcarbamazine, may be made even more effective through the addition of Ivermectin, a third drug. Current trials are examining whether this three drug regime are safe and effective at large-scale.

Yet, the promise of these medical breakthroughs have often not been fully realized due to the slowness of health systems to adopt these new technologies and make them readily available to those who need them. In addition to the challenge of financing the uptake of novel health technologies, roll-out of

these tools is often slowed by regulatory barriers, delays in developing normative and professional guidance, and simple systemic inertia.

Regulatory systems need to be strengthened and streamlined to expeditiously evaluate, approve and license new health technologies. Budgetary systems should be made flexible to permit swift reallocation of resources to purchase and distribute new health tools.

USE NOVEL COMMUNICATION APPROACHES: Reach those in need to mobilize communities

Communicable diseases in the SEA Region cannot be ended without the active engagement and leadership of affected communities. In parts of India and Indonesia mass drug distribution by healthcare workers with limited involvement of the community has led to poor drug intake and continued transmission of filarial parasite in spite of free and massive drug distribution. On the other hand use of microcredit for health promotion, Internet based approaches for safer male to male sex and reduction of violence towards transgender through the use of helplines has mobilized communities hitherto unreached and unattended population groups – SEA Region has been an incubator of some of the most globally influential community-centred approaches to communicable diseases

LEARN FROM EVIDENCE: Adjust programmes early based on ongoing findings of internal and external partners

A region aspiring for elimination of NTDs and HTM diseases earlier than other regions

Key technologies have the potential to revolutionize management of communicable diseases and accelerate progress towards ending these diseases

cannot wait for the end of project evaluation results in their last-mile programmes. One example is the polio surveillance carried out by a large number of national and internationally hired staff of WHO that detected the failures early and made timely corrections. The filarial elimination programmes is another good example where five waves of drug administration are needed to interrupt transmission and any failure of coverage and quality unless detected by 2016 and corrected as necessary would lead to a regional failure to achieve elimination by 2020. Invest in external, independent evaluations of national disease control programmes and use evaluation findings to strengthen and adapt programmes as needed.

TRANSLATE COMMITMENTS INTO RESULTS: Invest now or pay much more down the road

Currently, efforts to fight infectious diseases in the region are often heavily reliant on donor funding, including through the Global Fund to Fight AIDS, Tuberculosis and Malaria. However, access to international support is increasingly uncertain, as the Global Fund and other donors transition support away from many middle-income countries and increasingly prioritize broad health sector support over disease-specific assistance.

The combination of declining external support and inadequate domestic financing has resulted in substantial

resource gaps. In India and Indonesia, for example, a substantial and growing gap persists between available resources and amounts needed to end AIDS by 2030.⁹

Funding to fight malaria, both domestic and international, has decreased in SEAR between 2013 and 2014 (7 and 11% respectively).¹⁰ Efforts to eliminate malaria will flounder if these efforts are pursued on the cheap. The projected cost of implementing the elimination plan in the Greater Mekong sub-region ranges from US\$ 200 million to US\$ 243 million per year.²⁹

Although public sector investments in health remain far too low for the region as a whole, there are important signs of leadership on this front from which we can learn. Thailand, for example, increased the proportion of the national budget devoted to health from 2.0% in 1995 to 5.6% in 2014, while in Maldives, the health share of public sector spending increased from 3.7% to 10.8%.⁴⁵ Across the Region, countries need to emulate these successes in increasing public sector spending on programmes to combat communicable diseases and other health services. Over time, as national economies continue to grow, a portion of the dividends from economic growth need to be reinvested in health to lay the groundwork for even healthier and more prosperous societies in future years.

While financial investments are perhaps the easiest-to-measure sign of political leadership, they are not the only test. The enabling game-changers outlined in this report can only be seized through strong, visible and sustained political leadership.

Cross-cutting game changing approaches can potentially help in building a strong and sustainable foundation for ending HIV, TB, malaria and NTDs in the SEA Region

CONFRONTING CROSS-CUTTING CHALLENGES AND ADAPTING TO CHANGE

To ensure that game-changers realize their potential to speed the end of communicable diseases in the Region, member countries must address various cross-cutting challenges and be prepared to adapt to emerging challenges and changes in the environment

FIGHT STIGMA AND DISCRIMINATION

For communicable diseases of all kind, stigma and discrimination not only cause immense human suffering but also effectively prevent services from reaching those who need them. In the case of communicable diseases, this results in needless suffering for individuals living with these conditions and also potentially exposes the broader population to the risk of further transmission. Efforts to address communicable disease are also undermined by stigmatizing attitudes towards the groups most at risk of infection, such as the marginalized groups most at risk of acquiring HIV. Minimizing the prevalence and impact of stigma requires the engagement of diverse stakeholders, including political leaders, communities, the media, faith-based communities and other institutions and

MINIMIZE ANTIMICROBIAL RESISTANCE

Antimicrobial resistance (AMR) has the potential to debilitate efforts to combat communicable diseases, as diseases that are previously treatable become much more difficult to treat, causing the complexity and cost of disease control programmes to skyrocket. In the case of TB, although the level of multi-drug-resistant TB (MDR-TB) in the SEA Region is relatively low in newly

detected cases (2.2, range 1.9–2.6%), and moderate among retreatment cases 16% (range 14–18%), the number of MDR-TB cases regionally is considerable: 99 000 estimated in 2014 alone in

the SEA Region countries, representing nearly one-third of the world's MDR-TB cases among notified pulmonary TB cases.

Malaria control efforts confront two types of resistance challenges: the development by mosquitoes of resistance to insecticides used in indoor residual sprays (IRS) and insecticide-treated bednets (ITNs), as well as the development of resistance to antimalarials by the malaria parasite, *P. falciparum*. Some

malaria mosquitoes are becoming resistant to the class of insecticides used in ITNs and IRS – pyrethroids, with insecticide resistance increasing in distribution and intensity. *P. falciparum* multidrug resistance, including ACT resistance, has been detected in five countries in the Greater Mekong subregion (GMS): Cambodia, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam.

TB and malaria control efforts in the Region must prioritize efforts to minimize and address the risk of AMR. The Regional Director of the SEA Region has recognized addressing AMR as one of the flagship priority areas. As noted in the Regional End TB Strategy for the SEA Region, an important strategy for minimizing TB drug resistance is to improve the effective use of first-line anti-TB medicines. Improving use of first-line regimens demands concerted efforts to address the factors contributing to sub-optimal treatment, including the critical shortage of trained staff, limited market and high price of second-line medications, inadequate number of facilities for treatment and monitoring, incomplete diagnosis of patients and weaknesses in health services, and sub-optimal adherence to prescribed

regimens.



WHO / SEARO / ANUBHAVDAS

By the end of the 21st century, the earth's temperature is predicted to rise above mid-1990 levels by 1.1°C to 6.4°C – a change that, in turn, may increase frequency and intensity of heat waves, floods and droughts.

For malaria, the UN's Intergovernmental Panel on Climate Change (IPCC) has projected that anticipated changes in temperature and rainfall will affect the natural habitats of mosquitoes, changing the prevalence of the vector or prolonging transmission seasons (or both) in some areas, and potentially exposing new regions and populations to malaria and other vector-borne diseases.¹³ The Action and Investment to Defeat Malaria Plan (2016–2030), prepared by WHO's Roll Back Malaria, has recommended building alliances between malaria programmes, ministries of health and relevant environmental and development partners to secure access to climate adaptation funds. It has also called for national malaria programmes to integrate management of climate-related risks into their programme

TAKE ACCOUNT OF CLIMATE CHANGE

Communicable diseases do not respect national borders, with the substantial cross-border interaction between people in the SEA Region posing potential challenges for disease control efforts. Collaboration between countries in managing and minimizing these risks is essential, underscoring the important role of international agencies in supporting such cross-border collaboration.

Malaria control and elimination patterns highlight the critical need for cross-border collaboration. In 2012, areas of emergence of artemisinin-resistant malaria in Thailand were concentrated along border areas with Cambodia and Myanmar. Among all malaria cases in border areas in Thailand in 2012, 82% occurred along the Thailand-Myanmar border. However, the highest impact of interventions is also noted on the Thai-Myanmar border showing more than 50% reduction of all malaria cases in 2014 as compared

to 2010 [Reference, please add: *Programmatic Review of the National Malaria Programme in Thailand, 31st August – 11th September 2015, WHO 2016*]. In addition, Thailand, while working to strengthen and adapt its own border health facilities, forged a cross-border collaboration for malaria control with Myanmar, Cambodia and the Lao People's Democratic Republic, guided by bilateral memoranda of understanding between national health ministries and annual meetings of ministry officials and programme managers from all

ADDRESS CROSS-BORDER MIGRATION

82%

In 2012, areas of emergence of artemisinin-resistant malaria in Thailand were concentrated along border areas with Cambodia and Myanmar. Among all malaria cases in border areas in Thailand in 2012, 82% occurred along the Thailand-Myanmar border

Reaching the End: Ending HIV, TB, Malaria and NTDs

The opportunity to end AIDS, TB, malaria and NTDs is historic. Yet, at the current rate of progress, most countries in the SEA Region may miss the elimination targets outlined in the SDGs as well as disease-specific global and regional strategies. Moreover, given the gains that have been achieved, there is a genuine risk this progress getting jeopardized and perhaps even reversed due to complacency. In the midst of encouraging progress against these leading communicable diseases, many settings and population groups are being left behind. There is a yawning gap between people moving forward and people left behind. Paragraph 26 of the 2030 Agenda for Sustainable Development aims to unite the world '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.⁴⁶

The world is at the tipping point in its fight against AIDS, TB and malaria. The endgame for each of these diseases is in sight, but the window of opportunity to lay the foundation to end these diseases is narrow. Unless we build on the gains we have made to date, we risk allowing a resurgence of infectious disease, which would not only cost lives but also vastly increase the future cost of responding to these diseases. In the case of TB, these costs would be enormous, as a single case of multidrug-resistant TB costs up to US\$ 5000 to treat in some countries.⁴⁷



\$ 5000

In the case of TB, the cost of delayed action would be enormous, as a single case of multidrug-resistant TB costs up to US\$ 5000 to treat in some countries

The risk of likely rebound of these infectious diseases is hardly theoretical, as the world has repeatedly experienced a return of serious epidemics after failure to sustain the gains. A review of malaria resurgence events in 61 countries, occurring from the 1930s through the 2000s, showed that the weakening of malaria control programmes was a key factor in almost all resurgences, and resource constraints was the most common cause.⁴⁸

Under the MDGs, SEA Region countries learned important lessons about how to tackle the complex challenges posed by infectious diseases. In the case of HIV, we know much better in 2016 how to combat the disease than we did in 2000. As prevention and treatment services have been brought to scale, the SEA Region countries have identified best practices for community engagement, service delivery and policy reform. Countries will need to heed and build on the lessons learned through the experience with the MDGs.

But it is also apparent – given the inadequacy of the current pace of scale-up to reach the targets for ending communicable diseases – that ‘business as usual’ will not suffice for future progress. New approaches will be needed – to mobilize resources that will be required, to address socioeconomic determinants of risk and vulnerability, to effectively use the widening array of prevention and treatment tools at our disposal, to reach those currently left behind, and to lay the foundation to sustain our gains over time.

SEA Region countries, with the support of regional bodies and international partners, urgently need to take strategic steps to implement potential game-changers in the fight against communicable diseases. The focus must shift from national to local areas, with specific actions to strengthen local surveillance, undertake real-time monitoring of results and outcomes, and use of data to guide the local response

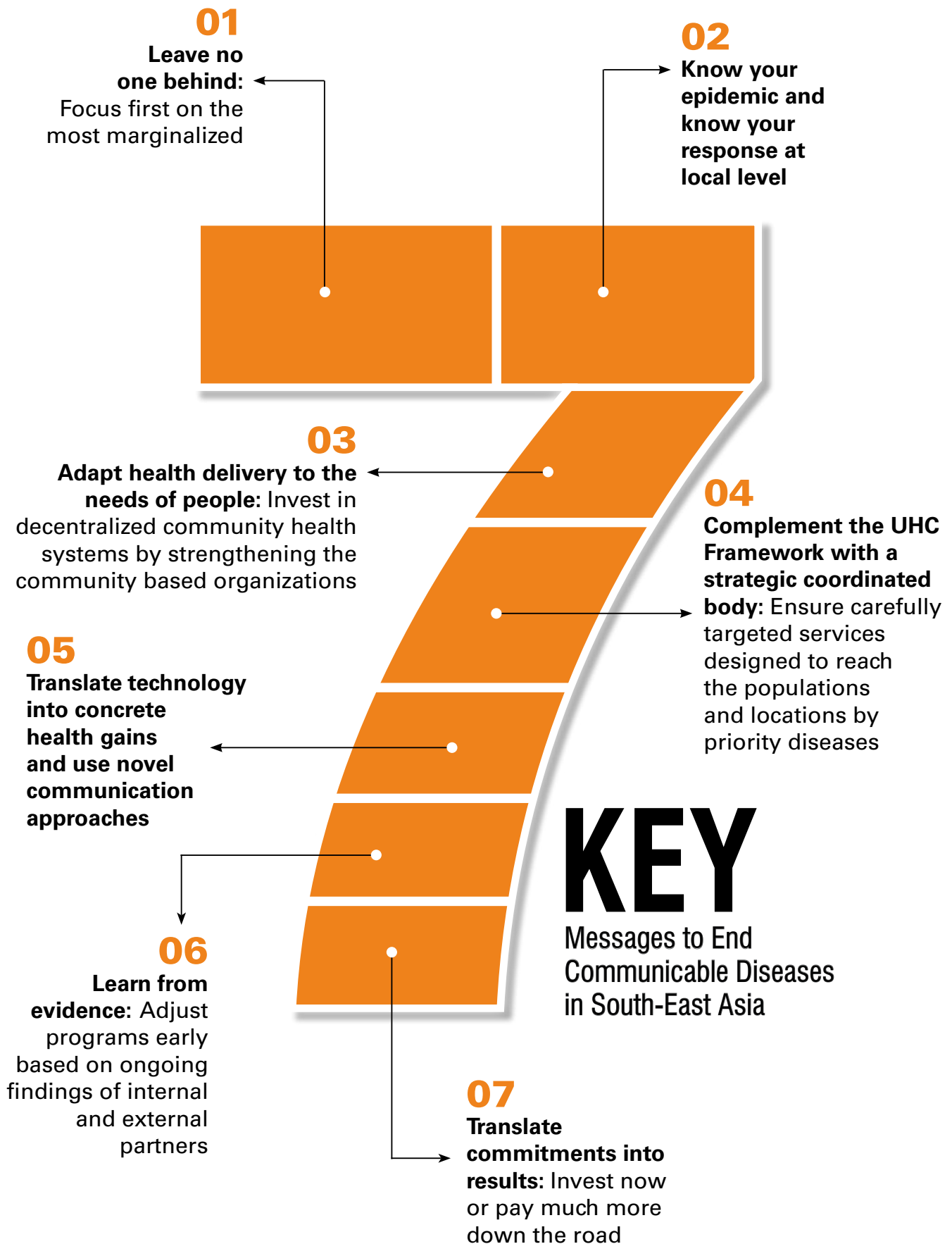
and ensure that it meets local needs and priorities. Implementation research should be undertaken to define and inform effective local strategies.

Stakeholders in the response to communicable diseases must recognize communities not as passive recipients of services but as partners in designing, implementing and monitoring prevention and treatment programmes. Broader, more inclusive partnerships will be needed to address the needs of people and communities affected by communicable diseases.

Political commitment, as reflected in the endorsement of the SEA Region member states of the SDG targets of ending communicable diseases, must be translated into concrete actions and pursued with a sense of urgency. While working to mobilize international assistance, countries should take immediate steps to increase domestic investments in efforts to end epidemics of AIDS, TB, malaria and NTDs. Innovative, milestone-driven and community-centred service models, drawing from experiences such as ART scale-up in the case of HIV need to be implemented broadly, for all communicable diseases. As countries move towards universal health coverage, political leaders must ensure that the most vulnerable are prioritized. Strong leadership will also be needed to ensure that finite resources are focused on the populations and settings where need is greatest and where the return on public health investments most pronounced.

The time to act is now, as failure to take immediate action will inevitably cause the human and financial burdens associated with communicable diseases to increase in future years. With enhanced commitment and sustained investment, SEA Region countries have the means to end communicable diseases well before the 2030 deadline. Our decision to act now to seize this fragile opportunity to end communicable diseases will have a profound effect on the health and well-being of current and future generations of people in the Region.

SEA Region countries, with the support of regional bodies and international partners, urgently need to take strategic steps to implement potential game-changers in the fight against communicable diseases



REFERENCES

1. United Nations. Sustainable Development goals, 17 goals to transform our world. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/> - accessed 16 August 2016.
2. WHO. Status of Communicable Diseases in South-East Asia Region. 2015
3. Asian Development Bank. Asia 2050: realizing the Asian century. Philippines, 2011.
4. WHO. Data repository by indicators. <http://apps.who.int/gho/data/view.main.POP2040?lang=en> - accessed 16 August 2016.
5. World Health Organization, Regional Office for South-East Asia. The work of WHO in the South-East Asia Region: report of the Regional Director. 1 January – 31 December 2014. New Delhi, 2015.
6. United Nations. Goal 6: combat HIV/AIDS, malaria and other diseases. <http://www.un.org/millenniumgoals/aids.shtml> - accessed 16 August 2016.
7. World Health Organization. Accelerating progress on HIV, tuberculosis, malaria, hepatitis and neglected tropical diseases. a new agenda for 2016 – 2030. Geneva, 2015. <http://apps.who.int/medicinedocs/documents/s22340en/s22340en.pdf> - accessed 16 August 2016.
8. UNAIDS. AIDS info Indicators. 2016. <http://aidsinfo.unaids.org/#data-details> - accessed 16 August 2016.
9. World Health Organization, UNAIDS. Global AIDS response progress reporting 2015. Geneva, 2015.
10. World Health Organization. World malaria report 2015. Geneva, 2015. http://apps.who.int/iris/bitstream/10665/200018/1/9789241565158_eng.pdf - accessed 16 August 2016.
11. World Health Organization. Global tuberculosis report 2015. 20th Edition. Geneva, 2015. http://apps.who.int/iris/bitstream/10665/191102/1/9789241565059_eng.pdf - accessed 16 August 2016.
12. World Health Organization, Regional Office for South-East Asia. Status of communicable diseases in South-East Asia Region. New Delhi, 2015.
13. Data from Country Reports to WHO.
14. Data from Country Reports to WHO.

15. World Health Organization, Regional Office for South-East Asia. Regional strategic plan for integrated neglected tropical disease control in South-East Asia Region 2012-2016. New Delhi, 2012.
16. UNIC. 17 Sustainable Development Goals are set and welcomed. 2015. <http://www.unric.org/en/latest-un-buzz/29844-17-sustainable-development-goals-are-set-and-welcomed?format=pdf> - accessed 16 August 2016.
17. UNAIDS. Fast-track: ending the AIDS epidemic by 2030. Geneva, 2014.
18. UNAIDS, General Assembly. Political declaration on HIV and AIDS: on the fast-track to accelerate the fight against HIV and to end the AIDS Epidemic by 2030. 2016. <http://www.unaids.org/en/resources/documents/2016/2016-political-declaration-HIV-AIDS>
19. UNAIDS. On the FastTrack to end AIDS: 2016-2021 Strategy. Geneva. http://www.unaids.org/sites/default/files/media_asset/20151027_UNAIDS_PCB37_15_18_EN_rev1.pdf - accessed 16 August 2016.
20. UNAIDS. "15 by 15" A global Target Achieved. 2015. Geneva. http://www.unaids.org/sites/default/files/media_asset/UNAIDS_15by15_en.pdf - accessed 16 August 2016.
21. World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection Recommendations for a public health approach - Second edition. Geneva, 2016. <http://www.who.int/hiv/pub/arv/arv-2016/en/> - accessed 16 August 2016.
22. World Health Organization. The end TB strategy: global strategy and targets for tuberculosis prevention, care and control after 2015. Geneva. http://www.who.int/tb/post2015_TBstrategy.pdf - accessed 16 August 2016.
23. Implementing the End TB strategy: The essentials, World Health Organization; 2015
24. World Health Organization, Regional Office for South-East Asia. Tuberculosis control in South-East Asia Region: annual report 2016. <http://www.searo.who.int/tb/annual-tb-report-2016.pdf?ua=1> - accessed 16 August 2016.
25. World Health Organization. Global Technical Strategy for Malaria (GTS) 2016-2030. Geneva, 2015. http://apps.who.int/iris/bitstream/10665/176712/1/9789241564991_eng.pdf - accessed 16 August 2016.

26. Ministry Of Health & Family Welfare and WHO. National framework for malaria elimination (2016-2030), India. Directorate of national vector borne disease control programme (NVBDCP) Directorate General of Health Services (DGHS), Ministry of Health & Family Welfare, Government of India. http://www.searo.who.int/india/publications/national_framework_malaria_elimination_india_2016_2030.pdf – accessed 16 August 2016.
27. Ministry of Health, Myanmar, World Health Organization. National strategic plan Malaria Prevention and Control 2010-2016. Department of Health Ministry of Health, Republic of the Union of Myanmar http://www.searo.who.int/myanmar/areas/malaria_workshopforosp/en/ - accessed 16 August 2016.
28. Ministry of Health, Indonesia. National malaria control program strategic plan 2015-2019. Republic of Indonesia. <http://static1.1.sqspcdn.com/static/f/471029/26502872/1441109745877/Summary+of+National+Malaria+Control+Program+Strategic+Plan+++2015+edas.pdf?token=jlshRmZH4uez7YvySVOobyvXFdc%3D> - accessed 16 August 2016.
29. World Health Organization. Strategy for malaria elimination in the greater mekong subregion (2015–2030). Geneva, 2015. http://iris.wpro.who.int/bitstream/handle/10665.1/10945/9789290617181_eng.pdf?sequence=1 - accessed 16 August 2016
30. World Health Organization. Health in 2015: MDGs to SDGs. Geneva, 2015. http://apps.who.int/iris/bitstream/10665/200009/1/9789241565110_eng.pdf?ua=1 - accessed 16 August 2016.
31. Chapatini C. Leprosy: a review on elimination, reducing the disease burden, and future research. *Lepr Rev.* 2015 Dec;86(4):307-15.
32. World Health Organization, Regional Office for South-East Asia. Global leprosy strategy (2016-2020). New Delhi, 2016. http://www.searo.who.int/entity/global_leprosy_programme/documents/global_leprosy_strategy_2020/en/ - accessed 16 August 2016.
33. World Health Organization. Global programme to eliminate lymphatic filariasis: progress report 2014. Geneva, 2015.
34. World Health Organization. Global programme to eliminate lymphatic filariasis: progress report 2000–2009 and strategic plan 2010–2020. Geneva, 2010.
35. Ostyn B, Uranw S, Bhattarai NR, Das ML, Rai K, Tersago K, et al. Transmission of *Leishmania donovani* in the Hills of Eastern Nepal, an Outbreak Investigation in Okhaldhunga and Bhojpur Districts. *PLoS Negl Trop Dis.* 2015 Aug 7;9(8):e0003966.
36. Kumar A, Vinita R, Thapliyal N, Saxena SR. Kala-azar - a case series from nonendemic area, Uttarakhand. *J Commun Dis.* 2012 Sep;44(3):145-9.

37. FACT SHEET: UN OWG Target 3.3 on Infectious Diseases. <http://www.global2015.net/file/global2015sdg3-3.pdf> - accessed 16 August 2016.
38. Grubb IR, Beckham SW, Kazatchkine M, Thomas RM, Albers ER, Cabral M, et al. Maximizing the benefits of antiretroviral therapy for key affected populations. *J Int AIDS Soc* 2014;17:19320.
39. Singh N, Mishra AK, Shukla MM, Chand SK, et al. Forest malaria in Chhindwara, Madhya Pradesh, central India: a case study in a tribal community. *Am J Trop Med Hyg* 2003;68:602-607.
40. Holmes P, WHO Strategic and Advisory Group on Neglected Tropical Diseases. Neglected tropical diseases in the post-2015 health agenda. *Lancet*. 2014 May 24;383(9931):1803..
41. Ministry of Health Republic of Indonesia. National malaria control program strategic plan 2015-2019. 2014, <http://static1.1.sqspcdn.com/static/f/471029/26502872/1441109745877/Summary+of+National+Malaria+Control+Program+Strategic+Plan+++2015+edas.pdf?token=jlshRmZH4uez7YvySVOobyvXFdc%3D> - accessed 16 August 2016.
42. World Health Organization, Global Health Workforce Alliance. A universal truth: no health without a workforce. Geneva, 2013..
43. Jana S, Basu I, Rotheram-Borus MJ, Newman PA. The Sonagachi Project: a sustainable community intervention program. *AIDS Educ Prev*. 2004;16(5):405-414.
44. Sidibe M, Singh PK, Thailand eliminates mother-to-child transmission of HIV and syphilis. *Lancet*. 2016 Jun 18;387(10037):2488-9.
45. World Bank. <http://data.worldbank.org/indicator/SH.XPD.PUBL.ZS> - accessed 16 August 2016.
46. United Nations. Sustainable development, knowledge platform: transforming our world: the 2030 agenda for sustainable development. <https://sustainabledevelopment.un.org/post2015/transformingourworld> - accessed 16 August 2016.
47. WHO drug-resistant tuberculosis now at record levels. http://www.who.int/mediacentre/news/releases/2010/drug_resistant_tb_20100318/en/ - accessed 16 August 2016.
48. Cohen JM, Smith DL, Cotter C, Ward A, Yamey G, Sabot OJ, et al. Malaria resurgence: a systematic review and assessment of its causes. *Malar J*. 2012 Apr 24;11:122.





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