

Department of Communicable Diseases

Profile and Vision



**World Health
Organization**

Regional Office for South-East Asia

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Department of Communicable Diseases

Profile and Vision



**World Health
Organization**

Regional Office for South-East Asia

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Preface



The brunt of the global burden of communicable diseases is borne by the South-East Asia Region of WHO. Besides diseases such as HIV/AIDS, tuberculosis, malaria, leishmaniasis, dengue etc, the Region is also faced with new and emerging diseases which are challenging public health as never before. Unfortunately, many of these diseases affect the poor and marginalized sections of society, and contribute not only to ill health and poverty at micro-level but also have serious socio-economic implications at the macro-level.

Combating communicable diseases is, therefore, one of the topmost priorities for the World Health Organization (WHO). The WHO Regional Office for South-East Asia is striving to focus efforts, in close collaboration with other departments in the Regional Office and, most importantly, with our country offices, to assist Member States of the Region in responding effectively and efficiently to these challenges.

This document provides an overview of the Department of Communicable Diseases and the various initiatives underway as well as those being planned to support activities in the Member States. These include preparing and responding rapidly to emerging infectious diseases; preventing and controlling HIV/AIDS, TB and malaria; and targeting communicable diseases for eradication and/or elimination.

We firmly believe that working together, in partnership with all stakeholders is essential to control communicable diseases in the Region and in significantly reducing the global disease burden.

Dr Sangay Thinley
Director,
Department of Communicable Diseases

List of Acronyms



ACT	artemisinin-based combination therapy
ADL	acute adeno-lymphangitis
ART	antiretroviral therapy
BSL	biosafety level
CC	collaborating centre (of WHO)
COMBI	communication for behavioural impact
CSR	communicable disease surveillance, outbreak alert and response
CDS	Department of Communicable Diseases, WHO-SEARO
DSE	disease surveillance and epidemiology
DALY	disability-adjusted life year
DEC	diethylcarbamazine
DHF	dengue haemorrhagic fever
DOTS	Directly Observed Treatment, Short-course
EBS	event-based surveillance
EMS	event management system
EPR	epidemic preparedness and response
EQAS	external quality assessment schemes
EWARS	early detection, warning, alert and response to outbreaks
FETP	field epidemiology training programme
GFATM	Global Fund to fight AIDS, TB and malaria
GIS	geographical information system
GLP	Global Leprosy Programme
GSK	GlaxoSmithKline
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
HMIS	health management information system
IDRPCP	integrated diarrhoeal diseases and acute respiratory infections prevention and control programme
IEC	information, education and communication
IHR	international health regulations

ILI	influenza-like illness
IRS	indoor residual spraying
ITN	insecticide-treated nets
IVM	integrated vector management
LLINs	long-lasting insecticidal nets
LF	lymphatic filariasis
MDA	mass drug administration
MDG	Millennium Development Goal
MDR	multidrug-resistant
MDT	multidrug therapy
NGO	nongovernmental organization
NTD	neglected tropical diseases
PCT	preventive chemotherapy
PKDL	post-kala-azar dermal leishmaniasis
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
RDT	rapid diagnostic test
RPRG	Regional Programme Review Group
SARI	severe acute respiratory infection
SARS	severe acute respiratory syndrome
SEAR	South-East Asia Region
SOP	standard operational procedure
STH	soil-transmitted helminthiasis
STI	sexually transmitted infection
TAG	Technical Advisory Group
TB	tuberculosis
TF	trachoma follicular
TRA	trachoma rapid assessment
TT	trachoma trichiasis
VCRC	Vector Control Research Centre
VL	visceral leishmaniasis
XDR	extensive drug-resistance

“Communicable diseases are not only major health problem but they also have a serious socio-economic impact. Controlling these diseases requires scaling up preparation and response mechanisms, strengthening the public health infrastructure, building partnerships, and involving all sections of society, including the poor and vulnerable”

- *Dr Samlee Plianbangchang*
Regional Director

Introduction



Communicable diseases continue to be one of the most important public health problems in the South-East Asia Region (SEAR). About half of the deaths in some countries are attributable to infectious causes. The Region suffers disproportionately from the burden of infectious diseases, dominated by HIV/AIDS, TB and malaria, while age-old diseases such as leprosy, visceral leishmaniasis and lymphatic filariasis continue to tax the poor and the socially marginalized populations. In addition, new and emerging diseases such as severe acute respiratory syndrome (SARS), avian influenza and Nipah virus disease are a cause for national and international concern. The sporadic avian influenza outbreaks due to the H5N1 strain witnessed in Asia are capable of igniting a global pandemic, with the potential to cause widespread health and socioeconomic disruption, thereby posing a threat to international health security. Diseases such as dengue are not only expanding geographically, but are also becoming more pathogenic.

Apart from causing a large number of deaths, communicable diseases can result in disability and disfigurement. Some examples of permanent disabilities are the severely deformed limbs resulting from lymphatic filariasis (LF) and deformities and disabilities caused by leprosy. The threat of these infections becoming resistant to drugs is another growing concern. While the arsenal of antimicrobial drugs is not increasing, the spread of antimicrobial drug resistant infections is rapidly narrowing the windows of opportunity for the control of communicable diseases.

There are, however, several success stories. They demonstrate that if effective approaches are scaled up both in coverage and quality, and reinforced by high-level commitment and political will, these problems could be overcome. For example, smallpox and guinea worm diseases have been eradicated from the countries of the Region. Leprosy has been eliminated as a public health problem at the national levels. Poliomyelitis is on the verge of eradication. Significant progress has been made towards increasing access to Directly Observed Treatment, Short-course (DOTS) for TB at the community

level. Many countries have achieved global TB targets and others are on the way to doing so. The highest level of commitment has been expressed by all affected countries for the elimination of visceral leishmaniasis (kala-azar). The progress in elimination of LF is also encouraging.

In recent years, political commitment, participation of academic institutions, networking, intercountry cooperation and planning have contributed to the emerging success. Partnerships among diverse organizations to tackle communicable diseases are expanding and this cooperative trend must be sustained. Partnership with the pharmaceutical industry, in particular, has been very encouraging, as the increasing access of the common man to life-saving generic drugs is gradually changing the prognosis of diseases such as AIDS from a virtual death sentence to a chronic, manageable condition. Considerable success has also been achieved by Member States in mobilizing substantial funds from the Global Fund to fight AIDS, TB and malaria (GFATM) for scaling up their response against these three diseases. These events are a cause for optimism in the Region's continual fight against communicable diseases.

Against this background, the vision of the WHO Regional Office for South-East Asia (SEARO) is to assist Member States in reversing the trend of communicable diseases, reducing morbidity and mortality, and improving the quality of life, thereby contributing towards achieving the Millennium Development Goals (MDGs) and reducing poverty in the coming decade.

To translate this vision into reality, the Communicable Diseases (CDS) Department of WHO- SEARO has been organized to deal with three main objectives:

- (1) To enhance preparedness for tackling the threat of emerging diseases through strengthened epidemiological surveillance, outbreak alert and response;
- (2) To intensify control of priority communicable diseases such as HIV/AIDS, TB and malaria in an integrated manner; and
- (3) To eliminate/eradicate diseases such as leprosy, yaws, kala azar and LF.

In addition, there are cross-cutting areas such as laboratory support, data management and capacity-building activities including training, which also fall within the purview of the vision. The department works in collaboration with other WHO programmes in the Regional Office and with the Country Offices, which are now primarily responsible for providing technical support to

Member States. Partnerships are being forged with various stakeholders such as governments, academic institutions, civil society, and multi- and bilateral agencies who share the common goals of alleviating human suffering, reducing morbidity and mortality, and improving the quality of life, particularly of the poor and disadvantaged sections of society. Equitable access to health services and protection of vulnerable populations by scaling up effective interventions are other principles that guide the actions of the CDS Department.

This document presents the profile and vision of the CDS Department, the principles that guide its work, and the strategies and broad activities that the Department plans to undertake through various programmes. Since the health situation is dynamic and evolving, the document will be updated periodically to reflect the changing scenario and shifting priorities, internationally and within WHO, over time.

Burden of communicable diseases in the South-East Asia Region



2

The SEA Region which has 25% of the world's population, and 30% of the world's poor, suffers heavily from the burden of communicable diseases. For instance, the Region bears 68% and 30% of the global leprosy and tuberculosis burden respectively and has the highest rate of drug-resistant malaria cases. An estimated 2.9 million deaths in the Region are caused by infectious and parasitic diseases and an estimated 89 million disability-adjusted life years (DALYs) are lost as a result. Each year, 250 000 children die of measles and 750 000 adults die of TB. More than 3 million people in the countries of the Region have been living with HIV/AIDS and 250 million are at risk for contracting malaria. Furthermore, epidemics of infectious diseases occur frequently and in new areas; many of them are predictable but some take the health system by surprise. SARS, avian influenza and Nipah virus disease are recent examples of such surprises which are capable of causing enormous socioeconomic hardship extending beyond national borders. Dengue/dengue haemorrhagic fever (DHF) and new strains of cholera are spreading to areas where they were not common in the past. Age-old diseases such as leprosy, LF and kala-azar continue to cause considerable suffering and psychosocial disruption in the Region.

Resistance of some infectious diseases to drugs is an emerging threat faced by all disease control programmes. Some countries of the Region are becoming epicentres of antimalarial drug resistance, putting more than 30% of the populations of these countries at risk. Drug resistance in *Shigella* dysentery, enteric fever and sexually transmitted infections (STIs) is increasing. Resistance to chloramphenicol prescribed for enteric fever and to penicillin for gonococcal infection is a matter of grave concern. Drug-resistant TB is emerging; drugs for the treatment of multidrug-resistant (MDR) TB are over 100 times more expensive than medicines used to treat drug-sensitive pulmonary

TB. Fortunately, however, MDR levels remain low in the Region, due in part to well-performing TB programmes. Nevertheless, the threat of XDR TB (extensive resistant TB) looms large, which may make TB virtually an incurable disease.

Moreover, infectious diseases often take a heavy toll on human productivity by causing disability and disfigurement. Severe and sometimes permanent disabilities affect an estimated population of one billion globally, according to the Global Defense against the Infectious Diseases Threat (2003). These disabilities include impaired cognitive development, retarded mental growth, deformed limbs (due to elephantiasis) and various deformities due to leprosy, as well as many other related physical problems.

The interplay between communicable diseases, poverty and undernutrition adversely affects socioeconomic development in the countries. Evidence also links the occurrence of cancer and some degenerative diseases to infectious causes. For example, hepatitis B and C viruses have been traced to the subsequent development of liver cancer.

The scenario of infectious diseases is shaped by two factors. First, there is a real and immediate threat of resurgence of infectious diseases, which can be attributable to the natural history of microbes. Pathogens and microbes constantly evolve through processes of multiplication, mutation, migration and adaptation, eventually attaining resistance to commonly used medicines and insecticides. Second, cultural aspects such as close animal–human contact where the two share a common habitat also play an important role in the spread of zoonotic communicable diseases such as avian influenza, SARS and Nipah virus disease. During the past few decades, the arsenal of antimicrobial drugs has not expanded, but the appearance and spread of antimicrobial resistance has been on the increase, thereby narrowing the limited number of means available for the control of infectious diseases. The spectre of the continual emergence of drug-resistant microbes threatens to undermine the gains achieved in reducing morbidity and mortality due to infectious diseases.

Communicable Diseases Department: Vision and guiding principles



3

The vision and guiding principles of the Department are clearly spelt out in the following statement: “By the end of 2015, reverse the trend of communicable diseases, reduce morbidity and mortality, and improve the quality of life, thereby contributing towards achieving the Millennium Development Goals and poverty reduction.”

The task ahead is by no means easy, for it demands high levels of commitment and resolve from all partners. The context of involvement becomes even more challenging keeping in mind that the Region has approximately 30% of the population living below an income of US\$ 1 (one) per day, and the interactions between infectious diseases, poverty and undernutrition pose a complicated challenge to the effective control of these diseases. Due to epidemiological transition, countries of the Region are faced with the burden of non-communicable diseases in addition to that of infectious diseases. This cumulative burden places a heavy strain on the fragile and overstretched health systems of the countries.

Based on experience and given the ground realities, the following principles have been identified to guide action:

- **Prioritization**
 - Selection of priority communicable diseases on which to focus the limited resources and capacity available, with a view to ensuring maximum impact on health and socioeconomic development;

- Continuing and strengthening WHO’s role of enlisting political commitment to solve health problems;
- Mobilizing additional resources by using advocacy plans and implementing them in countries.
- **Clear strategic framework and evidence-based planning**
 - Developing and refining regional strategic plans that would guide the work of the CDS Department and could be a framework for action at country level, leading to a country-specific plan of action;
 - Identifying interventions that are practical and cost effective, and scaling them up for the control of communicable diseases;
 - Enhancing research capacity to address problems with the help of WHO Collaborating Centres (WHO CCs) and national centres of excellence.
- **Consensus building**
 - Regional technical advisory groups have been established to provide technical guidance to countries for control, elimination and eradication programmes, and for monitoring activities.
- **Emphasis on an integrated and collaborative approach**
 - Promoting and supporting intercountry collaboration and horizontal cooperation among countries;
 - Encouraging interdepartmental collaboration, which is critical to the effective control of communicable diseases;
 - Harmonizing such collaboration, especially among the departments involved, for the elimination and eradication of diseases preventable by vaccination, and control of childhood communicable diseases;
 - Increasingly adopting, where relevant, an integrated approach with an increased focus on addressing crosscutting issues, strengthening public health laboratories and containing antimicrobial drug resistance;
 - Supporting the preparation of harmonized work plans and tracking progress through regular monitoring and evaluation.

- **Focusing on results**
 - Identifying some key outcome and impact indicators as well as targets for each programme area, indicating how (or by what methods) the targets will be measured, and systematically measuring the progress towards the targets;
 - If progress is not on track, finding ways to identify bottlenecks to successful implementation, and devising correctional measures to overcome them.
- **Communication**
 - Placing increased focus on communication, media interaction and information technology as important tools for risk communication and management.

Objectives, strategies and activities



4

4.1 Disease surveillance and epidemiology (DSE)

Present situation and challenges

New infectious diseases are emerging while old infections are on the rise as never before. The past three decades have witnessed the emergence of new infectious diseases like SARS, Avian Influenza A(H5N1) and in the year 2009 the world faced a global outbreak of Pandemic A (H1N1)2009. As of 1 August 2010, worldwide more than 214 countries and overseas territories or communities had reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 18449 deaths. In the WHO South-East Asia Region, a total of 76,302 cases and 2,054 deaths due to Pandemic (H1N1) 2009 had been reported as of 5 August 2010. On 10 August 2010, WHO Director-General Dr Margaret Chan announced that the H1N1 influenza virus had moved into the post-pandemic phase. In the post-pandemic phase, weekly information on number of cases and qualitative indicators (geographical spread, trend, intensity, and impact) is no longer being collected by SEARO. However, H1N1 (2009) activity is being monitored on an ongoing basis in selected countries. Case reports of confirmed H1N1 (2009) continue to be reported in Bangladesh, Bhutan, India, Myanmar, Nepal, and Thailand but the overall impact is perceived to be low.

Many communicable diseases such as dengue and chikungunya are challenging the health system as never before. While a few Member States have a strong surveillance system that can detect dangers early and respond effectively, most still need to develop a reliable and responsive surveillance system. This requires formulating sound policies, developing feasible and evidence-based strategies, adopting guidelines to implement these strategies,

and building core capacity in epidemiology, public health and laboratories. Promoting strong partnerships and networking among stakeholders is also essential. It is imperative to invest in developing and sustaining strong national surveillance and response systems which are focused at peripheral levels, and flexible to the dynamics of emerging and re-emerging infectious disease threats.

The International Health Regulations (IHR, 2005) adopted by all Member countries present an excellent opportunity for building core capacities at the country level for early detection and verification of disease outbreaks through prompt and proper case investigation followed by early institution of containment and mitigation measures.

The following are some activities which are under way:

- Advocacy for strengthening surveillance and response and a regional strategy for integrated disease surveillance,
- Advocacy for establishment of an intersectoral coordination mechanism for prevention and control of zoonoses at the human-animal interface,
- Development of guidelines and tools for comprehensive assessment of surveillance systems,
- Ongoing comprehensive assessments of national surveillance systems and development of strategic plans,
- Technical and logistical support for verification of risk assessment, and response to disease outbreaks,
- Capacity building through Field Epidemiology Training Programmes (FETP) and other short training courses in collaboration with WHO CCs,
- Development of a strategic framework for prevention and control of priority communicable diseases and operational guidelines for surveillance, diagnosis, case management and control of emerging diseases such as Nipah virus encephalitis.
- Development of joint training modules for animal health and public health professionals on laboratory diagnosis, surveillance, prevention and control of emerging zoonoses.
- Development of proposals for funding to strengthen disease surveillance, public health laboratories, early warning systems and epidemic preparedness and response.
- Developing core capacities for implementation of IHR (2005).

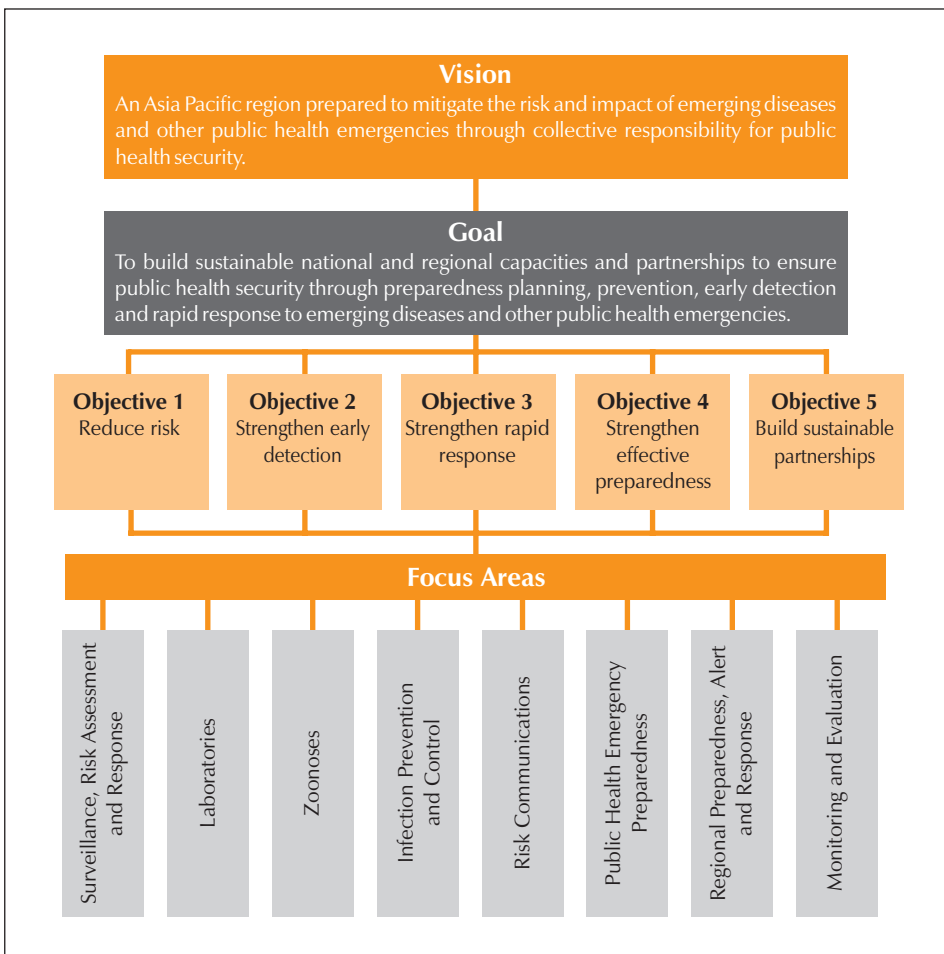
Objectives and Strategies:

The long-term objective of the DSE Unit is to facilitate all countries to acquire the minimum core capacities for rapid detection, investigation and response to epidemic threats. Therefore, DSE-SEARO will continue to focus on the following specific objectives:

- Strengthening national capacities in laboratory and epidemiological surveillance, and outbreak response
- Enhancing country preparedness and response capacity for public health events, and other requirements of the revised IHR including public health legislation and points of entry.
- Addressing health aspects of biosafety, biosecurity and strengthening networks of specific expertise and inter-institutional collaboration.

To achieve these objectives, the key technical components of focus are surveillance and response, laboratory, zoonoses and veterinary public health and risk communication as outlined in Figure 1 with the main activities as reflected for each of the strategies. The cross-cutting functions are capacity strengthening, communications/network building, monitoring and evaluation, supplies and infrastructure and applied research.

Figure 1: Bi-regional SEARO / WPRO - APSED (2010) vision, goal, objectives and focus areas



Activities

Some of the specific activities are as outlined below:

- Provide technical support to Member States to strengthen their national surveillance systems, including integrated disease surveillance and community-based surveillance and establish a mechanism for at least monthly reporting (country web-site, epidemic bulletin) on epidemic-prone priority diseases by Member States.
- Establish a functional indicator-based surveillance system with timely (at least weekly) reporting for five or more priority epidemic-prone

diseases including (dengue, acute watery diarrhoea, leptospirosis, Acute Respiratory Infection (ARI) for all ages).

- Provide technical assistance to Member States to establish and monitor sentinel surveillance sites for epidemic-prone diseases Severe Acute Respiratory Infection (SARI), Influenza-like-illness (ILI), acute watery diarrhoea, dengue and leptospirosis) and help Member States to set up sentinel sites and population-based surveillance sites for priority epidemic-prone diseases including influenza.
- Help put in place a legal framework in support of IHR implementation and carry out an in-depth assessment of laws and regulations in Member States to determine legal compliance with IHR (2005): support revision of laws where necessary to ensure fulfillment of obligations and exercise of rights under IHR(2005).
- Help establish a coordination mechanism for Member States involving all sectors, including food safety, chemical safety and radiological safety and advocate the need to incorporate an all hazard approach for preparedness plans to implement IHR (2005).
- Organize Technical Advisory Group (TAG) meetings to update and share best practices and to review implementation of work plans for IHR and the Asia Pacific Strategy for emerging diseases.
- Implement a regional strategic framework for an integrated diarrhoeal disease and acute respiratory infection prevention and control programme (IDRPCP) and conduct regional and national training workshops, health care facility preparedness and IDRPCP.
- Provide technical support to Member States to strengthen capacity for prevention, control and elimination of zoonotic diseases of regional and national importance by developing national control programmes for zoonoses, strengthening capacity for surveillance and response.
- Support Member States to establish Event-based surveillance (EBS), including zoonotic diseases that occur at human-animal interface.
- Share and exchange information on estimated disease burden, risk factors and cost benefit analysis for communicable diseases including zoonoses, diarrhoea and respiratory infections.
- Provide risk communication training and map existing risk communication resources (e.g., media contacts and IEC materials) to support development of a regional strategy on risk communication.

- Establish the WHO Event Management System (EMS) in WHO Regional and Country Offices to support coordination of risk assessment; communications and field operations develop and disseminate guidelines and SOPs provide training in implementation of EMS for WCOs and conduct risk assessment training for DSE focal points in WCOs and Ministries of Health.
- Provide technical and shared financial support to Member States for capacity development in epidemiology and public health management including detection and response to disease outbreaks by supporting the following courses:
 - Three-month regional field epidemiology training programme;
 - Two-week regional course on tropical diseases;
 - Two/three-week course in applied epidemiology;
 - Four-week training programme on prevention & control of communicable diseases;
 - One-week training programme in clinical recognition, case management and control of emerging diseases/zoonoses; and
 - Training of trainers for developing in-country capacity for 2/3 week basic epidemiology courses.

Road map for 2011–2013

- Advocate for and implement the Asia Pacific Strategy for Emerging Diseases (APSED) (2010)
- Seven Member States will have short-term field epidemiology training programmes.
- All Member States will meet minimum core requirements for 50% of IHR indicators, covering eight core capacity areas identified under APSED (2010)

4.2 Prevention and control of priority communicable diseases: HIV/AIDS, TB and malaria (HTM)

HIV/AIDS

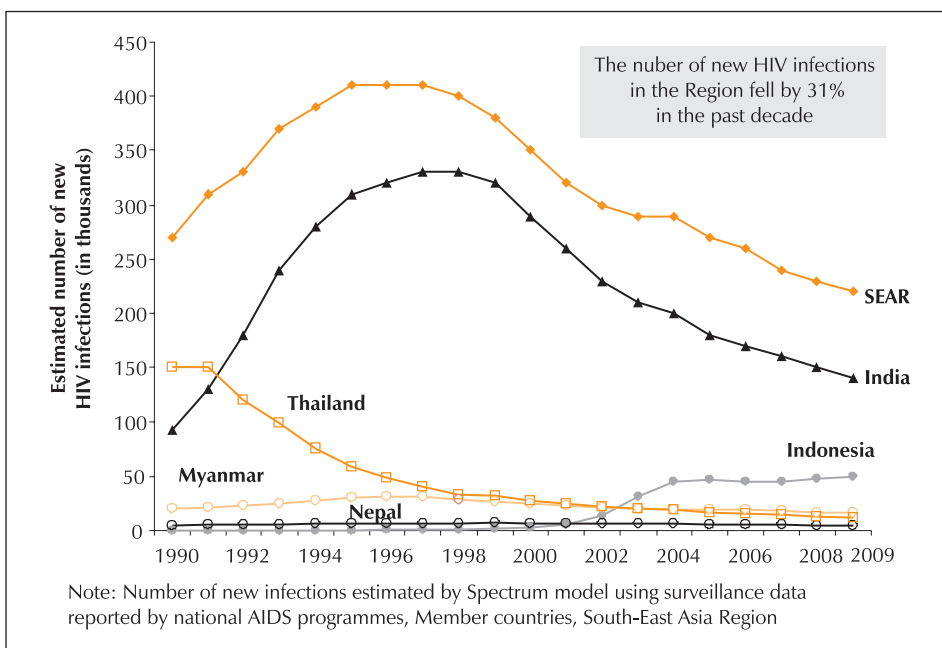
Present situation and challenges

The global HIV epidemic continues to remain a serious public health problem with an estimated 33.3 million people currently living with HIV. After sub-Saharan Africa, the WHO SEAR has the second highest burden of HIV in the world with 3.5 million people affected with HIV even though the overall adult prevalence is below 1%.

While there is much diversity in the HIV epidemic among countries of the Region, unsafe sex and injecting drug use are the main drivers. Sexual transmission accounts for the majority of the cases in Bhutan, India, Myanmar, Sri Lanka, Thailand and Timor-Leste. HIV epidemics among people who inject drugs are significant in Indonesia, Myanmar, Nepal, Thailand, some regions of India and the capital of Bangladesh. Maldives has a growing threat of HIV epidemic due to injecting drug use.

The overall adult HIV prevalence is 0.3% with an estimated 3.5 million People Living with HIV (PLHIV). The magnitude of HIV infection differs greatly between countries in the Region. Five countries account for a major proportion of the burden, namely India, Indonesia, Myanmar, Nepal and Thailand. No case has been reported from DPR Korea. The remaining five countries, Bangladesh, Bhutan, Maldives, Sri Lanka and Timor-Leste, together represent less than 1% of the total HIV burden in the Region. The estimated number of PLHIV ranges widely from <100 in Maldives to 2.4 million in India. A majority of the countries in the Region have low- level or concentrated epidemics; however, adult HIV prevalence above 1% is noted in Thailand, north-east India, and in the Papua province in Indonesia.

Figure 1: Estimated number of new HIV infections in South-East Asia Region, 1990-2009



However, there are encouraging signs of reduction in the burden of HIV in the Region. Overall, the estimated number of PLHIV both male and female, is decreasing in the region (Figure 1). Within countries, HIV prevalence is higher among urban than rural areas. 31% reduction in number of new infections from 2001 to 2009 was seen (320,000 to 220,000).

Globally, there were an estimated 1.2 million incident HIV-positive TB cases in 2009; the South-East Asia Region accounts for nearly 15% of the global burden. Five countries in the Region with the highest HIV burden also have a high TB burden. HIV prevalence among new TB patients is 5.7%.

Of the 448 million cases of sexually transmitted infections present globally in 2005, 71 million were in the South-East Asia Region. Sexually transmitted infections are disproportionately high among most-at-risk populations, particularly among female sex workers and their clients, and men who have sex with men due to a high turnover of partners.

Objectives and Strategies

HIV infection is both preventable and treatable. Combating HIV infection requires comprehensive programmes for preventing the transmission of new

infections and reaching all persons who require care and treatment. WHO's goal is to strengthen health system capacities in all countries to effectively scale up interventions for the prevention, care and treatment of HIV/AIDS and STIs. The specific objectives are to integrate and improve quality, effectiveness and coverage of HIV interventions and approaches; to build effective, efficient and comprehensive health systems in which HIV services are available, accessible and affordable and to strengthen linkages and synergies between HIV and other health-related programmes.

There are four strategic directions:

- (1) Optimizing HIV prevention, care and treatment outcome**
Ensures that combined HIV-specific interventions are strengthened and expanded. These core programmes on prevention, treatment and care aim to enhance the quality, effectiveness and coverage of HIV interventions and approaches, and to identify new HIV interventions.
- (2) Strengthening strategic information systems for HIV and research**
Strategic information guides health policy, planning, resource allocation, programme management, service delivery and accountability. It is essential for action at all levels of the health system. As countries scale up their HIV responses towards universal access, there is an increasing recognition of the need to invest in strategic information to guide programme planning and sustain national and international commitment and accountability.
- (3) Strengthening health systems for effective integration of health services**
Ensures that the expanded response to HIV will build effective, efficient and comprehensive health systems in which HIV and other essential services are available, accessible and affordable. The systems needed to be maximized as to create broad synergies and better health outcomes.
- (4) Fostering a supportive environment to ensure equitable access to HIV services**
Links between programmes and integration of HIV into other key health services have the potential to improve the efficiency and effectiveness of both HIV-specific and broader health investments. Collaboration between HIV and other health programmes will facilitate programme coordination and align programme targets, guidelines, services and resources.

Activities

Some activities as outlined in the 2011-13 road map:

Road map for 2011–2013

- Support Member States to provide quality HIV/STI care through primary health care services.
- Develop guidelines for optimal utilization of laboratory support for improved diagnostics and quality of care.
- Support countries in implementation of donor funds (GF, 3DF).
- Develop operational framework for continuum of care between PMTCT and HIV care/treatment (ART) services to enable prompt treatment of HIV-infected women and children.
- Support provided to countries for strengthening the capacity for surveillance of HIV/STI/Risk behaviour in all Member States.
- Support countries to develop National Strategies and costed plans for the health sector response to HIV/AIDS.

Tuberculosis

Present situation and challenges

Tuberculosis remains one of the most serious health and developmental problems in the South-East Asia Region which accounts for over a third of the global TB burden. It is estimated that about 3.2 million new cases of TB occur each year. About half a million people die of this disease annually, most of these deaths occur in five countries, namely, Bangladesh, India, Indonesia, Myanmar and Thailand. Of the 3.5 million people living with HIV in the Region, roughly half are estimated to be co-infected with TB. Fortunately, levels of multidrug-resistance among new cases are still low at under 3%; however this translates into nearly 130 000 new multi-drug resistant TB (MDR-TB) cases each year.

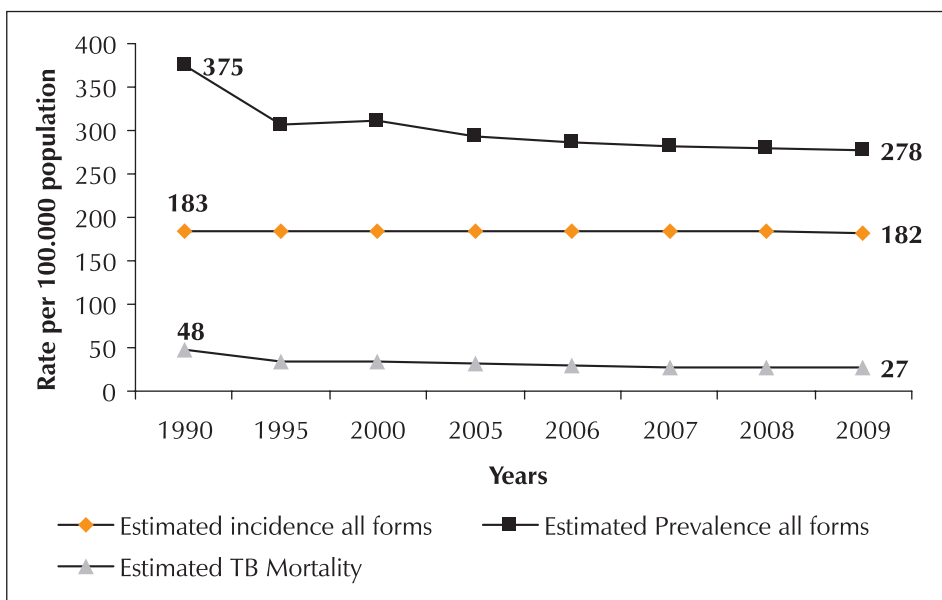
In terms of progress in TB control, all 11 Member States have sustained country-wide access to DOTS. Services have been restored in all districts in Timor-Leste and extended to districts in the Northern and Eastern parts of Sri Lanka following the cessation of civil strife. Each year, more than 2 million TB cases are being registered for treatment. Decrease in prevalence rates have been achieved due to a good case-notification and treatment success rate of more than 85% for the Region as a whole.

National TB control programmes have also progressed in implementing the additional components of the Stop TB strategy. The Green Light Committee based under the Stop TB Partnership has approved programmes for the management of multi-drug resistant TB in nine countries. Seven of these countries are gradually expanding MDR-TB services to enroll an increasing number of patients with MDR-TB for treatment. TB/HIV activities are available country-wide in Thailand, and are being expanded in India and Myanmar, while Indonesia has established services in Papua and Java Bali. As a result, a comprehensive package of interventions for HIV-associated TB is now available to 600 million people in the Region. Private–public collaborative activities have been further expanded; over 500 medical colleges, 25 000 private practitioners, 1 500 large public and private hospitals, 200 corporate institutions, 2 500 nongovernmental organizations and 900 prisons are now working with national TB control programmes. The Practical Approach to Lung health for the integrated management of respiratory diseases including pulmonary TB has been established in Nepal and planned in three other countries. Infection control policies and plans are being pursued in six countries. Newer diagnostics are being deployed with assistance from partners and clinical trials on the use of shorter treatment regimens are on-going, mainly in India. At the same time, national programmes continue to engage with communities, and several community-based TB care projects are in place in all 11 Member States. In addition, recognizing that the success of TB control depends on strong health systems, health systems strengthening components were included in Global Fund supported plans.

In terms of resources, national governments meet almost half of the budgets required to run national TB control programmes, while the Global Fund covers almost a third of funding and bilateral agreements and grants make up the rest of funding for TB control. Additional support is received through several bilateral agreements with donor governments and agencies including through the, 3-Diseases Fund in Myanmar. Other global initiatives such as UNITAID, the Global Drug Facility, the Green Light Committee, the Global Laboratory initiative and the Stop TB partnership are helping to mobilize resources for the diagnosis and treatment of all forms of TB towards achieving universal case detection and treatment.

As a result of this concerted action by national TB control programmes and all partners, over 15 million TB patients have been treated during the past ten years, thereby averting several thousand deaths. A steady decline in the burden of disease in the Region has been maintained. The estimates for TB prevalence have halved; mortality reduced by a third and there has been a slow but gradual decline in TB incidence over the years in the South-East Asia Region.

Figure 1: Estimated TB prevalence, incidence, mortality and notification rate: SEA Region, 1990-2009



While considerable progress continues to be made, national TB control programmes face a number of challenges, some of which are as follows:

- Overstretched national public health care systems: gaps in human resources, surveillance and monitoring, procurement and logistics management systems;
- Inadequate national laboratory capacity including for TB cultures, drug sensitivity testing, and deployment of newer, faster diagnostics;
- Limited capacity for programme management, particularly of drug-resistant TB and TB/HIV;
- Provision of health care in other sectors not yet fully linked to national programmes;
- Low community awareness and utilization of services;
- Unregulated over-the-counter sales of TB drugs in many countries;
- Limited availability of quality assured second-line drugs; small number of pre-qualified manufacturers; delays in procurement;

- Uncertain long-term funding, particularly for MDR-TB; the Region lacks an estimated one third of funding required for TB control until 2015.
- Inadequate attention in addressing the social, economic and behavioural determinants that impact TB.

Objectives and Strategies

Developing comprehensive national plans for urgently scaling up diagnostic and case management capacity to detect and treat all TB cases, including MDR-TB cases, conforming to internationally recommended protocols, and mobilizing the necessary resources to do so, are critical.

The following interventions are called for:

(1) Urgently pursue within national TB control plans the means to ensure:

- Adequate technical and management capacity to improve programme performance.
- Laboratory capacity for diagnosis of all forms of TB including MDR-TB and use of new, rapid diagnostics for universal case detection.
- Uninterrupted supplies of first-and second-line drugs meeting international prequalification or national regulatory standards.
- Wider involvement and accreditation of health care providers in other sectors to ensure a uniform quality standard of care and rational use of drugs.
- Stronger collaboration between national TB and HIV programmes to address TB/HIV.
- Expansion of community-based initiatives for TB detection and care.
- Infection control measures to limit transmission of TB in health care and other settings.

(2) Take advantage of opportunities provided by GF, donors, and increase national investments in health systems to:

- Enhance health infrastructure, procurement and supply management systems.
- Strengthen public and private laboratory services.
- Ensure rational use of drugs, through stricter regulation and pharmacovigilance.

- Improve national Health Management Information System, surveillance mechanisms.
- (3) Secure the required external funding and technical assistance both in the medium and long term.**

Activities

Some activities as outlined in the 2011-2013 road map:

Road map for 2011–2013
<ul style="list-style-type: none"> • Support all countries to achieve universal case detection and treatment success rate and maintain the current rate of decline in TB prevalence and mortality; • Establish MDR-TB case management as a part of national programmes; • Expand TB-HIV interventions to reach at least 50% of the Region’s population; • Secure adequate supplies of first-and second-line anti-TB drugs; • Take effective measures to achieve less than 5% funding gap for TB control.

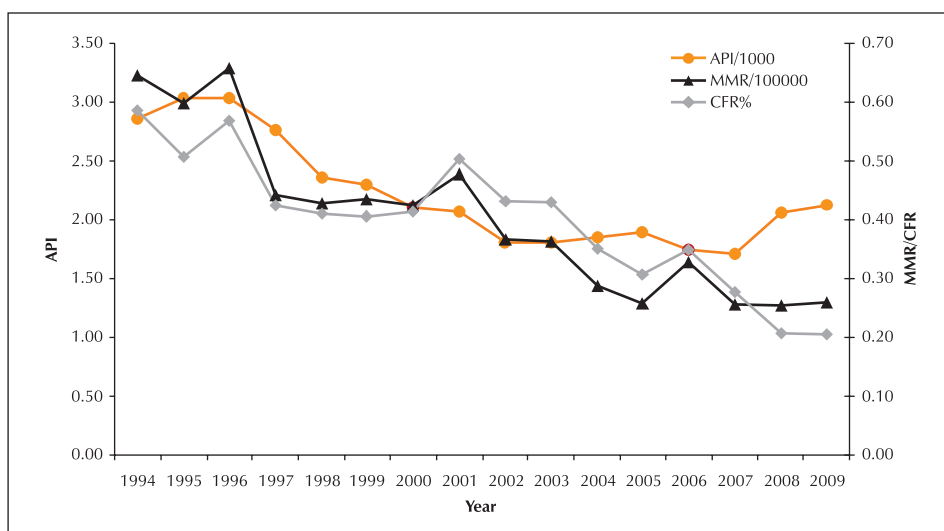
Malaria

Present situation and challenges

Significant progress in malaria control in the Region was noted in the past decade. Key interventions were scaled up and the trends in malaria morbidity and mortality declined (Figure 1). Bhutan, DPR Korea, Nepal and Sri Lanka are now moving towards the pre-elimination stage of malaria. In Bangladesh and Thailand, malaria cases and deaths were reduced markedly and transmission is now limited to only a few districts. Maldives remains malaria-free since 1984. However, the burden of disease is still high and it is only second to Sub-Saharan Africa. Malaria causes a loss of 1.34 million DALYs in the Region. In 2009, around 1.2 billion people (70% of the total population) were at risk of contracting the disease. There were about 2.7 million confirmed cases and 3 188 confirmed deaths reported in 2009. WHO estimated that the actual malaria cases could be between 28 – 41 million and actual deaths may be around 49 000 annually (World Malaria Report 2010). It remains a serious public health problem particularly in India, Indonesia and Myanmar contributing in

the past ten years to over 90% of reported malaria cases and deaths annually, as well as in Timor-Leste which has the highest malaria annual parasite incidence, morbidity rate and mortality rate.

Figure 1: Malaria morbidity, mortality and case fatality rate in SEA Region, 1994-2009



The increasing resistance of *falciparum* to chloroquine and sulfadoxine-pyremithamine necessitated revision of the anti-malarial drug policy. All countries with *falciparum* malaria adopted the artemisinin-based combination therapy (ACT) and are now scaling up the coverage. Currently artemisinin and its derivatives are the most efficacious drugs against *falciparum* parasite. However, there have been a number of reports on confirmed artemisinin resistance at the border between Thailand and Cambodia. There is a risk of it spreading in the Greater-Mekong Sub-region and beyond, and therefore poses a global threat.

Aside from containment of artemisinin resistance, the challenges include addressing the great diversity of malaria due to several different eco-epidemiological subtypes that require the use of strategies in stratified geographical areas; dynamicity of malaria due to rapid ecological changes resulting from socio-economic, environmental and economic developments; lack of effective tools and service delivery mechanisms to address malaria among ethnic groups, migrant workers, and forest related workers / settlers; resource gaps, and gaps in timeliness; and quality of information on malaria including under reporting of malaria cases and deaths. Moreover, control of

vivax malaria remains a challenge due to lack of an effective drug to substitute the 14-day regimen of primaquine for radical cure.

Malaria is not just a public health problem but it is a disease closely related to social and ecological changes including climate change. Successful malaria control would need strong and sustained political will, participation of the community, public and private sectors, health and non-health sectors, supported by strong technical and management capacities for malaria control at all levels.

During the past five years there was a significant increase in financial resources for malaria control in malaria-endemic countries in the Region, mainly from GFATM.

In 2006, the Regional Office for South-East Asia in collaboration with Member States and development partners revised the malaria control strategy for SEA Region for 2006-2010. The revised strategy was endorsed by the fifty ninth session of the Regional Committee in September 2006 and served as the guiding principle for malaria control programmes in the Region. The strategy will be updated soon to cover the next five years (2011 – 2015).

Objectives and strategies

Objectives:

- To provide technical and management support that will enable Member States to scale up malaria control intervention.
- To strengthen epidemiological research, surveillance, monitoring and evaluation to further improve evidence base for malaria control.
- To ensure sustained political and financial support for malaria control.

Member States are on track to achieve key malaria targets of LLINs and IRS, annual blood examination rate, and all confirmed malaria cases are to be treated with drugs in accordance with the national malaria treatment policy. All countries adopted and implemented Integrated Vector Management (IVM) as a part of Healthy Public Policy. Artemisinin resistance containment projects in Myanmar and Thailand are progressing well and no emergence and spread of artemisinin resistance is reported from other Member States in the Region. Financial support has increased for malaria control.

Strategies

To achieve the above, the Regional Malaria Control Strategy, 2011 – 2015, will be implemented in collaboration with Member States and partner agencies. Key components of the strategy are:

- Intensified malaria control in high-burden countries
- Pre-elimination of malaria in countries with very low burden
- Containment of artemisinin resistance
- Strengthening regulatory capacity to address fake / counterfeit drugs and ban monotherapies
- Strengthening managerial and technical capacities in malaria prevention and control
- Improving surveillance, monitoring, evaluation and research

Activities

Activities envisaged for the 2011-2013 road map are outlined below:

Road map for 2011–2013

- Review of achievements of the Revised Malaria Control Strategy, 2006 - 2010
- National Malaria Control Programme Review to be done in Bangladesh, Indonesia, Thailand and Timor-Leste in 2011, and in Myanmar in 2012.
- Development of Regional Malaria Control Strategy, 2011 – 2015, in consultation with programme managers and selected technical experts

continued...

- Containment of artemisinin resistance in Mekong countries to be continued, and possibly expanded in Northeast India, Indonesia and Bangladesh depending on the data on drug resistance
- Development of policy and strategy to control malaria in pregnancy
- Human resource plan will be developed, prioritized and supported as per requirement of the Member States with special focus on programme management, entomology, vector control, quality assurance of RDT and microscopy, surveillance, monitoring and evaluation
- Stronger technical support will be provided according to needs of the country, focusing on the following:
 - malaria elimination in Bhutan, DPR Korea, Sri Lanka and Nepal, and in eligible parts of India, Indonesia and Thailand
 - reducing high burden in India, Indonesia, Myanmar and Timor-Leste
 - planning, implementation, monitoring and Evaluation of GFATM-supported activities
 - quality assurance of RDT and microscopy, surveillance, monitoring and evaluation
 - estimation of malaria burden
- Investing in research on: (a) drug resistance, (b) insecticide resistance, (c) control of malaria among high risk groups particularly ethnic groups, forest related workers/settlers, migrant workers, and (d) control of vivax malaria
- Partnerships with developmental partners and donors will be strengthened for malaria control activities in the Region.

4.3 Elimination and eradication of tropical diseases

Leprosy

Present situation and challenges

The South-East Asia Region achieved the goal of elimination of leprosy as a public health problem at the end of December 2005 with the regional prevalence rate of 0.87 per 10 000 population.

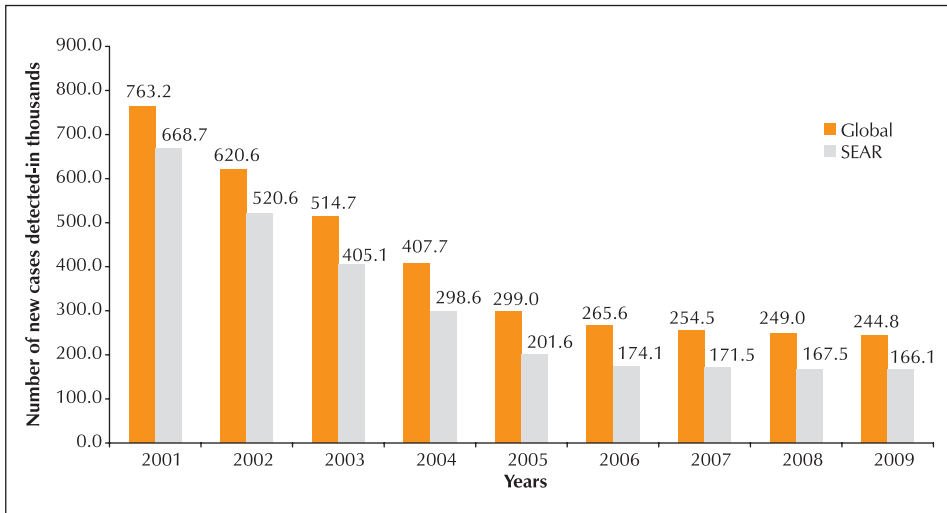
In the beginning of 2010, the regional prevalence rate was 0.66 per 10,000 population with a total of 120 456 cases on treatment in the Region. Trends of new case detection of leprosy globally and in South-East Asia Region from 2001 to 2009, is shown in Figure 1.

Of the global total registered prevalent cases 56.8% were in the SEA Region at the beginning of 2010, as shown in Figure 2. During 2009, 67.9% of the global total new cases were detected in the SEA Region, as shown in Figure 3.

At the end of 2010, all 11 Member States of the Region achieved the goal of elimination at the national level. However, globally, there are 16 countries that reported 1 000 and more new cases during 2009 and six of these 16 countries are in this Region (Bangladesh: 5 239, India: 133 717, Indonesia: 17 260, Myanmar 3 147, Nepal: 4 374 and Sri Lanka: 1 875 cases). Two priority countries (India and Indonesia) with large populations and with large numbers of new leprosy cases reporting annually are also targeting for sub-national elimination; in India, 33 of the total 35 States/ Union Territories, and in Indonesia, 21 of the 33 provinces achieved elimination by the end of December 2009.

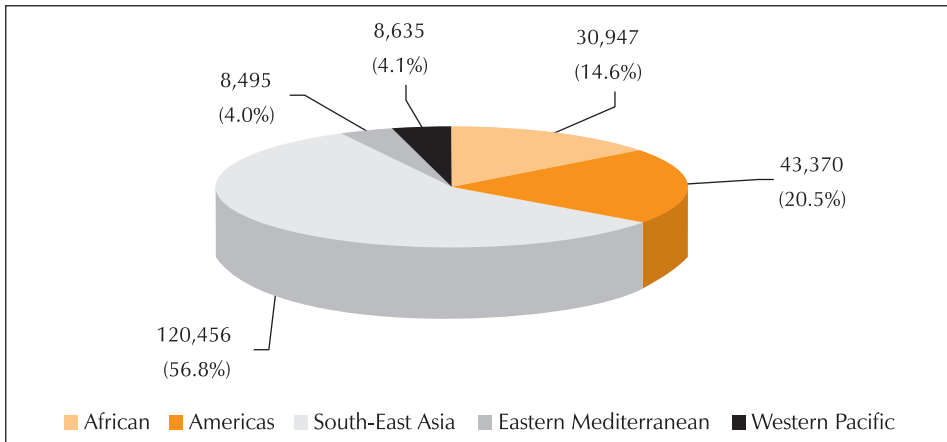
In spite of a large number of new cases detected annually, Bangladesh, Myanmar, Nepal and Sri Lanka have achieved and sustained elimination at the national level and are making concerted efforts to further reduce the leprosy burden.

Figure 1: Trends of new case detection of leprosy, globally and in South-East Asia Region, 2001-2009



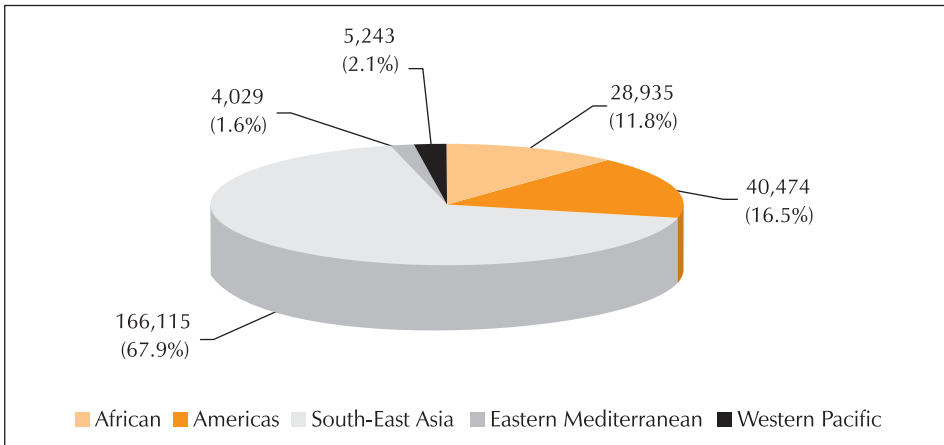
Source: Weekly Epidemiological Record, No. 35; Vol.85; 27 August 2010

Figure 2: Registered prevalence of leprosy by WHO Region: beginning of 2010



Source: Weekly Epidemiological Record, No. 35; Vol.85; 27 August 2010

Figure 3: Number of new leprosy cases detected, by WHO Region during 2009



Source: Weekly Epidemiological Record, No. 35; Vol.85; 27 August 2010

With WHO technical support for capacity building, country-based workshops were conducted by the national leprosy programmes in Bangladesh, India, Indonesia, Myanmar, Nepal and Timor-Leste. Technical support was also provided to priority countries - Bangladesh, Indonesia, Nepal and Timor-Leste. The Regional Office organized a “workshop in Dhaka on Leprosy Programme Management for Low-endemic Countries” (Bhutan, Maldives, and Thailand) and Timor-Leste in collaboration with the Global Leprosy Programme (GLP) and partners. The workshop was targeted at sustaining basic knowledge and skills on leprosy diagnosis and case management including rehabilitation among the national programme managers of the low-endemic Member States in the Region. In due course, they are expected to conduct similar in-country workshops and serve as facilitators.

The Regional Office also supported the country offices in conducting national advocacy meetings for implementation of the “Enhanced Global Strategy and Operational Guidelines for Further Reducing the Disease Burden due to Leprosy (2011-2015)”. The strategy targets on the reduction of Grade II disability among new cases at the national level during the period.

The remaining challenges:

- Sustaining political commitment and ensuring adequate resources in order to sustain elimination at national level, and progress towards further reducing the burden of leprosy.

- Strengthening integration of leprosy services into the general health system through capacity building and skill development, to ensure and sustain quality leprosy services, including diagnosis and treatment.
- Ensuring a wider coverage of leprosy services, especially in currently under-served population groups such as in remote rural areas, urban slums, migrant labourers and such others.
- Increasing and sustaining community awareness through sustained advocacy and IEC activities to promote voluntary case detection and decrease stigma and discrimination.
- Minimizing/preventing operational factors.
- Prevention and care of disabilities, prevention of displacement of leprosy-affected, ensuring community-based rehabilitation of cured/disabled leprosy persons.
- Streamlining the MDT supply and stock management in each country, especially at all levels in large countries.

Activities

The road map for 2011-2015 is outlined below:

Road map for 2011–2013

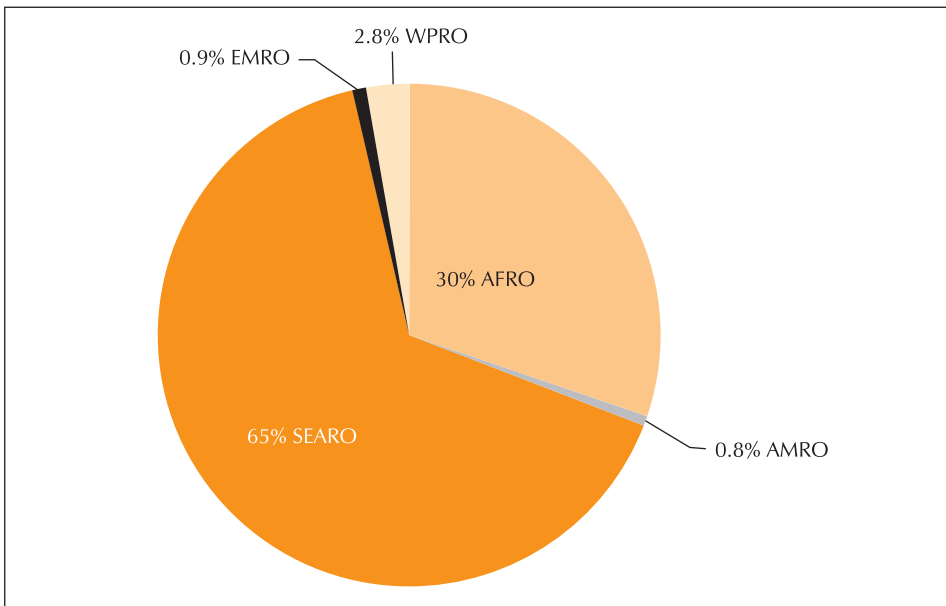
- Promote advocacy for the implementation of the Enhanced Global Strategy (2011-2015) among Member States.
- Provide technical support focusing on capacity building to the priority countries with a large number of new cases to implement key activities outlined in the Enhanced Global Strategy 2011-2015.
- Monitor the leprosy situation at national and sub-national levels including MDT drug supply and surveillance of drug resistance in leprosy.
- Conduct operational research in collaboration with other partners to improve leprosy services in the Member States.
- Reduce by the end of 2015, the rate of new cases occurring with grade-2 disabilities (visible disabilities) per million population at the national level by 35% compared to the base line of 2010.

Lymphatic Filariasis

Present situation and challenges

Currently, 81 countries are endemic for lymphatic filariasis (LF) and an estimated 1.34 billion people are at risk of LF infection globally. Approximately 880(65%) million people at risk globally live in the South- East Asia Region. Of the 120 million people infected globally, half of them are already affected by microfilaraemia or clinical manifestations of lymphatic filariasis in this Region. Nine out of the 11 countries of the Region are endemic for LF. All the three LF parasites are found in the Region which also accounts for approximately 57% of the total global burden of 5.1 million disability adjusted life years lost due to LF. The Member States of the Region are committed to eliminate the disease as a public health problem by 2020.

Figure 1: Estimated Population at risk of LF Infection, SEAR 2009



Filariasis elimination programmes are in operation in all the nine endemic countries and national plans of action are being implemented in all the countries. All the three lymphatic filarial parasites viz. *Wuchereria bancrofti*, *Brugia malayi* and *B. timori* are prevalent in the Region. Bancroftian filariasis transmitted by the ubiquitous principal vector, *Culex quinquefasciatus*, is the most predominant infection in continental Asia while Brugian infections transmitted by *Mansonia* and *Anopheles* vectors predominate in the Indonesian Archipelago.

Progress so far:

MDA Coverage by WHO Regions

Figure 2: WHO Regionwise LF-MDA Treatment Coverage 2000-2009

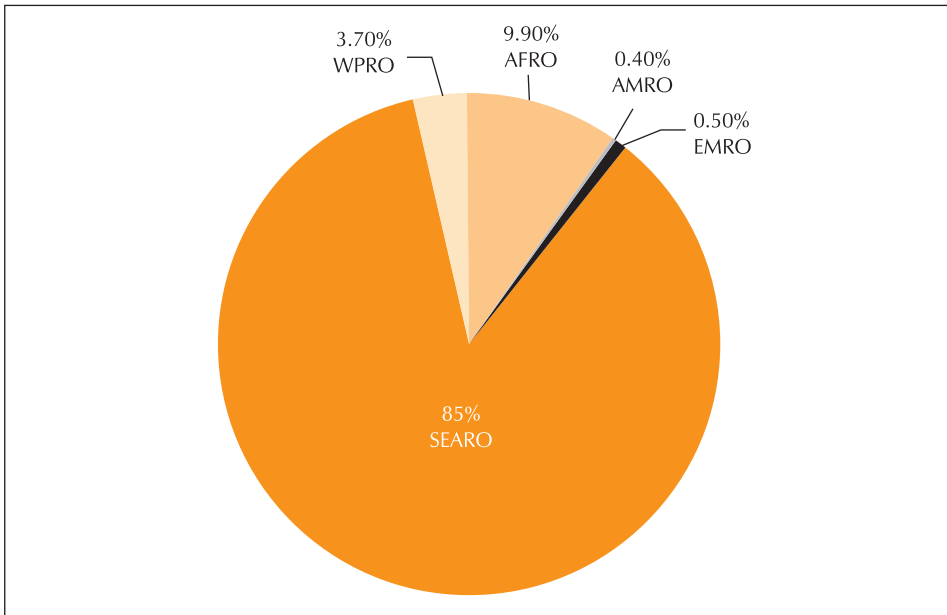
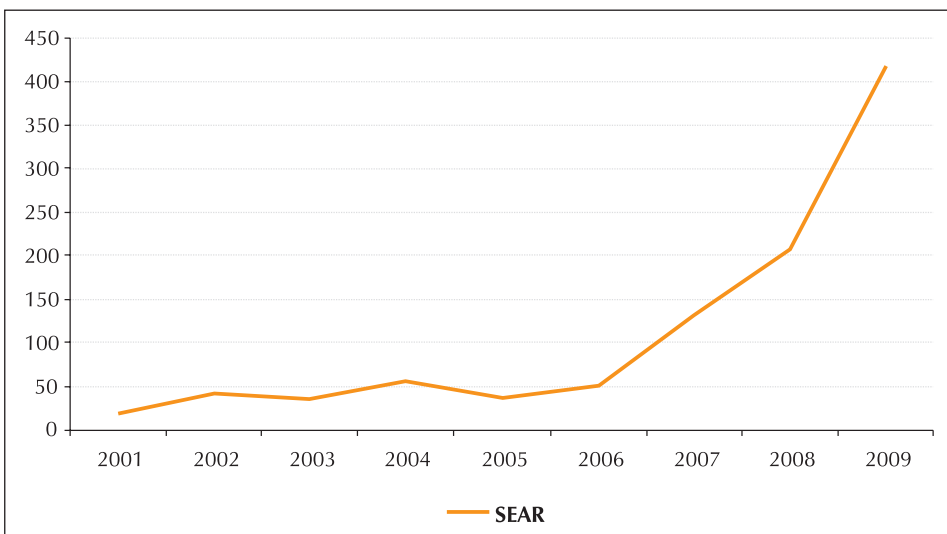


Figure 3: SEA Regional LF-MDA Progress :2001-2009 DEC + Albendazole



In the South-East Asia Region, nine endemic countries adopted mass drug administration (MDA) with DEC and albendazole in 2006 and rapidly increased treatment coverage from 208 million people in 2008 to 418 million people in six countries in 2009. By 2009, a total of 439 (51%) of the 859 implementation units implemented MDA. Sri Lanka and Maldives stopped MDA in 2006 and 2008 respectively and reached the point of elimination. WHO will verify the interruption of transmission of LF infection as per the revised guidelines. Timor-Leste could not continue MDA after 2007 due to lack of manpower and funding. Bangladesh, India, Indonesia, Myanmar and Nepal are making steady progress in scaling up MDA to cover the entire endemic population. Of the 194 endemic districts examined 179(77%) reached a microfilaraemia (mf) rate of less than 1% in India by 2009.

Elimination of lymphatic filariasis has the added benefit of controlling soil-transmitted helminthic infections including those caused by roundworm, hookworm and whipworm. This helps in reducing morbidity among the target population, especially school-age children, the most vulnerable group, and in improving their nutritional status and physical/cognitive growth improved.

Challenges:

Sustaining political commitment and providing adequate resources are important. In addition the following issues need to be addressed.

- (1) Need for alternate tools, especially for *B. malayi*.
- (2) Timely procurement of drugs and ensuring high coverage.
- (3) Impact analysis of MDA on *B. malayi* and *B. timori*.

Strategies

A regional strategy for 2010-15 has been developed focusing on the following:

- (1) Specific strategies to reduce and ultimately Interrupt LF transmission.
- (2) Implementation of MDA and ensuring high treatment coverage and compliance.
- (3) Specific strategies to prevent and alleviate disability.
- (4) Community Home Care Measures for lymphedema.

- (5) Management of acute episodes.
- (6) Surgical facilities for hydrocelectomy.
- (7) Patient and family education.

Road map for 2011–2013

- To provide technical assistance to the Member States to scale up LF-MDA and disability alleviation.
- Scaling up LF-MDA (preventive chemotherapy) in the endemic Member States
- To undertake verification of LF elimination in Sri Lanka and Maldives
- To enhance capacity of the Member States to plan and implement transmission assessment survey (TAS) to stop MDA
- To implement disability alleviation services
- To advocate LF-MDA integration into other NTDs and integrated vector management.

Soil transmitted helminthiasis

All the 11 Member States are endemic for soil-transmitted helminthiasis (STH). These countries contributed to 38% and 41% of preschool age and school age children respectively at risk of STH. The original estimate of 503 million has been re-estimated to 372 million (WHO 2011) preschool and school age children in this region needing preventive chemotherapy in 11 Member countries. This accounts to 42% of the global estimate of 884 million needing preventive chemotherapy.

145 million children accounting for 39% of the total 372 million children were treated with albendazole (along with DEC during LF-MDA campaign) or with mebendazole in 2009 in SEAR.

Challenges:

- (1) Increasing political commitment and resource mobilization for STH control jointly by the Ministry of Health and Ministry of Education
- (2) Increasing inter-sectoral partnership to improve sanitation and clean water supply
- (3) Public education to change habits towards improved sanitation and washing hands

- (4) Integrating STH control into other NTDs

Strategies:

- (1) Estimation of prevalence of STH in Member States
- (2) In LF-MDA districts, children are covered during MDA campaigns with an annual single dose of albendazole
- (3) In Non-LF - MDA districts, children are covered in the school health programme or nutrition / vitamin –A campaign either with albendazole or mebendazole
- (4) Public education to create awareness about sanitation and washing hands

Road map for 2011–2013

- Scale up STH treatment coverage in endemic Member States
- To advocate and educate health and non-health sectors and communities on improved sanitation, clean water supply and washing hands
- Integrate STH treatment into other NTDs where preventive chemotherapy is practiced.

Trachoma

Trachoma, one of the diseases causing blindness is reported mainly by Myanmar, Nepal, and India. The exact situation of trachoma is not yet known in the Region.

Nepal: Mapping of trachoma is in progress. Sixty two districts were covered by Trachoma Rapid Assessment (TRA) with an overall estimated prevalence of 13%. The programme has implemented the SAFE (Surgery, Antibiotics, Facial cleaning and Environmental changes) strategy.

Myanmar: Of the 59 million population (2010), 42 million people are at risk of trachoma infection in 32 districts. Sixteen districts have implemented the SAFE strategy. Trachoma Follicular (TF) rate among 1-9-year-old in 2009 ranged from 0.06% to 2.34%. The TT (Trachoma Trichiasis) rate ranged from 0.004% to 0.34%. The Trachoma Control and Prevention of Blindness programme is carrying out trachoma control work. A total of 4 820 trichiasis surgeries were performed in 2009. In the same year, 11 210 received antibiotics intervention with tetracycline eye ointment. More than 80% of the people have access to clean water and functioning latrines.

India: As per reports, in 2006 a total of 246 995 persons were surveyed in 10 districts of six endemic states and it was reported that 6.8% of the children had TF/TI.

Challenges:

- Though committed to eliminate the disease by 2020, lack of political support and funding for implementing surveys and SAFE strategy is slowing down progress.
- Inadequate public awareness about the disease, treatment and facial cleaning and environmental changes by advocacy and IEC materials.
- Inadequate capacity of health personnel for planning and implementing SAFE strategy
- The disease burden in the Member States other than Nepal, Myanmar and India is not yet known.
- Inadequate inter-sectoral partnership and coordination to eliminate the disease.

Strategies:

- Surveys in known endemic districts to assess the prevalence.
- Implementing SAFE (Surgery, antibiotics, facial cleaning and environmental changes) strategy.

Road map for 2011–2013

- To scale up trachoma elimination through SAFE strategy and provide technical assistance to endemic Member States.
- To estimate trachoma burden in Member States not reporting cases.
- To advocate integration of trachoma elimination into other NTDs requiring preventive chemotherapy.

Schistosomiasis

In this Region, this disease is found only in the Central Sulawesi province of **Indonesia**. It is caused by *Schistosoma japonicum* which is reported by Lindu, Napu and Bada valleys with an estimated 50,000 population at risk(2010). The prevalence rate varied from 0.36% (2001) to 2.2% (2008). The rate increased

from 1.4% in 2007 to 2.2% in 2008. A survey carried out in 2010 in Napu valley showed an average prevalence of infection of 9.6% in five villages (up to 11.7%).

Challenges

- Mobilizing political commitment and adequate resources for Indonesia.
- Capacity building of the general health staff to promote practice of preventive chemotherapy with praziquantel and stool examination.
- Creating community awareness on schistosomiasis transmission and prevention including environmental changes through appropriate advocacy/IEC campaigns.
- Building partnerships to support schistosomiasis elimination even though it is a small problem in Indonesia and in the SEA Region.

Strategy

- Preventive chemotherapy (praziquantel) given to cases and at risk population along with snail and environmental control and improving sanitation habits.

Road map for 2011–2013

- Scale up schistosomiasis elimination in Indonesia.
- Advocate and educate community leaders and the public in affected pockets to practice sanitation.
- Integrate schistosomiasis control into integrated NTDs control.

Yaws

Yaws caused by non-venereal treponema remains one of the most neglected tropical diseases affecting primarily the poorest and most vulnerable population. This disease can be easily eliminated using a single dose of injection Benzthine Penicillin. Until recently, it was endemic in three countries of the Region: India, Indonesia and Timor-Leste. In 2006, India successfully eliminated this disease and continued sero-surveillance to verify interruption of disease transmission among children aged less than five years. Yaws is believed to be endemic in 18 of 33 provinces of Indonesia. An estimated 1000 cases are likely to occur in Timor-Leste in six of the 13 districts. It affects mostly poor young children,

who end up disabled and stigmatized. They are then unable to achieve primary education, a fact that results in poor intellectual development and reduced work and income opportunities in adult life.

The Yaws control programme started in the Region in 1952, with assistance from WHO and UNICEF. The programme helped to reduce in the incidence of yaws by 93% by 2002. Later, anti-yaws activities were gradually abandoned in most countries, with the result that the disease re-emerged in the late 1970s. Subsequently in 1996, intensified efforts resulted in another dramatic decline of yaws. India declared elimination of yaws in 2006 and continued sero-surveillance. India is planning to declare itself “Free from Yaws” in the near future.

Five of the 18 provinces are considered to carry a high burden of yaws. The remaining 13 provinces which were endemic in the past are considered as very low burden as they report cases occasionally indicating the presence of foci of infection in the community. The national programme (leprosy and yaws) of the Ministry of Health is reporting a steady increase in the number of new cases since 2001. The programme reported 7751 new cases from five provinces by the end of October, 2009. Of these, 7400 cases were reported from active surveys carried out in six high-endemic districts in East Nusa Tenggara province. Based on available data from provinces, 33 districts are considered to be high- endemic and 43 to be low-endemic.

In Timor-Leste, yaws elimination has not received the required attention so far as the country is in the process of building its health infrastructure and manpower. Reliable data on yaws is not available but considering that yaws is endemic in the adjoining provinces of Indonesia which border Timor-Leste, a preliminary estimate of 1 000 annual cases has been made; Yaws is believed to be endemic in at least six of the 13 districts.

Challenges

- Mobilizing political commitment and adequate resources.
- Capacity building of the general health staff to recognize and treat yaws.
- Improving case detection and ensuring prompt treatment of index cases and their contacts.
- Extending yaws services to remote and difficult-to-reach areas.

- Creating community awareness on yaws, through appropriate advocacy/IEC campaigns, so that those affected can come forward for diagnosis and treatment.
- Building partnerships.

Strategy

- Active and passive case detection.
- Treatment of cases and family, neighbourhood and school contacts with injection Penicillin G, with focus on affected areas.
- Strengthening the capacity of the health system to recognize and treat yaws.
- Strong advocacy and IEC campaign in the affected areas.
- Strong public/private partnership and involvement of non-health sectors.
- Regular supervision, monitoring and evaluation.

Road map for 2011–2013

- To scale up yaws elimination in Indonesia and Timor Leste
- To provide technical assistance to endemic Member States
- To advocate with MOH and inter-sectors for commitment, resource mobilization and water supply
- To educate the affected population to practice personal hygiene and use of soap.

Kala-azar

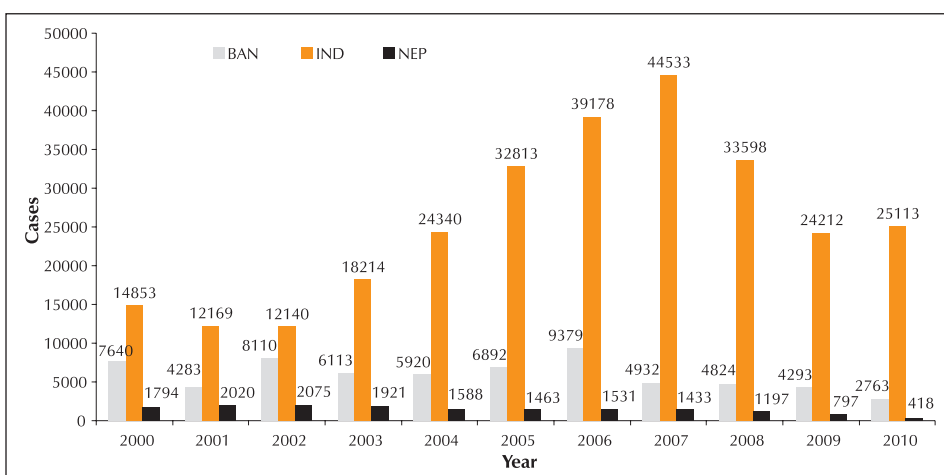
Present situation and challenges

Kala-azar affects the poorest of the poor and is endemic in 109 districts in Bangladesh (45), India (52) and Nepal (12). Approximately 200 million people in the Region are “at risk” from the disease. Bhutan is reporting sporadic cases of kala-azar since 2006. If the disease is left untreated, it is fatal. Because of its unique epidemiology (humans are the only reservoir, and the disease is confined to limited areas in the three countries), availability of oral drug (miltefosine), diagnostic kit (rK39) and IRS for effective vector control and a strong political commitment, it is possible to eliminate the disease from the three countries in the Region. A MoU was signed by the Health Ministers of Bangladesh, India

and Nepal in 2005 in Geneva to collaborate in eliminating the disease by 2015 with a target of less than 1 case per 10 000 population in the affected areas.

In 2009, India reported 24 212 cases with 93 deaths due to kala-azar. The figures from Bangladesh and Nepal are 4293 cases and 797 cases and 14 and 4 deaths respectively. In 2010, all the three countries reported 28 294 cases and all were treated. Of them, 83 died. India reported a total of 25 113 new cases with 82(0.3%) deaths. Bangladesh reported 2763 cases with one death in 2010. Nepal reported 418 cases. Bhutan reported six new cases in 2010. All the four countries together reported 28,300 cases and 84 deaths.

Figure 1: Kala-azar Cases in WHO SEA Region, 2000-2010



Source: Country reports, 2010

Challenges facing elimination of kala-azar

- The wide gap between the number of reported and estimated cases affects elimination efforts.
- At present, diagnosis and treatment have been limited to large hospitals. Patients often seek treatment from private doctors or even quacks, who provide expensive, incomplete or inappropriate treatment that favours continued transmission of the disease.
- Drugs in use like sodium stibogluconate show variable efficacy, and are cardiotoxic and has developed drug resistance.
- Post Kala Azar dermal Leishmaniasis (PKDL) patients with only skin signs resulting from delayed or incomplete treatment are reservoirs

of infection responsible for continued transmission. These patients are difficult to diagnose and treat.

- The threat of HIV/AIDS and kala-azar co-infection is increasing. If the HIV/AIDS epidemic spreads to the general population where kala-azar is endemic, it may have disastrous consequences.

Objectives and strategies

To contribute to improving the health status of vulnerable groups and at-risk population living in kala-azar-endemic areas of Bangladesh, India and Nepal by the elimination of kala-azar by 2015 so that it is no longer a public health problem

Targets

- To reduce the annual incidence of kala-azar to less than one per 10 000 population at district or sub-district level (upazila in Bangladesh, sub-district in India and district in Nepal) by 2015.
- Reduce case fatality rates.
- Prevent the emergence of kala-azar/HIV, and TB co-infections.

Strategies

- Early diagnosis and effective treatment, vector control by IRS, disease surveillance, Behaviour change communication, and operational research.
- Challenges: Up-scaling of the programme, solving cross-border issues since 40% of all cases of kala-azar occur in the bordering districts, and proper IRS and resource mobilization.
- Bhutan: Recently a small focus of kala-azar has been reported. The implication of this finding should be considered for the elimination programme.
- HIV-VL is an emerging threat and should get attention for diagnosis and treatment.

Post-Kala-azar dermal leishmaniasis (PKDL):

PKDL is a complication of visceral leishmaniasis (VL) and is characterized by a macular, maculopapular and nodular rash in a patient who has recovered from VL and is otherwise well. Starting from around the mouth, it spreads to other

parts of the body. In India, it follows treated VL in 2%-5% of cases and there is a gap of 3-8 years. Diagnosis is mainly clinical. Parasites may be demonstrated by microscopy in smears or skin biopsy. PCR may detect the parasite in more than 80% of cases. Sodium stibogluconate is given in a dose of 20 mg/kg for four months or Amphotericin B. Lipid Amphotericin B seems to be effective. Trials with Miltefosine 8 wk vs.12 wk is complete, but data is being analyzed.

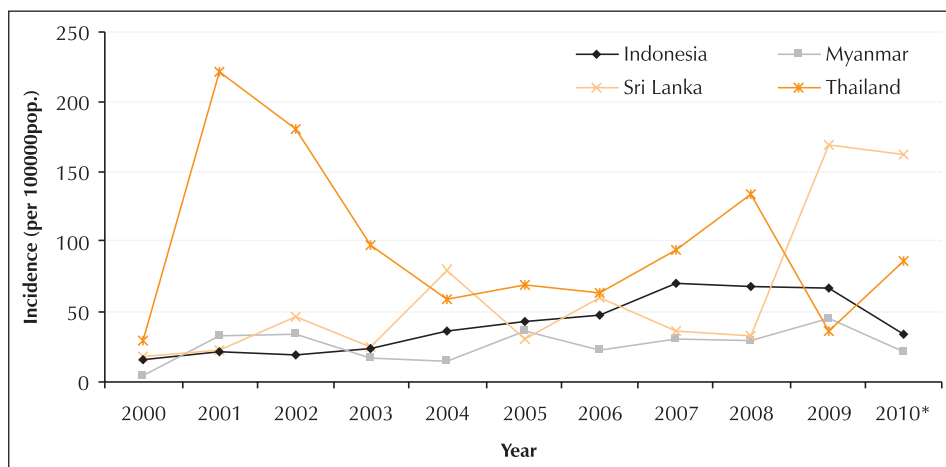
Road map for 2011–2013

- Scale up kala-azar elimination in Bangladesh, India and Nepal.
- Provide technical assistance to endemic Member States

Dengue

Dengue is the most important vector-borne viral disease affecting humans. Nearly 2.5 billion people live under threat of dengue with 50 million new infections in over 100 countries. There are 24 000 deaths reported annually. The SEA Region harbours 52% of the population at risk in all Member States except DPR Korea. SEAR and WPR worked together to develop a bi-regional dengue strategic plan which was endorsed by the Regional Committee in 2008.

Figure 1: Incidence of Reported DF / DHF (including confirmed / Probable / Suspected Cases) / 100000 population in Selected Member States



Source: Ministries of Health of Member States

In 2003, eight countries — Bangladesh, India, Indonesia, Maldives, Myanmar, Sri Lanka, Thailand and Timor-Leste — reported dengue cases

followed by an outbreak in Bhutan and the first indigenous dengue case in Nepal in 2004. The Democratic Peoples' Republic of Korea is the only country in the Region that has not reported indigenous dengue cases.

The total cases reported in 2010 (till November) were lower than the total in 2009, largely due to the lower number of cases in Indonesia. India and Thailand experienced an upsurge in reported cases of dengue in 2010, while there were outbreaks in Timor-Leste and Nepal. There was a sudden increase in the number of reported cases of dengue in Sri Lanka in 2009 and the trend is continuing. In other countries such as Bangladesh, Myanmar and Maldives it is following an endemic pattern. Bangladesh and India report only laboratory-confirmed cases while the reported case count in other countries include confirmed/ probable/ and suspected cases.

Table: Incidence of DF/ DHF in SEA Region*

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Bangladesh	3.95	1.70	4.21	0.33	2.60	0.68	1.42	0.30	0.72	0.29	0.05
Bhutan					409.37	1.72	17.58	12.84	10.74	50.14	2.29
DPR Korea											
India	0.06	0.32	0.18	1.20	0.38	1.10	1.11	0.45	1.10	1.31	2.16
Indonesia	16.31	22.07	19.23	24.38	36.79	43.51	48.16	70.29	68.55	66.83	34.29
Maldives	66.18	26.45	9.64	13.38	257.64	385.62	935.14	560.00	483.93	253.77	180.33
Myanmar	4.04	33.39	33.93	16.61	15.35	36.14	23.37	31.13	29.25	45.48	21.92
Nepal							0.09	0.01	0.02	0.10	0.01
Sri Lanka**	17.88	22.89	47.25	24.86	79.71	30.58	60.51	36.57	32.61	169.13	162.31
Thailand	29.88	221.51	180.22	97.31	58.85	69.64	63.84	94.09	133.17	37.00	85.09
Timor Leste					45.68	113.94	15.88	19.81	17.06	14.58	39.92
SEAR	4.20	13.72	12.06	8.88	9.49	11.04	11.50	14.98	16.62	14.65	11.94

Source: Ministries of Health, Member States

* till October 2010

Road map for 2011–2013

- Scaling up of dengue control according to the Asia Pacific Dengue Control Strategy.
- Implementation of comprehensive guidelines for prevention and control of dengue and DHF, revised and expanded edition, 2011.

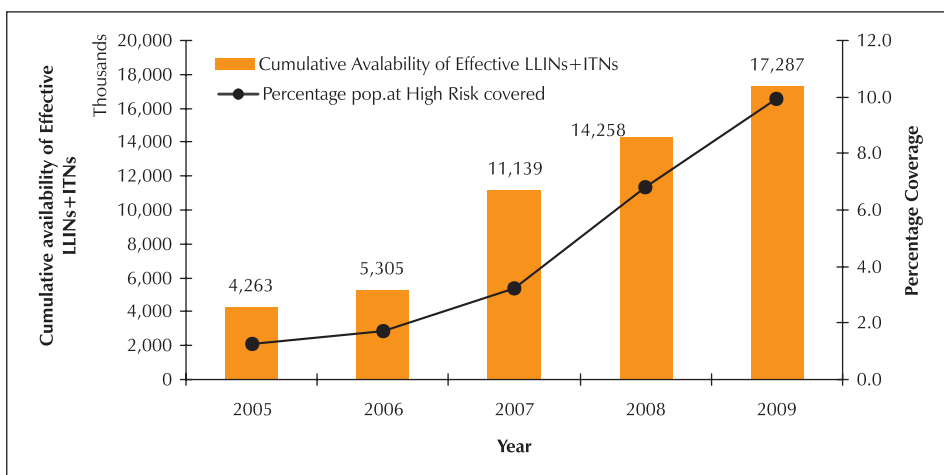
Integrated Vector Management

A “Framework for implementing IVM at district level in the SEA Region: A step-by-step approach” was developed in 2008 to provide guidance to develop and implement the IVM approach at district or equivalent levels, as well as to monitor and evaluate its impact.

A Regional Meeting on Implementation of IVM was organized at Chiang Mai, Thailand from 27 – 30 September 2010 to discuss the various issues related to the implementation of IVM in Member States and also to arrive at practical methods in expanding the strategy. A training module for IVM has been developed.

Use of ITN / LLINs are being scaled up in Member States for interruption of transmission. Indoor residual spray is undertaken to control the adult population while larval control is carried out by use of chemical pesticides and biological control agents. A guideline for sound management of public health pesticides was made available since a huge quantity of public health pesticides are used in the Region.

Figure 2: Population at risk (API > 1) covered under effective LLINs / ITNs, 2005-2009



Road map for 2011–2013

- Support a training programme at the Vector Control Research Centre (VCRC), a WHO CC on IVM.
- Implement and scale up IVM in Member States.

Integrated Control of Neglected Tropical Diseases

One of the control strategies for some of the neglected tropical diseases (NTDs) such as LF, Soil Transmitted Helminthes (STH), trachoma and schistosomiasis is to practice mass drug administration (preventive chemotherapy). Many of these diseases amenable to PCT are geographically overlapping in Member States. To rapidly increase treatment coverage with limited funding and technical manpower, integrated approaches are being recommended. While practising integrated treatment strategies, integrated disability alleviation strategies and integrated vector management are also being recommended to make the programme more cost-effective.

Food-borne trematodes (*Fasciola hepatica*) which is prevalent mainly in Thailand is also considered for PCT. Other NTDs namely yaws, kala-azar and leprosy could be linked with the main integrated plan with individual case management and disability alleviation wherever applicable. Indonesia, Myanmar and Nepal have already drafted integrated plans.

Tropical disease research

WHO-SEARO provides small grants to build research capacity in Member States. From 2005 to 2010, 211 small research grants were provided. The funding support received from TDR was discontinued from 2010. The Department of Communicable Diseases has funded seven proposals in 2008 and 11 proposals in 2010 from the CDS pool fund. The details are given below:

Table: Statement of WHO-TDR small grants supported projects from 2004-2010

Year	TDR Contribution (US \$)	No. of Proposals Received	No. of Proposals Sent for RRC	No. of Proposals Funded
2004	50,000	9	3	2
2005	50,000	30	17	10*
2006	50,000	23	16	12
2007	50,000	38	17	10
2008	50,000	58	26	13**
2009	75,000	36	22	11
2010	83,401***	26	17	11***

* 1 proposal was funded by MAL unit

** 7 proposals supported under CDS pool fund

*** Recommended for funding and funds to be identified

The CDS department has also developed generic research protocols to study climate change impact on vector borne and diarrheal diseases (retrospective, prospective and preparedness studies). These protocols are being used by member countries.

Laboratory support for communicable diseases

Public health laboratories provide critical support to disease surveillance, epidemiological tracing of infection, outbreak investigation and research. Diagnosis is the fundamental and first essential step in the prevention and control of communicable diseases. The recent outbreaks of SARS, Nipah virus disease, chikungunya, avian influenza as well as pandemic influenza H1N1 have exposed the inherent weaknesses in the diagnostic support system in several countries.

In many communicable diseases, notably HIV/AIDS, initiation of specific treatment and monitoring of therapy warrant vital laboratory inputs. Antimicrobial resistance surveillance, especially for HIV, malaria and TB, and studies on drug resistance in all microorganisms are entirely laboratory based.

Present situation and challenges

Laboratory support for disease surveillance and outbreak investigations for common endemic diseases (cholera, viral hepatitis, malaria, dengue fever, Japanese encephalitis, etc.) is available in all the Member States. National laboratory networks that support these functions and are coordinated by a designated national public health laboratory are operational in SEAR. India and Thailand have several national laboratories/centres that provide disease-specific referral support to intermediate and peripheral laboratories.

Eight of the 11 Member States are participating in the Global Influenza Laboratories Network (FLUNET) through their respective national influenza centres. Seventy-one laboratories (from the health and veterinary sectors) from seven countries are participating in the Global *Salmonella* Surveillance Network. Sixteen enterovirus laboratories are members of the Global Poliomyelitis Laboratories Network while 15 measles laboratories comprise the measles network.

National laboratories in India, Indonesia, Myanmar, Nepal, Sri Lanka and Thailand organize external quality assessment schemes (EQAS) to undertake periodic assessment of the quality of laboratories in their networks.

An Asia Pacific Strategy for Strengthening of Health Laboratories has been developed recently. This strategy aims to address major challenges that public health laboratories experience in the Region which include:

- Inadequate resources because of the low priority accorded to public health laboratories. This is a major constraint that has hampered modernization of the laboratories and equipping them with molecular biological tools for the early and reliable diagnosis of communicable diseases.
- The capacity, expertise and infrastructure required to diagnose emerging diseases using virological and molecular biological tools are inadequate. Laboratories from the private sector, academic institutions, the veterinary sector, and other research and development (R&D) institutes outside the health sector have not been included in the achievement of public health objectives. Thus, expertise already available within the country is not harnessed for supporting public health activities.
- Diagnostic reagents are not available for new or unusual infectious diseases such as SARS, avian and pandemic influenza and Nipah virus.
- The infrastructure and environment that ensure biosafety in the processing of clinical material for diagnosis of viral infections are rudimentary. Biosafety level (BSL)3 laboratory facilities are functional only in India, Indonesia and Thailand.
- Participation in international networks to meet the challenges of new pathogens is insufficient. Contributions to FLUNET from almost all national influenza centres have been limited.
- The referral support system for rapid diagnosis and characterization of pathogens causing emerging infectious diseases is weak.

Objectives, strategies and activities

The goal of the Blood Safety and Clinical Technology (BCT) Unit is to support Member States in developing the capacity to identify, detect and respond to emerging and re-emerging infectious diseases, with a focus on epidemic-prone communicable diseases.

The objectives are:

- Advocating with Member States to accord priority for strengthening laboratory support systems in accordance with the Asia Pacific Strategy for Strengthening Health Laboratories
- Implementation of IHR
- National Influenza Pandemic Preparedness Plans.
- Modernization of infrastructure of selected national public health laboratories with emphasis on BSL3 facilities and biosafety practices; Strengthening of selected laboratories in the Region to provide comprehensive referral services to emerging diseases in collaboration with technical support from international reference laboratories.
- Working closely with all Member States and providing technical support to them for scaling up quality laboratory services and establishing biosafety infrastructure.
- Identifying centres of excellence within SEAR, augmenting their technical capacity to rapidly diagnose emerging diseases and forge a network around them for providing disease specific referral services to the entire Region.
- Creating a core group of trained professionals with competence in advanced modern diagnostic technologies including PCR.
- Forging networking between laboratories within the health sector and with other sectors, especially animal health, at different levels of the health delivery services.
- Networking between international laboratories and national public health laboratories for referral services, sharing of information, and material and human resources.
- Capacity building at all levels of laboratories through training and horizontal exchange of experience among Member States and other WHO regions to support IHR and disease surveillance.

Specifically, WHO will:

- Advocate utilization of the Asia Pacific Strategy for Strengthening of Health Laboratories for prioritization of and allocation of resources to public health laboratories.
- Identify and strengthen centres of excellence within the Region for quality referral services through regional networks.

- Provide technical and logistical support for the establishment of laboratories for emerging diseases with an emphasis on virological diagnosis and use of molecular biological tools.
- Develop guidelines and tools for the establishment and strengthening of laboratories for the diagnosis of emerging infectious diseases and implementation of IHR. Support comprehensive assessments of national laboratory systems and the development of strategic plans.
- Ensure capacity development through fellowships and other short training courses in collaboration with WHO CCs.
- Assist in developing proposals for funding to strengthen public health laboratories, and
- Maintain an inventory of experts and laboratories of excellence.

Road map for 2011–2013

- Asia Pacific Strategy for Strengthening Health Laboratories shall be advocated in the Region and national focal points for health laboratories shall be designated in all countries.
- Regional lab networks for plague, leptospirosis, Nipah, acute diarrhoeal diseases, arboviruses and antimicrobial resistance monitoring shall be established.
- Implementation of regional strategy for prevention and containment of antimicrobial resistance in all Member States shall be supported.
- National blood policy shall be formulated in nine Member States to reduce the burden of transfusion transmissible infections.

Challenges and opportunities ahead



5

5.1 Galvanizing political commitment, and building and sustaining partnerships for disease control/elimination

The South-East Asia Region has the tradition of enlisting political commitment for addressing major public health problems. WHO has taken the lead by convening annual meetings of ministers of health. Technical heads of various sectors participate in the annual meetings of the Regional Committee. Those representing political, administrative and technical leadership are thus fully involved. Member States participate in global events when global health challenges are discussed and they make appropriate commitments. This relationship has helped to solicit political commitment and sustain the momentum against the spread of diseases.

There is an increasing trend of public–private partnerships to solve public health problems. Large, open-ended donation of drugs by pharmaceutical companies; global and regional coalitions to control selected infectious diseases; and the use of health systems to participate actively in goal-oriented programmes are very encouraging. Efforts made by TDR in partnership with countries are yielding results. These have facilitated appropriate research to find solutions to regional problems. Diseases of the poor are being addressed with quality medicines and products. Control of infectious diseases is also being aided by rapid developments in information and mapping technologies. Partnerships with industry in improving human health and development are encouraging. Development of long-lasting bednets is an example of this partnership. While there is a great deal of activity at the global level, additional focus is required to build and sustain partnerships at the regional and country levels.

5.2 Mobilizing and ensuring financial sustainability

To realize the above vision, goals and objectives, sustainable financing is necessary. It is important to develop capacity within WHO as well as in Member States for effective scaling up of surveillance, treatment and control measures. This requires regular sharing of information and experiences, operational research, provision of technical support, tools and guidelines, ongoing supervision, monitoring and evaluation – all of which can only be accomplished with adequate funding. Finances will be obtained with the preparation of briefs for donor partners, writing of proposals for funding, organization of partners' meetings and maintaining ongoing communication with stakeholders. Besides procuring additional funding, it is imperative that the planning process be further streamlined to optimize the use of WHO's regular and extrabudgetary funds. The increasing use of result-based budgeting will also help convince partners to commit resources to the Department's endeavours.

5.3 Ensuring public information and social mobilization in each programme area

The importance of partnership with the media to communicate health risks to the public is being increasingly recognized. The challenges posed by the threat of emerging diseases have brought to the forefront the need to strengthen this partnership for better risk communication.

Widespread and extreme poverty, illiteracy and ignorance about risk factors among communities hamper efficient community-based control programmes. Reluctance to seek timely care, non-adherence to treatment, unsafe sexual practices and problems in ensuring safety of food, water and sanitation can undermine otherwise sound control strategies. At least 2 million of the deaths caused by communicable diseases could be prevented by ensuring simple measures such as clean water and sanitation, vector control and improved dietary intake.

Control of infectious diseases can be negatively affected by human behaviour. Strategies that rely on behavioural change can be more complicated to execute than those that rely on vaccination or medicines. However, disease eradication and elimination programmes can achieve considerable success even without the interventions of vaccines or medicines if behavioural change

can be assured. This is borne out by the success in eradicating guinea worm disease and elimination of leprosy.

There is now compelling evidence that social mobilization is a powerful means of bringing about behavioural change, even among poor and illiterate people. By bringing about behavioural change, strategies to control infectious diseases can be very successful if they are innovative and practical. Directly observed treatment in TB helps treatment adherence. Long-lasting treated bednets overcome the widespread failure of communities to re-treat the nets. The strategy of multi-drug therapy in leprosy ensures compliance, and this success is complemented by direct supervision.

For some of the other diseases, cultural attitudes and behaviours are so deeply entrenched that special social mobilization campaigns such as commercial advertising and marketing have to be organized. Media campaigns have been organized in the past to overcome social stigma. Through organization of special events such as the World TB Day and World AIDS Day, schoolchildren can be mobilized to bring health messages home and thus help create public awareness. Mass mobilization of the public, through the use of communication for behavioural impact (COMBI), is a promising strategy in the context of elimination of LF, elimination of leprosy, control of dengue/DHF, and widespread adoption of insecticide-treated bednets.

5.4 Building bridges for health system response

The increasing demands on public health systems in the Region aggravate the double burden of communicable and noncommunicable diseases. The capacity of the public health system, the backbone of all infectious disease control programmes, has not expanded in the countries in relation to the emerging needs. Although they are expected to recognize and respond to the challenges posed by infectious diseases, public health systems in many countries of the Region remain inadequate in rural or remote areas, especially among poor populations, where social, physical and biological conditions are conducive to the occurrence and spread of various infectious diseases. Strong partnerships within and across the public and private sectors and including cooperation, most notably among veterinary sciences, academia, environmental organizations and NGOs are required. Enhanced communication of public health information to ensure the active participation of communities at the local level and partnerships with existing/emerging organizations at national, regional and global is essential to move the health systems agenda forward.

5.5 Evidence-based programme planning

Research is a crucial part of the response to communicable diseases. A sustained, forward-thinking applied research programme enables scientists to uncover the weak links in the armoury of emerging microbes, create innovative ways to identify and fight microbial foes, and evaluate the preventive power of new interventions and approaches. To combat communicable diseases, public health requires renewal and expansion of research on the epidemiology and biology of microbes, vectors and intermediate hosts, and an awareness that new epidemics can *and will* emerge in unexpected places. Implementation of effective battle plans and operational as well as behavioural research are assuming increasing importance in the global and national commitment for scaling up interventions for the control, elimination and eradication of infectious diseases.

Frequent migration, natural disasters, deterioration of health systems and complex emergencies have all increased the threat of epidemics. The emergence of new infectious diseases and re-emergence of others, accompanied by the speed and volume of international trade and travel, have alerted countries to the ease with which infectious diseases can cross national boundaries. Preparedness for a possible attack of bioterrorism is now the highest profile security issue pertaining to infectious diseases in both the developed and the developing world. The dramatic interruption of trade, travel and tourism that can follow the news of an outbreak places a further burden on the fragile economies of many countries. In this context, intensified vigilance and surveillance assumes great importance. Well-functioning and responsive surveillance systems help enhance the capacity of health systems to detect and investigate these threats. This must be a part of preparedness planning since surveillance can help raise an alarm in time for a rapid response. Surveillance of drug resistance can be very useful in revising the policy on drugs and help bring about a change in the use of drugs for the treatment of infectious diseases. Behavioural surveillance serves an important purpose in reducing the vulnerability of segments of the population.

Emerging infectious diseases need to be confronted collectively by the international community. SARS and avian influenza could be contained through global efforts. Mechanisms for forging intercountry and interregional linkages need to be strengthened. WHO, with its mandate of providing technical support to the health sector of countries, will continue to facilitate disease control by supporting regional outbreak investigation and disease surveillance programmes, and by strengthening the knowledge base of countries in their fight against emerging infectious diseases.

5.6 Tracking progress through monitoring and evaluation

With the increase in resources and commitment to scale up efforts for the control, elimination and eradication of diseases, the momentum for expanding the response will increase. Ongoing routine supervision has to be institutionalized. Supervisory checklists need to be put in place and used so that timely feedback and follow-up actions can be organized.

It is becoming increasingly clear that the ability to report accurate, complete and timely information strengthens disease control programmes and increases accountability. A common, comprehensive and consistent monitoring and evaluation system has many advantages, and should respond to the needs of programme managers, researchers and donors. A consistent and standardized system will help increase coordination and communication between the different groups responsible for the programme. Shared planning, execution, and collection, analysis and dissemination of data will help reduce overlap, as they will increase cooperation among different groups. The overall framework for monitoring and evaluation should be comprehensive and include input, process, output, outcome and impact indicators. The framework should provide for measurement of these indicators at all levels of the health system through the involvement of a health management information system (HMIS) and integrated disease surveillance. The principles to be adopted in surveillance, monitoring and evaluation should include the following:

- Build on existing, well-defined indicators,
- Harmonize with international frameworks such as the MDGs,
- Minimize the number of key indicators to be measured,
- Cover a wide range of programme areas and sectors related to different diseases, and
- Address country programme needs.

Some of the specific outcomes and impact indicators may require special surveys. These surveys may be carried out independently or as part of national surveys such as district health surveys or multiple indicator cluster surveys. When a decision is taken to carry out special surveys, it is prudent to accommodate several diseases to avoid duplication of effort.

Conclusions

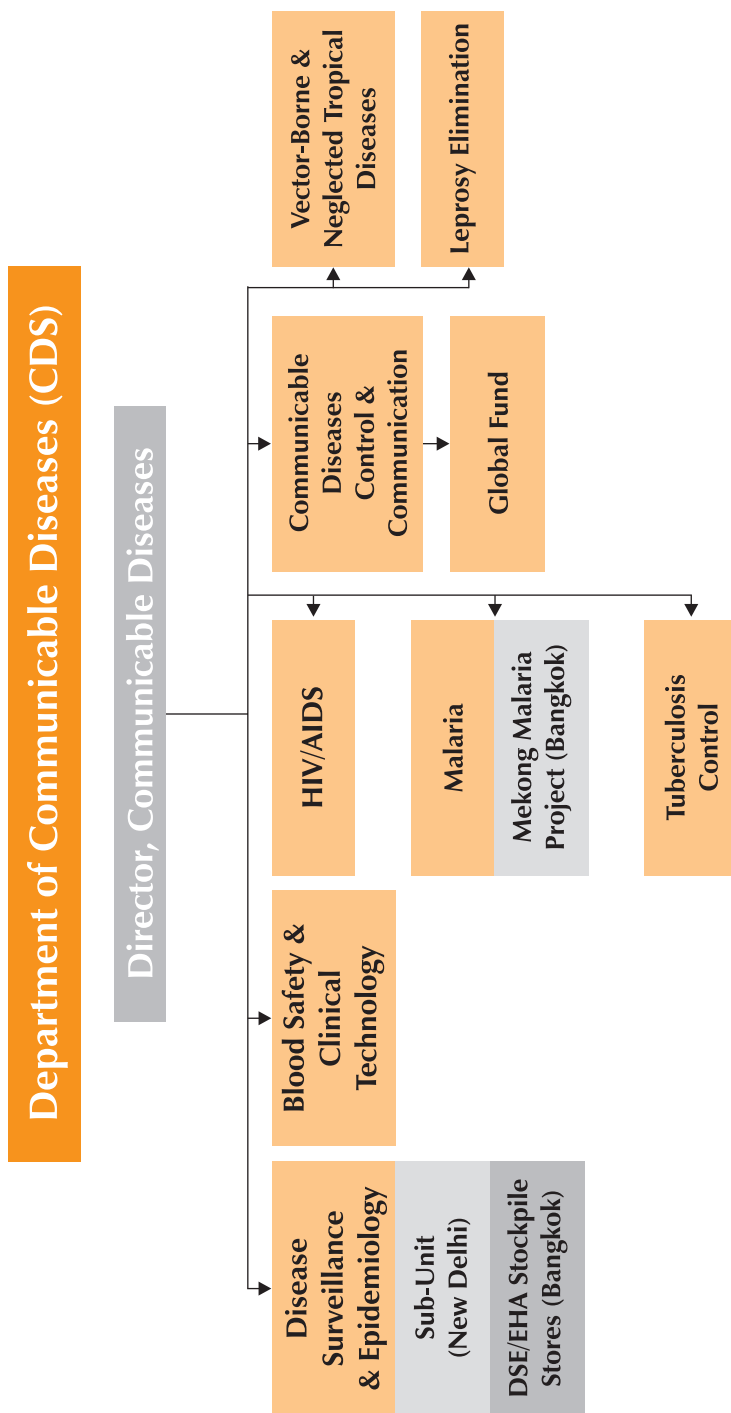


6

The CDS Department is committed to controlling the scourge of infectious diseases that plague the population in SEAR. The Department will work on pertinent issues and challenges as outlined by the various units in the roadmap and next steps and in line with our role to support countries in achieving disease control targets through technically sound inputs. The Department will also work closely with the WHO country focal points and national authorities to provide technical assistance for programme planning and development, resource mobilization, monitoring and evaluation, and advocacy for political commitment.

Annex-1

Organogram: CDS Department



Annex-2

WHO Representatives in SEAR countries

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With the understanding that health action must primarily occur at the country level, WHO initiatives in communicable diseases control, elimination and eradication are in support of, and guided by, national priorities and needs. These include technical support for formulation of national policy and strategy as well as in programme planning, implementation and monitoring/evaluation.

WHO initiatives at the regional level focus on normative functions such as development of guidelines, best practice approaches, and training materials; providing a forum for information exchange and sharing of country experiences; advocacy; and mobilizing rapid response to disease outbreaks and health emergencies when needed.



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