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.
Department of Communicable Diseases:

Profile and Vision
Revised 2007
“Communicable diseases are not only a 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”

– Samlee Plianbangchang, M.D., Dr.P.H.
Regional Director
### List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APDP</td>
<td>Asia-Pacific Dengue Partnership</td>
</tr>
<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of South East Asian Nations</td>
</tr>
<tr>
<td>BSL</td>
<td>biosafety level</td>
</tr>
<tr>
<td>CC</td>
<td>Collaborating Centre (of WHO)</td>
</tr>
<tr>
<td>COMBI</td>
<td>communication for behavioural impact</td>
</tr>
<tr>
<td>CSR</td>
<td>communicable disease surveillance, outbreak alert and response</td>
</tr>
<tr>
<td>CDS</td>
<td>Department of Communicable Diseases, WHO/SEARO</td>
</tr>
<tr>
<td>DALY</td>
<td>disability-adjusted life year</td>
</tr>
<tr>
<td>DEC</td>
<td>diethylcarbamazine</td>
</tr>
<tr>
<td>DHF</td>
<td>dengue haemorrhagic fever</td>
</tr>
<tr>
<td>DOTS</td>
<td>Directly Observed Treatment, Short-course</td>
</tr>
<tr>
<td>ECD</td>
<td>elimination and eradication of targeted communicable diseases</td>
</tr>
<tr>
<td>EDPT</td>
<td>early diagnosis and prompt treatment</td>
</tr>
<tr>
<td>EPR</td>
<td>epidemic preparedness and response</td>
</tr>
<tr>
<td>EQAS</td>
<td>external quality assessment schemes</td>
</tr>
<tr>
<td>EWARS</td>
<td>early detection, warning, alert and response to outbreaks</td>
</tr>
<tr>
<td>FETP</td>
<td>Field Epidemiology Training Programme</td>
</tr>
<tr>
<td>GDF</td>
<td>Global Drug Facility</td>
</tr>
<tr>
<td>GFATM</td>
<td>Global Fund to fight AIDS, TB and malaria</td>
</tr>
<tr>
<td>GIS</td>
<td>geographical information system</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>human immunodeficiency virus/acquired immunodeficiency syndrome</td>
</tr>
<tr>
<td>HRD</td>
<td>human resource development</td>
</tr>
<tr>
<td>HMIS</td>
<td>health management information system</td>
</tr>
<tr>
<td>HTM</td>
<td>HIV/AIDS, TB and malaria</td>
</tr>
<tr>
<td>IDU</td>
<td>injecting drug user</td>
</tr>
<tr>
<td>IEC</td>
<td>information, education and communication</td>
</tr>
<tr>
<td>IHR</td>
<td>international health regulations</td>
</tr>
<tr>
<td>IRS</td>
<td>indoor residual spraying</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>ITN</td>
<td>insecticide-treated nets</td>
</tr>
<tr>
<td>IVM</td>
<td>integrated vector management</td>
</tr>
<tr>
<td>LEM</td>
<td>leprosy elimination monitoring</td>
</tr>
<tr>
<td>LF</td>
<td>lymphatic filariasis</td>
</tr>
<tr>
<td>MDA</td>
<td>mass drug administration</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>MDR</td>
<td>multidrug-resistant</td>
</tr>
<tr>
<td>MDT</td>
<td>multidrug therapy</td>
</tr>
<tr>
<td>MSM</td>
<td>men who have sex with men</td>
</tr>
<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
</tr>
<tr>
<td>NTD</td>
<td>neglected tropical diseases</td>
</tr>
<tr>
<td>NTP</td>
<td>National TB control programmes</td>
</tr>
<tr>
<td>OI</td>
<td>opportunistic infection</td>
</tr>
<tr>
<td>PKDL</td>
<td>post-kala-azar dermal leishmaniasis</td>
</tr>
<tr>
<td>PLHA</td>
<td>people living with HIV/AIDS</td>
</tr>
<tr>
<td>PMTCT</td>
<td>prevention of mother-to-child transmission</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>research and development</td>
</tr>
<tr>
<td>ROARN</td>
<td>Regional Outbreak Alert and Response Network</td>
</tr>
<tr>
<td>RPRG</td>
<td>Regional Programme Review Group</td>
</tr>
<tr>
<td>SAARC</td>
<td>South Asian Association for Regional Cooperation</td>
</tr>
<tr>
<td>SARS</td>
<td>severe acute respiratory syndrome</td>
</tr>
<tr>
<td>SPDAP</td>
<td>strategic plan for prevention and control of dengue in Asia-Pacific</td>
</tr>
<tr>
<td>SEAR</td>
<td>South-East Asia Region</td>
</tr>
<tr>
<td>STI</td>
<td>sexually transmitted infection</td>
</tr>
<tr>
<td>SW</td>
<td>sex worker</td>
</tr>
<tr>
<td>TB</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>TDR</td>
<td>WHO’s Special Programme for Research and Training in Tropical Diseases</td>
</tr>
<tr>
<td>VCRC</td>
<td>Vector Control Research Centre</td>
</tr>
</tbody>
</table>
Contents

List of Acronyms ........................................................................................................... v
Preface ............................................................................................................................... ix
1. Introduction .................................................................................................................. 1
2. Burden of Communicable Diseases in the South-East Asia Region ................................ 4
4. Objectives, Strategies and Activities ........................................................................... 9
   4.1 Objective One: Communicable diseases surveillance, outbreak alert and response (CSR) ......................... 10
   4.2 Objective Two: Prevention and control of priority communicable diseases: HIV/AIDS, TB and malaria (HTM) ................................................................. 14
   4.3 Objective Three: Eradicating and eliminating neglected tropical diseases (NTD) ......................... 26
   4.4 Other Communicable Diseases: Dengue ......................... 36
   4.5 Laboratory support for communicable diseases .............. 37
5. Challenges and Opportunities Ahead ......................................................................... 42
   5.1 Galvanizing political commitment, and building and sustaining partnerships for disease control/elimination . 42
   5.2 Mobilizing and ensuring financial sustainability ............. 43
   5.3 Ensuring public information and social mobilization in each programme area .................. 43
   5.4 Building bridges for health system response .................... 44
5.5 Evidence-based programme planning ....................... 45
5.6 Tracking progress through monitoring and evaluation .... 46

6. Conclusions ........................................................................ 48

Annexes

1. Organogram: CDS Department ........................................... 49
2. WHO Representatives in SEAR countries ....................... 50
3. Regional Training Courses ................................................ 51
4. Publications and Documents of the CDS Department ..... 55
The South-East Region of WHO suffers disproportionately from the global burden of communicable diseases. Besides diseases such as HIV/AIDS, tuberculosis, malaria, leishmaniasis 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, we can make a difference and control communicable diseases within a reasonable time frame!

Dr Jai P. Narain
Director,
Department of Communicable Diseases
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 considerable disability and personal disfigurement. Some examples of these permanent disabilities are the severely deformed limbs resulting from lymphatic filariasis (LF) and facial erosion and scarring caused by leprosy. The threat of these infections becoming resistant to drugs is another mounting 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, also many 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 disease have been eradicated from the countries of the Region. Poliomyelitis is on the verge of eradication and leprosy elimination is within our grasp. 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 also is encouraging.

In recent years, political commitment, participation of academic institutions, networking, intercountry cooperation and planning are all contributing 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 Region (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 reorganized 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 Office, which is 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 suffering from humanity, reducing morbidity and mortality, and improving the quality of life, particularly of the poor and disadvantaged sections of the 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 the organization, over time.
The SEA Region which has 25% of world’s population, and 30% of world’s poor, suffers heavily from the burden of communicable diseases. For instance, the Region bears 80% of the global leprosy burden, 34% of tuberculosis, 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 5 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 of them 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 across all disease control programmes. The 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 more than 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 personal disfigurement. Severe and sometimes permanent disabilities affect an estimated population of one billion in the world, 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 facial erosion (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.
The vision and guiding principles of the Department are clearly spelt out in the following statement: “By the end of the decade, 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 when we bear 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 our experience and given the ground realities, we have identified the following principles that guide our 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 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 cross-cutting 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.
To fulfil the above vision, the CDS Department has been organized into three major areas of focus. These are:

1. Communicable disease surveillance, outbreak alert and response (CSR),
2. Prevention and control of priority communicable diseases such as HIV/AIDS, TB and malaria (HTM), and
3. Elimination and eradication of neglected tropical diseases such as leprosy, LF, kala-azar and yaws (NTD).

Furthermore, cross-cutting areas such as laboratory support, communication and social mobilization as well as data management are integral parts of the operation of the CDS Department. In these areas, the Department works in tandem with various units in a coordinated and complementary manner.

Given the scarce resources available, it is necessary to prioritize infectious diseases for control, elimination or eradication. The following important considerations are used to prioritize communicable diseases:

- Diseases (such as TB, malaria, HIV/AIDS, diarrhoea and pneumonia) that produce a large-scale impact on morbidity, disability or mortality are considered important.
- Diseases (such as cholera, influenza, meningitis) that occur as epidemics or have an epidemic potential are a priority.
- Diseases with a potential for effective control through available cost-effective interventions (such as diarrhoeas, tuberculosis, etc.).
• Availability of reliable and convincing information, evidence and data on diseases so as to initiate public health actions
• Identifying diseases that could be specifically targeted for control, elimination or eradication.

Apart from addressing cross-cutting areas such as strengthening of public health laboratories, containment of antimicrobial drug resistance, data management and analysis, and communication and information exchange, the Department works closely with other departments in SEARO in mainstreaming its activities. However, prevention of communicable diseases by vaccination and management of communicable diseases of young children such as diarrhoea and acute respiratory infections are not specifically included in this document, since these concerns are dealt with by other units in the Regional Office.

4.1 Objective One: Communicable diseases surveillance, outbreak alert and response (CSR)

Present situation and future challenges

New infectious diseases are emerging while old foes are on the rise as never before. The past three decades have witnessed the emergence of new infectious diseases, including SARS and avian influenza, which affected several Member States (Figure 1).

At the same time, malaria, dengue, cholera, meningitis and TB have re-emerged on an unprecedented scale, often assuming epidemic proportions. 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 district-focused, and flexible to the dynamics of emerging and re-emerging infectious disease threats.

In this regard, 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 measures.

In the CSR area, the following WHO activities are under way:

- Advocacy for strengthening surveillance and response,
- A regional strategy for integrated disease surveillance,
- 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 and response to disease outbreaks,
• Capacity development through the Field Epidemiology Training Programme (FETP) and other short training courses in collaboration with WHO CCs, and
• Development of proposals for funding to strengthen disease surveillance, public health laboratories, early warning systems and epidemic preparedness and response.

**Strategies and activities**

The goal of the CSR Unit is to support Member States in developing the capacity to identify, detect and respond to emerging and re-merging infectious diseases, with a focus on epidemic-prone communicable diseases.

The objectives are:

• To devise strategies to develop and strengthen feasible and sustainable surveillance systems, including laboratory-based surveillance;
• To develop a system for early detection, warning, alert and response to outbreaks (EWARS);
• To develop national epidemic preparedness and response (EPR) plans;
• To strengthen surveillance data collection, analysis, interpretation and use;
• To strengthen public health laboratories for disease surveillance; and
• To promote communication and timely information-sharing and feedback.

To realize these objectives, the following strategies and activities are needed:

• Comprehensive assessment of existing national disease surveillance and EPR systems;
• Establishment of coordination mechanisms and systems at regional and national levels including expert groups, and surveillance units and focal points in ministries of health;
• Capacity building through training and horizontal exchange of experience among Member States and other WHO regions;
• Use of a geographical information system (GIS)/Health Mapper for data display in national surveillance systems;
• Establishment of EWARS for epidemic-prone diseases; and
• Plans for epidemic and pandemic preparedness and response, and assistance in their implementation.

Specifically, WHO will:
• Provide technical support for verification of and response to outbreaks,
• Assist in the implementation of the revised IHR,
• Provide support for data management, analysis, interpretation and use (including GIS/Health Mapper),
• Develop a regional database of experts and centres of excellence for mobilization during outbreak/emergency situations,
• Formulate a legal framework and an institutional mandate to support and work with Member States, and
• Disseminate field experiences/lessons from national, regional and global disease surveillance and response, including emerging infectious diseases.

Road map for 2008–09

• Regional and national pandemic / epidemic preparedness plans revised in all Member States according to evolving epidemiological situation
• All elements of core capacities (legislation, surveillance, detection, port health and communication) required to implement IHR (2005) established in all Member States.
• Regional Outbreak Alert and Response Network established & Early Warning and Reporting Systems strengthened, for emerging infectious diseases of public health importance in all Member States.
• Short term Field Epidemiology Training Programs established in 3 additional Member States.
4.2. Objective Two: Prevention and control of priority communicable diseases: HIV/AIDS, TB and malaria (HTM)

Since the first cases of AIDS were reported in the USA in 1981, infection with HIV has grown to pandemic proportions. A quarter of a century later, the pandemic continues to expand relentlessly, and has emerged as the most formidable challenge to public health, development and human rights. The HIV/AIDS pandemic has disproportionately affected developing countries, women and marginalized populations. At the end of 2006, there were an estimated 39.5 million people living with HIV/AIDS in the world. Cumulatively, HIV has killed more than 25 million people worldwide, mostly those in the most productive years of their lives, and thus negatively affected families, societies, and national and global economies.

HIV/AIDS

Present situation and challenges

The first few cases in the Region were reported among homosexual men in Thailand in 1984. Since then, the epidemic has expanded to affect various population groups and is still evolving. Currently, South-East Asia faces multiple and diverse epidemics occurring in different population groups in different geographical areas at varying rates. The HIV epidemic in SEAR is driven largely by unsafe sex and injecting drug use but there are huge variations across and within countries. Five countries in the Region – India, Thailand, Myanmar, Indonesia and Nepal – account for the majority of the burden in the Region. Thailand is an example of successful reversal of the epidemic and there are indications of a decline in HIV prevalence in Myanmar and Tamil Nadu State of India (Figure 2), but Indonesia and Nepal are faced with rapidly growing epidemics.

In most countries, HIV remains concentrated and uncontrolled in populations that engage in high-risk behaviours, such as sex workers (SWs), injecting drug users (IDUs) and men who have sex with men (MSM). Of concern in countries with long-standing epidemics such as Thailand and India is the fact that HIV is now spreading from high-risk populations such as SWs to their male clients and from the male clients to their monogamous spouses. Thus, women are increasingly being
affected. Further, a high burden of STIs perpetuates the HIV epidemic in the Region. Social factors such as poverty, low literacy and widespread stigma provide an conducive milieu for the spread of HIV. Moreover, health systems in many Member States are weak. This limits the expansion of prevention, treatment and care services. Further, unfavourable national laws reduce access to marginalized populations – this is a major impediment to the successful control of HIV in SEAR.

Presently, less than 20% of the population in need have access to and coverage by interventions for HIV and STI prevention and treatment services, and testing and counselling services. There are major barriers to reaching populations most at risk; these include political, legal, gender-related and social barriers, along with stigma and discrimination.

**Strategies and activities**

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 prevent HIV transmission, to improve the quality of life of those living with and affected by HIV/AIDS, and to alleviate the impact of HIV/AIDS on individual households and local communities.

In commitment to the goal of universal access, WHO will continue to lead the health sector response in the prevention and control of HIV/AIDS. The following five strategic approaches will guide WHO’s work over the next five years:

- **Strengthening HIV and STI prevention:** The number of new HIV infections continues to increase each year in SEAR – clearly, therefore, prevention programmes still remain the top priority. The priority prevention interventions will focus on the commonest modes of HIV transmission in the Region, namely: (a) prevention of sexual transmission by providing an essential package of services to vulnerable populations; this includes prevention and management of STIs and 100% condom use; (b) prevention of HIV transmission through contaminated needles by harm-reduction programmes and infection control in health-care settings; (c) prevention of mother-to-child transmission (PMTCT) of HIV; and (d) ensuring blood safety.

- **Enabling people to safely know their HIV status through HIV counselling and testing:** Less than one in ten HIV-infected persons know their status, i.e. that they are HIV-positive. Knowing the HIV status is a starting point for access to care, treatment and support services. Therefore, it is imperative to scale up high-quality counselling and testing services based on the principles of confidentiality and consent.

- **Accelerating the scale up of HIV/AIDS treatment and care:** In many countries of the Region, the epidemic began in the 1980s; these long-standing epidemics have left a large number of people living with HIV/AIDS in need of care and treatment. Although the number of people on antiretroviral therapy (ART) has improved quite remarkably over the past three years, still only 30% patients have access to treatment (Figure 3). Therefore, closing the treatment gap is also an important priority from an ethical perspective. The priority interventions under care and treatment include: (a) antiretroviral therapy
for children and adults; (b) prevention and management of opportunistic infections (OIs); (c) care, including nutrition, palliative care and end-of-life care, and; (d) linking HIV and TB services.

- **Investing in strategic information to guide a more effective response:** A robust information system is central to tracking the epidemic and monitoring the impact of interventions. Integrated surveillance for HIV/AIDS, STIs and risk behaviours will be promoted and systems for monitoring HIV drug resistance will be set up. The health sector’s response towards universal access will be monitored and appropriate operational research facilitated.

- **Strengthening and expanding health systems:** Prevention, care and treatment interventions cannot be scaled up unless the existing health systems are reinforced. WHO’s strategic direction will be to guide Member States in developing national strategic plans; strengthening systems for procurement, supply and management; developing and managing human resources; strengthening laboratories and networking with key partners.
Tuberculosis

Present situation

The Region, with five million cases, has the highest number of TB cases among all WHO regions. Bangladesh, India, Indonesia, Myanmar and Thailand are among the 22 high-burden countries in the world and together account for 95% of the TB burden in the Region. Every year, 3 million people are newly affected with active TB and over 500 000 lose their lives to the disease.

Tuberculosis is the most common life-threatening opportunistic infection among the HIV-infected in this Region and nearly 3 million people are estimated to be co-infected with HIV and TB. TB primarily affects people in the most economically productive age groups and, therefore, poses significant threats not only to health but also to social and economic development in the Region. As long as TB persists, reducing poverty will be an enormous task, and global progress towards TB control will be in jeopardy.

Member countries of the Region have responded to this challenge. Good progress has been made in providing access to effective TB control services since the introduction of the DOTS strategy over a decade ago. Five countries have already achieved the set targets of 70% case detection and 85% cure rates, while several other countries are within reach of these targets (Figure 4). The overall case detection and treatment success rates reported in the Region in 2006 were 64% and 85%, respectively, which compare well with the global average for these

Road map for 2008–09

• To support Member States in achieving 70% treatment coverage, 80% prevention coverage among sex workers and 50% among injecting drug users, by 2010.
• To support implementation of all elements of second generation surveillance (HIV, STI and behavioural) in all Member States, by 2009.
• To support Member States in developing plans for sustainable financing of the health sector response to HIV and STIs, by 2008.
indicators. Almost 15 million patients were registered for treatment over the past ten years, averting over 500 000 deaths.

**Strategies and activities**

A Regional Strategic Plan (2006–15) and national multi-year plans for TB control based on the new Stop TB Strategy have been developed to address the priorities in this Region.

The four strategic directions along which TB control activities in SEAR will be undertaken are:

1. Sustaining and enhancing DOTS to reach all TB patients, improve case detection and treatment success;
2. Establishing interventions to address HIV-associated TB and drug-resistant TB;
3. Forging partnerships to ensure equitable access to an essential standard of care for all TB patients; and
4. Contributing to health systems strengthening.
National TB control programmes (NTPs) have either initiated or are implementing several of the additional interventions under the new strategy. Along with intensified efforts to improve the quality of services, programmes are strengthening partnerships with other sectors and providers, particularly nongovernmental organizations (NGOs), the private health sector, medical teaching institutions and large public employment sectors. Private–public partnerships are being scaled up in seven countries. Nine countries have actively involved NGOs in TB services. Reports from India, Indonesia and Myanmar indicate that, where initiated, private–public partnerships for TB have resulted in up to 25% increase in cases notified with good treatment outcomes. TB control services in workplaces have been established and documented in Bangladesh, India, Indonesia, the Maldives and Myanmar. More than 230 medical colleges and large hospitals in countries of the Region have established DOTS centres in their practice areas. In addition, eight countries are establishing community-based initiatives and community care interventions. As a result of these interventions, the TB prevalence and death rates have begun to fall, as for example in Indonesia (Figure 5).

**Figure 5**: Fall in TB prevalence: Indonesia (1980-2004)

Source: Ministry of Health, Indonesia
Interventions for HIV-associated TB have been made widely available in India and Thailand, and are being scaled up in Myanmar. Bangladesh, Indonesia, Nepal and Sri Lanka have prepared plans for the commencement of these activities. Pilot DOTS-Plus projects to manage drug-resistant TB are in progress in India and Nepal, and plans for scaling up these services have been prepared. DOTS-Plus projects have been planned in Bangladesh, Bhutan, Myanmar, Sri Lanka and Timor-Leste. To improve the uptake of available services, NTPs are increasingly focusing on mass and point-of-service communication, as well as social mobilization approaches, drawing on the many successful examples of community-based initiatives in the Region. Additional funding made available through steadily increasing domestic financing, external resources from the GFATM, and through multilateral and bilateral agreements is helping to rapidly scale up the level of activities in countries.

**Challenges**

A number of challenges, however, need to be overcome to sustain and further build on these efforts. The major constraints facing NTPs in the Region are as follows:

- Uncertainties regarding long-term financing
- Lack of sufficient skilled staff at all levels of the national health system
- Weak laboratory networks and surveillance mechanisms
- Difficulties in establishing interventions to combat TB/HIV and emerging drug resistance
- Constraints in effectively expanding interventions for private–public partnerships
- Low community awareness and poor utilization of services, and
- Underpinning all these, overstretched public health-care systems through which TB services are essentially delivered.

WHO SEAR and country offices will continue to assist and support Member countries in undertaking a wide range of TB control interventions towards reaching set targets through:
(1) **Advocacy**, for greater commitment and resources for TB control through global and regional forums such as the South Asian Association for Regional Cooperation (SAARC) and the Association of South East Asian Nations (ASEAN), and with national governments;

(2) **Policy and strategy development** for better implementation of TB control, including community TB care approaches, TB–HIV integration, involvement of private practitioners, management of patients with drug-resistant TB and translating outcomes from successful operational research pilot projects into policy;

(3) **Development of norms and guidelines**, by adapting internationally recommended guidelines to Region- and country-specific situations;

(4) **Laboratory support**, such as training, technical support for strengthening laboratory capacity, quality assurance, linkages to supranational reference laboratories;

(5) **Drug procurement and supply management**, by facilitating competitive procurements or grants-in-kind through the Global Drug Facility (GDF) training on effective procurement and in-country supply management;

(6) **Surveillance and monitoring**, by assisting countries to undertake surveillance for TB, TB–HIV and drug resistance, and publishing regular surveillance reports;

(7) **Technical assistance**, by providing in-country technical support for human resource development (HRD), strengthening national laboratory networks, implementing TB control activities, improving surveillance and monitoring;

(8) **Capacity building**, such as preparing training materials and undertaking inter-country and national-level trainings for national- and district-level staff to build technical and managerial capacity for programme implementation;

(9) **Planning**, by assisting countries to develop medium- and long-term realistically budgeted national TB control plans;

(10) **Information exchange** through regional meetings, publications, exchange visits and electronically through regional websites;
(11) **Support for research** for pilot testing and evaluating new interventions including projects supported by WHO’s Special Programme for Research and Training in Tropical Diseases (TDR). These include the development of new diagnostics, drugs and vaccines.

(12) **Building partnerships** at regional and national levels with technical and development partners, and

(13) **Resource mobilization** by assisting countries to develop proposals for submission to donors/development partners for mobilization of additional external resources.

### Road map for 2008–09

- 70% case detection and 85% treatment success rates maintained and further improved through quality DOTS; to reach targets in all Member States
- Quality assured laboratory networks for smear microscopy, culture and drug susceptibility testing established in all Member States
- Case management of MDR-TB cases integrated within national programmes in at least 8 countries and TB/HIV interventions beyond pilot in at least all five high TB burden Member States

## Malaria

### Present situation and challenges

During the past two decades, despite a declining trend in the number of cases reported and deaths due to malaria (about 2.5 million cases and 4000 deaths per year at present), the proportion of *Plasmodium falciparum* malaria has increased from 12% to more than 45%. Increasing resistance of *Plasmodium falciparum* to first- and second-line antimalarial drugs has necessitated a drug policy change that requires the use of combination treatment. While India reports the largest proportion of malaria cases in the Region, Myanmar reports the most deaths from malaria. According to WHO estimates, annually there are approximately 100 million cases in SEA region and 100 000 deaths (Figure 6). Based on the areas of endemicity for malaria WHO estimated
that malaria cases in SEAR might reach 100 million and the disease burden in the Region is second only to sub-Saharan Africa. It was estimated that malaria causes the loss of 1.87 million disability-adjusted life years (DALYs) in SEAR; the economic loss is about US$ 3 billion every year. Malaria is a deterrent to investment and tourism, which further adds to the economic burden. Focal epidemics are common and if these are not controlled promptly and effectively, malaria becomes endemic and reverses the gains that might have been achieved.

Recent developments in the control of malaria include the availability of rapid diagnostic tests, artemisinin-based combination therapy, pre-packaged drugs, long-lasting insecticidal nets, tools to test the quality of antimalarials, information technology and GIS software such as the Health Mapper. The challenges include resource gaps; the great diversity of malaria as the several different eco-epidemiological subtypes exist which require specific control strategies for each small geographical Unit; dynamicity of malaria due to rapid ecological changes resulting from social, environmental and economic development; inadequate capacity of WHO and Member States to scale up control efforts; underreporting of disease burden and gaps in the timing and quality of information on malaria.

Figure 6: Estimated malaria cases in 2004 by WHO region

Source: WHO provisional estimates, 2004
Clearly, malaria is not just a public health problem but a disease related to social and ecological changes. The populations at risk for malaria are those who are underprivileged, below the poverty line, and hard-to-reach ethnic groups and migrant populations living at international borders. Due to the different epidemiology of malaria in SEA, several of the global strategies for malaria control are not applicable to the Region. In 2006, SEARO in collaboration with Member States and developmental partners revised the malaria control strategy for SEAR for 2006–10. The revised strategy was endorsed by Health Ministers during the Health Ministers’ meeting in August 2006 for adoption and implementation by Member States.

**Strategies and activities**

Through concerted efforts to implement the revised malaria control strategy, Member States are expected to reach the following goals, objectives and outcomes for malaria control by 2010:

**Goals**

- By 2010, reducing the malaria morbidity and mortality rates in 2000 by 50%
- Achieving the MDG in Member States of the Region by 2015

**Objectives**

- To increase the coverage of malaria prevention interventions among populations at risk
- To increase access to early diagnosis and prompt treatment (EDPT)
- To strengthen the technical and managerial capacity of the malaria control programme, and establish a mechanism for multisectoral involvement
- To increase the visibility of malaria through advocacy in order to mobilize sufficient resources for malaria control

**Expected outcomes by 2010**

- 60% coverage of households with insecticide-treated nets (ITN) or indoor residual spraying (IRS), focusing especially on populations at risk
• All countries should have adopted and implemented integrated vector management (IVM) as a healthy public policy
• 50% reduction in the *P. falciparum* case fatality rate
• Increased visibility and awareness of malaria in SEAR through strong, high-level political commitment

<table>
<thead>
<tr>
<th>Road map for 2008–09</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Revised Malaria Control Strategy (including initiation of IVM) implemented in all Member States</td>
</tr>
<tr>
<td>• Good progress made towards achieving coverage of 60% ITN/IRS in the Region</td>
</tr>
<tr>
<td>• Capacity on surveillance and programme management established in all Member States</td>
</tr>
<tr>
<td>• Plans for partnerships and sustainable financing developed in all relevant countries.</td>
</tr>
</tbody>
</table>

4.3 Objective Three: Eradicating and eliminating neglected tropical diseases (NTD)

The regional priorities in this portfolio are the elimination of leprosy, LF and kala-azar as public health problems, and the eradication of yaws. While funding for leprosy is considered adequate to achieve the targets, efforts have to be intensified to obtain funding for the elimination of LF and kala-azar, and eradication of yaws.

Leprosy

*Present situation and challenges*

South-East Asia achieved the goal of leprosy elimination in December 2005; the regional prevalence was 0.83/10 000 population as of September 2006. Of the 11 countries, nine including India have declared achievement of leprosy elimination as a public health problem (Figure 7). The priorities now are to strengthen the integration of leprosy treatment services into the general health-care system, build the capacity of the general services to provide quality leprosy services, ensure social integration of cured/disabled leprosy patients into the community, and
sustain advocacy and information, education and communication (IEC) activities to increase awareness and decrease the stigma attached to the disease.

**Figure 7: Leprosy prevalence rate per 10 000 population in SEA Member countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate per 10,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAN</td>
<td>0.45</td>
</tr>
<tr>
<td>BHU</td>
<td>0.48</td>
</tr>
<tr>
<td>DPRK</td>
<td>0</td>
</tr>
<tr>
<td>IND</td>
<td>0.86</td>
</tr>
<tr>
<td>INO</td>
<td>0.98</td>
</tr>
<tr>
<td>MAV</td>
<td>0.37</td>
</tr>
<tr>
<td>MMR</td>
<td>0.44</td>
</tr>
<tr>
<td>NEP</td>
<td>1.81</td>
</tr>
<tr>
<td>SRL</td>
<td>0.65</td>
</tr>
<tr>
<td>THA</td>
<td>0.21</td>
</tr>
<tr>
<td>TLS</td>
<td>1.89</td>
</tr>
</tbody>
</table>

Source: Country reports

The progress made so far is as follows:

- Since the inception of multidrug therapy (MDT) in early 1990s, more than 12.8 million cases of leprosy have been treated and cured in the Region.
- Resources for the elimination of leprosy have been mobilized in a sustained manner, with the benefit of a free supply of MDT drugs provided by WHO (courtesy Novartis Foundation).
- The regional prevalence declined from 3.2/10 000 in December 2002 to 0.83/10 000 population in September 2006 and the prevalence rate in India has declined from 4.2/10 000 in December 2002 to 0.86/10 000 in September 2006.
- WHO supported monitoring and supervision, advocacy and IEC, and capacity building of general health staff, and organized training for leprosy management at all levels in the countries for the final push towards elimination.
• WHO provided technical assistance in conducting leprosy elimination monitoring (LEM) exercises in Bhutan, India, Myanmar, Nepal and Thailand, and a case validation study in India and Nepal. The system of monitoring has been simplified.

• MDT has been supplied free of cost in user-friendly blister packs in collaboration with partners.

Strategies and activities

With the overall vision of eliminating the scourge of leprosy from the countries of the Region, our collective goal for 2005 was to achieve elimination of leprosy as a public health problem, i.e. to attain a prevalence rate of less than one case per 10,000 population at the regional and national levels and to provide quality services in a sustained manner. This has been achieved in all countries except Nepal and Timor-Leste, which are expected to attain this goal by 2007.

Surveillance activities will be continued to sustain the success of elimination efforts. Elements of these efforts include: detection of all cases of leprosy, reduction of overdiagnosis, treatment of cases with MDT and achievement of high cure rates through capacity building of the general health services, advocacy and IEC, and promotion of partnerships.

WHO activities include providing technical support to countries:
• to strengthen integration of leprosy treatment services into the general health services and build the capacity of general health workers to provide quality leprosy services;
• to ensure timely case detection, prompt treatment with MDT and achievement of high cure rates; and
• to ensure effective monitoring and supervision.

In addition to providing technical inputs and guidance for planning, implementing and monitoring the programme, WHO will also provide a free supply of MDT, advocate for sustaining political commitment and resource mobilization, and provide limited funding for critical activities.

Road map for 2008–09

• Leprosy elimination will be achieved in all countries
Lymphatic filariasis

Present situation and challenges

Of the global estimate of 1.3 billion people at risk for LF, about 851.3 million living in the endemic areas of SEAR constitute 65% of this estimate. The Region also bears 50% of the global burden of 120 million people with either microfilaraemia or suffering from clinical manifestations.

The current situation in the Region is as follows:

- All countries have accepted the LF elimination initiative; national task forces have been formed in all countries and LF elimination is a national goal in each country.
- A Regional Programme Review Group (RPRG) consisting of independent LF experts meets regularly to review country plans and make recommendations for the free supply of albendazole for mass drug administration (MDA).
- Mapping of endemic areas has been completed in all endemic countries in the Region except Indonesia and Myanmar.
- India, Maldives, Sri Lanka and Thailand are implementing MDA among the entire endemic population; Bangladesh, Indonesia, Myanmar, Nepal and Timor-Leste are implementing MDA in some areas, with plans for annual scaling up. However, India, which was using the diethylcarbamazine (DEC)-alone strategy so far, has recently effected a policy change and decided to adopt the two-drug strategy countrywide. Coverage levels of >80% of the targeted population have been achieved in most places and impact on microfilaria rates are quite visible (Figure 8).

Major issues and challenges include: lack of new data regarding the geographical distribution of LF; poor planning of the implementation strategy in some countries; insufficient funds, which prevent successful implementation of activities such as mapping of endemic areas, scaling up of MDA and disability alleviation.

Strategies and activities

Our vision is that LF will no longer be a major public health problem in the Region by 2020 and visible disability related to the disease will
Department of Communicable Diseases: Profile and Vision

become non-existent over the next 20-year period. Our goal is to achieve elimination of LF as a public health problem by 2020. Our objectives to this end are to reduce and ultimately interrupt the transmission of LF, and to prevent and reduce disability in affected people.

Mass drug administration of two drugs – DEC and albendazole – to the entire population at risk once a year for five years in endemic areas is the main strategy for elimination. To be effective, the programme needs to be adequately backed up by advocacy, social mobilization and IEC. At the same time, home-based self-care measures for disability prevention and alleviation will be promoted. Monitoring, research and partnerships are necessary for the success of MDA. Mobilization of resources is a prerequisite for sustaining elimination efforts.

WHO has developed and disseminated tools, guidelines and advocacy materials, assisted in mapping endemic populations and facilitated the free supply of albendazole. Besides technical inputs and guidance in planning, implementing and monitoring the programme,
WHO will continue to provide a free supply of albendazole in collaboration with GlaxoSmithKline (who have pledged free donation of the drug till 2020). It will also advocate for sustained political commitment and resource mobilization, provide limited funding for critical activities and explore opportunities for integrating LF elimination programmes with other programmes.

### Road map for 2008–09

- MDA coverage to reach 400 million people
- Community based disability alleviation programmes developed and implemented in at least 5 countries

## Kala-azar

**Present situation and challenges**

Three countries in the Region which border one another (Bangladesh, India and Nepal) account for an estimated 20% of the global burden of kala-azar. The disease is prevalent in 96 districts with over 147 million people at risk (Figure 9). There are an estimated 100 000 cases leading to a loss of about 400 000 DALYs each year. Its maximal impact is on poor people. If untreated, mortality from kala-azar is high. Elimination of kala-azar has become a priority because of the political commitment and increasing concern about its link with HIV/AIDS. Elimination is possible since only humans are responsible for its transmission, insecticides (including DDT) are highly effective against the vector, screening of cases can be done easily with the rapid test “rk 39” and miltefosine, an oral drug, is safe and effective (in more than 95% of cases).

However, even though there is political commitment, resource constraints are likely to impede elimination efforts. Miltefosine is not likely to reduce the incidence of post-kala-azar dermal leishmaniasis (PKDL) and this phenomenon can lead to persistence of foci of the disease. The capacity to implement and supervise IRS is weak in districts endemic for kala-azar. Because kala-azar is a disease predominantly of the poor, their access to health facilities is limited, resulting in few cases being treated adequately. There is a wide gap between the number of reported cases and estimated cases.
The following new developments create conditions conducive to kala-azar elimination:

- The health ministers of the affected countries have endorsed the elimination of kala-azar through intensified cross-border collaboration.
- Research coordinated by the TDR with the Indian Council of Medical Research (ICMR) and pharmaceutical industry has helped in the discovery of the effective and safe oral drug, miltefosine. The drug has been registered for use in India.
- The usefulness of “rk 39” as a screening and diagnostic test is supported by research carried out in the countries of the Region.
- The use of effective insecticides has helped many states/provinces to remain free of kala-azar.
- A regional strategic plan has been prepared and India has developed a plan of action.
Strategies and activities

The goal of elimination of kala-azar is to reduce the annual incidence to less than one per 10,000 population at district or subdistrict level by 2015. The objectives are as follows:

- Advocate for sustained political commitment to mobilize additional resources for elimination of kala-azar;
- Promote intercountry cooperation and cross-border collaboration for the elimination of kala-azar;
- Carry out capacity building in endemic countries through training, procurement and supply of diagnostics, medicines and insecticides;
- Facilitate the networking of institutions and support operational and implementational research on diagnosis, treatment and prevention; and
- Strengthen surveillance in the affected countries and establish criteria for certification of elimination of kala-azar.

The strategies for elimination of kala-azar are as follows:

1. Ensure early diagnosis and complete treatment which is operationally feasible to ensure outreach to the poorest with appropriate diagnostics and treatment;
2. Strengthen disease and vector surveillance through an efficient inbuilt management information system,
3. Achieve vector control through IVM with emphasis on IRS,
4. Direct social mobilization towards behavioural change through effective communication strategies,
5. Provide clinical and operational research to support the elimination programme, and
6. Establish and sustain partnerships and networking of institutions to facilitate elimination efforts.

WHO’s role will be the operationalization of national plans including constitution of a coordination mechanism, advocacy for mobilization of additional resources, cross-border collaboration, community mobilization for behavioural impact, and networking between research institutions and the programme.
Yaws

Present situation and challenges

Yaws is a chronic disease caused by *Treponema pertenue* and transmitted by direct contact with the skin lesions of affected people. The disease affects the skin, bones and cartilage. It is a major public health problem in three countries of the Region – India, Indonesia and Timor-Leste. There are foci of the disease in these countries, with about 5000 new cases recorded annually. The disease occurs among poor people and in areas where access to health care is poor or limited. Cost-effective tools are available to detect and cure the disease. Therefore, eradication of yaws is a regional priority and an achievable goal.

All three endemic countries have national programmes for yaws. In India, a yaws eradication programme was launched in 1997. This brought about a steady decline in disease incidence and since 2004, no new cases of yaws have been reported (Figure 10). India has formally declared elimination of yaws and is aiming at eradication of the disease by 2008.

**Figure 10:** Yaws cases detected in India (1996-2006)

Source: NTD Unit, SEARO
National plans for yaws eradication have been developed in Indonesia and Timor-Leste and activities will be intensified in order to attain the goal of eradication. WHO is assisting countries in mobilizing resources to achieve this goal by the target date of 2012.

**Strategies and activities**

The vision is to eradicate yaws by 2012 and the goal is to interrupt transmission. The objectives aim at providing technical support for the following:

- Capacity building of general health workers to recognize and treat yaws;
- Procurement of drugs, and supply and stock management;
- Effective monitoring and supervision; and
- Advocacy for political commitment and allocation of required resources.

These objectives can be achieved through the following strategies:

- Political commitment and deployment of resources for eradication of the disease from foci in the affected districts;
- Active case detection in affected areas and prompt treatment of cases and their close contacts with injectable benzathine penicillin, single-dose;
- Linking eradication of yaws to the treatment and control of STIs;
- Capacity building of general health staff in the affected areas for the diagnosis, treatment, prevention and control of yaws;
- Advocacy and IEC campaigns to create community awareness and harness policy/administrative support;
- Regular programme monitoring; and
- Promoting partnerships at the district and subdistrict levels.

**Road map for 2008–09**

- National plans to achieve yaws eradication by 2012 developed and implemented in all disease endemic countries
Progress in yaws eradication will be monitored regularly with specific indicators and external evaluation or programme review carried out in each of the three endemic countries.

4.4 Other Communicable Diseases: Dengue

Present situation and challenges

Dengue has emerged as a serious public health problem in countries of the Region over the last few decades. While reported cases are high, with an increasing trend, the case fatality rates have been maintained below 1% through improved case management. But the disease is spreading to new geographical areas, and the frequency of outbreaks has increased. Indonesia and Sri Lanka have reported the highest number of cases during the last few years. For the first time, dengue was reported in Bhutan in July-August 2004 and in Nepal in November 2006. During 2007, outbreaks have been reported from a number of countries in Asia including Thailand, Cambodia, Indonesia, Vietnam, Philippines and even in Singapore, which has one of the best dengue control programmes.

Strategies and activities

In response to the rising trend of dengue, an advocacy kit was prepared and disseminated to Member countries. Following the first meeting of Partners on Dengue Prevention and Control in Asia-Pacific held in Chiang Mai, Thailand in March 2006, the Asia-Pacific Dengue Partnership (APDP) was established and a strategic framework for the partnership was developed. This was discussed and approved at the first meeting of the core group held in Singapore in February 2007. The core group discussed the governance of the partnership and prepared a road map for advocacy and resource mobilization. The Regional Office will function as the secretariat for the APDP. The strategic plan for prevention and control of dengue in Asia-Pacific (SPDAP) for 2007-2015 was developed by the Regional Office and reviewed in-house. The plan and important technical issues will be discussed at the first meeting of the RTAG prior to implementation.

A multi-departmental group has been convened in the Regional Office, which regularly reviews the progress of prevention and control
of dengue in the Region. The first outbreak of dengue in Nepal was investigated with the help of the WHO Collaborating Centre in Thailand. A training course was organized with WHO support in India during 2007 to increase the capacity of 50 doctors in the case management of dengue.

Given the increasing trend of dengue and other vector-borne diseases, WHO continued to promote the concept of IVM for control of vectors and transmission-risk reduction. Regional strategies for IVM were developed and disseminated for control of vector-borne diseases. An intercountry workshop was organized at the Vector Control Research Centre (VCRC), Pondicherry, India, in December 2006, where 52 persons were trained in IVM. The workshop also led to the development of course curriculum and training modules for an international training course.

<table>
<thead>
<tr>
<th>Road map for 2008–09</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Asia-Pacific Dengue Partnerships (APDP) established and made functional</td>
</tr>
<tr>
<td>• Strategic plan for prevention and control of dengue fever in Asia Pacific (2007-2015) implemented by all Member States</td>
</tr>
<tr>
<td>• Guidelines for dengue outbreak alert and response developed/disseminated</td>
</tr>
</tbody>
</table>

4.5 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 and avian influenza 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.

Six 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.

Major challenges that public health laboratories experience in the Region 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 poor.
• 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 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.

**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-merging 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 Emerging Diseases
  – 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;

• 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 for prioritization of and allocation of resources to public health laboratories.

• Identify and strengthen centres of excellence within the Region for quality referral services.

• 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 2008–09

• Regional reference laboratories for plague, Nipah virus, avian influenza and neuroviruses established in the SEA Region
• Regional network of public health laboratories forged
• Capacity for diagnosing emerging diseases established in all Member States
5

Challenges and Opportunities Ahead

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. The Organization also convenes an annual meeting of health secretaries and periodic meetings of parliamentarians. 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 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. The Department proposes to hire a communication specialist to sustain this effort.

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. A thorough review of the public health infrastructure is warranted to create a more comprehensive national plan that would develop and apply agreed standards of public health infrastructure (laboratory, epidemiological, communication and personal standards). Such plans would require strong partnerships within and across the public and private sectors and would include cooperation, most notably among veterinary sciences, academia, environmental organizations and NGOs. Enhanced communication of public health information to ensure the active participation of communities will be an integral part of these national plans.

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 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.
The CDS Department is committed to controlling the scourge of infectious diseases that plague the population in SEAR. This document describes the current situation and the way in which individual units within the Department work on pertinent issues and challenges, and outlines the immediate next steps. The Department is one of the largest in SEARO with regard to technical staff capacity and its role is to support countries in achieving disease control targets through technically sound inputs. To this end, the various units in the Department work closely with the WHO country focal points and national authorities. The Department provides technical assistance for programme planning and development, resource mobilization, monitoring and evaluation, and advocacy for political commitment.
Annex 1

Organogram: CDS Department

[Diagram of the Organogram: CDS Department]
## Annex 2

### WHO Representatives in SEAR countries

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone Nos. (office, mobile, residence, GPN)</th>
<th>E-Mail Address (if multiple, please provide all)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Duangvadee Sungkholbol</td>
<td>House no. 12, Road no. 7, Dhamoni, Residential Area Dhaka-1205</td>
<td>Off: 00-880-2-861-2882 Res: 00-880-2-988-4976 Mobile: 00880-171-549-198 GPN: 27223</td>
<td><a href="mailto:sungkholbold@whoiban.org">sungkholbold@whoiban.org</a> <a href="mailto:wrban@whoiban.org">wrban@whoiban.org</a></td>
</tr>
<tr>
<td>WR Bangladesh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Ei Kubota</td>
<td>Ministry of Health Kawangjangsa (Above Royal Audit Authority) Thimphu</td>
<td>Off: 00-975-2-322-940 Res: 00-975-2-322-066 Mobile: 00975-1781-0381 GPN: 407</td>
<td><a href="mailto:wrbhu@who.org.bt">wrbhu@who.org.bt</a></td>
</tr>
<tr>
<td>WR Bhutan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr T. Walla</td>
<td>Munsudong Pyongyang</td>
<td>Off: (850-2) 381-7920 Mobile: 00-850-1938018370 GPN:23600</td>
<td><a href="mailto:waliat@whodprk.org">waliat@whodprk.org</a></td>
</tr>
<tr>
<td>WR DPR Korea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr S Salunke</td>
<td>9th floor, Bina Mulia 1 Building, J.I.I.R. Rasuna Said Kav. 10 Jakarta Selatan</td>
<td>Off: 00-62-21-520-1166 Res: 00-62-21-331-5661 Mobile: 0062-811143604 GPN: 23811</td>
<td><a href="mailto:salunkes@who.or.id">salunkes@who.or.id</a></td>
</tr>
<tr>
<td>Ag. WR Indonesia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr S.J. Habayeb</td>
<td>Room no. 533-35, 'A' Wing, Nirman Bhavan, Maulana Acad Road, New Delhi 110 011</td>
<td>Off: 00-91-11-2306-1922 Res: 2412-1017 Mobile: 9818337191 GPN: 23111</td>
<td><a href="mailto:habayeb@searo.who.int">habayeb@searo.who.int</a> <a href="mailto:wrindia@searo.who.int">wrindia@searo.who.int</a></td>
</tr>
<tr>
<td>WR India</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Jorge Mario Luna</td>
<td>Fifth floor, MTCC Tower, Boduthakuruflannu Magu, Male</td>
<td>Off: 00-960-332-1888 Res: 00-960-331-6549 Mobile: 00960-7772034</td>
<td><a href="mailto:wginav@who.org.mv">wginav@who.org.mv</a></td>
</tr>
<tr>
<td>WR Maldives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prof. Adik Wibowo</td>
<td>7th floor, Yangon International Hotel 330 Ahlone Road Dagon Township Yangon</td>
<td>Off: 00-95-1-212-607 Res: 00-95-1-536251 Mobile: 0095-9-514-3540</td>
<td><a href="mailto:Wibowoa.whomm@undp.org">Wibowoa.whomm@undp.org</a> <a href="mailto:who.mm@undp.org">who.mm@undp.org</a></td>
</tr>
<tr>
<td>WR Myanmar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Kan Tun</td>
<td>UN House, Pulchowk Lalitpur Kathmandu</td>
<td>Off: 00-977-1-5523993 Res: AO: 5534-613 Mobile: 00977-985-102-1164 GPN: 24400</td>
<td><a href="mailto:whonep@who.org.np">whonep@who.org.np</a></td>
</tr>
<tr>
<td>WR Nepal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Agostino Borra</td>
<td>No. 226, Baudhadhoka Mawatha, Colombo</td>
<td>Off: 0094-11-2502-841 Res: 0094-11-2584-356 Mobile: 0094-7777-12666 GPN: 24615</td>
<td><a href="mailto:borraa@whosrilanka.org">borraa@whosrilanka.org</a></td>
</tr>
<tr>
<td>WR Sri Lanka</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr P.T. Jayawickramarajah</td>
<td>Permanent Secretary Bldg., 3, 4th floor, Ministry of Public Health, Tiwanon Road Muang, Nonthaburi 11000</td>
<td>Off: 00-66-2-590-1515 Res: 00-66-2-712-2232 Mobile: 00661-934-2280 GPN: 24808</td>
<td><a href="mailto:jayawickramarajah@searo.who.int">jayawickramarajah@searo.who.int</a></td>
</tr>
<tr>
<td>WR Thailand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr Alexander G. Andjaparidze</td>
<td>UN Agency House Caicoli Street Dili</td>
<td>Mobile: 00670-723-1091</td>
<td><a href="mailto:whodili@searo.who.int">whodili@searo.who.int</a> <a href="mailto:whodili@undp.org">whodili@undp.org</a></td>
</tr>
<tr>
<td>WR Timor Leste</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regional Training Courses

Communicable disease surveillance and response

(1) Training courses to build capacity for alerts, surveillance and response including rapid containment (intercountry) organized by WHO/SEARO; Duration: 25 days

(2) Training of Trainers on Outbreak and Risk Communication for Avian and Pandemic Influenza (intercountry); organized by WHO/SEARO; Partners: UNICEF, FAO, OIE and/or other partners; Duration: 5 days

HIV/AIDS

(1) HIV/AIDS care including antiretroviral treatment (intercountry); annual, organized by WHO/SEARO, conducted at and by Bamrasanaradura Hospital, Bangkok; Duration: two weeks; Partners: Bamrasanaradura hospital, a WHO CC

(2) Voluntary HIV counselling and testing (intercountry); twice a year; organized by WHO/SEARO; Partners: Department of Mental Health, MoPH, Thailand and UNICEF EAPRO; Duration: 10 days

(3) Training of Trainers on TB/HIV (intercountry); annual, organized by WHO/SEARO; Partners: Thailand/US CDC and Japan Research Institute on TB

(4) Primary health care for drug users (intercountry); organized by WHO/SEARO; Partners: Several regional organizations/centres; Duration: 5 days

(5) HIV surveillance (intercountry); annual; organized by WHO/SEARO; Partners: CDC, Atlanta; Duration: 5 days

(6) National AIDS Programme Management (intercountry); organized by WHO/SEARO; Duration: 10 days
Tuberculosis

(1) South-East Asia Training Course on TB Control; annual (from 1999, until 2004); organized by WHO/SEARO; Partners: Nuffield Institute (UK), Canadian Health Services, the Union, and Institute of Tropical Medicine (Antwerp); Duration: — days

(2) Training of Trainers on Leadership and Programme Management for national TB programme managers; organized by WHO/SEARO; Partners: Indian Institute of Health Management Research (Jaipur), WHO/HQ, National TB Institute (Bangalore),. Duration: —— days

(3) Training of Trainers on TB/HIV; organized by WHO/SEARO; Partners: Thailand/US CDC, Japan Research Institute on TB; Duration: —— days

(4) Training on Management of MDR-TB (intercountry); organized by WHO/SEARO; Partners: CDC, Atlanta, WHO CC for MDR-TB, Riga, Latvia, Green Light Committee (GLC) and NTP staff and WHO Regional Office and Country Office staff from high-burden countries (HBCs)

(5) Training on laboratory diagnosis of TB and Quality Assurance (intercountry); organized by WHO/SEARO; Partners: Tuberculosis Research Centre, Chennai, India; Korean Institute of Tuberculosis; Infectious Diseases Laboratory, Adelaide; Tuberculosis Reference Laboratory, Hong Kong; the Union and Japan Anti-TB Association

(6) Training on Public–Private Mix for DOTS (intercountry); organized by WHO/SEARO; Partners: American Thoracic Society; the Union; Philippines Coalition against Tuberculosis; Damien Foundation, Bangladesh

(7) Training on Advocacy, Communication and Social Mobilization (ACSM) (intercountry); organized by WHO/SEARO; Partners: American Thoracic Society; PATH; the Union; NTPs with established ACSM activities

Laboratory support

(1) Enumeration of CD4 T lymphocytes (intercountry); conducted at Siriraj Hospital in June 2006; organized by WHO/SEARO; Partners: Siriraj Hospital, Bangkok and National AIDS Research Institute, Pune, India
(2) Drug resistance in HIV (intercountry); conducted at National AIDS Research Institute (NARI) in August 2006; organized by WHO/SEARO; Partners: NARI, Pune

(3) Diagnosis of avian influenza; (intercountry) ; conducted at WHO Reference Lab Hong Kong; organized by WHO/SEARO; Partners: WHO Reference Lab for H5, University of Hong Kong and WHO/HQ

Malaria

(1) International Training on Course on Management of Malaria (intercountry); annual; duration: 5 working days; organized by WHO/SEARO; Partners: Director, WHO CC for Clinical Management of Malaria, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

(2) Clinical management of malaria for doctors in Timor-Leste and Nepal organized by WHO/SEARO; Partner: Director, WHO CC for Clinical Management of Malaria, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

(3) Regional Training workshop on microscopy QC (certification of expert microscopist and slide bank development); organized by WHO/SEARO (for Myanmar and Thailand); Partners: NAMRU 2 Jakarta, ACT Malaria, WPRO

(4) First Informal Training of Trainers Workshop on Malaria Country Database, Bali, Indonesia from 22–26 January 2007; Partners: WHO/HQ

(5) International training course on Management of Malaria Field Operations (MMFO) (intercountry); biannual; duration: 11 weeks; organized in Bangkok and one other country by rotation, by WHO/SEARO; Partners: Director, Bureau of Vector-borne diseases, Department of Disease Control, MoPH, Thailand and Asian Collaborative Network on Malaria (ACT Malaria)

(6) Training of Trainers workshop for nurses in prevention and treatment of malaria; organized by WHO/SEARO; Partners: RA-NUR, WHO CC for Clinical Management of Malaria, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand and WHO CC for Nursing in Bangkok
(7) Regional training workshop on drug quality monitoring; organized by WHO/SEARO; Partners: US Pharmacopeia, WHO CC on drug analysis in Bangkok; German Pharma Health Fund

**Vector-borne diseases**

(1) Regional Training Course on Management of DF/DHF (intercountry); annual; duration: 10 days; crash/annual courses conducted by the WHO CC; organized by WHO/SEARO; Partners: Director, WHO-CC on Clinical Management, Queen Sirikit National Institute of Child Health – QSNICH (known as Children’s Hospital); Department of Medical Services; Ministry of Public Health; Bangkok, Thailand

(2) International training course on comprehensive vector control (intercountry); duration: 6 weeks; organized by WHO/SEARO; Partners: Director, Vector and Reservoir Control Research Unit (VRCRU), Salatiga, Indonesia

(3) Regional Course on Comprehensive Vector Control (intercountry); annual; duration: 6 weeks; organized by WHO/SEARO; Partners: Vector Control Research Centre (VCRC) – WHO CC for Research and Training in Integrated Methods for Vector Control, Pondicherry, India
Annex 4

Publications and Documents of the CDS Department

(These publications are not priced and hence are available free of charge)

Communicable disease surveillance and response

(1) Department of Communicable Diseases: profile and vision. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006 (SEA-CD-145). [44 pages]

(2) Guidelines for the management of a regional stockpile of oseltamivir. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006 (SEA-CD-147). [10 pages]


(8) *Avian influenza control and pandemic preparedness in Asia*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006 (SEA-CD-157). [42 pages]

(9) *Responding to communicable diseases following the tsunami in South-East Asia*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006. [89 pages]


(11) *Regional strategy for integrated disease surveillance*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2003 (SEA-CD-130). [36 pages]


(14) *Avian influenza: responding to the pandemic threat*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005.


International health regulations—second regional consultation. New Delhi, World Health Organization, Regional Office for South-East Asia, 29 June–1 July 2004 (EA-CD-135). [44 pages]


HIV/AIDS


(5) Scaling up antiretroviral therapy in resource-poor settings: a selected annotated bibliography. New Delhi, World Health Organization, Regional Office for South-East Asia, 2004 (SEA-AIDS-142). [38 pages]


(9) Expanding access to HIV/AIDS treatment: operational research to scale up antiretroviral treatment in the South-East Asia Region. New Delhi, World Health Organization, Regional Office for South-East Asia, 2004 (SEA-AIDS-148). [29 pages]


(13) Guidelines for conducting HIV behavioural surveillance. New Delhi, World Health Organization, Regional Office for South-East Asia, 2001 (SEA-AIDS-123). [50 pages]

(14) Guidelines for HIV diagnosis and monitoring of antiretroviral therapy. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005 (SEA-HLM-382 [Rev. 1]). [71 pages]


(20) *Involving private medical practitioners in TB and STI control.* New Delhi, World Health Organization, Regional Office for South-East Asia, 2001 (SEA-TB-235; SEA-STD-40). [29 pages]


**Tuberculosis**

(1) *Training of trainers on TB/HIV: report of the second intercountry course.* New Delhi, World Health Organization, Regional Office for South-East Asia and Western Pacific Regional Office, 2006 (SEA-TB-291; SEA-AIDS-168). [52 pages]
(2) Tuberculosis control in South-East Asia and Western Pacific Regions. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005. [ISBN 92–9061–196–0, 49 pages]

(3) Tuberculosis control in the South-East Asia Region. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005 (SEA-TB-282). [71 pages]

(4) The magic of DOTS. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005 (SEA-TB-a2). [40 pages]

(5) Tuberculosis and health sector reform in Bangladesh – a concept paper. New Delhi, World Health Organization, Regional Office for South-East Asia, 2004 (SEA-TB-262). [34 pages]

(6) DOTS at the workplace – guidelines for TB control activities at the workplace. New Delhi, World Health Organization, Regional Office for South-East Asia, 2003 (SEA-TB-259). [36 pages]

(7) Tuberculosis epidemiology and control. New Delhi, World Health Organization, Regional Office for South-East Asia, 2002 (SEA-TB-248). [246 pages]


(9) Stopping tuberculosis. New Delhi, World Health Organization, Regional Office for South-East Asia, 2002 (SEA-TB-245). [35 pages]

(10) Tuberculosis and special situations: an annotated bibliography. New Delhi, World Health Organization, Regional Office for South-East Asia, 2002 (SEA-TB-244). [50 pages]


(12) Regional strategic plan on HIV/TB. New Delhi, World Health Organization, Regional Office for South-East Asia, 2003 (SEA-TB-261; SEA-AIDS-140). [66 pages]

(13) Intercountry training of trainers on TB/HIV. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005.
Enhancing the role of medical schools in STI/HIV and TB control. New Delhi, World Health Organization, Regional Office for South-East Asia, 2000 (SEA-AIDS-118; SEA-TB-228). [23 pages]

Malaria


5. Regional strategic framework for scaling up the use of insecticide-treated nets. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005 (SEA-MAL-239; SEA-VBC-87). [19 pages]


7. First meeting of the Regional Technical Advisory Group on malaria. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005 (SEA-MAL-238). [38 pages]

Communicable disease eradication/elimination

1. Leprosy elimination monitoring in India (63 pages), 2004.

2. Validation of leprosy diagnosis in India (47 pages), New Delhi, World Health Organization, Regional Office for South-East Asia, 2004


(6) *Elimination of kala-azar from the South-East Asia Region*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006.


(8) *Dengue bulletin*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2005. [232 pages]

*Dengue bulletin*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2004 [233 pages]

*Dengue bulletin*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2003. [202 pages]

(9) *Regional framework for an integrated vector management strategy for South-East Asia Region*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006 (SEA-VBC-86). [13 pages]

**Laboratory support**

(1) *Enumeration of CD4 T lymphocytes*. New Delhi, World Health Organization, Regional Office for South-East Asia, 2006 (SEA-HLM-390) [17 pages]

(2) *Quality standards in health laboratories implementation in Thailand: a novel approach*. New Delhi, World Health Organization,
Regional Office for South-East Asia, 2005 (SEA-HLM-386). [45 pages]

(3) Quality assurance in bacteriology and immunology. New Delhi, World Health Organization, Regional Office for South-East Asia, 2003 (South-East Asia Series No.28). [179 pages]


(5) Model standard operating procedures for blood transfusion service. New Delhi, World Health Organization, Regional Office for South-East Asia, 2002. [130 pages]

(6) Guidelines on standard operating procedures for clinical chemistry. New Delhi, World Health Organization, Regional Office for South-East Asia, 2000 (SEA-HLM-328). [107 pages]

(7) Guidelines on standard operating procedures for microbiology. New Delhi, World Health Organization, Regional Office for South-East Asia, 2000 (SEA-HLM-324). [179 pages]

(8) Guidelines on standard operating procedures for haematology. New Delhi, World Health Organization, Regional Office for South-East Asia, 2000 (SEA-HLM-320). [72 pages]
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.

Department of Communicable Diseases:

For additional information, please contact:

Department of Communicable Diseases
World Health Organization
Regional Office for South-East Asia
World Health House, Indraprastha Estate
New Delhi-110 002, India
Tel: 00-91-2337 0804
Fax: 2337 9507, 2337 0197, 2337 9395
email: narainj@searo.who.int