WHO Regional Patient Safety Workshop on ‘Clean Care is Safer Care’

A Report
Bangkok, 20–22 June 2007
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1. Introduction

A regional workshop on ‘Clean Care is Safer Care’ was held in Bangkok, Thailand, from 20 to 22 June 2007. Participants included representatives from Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste. The WHO Secretariat included staff from the WHO World Alliance for Patient Safety at headquarters, the South-East Asia Regional Office (SEARO) and country offices of Bangladesh, Indonesia, Nepal, Thailand and Timor-Leste. The International Health Professionals Association was represented by the Medical Association of Thailand. The programme, list of participants and a working paper are provided in annexes 1, 2 and 3 respectively.

Dr Supachai Kunaratanapruk (Thailand) and Dr R. K. Srivastava (India) were respectively nominated as Chair and Co-Chair and Ms Sofiya Abdulla (Maldives), was nominated as the Rapporteur.

2. Objectives of the workshop

The long term objective is to reduce the burden of health care-associated infection (HAI) in the context of patient safety. The specific objectives of the workshop were:

(1) To review the status of HAI in the Region;
(2) To orient participants on the availability of strategies and tools to reduce HAI, and
(3) To outline a set of action points that countries can adopt as part of an integrated strategy to reduce HAI at the facility level.

In addition, participants attended the national launch of the ‘Clean Care is Safer Care’ Global Patient Safety Challenge in Thailand.
3. Opening session

Dr Sultana Khanum, Director, Health Systems Development, WHO/SEARO, gave the opening remarks on behalf of the WHO Regional Director for South-East Asia, Dr Samlee Plianbangchang.

Participants were informed that prevention of HAI was identified as a priority area of work at the first WHO Regional Workshop on Patient Safety which was held in New Delhi, India, in July 2006. At that meeting, participants had recommended that WHO assist countries to establish a network for sharing information and best practices, and training programmes on the prevention of HAI. They had also recommended that WHO disseminate applicable standards and protocols on the prevention of HAI and provide technical assistance to countries when required. This workshop was in response to these recommendations and constituted an important step in the fulfillment of Resolution SEA/RC59/R3 on ‘Promoting Patient Safety in Health Care’ which was adopted at the 59th Session of the Regional Committee for South-East Asia in Dhaka in August 2006.

HAI is not a new but a growing problem in the Region. It is linked to failures in health care systems and processes as well as to behavioural practices of health care workers, patients, and the public at large. The tools and interventions to tackle HAI already exist but they are not widely implemented.

Over the years, WHO/SEARO has worked closely with countries in the Region to prevent HAI in the following areas: rational use of blood and blood products, safe injection and immunization, safe clinical procedures, and safe water, sanitation and health care waste management. This workshop brings together policy-makers and managers responsible for quality and safety in health care institutions, to discuss existing WHO Strategies in these inter-related areas and to build regional commitment and capacity to address this problem.

Dr Khanum concluded by encouraging other countries in the Region to join India, Bangladesh, Bhutan and now Thailand to commit to the ‘Clean Care is Safer Care’ pledge to prevent HAI.
4. **Overview of the First Global Patient Safety Challenge ‘Clean Care is Safer Care’**

Professor Didier Pittet, Lead of the first Global Patient Safety Challenge ‘Clean Care is Safer Care’, observed that HAI is a major patient safety priority across the world. It is estimated that at any given time, over 1.4 million people worldwide are suffering from infections acquired in hospital. Between 5-10% of patients admitted to hospitals in industrialized countries acquire one or more infections and 15 to 40% of those admitted to critical care are affected. It is therefore fitting that the World Alliance for Patient Safety has selected HAI as the topic for its first Global Patient Safety Challenge. The objectives of the ‘Clean Care is Safer Care’ programme are to:

- Raise awareness of the impact of HAI through advocacy and communication;
- Build commitment from countries to give priority to reducing HAI such as through ministerial-level country pledges, and
- Test the implementation of the newly developed WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft).

HAI has multiple causes, relating to the systems and processes of care provision, as well as to economic constraints and behavioural practices. While HAI cannot be entirely eliminated, several low-cost, simple and effective strategies have been demonstrated to be effective in reducing the burden of infection. While many healthcare facilities have succeeded in reducing the risk to patients, others have not, even within the same country. This gap in patient safety arises because existing tools and interventions are not being widely implemented.

As mentioned earlier, well established WHO strategies already exist to address HAI in the following four areas: blood safety, injection practices and immunization, clinical procedures safety, and safe water, basic sanitation and waste management. Together with the new WHO guidelines on hand hygiene, these four strategies constitute the five elements of the Global Patient Safety Challenge ‘Clean Care is Safer Care’.
Hand hygiene is the common thread that runs through all five elements and constitutes the cornerstone to prevent HAI and reduce the spread of multi-resistant organisms. While it is a very simple action, adherence to hand hygiene among health-care workers remains unacceptably low, ranging from 5-80% with an overall average of 40%. Hand hygiene practices represent complex, socially-entrenched ritualistic behaviours. It is therefore not surprising that leadership and role modeling are key elements to achieving sustainable improvements in hand hygiene.

Julie Storr, Project Manager of the Challenge, elaborated on the evidence behind the new WHO hand hygiene guidelines. Studies have demonstrated that hands are the most common vehicle to transmit HAI and up to 50% of HAI are preventable. Improving hand hygiene alone, with no other interventions, would result in an immediate decrease in HAI of 9%. A study conducted in 2004 in Taiwan demonstrated a reduction in HAI rates from 15.1 to 10.7 per 1000 patient days over one year with the introduction of alcohol-based handrub.

Participants were introduced to the ‘Five Moments for Hand Hygiene’ developed from the WHO hand hygiene guidelines (Annex 4). These consist of five key opportunities for hygiene namely: before patient contact, before an aseptic task, after body fluid exposure risk, after patient contact, and after contact with patient’s surroundings. The practical application of the Five Moments was revisited on the last day of the workshop using video footage of clinical scenarios illustrating the concepts.

The WHO hand hygiene guidelines recommend a multimodal strategy as the most reliable method for delivering long-term hand hygiene improvement in all health-care facilities. An implementation tool, the Multimodal Hand Hygiene Improvement Strategy, was developed from the guidelines and is being pilot tested at six health care facilities in six countries across the world, including the Chittagong Medical College Hospital in Bangladesh. The five components of the multimodal strategy are:

- alcohol-based handrub at the point of care to help staff easily and quickly fulfill the ‘Five Moments for Hand Hygiene’ (ideally at an arm’s reach from where patient contact is taking place);
- training and education of health-care workers;
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- routine observation and feedback on health-care worker performance;
- visual reminders promoting hand hygiene at the workplace, and
- creating a patient safety culture at the health-care facility.

5. Regional and country perspectives

Dr Sultana Khanum began her presentation by reminding participants of the need to think global and act local. Global concepts and strategies need to be adapted to the local context. For example, access to clean water and soap for hand hygiene is often far more limited than in industrialized nations. In contrast, intensive care units (ICUs) in the Region are far less sophisticated and the indications for hand hygiene are likely to be different than in ICUs where the patient is linked to so many different monitoring and support devices.

The burden of HAI in the South-East Asia Region is not well documented. The Hospital Infection Society of India estimates that the incidence of HAI in India ranges from 5-30%. A study conducted in two teaching hospitals in Indonesia in 2002 reported that 1 in 14 hospitalized patients had acquired one or more HAI and 5-8% of patients who underwent surgery acquired such infections. A point prevalence study carried out in 42 hospitals across Thailand in 2001 found an overall prevalence of 6.4% with the highest proportion in surgical followed by medical, pediatric and orthopaedic departments. A recent study conducted at a large teaching college in Bangladesh found that 11.37% of 299 admissions acquired an HAI, 44.1% of them surgical site infections. HAI is associated with the following risk factors: functional status of the patient, the underlying illness, number of visitors per day, immunosuppressive therapy, duration of antibiotic treatment, and general cleanliness of the wards.

An overview of WHO SEARO’s activities in the areas of blood safety, injection safety, neonatal care, health-care, waste management and hospital infection control was provided. Participants were informed about existing guidelines for HAI prevention such as the WHO/SEARO Guidelines on the Prevention & Control of HAI published in 2002 and the WHO/SEARO/WPRO Practical Guidelines for IC in Health Care Facilities in
2004. While these and other tools existed in the Region, it was noted that they were not being widely implemented.

Barriers to implementation of existing guidelines were discussed at the first WHO Regional Workshop on Patient Safety which was held in New Delhi, 12 to 14 July 2006. These included: heavy workloads; lack of a continuous source of clean water and basic sanitation; dirty and cluttered wards; structural weakness in outdated facilities; poor ventilation and dirty air conditioning filters; water leakages; insufficient numbers of full-time infection control nurses; inadequate training in epidemiologic surveillance and outbreak investigation; shortages of essential infection control supplies, and a lack of support from hospital administrators.

Dr Khanum ended her presentation by recapitulating the recommendations made by participants at the July 2006 Patient Safety workshop regarding the prevention of HAI. Member Countries were urged to:

- Sensitize all categories of health-care professionals from policy makers to technicians and janitors;
- Establish multi-disciplinary IC committees and teams and empower them to be effective;
- Adapt existing IC guidelines and training modules;
- Educate and train health care professionals with regular updates;
- Ensure a continuous supply of standard and essential supplies, and
- Develop a system to monitor HAI that enables regular feedback and improvement in quality of care.

WHO was urged to:

- Establish a network for sharing information and best practices on prevention of HAI;
- Make available applicable standards, protocols and guidelines;
- Organize training programmes with an emphasis on practical application and implementation;
Provide technical assistance to countries when required, and
Establish an information system for surveillance in infection control.

These recommendations were revisited on the last day of the workshop as the basis for developing a priority list of actions for both countries and WHO SEARO. This is discussed under Next Steps.

Each country was invited to provide an overview of the current HAI situation in their area with a focus on the following aspects:

- Burden of HAI
- Existing structures
- Current interventions
- Plans for the future

The key points in these presentations are summarized in Annex 5. Issues and questions that emerged in the discussions are summarized under Section 6 that follows.

6. Emerging themes and issues

While practices and experiences regarding HAI prevention varied between and within countries, common issues were raised in the country presentations. These included:

- Baseline data on HAI are mostly lacking;
- Nurses are usually given infection control (IC) duties above and beyond their other clinical and managerial duties and rarely have the training and resources necessary to fulfil their responsibilities as IC nurses, and
- Recommended health care waste management practices usually break down beyond institutional walls.

In the discussions that followed there was general consensus that:

- Behavioural interventions are at least as important as technical ones (“brainwashing before hand washing”);
Addressing “visible” dirt and clutter is a first step and can motivate health-care workers to tackle the “invisible” enemy (microbes);

Many health-care facilities are beyond salvage due to outdated design and engineering and need to be rebuilt or replaced;

HAI prevention goals can be built into broader quality and safety goals using Donabedian’s structure, process and outcome framework;

IC nurses and teams play a critical role in HAI prevention and should be empowered with appropriate training, authority and resources;

Teamwork *per se* is essential for HAI prevention strategies to be effective, and

HAI control programme should be linked to institutional and national antibiotic use policies.

Many questions were raised that require further consideration:

- How helpful is a national policy on HAI control?
- Should implementation of HAI control strategies be implemented simultaneously or sequentially at the central and peripheral levels?
- What are the links between HAI point prevalence studies and routine HAI surveillance activities?
- Is hospital accreditation a useful driver for implementing HAI control strategies?
- What role can professional associations play to raise awareness and mobilize commitment?

Several additional concerns were expressed and addressed on the specific topic of alcohol-based handrubs. These included:

- Drying effects of alcohol on skin (evidence: less drying than soap and water);
- Production and cost considerations (evidence: cost effective in the long run);
Religious concerns linked to the use of alcohol-based handrubs (evidence: alcohol absorption through the skin and inhalation is negligible), and

Acceptability and practicality of the ‘Five Moments of Hand Hygiene’ in the local context.

The following questions merited further consideration:

- How does one define ‘point of care’?
- Is it realistic to assume compliance with all five moments or should these be prioritized?
- Should there be a compliance target or should it be a continuous improvement process?
- Should hand hygiene consumables such as alcohol-based handrub be considered ‘essential’ in the same way as antibiotics are considered essential drugs?

7. Advocacy and communications

Dr Agnes Leotsakos, Partnerships and Advocacy, WHO World Alliance for Patient Safety, introduced participants to the tools available to countries to raise awareness of the impact of HAI on patient safety and to promote strategies to prevent them. In most countries, HAI is a low priority and there is a need to win the support of key constituencies that can influence policies and mobilize resources for the prevention of HAI. The audiences to be targeted include senior policy and decision-makers in ministries of health, health-care professionals, non-governmental organizations (NGOs), consumer groups, patients and their families, journalists and the public at large. The steps towards building and sustaining political commitment include documenting the situation, packaging the message(s) to the key target audiences, working with the media and mobilizing partners.

Country teams were assigned to four working groups, each addressing a different advocacy and communications topic. These were:

- Group 1: Building and sustaining political commitment (Bangladesh and Myanmar)
Group 2: Expanding partnerships and networks (Sri Lanka, Indonesia and Thailand)

Group 3: Communicating in countries (India and Bhutan)

Group 4: Attracting media coverage (Maldives, Nepal, Timor-Leste and Sparks Communication)

Each group received a list of questions to guide the group discussions. Each group was asked to identify a set of ‘top three recommendations’ and a set of ‘most important next steps’ in their respective topic area. The results are summarized below.

Group 1 – Building and sustaining political support

Participants made the following recommendations:

- Mobilize support from business, the academic community and celebrities;
- Forge linkages and collaboration between health care organizations and political leaders, and
- Raise awareness among key constituencies.

Next steps:

- Develop a national advocacy and communications plan;
- Establish a mechanism to monitor progress, and
- Conduct seminars and workshops.

Group 2 – Expanding partnerships and networks

The three recommendations were:

- Publicize the burden of HAI to new partners;
- Sensitize all categories of stakeholders, and
- Facilitate private-public partnerships.
Next steps:

- Document the burden of HAI in countries in the Region, and
- Conduct national workshops to share the data and develop appropriate strategies.

**Group 3 – Communicating in countries**

Participants felt the need for technical input from professional societies, establishing a national level HAI organization and other sub-national or district level organizations, campaigning through media, public speeches, seminars, developing strategies and materials for country campaigns such as documentaries and other IEC materials and promoting positive messages of HAI prevention generally. The three main recommendations were:

- Engage powerful political representatives to talk about HAI prevention and promote the ‘clean care’ message;
- Use partnerships for communicating with other stakeholders, and
- Build and use media websites to sensitize and promote positive messages.

Next steps:

- Establish a special unit for HAI prevention and control at different levels of the health care system and within health-care facilities, and
- Develop and disseminate printed and visual materials such as posters to target audiences.

**Group 4 – Attracting media support**

Participants felt that media attraction was possible through high profile activities like the signing of the ‘Clean Care is Safer Care’ pledge and by informing them about the national surveillance data on HAI. Participants considered using the following media strategies: launching ceremony, national campaign, press conferences, interviews, features, goodwill
ambassadors or celebrities, slogans or mottos, hospital competitions with awards, documentaries on HAI, billboards, posters, and pamphlets. The three main recommendations were:

- Consider media representation on Patient Safety and Infection Control committees;
- Hold press conferences, and
- Conduct national launches.

Next step:
- Launch an HAI day

8. Next steps

Dr Doris Mugrditchian, Regional Focal Point for Quality and Safety in Health Care at WHO/SEARO, facilitated an interactive session to prioritize action areas arising in the workshop.

Participants were grouped into country teams and requested to review and prioritize the recommendations that emanated from the HAI Working Group at the First Regional Workshop on Patient Safety in New Delhi, 12-14 July 2006 (these are listed under Section 5 Regional Context). They were asked to rank the top three actions that Member Countries should undertake within the next six months as well as identify the top three areas of assistance required from WHO. These are listed below. Individual country rankings can be found in Annex 6.

While each of the six action areas were ranked as a top three priority by at least one country, the following three ranked the highest (in order of priority):

1. Sensitize all categories of health-care professionals from policy makers to technicians and janitors.
2. Develop a system to monitor HAI that enables regular feedback and improvement in quality of care.
3. Establish multi-disciplinary IC committees and teams and empower them to be effective.
Regarding priority areas for WHO assistance, while ‘establishing networks’ was clearly ranked as the first priority, the other areas ranked more or less evenly:

1. Establish a network for sharing information, experience and best practices in prevention and control of HAI.
2. Provide technical assistance as requested in different aspects of HAI prevention and control.
3. Disseminate appropriate standards, protocols and guidelines.
4. Establish an information system for surveillance of HAI.
5. Organize training programmes with an emphasis on practical application and implementation.

Country teams were also given an opportunity to propose new action areas for country implementation and additional areas of assistance required from WHO. These are listed below.

- Indonesia identified the development of a standard taxonomy for adverse event reporting including HAI;
- Maldives requested assistance on how to involve patients and the media and how to expand good practices in infection control from the tertiary to the primary care level;
- Myanmar identified waste management technologies as an important area of work;
- Nepal requested assistance with the implementation of pilot HAI prevention projects;
- Thailand identified integration of IC goals into quality improvement and accreditation activities and national campaigns to control HAI as priority action areas, and
- Timor-Leste requested assistance with legislation related to prevention of HAI.
9. Closing session

Summary of the workshop proceedings

Ms Sofiya Abdulla, Rapporteur, summarized the key messages from the first two days of the workshop. These were:

- While HAI cannot be eliminated, most infection can be prevented;
- Hand hygiene is the common thread that runs through the other IC practices;
- Even a small improvement in hand hygiene can have a significant impact on HAI and save lives;
- Hand hygiene requires major behaviour change which must be sustained over time, and
- Alcohol-based handrub is cost-effective as a long term investment.

Ms Abdulla underscored the issue of compliance as one of the central challenges in hand hygiene:

- People need to be convinced with evidence;
- A multi-modal approach (which includes alcohol-based hand rub at the point of care, staff training and education, visual reminders, performance monitoring, and commitment from the leadership) is more likely to improve compliance in a sustainable way;
- Alcohol based handrub can improve compliance (improves access to hand hygiene, saves time, less harsh on skin than soap and water);
- Adequate physical structure and hand hygiene consumables are necessary but not sufficient to ensure compliance, and
- Individuals can be compliant in one setting (e.g. OT) and non-compliant in another (e.g. wards).
Ms Abdulla stressed the need for role models:

- Health personnel need good role models such as nurses in-charge, heads of department and CEO;
- New graduates generally have good compliance but regress for lack of positive peer pressure and good role models;
- Patients and their families can demand compliance by healthcare professionals, and
- Nurses need to be empowered to promote compliance, especially among doctors.

Closing remarks

In her closing remarks, Dr Sultana Khanum reminded participants of the high-level political commitment behind Resolution SEA/RC59/R3 on Patient Safety. She urged participants to share the outcome of the prioritization exercise with their respective Ministries of Health and WHO country office staff so that it is reflected in the 2007-2008 WHO/SEARO work plans. In planning country activities, she urged participants not to overlook the macro level issues related to HAI prevention such as the status of healthcare facilities and the health workforce. She informed participants that the messages from the workshop would be shared with the Regional Director and presented to Ministers of Health. Finally, she reiterated WHO’s commitment to work with countries in this key area of patient safety.

Dr Supachai Kunaratanaapruk, Chairperson and Director General, Health Services Support, Ministry of Health, Thailand, remarked that long-term success will require that patient safety concepts including hand hygiene be embedded in undergraduate medical and nursing curricula. He thanked all the participants for a successful and productive meeting, wished them all a safe journey home, and declared the workshop closed.
Annex 1

Programme

Day 1

9:00 – 10:00 Registration

10:00 – 12:30 Inauguration of the Global Patient Safety Challenge ‘Clean Care is Safer Care’ in Thailand

13:30 – 17:30 Note: Thai delegates who participated in the national launch are cordially invited to Session 1 on Day 1 of the Regional Workshop

Opening of the Workshop

- Opening remarks and Objectives – Dr Sultana Khanum
- Introduction of participants – Dr Doris Mugrditchian
- Nomination of Chair, Co-chair and Rapporteur

Session 1: Multi-modal strategies and tools

Professor Didier Pittet & Ms Julie Starr

- The five key elements in WHO’s strategy to prevent HAI: clean products, clean practices, clean equipment, clean environment and clean hands
- The evidence behind WHO’s multimodal hand hygiene strategy
- Introduction to the tools for implementing the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft)
- Q&A and discussion

Day 2

09:00 – 12:30 Session 2: Country Voices

- Regional context – Dr Sultana Khanum
- Country voices – Country teams

Group photo
13:30 – 17:30  
**Session 2 (Cont’d)**
- Country experiences
- Discussion on emerging issues
- Conclusion

**Day 3**

09:00 – 12:30  
**Session 3: Advocacy & Communications**
*Dr Agnes Leotsakos*
- Building advocacy for “Clean Care is Safer Care”
- Group work (simultaneous sessions):
  - Building and sustaining political support
  - Expanding partnerships and networks
  - Communications in countries and mobilizing society
  - Attracting media coverage
- Feedback and recommendations

13:30 – 15:00  
**Session 4: Practical Application**
*Ms Julie Storr*
- Summary of the WHO Hand Hygiene Tools
- The ‘Five Moments for Hand Hygiene’ poster and its application at the bedside
- Simulation exercise on observational compliance monitoring

15:00 – 16:00  
**Session 5: Next steps**
*Dr Doris Mugrditchian*
- Action points for Member Countries
- Priority areas of assistance from WHO

16:00 – 16:30  
**Closing**
- Summary of workshop proceedings – Rapporteur
- Concluding remarks – Dr Sultana Khanum
- Closing remarks – Chair

Tea & Coffee breaks: once in the morning and once in the afternoon
Lunch: 12:30-13:30 hrs
Annex 2

List of participants

**Bangladesh**

Dr Shamim Ara Begum  
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Mr Karma Yeshey  
Administrative Officer  
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Mr Dechen Choiphel  
Nursing Superintendent  
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**India**

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Dr N K Chaturvedi  
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Kathmandu
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Sister in charge
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Dr H Weerasingh
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Dr P Ariyawansa
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Dr Supachai Kunaratanaapruk
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Annex 3

Working paper

Prepared by

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Statement of the Problem

Health care-associated infections (HAIs) are a major patient safety issue worldwide. They are linked to failures in health care systems and processes as well as to behavioural practices of health-care workers, patients, and the public at large. At any given time, more than 1.4 million people around the world become seriously ill from such infections. In industrialized nations, it is estimated that 5-10% of hospitalized patients acquire one or more infections and that 15-40% of those admitted to critical care are affected. Overcrowding of patients and understaffing at health-care facilities contribute to the perpetuation of this problem and, in some developing country settings, the proportion of patients affected can exceed 25%. A 2005 review of data on neonatal infections among hospital-born babies in developing countries estimated that HAI rates were 3 to 20 times higher than those reported in industrialized countries.

The burden of HAI in the South-East Asia region is less well documented. The Hospital Infection Society of India estimates that the incidence of HAI in India ranges from 5-30%. A study conducted in two teaching hospitals in Indonesia in 2002 reported that 1 in 14 hospitalized patients had acquired one or more HAI and 5-8% of patients who underwent surgery acquired such infections. A point prevalence study carried out in 42 hospitals across Thailand in 2001 found an overall prevalence of 6.4% with the highest proportion in surgical followed by medical, pediatric and orthopaedic departments.

HAI contribute significantly to patient morbidity and mortality, particularly in intensive care units. Such infections delay recovery from illness, promote the development of resistance to antibiotics, and create additional demands on limited
health care resources. It has been estimated that HAI account for a loss of more than US$40 million every year in Thailand alone.

The tools and interventions to tackle these infections already exist but they are not widely implemented. While measures as simple and inexpensive as hand washing, with soap and water, can be implemented immediately to reduce HAI and save millions of lives, compliance with hand hygiene is still very low throughout the world. The barriers to implementation include heavy workloads, insufficient numbers of full-time infection control nurses, inadequate training in epidemiologic surveillance and outbreak investigation, shortages of supplies, and a lack of support from hospital administrators.

The advent of life-threatening infections such as severe acute respiratory syndrome (SARS), the risk of new influenza pandemics such as Avian Influenza (AI), the rise of methicillin resistant S. aureus (MRSA)—currently 70-80% of isolates of S. aureus in many Asian countries—and the emergence of extensively drug-resistant TB (XDR-TB), highlight the urgent need for efficient infection control practices in health care.

Response to Date

WHO

HAI are not a new problem in the South-East Asia Region. WHO has been working closely with Member Countries in the Region to prevent HAI in the areas of blood safety, injection safety, maternal and neonatal health, prevention of airborne infections, and health care waste management. In January 2002, WHO Regional Office for South-East Asia (WHO/SEARO) published Guidelines on the Prevention and Control of Hospital Associated Infections which were finalized during an informal consultative meeting with experts in Bangkok, Thailand, from 26 to 29 June 2001. This was followed by a regional workshop in Pune, India, from 24 to 26 September 2002. With the advent of the SARS epidemic and in order to build a national core of trainers who could subsequently train others in proper infection control practices, WHO/SEARO held a ‘hands-on’ regional workshop on Good Infection Control Practices (with emphasis on the prevention and control of SARS) at the Tata Memorial Hospital in Mumbai, India, from 24 to 27 June 2003. In 2004, WHO SEAR and Western Pacific Region (WPR) jointly published Practical Guidelines for Infection Control in Health Care Facilities which include a special section on infection control for selected situations such as SARS and infections with multi-drug resistant organisms.
Prevention of HAI was discussed in-depth at the WHO Regional Workshop on Patient Safety which was held in New Delhi, India, from 12 to 14 July 2006. Participants identified HAI as a priority area of work in Patient Safety and recommended that WHO: a) establish a network for sharing information and best practices on prevention of HAI; b) make available applicable standards, protocols and guidelines; c) organize training programmes with an emphasis on practical application and implementation; d) provide technical assistance to countries when required, and e) establish an information system for surveillance in infection control.

In October 2005, in order to catalyze political commitment and global action to prevent HAI, the WHO World Alliance for Patient Safety launched its first Global Patient Safety Challenge with the theme “Clean Care is Safer Care”. The Challenge has invited ministers of health from all WHO Member Countries to make a formal statement pledging to tackle HAI within their country. This is designed to catalyze leadership from health ministers, professional bodies, industry, and health-care workers. Under the Challenge, WHO is promoting well-established WHO strategies in areas which have a direct bearing on health care-associated infection and patient safety such as of blood safety, injection and immunization safety, safe clinical practices, and safe water, basic sanitation and waste management. A key action promoted by the Challenge, which cuts across all areas, is optimal hand hygiene. As a supplement to existing WHO guidelines, the World Alliance for Patient Safety has developed (Advanced) Guidelines on Hand Hygiene in Health Care in consultation with more than 100 experts from around the world including South-East Asia. These WHO hand hygiene guidelines are being pilot tested at several health-care facilities across the world including in our Region.

**Member Countries**

Most countries in the Region have instituted hospital infection control committees, however many of them are not fully functional. Many hospitals in the Region have appointed Infection Control Officers or Nurses, but few have provided sufficient training or support to allow this staff to carry out their functions effectively, even in major hospitals. Many countries have attempted to undertake surveillance of HAI but standard guidelines are not being widely implemented. As a result, good infection control practices remain inadequate in the Region, even in major hospitals. These patient safety gaps exist not only between countries but also within countries where some hospitals have succeeded in controlling the problem and reducing the risks to patients, while others have not.
Several countries in the Region have accepted the invitation of the Global Patient Safety Challenge and have signed formal pledges to support actions to reduce HAI within their countries and to share results and learning internationally. India, Bangladesh and Bhutan signed national pledges in July, September and November 2006 respectively while Thailand and Indonesia have committed to do so in June and July 2007 respectively.

On the occasion of the national launch of the Global Patient Safety Challenge, the Ministry of Health and Family Welfare in India released a Country Report summarizing the activities undertaken in the areas of safe clinical practices and hand hygiene, blood safety, injection safety, and safe health care waste management. Similarly, the Ministry for Health and Family Welfare of Bangladesh held a technical session which brought together 200 medical and nursing staff, academicians, representatives of professional associations and district health managers from across the country, to discuss national activities in the areas of blood safety, drug safety, waste management, injection safety and hospital infection control.

Several studies have been conducted in the Region to evaluate the effectiveness of interventions to improve hand hygiene. A study performed at two Thai university hospitals in 2004, one in Bangkok and the other in Chiangmai, found improved adherence to hand hygiene after the implementation of multi-faceted interventions that included posters, leaflets, contests, slogans, provision of alcohol-based handrubs, and performance feedback. A study conducted by the Hospital Infection Society of India at the Lady Hardinge Medical College and Hospital in Delhi in 2006 showed a significant improvement in compliance with hand hygiene after the introduction of a locally manufactured alcohol-based handrub based on the WHO formulation. Similarly Bangladesh is in the planning phase of a study to pilot the WHO Guidelines on Hand Hygiene at the Medical College Hospital in Chittagong using a locally manufactured alcohol-based handrub based on the WHO formulation.

The way forward

Widespread implementation of effective HAI control will require implementing system changes, overcoming resource constraints, and instituting human and organizational changes. Compliance with even simple and inexpensive measures such as hand hygiene requires the involvement and commitment of all stakeholders, including hospital administrators, health-care personnel, patients and
their families. The WHO Regional Patient Safety Workshop on “Clean Care is Safer Care” will bring together policy-makers, programme managers, hospital administrators and health-care personnel, to build regional commitment and capacity to address this problem. The specific objectives are:

- To review the status of HAI in the Region;
- To orient participants on the availability of strategies and tools to reduce HAI, and
- To outline a set of action points that countries can adopt as part of an integrated strategy to reduce HAI at the facility level with a focus on hand hygiene.
Annex 4

Five moments for hand hygiene

Your 5 moments for HAND HYGIENE

1. BEFORE PATIENT CONTACT
   - **WHEN**: Close your hands before touching a patient when approaching him or her
   - **WHY**: To protect the patient against harmful germs carried on your hands

2. BEFORE AN ASEPTIC TASK
   - **WHEN**: Close your hands immediately before any aseptic task
   - **WHY**: To protect the patient against harmful germs, including the patient’s own germs, entering his or her body

3. AFTER BODY FLUID EXPOSURE RISK
   - **WHEN**: Close your hands immediately after an exposure risk to body fluids
     - (and after glove removal)
   - **WHY**: To protect yourself and the health-care environment from harmful patient germs

4. AFTER PATIENT CONTACT
   - **WHEN**: Close your hands after touching a patient and his or her immediate surroundings
   - **WHY**: To protect yourself and the health-care environment from harmful patient germs

5. AFTER CONTACT WITH PATIENT SURROUNDINGS
   - **WHEN**: Close your hands after touching any object or furniture in the patient’s immediate surroundings
   - **WHY**: To protect yourself and the health-care environment from harmful patient germs

World Health Organization

Annex 5

Country voices

<table>
<thead>
<tr>
<th>Country</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Bangladesh</td>
<td>1. Blood safety: positive developments have occurred in recent years.</td>
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<td>More than a 100 hospitals have implemented blood safety policies.</td>
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<td>2. Waste management: positive developments in recent years.</td>
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<td>3. Injection safety: the work of GAVI has yielded positive results.</td>
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<td>4. HAI:</td>
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<td></td>
<td>a. No reliable data.</td>
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<td>b. A qualitative study on HAI was undertaken in 2006 as part of the</td>
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<td></td>
<td>work related to the GPSC1. The findings reflect the multidimensional</td>
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<td></td>
<td>nature of the problems:</td>
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<tr>
<td></td>
<td>i. Practices are best at medical college hospitals and require</td>
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<td>improvement at the smaller Upazila complexes.</td>
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<td></td>
<td>ii. Access to water at facility and ward level is generally good.</td>
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<td>iii. Infection Control Committees: 1.5% of hospitals have ICCs</td>
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<td></td>
<td>– none have dedicated trained staff.</td>
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<td></td>
<td>iv. There is low awareness of the importance of hand hygiene</td>
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<td>in the prevention of HAI.</td>
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<td></td>
<td>v. A successful, WHO supported nurse leadership programme</td>
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<td>has been implemented in some hospitals and improvements in</td>
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<td></td>
<td>infection control instituted.</td>
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<td>vi. Use of water and soap for hand hygiene is erratic.</td>
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<td>vii. Role models are lacking.</td>
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<td>viii. The ICDDR8 have piloted alcohol-based handrub.</td>
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<td>ix. Chittagong Medical College Hospital is a pilot site for Clean</td>
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<td>Care is Safer Care.</td>
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<td>x. During the biennium 2008-2009 a further district hospital</td>
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<td>and 21 Upazila complexes will pilot the alcohol-based handrub.</td>
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<td>Country</td>
<td>Activity</td>
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</table>
| Bhutan (Pledged 2006) | 1. A new hospital construction programme is in place.  
2. Limited data exists on the burden of disease.  
3. Infection control manuals exist and are applicable to all hospitals.  
4. All hospital supplies are centralized.  
5. Alcohol-based handrub is available to every hospital.  
6. There is strict compliance with hand hygiene in critical care areas and the labour room.  
7. Current constraints and challenges:  
   a. Poor compliance with hand hygiene outside of these critical areas.  
8. Pilot work is occurring to establish a baseline. |
| India (Pledged 2006) | 1. The National-rural launch mission of 2005 aims to decentralize and standardize infection control across the country.  
2. In February 2007 the Hospital Infection Society, India, held a meeting focused on hand hygiene, during this meeting the WHO formula and all advocacy materials were disseminated.  
3. The Lady Hardinge Hospital undertook a project manufacturing the WHO formulation for alcohol-based handrub. However, due to cost constraints it has proved more cost-effective to purchase the product commercially.  
   a. Within the hospital, compliance has increased and hand contamination levels have decreased.  
   b. Preliminary results suggest less infection and fewer outbreaks, but more data is needed. |
| Indonesia (Pledge scheduled to occur July 2007) | 1. Patient safety has been strengthened across Indonesia in recent years.  
2. The recently launched 9 Solutions are being adapted for the local context.  
3. Infection control is seen as central to patient safety.  
4. There is a national infection control strategy, with capacity building extending to 2012.  
5. Surveillance is valued as central to improvement.  
6. During 2007-08 monitoring and evaluation will be occurring.  
7. Major challenges are summarized as:  
   a. Resources  
   b. NGO funding |
<table>
<thead>
<tr>
<th>Country</th>
<th>Activity</th>
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</table>
|         | 8. A national campaign is planned – with an emphasis on a “bottom-up” approach.  
|         | a. Essentially hospitals are starting their own campaigning without waiting for government or WHO advices and support. |
| Maldives| 1. Infection control is being strengthened.  
|         | 2. Infection control audits:  
|         | a. Quick reference manuals are in place.  
|         | b. Hand washing posters, with promotional messages are present at all sinks.  
|         | c. Alcohol-based handrub is freely available in all units.  
|         | d. Disposable hand towels are in place.  
|         | e. Single-use, autoclavable towels have been implemented.  
|         | 3. Constraints:  
|         | a. Inadequate knowledge of patient safety.  
|         | b. Lack of awareness.  
|         | c. Lack of experience.  
|         | d. Inadequate time.  
|         | e. Lack of access to information.  
|         | f. Lack of available baseline data on HAI.  
|         | 4. Plans for the future:  
|         | a. Strengthen and sustain infection control programmes  
|         | b. Ensure regular audits of infection control  
|         | c. Implement the national patient safety programme. |
| Myanmar | 1. The SEARO infection control guidelines have been translated into Myanmar and all staff are trained on these guidelines.  
|         | 2. A range of risk-related committees are established:  
|         | a. Hospital supervisory committee  
|         | b. Theatre control committee  
|         | c. Infection control committee  
|         | d. Waste management committee  
|         | e. Safe Blood Transfusion committee.  
<p>|         | 3. Infection control and antibiotic policies are being established. |</p>
<table>
<thead>
<tr>
<th>Country</th>
<th>Activity</th>
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<tr>
<td></td>
<td>4. Some limited data is available on HAI.</td>
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<td>5. Handrubs are available in a limited capacity, but contain methyl alcohol with no emollient property and are very drying.</td>
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<td></td>
<td>6. Future plans to start and sustain use of alcohol-based handrubs in all clinical areas.</td>
</tr>
<tr>
<td>Nepal</td>
<td>1. Factors of importance to safety and infection control improvements:</td>
</tr>
<tr>
<td></td>
<td>a. Adult literacy is 49%</td>
</tr>
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<td></td>
<td>b. Shortages of doctors and nurses.</td>
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<td></td>
<td>2. ICN Nurse Leadership Programme in 2004/2005 resulted in:</td>
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<tr>
<td></td>
<td>a. A study on hand hygiene in hospitals – only targeted nurses (did not involve managers or patients).</td>
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<tr>
<td></td>
<td>b. From this study, hand washing compliance increased from 70% (2003) to 90% (2004).</td>
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<td>3. Historical constraints:</td>
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<td></td>
<td>a. No clear HAI policy across all levels.</td>
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<td></td>
<td>b. No teamwork.</td>
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<td></td>
<td>c. Low awareness and communication among providers and consumers.</td>
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<td></td>
<td>d. No reliable data.</td>
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<td></td>
<td>4. Future plans:</td>
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<td></td>
<td>a) Disease specific standards and treatment guidelines to be disseminated to all care providers.</td>
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<td></td>
<td>b) Performance indicators.</td>
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<td></td>
<td>c) Policies will be reviewed.</td>
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<td></td>
<td>d) Specific objectives will be selected.</td>
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<tr>
<td>Sri Lanka</td>
<td>1. Study undertaken in the national hospital of Sri Lanka: 3000 beds, 2 million outpatients per year, 250,000 inpatients per year, 80,000 surgical operations per year.</td>
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<td></td>
<td>a. 1984: HAI 13%</td>
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<td>b. 1995: HAI 8%</td>
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<td>2. During this period a number of infection control improvements were implemented.</td>
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<td>Country</td>
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<td>Thailand (Pledge 2007)</td>
<td>1. There is an Institute for Quality Improvement and Accreditation.</td>
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<td></td>
<td>2. National prevalence surveys have been undertaken to determine the burden of disease, the results are listed below with other milestones:</td>
</tr>
<tr>
<td></td>
<td>a. 1971: First infection control programme established.</td>
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<td>b. 1982: Short training course in infection control.</td>
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<td>c. 1983: 8.4%.</td>
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<td>d. 1987: National infection control group established</td>
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<td></td>
<td>e. 1988: 11.7%.</td>
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<td></td>
<td>f. 1992: 7.3%.</td>
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<td></td>
<td>g. 1996: Hospital standards for quality improvement and accreditation.</td>
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<td></td>
<td>h. 1998: Infection Control Nurses Group formed.</td>
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<td></td>
<td>i. 2001: 6.4%.</td>
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<td>j. 2006: Patient safety goals launched – of which HAI reduction is one element.</td>
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<td></td>
<td>3. Average length of stays is 10 days.</td>
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<td></td>
<td>4. Costs: average $140 US per infection.</td>
</tr>
</tbody>
</table>
|                  | 5. 2005.: Quality of nosocomial infection control in Thailand Study:  
|                  | a. ICCs exist and ICNs are in place – but there is still a need for quality and standards to improve.                                  |
b. A strategy to improve hand hygiene was launched, consisting of:
   i. Education.
   ii. Posters and promotions.
   iii. Observational compliance and feedback.
   iv. Financial incentives.
   v. Feedback.

c. Compliance has increased in some areas from:
   i. 4.5% – 44.4%
   ii. 13.4% – 90.8%

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<td></td>
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<tr>
<td></td>
<td>ii. 13.4% – 90.8%</td>
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<tr>
<td>Timor-Leste</td>
<td>1. 1 million population.</td>
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<td></td>
<td>2. Limited data.</td>
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<td></td>
<td>3. No ICC.</td>
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<td>4. Poor practices are thought to be widespread with low awareness of hand hygiene.</td>
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## Annex 6

### Country priorities

| Actions for Member States: | Sensitize | Adapt IC guidelines | Monitoring 
& feedback | Establish IC committees & teams | Education 
& training | Supplies for IC |
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<tr>
<td>Bangladesh</td>
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<td>3</td>
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<tr>
<td>India</td>
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<td>Bhutan</td>
<td>1</td>
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<tr>
<td>Indonesia</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Maldives</td>
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<td>Myanmar</td>
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<td>Nepal</td>
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<td>Sri Lanka</td>
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<td>Thailand</td>
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<tr>
<td>Timor-Leste</td>
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<td><strong>Totals</strong></td>
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<td><strong>5</strong></td>
<td><strong>7</strong></td>
<td><strong>6</strong></td>
<td><strong>2</strong></td>
<td><strong>1</strong></td>
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</table>
### Areas for WHO Assistance:

<table>
<thead>
<tr>
<th>Country</th>
<th>Technical assistance</th>
<th>Network for sharing</th>
<th>Surveillance systems</th>
<th>Practical Training</th>
<th>Dissemination of guidelines &amp; standards</th>
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<tbody>
<tr>
<td>Bangladesh</td>
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<td>India</td>
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<td>Bhutan</td>
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<td>Totals</td>
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