World Health Organization

Patient Safety
A World Alliance for Safer Health Care

SAVE LIVES
Clean Your Hands

Infection control webinar series

Special hand hygiene focus to celebrate
SAVE LIVES: Clean Your Hands, 5-6 May 2010

05 May 2010, 8 am and 3 pm (CET*) in English
4.30 pm (CET*) in French

Improving hand hygiene worldwide

Professor Didier Pittet
Lead First Global Patient Safety Challenge

World Health Organization

Patient Safety

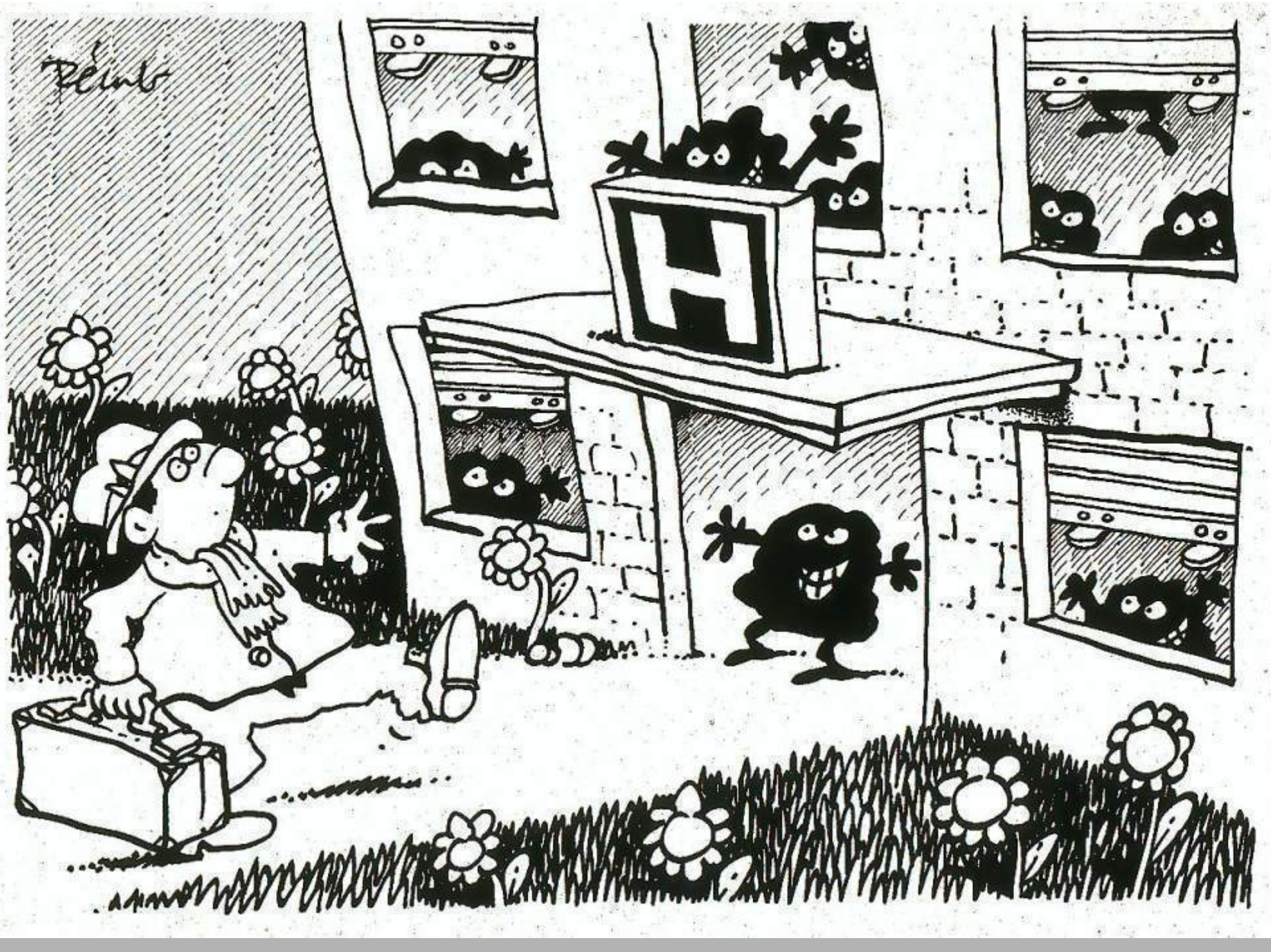
A World Alliance for Safer Health Care

SAVE LIVES
Clean **Your** Hands

Through the promotion of best practices in hand hygiene and infection control, the First Global Patient Safety Challenge aims to reduce health care-associated infection (HCAI) worldwide

When health care is

the problem…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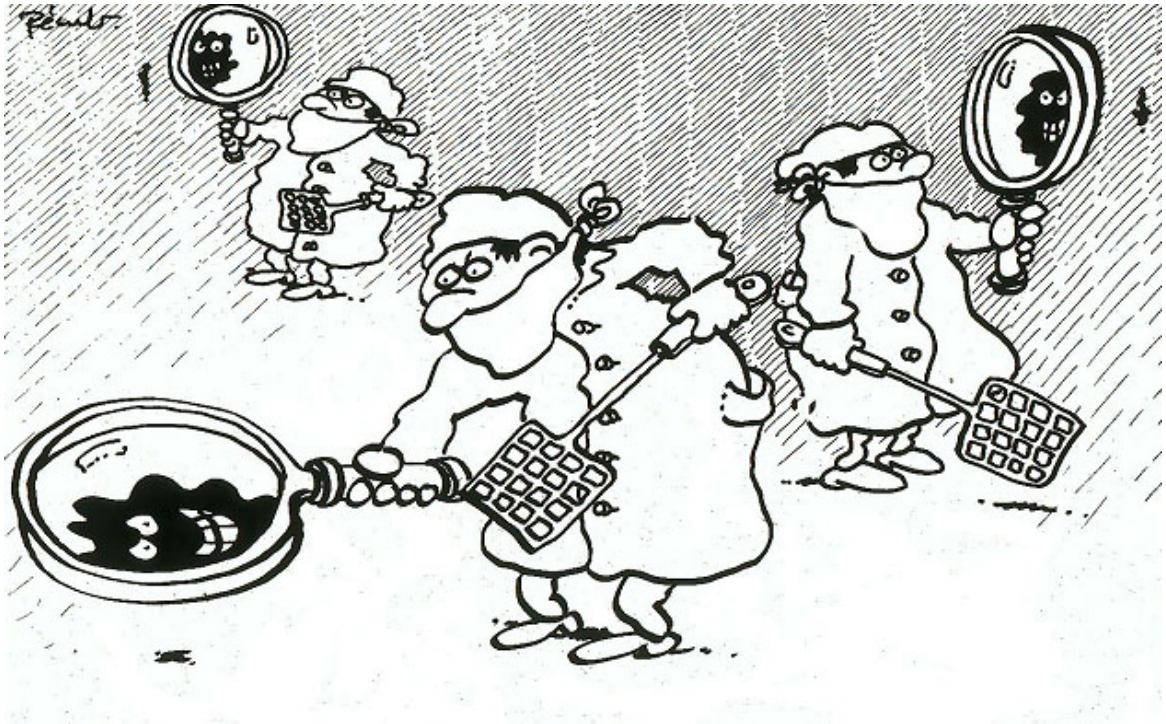
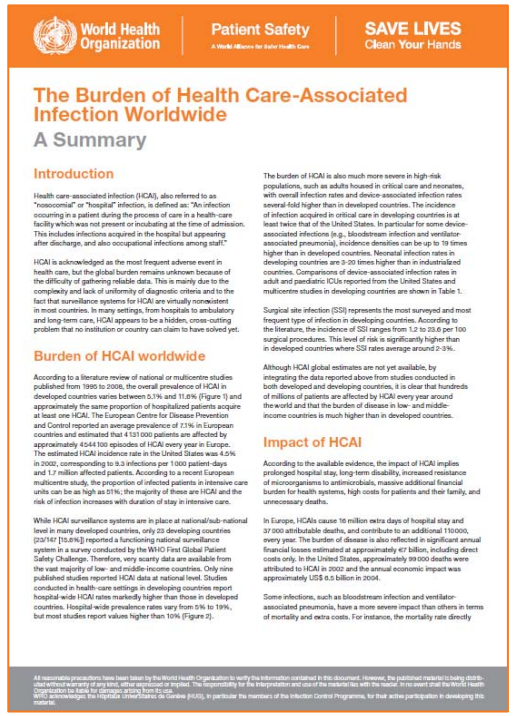
Objectives of the Challenge

Burden of HCAI **Stakeholders' engagement**	1. Awareness
Country pledges **National campaigns**	2. Mobilising nations
Implementation strategies	3. Technical guidelines and tools

Estimates of the global burden of health care-associated infection are hampered by limited availability of reliable data





World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES Clean Your Hands

The Burden of Health Care-Associated Infection Worldwide

A Summary

Introduction

Health care-associated infection (HCAI), also referred to as "nosocomial" or "hospital" infection, is defined as: "An infection occurring in a patient during the process of care in a health-care facility which was not present or incubating at the time of admission. This includes infections acquired in the hospital but appearing after discharge, and also occupational infections among staff."

HCAI is acknowledged as the most frequent adverse event in health care, but the global burden remains unknown because of the difficulty of gathering reliable data. This is mainly due to the complexity and lack of uniformity of diagnostic criteria and to the fact that surveillance systems for HCAI are virtually nonexistent in most countries. In many settings, from hospitals to ambulatory and long-term care, HCAI appears to be a hidden, cross-cutting problem that no institution or country can claim to have solved yet.

Burden of HCAI worldwide

According to a literature review of national or multicentre studies published from 1995 to 2006, the overall prevalence of HCAI in developed countries varies between 5.1% and 11.8% (Figure 1) and approximately the same proportion of hospitalized patients acquire at least one HCAI. The European Centre for Disease Prevention and Control reported an average prevalence of 7.1% in European countries and estimated that 4 131 000 patients are affected by approximately 4 544 100 episodes of HCAI every year in Europe. The estimated HCAI incidence rate in the United States was 4.5% in 2002, corresponding to 9.3 infections per 1000 patient-days and 1.7 million affected patients. According to a recent European multicentre study, the proportion of infected patients in intensive care units can be as high as 51%; the majority of these are HCAI and the risk of infection increases with duration of stay in intensive care.

While HCAI surveillance systems are in place at national/sub-national level in many developed countries, only 23 developing countries [23/147 [15.6%]] reported a functioning national surveillance system in a survey conducted by the WHO First Global Patient Safety Challenge. Therefore, very scanty data are available from the vast majority of low- and middle-income countries. Only nine published studies reported HCAI data at national level. Studies conducted in health-care settings in developing countries report hospital-wide HCAI rates markedly higher than those in developed countries. Hospital-wide prevalence rates vary from 5% to 19%, but most studies report values higher than 10% (Figure 2).

The burden of HCAI is also much more severe in high-risk populations, such as adults housed in critical care and neonates, with overall infection rates and device-associated infection rates several-fold higher than in developed countries. The incidence of infection acquired in critical care in developing countries is at least twice that of the United States. In particular for some device-associated infections [e.g., bloodstream infection and ventilator-associated pneumonia], incidence densities can be up to 19 times higher than in developed countries. Neonatal infection rates in developing countries are 3–20 times higher than in industrialized countries. Comparisons of device-associated infection rates in adult and paediatric ICUs reported from the United States and multicentre studies in developing countries are shown in Table 1.

Surgical site infection (SSI) represents the most surveyed and most frequent type of infection in developing countries. According to the literature, the incidence of SSI ranges from 1.2 to 23.6 per 100 surgical procedures. This level of risk is significantly higher than in developed countries where SSI rates average around 2–3%.

Although HCAI global estimates are not yet available, by integrating the data reported above from studies conducted in both developed and developing countries, it is clear that hundreds of millions of patients are affected by HCAI every year around the world and that the burden of disease in low- and middle-income countries is much higher than in developed countries.

Impact of HCAI

According to the available evidence, the impact of HCAI implies prolonged hospital stay, long-term disability, increased resistance of microorganisms to antimicrobials, massive additional financial burden for health systems, high costs for patients and their family, and unnecessary deaths.

In Europe, HCAIs cause 16 million extra days of hospital stay and 37 000 attributable deaths, and contribute to an additional 110 000, every year. The burden of disease is also reflected in significant annual financial losses estimated at approximately €7 billion, including direct costs only. In the United States, approximately 99 000 deaths were attributed to HCAI in 2002 and the annual economic impact was approximately US$ 6.5 billion in 2004.

Some infections, such as bloodstream infection and ventilator-associated pneumonia, have a more severe impact than others in terms of mortality and extra costs. For instance, the mortality rate directly

First Challenge area of work on the
burden of health care-associated infection:
understanding the magnitude of the problem

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Clean Care is Safer Care

WHO patient safety website | Useful links

WHO > Programmes and projects > Clean Care is Safer Care > The evidence for clean hands

printable version

The Burden of health care-associated infection worldwide

Health care-associated infection (HCAI), also referred to as "nosocomial" or "hospital" infection, is a hidden, cross-cutting problem that no institution or country appears to have solved yet. Each year, hundreds of millions of patients around the world are affected by HCAI.

WHO

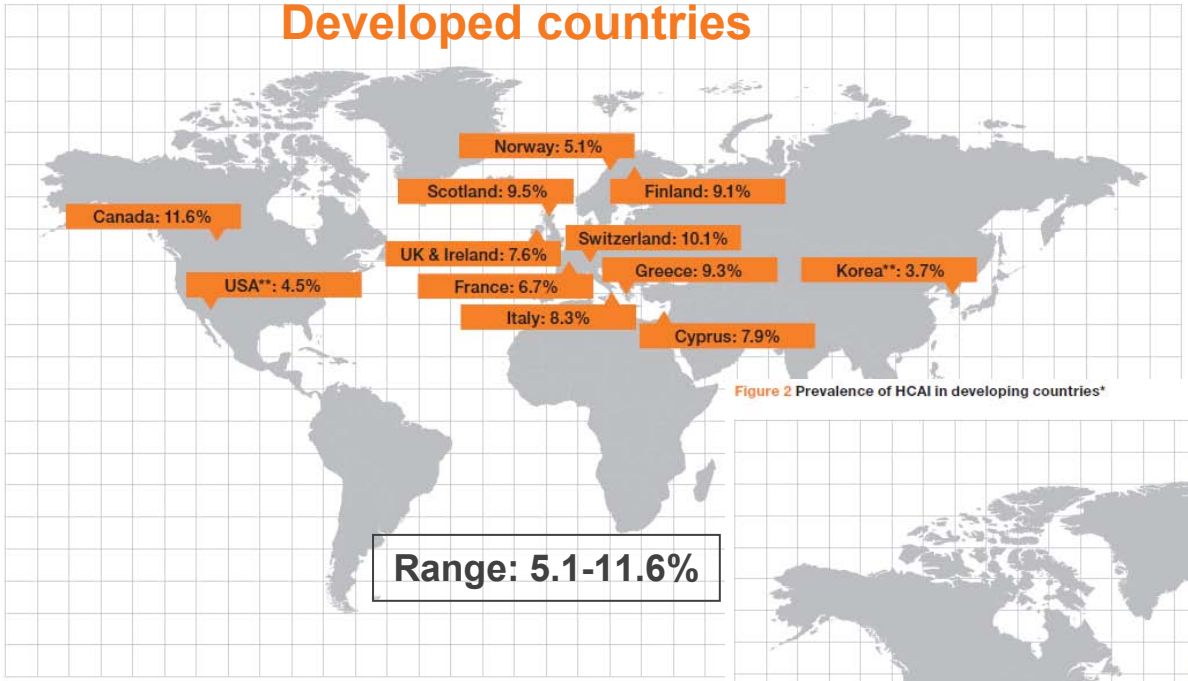
Every day, HCAI results in prolonged hospital stays, long-term disability, increased resistance of microorganisms to antimicrobials, massive additional costs for health systems, high costs for patients and their family, and excess deaths.

The burden of HCAI is one of the key areas of work of the First Global Patient Safety Challenge. Systematic reviews of the literature and of country reports have been undertaken. The full results of this work will be the object of several publications in the next year. A Summary of this work offers a snapshot of the burden related to HCAI. See below for highlights.

www.who.int/gpsc/country_work/pilot_sites/introduction/en/index.html

Prevalence of HAI worldwide

Figure 1 **Prevalence of HCAI in developed countries***

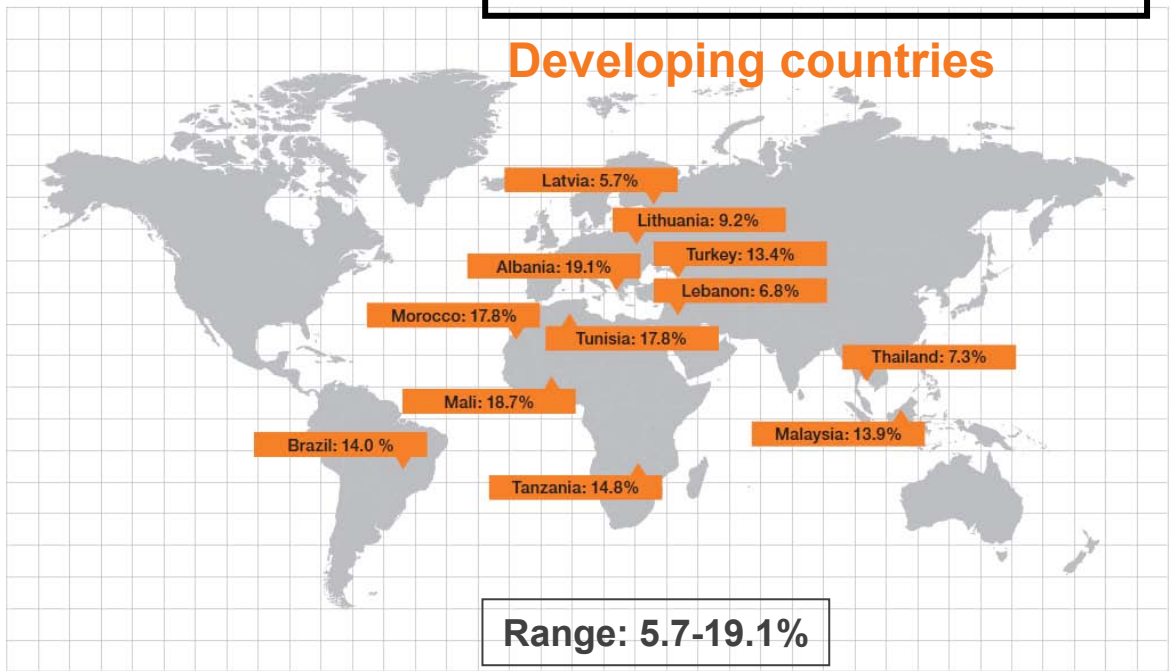


* Systematic review conducted by WHO, 1995-2008

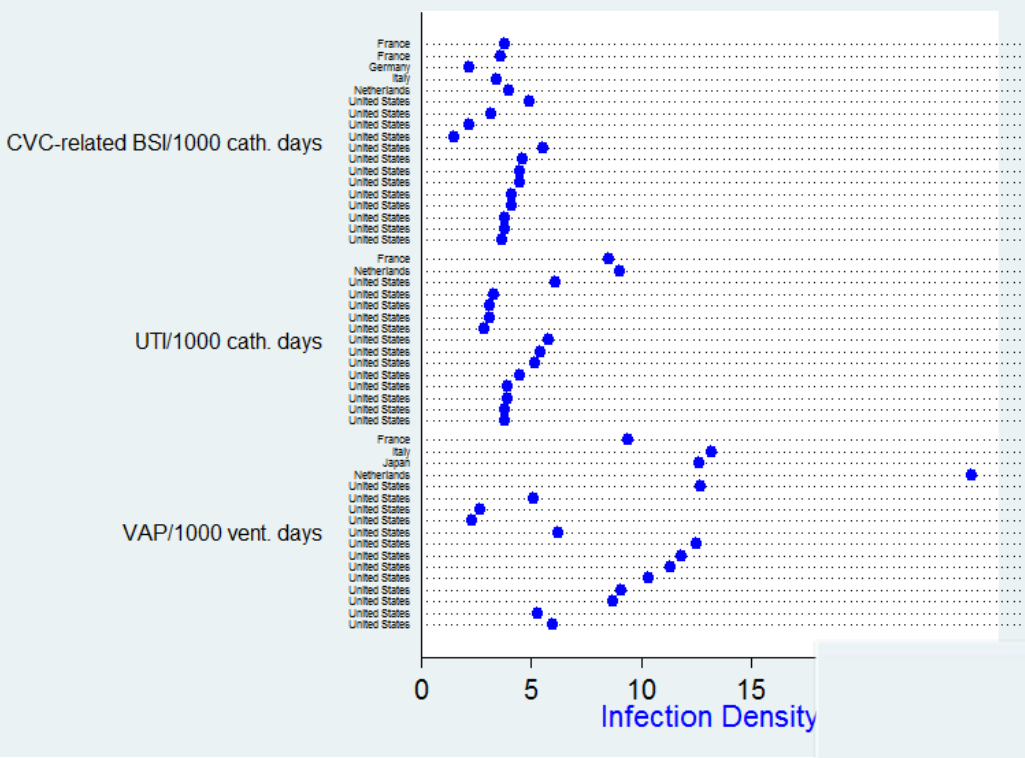
**Incidence

at least x 2

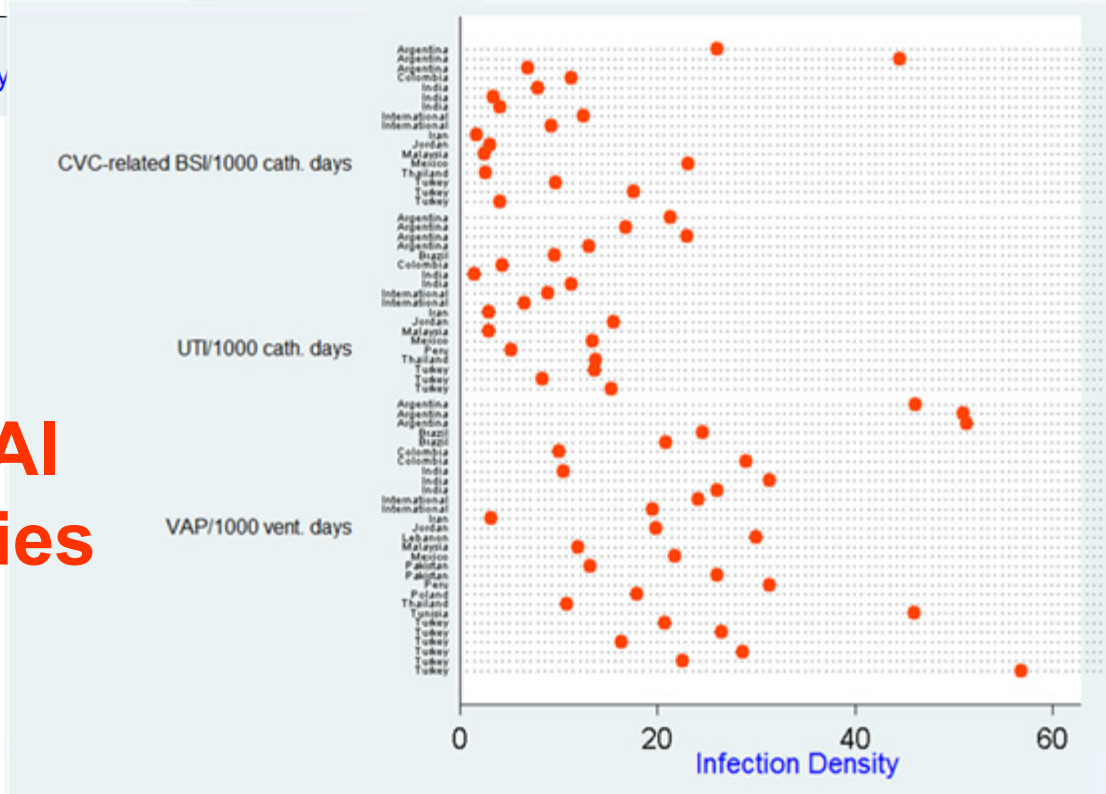
Figure 2 **Prevalence of HCAI in developing countries***



* Systematic review conducted by WHO, 1995-2008



Device-associated HAI in developed countries



Device-associated HAI in developing countries

Facts about health-care associated infection in developing countries

- The risk of infection is 2-20 times higher than in developed countries, and the proportion of patients infected can exceed 25% (Allegranzi B & Pittet D. ICHE 2007;28:1323-27)

- The rates of BSI in neonates are 3-20 times higher in developing countries, and, in some countries, approximately half of the patients in neonatal ICUs acquire an infection. Case fatality rates may reach 52% (Zaidi AKM et al. *Lancet* 2005;365:1175-88)

- VAP incidence varies from 10 to 42 per 1000 ventilator-days; VAP is associated with a crude mortality ranging from 16% to 94% and with increased length of stay in critical care (Arabi Y et al. Int J Infect Dis 2008;12:505-12)

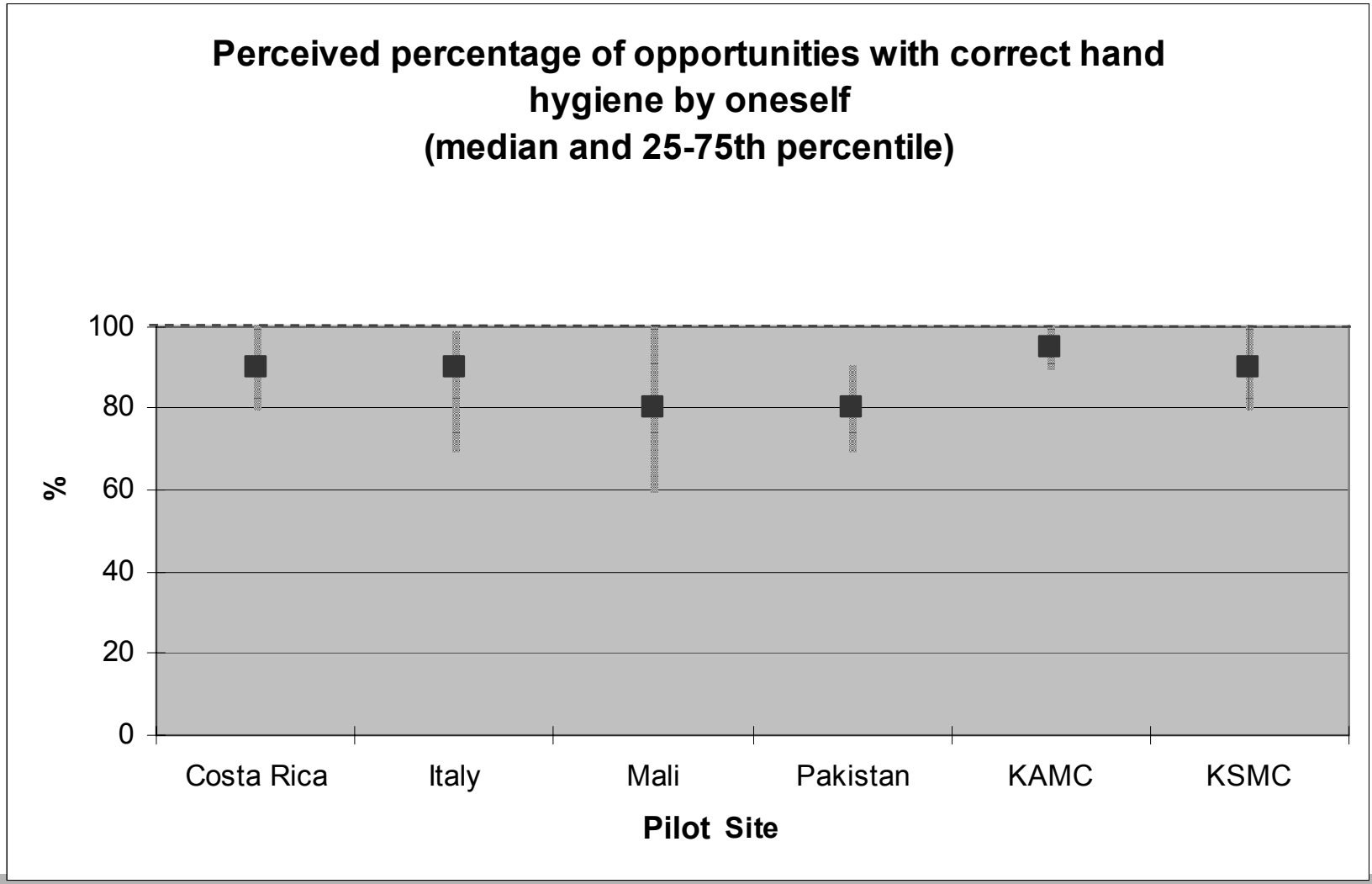
When health care is the problem, we need a solution…

1st principle of infection prevention

at least 35-50% of all healthcare-associated infections are associated with only 5 patient care practices:

- Use and care of urinary catheters
- Use and care of vascular access lines
- Therapy and support of pulmonary functions
- Safety of surgical procedures
- **Hand hygiene and standard precautions**

Perceived hand hygiene compliance among health-care workers (2137 respondents)



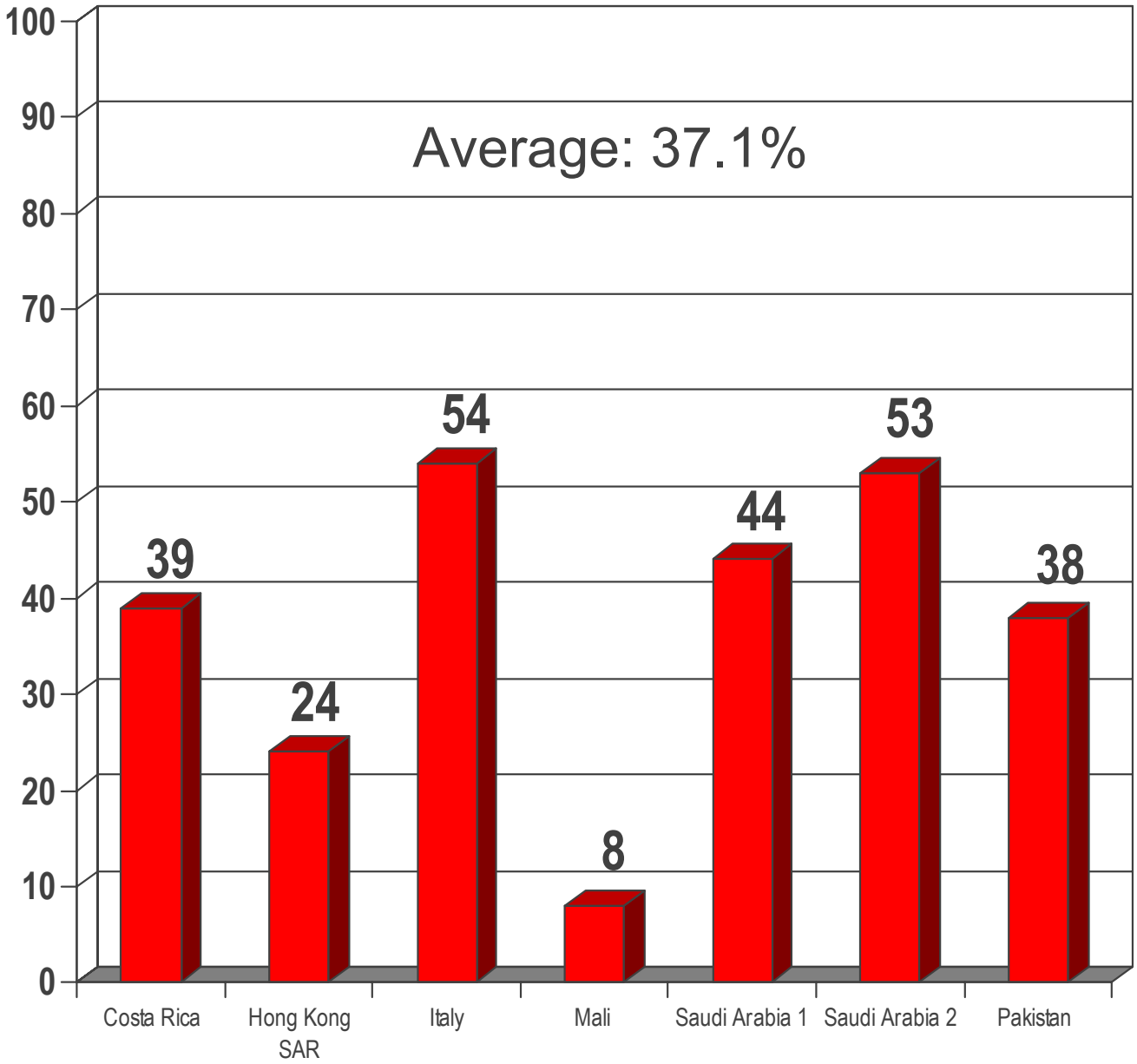
Compliance with hand hygiene in different health-care facilities - Worldwide

Author	Year	Sector	Compliance (%)
Preston	1981	General Wards	16
		ICU	30
Albert	1981	ICU	41
		ICU	28
Larson	1983	Hospital-wide	45
Donowitz	1987	Neonatal ICU	30
Graham	1990	ICU	32
Dubbert	1990	ICU	81
Pettinger	1991	Surgical ICU	51
Larson	1992	Neonatal Unit	29
Doebbeling	1992	ICU	40
Zimakoff	1993	ICU	40
Meengs	1994	Emergency Room	32
Pittet	1999	Hospital-wide	48

Average: 38.7%

WHO Guidelines on Hand Hygiene in Health Care 2009, Chapter 16

Hand hygiene compliance at baseline in WHO pilot sites



Self-reported factors for poor adherence with hand hygiene

- Often too busy/insufficient time
- Hand hygiene interferes with HCW-patient relation
- Low risk of acquiring infection from patients
- Lack of role model from colleagues or superiors
- Not thinking about it/forgetfulness
- Scepticism about the value of hand hygiene
- Disagreement with the recommendations
- Lack of scientific information of definitive impact of improved hand hygiene on HCAI

WHO Guidelines on Hand Hygiene in Health Care 2009

Clean hands reduce the burden of infection

From 1975 to March 2010,
at least 30 studies demonstrated
the effectiveness of hand hygiene
to reduce
health care-associated infection

- *Pittet D. Lancet 2005; 366:185-86*
- *Allegranzi B and Pittet D.*
J Hosp Infect 2009;73:305-15

World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES — Clean Your Hands

Inaugural infection control webinar series

A series of free monthly infection control webinar presentations will take place during 2010

Special hand hygiene focus to celebrate

SAVE LIVES: Clean Your Hands, 5-7 May 2010

http://www.who.int/gpsc/5may/news/webinars/en/index.html

Next lecture 06 May 2010, 3 pm (CET*)

Impact of hand hygiene improvement on healthcare-associated infection

(L. Grayson, Melbourne, Australia)

"Numerous reports confirm that alcohol-based handrub formulations are well tolerated and often associated with better acceptability and tolerance than other hand hygiene products"

WHO Guidelines on Hand Hygiene in Health Care 2009

When health care is the problem,

we have the solution,

we need to act on implementing the solution…

Objectives of the Challenge

Burden of HCAI Stakeholders' engagement	1. Awareness
Country pledges National campaigns	2. Mobilising nations
Implementation strategies	3. Technical guidelines and tools

Political commitment is essential to achieve improvement in infection control

Ministerial pledges to the First Global Patient Safety Challenge

I resolve to work to reduce health care-associated infection (HCAI) through actions such as:

- acknowledging the importance of HCAI;
- hand hygiene campaigns at national or sub-national levels;
- sharing experiences and available surveillance data, if appropriate;
- using WHO strategies and guidelines…

Ministero della Salute

KINGDOM OF BAHRAIN
MINISTRY OF HEALTH
Minister's Office

Parliamentary Under Secretary of State
Department of Health, Social Services and Public Safety
Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

Swiss Federal Office of Public Health
The Director

Republic of Yemen

中華人民共和國香港特別行政區政府 Health, Welfare and Food Bureau
Government Secretariat, Government of the Hong Kong Special Administrative Region
The People's Republic of China

Launch of the World Health Organization's Global Patient Safety Challenge: Clean Care is Safer Care
13 October 2005

I, the Secretary for Health, Welfare and Food, and on behalf of all at the Department of Health, in Hong Kong, China, on 13 October 2005,

- Recognizing the serious disease burden and significant economic impact that health care-associated infection places on patients and health systems throughout the world,
- Considering that the majority of these infections are treatable and avoidable,
- Appreciating the momentum that the Global Patient Safety Challenge programme of the WHO World Alliance for Patient Safety is bringing to reduce health care-associated infection at the global level,
- Emphasizing that a unique opportunity exists to reverse the incidence of health care-associated infection in Hong Kong, China, through promotion of hand hygiene,

I resolve to work to reduce health care-associated infection through actions such as:

Saudi Arabia

Kenya

France

Bangladesh

USA

Bhutan

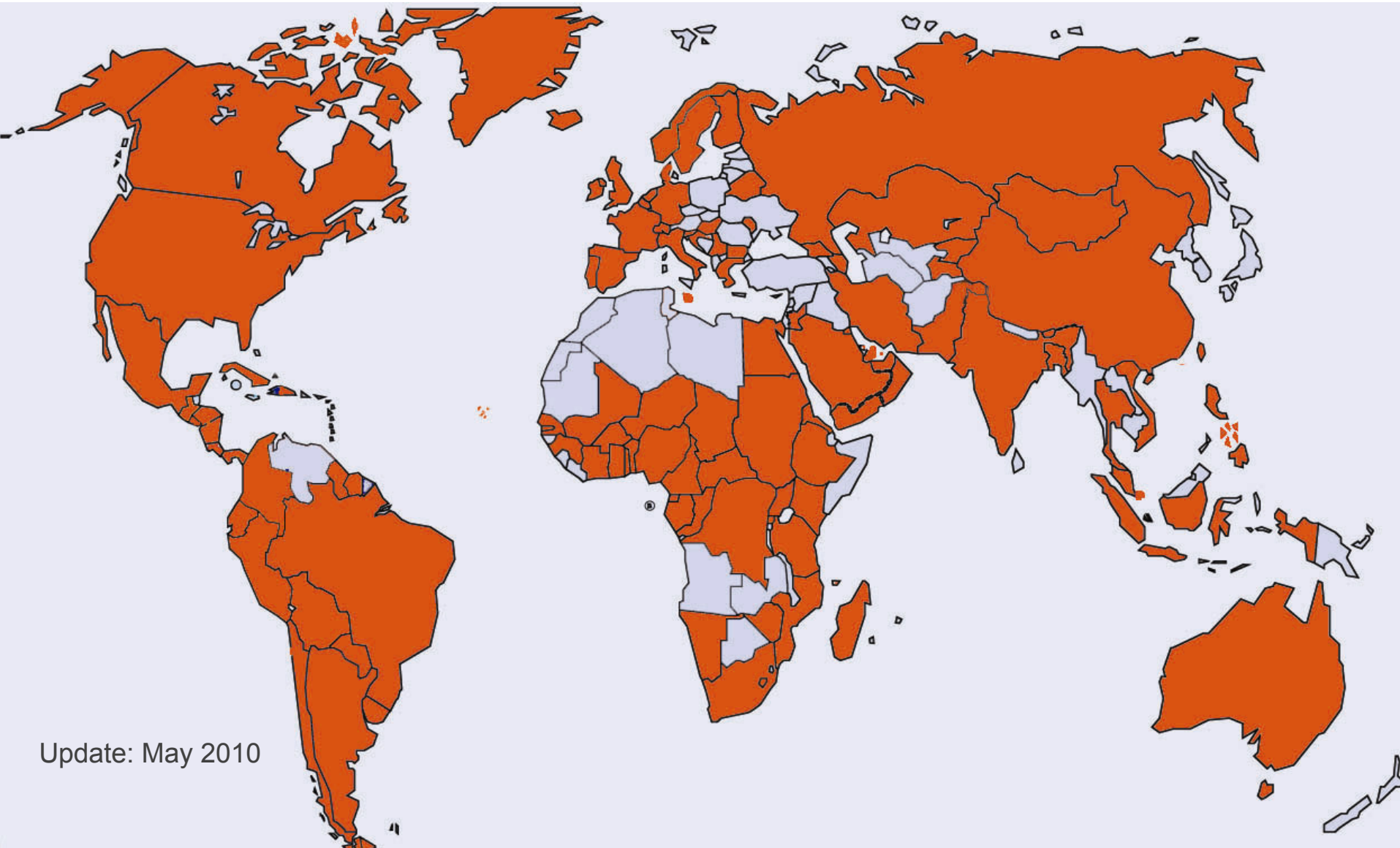
Northern Ireland

Russia

Republic of Ireland

123 countries committed to address HCAI
87% world population coverage

October 2005 – May 2010



Update: May 2010

Hand Hygiene National/Sub-national Campaigns
(April 2009, 38 campaigns)

Adoption and adaptation of Clean Care is Safer Care worldwide

The My Five Moments approach

Making it easier to

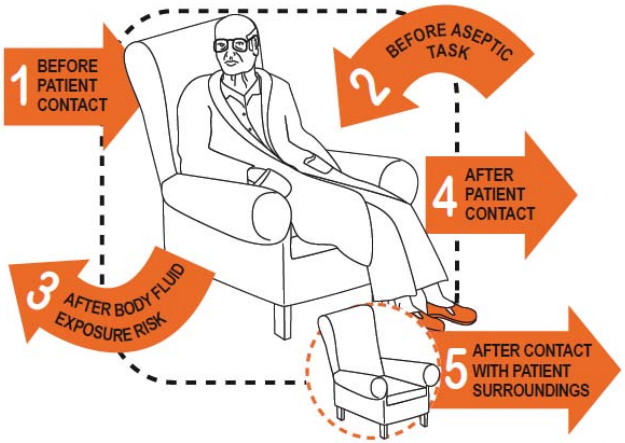
- **understand**
- **remember**
- **practice**

  the hand hygiene indications at the point of care

Sax H, Allegranzi B, Uçkay I, Larson E, Boyce J, Pittet D. *J Hosp Infect* 2007;67:9-21

NHS SCOTLAND

Your 5 moments for HAND HYGIENE



NHS SCOTLAND

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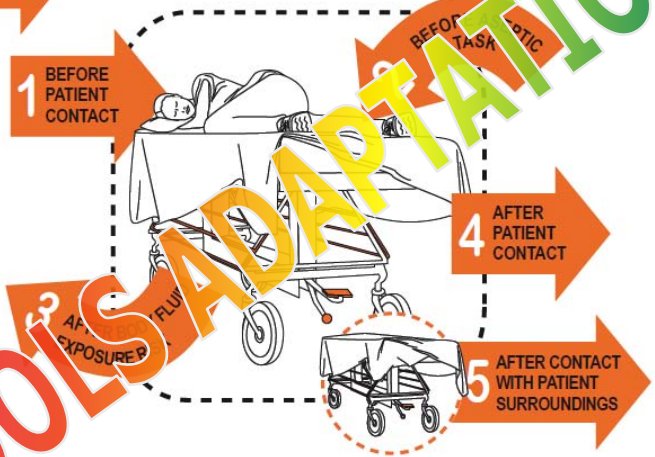

NHS SCOTLAND

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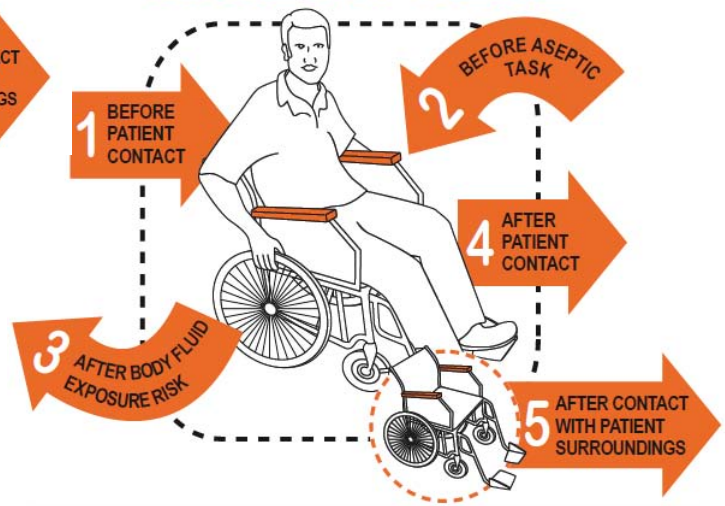
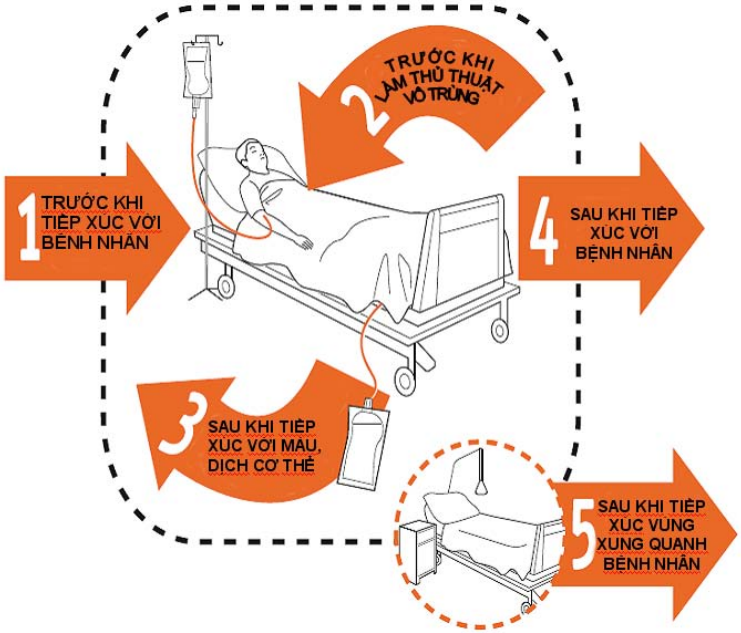
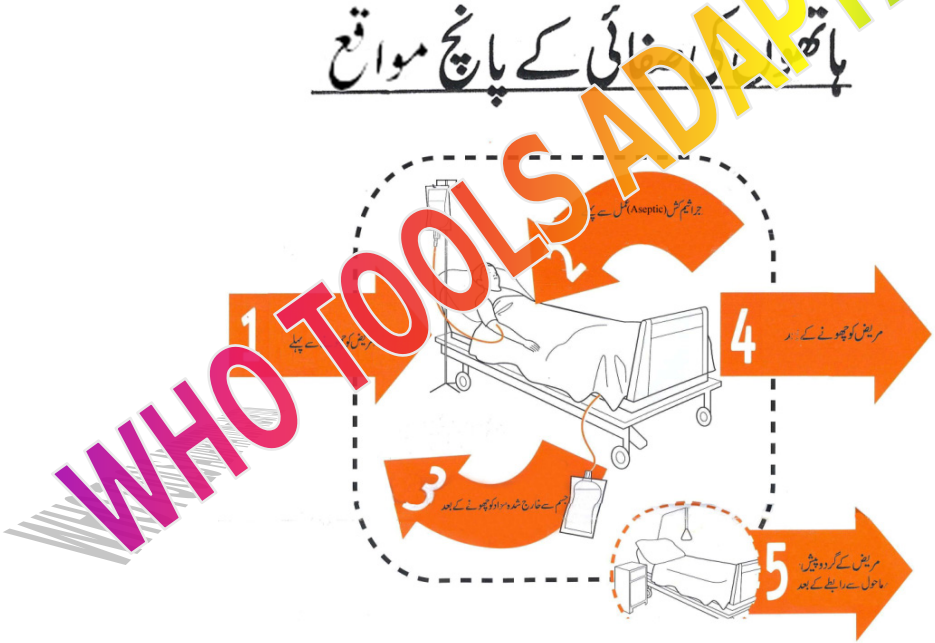
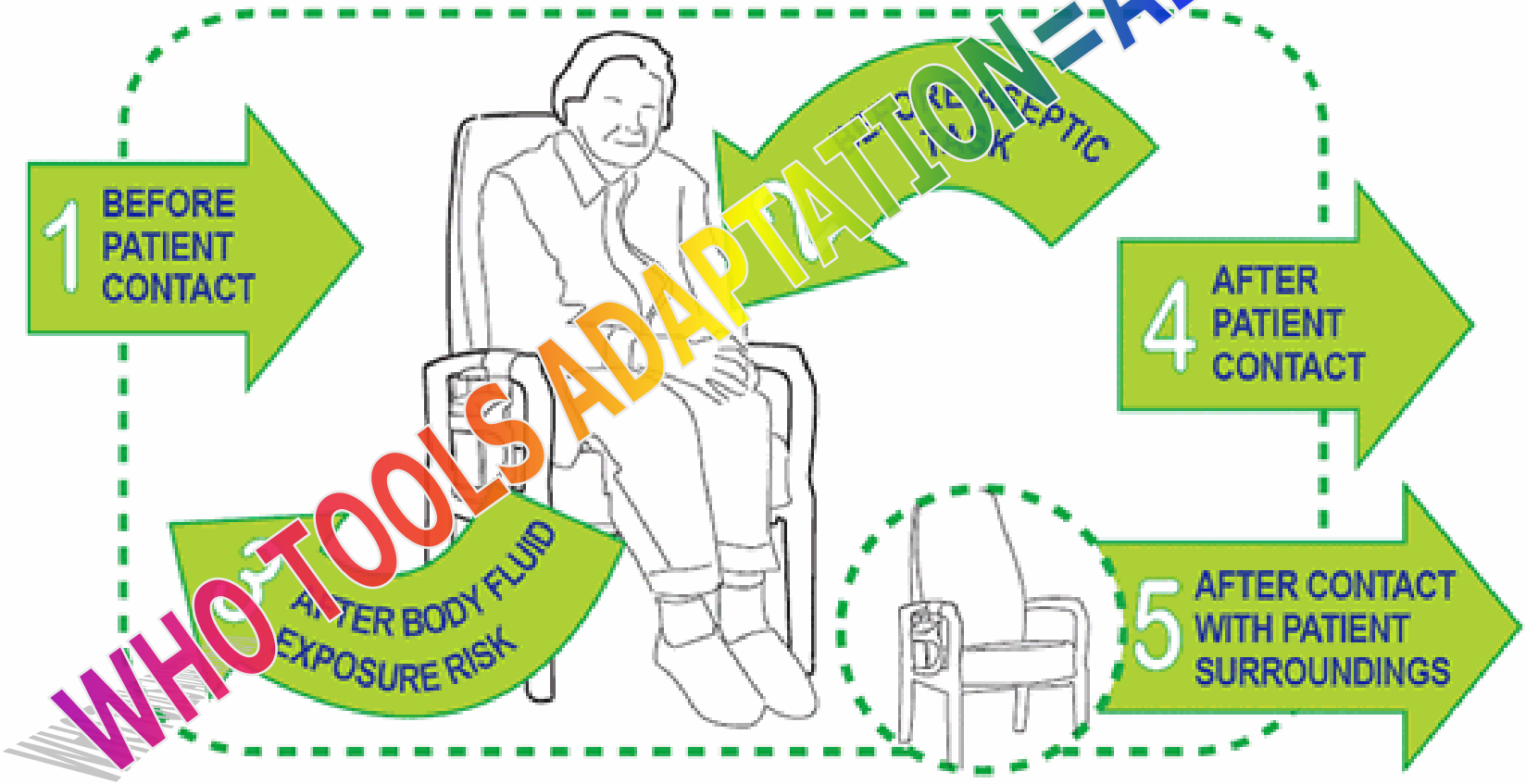






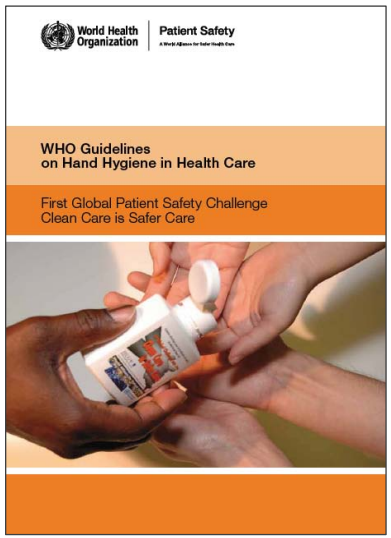
Your 5 moments for HAND HYGIENE



Based on WHO poster 'Your 5 Moments for Hand Hygiene' and reproduced with their kind permission

Implementation strategy and toolkit for the WHO Guidelines on Hand Hygiene in Health Care

Knowledge & evidence



Action

What is the WHO Multimodal Hand Hygiene Improvement Strategy?

Based on the evidence and recommendations from the WHO Guidelines on Hand Hygiene in Health Care (2009),

made up of

5 core components, to improve hand hygiene in health-care settings

ONE System change
Alcohol-based handrubs at point of care
and access to safe continuous water supply, soap and towels

+

TWO Training and education
Providing regular training to all health-care workers

+

THREE Evaluation and feedback
Monitoring hand hygiene practices, infrastructure, perceptions, & knowledge, while providing results feedback to health-care workers

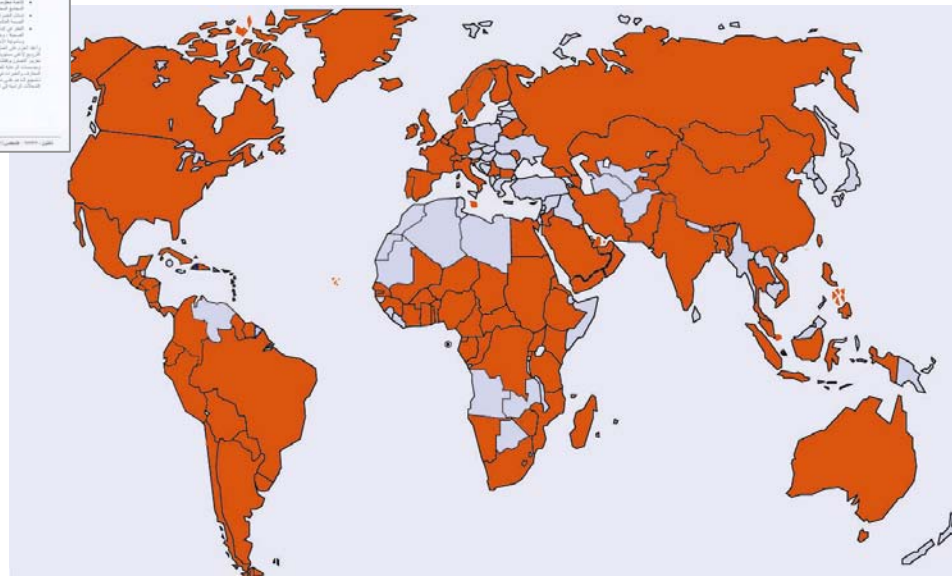
+

FOUR Reminders in the workplace
Prompting and reminding health-care workers

+

FIVE Institutional safety climate
Individual active participation, institutional support, patient participation

From country pledges



.. to patient point of care

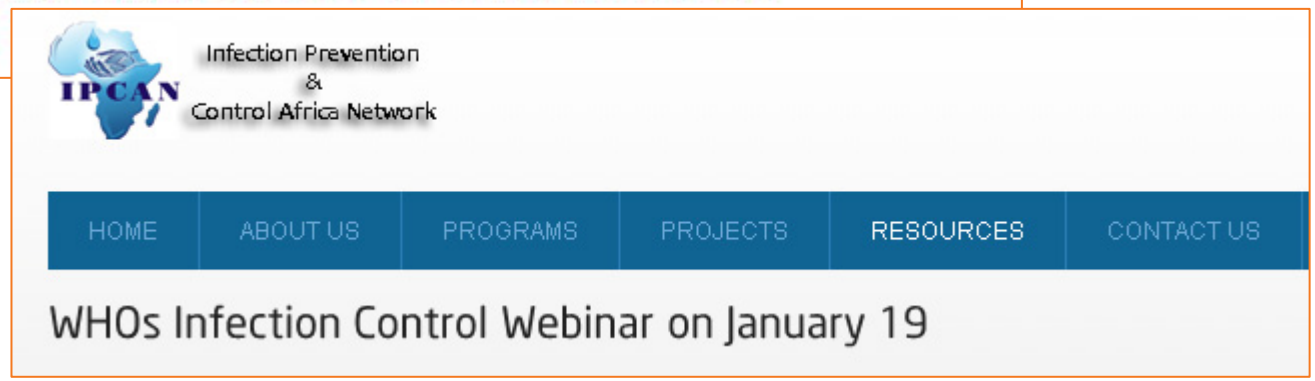
Clean Care is Safer Care

The First Global Patient Safety Challenge

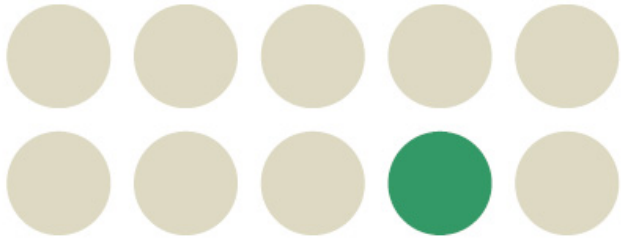
SAVE LIVES: Clean Your Hands
5 May 2009–2020

Through an annual day focused on hand hygiene improvement in health care, this initiative promotes continual, sustainable best practice in hand hygiene at the point of care in all health-care settings around the world

Save Lives: Clean YOUR Hands – our stakeholders around the world

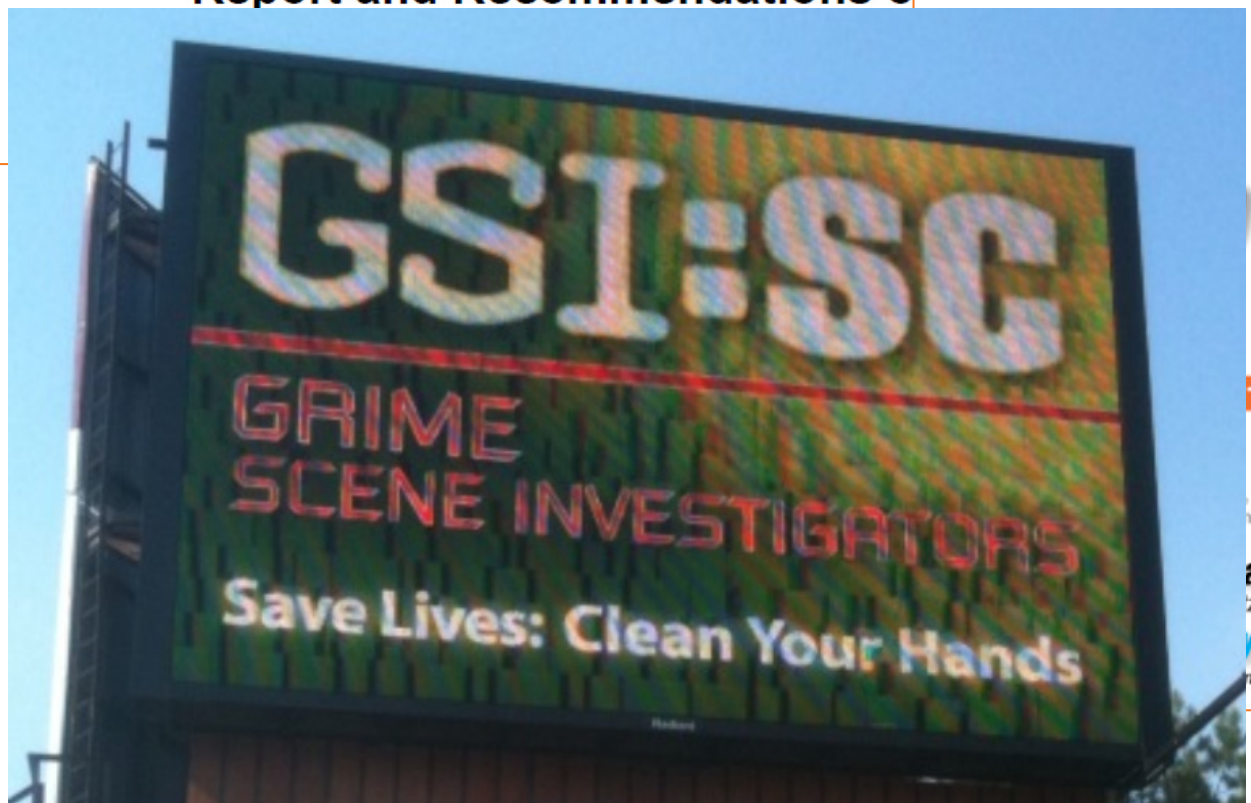


Save Lives: Clean YOUR Hands – our stakeholders around the world



MHC

Report and Recommendations o



247 people die every day in the U.S.

. . . from health care-associated infection (HAI). Hospital infections kill more Americans every year than AIDS, breast cancer, and auto accidents **COMBINED**! *Where's the outcry?!*

& Join us!

Dartmouth-Hitchcock
MEDICAL CENTER

fection deaths

an Your Hands Press Conference

zerland • *Including 2-Year Hand Hygiene Study Results*

y 5, 2010 • 9:30 AM

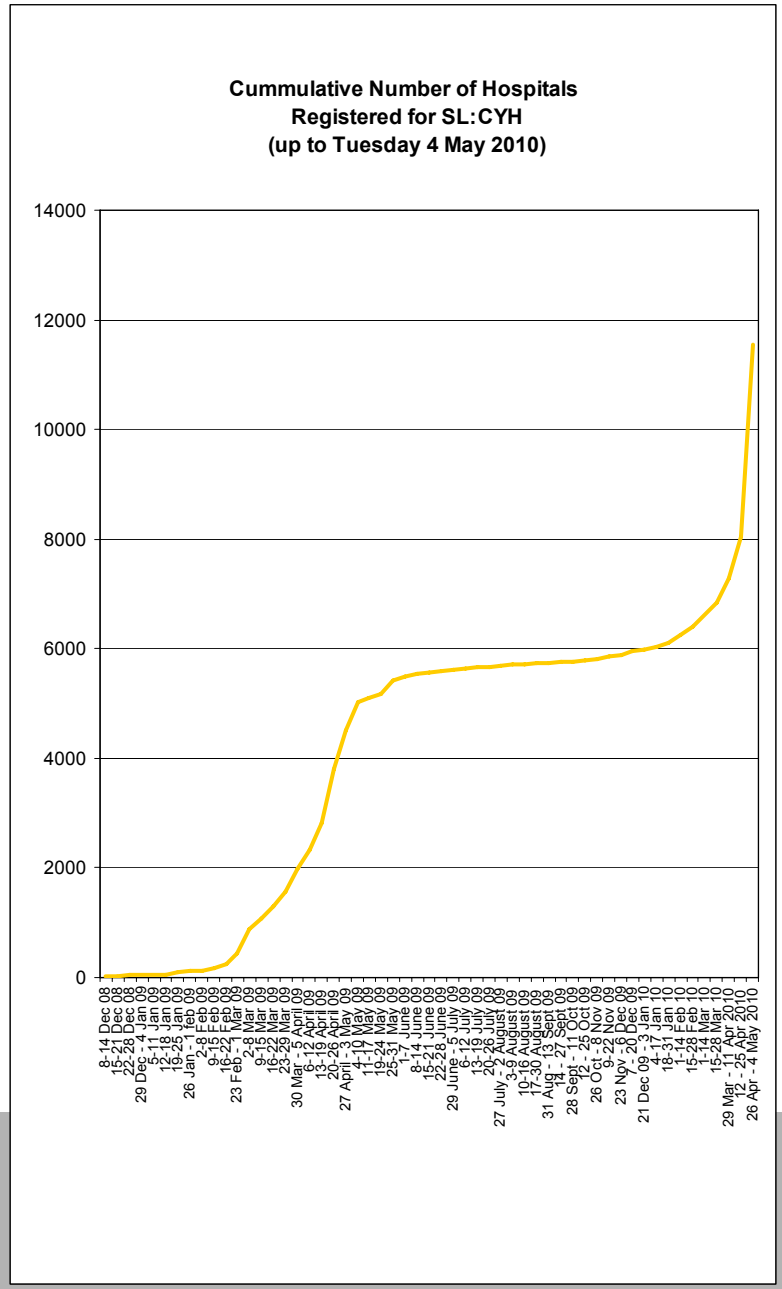
ng • *112 W. Cabrillo, Santa Barbara* • *See Map Page 2*

The countdown started in January 2010….

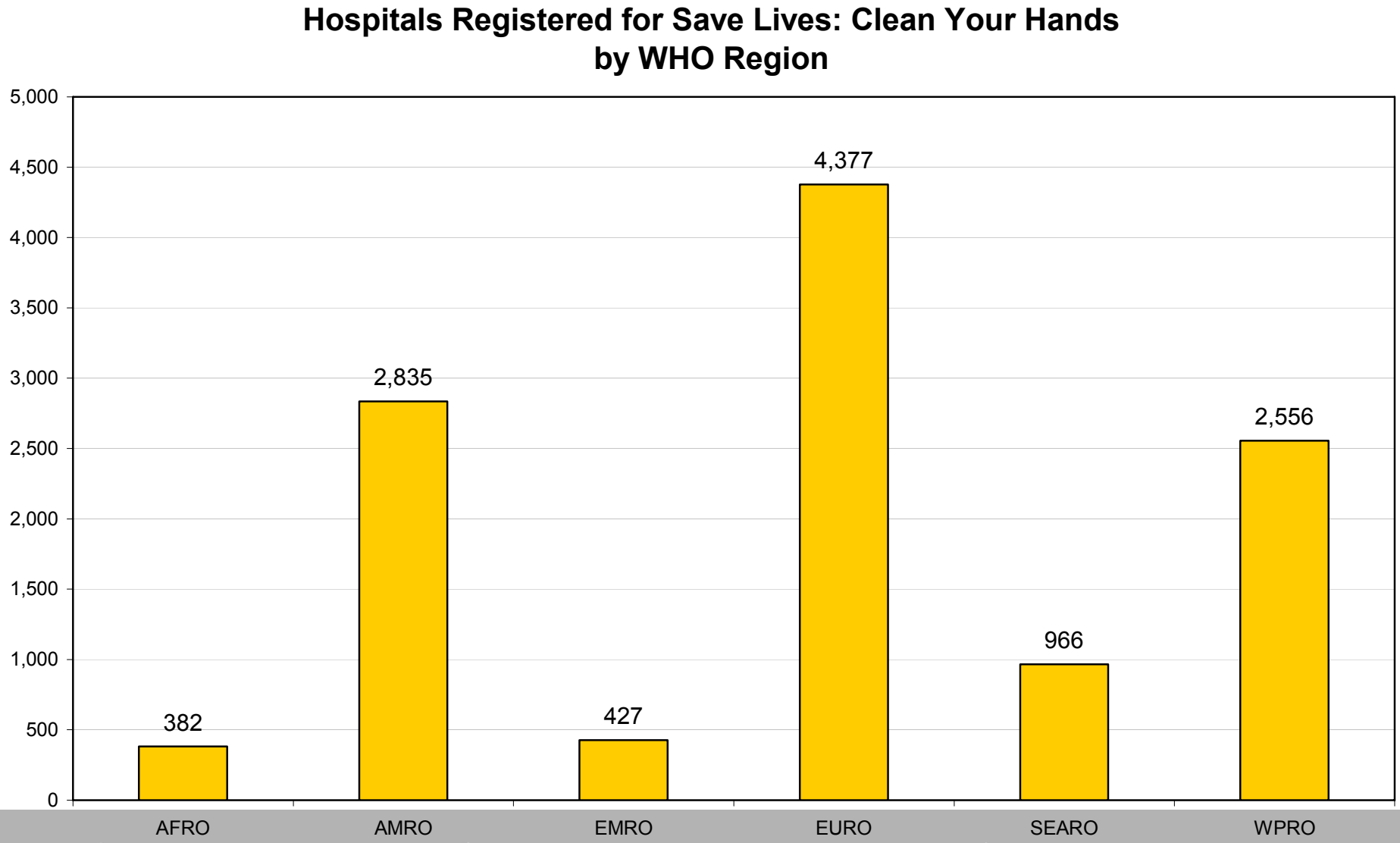
10 000 hospitals registered as of 4 May 2010…

Facilities registered – update on 4 May 2010

The Global Impact – SL:CYHs



Hospitals registered for SL:CYHs by Region



Save Lives: Clean Your Hands

5th May 2009 – 5th May 2010

Register your health-care facility and encourage others to show commitment by signing up now on:

http://www.who.int/gpsc/5may

Clean Care is Safer Care

Global Patient Safety Challenge

Evidence of successful implementation of the solution worldwide…

Objectives of the Challenge

Burden of HCAI Stakeholders' engagement	1. Awareness
Country pledges National campaigns	2. Mobilising nations
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Testing the *WHO Guidelines on Hand Hygiene in Health Care* in eight pilot sites worldwide

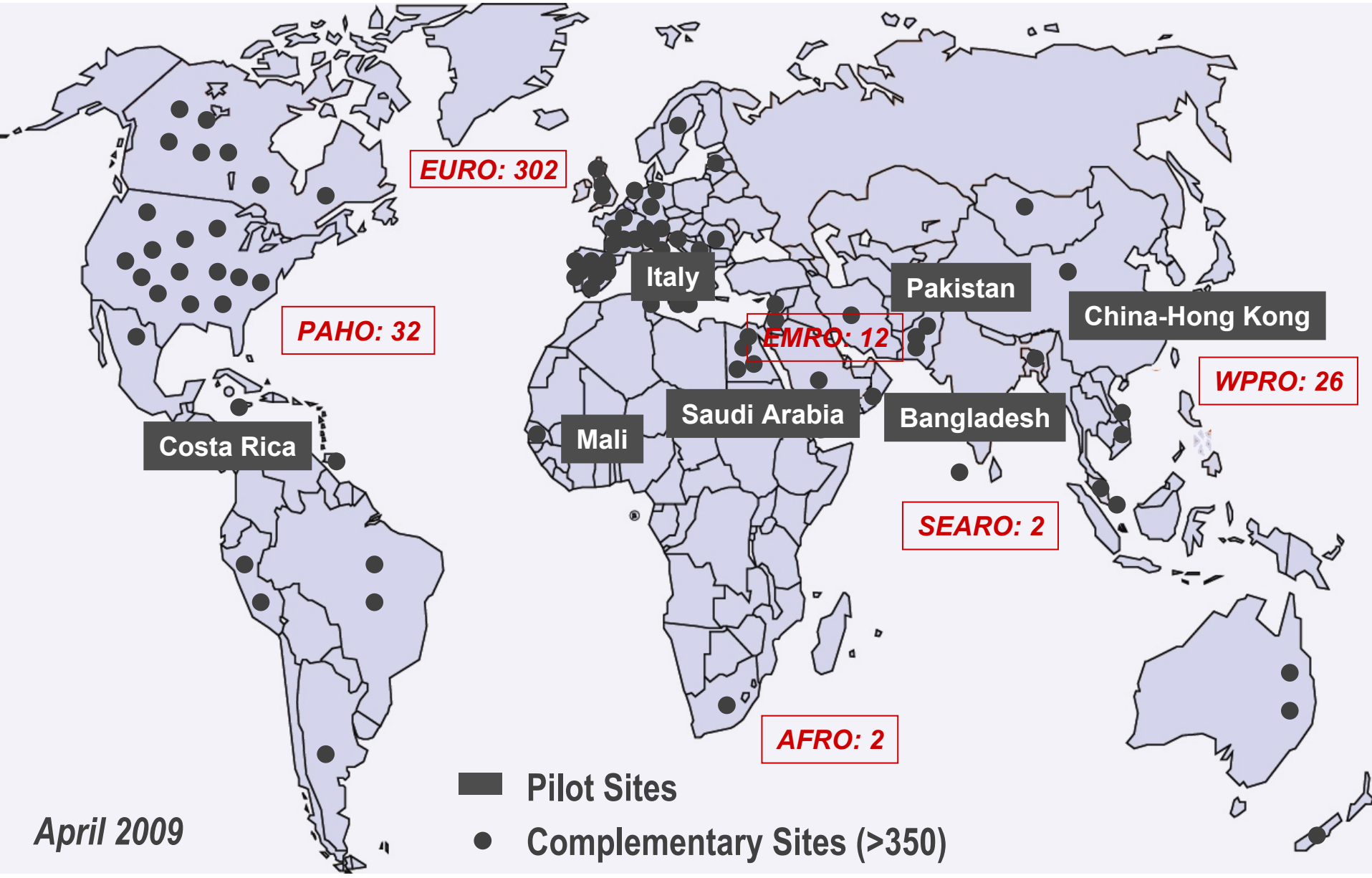
Hand hygiene is a simple and effective solution to reduce both the spread of infection and multiresistant germs, and to protect patients from health care-associated infection. The *WHO Guidelines on hand hygiene in health care* were developed with a global perspective to support hand hygiene promotion and improvement in health-care facilities worldwide. To translate the Guidelines into practice, an implementation strategy was developed to provide users with a ready-to-go approach to initiate hand hygiene promotion at facility level and improve compliance by health-care workers at the bedside.

Practical tools for implementation

The *WHO Multimodal hand hygiene improvement strategy* consists of five key components that need to be integrated together for successful implementation, including:

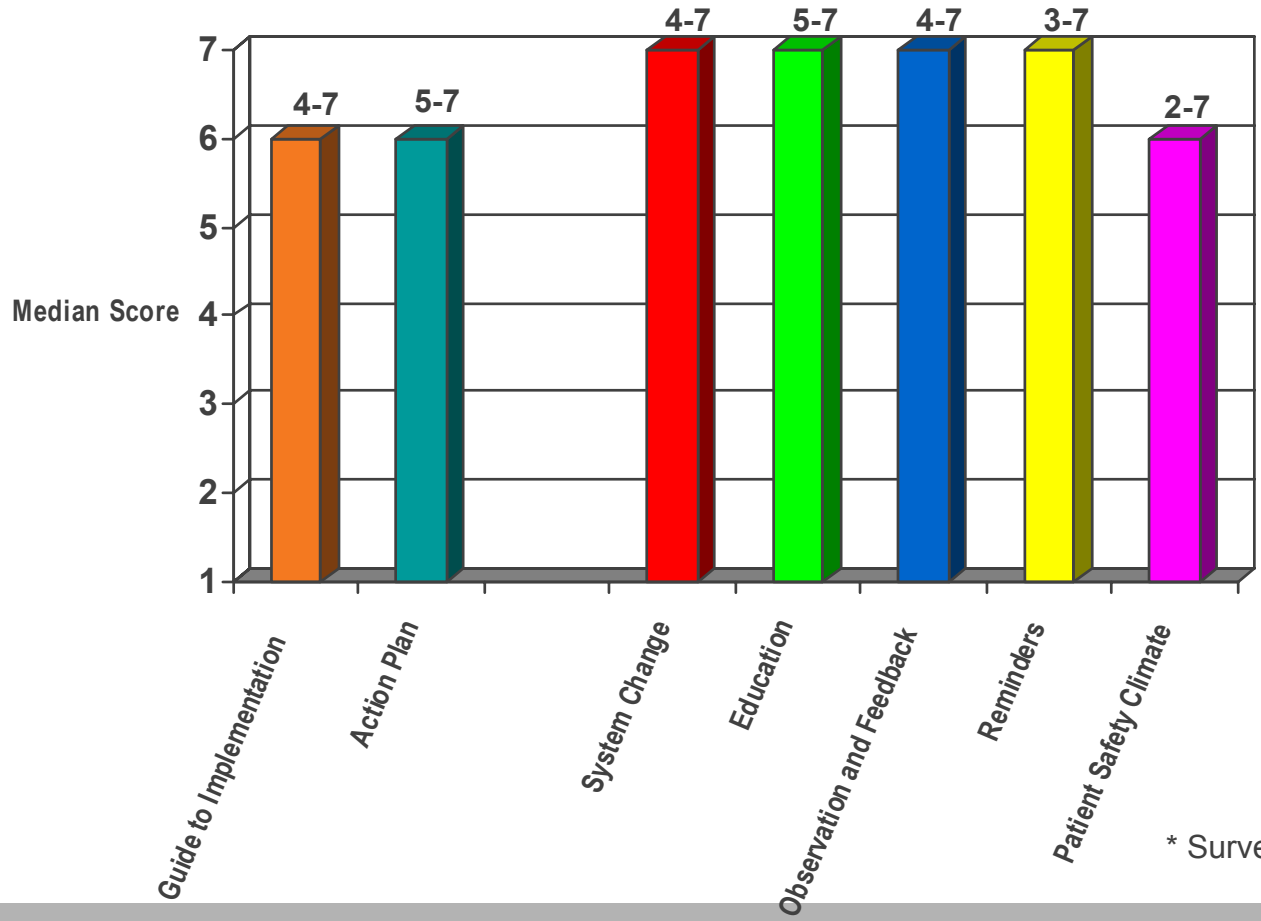
- system change: alcohol-based handrub at the point of care; access to a safe, continuous water supply, soap and towels;
- training and education;
- evaluation and feedback;
- reminders in the workplace; and
- institutional safety climate.

Field Testing of the WHO Guidelines on Hand Hygiene in Health Care (2006-2008)



Importance attributed to the elements of the WHO strategy to achieve hand hygiene improvement*

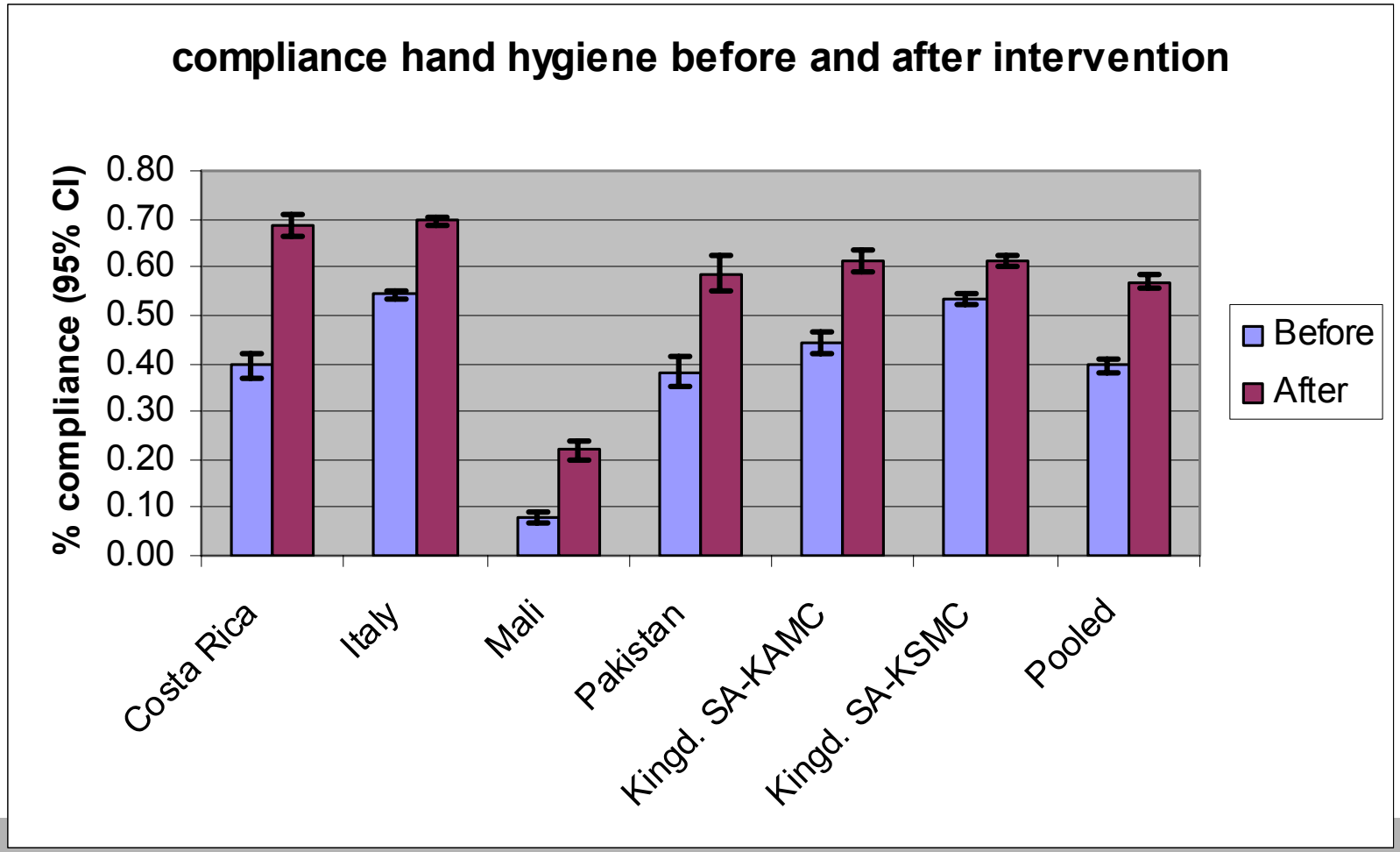
Not important 1 O-----O-----O-----O-----O-----O-----O 7 Very important



* Survey in 230 health-care facilities

Overall hand hygiene compliance improvement in pilot sites

Baseline: 23 596 opportunities
Follow-up: 24 627 opportunities



Main results from pilot sites

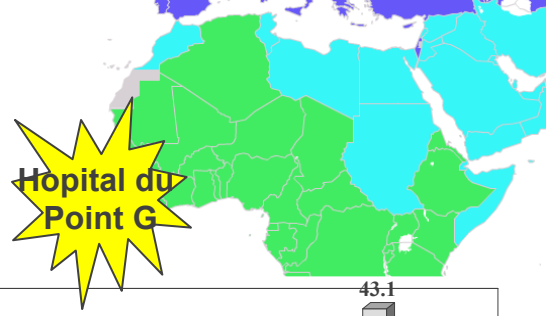
- **Significant increase in hand hygiene compliance** from 39.6% at baseline to 56.9% (pooled means) at follow-up with improvement across all professional categories;
- **Preferred recourse to alcohol-based handrubs** in all sites (49.1% of all hand hygiene actions at baseline vs 70.6% at follow-up), with local production of a low-cost WHO formulation in 6/8 sites and national scale-up in 5/6 sites;
- **Improvement in health-care workers' perception and knowledge** about the importance of health care-associated infection and hand hygiene;
- Evidence of creation or strengthening of an **institutional safety climate**;
- Demonstration of implementation **feasibility and adaptability of the WHO Multimodal Hand Hygiene Improvement Strategy** and its toolkit, considered as successful model also for other infection control interventions

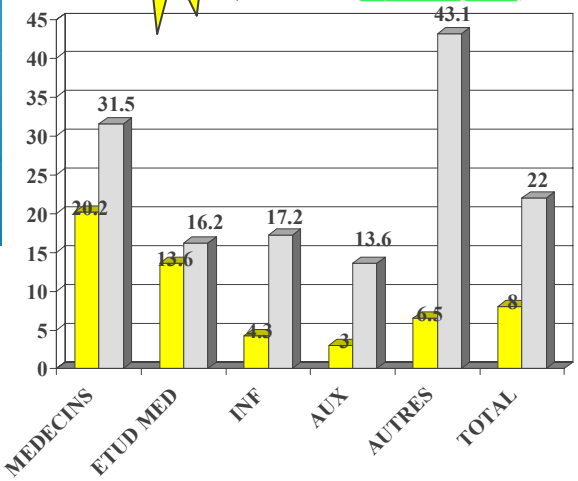
WHO-RECOMMENDED HANDRUB PRODUCTION IN 11 PILOT SITES

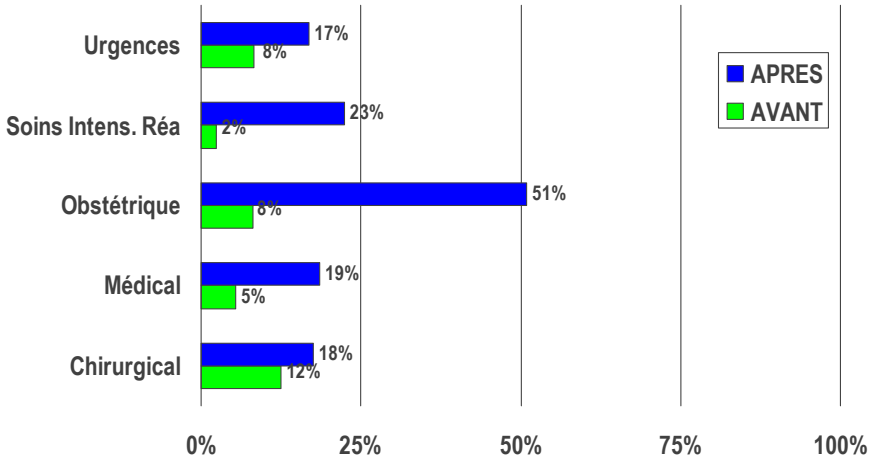
- Production at hospital level in 7/11
- Production volumes: 10-600,000 litres/month
- Cost: US$ 0.30-0.50 per 100 ml
- Optimal quality control results in all sites
- Stability at tropical temperatures (up to 19 months)
- Optimal tolerability and acceptability by HCWs
- Scale-up to national production in 5 sites

Mali, AFRICA

- Full implementation of the WHO strategy at Hôpital du Point G, Mali
- Increase of HH compliance from 8% to 22%
- HAI prevalence: from 18.7% to 15.3%
- Local production of 3100 pocket bottles of the WHO formulation at the price of 0.30 $US per 100 ml
- Ministerial engagement for national scale up in 2009



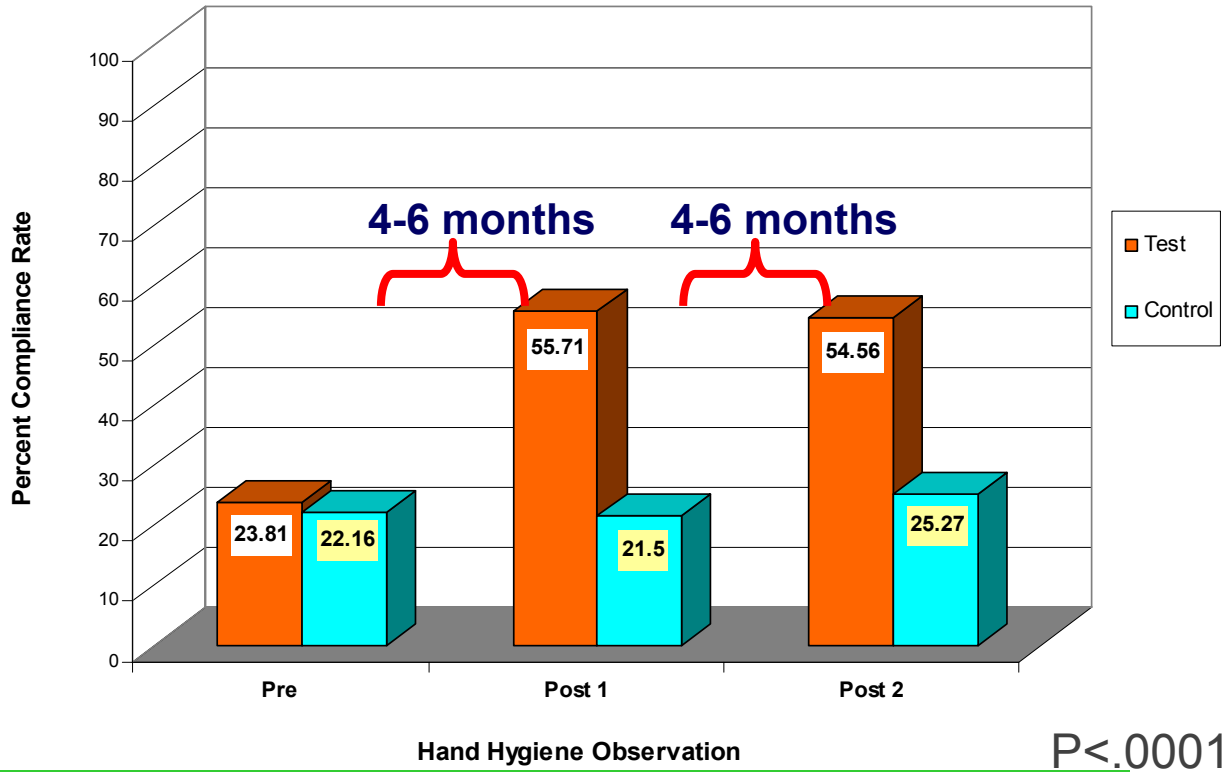




Yaoundé 4 September 2008, 27 countries signed

Hong Kong: from system change to behavioural change

Overall Hand Hygiene Compliances of the 4 Pilot Hospitals in Hong Kong



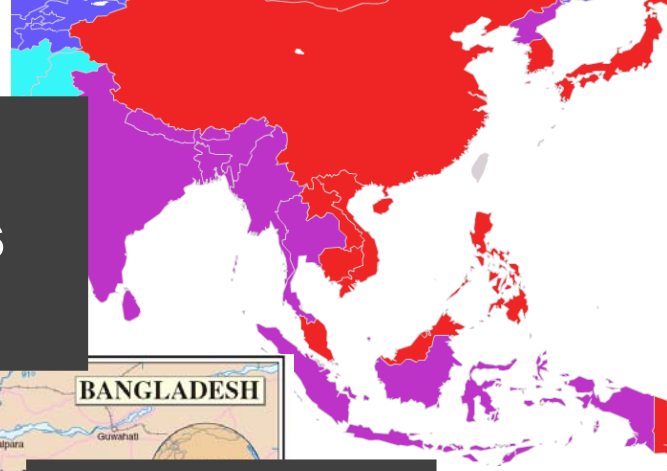
P<.0001

In one hospital, ~ US$ 15,000 sparing in 2007 as compared with 2006

Bangladesh

Pilot testing at Chittagong Medical Hospital:

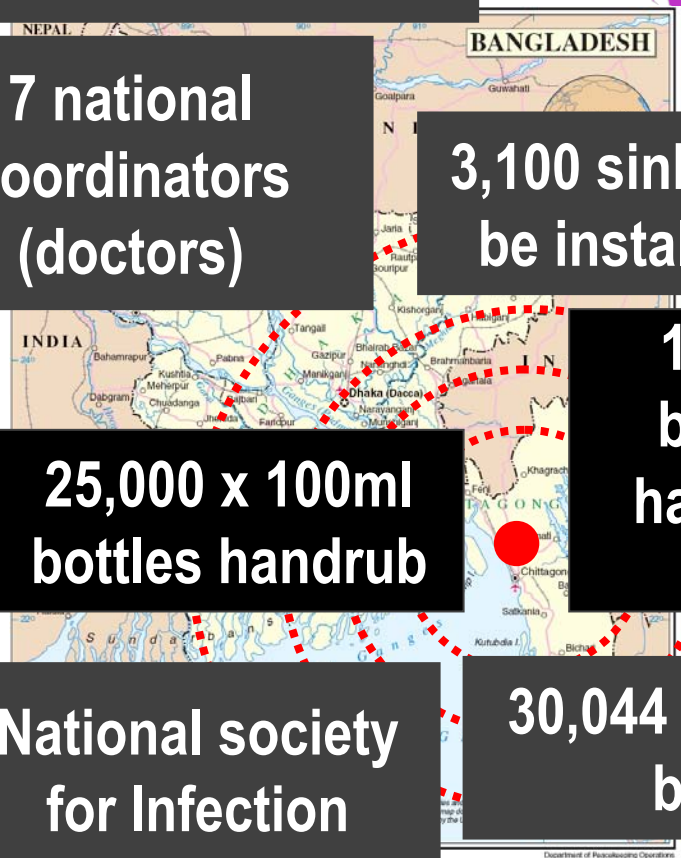
- New ICC established
- Low-cost (US$ 0.30 per 100 ml) local production of WHO formulation
- Sink installation and improved water supply
- Compliance at follow-up: 65.3%
- Ministry of Health is planning national scale-up
- "Institutionalization of infection control and hand hygiene"



6 national coordinators (nurses)

7 national coordinators (doctors)

3,100 sinks to be installed



110,000 x 1L bottles WHO hand rub to be produced

25,000 x 100ml bottles handrub

National society for Infection Control launched

30,044 in-patient beds

Implementation of the WHO strategy

Key success factors

- System change, especially low-cost local production of the WHO formulations and including evidence on good tolerability
- Strong support by the facility directorate and leads
- Effective local coordination
- Strong support by the national authorities and WHO office
- Education, the component that was most widely sustainable
- The multimodal approach of the strategy and the step-wise action plan

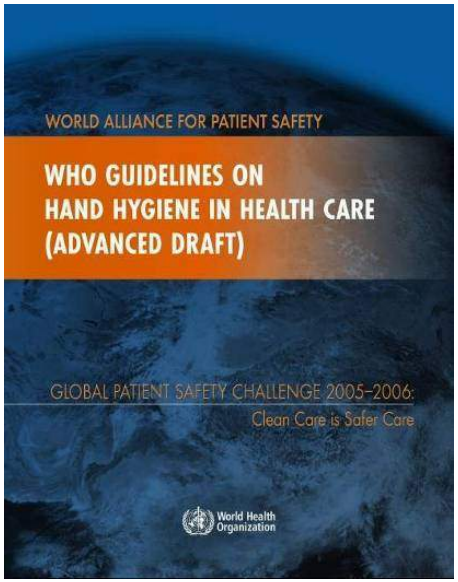
Indicators of long-term sustainability in pilot sites (2 years follow-up)

- Extention hospital-wide
- Renewed and/or mandatory educational activities
- Poster refreshment (with poster competitions in 2 sites)
- Continuation of hand hygiene compliance monitoring at least in some wards (6/8) or alcohol-based handrub consumption monitoring
- National scale-up (5/5; 3 sites were in countries with existing national campaigns)
- Catalytic influence on other countries in the region

Barriers to implementation and to long-term sustainability

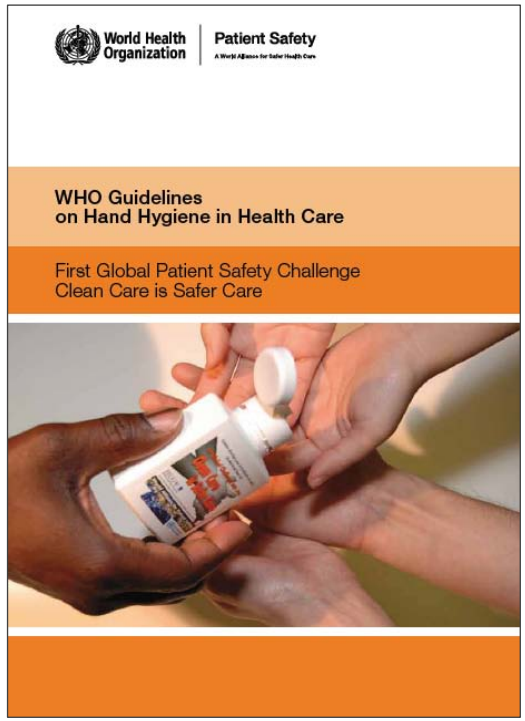
- Resistance to improvement by doctors
- Lack of human resources, including to continue hand hygiene compliance monitoring
- Lack of funding for continuous provision of alcohol-based handrubs
- High staff turnover
- Work overload and understaffing
- Coexistence of different cultures
- Discontinuation of support by leaders

Based on testing: finalization of the WHO Guidelines on Hand Hygiene in Health Care



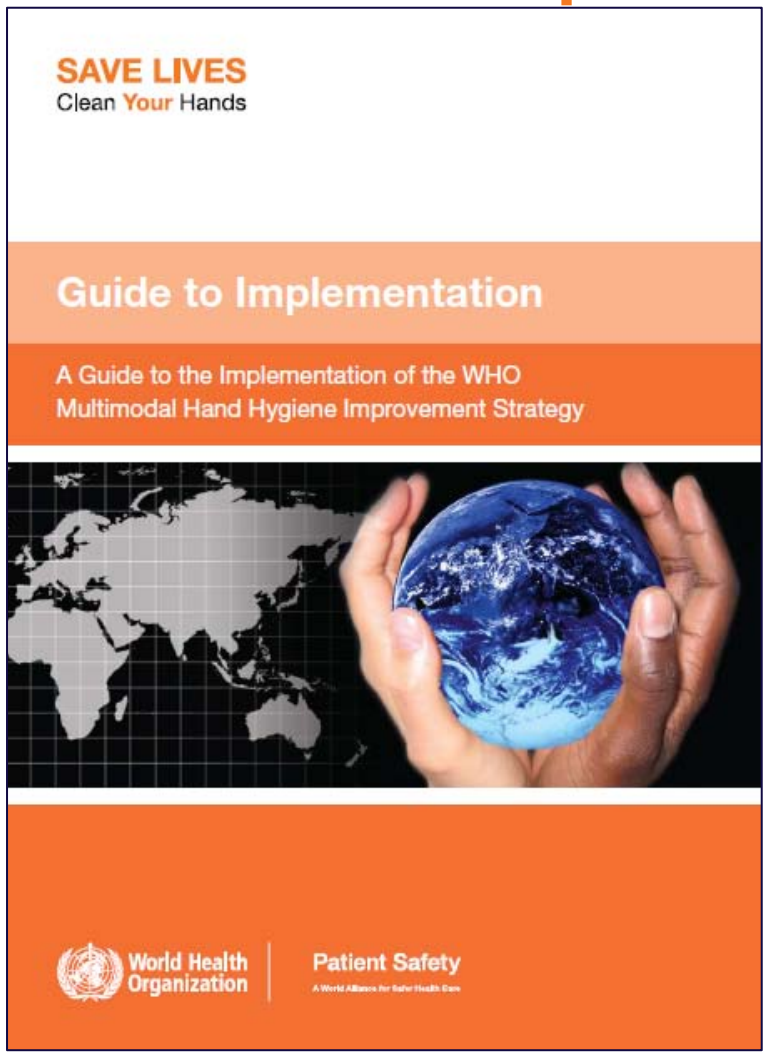
ADVANCED DRAFT
April 2006

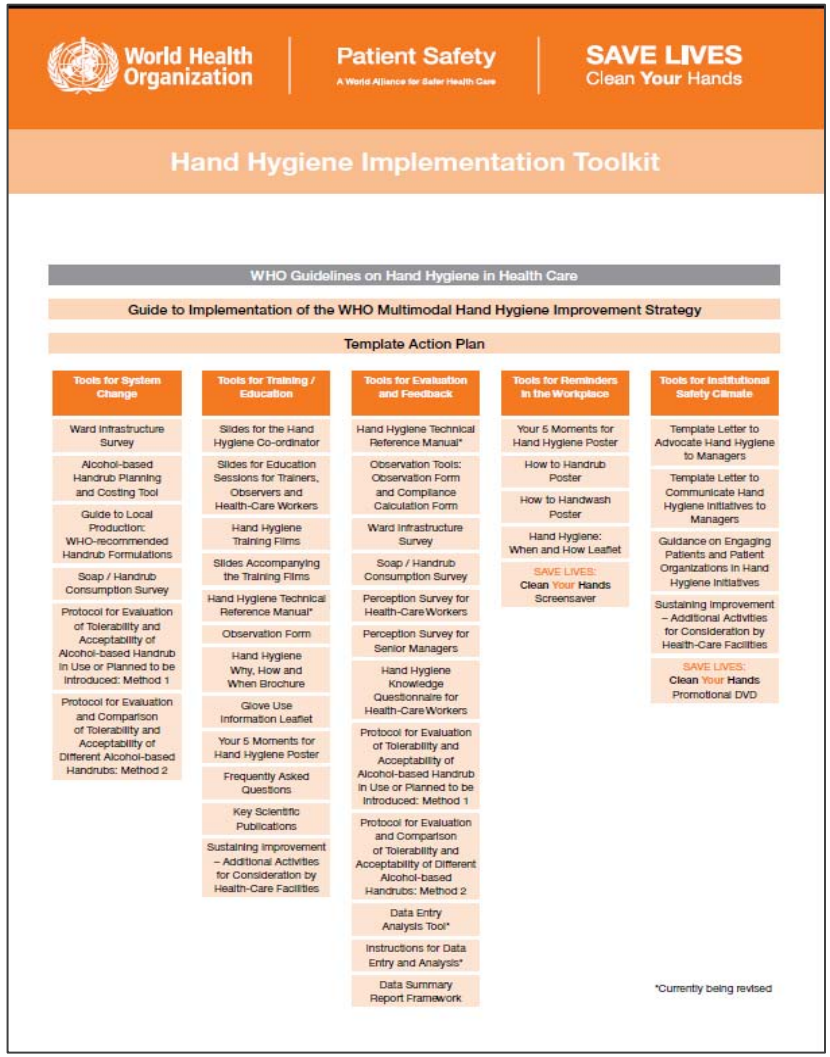
- Evidence update
- Lessons learned from validation, testing and field implementation



FINAL VERSION
May 2009

Guide to Implementation & tools to translate Guidelines into practice….





New tools to ensure sustainability of the solution worldwide…

Hand Hygiene Moment 1 - Global Observation Survey

- WHO calls health-care facilities to participate in a **global survey on or around 5 May 2010** by observing hand hygiene compliance with Moment 1 (before touching a patient) and submitting data to WHO

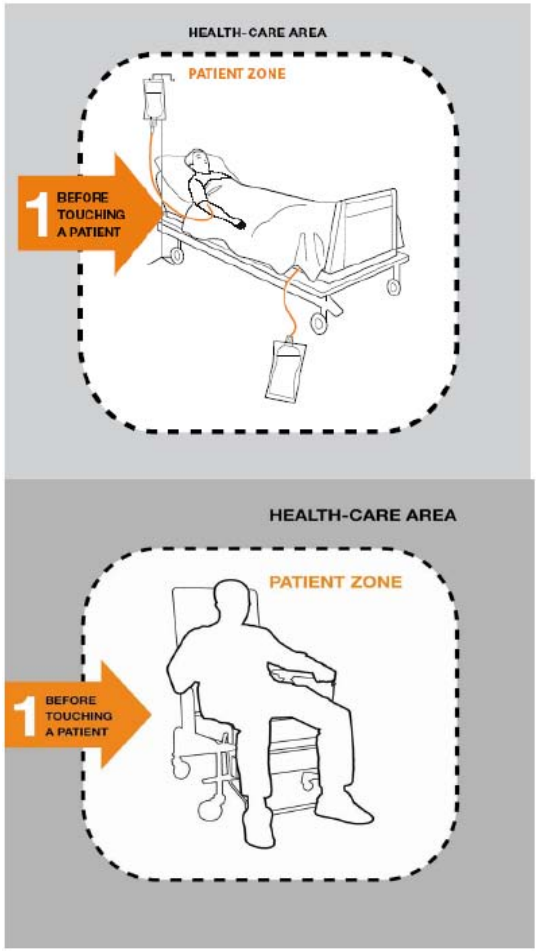
WHY?

- To motivate health-care workers to focus on taking action to improve and sustain hand hygiene, including the important indication for hand hygiene "before touching a patient"
- To assess health-care worker compliance with Moment 1
- To assess global compliance with Moment 1 through secured data collection and analysis

HOW?

- Undertaking the survey (hand hygiene observations) in your facility (facility-wide or in some specific areas/departments) – **You are still in time!**
- Using the new Hand Hygiene Moment 1 Observation Form and the Hand Hygiene Moment 1 - Global Observation Survey Instructions available at http://www.who.int/gpsc/5may/moment1/en/index.html

Hand Hygiene Moment 1 Observation Form: a simple way to monitor one of the Five moments for hand hygiene



World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES — Clean Your Hands

Hand Hygiene Moment 1 Observation Form

(adapted from the original WHO 5 Moments "Observation Form")

Facility*:	**Period Number*:**		**Session Number*:**
Ward:	**Date:** (dd/mm/yy)	/ /	**Observer:** (initials)
Department*:	**Start/End time:** (hh:mm)	: / :	**Page N°:**
Country*:	**Session duration:** (mm)		**City*:**

Prof.cat			**Prof.cat**			**Prof.cat**			**Prof.cat**		
Total no. persons observed			**Total no. persons observed**			**Total no. persons observed**			**Total no. persons observed**		
Opp N°	**Indication**	**HH Action**	**Opp N°**	**Indication**	**HH Action**	**Opp N°**	**Indication**	**HH Action**	**Opp N°**	**Indication**	**HH Action**
1	bef-pat.	☐ HR ☐ HW ○ missed	1	bef-pat.	☐ HR ☐ HW ○ missed	1	bef-pat.	☐ HR ☐ HW ○ missed	1	bef-pat.	☐ HR ☐ HW ○ missed

Available in English, French and Spanish at http://www.who.int/gpsc/5may/moment1/en/index.html
In Italian at http://asr.regione.emilia-romagna.it/

Our 5 May 2010 surprise gift!!!

The Hand Hygiene Self-assessment Framework

A validated and systematic tool to obtain a situation analysis of hand hygiene promotion and practices and identify the level of progress within your own health-care facility

Hand Hygiene Self-Assessment Framework

- Validated and systematic tool to obtain a situation analysis of hand hygiene promotion and practices and identify the level of progress within your health-care facility

WHY?

- To assess the level of progress of your health-care facility with regards to infrastructures, resources, actions, commitment and achievements, in order to ensure optimal hand hygiene practices
- To facilitate development of an action plan for the facility's hand hygiene improvement programme
- To identify key issues requiring attention and improvement and to document progress over time through the repeated use of the Framework

HOW?

- Downloading the Framework at http://www.who.int/gpsc/5may/en/ from 5 May 2010 onwards
- Completing the Framework and calculating the score to identify the assigned level of hand hygiene promotion and practice in your health-care facility

How is the Framework structured?

■ The **Hand Hygiene Self-Assessment Framework** is divided into 5 components and 27 indicators.

■ The 5 components reflect the 5 elements of the **WHO Multimodal Hand Hygiene Improvement Strategy**

■ **Four levels** of hand hygiene promotion and practice:

- **Inadequate:** hand hygiene practices and hand hygiene promotion are deficient. Significant improvement is required.

- **Basic:** some measures are in place, but not to a satisfactory standard. Further improvement is required.

- **Intermediate:** an appropriate hand hygiene promotion strategy is in place and hand hygiene practices have improved. It is now crucial to develop long-term plans to ensure that improvement is sustained and progresses.

- **Advanced:** hand hygiene promotion and optimal hand hygiene practices have been sustained and/or improved, helping to embed a culture of safety in the health-care setting.

- **Leadership:** your facility is a reference centre and contribute to the promotion of hand hygiene through research, innovation and information sharing

Hand Hygiene Self-Assessment Framework 2010

1. System Change

Question	Answer	Score	WHO improvement tools
1.1 How easily available is alcohol-based handrub in your health-care facility? **Choose one answer**	Not available	0	→ Ward Infrastructure Survey → Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced: Method 1 → Guide to Implementation II.1
	Available, but efficacy[1] and tolerability[2] have not been proven	0	
	Available only in some wards or in discontinuous supply (with efficacy[1] and tolerability[2] proven)	5	
	Available facility-wide with continuous supply (with efficacy[1] and tolerability[2] proven)	10	
	Available facility-wide with continuous supply, and at the point of care[3] in the majority of wards (with efficacy[1] and tolerability[2] proven)	30	
	Available facility-wide with continuous supply at each point of care[3] (with efficacy[1] and tolerability[2] proven)	50	
1.2 What is the sink:bed ratio? **Choose one answer**	Less than 1:10	0	→ Ward Infrastructure Survey → Guide to Implementation II.1
	At least 1:10 in most wards	5	
	At least 1:10 facility-wide and 1:1 in isolation rooms and in intensive care units	10	

Hand Hygiene Self-Assessment Framework 2010

2. Training and Education

Question	Answer	Score	WHO improvement tools
2.1 Regarding training of health-care workers in your facility:			
2.1a How frequently do health-care workers receive training regarding hand hygiene[7] in your facility? **Choose one answer**	Never	0	→ Slides for Education Session for Trainers, Observers and Health-care Workers → Hand Hygiene Training Films → Slides Accompanying the Training Films → Slides for the Hand Hygiene Co-ordinator → Hand Hygiene Technical Reference Manual → Hand Hygiene Why, How and When Brochure → Guide to Implementation II.2
	At least once	5	
	Regular training for medical and nursing staff, or all professional categories (at least annually)	10	
	Mandatory training for all professional categories at commencement of employment, then ongoing regular training (at least annually)	20	
2.1b Is a system in place to ensure that all health-care workers complete this training?	No	0	
	Yes	20	
2.2 Are the following educational resources (or locally produced equivalents with similar content) easily available to all health-care workers?			→ Guide to Implementation II.2
2.2a 'WHO Guidelines on Hand Hygiene in Health-care: A Summary'	No	0	→ WHO Guidelines on Hand Hygiene in Health Care: A Summary
	Yes	5	
2.2b 'Hand Hygiene Technical Reference Manual'	No	0	→ Hand Hygiene Technical Reference Manual
	Yes	5	

Hand Hygiene Self-Assessment Framework 2010

3. Evaluation and Feedback

Question	Answer	Score	WHO improvement tools
3.1 Is a ward infrastructure survey regarding available hand hygiene products and facilities performed at least annually?	No	0	→ Ward Infrastructure Survey → Guide to Implementation II.3
	Yes	10	
3.2 Is health-care worker knowledge regarding indications and technique for hand hygiene assessed at least annually?	No	0	→ Hand Hygiene Knowledge Questionnaire for Health-Care Workers
	Yes	10	→ Five Standardized Questions → Guide to Implementation II.3
3.3 Indirect Monitoring of Hand Hygiene Compliance			
3.3a Is consumption of alcohol-based handrub monitored monthly (or at least every 3-5 months)?	No	0	→ Soap/Handrub Consumption Survey → Guide to Implementation II.3
	Yes	5	
3.3b Is consumption of soap monitored monthly (or at least every 3-5 months)	No	0	
	Yes	5	
3.3c Is alcohol based handrub consumption at least 20L per 1000 patient-days?	No	0	
	Yes	5	

Hand Hygiene Self-Assessment Framework 2010

4. Reminders in the Workplace

Question	Answer	Score	WHO improvement tools
4.1 Are the following posters (or locally produced equivalent with similar content) displayed?			→ Guide to Implementation II.4
4.1a Poster explaining the indications for hand hygiene **Choose one answer**	Not displayed	0	→ Your 5 Moments for Hand Hygiene (Poster)
	Displayed in some wards/treatment areas	15	
	Displayed in most wards/treatment areas	20	
	Displayed in all wards/treatment areas	25	
4.1b Poster explaining the correct use of handrub **Choose one answer**	Not displayed	0	→ How to Handrub (Poster)
	Displayed in some wards/treatment areas	5	
	Displayed in most wards/treatment areas	10	
	Displayed in all wards/treatment areas	15	
4.1c Poster explaining correct hand-washing technique **Choose one answer**	Not displayed	0	→ How to Handwash (Poster)
	Displayed in some wards/treatment areas	5	
	Displayed in most wards/treatment areas	7.5	
	Displayed at every sink in all wards/treatment areas	10	

Hand Hygiene Self-Assessment Framework 2010

5. Institutional Safety Climate for Hand Hygiene

Question	Answer	Score	WHO improvement tools
5.1 With regard to a hand hygiene team[10] that is dedicated to the promotion and implementation of optimal hand hygiene practice in your facility:			→ Guide to Implementation II.5
5.1a Is such a team established?	No	0	
	Yes	5	
5.1b Does this team meet on a regular basis (at least monthly)?	No	0	
	Yes	5	
5.1c Is there dedicated time available to organize a hand hygiene campaign and to teach hand hygiene principles	No	0	
	Yes	5	
5.2 Have the following members of the facility leadership made a visible commitment to support hand hygiene improvement?			→ Template Letter to Advocate Hand Hygiene to Managers → Template Letter to communicate Hand Hygiene Initiatives to Managers → Guide to Implementation II.5
5.2a Chief executive officer	No	0	
	Yes	10	
5.2b Medical director	No	0	
	Yes	5	
5.2c Director of nursing	No	0	
	Yes	5	

Hand Hygiene Self-Assessment Framework 2010

Interpretation: A Four Step Process

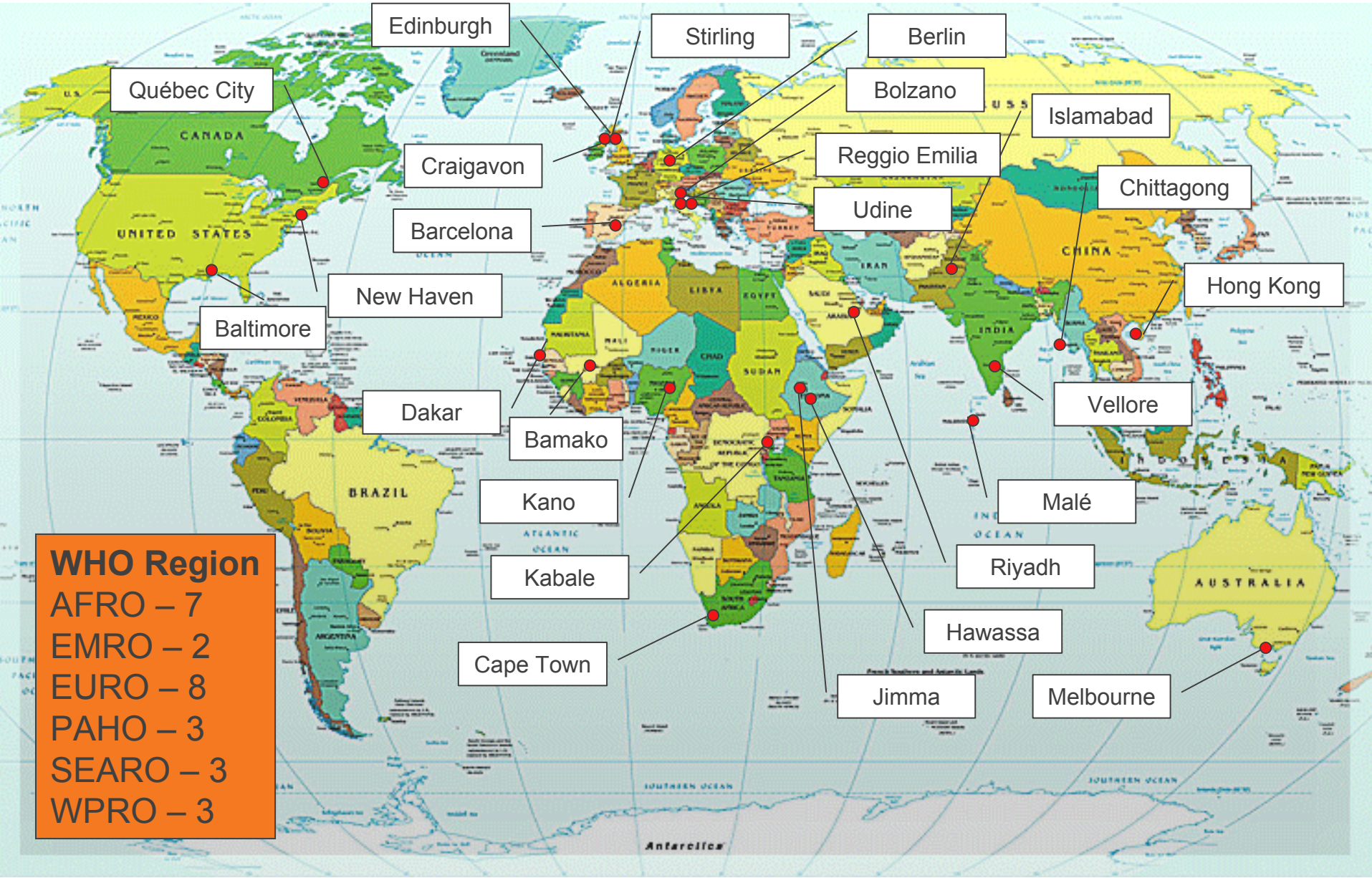
1.
Add up your points.

Score	
Component	**Subtotal**
1. System Change	
2. Education and Training	
3. Evaluation and Feedback	
4. Reminders in the Workplace	
5. Institutional Safety Climate	
Total	

2.
Determine the assigned 'Hand Hygiene Level' for your facility.

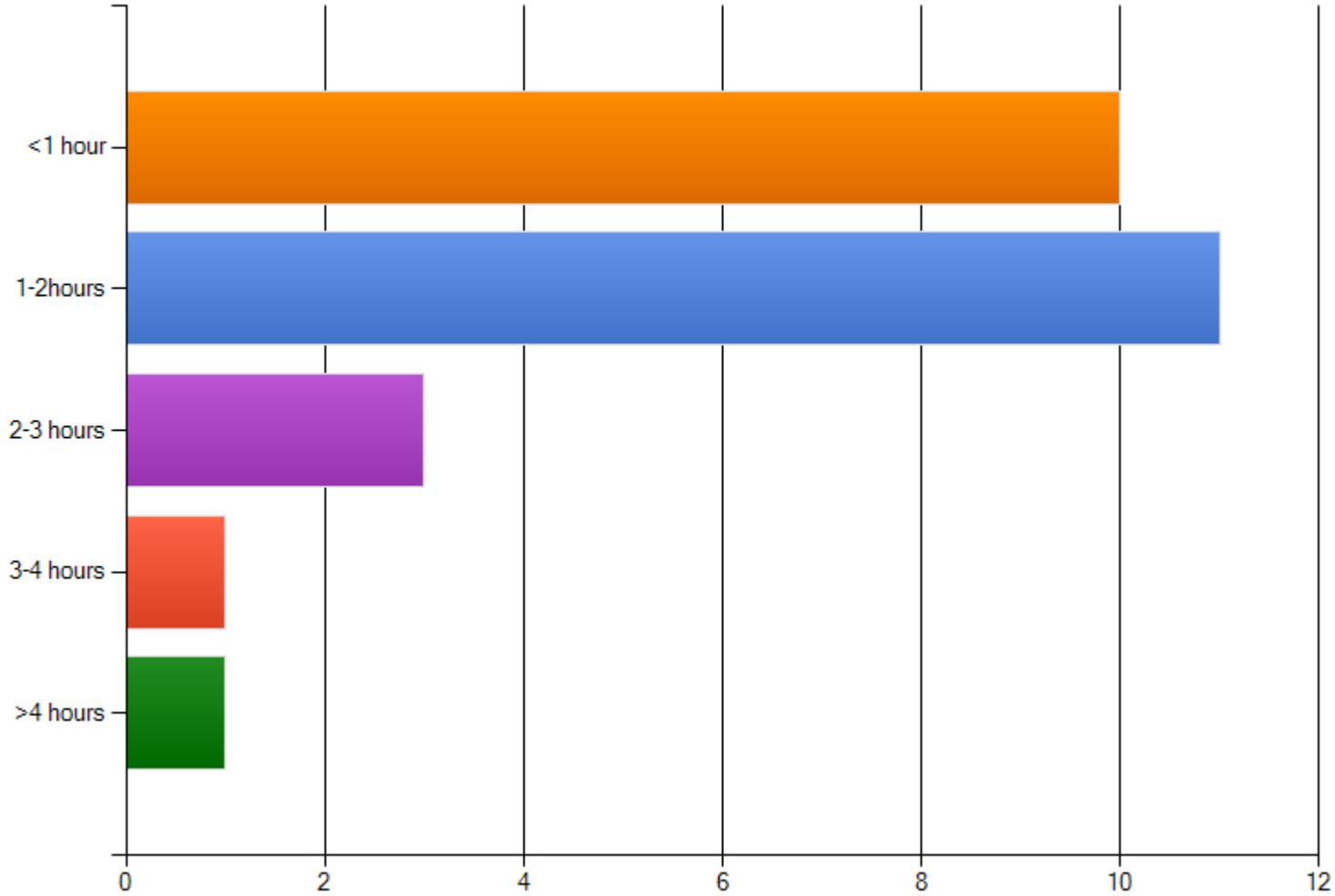
Total Score (range)	**Hand Hygiene Level**
0 - 125	Inadequate
126 - 250	Basic
251 - 375	Intermediate (or Consolidation)
376 - 500	Advanced (or Embedding)

Testing the framework usability- 26 Respondents



WHO Region
AFRO – 7
EMRO – 2
EURO – 8
PAHO – 3
SEARO – 3
WPRO – 3

How long do you estimate it took you to complete the Hand Hygiene Self-Assessment Framework?



General comments from testing sites

- Good document. We will use the system and repeat the scores. – South Africa

- It is an excellent tool for hand hygiene assessment in my institution. I firmly believe that it helps create a positive impact in hand hygiene promotion campaigns throughout the countries and world. – Bangladesh

- Very creative tool. It would be very good if the GPSC1 team would use it to reward hospitals (certificate, award…) according to their scores; this will create a sense of motivation amongst staff. – Saudi Arabia

- Even if the level of hand hygiene in our facility according to this assessment is basic, I enjoyed the self-assessment and will make efforts towards improvement. – Nigeria

- Excellent work!! Very good, seriously! Congratulations...It provides a very brief, but thorough overview of what a hospital has accomplished and areas for improvement...-Canada

Save Lives: Clean Your Hands

5th May 2009 – 5th May 2010

Register your health-care facility and encourage others to show commitment by signing up now on:

http://www.who.int/gpsc/5may

Clean Care is Safer Care

Global Patient Safety Challenge

Countries with hospitals celebrating 5 May 2010

… and certainly many more…. BUT please let us know at…http://www.who.int/gpsc/5may

Hand hygiene campaign achievements in Hong Kong – Celebration of 5 May 2010

- Alcohol-based handrub in all 37 hospitals
- Average hand hygiene compliance (35690 opp): 68.8%
- Major national event with Ministerial authorities and video-links with WHO Director General and University Hospitals of Geneva

Senegal, Africa: hand hygiene integrated in a national infection control programme in a country with limited resources

- **National action plan** (started in 2005)
- **Education:** train the trainers, HCW education (>3500 HCWs)
- **Hand hygiene programme**
- **IC committees**
(1 IC professional and surveillance system in each hospital)
- **National HAI prevalence survey**
- **New national policies for medical waste management**
- **New national policies on antibiotic use**
(launched on 5 May 2010)
- **5 May 2010:** national event with the participation of the Minister of Health and WHO representatives

More events on 5 May 2010 around the globe…

Senegal

Italy

Agenzia sanitaria e sociale regionale

L'AGENZIA
Chi siamo
Programma triennale
Link

AREE DI PROGRAMMA
Accreditamento e qualità

WHO SAVE LIVES: Clean Your Hands
5 maggio 2010: uniamoci e diamoci una mano
Giornata mondiale sull'igiene delle mani

WHO SAVE LIVES: Clean Your Hands invita le organizzazioni sanitarie a partecipare ad un momento di studio, in occasione del 5 maggio 2010 o nei giorni immediatamente vicini. Lo studio si espleterà attraverso l'osservazione dell'adesione al Momento 1 (prima del contatto con il paziente) e il successivo invio dei dati rilevati al WHO.
Nel documento pdf allegato sono disponibili informazioni e link utili.

More events on 5 May 2010 around the globe…

洗手能救命

►国大医院的手大使向病人灌输保持双手卫生的知识。（图／国大医院提供）

国大医院多管齐下，成功把“抗甲氧苯青霉素金黄色葡萄状球菌”（下面简称MRSA）在病房内传染的病例减少了40%。

为了配合5月5日的“手卫生日”，国大医院出动了“手大使”在医院各处及病房内，宣传正确洗手的方法，以及分发有教育宣传册子和消毒酒精给病人和访客。

Singapore

More events on 5 May 2010 around the globe…

Australia

5 May 2010 at University of Geneva Hospitals

World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES — Clean Your Hands

Inaugural infection control webinar series

A series of free monthly infection control webinar presentations will take place during 2010

Special hand hygiene focus to celebrate

SAVE LIVES: Clean Your Hands, 5-7 May 2010

http://www.who.int/gpsc/5may/news/webinars/en/index.html

Next lecture 06 May 2010, 3 pm (CET*)

Impact of hand hygiene improvement on healthcare-associated infection

(L. Grayson, Melbourne, Australia)

I wish you many more years of saving lives by keeping hands clean!

M. Chan, WHO Director General

Thank you for your commitment to the First Challenge and SAVE LIVES: *Clean Your Hands*

THANK YOU VERY MUCH TO

- The core team at WHO
  - *Benedetta Allegranzi*
  - *Sepideh Bagheri Nejad*
  - *Gabriela Garcia Castellijos*
  - *Wilco Graafmans*
  - *Claire Kilpatrick*
  - *Elizabeth Mathai*
- Key partners at WHO:
  - *Caroline Anne Coulombe*
  - *Laura Pearson*
  - *Liliana Pievaroli*
- The core team at HUG
  - *Homa Attar*
  - *Marie-Noelle Chraiti*
  - *Nadia Colaizzi*
  - *Francois Eggimann*
  - *Lucile Resal*
  - *Hugo Sax*
  - *Andrew Stewardson*
  - *Rosemary Sudan*

http://www.who.int/gpsc/en/