UNIVERSITÉ DE GENÈVE
FACULTÉ DE MÉDECINE

Madrid - Nov 2013

HUG
Hôpitaux Universitaires de Genève

The impact of hand hygiene in the prevention and control of multidrug-resistant bacteria

World Health Organization 1st Global Patient Safety Challenge

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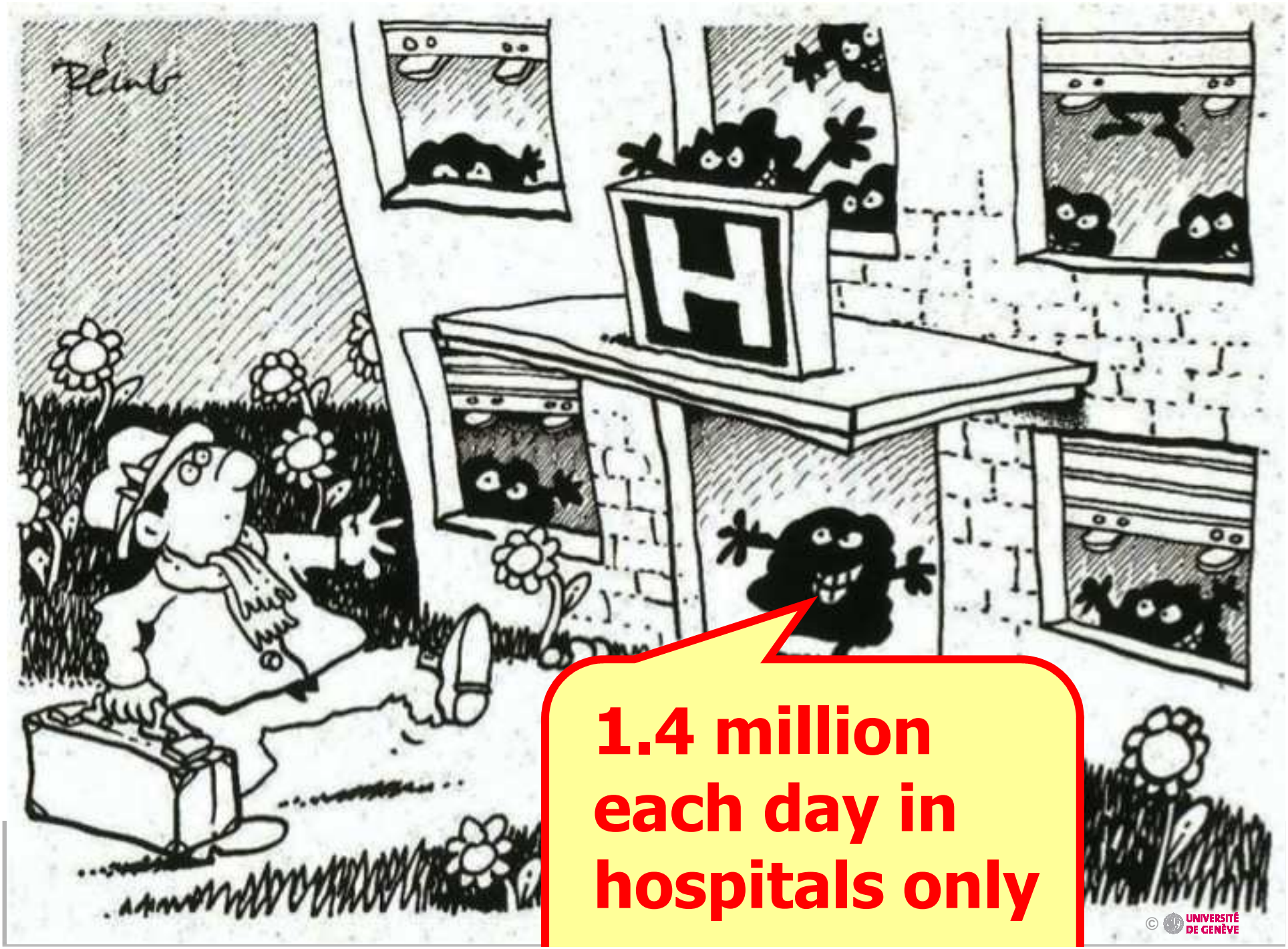
Lead Adviser, 1st Global Patient Safety Challenge,

& African Partnerships for Patient Safety,

World Health Organization (WHO) Patient Safety

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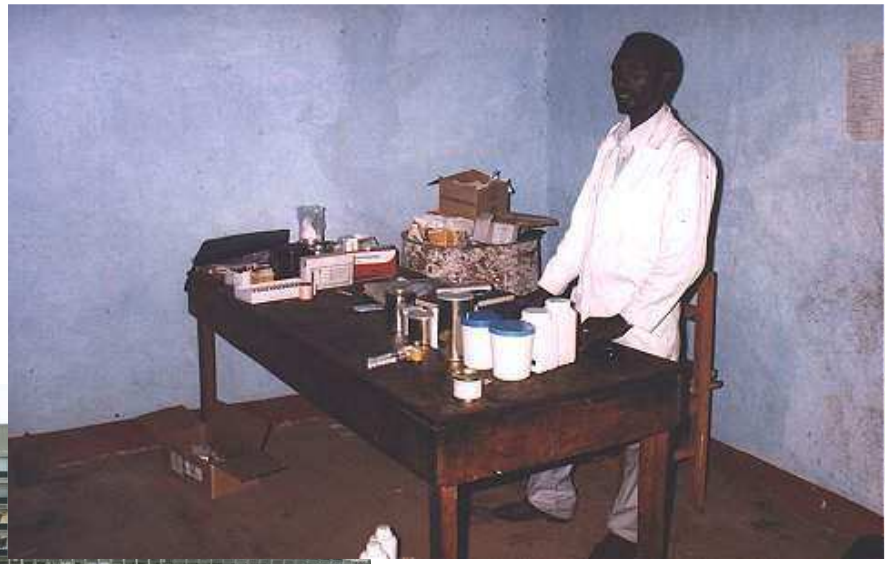
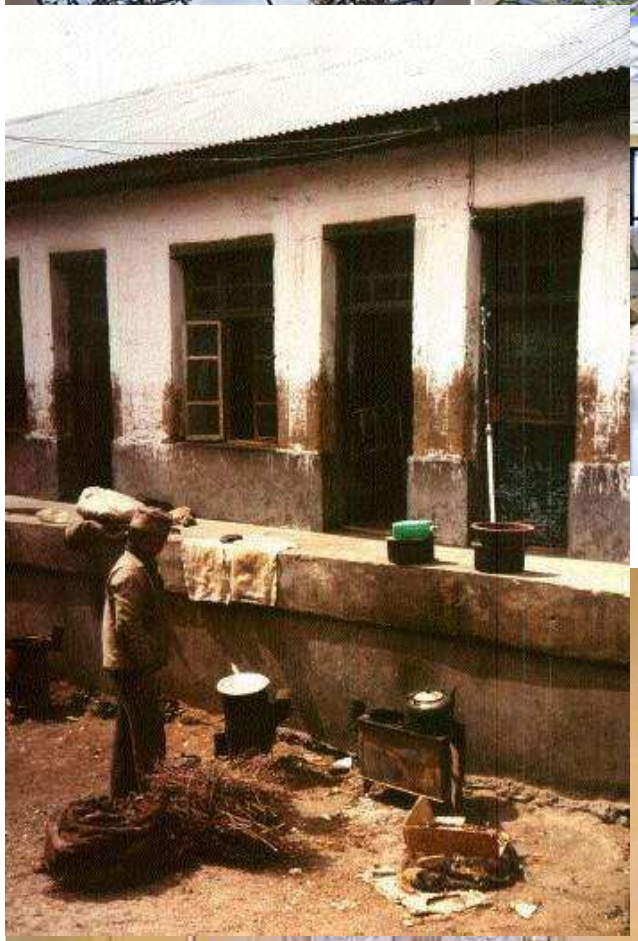
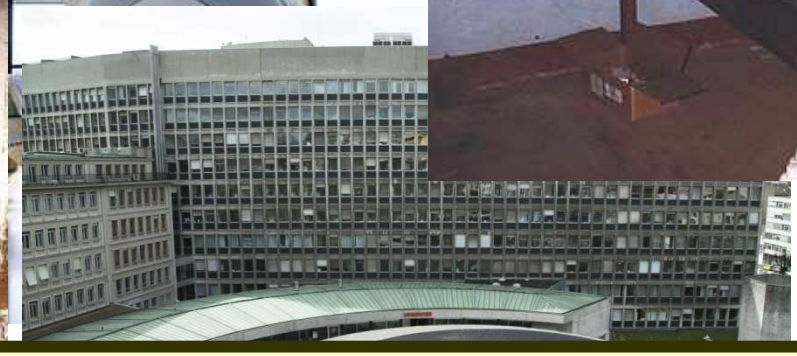












Burden of disease outside hospitals is unknown

No hospital, no country, no health-care system in the world can claim to have solved the problem

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

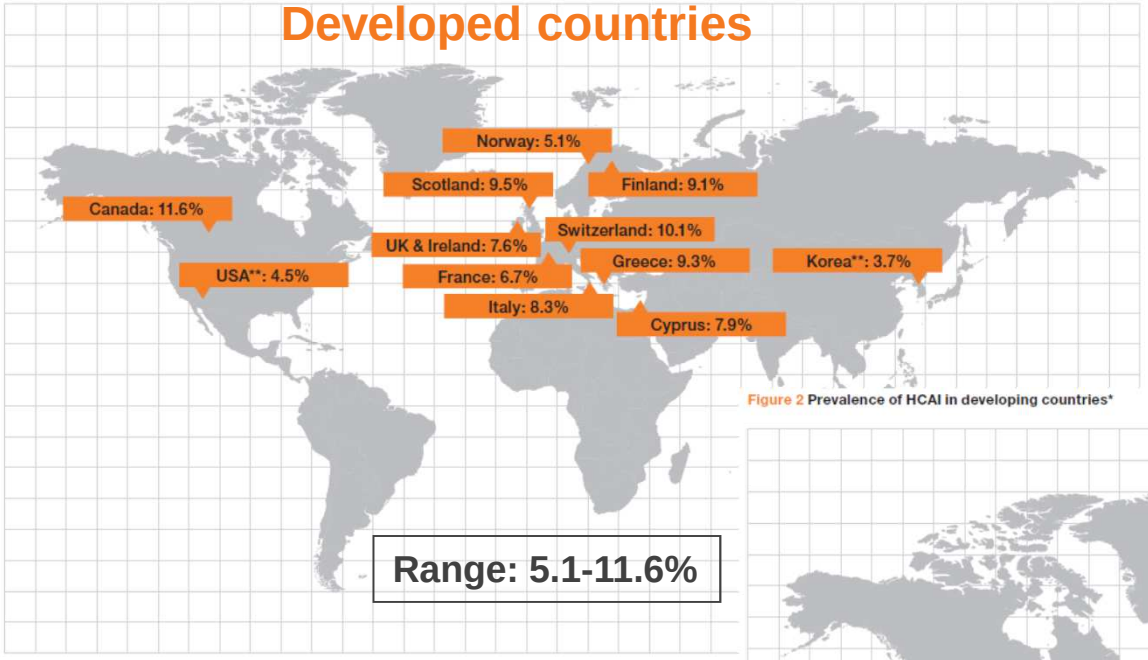
Estimates of the global burden of health care-associated infection are hampered by limited availability of reliable data

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

The Lancet, Volume 377, Issue 9761, Pages 228 - 241, 15 January 2011

Prevalence of HAI worldwide

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



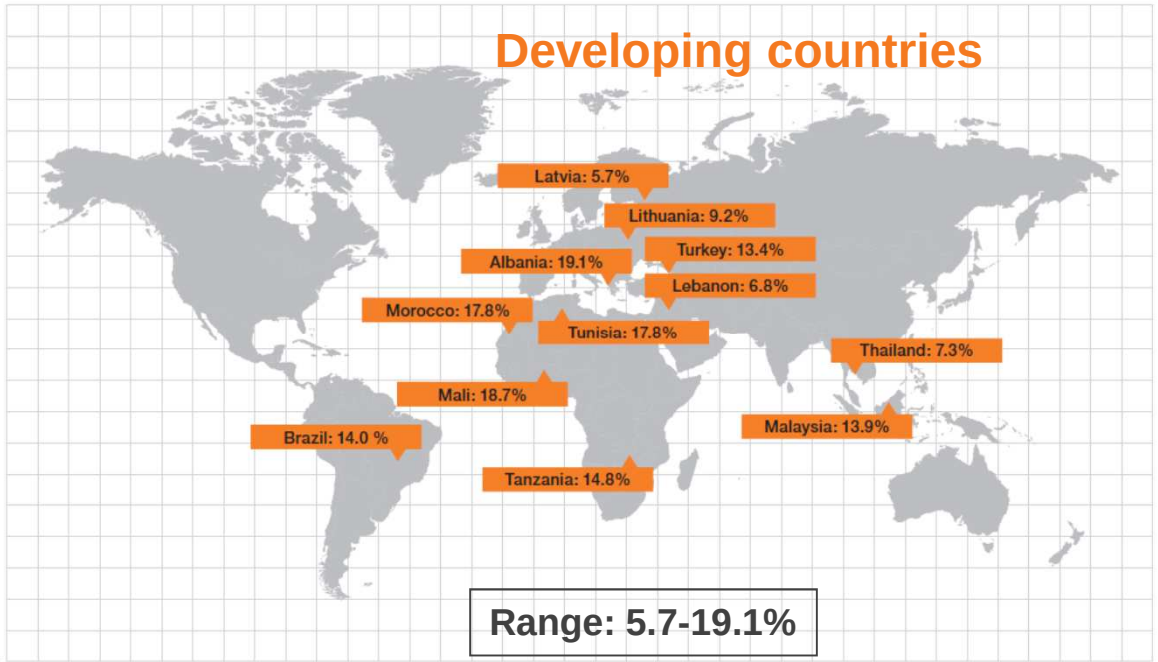
* Systematic review conducted by WHO, 1995-2008
**Incidence

The Burden of Health Care-Associated Infection Worldwide: A Summary - *First Global Patient Safety Challenge* http://www.who.int/gpsc/

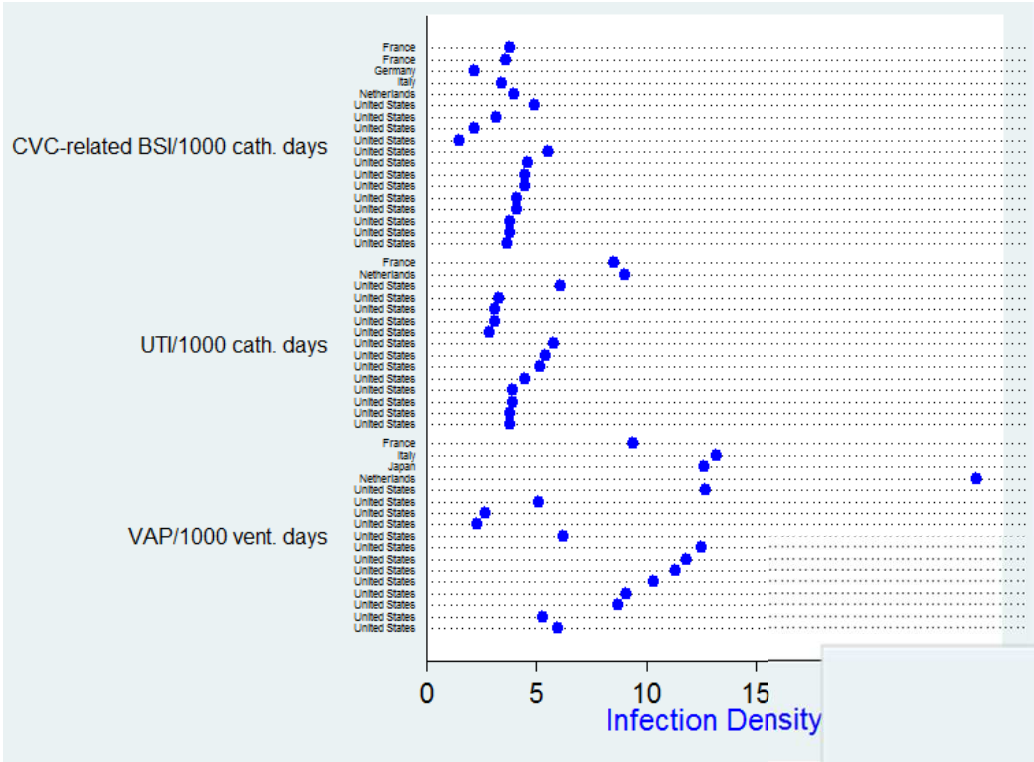
Allegranzi B et al, The Lancet, Dec 2010

at least x 2

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



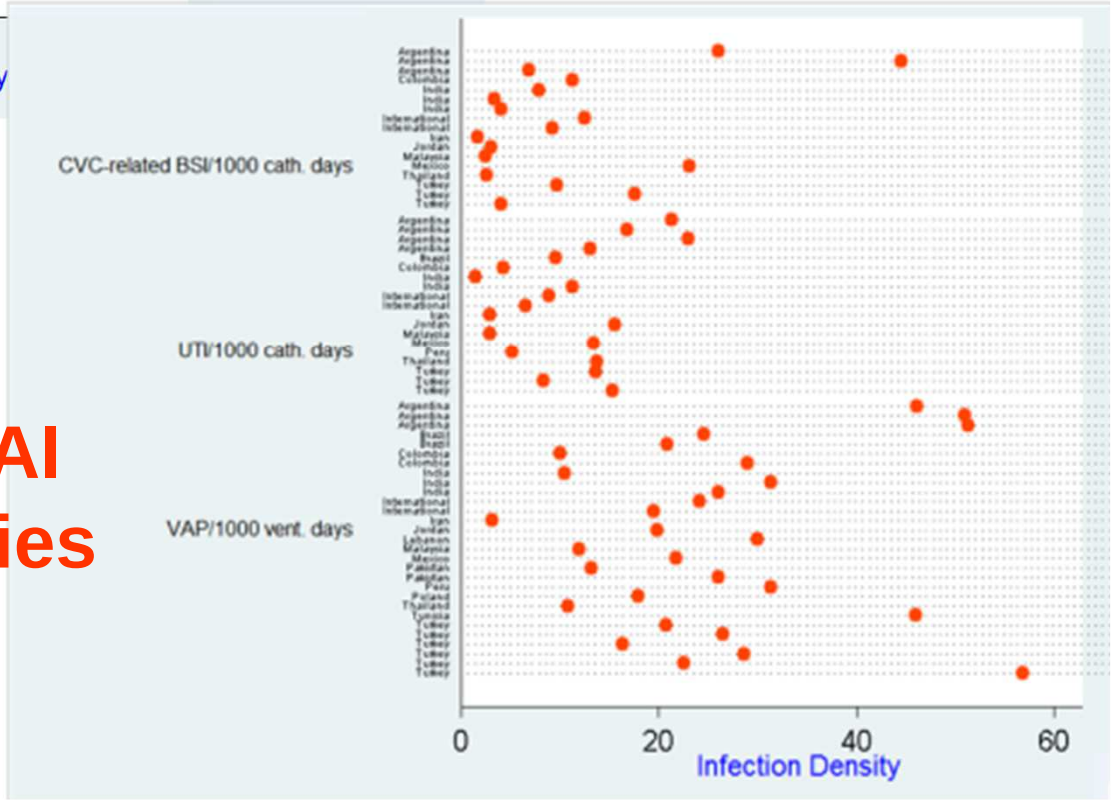
* Systematic review conducted by WHO, 1995-2008



Device-associated HAI in developed countries

x 2-18

Device-associated HAI in developing countries



Allegranzi B et al, The Lancet, Dec 2010

Articles

Burden of endemic health-care-associated infection in developing countries: systematic review and meta-analysis

Benedetta Allegranzi, Sepideh Bagheri Nejad, Christophe Combescure, Wilco Graafmans, Homa Attar, Liam Donaldson, Didier Pittet

Summary

Background Health-care-associated infection is the most frequent result of unsafe patient care worldwide, but few data are available from the developing world. We aimed to assess the epidemiology of endemic health-care-associated infection in developing countries.

Methods We searched electronic databases and reference lists of relevant papers for articles published 1995–2008. Studies containing full or partial data from developing countries related to infection prevalence or incidence—including overall health-care-associated infection and major infection sites, and their microbiological cause—were selected. We classified studies as low-quality or high-quality according to predefined criteria. Data were pooled for analysis.

Findings Of 271 selected articles, 220 were included in the final analysis. Limited data were retrieved from some regions and many countries were not represented. 118 (54%) studies were low quality. In general, infection frequencies reported in high-quality studies were greater than those from low-quality studies. Prevalence of health-care-associated infection (pooled prevalence in high-quality studies, 15·5 per 100 patients [95% CI 12·6–18·9]) was much higher than proportions reported from Europe and the USA. Pooled overall health-care-associated infection density in adult intensive-care units was 47·9 per 1000 patient-days (95% CI 36·7–59·1), at least three times as high as densities reported from the USA. Surgical-site infection was the leading infection in hospitals (pooled cumulative incidence 5·6 per 100 surgical procedures), strikingly higher than proportions recorded in developed countries. Gram-negative bacilli represented the most common nosocomial isolates. Apart from meticillin resistance, noted in 158 of 290 (54%) *Staphylococcus aureus* isolates (in eight studies), very few articles reported antimicrobial resistance.

Interpretation The burden of health-care-associated infection in developing countries is high. Our findings indicate a need to improve surveillance and infection-control practices.

Funding World Health Organization.

Introduction

Health-care-associated infections are deemed the most frequent adverse event threatening patients' safety worldwide.[1–3] However, reliable estimates of the global burden are hampered by a paucity of data adequately describing endemic infections at national and regional levels, particularly in resource-limited settings.[4] In countries where less than 5% of the gross national product is spent on health care, and workforce density is less than five per 1000 population,[5] other emerging health problems and diseases take priority.[6] The epidemiological gap leading to the absence of reliable estimates of the global burden is mainly because surveillance of health-care-associated infection expends time and resources and needs expertise in study design, data collection, analysis, and interpretation. Very few countries of low and middle income have national surveillance systems for health-care-associated infections. Data from the International Nosocomial Infection Control Consortium,[7] and findings of two systematic reviews on hospital-acquired neonatal infections[8] and ventilator-associated pneumonia,[9] suggested not only that risks of health-care-associated infection are significantly higher in developing countries but also that the effect on patients and health-care systems is severe and greatly underestimated.

The aim of this systematic review and meta-analysis is to assess the burden of endemic health-care-associated infection in developing countries by collation of available data from published studies on epidemiology. We also aim to investigate constraints linked to surveillance of health-care-associated infection in resource-limited settings and identify perspectives for improvement.

Methods

Search strategy and selection criteria

We undertook a literature search and review process according to a protocol designed before data collection. We aimed to identify studies on the epidemiology of health-care-associated infection in developing countries, with a particular focus on the most frequent bacterial infections—urinary-tract infection, surgical-site infection, bloodstream infection, hospital-acquired pneumonia, and ventilator-associated pneumonia. We searched Medline for reports published between January, 1995, and December, 2008, with no language restriction. We used a comprehensive list of terms (panel 1), including MeSH

Published Online December 10, 2010 DOI:10.1016/S0140-6736(10)61458-4

See Online/Comment DOI:10.1016/S0140-6736(10)62005-3

First Global Patient Safety Challenge, WHO Patient Safety, Geneva, Switzerland (BA Allegranzi MD, S Bagheri Nejad MD, W Graafmans PhD, H Attar PhD); Prof D Pittet MD); Division of Clinical Epidemiology, University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland (C Combescure PhD); Infection Control Programme, and WHO Collaborating Centre on Patient Safety (Infection Control and Improving Practice), University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland (Prof D Pittet); and National Patient Safety Agency, London, UK (L Donaldson)

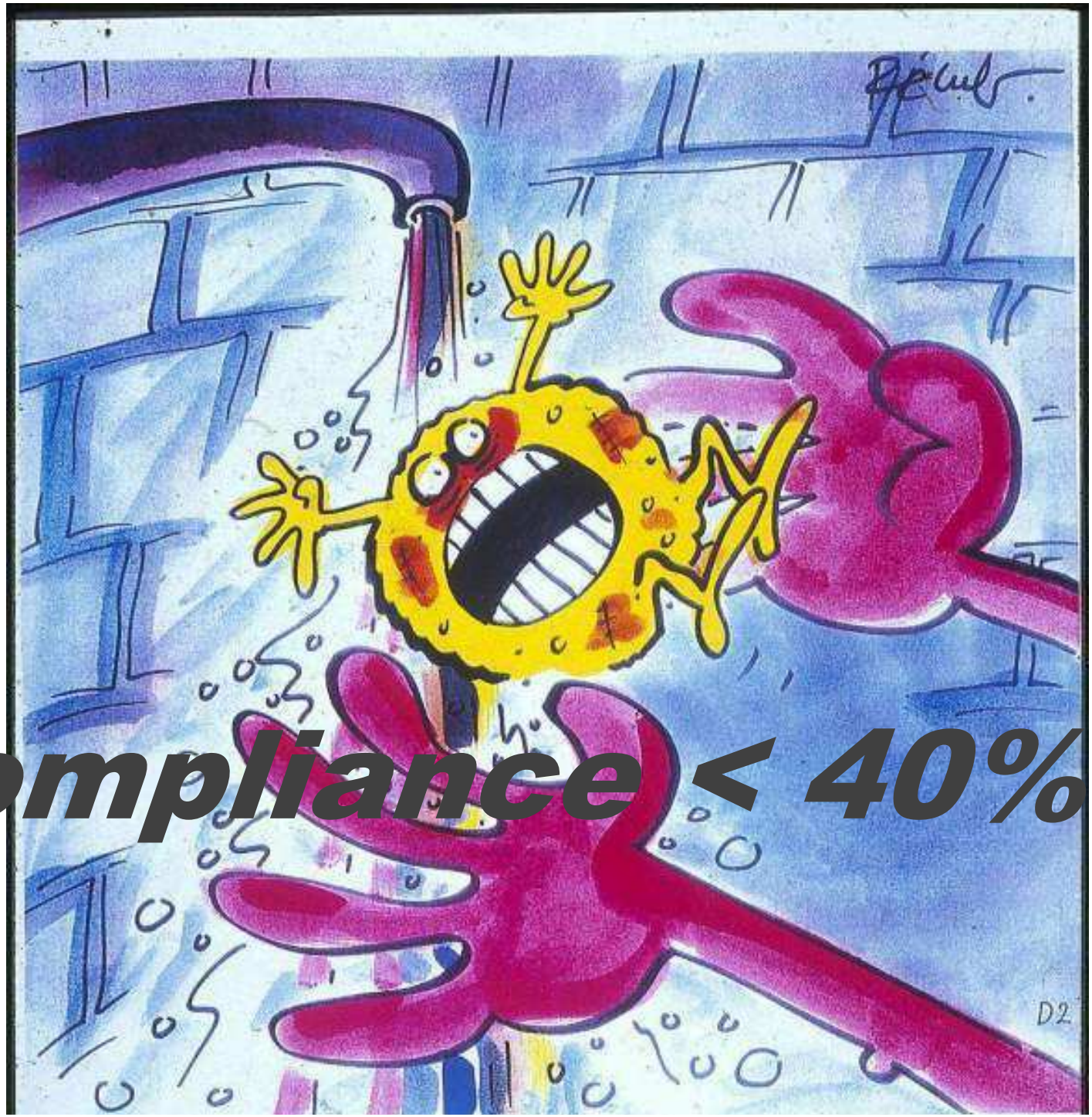
Correspondence to: Prof Didier Pittet, Infection Control Programme, University of Geneva Hospitals and Faculty of Medicine, 4 Rue Gabrielle Perret-Gentil, 1211 Geneva 14, Switzerland didier.pittet@hcuge.ch

An original article on the HCAI endemic burden in developing countries published by the WHO *Clean Care is Safer Care* team in *The Lancet*

Allegranzi B et al.
Lancet 2011; 377:228-41. Epub 2010 Dec 9.

When health care is the problem,

we need a solution…


Compliance < 40%

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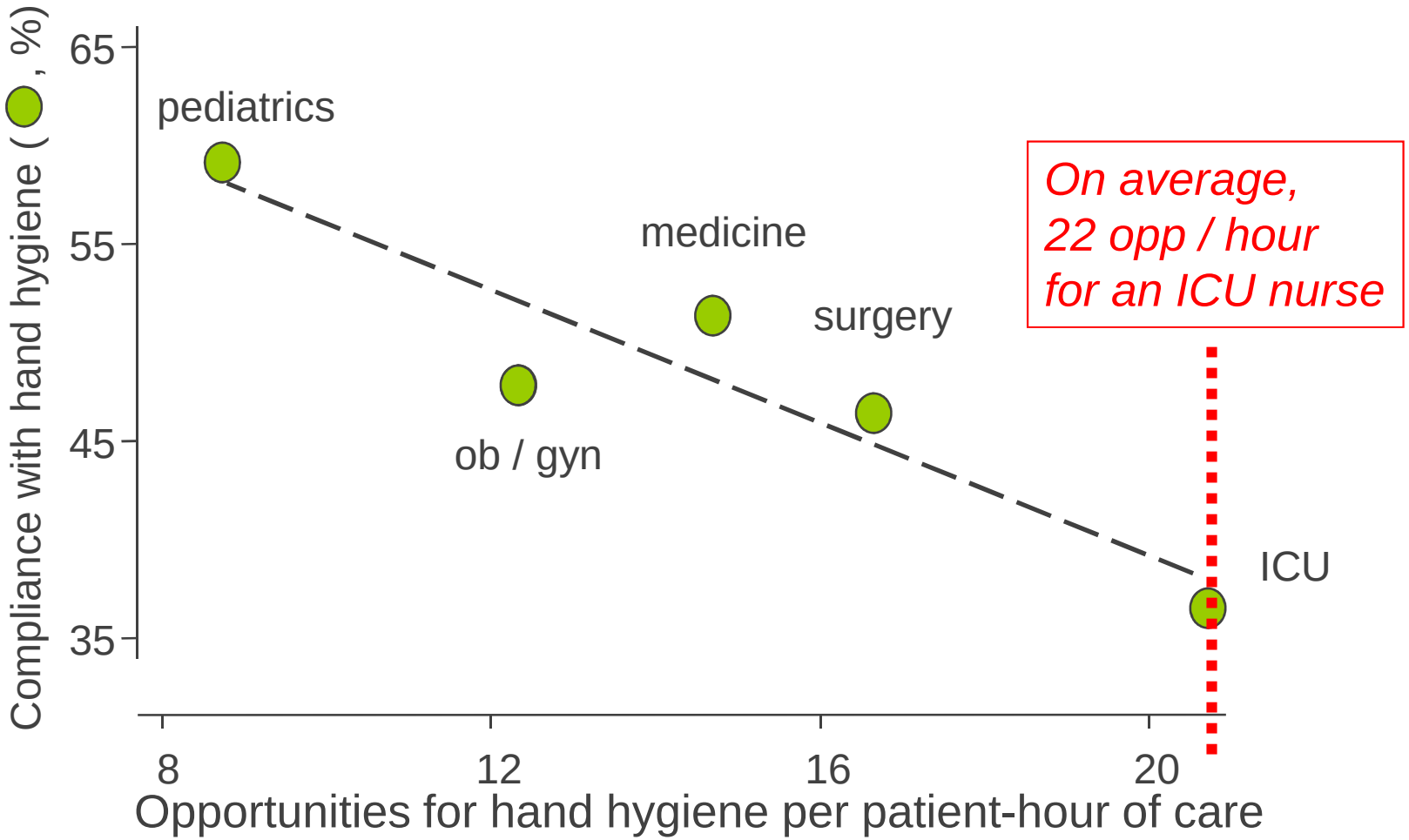
Relation between opportunities for hand hygiene for nurses and compliance across hospital wards



adapted from Pittet D et al. *Annals Intern Med* 1999; 130:126

Time constraint = major obstacle for hand hygiene

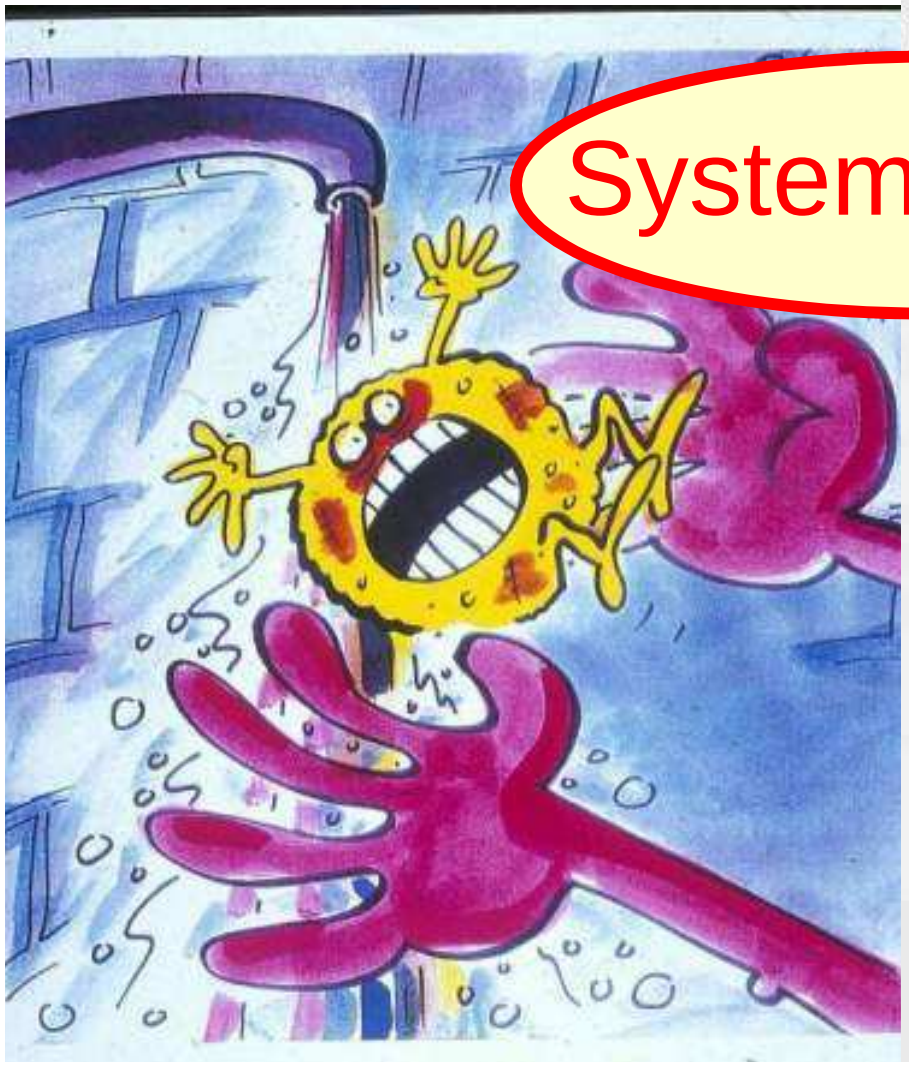
handwashing
soap + water

1 to 1.5 min

alcohol-based
hand rub

15 to 20 sec

Handwashing …
an action of the past
(except when hands are visibly soiled)



System change

Alcohol-based hand rub is standard of care

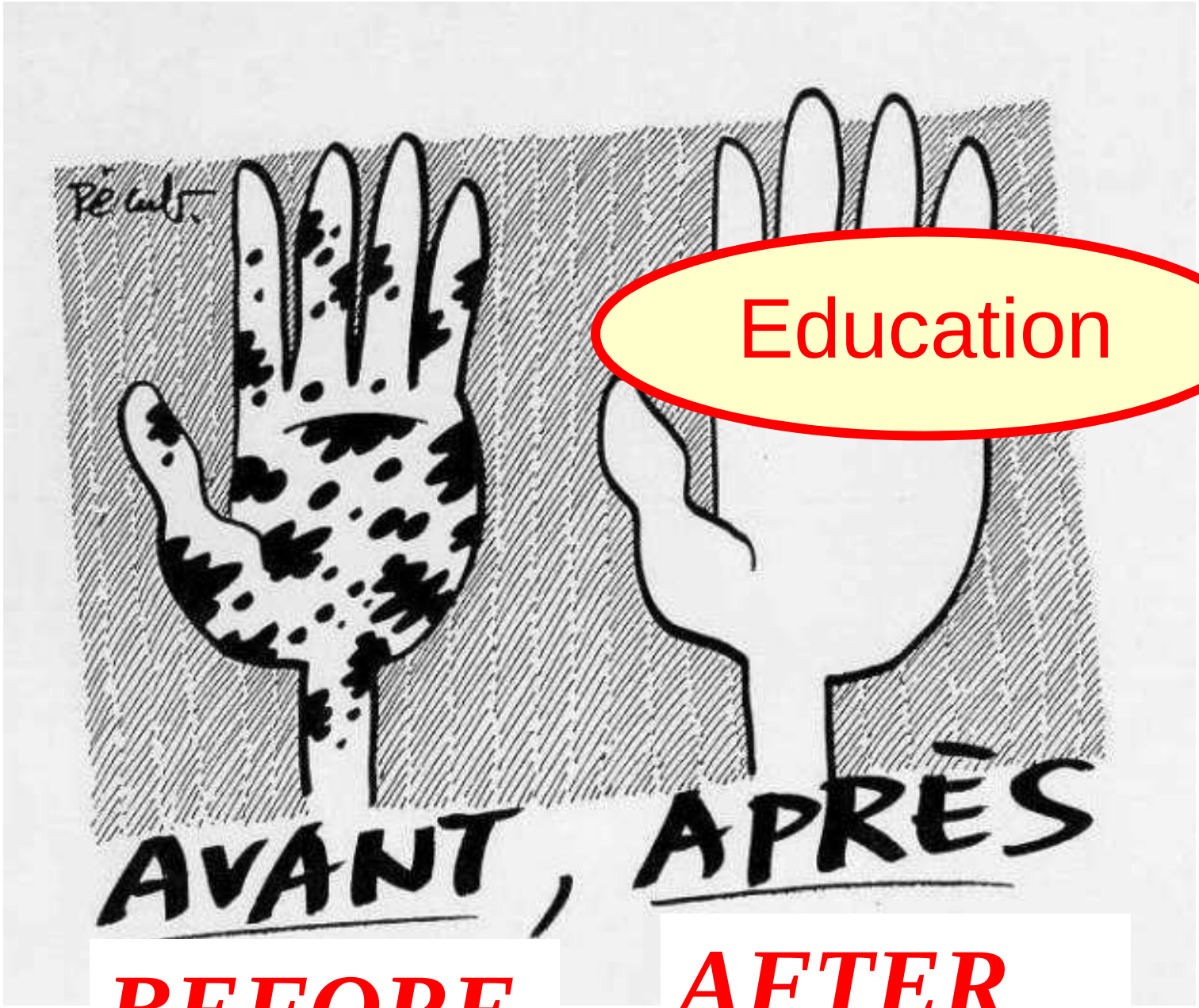
Alcohol-based hand rub at the point of care

HUG

The University of Geneva Hospitals, 1995

Before and after any patient contact
After glove use
In between different body site care

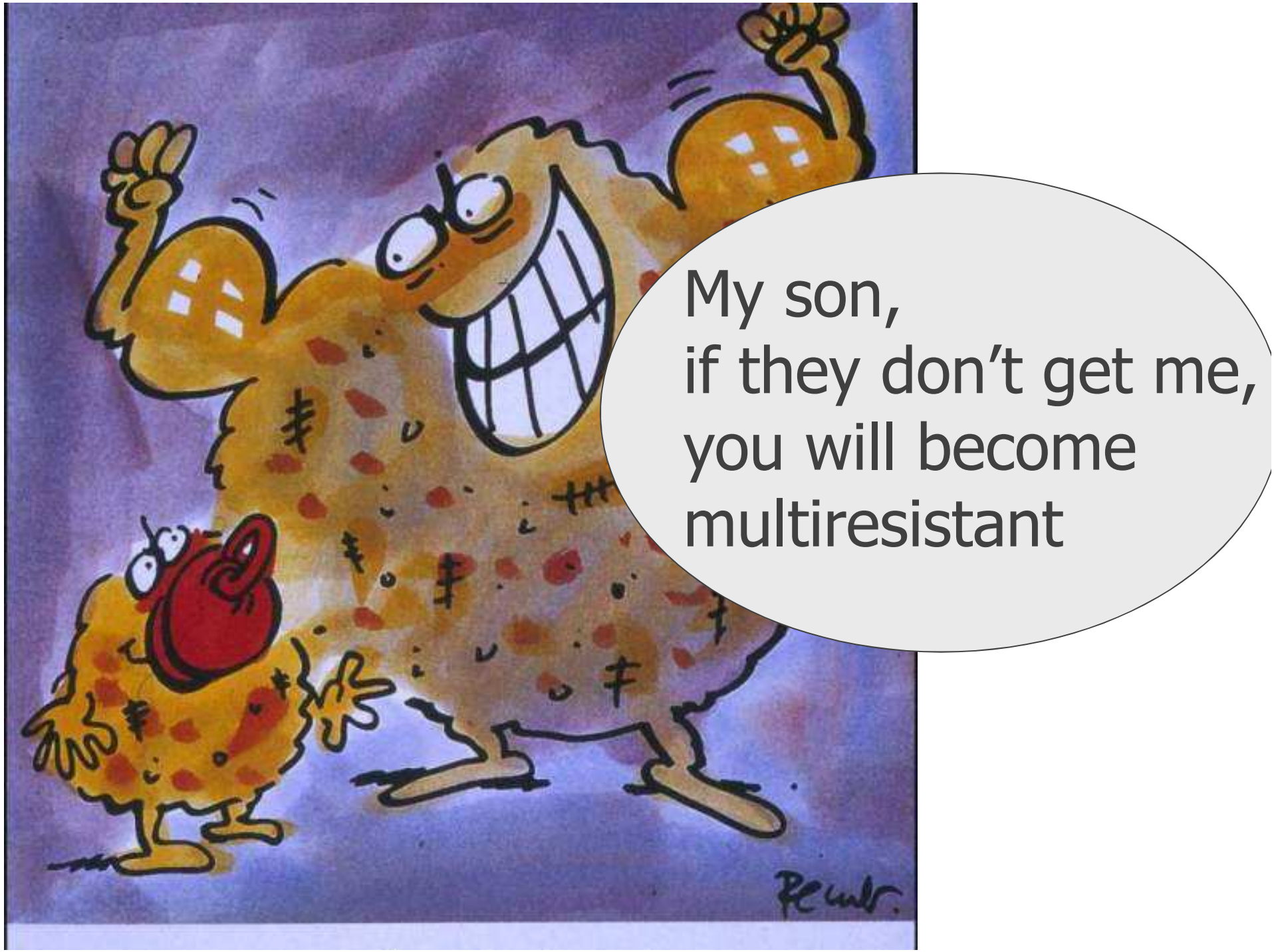
The University of Geneva Hospitals (HUG), 1995

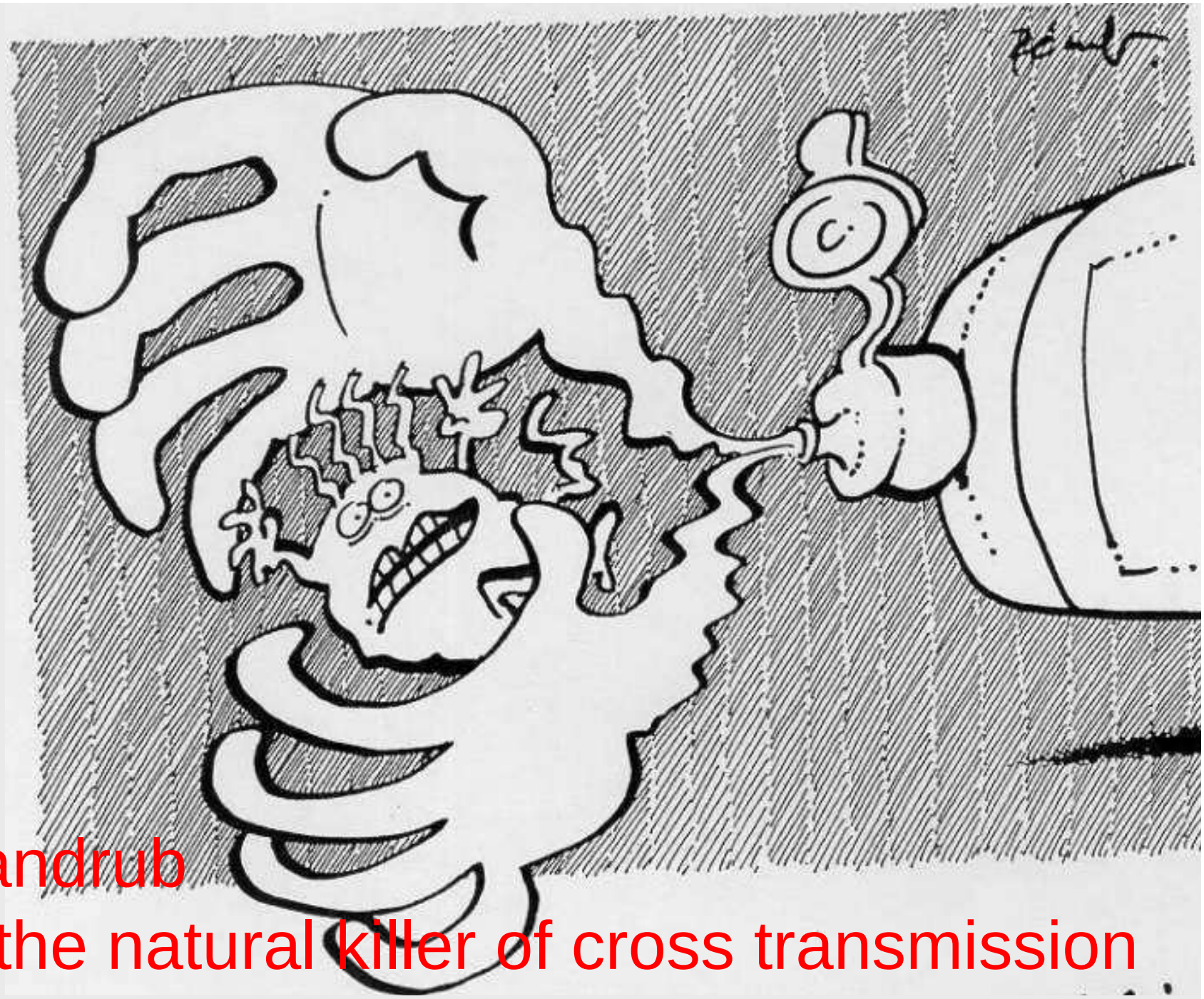


The University of Geneva Hospitals (HUG), 1995 - 1998

« Talking walls »


LES MAINS QUI SAVENT SE LAVENT
MAIS QUI DONC A INVENTÉ L'ASEPSIE ?
LES MAINS QUI SAVENT, SE LAVENT !
LES MAINS QUI SAVENT, SE LAVENT !

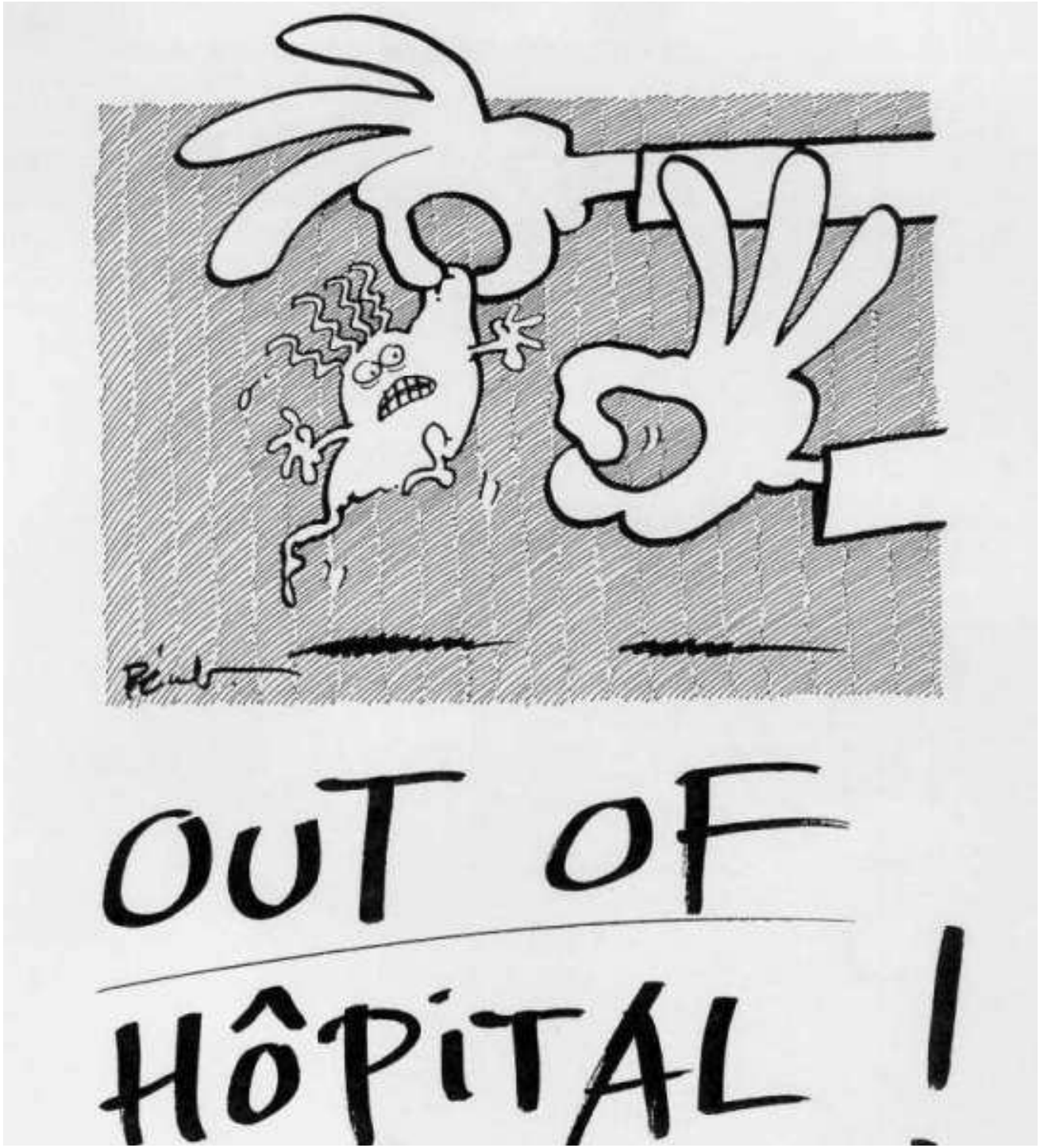

My son,
if they don't get me,
you will become
multiresistant



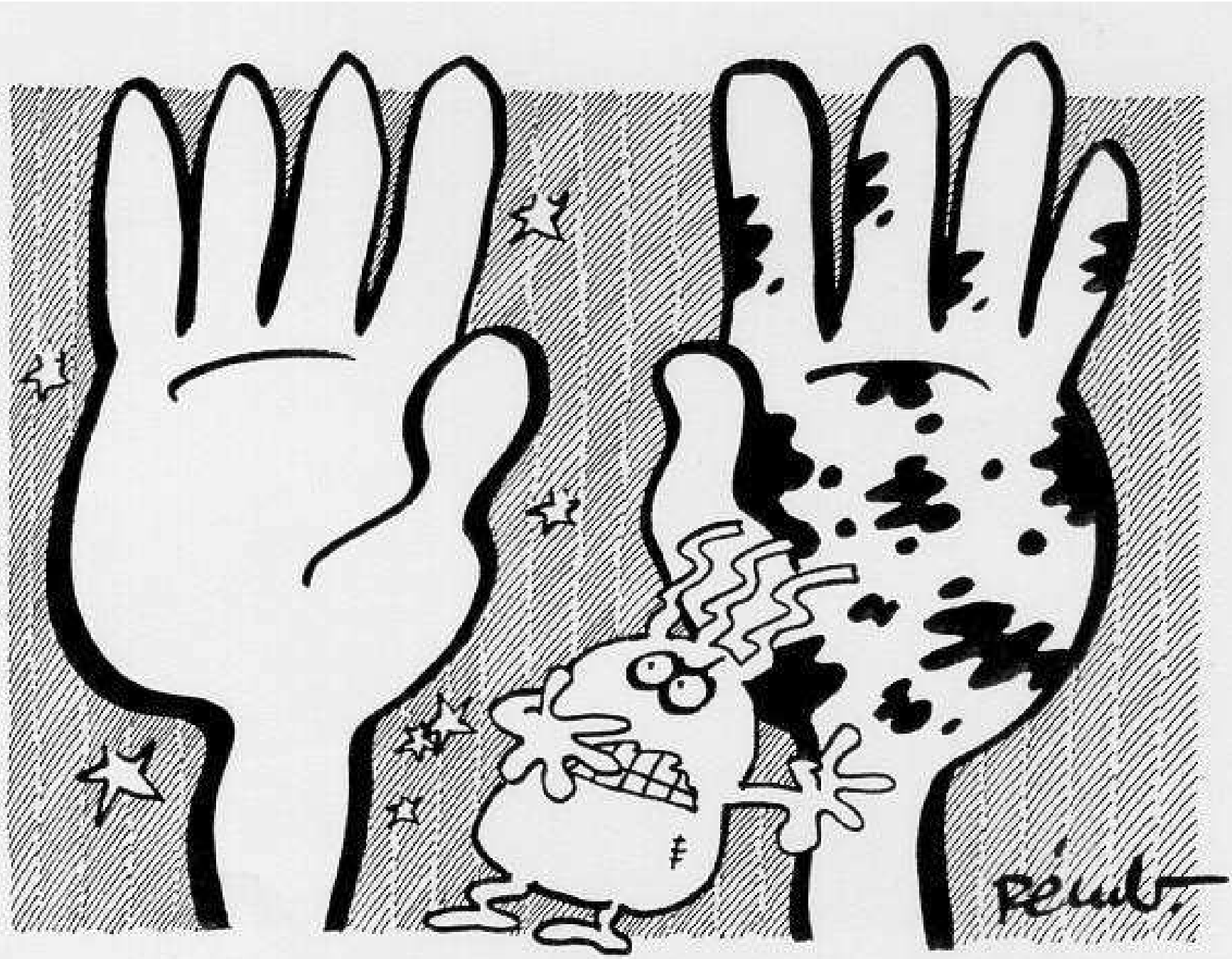
Handrub
is the natural killer of cross transmission

Dirty Staph

…out
of
hospital



The University of Geneva Hospitals (HUG), 1995 - 1998



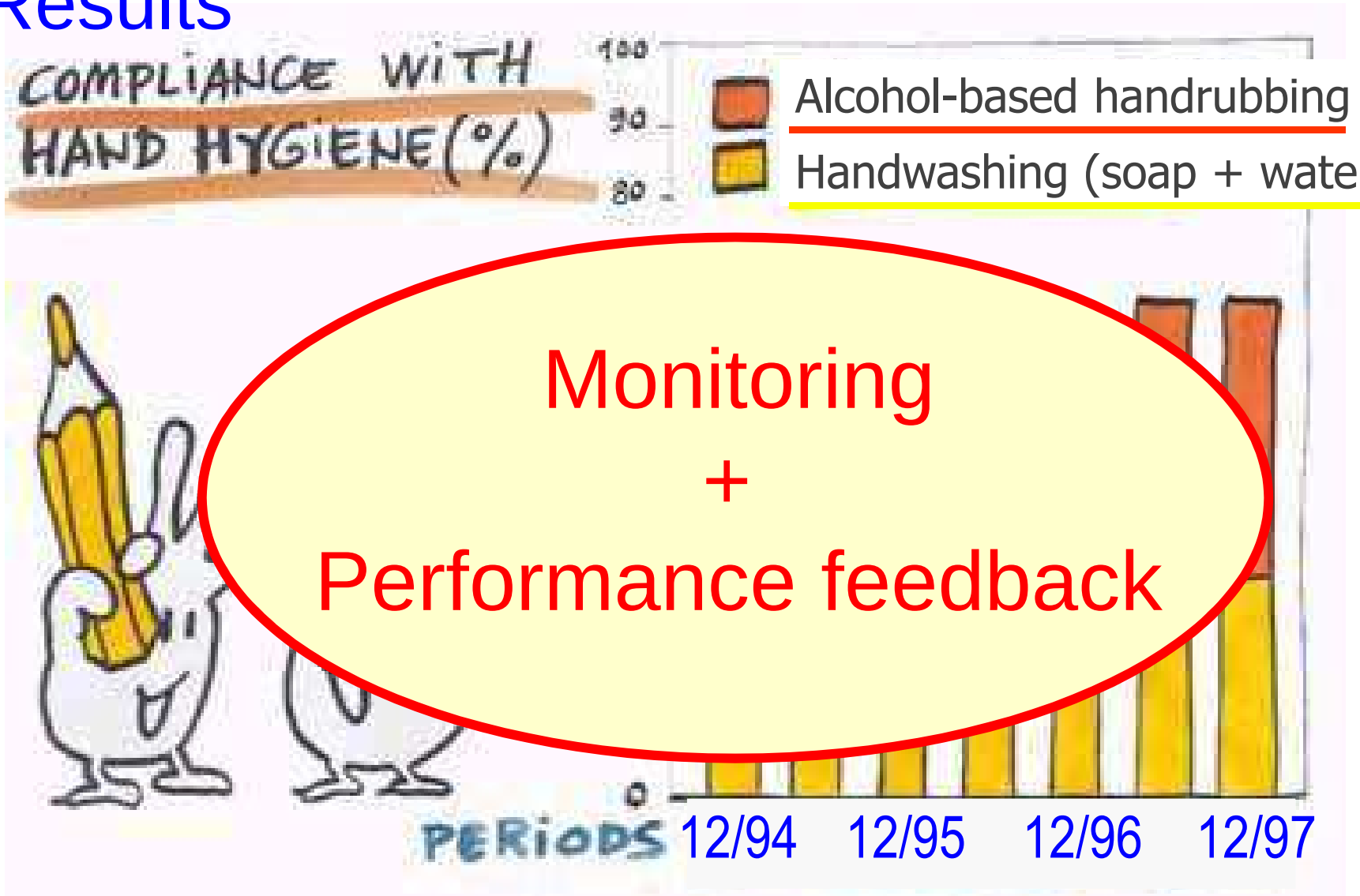
The University of Geneva Hospitals (HUG), 1995 - 1998

Doctor Freud,
in this hospital,
it's become impossible
to cause infections
any more !

Safety culture

Geneva's University Hospitals against *Dirty Staph* : war has been declared

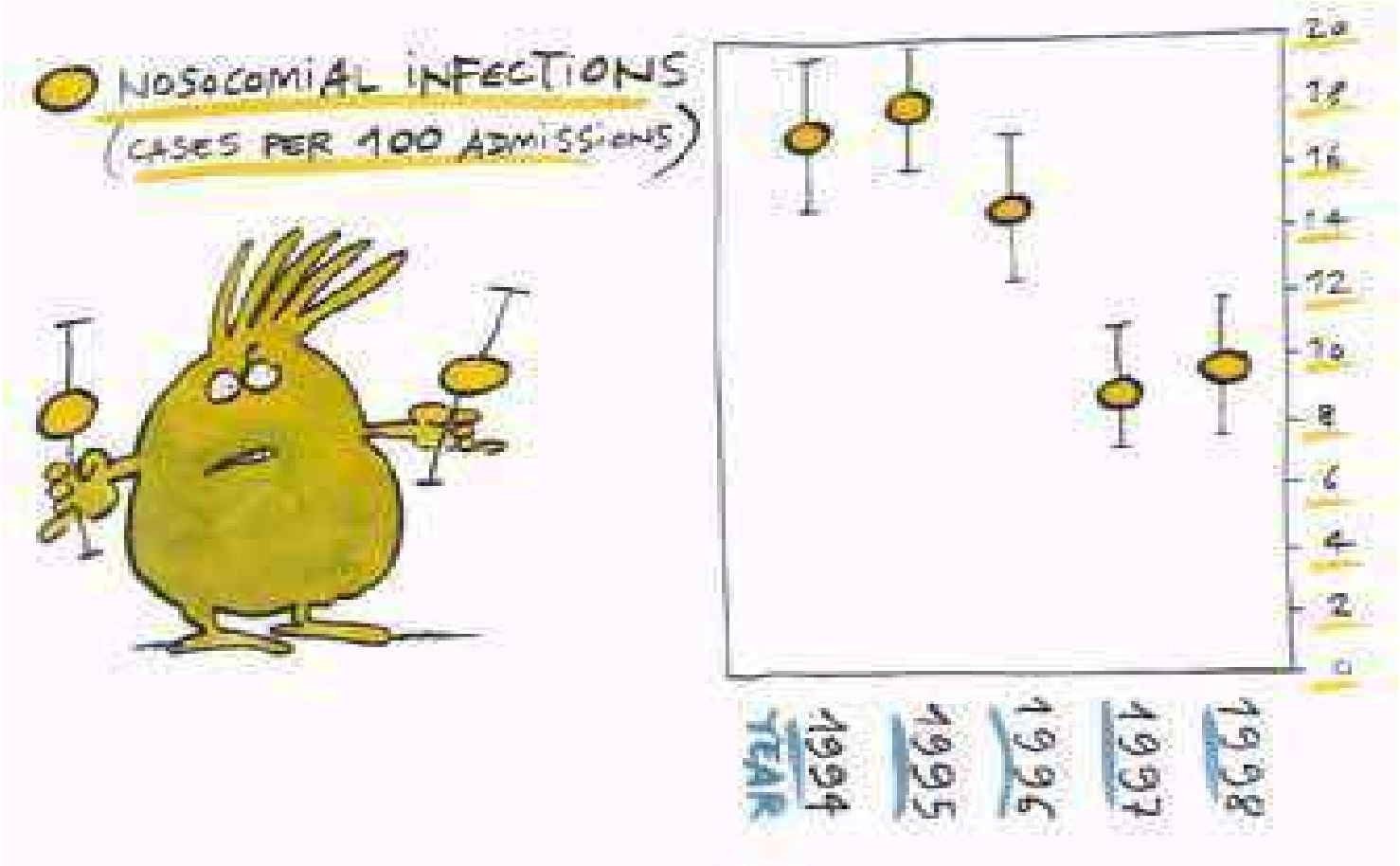
Results



www.hopisafe.ch

Pittet D et al, *Lancet* 2000; 356: 1307-1312

Hospital-wide nosocomial infections; trends 1994-1998



50%

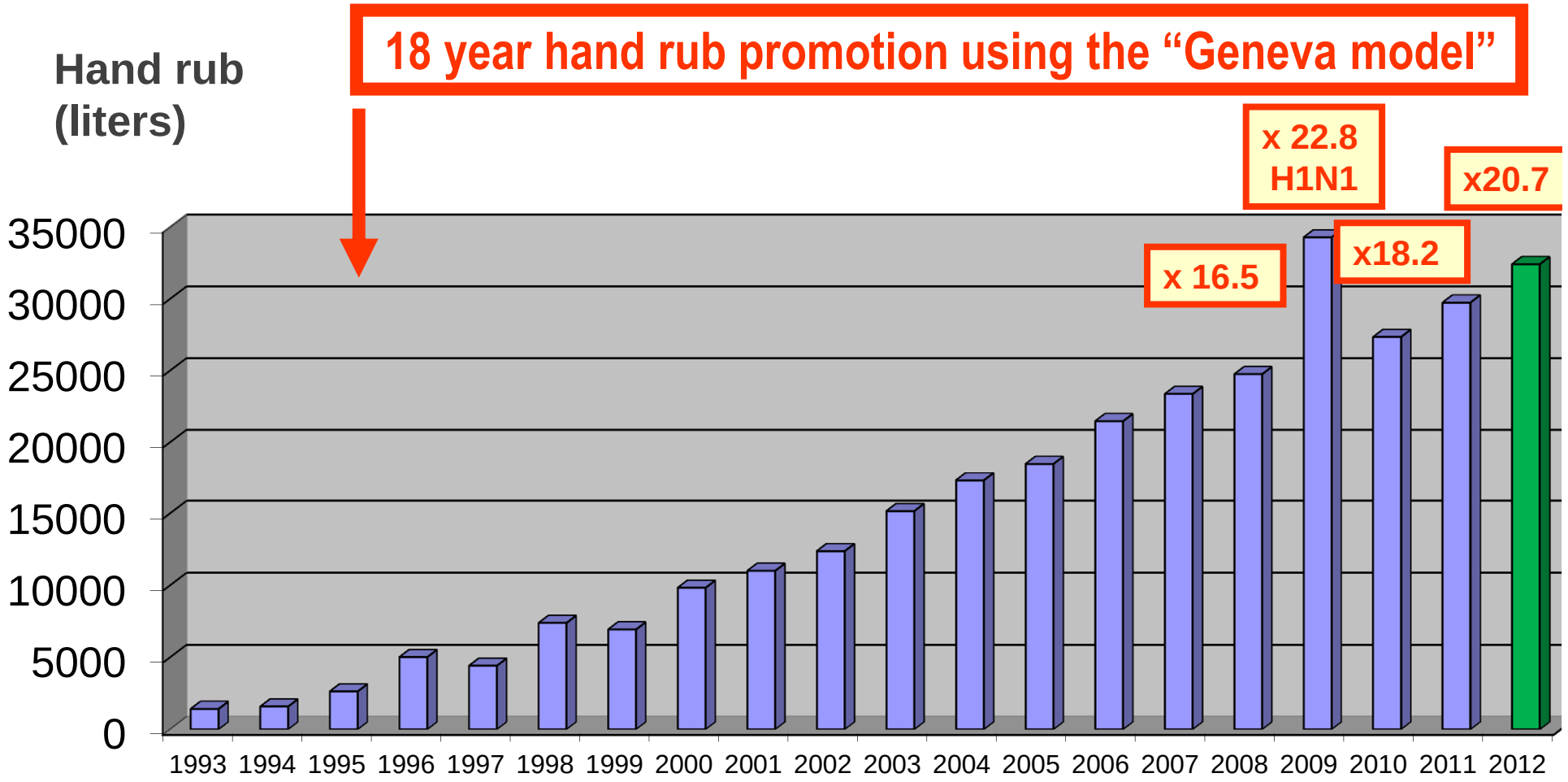
www.hopisafe.ch

Pittet D et al, *Lancet* 2000; 356: 1307-1312

The University of Geneva Hospitals (HUG), 8 years follow-up

Pittet D et al, *Inf Control Hosp Epidemiol* 2004; 25:264

Use of alcohol-based hand rub HOPIRUB^{R} (liters)
University of Geneva Hospitals, Switzerland



Effectiveness of a hospital-wide programme to improve compliance with hand hygiene

Didier Pittet, Stéphane Hugonnet, Stephan Harbarth, Philippe Mourouga, Valérie Sauvan, Sylvie Touveneau, Thomas V Perneger, and members of the Infection Control Programme

THE LANCET • Vol 356 • October 14, 2000

« Geneva model » of hand hygiene promotion, Reproduced with success (2002-2005)

- in single hospitals in France, Belgium, USA, Australia …
- in multiple hospitals in Hong Kong, Australia, Belgium, …
- in national promotion campaigns: Belgium, the UK, Switzerland

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

Clean hands reduce the burden of infection

From 1975 to June 2013,
at least 50 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

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


Lancement
1st Global Patient Safety Challenge
WHO HQ, 13 octobre 2005


Launch
1st Global Patient Safety Challenge
WHO HQ, 13 October 2005


Launch
1st Global Patient Safety Challenge
WHO headquarter, Geneva, Switzerland
13 October 2005

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…

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

Saudi Arabia

Kenya

France

Bangladesh

USA

Bhutan

Northern Ireland

Russia

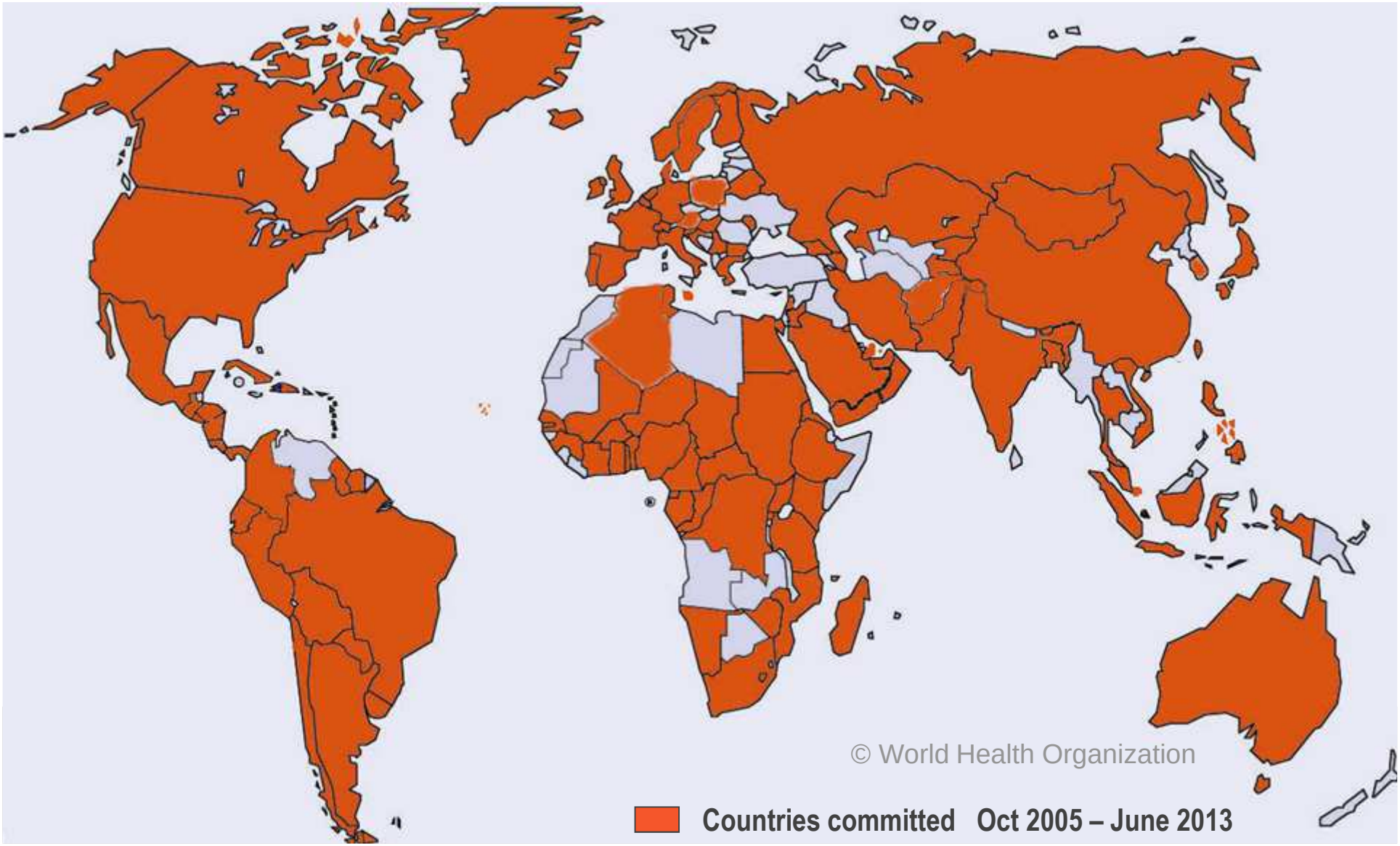
Republic of Ireland

Kabul, Afghanistan - April 2012


Kabul, Afghanistan - April 2012

133 countries committed to address health care-associated infection

World population coverage : 94.5 %



Objectives of the Challenge

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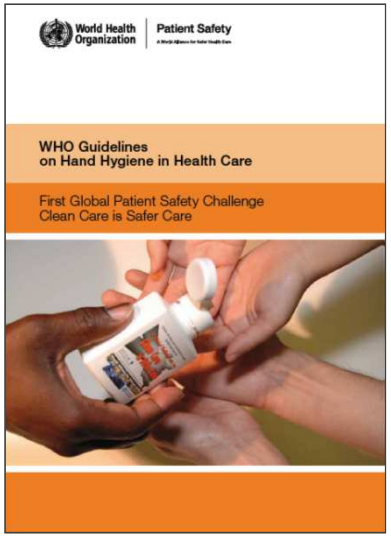
Implementation strategy and toolkit for the WHO Guidelines on Hand Hygiene in Health Care

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

The My Five Moments approach

Making it easier to

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

  the hand hygiene indications at the point of care

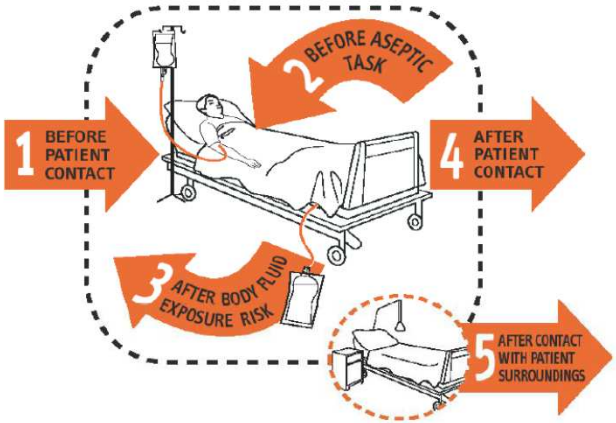
Sax H, Allegranzi B, Uçkay I, Larson E, Boyce J, Pittet D. *J Hosp Infect* 2007;67:9-21

World Health Organization
منظمة الصحة العالمية

وزارة الصحة
Ministry of Health
المملكة العربية السعودية

حملة غسل الأيدي ٢٠٠٨

Your 5 moments for HAND HYGIENE



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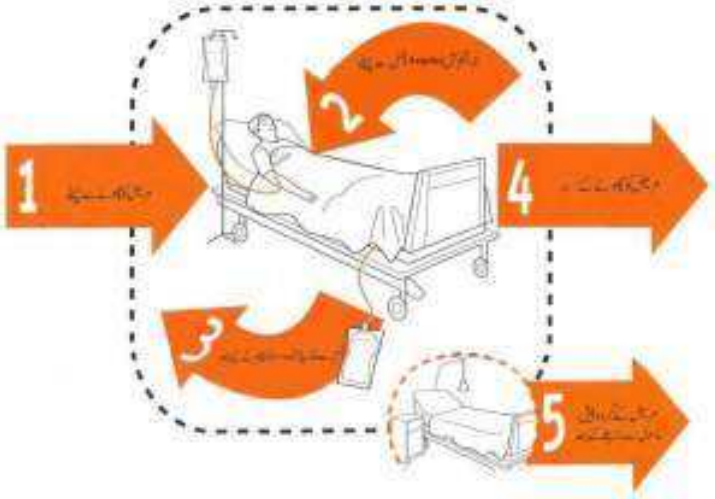
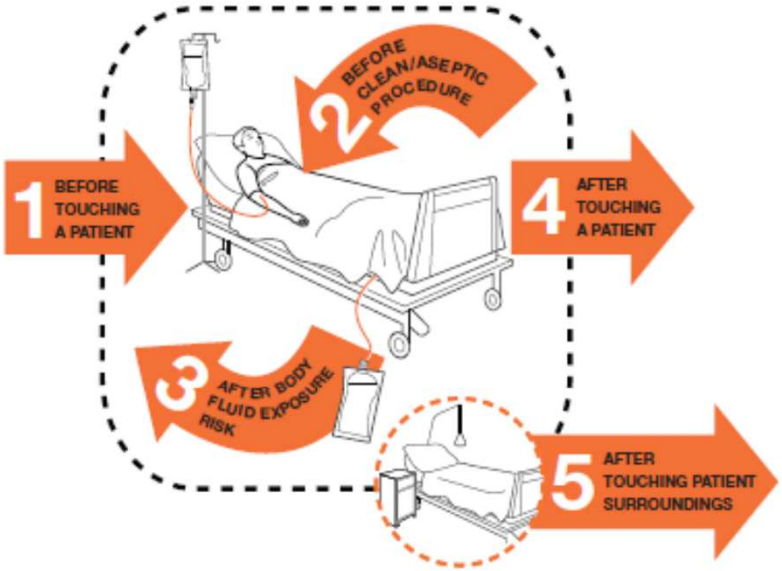


Your 5 Moments for Hand Hygiene



1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient when approaching him/her.
		WHY?	To protect the patient against harmful germs carried on your hands.
2	BEFORE CLEAN/ ASEPTIC PROCEDURE	WHEN?	Clean your hands immediately before performing a clean/aseptic procedure.
		WHY?	To protect the patient against harmful germs, including the patient's own, from entering his/her body.
3	AFTER BODY FLUID EXPOSURE RISK	WHEN?	Clean 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 TOUCHING A PATIENT	WHEN?	Clean your hands after touching a patient and her/his immediate surroundings, when leaving the patient's side.
		WHY?	To protect yourself and the health-care environment from harmful patient germs.
5	AFTER TOUCHING PATIENT SURROUNDINGS	WHEN?	Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving – even if the patient has not been touched.
		WHY?	To protect yourself and the health-care environment from harmful patient germs.

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

May 2009

How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

Duration of the entire procedure: 20-30 seconds

Apply a palmful of the product in a cupped hand, covering all surfaces;

Rub hands palm to palm;

Right palm over left dorsum with interlaced fingers and vice versa;

Palm to palm with fingers interlaced;

Backs of fingers to opposing palms with fingers interlocked;

Rotational rubbing of left thumb clasped in right palm and vice versa;

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

Once dry, your hands are safe.

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

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WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

May 2009

The NEW ENGLAND JOURNAL of MEDICINE

VIDEOS IN CLINICAL MEDICINE

Hand Hygiene

Yves Longtin, M.D., Hugo Sax, M.D., Benedetta Allegranzi, M.D., Franck Schneider, and Didier Pittet, M.D.

OVERVIEW

Health-care associated infections are a threat to patient safety and the most common adverse events resulting from a stay in the hospital.[1] Approximately 5 to 10% of hospitalized patients in the developed world acquire such infections, and the burden of disease is even higher in developing countries. Proper use of hand hygiene is a critical to the prevention of these infections, but compliance among health care workers is most often below 40%.

Hand hygiene serves many purposes in the health care setting.[1] It prevents both endogenous and exogenous infections in patients, contamination of the hospital environment with potential pathogens, and cross-transmission of microorganisms between patients. When used in conjunction with the appropriate protective equipment, it also protects health care workers from the hazards of occupational infections.

EQUIPMENT

Essential equipment for the performance of adequate hand hygiene includes an alcohol-based hand-rub formulation or soap, water, and drying agents such as disposable paper or cloth towels. Alcohol-based hand rubs with optimal antimicrobial efficacy usually contain 75 to 85% ethanol, isopropanol, or n-propanol, or a com-

From the Infection Control Program, University of Geneva Hospitals and Faculty of Medicine (Y.L., H.S., D.P.); World Health Organization (WHO) Patient Safety, WHO Headquarters (B.A., D.P.); and the Communication Service (F.S.) and WHO Collaborating Center for Patient Safety (D.P.) — all in Geneva. Address reprint requests to Dr. Pittet at the Infection Control Program, University of Geneva Hospitals and Faculty of Medicine, 4 Rue Gabrielle-Perret Gentil, 1211 Geneva 14, Switzerland, or at didier.pittet@hcuge.ch.

*Drs. Longtin and Sax contributed equally to this article.

N Engl J Med 2011;364:e24.

The NEW ENGLAND JOURNAL of MEDICINE

VIDEOS IN CLINICAL MEDICINE

Hand Hygiene

Yves Longtin, M.D., Hugo Sax, M.D., Benedetta Allegranzi, M.D.,
Franck Schneider, and Didier Pittet, M.D.

Translated in :

-French
-Protuguese
-Japanese

Available soon:

-Spanish
-Italian
-German
-Chinese
-Romanian
-Turkish
-……

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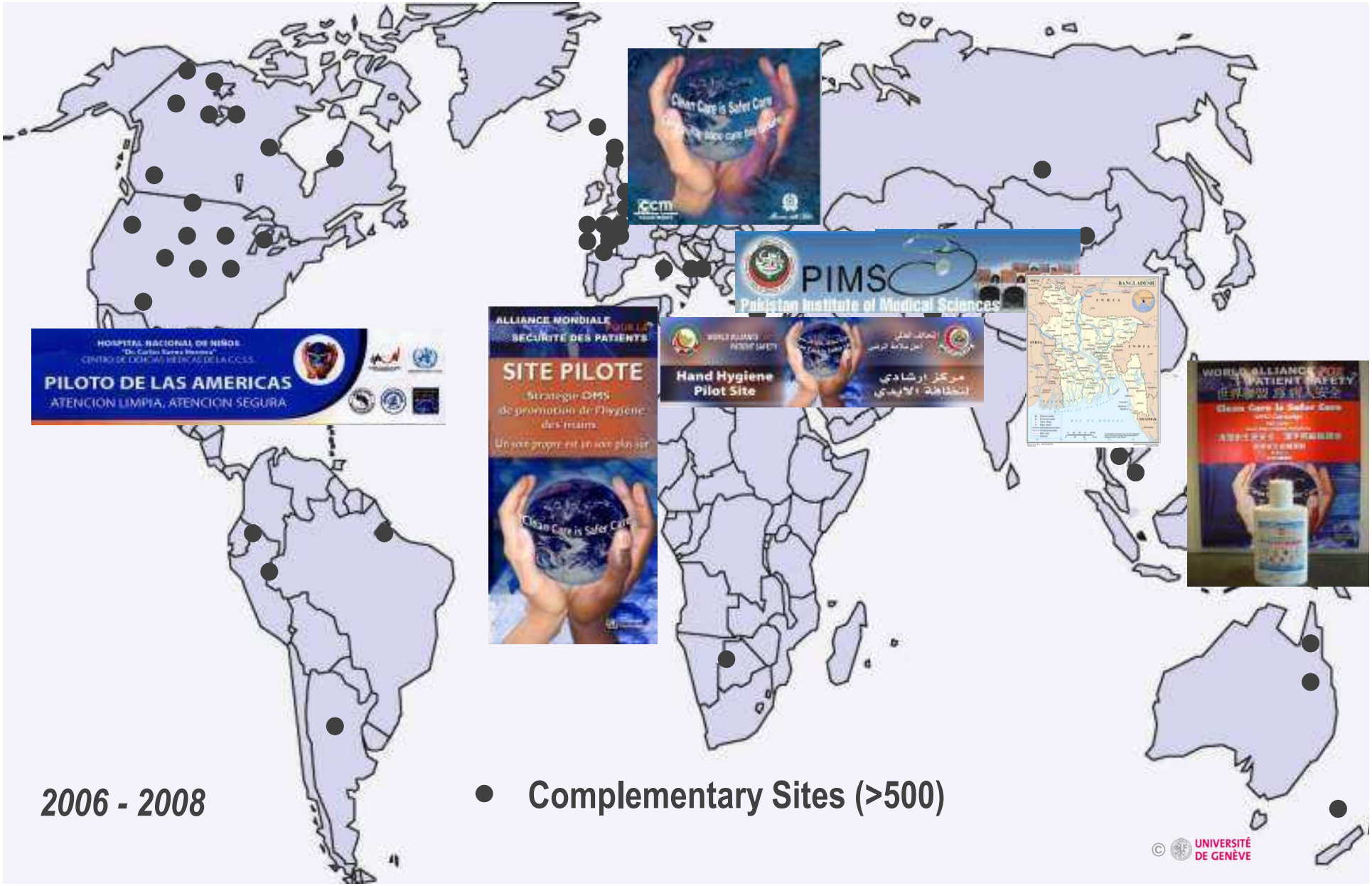
N Engl J Med 2011;364:e24.

Evidence of successful implementation of the solution worldwide…

Field testing the implementation of the WHO strategy (2006-2008)

Allegranzi B et al. *Lancet Infect Diseases* 2013



From modern health care settings

To settings with limited resources


In a multi-cultural envi onment
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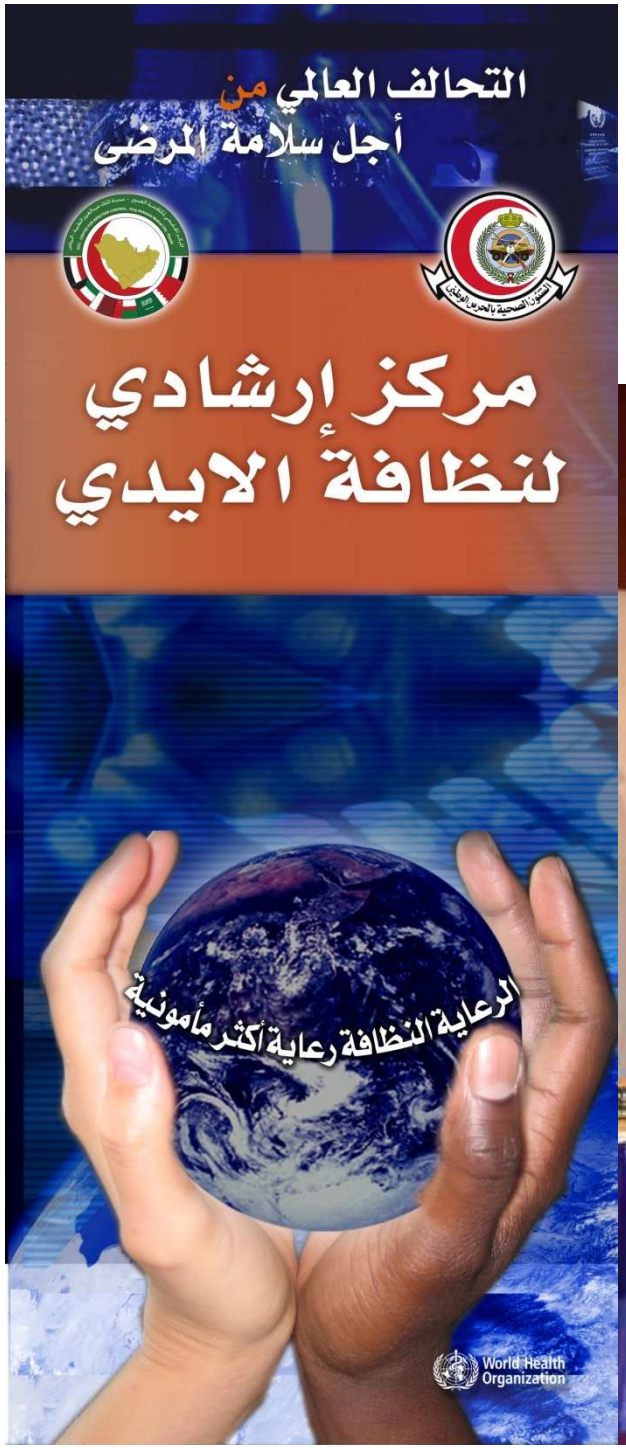
Overcoming religious barriers

Overcoming religious barriers



Kingdom of Saudi Arabia June, 2005

Lancet 2006; 367:1025

Ensuring universal system change

Equity - Solidarity

Kenya, Africa, January 2005


Kenya, Africa, January 2005
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Kenya, Africa, January 2005
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Kenya, Africa, January 2005


How much does the product cost ?
Kenya, Africa, January 2005
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How much does the product cost ?
2.5x the price in Boston
Kenya, Africa, January 2005
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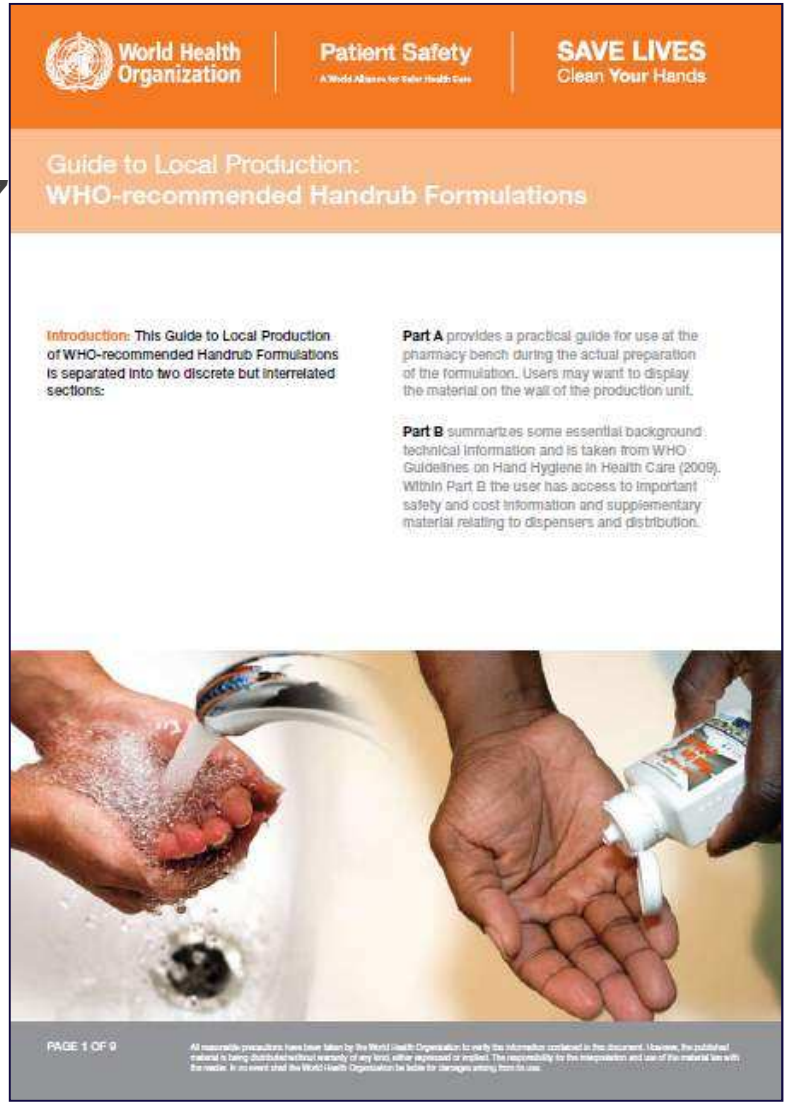
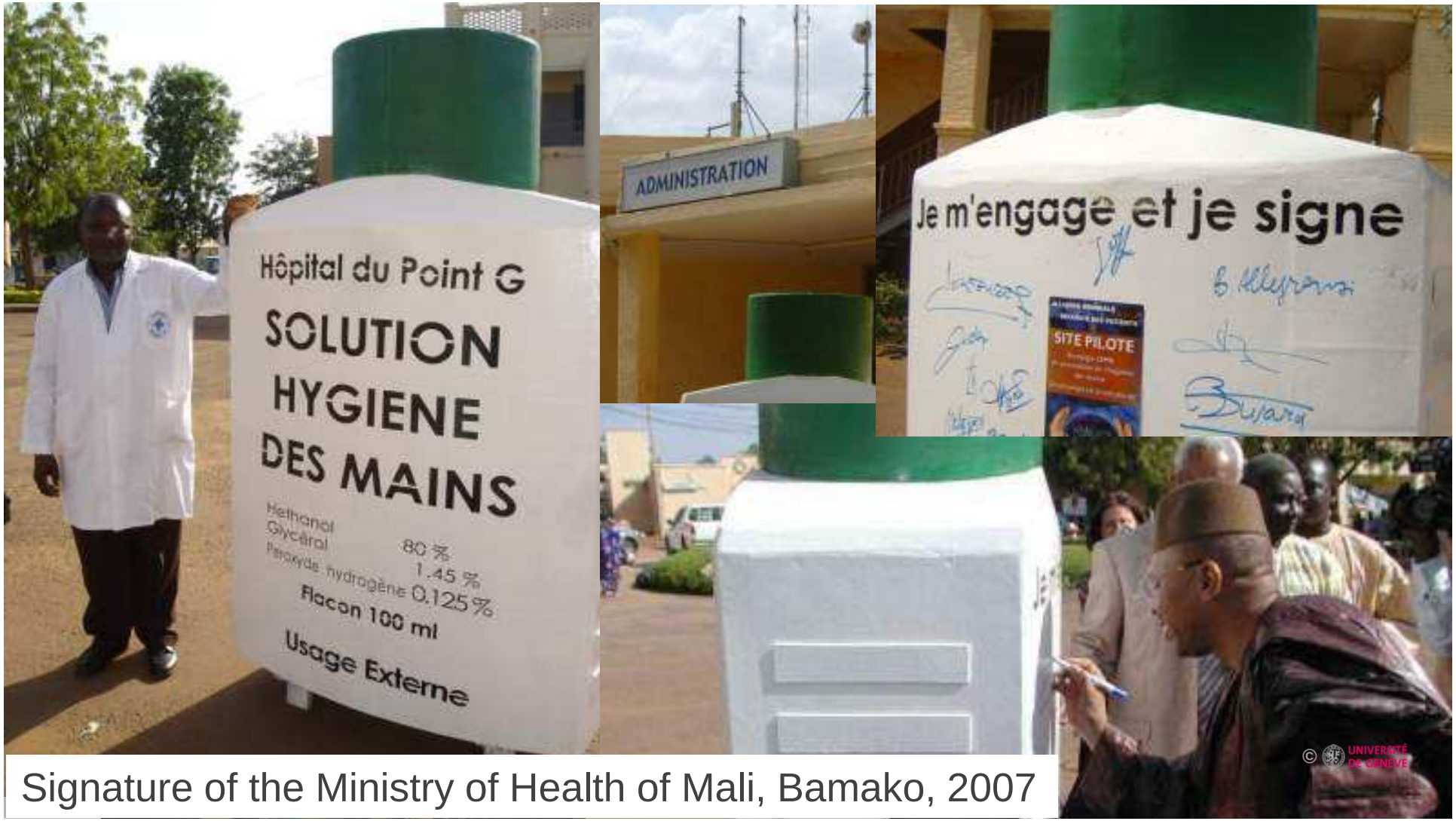
Guide to the local production of the WHO-recommended alcohol-based handrub

From sugar can, at low costs – Mali, Africa, 2007



Mali pilot site: launch of the WHO *Clean Care is Safer Care* campaign



Signature of the Ministry of Health of Mali, Bamako, 2007

Yaoundé 4 September 2008, 27 countries signed

Pledges of the Ministries of Health of 27 African countries to *Clean Care is Safer Care,*
Assembly of the MoH, Africa, Yaoundé, Cameroun, 2008


Durban, South Africa, 2007

Durban,
South Africa, 2007

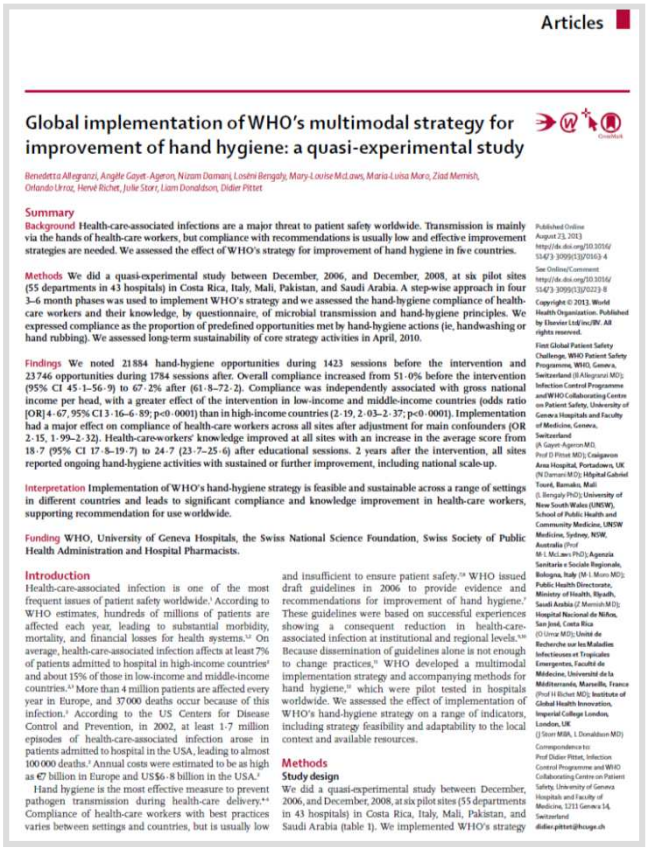
Kyrgyzstan 2006

Hong Kong 2007

Universal system change implemented
(handrubbing vs handwashing)

Universal – Adaptable

Global implementation of the WHO multimodal hand hygiene improvement strategy



Articles

Global implementation of WHO's multimodal strategy for improvement of hand hygiene: a quasi-experimental study

Benedetta Allegranzi, Angèle Gayet-Ageron, Nizam Damani, Loshni Bengaly, Mary-Louise McLaws, Maria-Luisa Moro, Ziad Memish, Orlando Urroz, Hervé Richet, Julie Storr, Liam Donaldson, Didier Pittet

Summary

Background Health-care-associated infections are a major threat to patient safety worldwide. Transmission is mainly via the hands of health-care workers, but compliance with recommendations is usually low and effective improvement strategies are needed. We assessed the effect of WHO's strategy for improvement of hand hygiene in five countries.

Methods We did a quasi-experimental study between December, 2006, and December, 2008, at six pilot sites (55 departments in 43 hospitals) in Costa Rica, Italy, Mali, Pakistan, and Saudi Arabia. A step-wise approach in four 3–6 month phases was used to implement WHO's strategy and we assessed the hand-hygiene compliance of health-care workers and their knowledge, by questionnaire, of microbial transmission and hand-hygiene principles. We expressed compliance as the proportion of predefined opportunities met by hand-hygiene actions (ie, handwashing or hand rubbing). We assessed long-term sustainability of core strategy activities in April, 2010.

Findings We noted 21 884 hand-hygiene opportunities during 1423 sessions before the intervention and 23 746 opportunities during 1784 sessions after. Overall compliance increased from 51·0% before the intervention (95% CI 45·1–56·9) to 67·2% after (61·8–72·2). Compliance was independently associated with gross national income per head, with a greater effect of the intervention in low-income and middle-income countries (odds ratio [OR] 4·67, 95% CI 3·16–6·89; p<0·0001) than in high-income countries (2·19, 2·03–2·37; p<0·0001). Implementation had a major effect on compliance of health-care workers across all sites after adjustment for main confounders (OR 2·15, 1·99–2·32). Health-care-workers' knowledge improved at all sites with an increase in the average score from 18·7 (95% CI 17·8–19·7) to 24·7 (23·7–25·6) after educational sessions. 2 years after the intervention, all sites reported ongoing hand-hygiene activities with sustained or further improvement, including national scale-up.

Interpretation Implementation of WHO's hand-hygiene strategy is feasible and sustainable across a range of settings in different countries and leads to significant compliance and knowledge improvement in health-care workers, supporting recommendation for use worldwide.

Funding WHO, University of Geneva Hospitals, the Swiss National Science Foundation, Swiss Society of Public Health Administration and Hospital Pharmacists.

Introduction

Health-care-associated infection is one of the most frequent issues of patient safety worldwide.[1] According to WHO estimates, hundreds of millions of patients are affected each year, leading to substantial morbidity, mortality, and financial losses for health systems.[1,2] On average, health-care-associated infection affects at least 7% of patients admitted to hospital in high-income countries[3] and about 15% of those in low-income and middle-income countries.[4,5] More than 4 million patients are affected every year in Europe, and 37 000 deaths occur because of this infection.[3] According to the US Centers for Disease Control and Prevention, in 2002, at least 1·7 million episodes of health-care-associated infection arose in patients admitted to hospital in the USA, leading to almost 100 000 deaths.[3] Annual costs were estimated to be as high as €7 billion in Europe and US$6·8 billion in the USA.[3]

Hand hygiene is the most effective measure to prevent pathogen transmission during health-care delivery.[6–8] Compliance of health-care workers with best practices varies between settings and countries, but is usually low and insufficient to ensure patient safety.[7,8] WHO issued draft guidelines in 2006 to provide evidence and recommendations for improvement of hand hygiene.[7] These guidelines were based on successful experiences showing a consequent reduction in health-care-associated infection at institutional and regional levels.[9,10] Because dissemination of guidelines alone is not enough to change practices,[11] WHO developed a multimodal implementation strategy and accompanying methods for hand hygiene,[12] which were pilot tested in hospitals worldwide. We assessed the effect of implementation of WHO's hand-hygiene strategy on a range of indicators, including strategy feasibility and adaptability to the local context and available resources.

Methods

Study design

We did a quasi-experimental study between December, 2006, and December, 2008, at six pilot sites (55 departments in 43 hospitals) in Costa Rica, Italy, Mali, Pakistan, and Saudi Arabia (table 1). We implemented WHO's strategy

Published Online August 23, 2013 http://dx.doi.org/10.1016/S1473-3099(13)70163-4

See Online/Comment http://dx.doi.org/10.1016/S1473-3099(13)70223-8

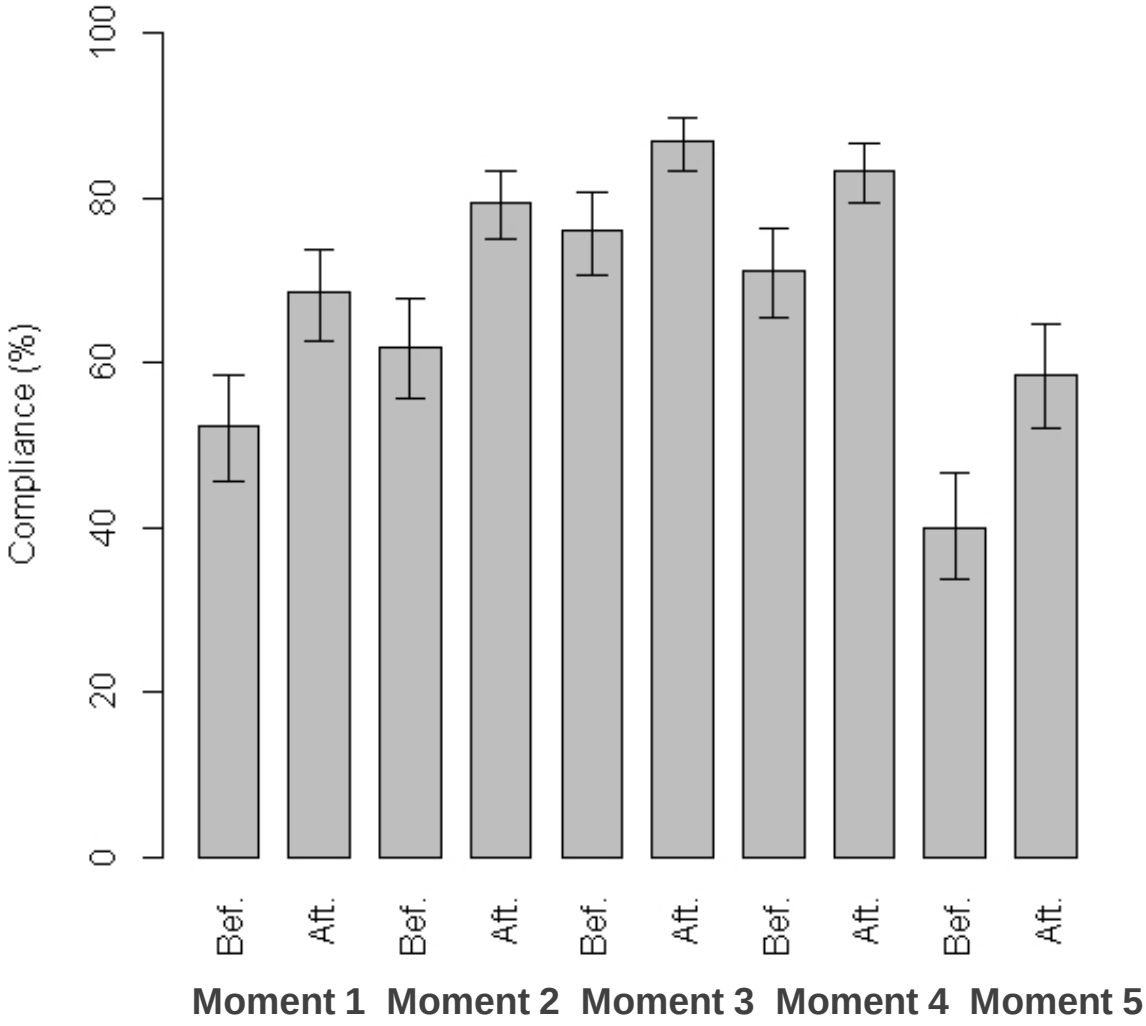
First Global Patient Safety Challenge, WHO Patient Safety Programme, WHO, Geneva, Switzerland (B Allegranzi MD); Infection Control Programme and WHO Collaborating Centre on Patient Safety, University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland (A Gayet-Ageron MD, Prof D Pittet MD); Craigavon Area Hospital, Portadown, UK (N Damani MD); Hôpital Gabriel Touré, Bamako, Mali (L Bengaly PhD); University of New South Wales (UNSW), School of Public Health and Community Medicine, UNSW Medicine, Sydney, NSW, Australia (Prof M-L McLaws PhD); Agenzia Sanitaria e Sociale Regionale, Bologna, Italy (M-L Moro MD); Public Health Directorate, Ministry of Health, Riyadh, Saudi Arabia (Z Memish MD); Hospital Nacional de Niños, San José, Costa Rica (O Urroz MD); Unité de Recherche sur les Maladies Infectieuses et Tropicales Emergentes, Faculté de Médecine, Université de la Méditerranée, Marseille, France (Prof H Richet MD); Institute of Global Health Innovation, Imperial College London, London, UK (J Storr MBA, L Donaldson MD)

Correspondence to: Prof Didier Pittet, Infection Control Programme and WHO Collaborating Centre on Patient Safety, University of Geneva Hospitals and Faculty of Medicine, 1211 Geneva 14, Switzerland didier.pittet@hcuge.ch

Allegranzi B. et al.
Lancet Infectious Diseases, 2013; Aug 22

- 55 departments in 43 hospitals in 5 countries (Costa Rica, Italy, Mali, Pakistan, and Saudi Arabia)
- **Major effect on health-care workers hand hygiene compliance across all professional categories in all sites** (OR 2·15, 1·99–2·32; compliance increase from 51% to 67%)
- **Greater effect of the intervention in low-income and middle-income countries** (4.67, 3.16–6.89) than in high-income countries (2·19, 2·03–2·37)
- **Switch to alcohol-based handrubs in all sites**
- **Significant improvement in health-care workers' knowledge at all sites** (p<0.0001)
- Demonstration of implementation **feasibility and adaptability** of the WHO Multimodal Hand Hygiene Improvement Strategy and its toolkit
- **2 years after the intervention, sustained or further improvement in all sites, including national scale-up**

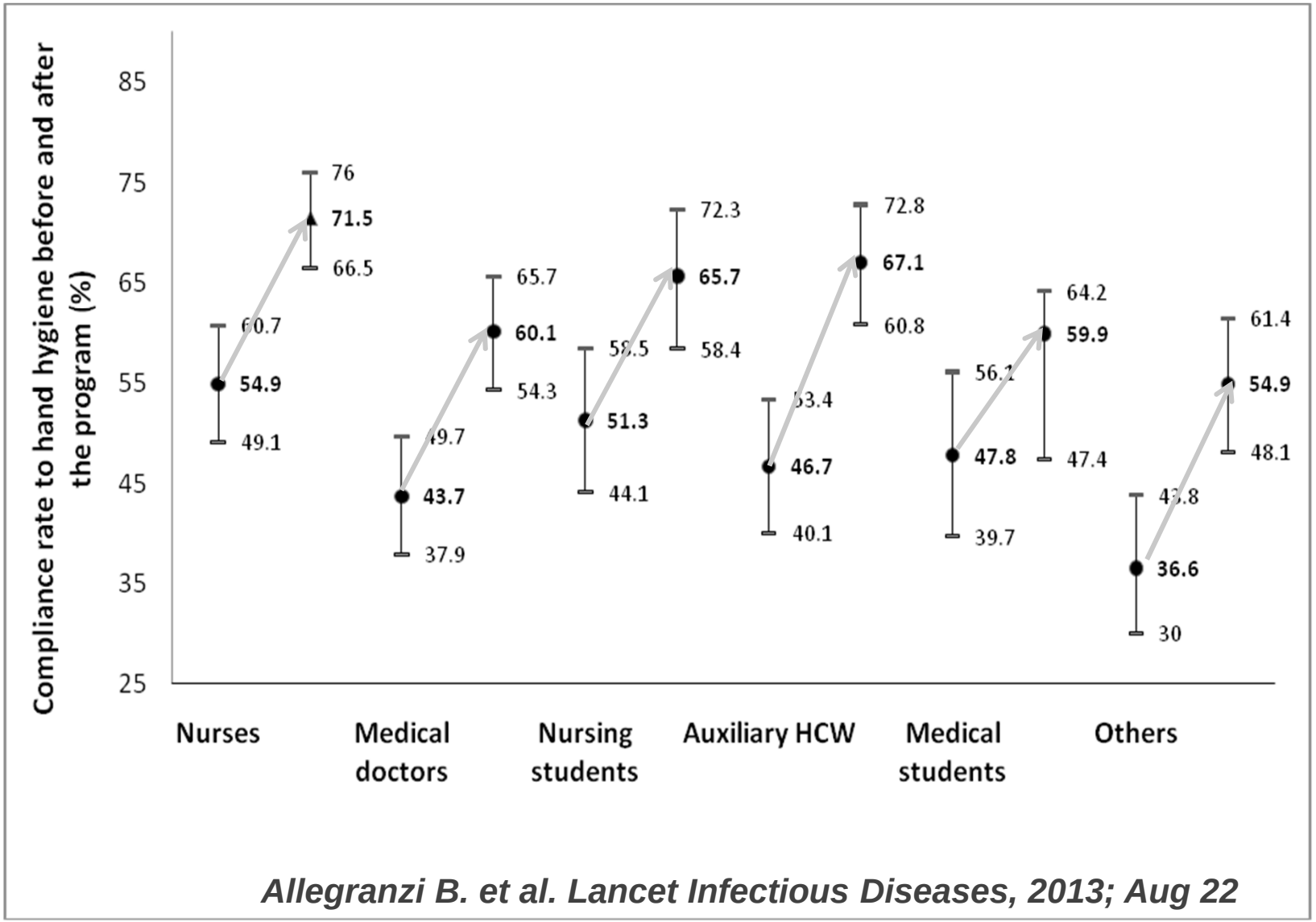
Hand hygiene compliance by indication before and after the implementation



Overall compliance improved:
from 51% to 67%

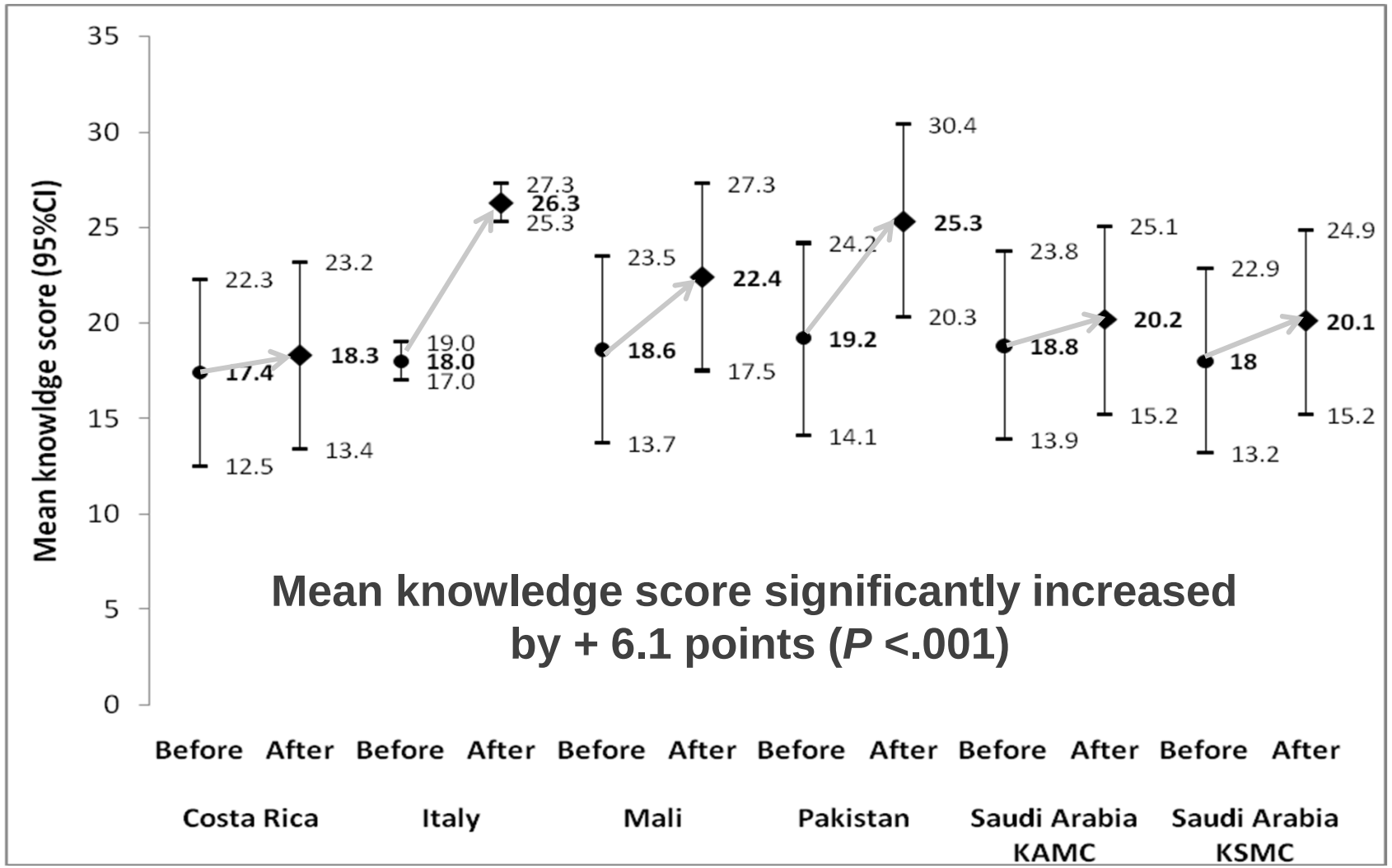
Allegranzi B. et al. Lancet Infectious Diseases, 2013; Aug 22

Hand hygiene compliance rates before and after the implementation by professional categories



Allegranzi B. et al. Lancet Infectious Diseases, 2013; Aug 22

Knowledge of hand hygiene before and after training by pilot site



Allegranzi B. et al. Lancet Infectious Diseases, 2013; Aug 22

Effect of the WHO Intervention Strategy on Hand Hygiene Compliance by Pilot Site

Pilot site	Number of opportunities	Odds Ratio	95% CI	P Value
Costa Rica	2100	5.82	3.28-10.32	< 0.001
Italy	18906	2.27	2.00-2.57	< 0.001
Mali	3546	2.40	1.62-3.55	< 0.001
Pakistan	1332	2.48	1.75-3.52	< 0.001
Saudi Arabia KAMC	2829	2.54	2.00-3.21	< 0.001
Saudi Arabia KSMC	15621	1.83	1.60-2.09	<0.001

Overall effect: OR = 2.15; 95% CI, 1.99-2.32; *P* < .001

Allegranzi B. et al. Lancet Infectious Diseases, 2013; Aug 22

Effect of the WHO Intervention Strategy on Hand Hygiene Compliance by Patient Population

Patient population	Number of opportunities	Odds Ratio	95% CI	P Value
Intensive care units	28096	2.09	1.90-2.30	<0.001
Surgery wards	7383	2.88	2.34-3.54	<0.001
Emergency wards	2034	0.99	0.72-1.36	0.94
Internal medicine wards	1815	7.31	4.10-13.02	<0.001
Pediatric wards	1664	3.99	2.74-5.81	<0.001
Others	3342	0.71	0.51-0.98	0.04

Allegranzi B. et al. Lancet Infectious Diseases, 2013; Aug 22

Indicators of long-term sustainability (2 years follow-up)	Number of sites/total	Site
Strategy implementation continued	6/6	All
Alcohol-based handrub continued to be available*	5/5	All
Educational sessions repeated at least once a year*	5/5	All
Hand hygiene compliance monitoring and feedback repeated regularly*	4/5	Costa Rica, Mali, Saudi KAMC and KSMC
Implementation expanded to other hospitals in the country	5/6	Costa Rica, Italy, Mali, Saudi KAMC and KSMC
Launch or sustainment of a national campaign following pilot testing	4/6	Costa Rica, Italy, Saudi KAMC and KSMC

Adoption and adaptation of *Clean Care is Safer Care* worldwide

Universal – Adaptable – Sustained

Countries running national hand hygiene campaigns
(at least 50 campaigns)

June 2013 update

CleanHandsNet
Hand hygiene national campaigns

World Hand Hygiene Day in healthcare

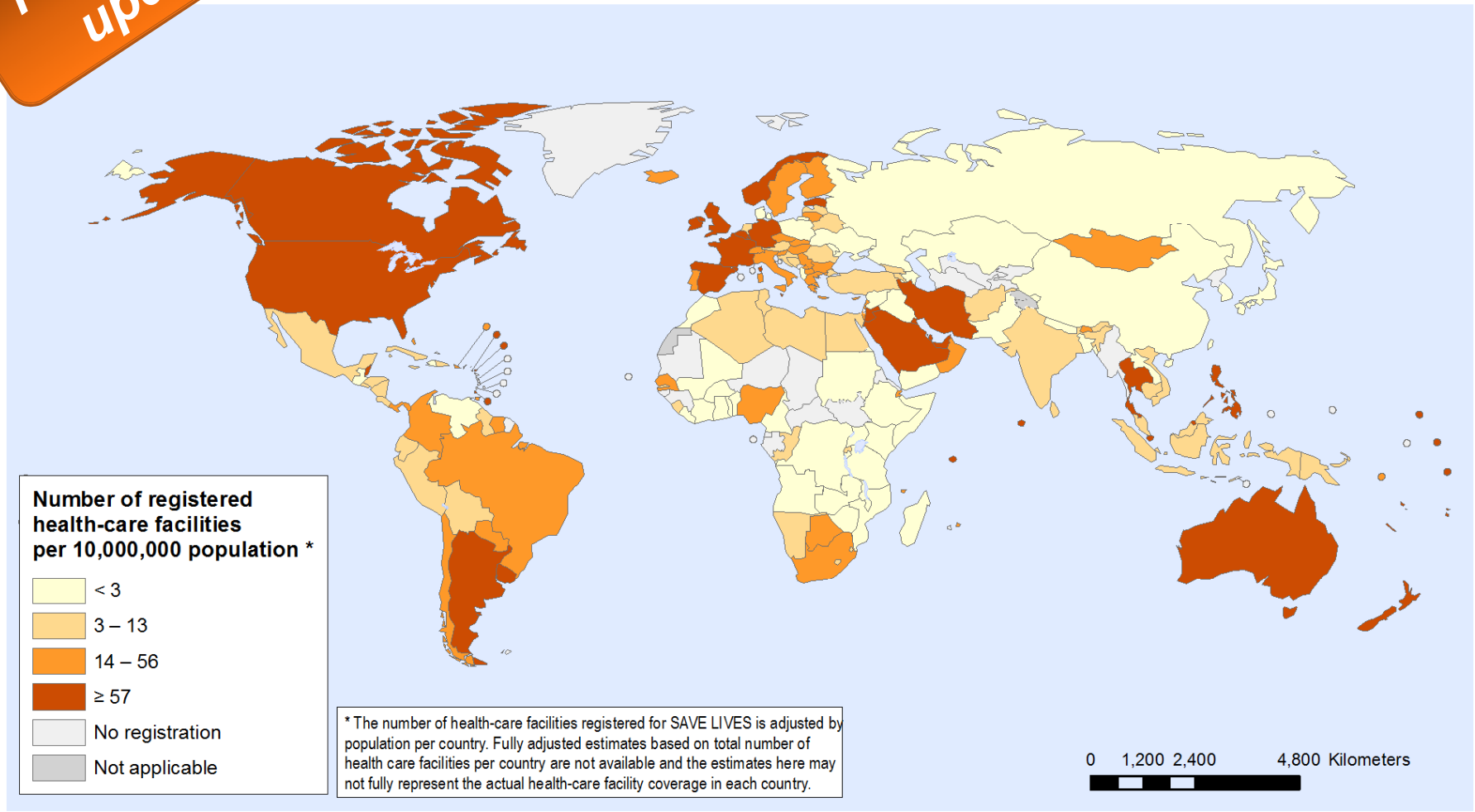
WHO SAVE LIVES: Clean Your Hands

- To maintain a global profile on the importance of hand hygiene in health care to reduce health care-associated infections and enhance patient safety worldwide

- **Every 5 May** – WHO, bringing people together to improve and sustain hand hygiene

1 May 2013 update

Countries with health-care facilities registered for SAVE LIVES: Clean Your Hands global campaign



15 782 registered health-care facilities from 169 countries

More than 9.2 mio health-care staff and 3.9 mio patient beds

National events organized on 5 May

CDC Home

Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People.™

Hand Hygiene Saves Lives

ADVIN

Association des victimes d'infections nosocomiales

ecdc

European Centre for Disease Prevention and Control

EUNETIPS

European network to promote infection prevention for patient safety

APIC

Association for Professionals in Infection Control and Epidemiology

Celebrating 40 years

Join the WHO "Save Lives: Clean Your Hands" campaign – May 5, 2013

HONG KONG INFECTION CONTROL NURSES' ASSOCIATION

WHO SAVE LIVES: Clean Your Hands – WHO Global Annual Campaign

Institute *for* Healthcare Improvement

CHICA-CANADA

SAVE LIVES: Clean Your Hands

Infection Control Africa Network

International Alliance of Patients' Organizations

SAVE LIVES: Clean Your Hands - WHO's global annual campaign

WAAAtb-md

INTERNATIONAL FEDERATION OF INFECTION CONTROL

IFIC

International Federation of Infection Control

World Health Organization

SAVE LIVES: Clean Your Hands

INICC

International Nosocomial Infection Control Consortium

World Health Organization

SAVE LIVES: Clean Your Hands

A continued focus on monitoring and feedback and let the patient voice be heard !

RIPAQS

8 MAY 2013 – A continued focus on monitoring and feedback and let the patient voice be heard !

ESCMID

EUROPEAN SOCIETY OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES

ips

Infection Prevention Society

Support WHO SAVE LIVES: Clean Your Hands 5 May 2013. Find out more at www.who.int/gpsc/5may/en/ and follow @WHO Twitter or World Health Organisation on Facebook.

national-awareness-days.com

SAVE LIVES: Clean Your Hands - WHO's global annual campaign

05 May 2013

Main 5 May stakeholders

Support from Private Organizations for Patient Safety (POPS)

sharing costs and leveraging all possibilities

- **Press releases**

- Videos – Uganda example for 2013 – dancing!

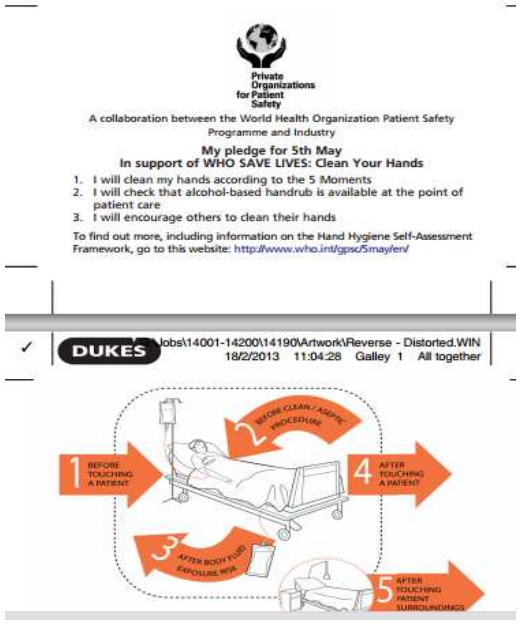
- Banners
- Posters
- Training programmes
- Promoting sign up to SAVE LIVES: Clean Your Hands

Private Organizations for Patient Safety

Private Organisations for Patient Safety (POPS)
A collaboration between the World Health Organisation Patient Safety Programme and industry

Promoting the Hand Hygiene Self Assessment Framework in a number of countries

POPS 5 May pledge card issued 2013 – promoting the 5 Moments


Private Organizations for Patient Safety

A collaboration between the World Health Organization Patient Safety Programme and Industry

My pledge for 5th May
In support of WHO SAVE LIVES: Clean Your Hands

1. I will clean my hands according to the 5 Moments
2. I will check that alcohol-based handrub is available at the point of patient care
3. I will encourage others to clean their hands

To find out more, including information on the Hand Hygiene Self-Assessment Framework, go to this website: http://www.who.int/gpsc/5may/en/

DUKES Jobs\14001-14200\14190\Artwork\Reverse - Distorted.WIN 18/2/2013 11:04:28 Galley 1 All together

- 2000 English (UK) & 2000 French
- 4500 for Spain, Portugal, Finland and Poland
- 5000 for Russia, Japan, Malaysia and China
- 3000 for UK, IRL, IT, PL, Baltics, CH, Slovenia, Croatia, Austria, Germany, Czech Republic, Belgium and Netherlands

World Health Organization | Patient Safety
A World Alliance for Safer Health Care

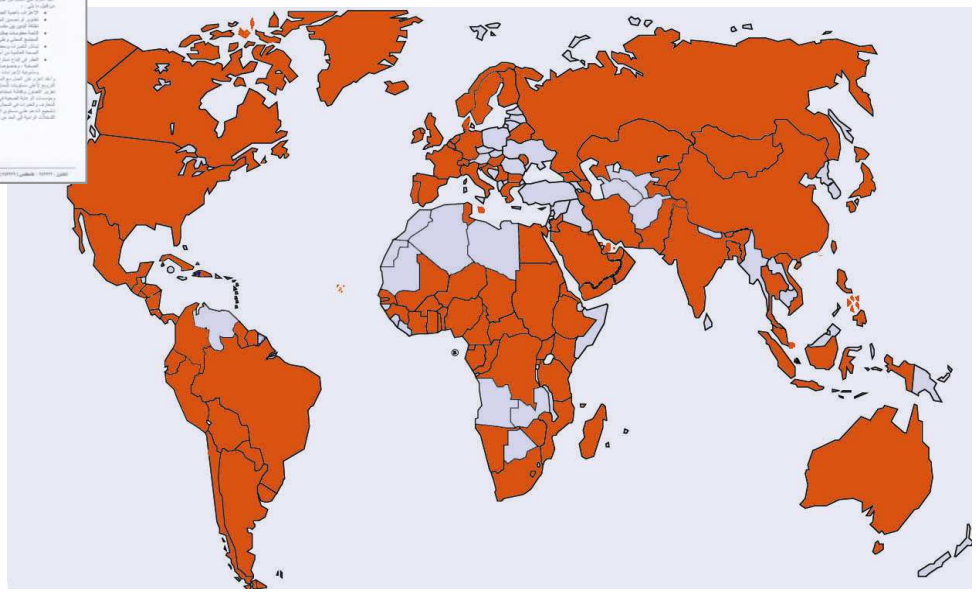
Facilities registered to Save Lives : Clean Your Hands

update June 2013

> 15 800 registered health-care facilities from 169 countries

~ 9.2 million health-care staff and ~ 3.9 million patient beds

From country pledges



… to patient point of care

Evidence of impact of the strategy worldwide…

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY MAY 2007, VOL. 28, NO. 5

Reduction in Surgical Site Infections in Neurosurgical Patients Associated With a Bedside Hand Hygiene Program in Vietnam

Le Thi Anh Thu, MD, PhD; Michael J. Dibley, MBBS, MPH; Vo Van Nho, MD, PhD;
Lennox Archibald, MBBS, MD, FRCP, DTM&H; William R. Jarvis, MD; Annette H. Sohn, MD

TABLE 2. Comparison of Incidence Rate Ratio (IRR) of Surgical Site Infection Among Neurosurgical Patients Between the Wards A and B After the Hand Hygiene Intervention in Ward A, Cho Ray Hospital, Vietnam, July 11 to August 15, 2000, and July 14 to August 18, 2001

	Ward A (1,789 patient-days)		Ward B (3,184 patient-days)			
Variable	No. of patients	No. of cases per 1,000 patient-days	No. of patients	No. of cases per 1,000 patient-days	IRR (95% CI)	Adjusted IRR[a] (95% CI)
SSI						
						65)
Deep	1	0.6	8	2.5	4.5 (0.56-35.9)	4.7 (0.59-37.9)
Organ/space	5	2.8	12	3.8	1.3 (0.48-3.83)	1.6 (0.56-4.55)
Wound classification						
Clean	2	…	11	…	3.3 (0.73-14.76)	3.4 (0.27-42.63)
Contaminated	3	…	8	…	1.4 (0.36-5.16)	3 (0.54-16.99)
Dirty	1	…	4	…	1.2 (0.13-10.71)	0.8 (0.56-4.55)

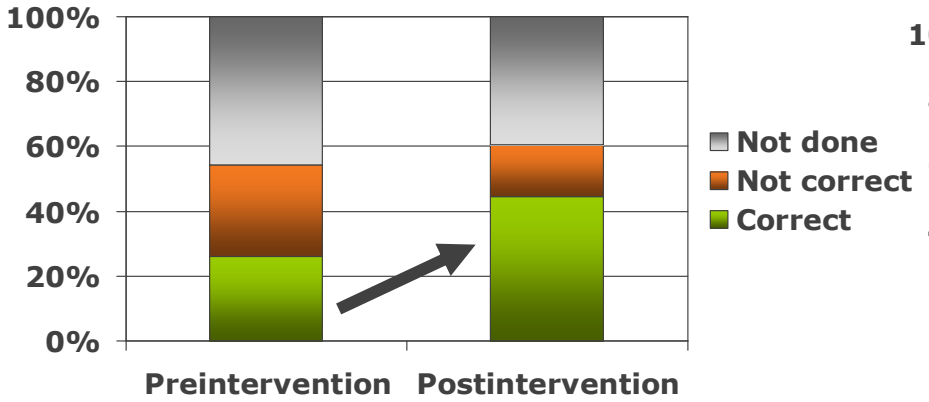
SSI rate reduced by 54% in the intervention ward, more than half of superficial SSIs eliminated

NOTE. The IRR for ward A was 1. CI, confidence interval.

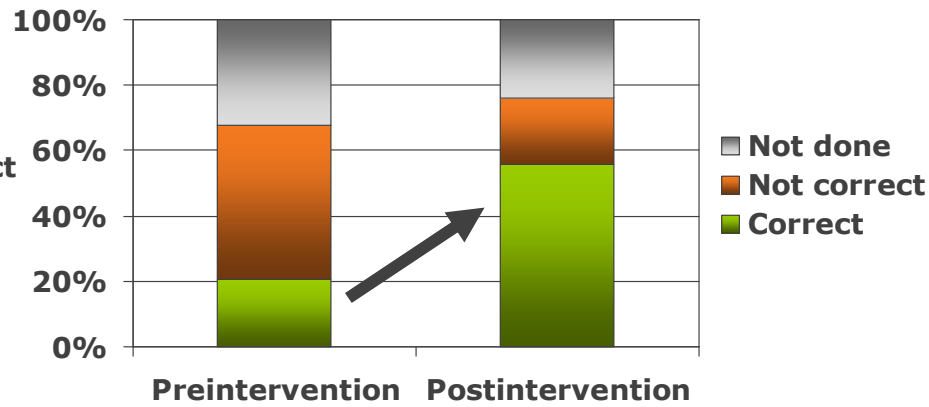
[a] Adjusted for National Nosocomial Infection Surveillance System risk index, prophylaxis, and sex.

[b] IRRs were not calculated because of the value zero for ward A.

Before patient contact



After patient contact

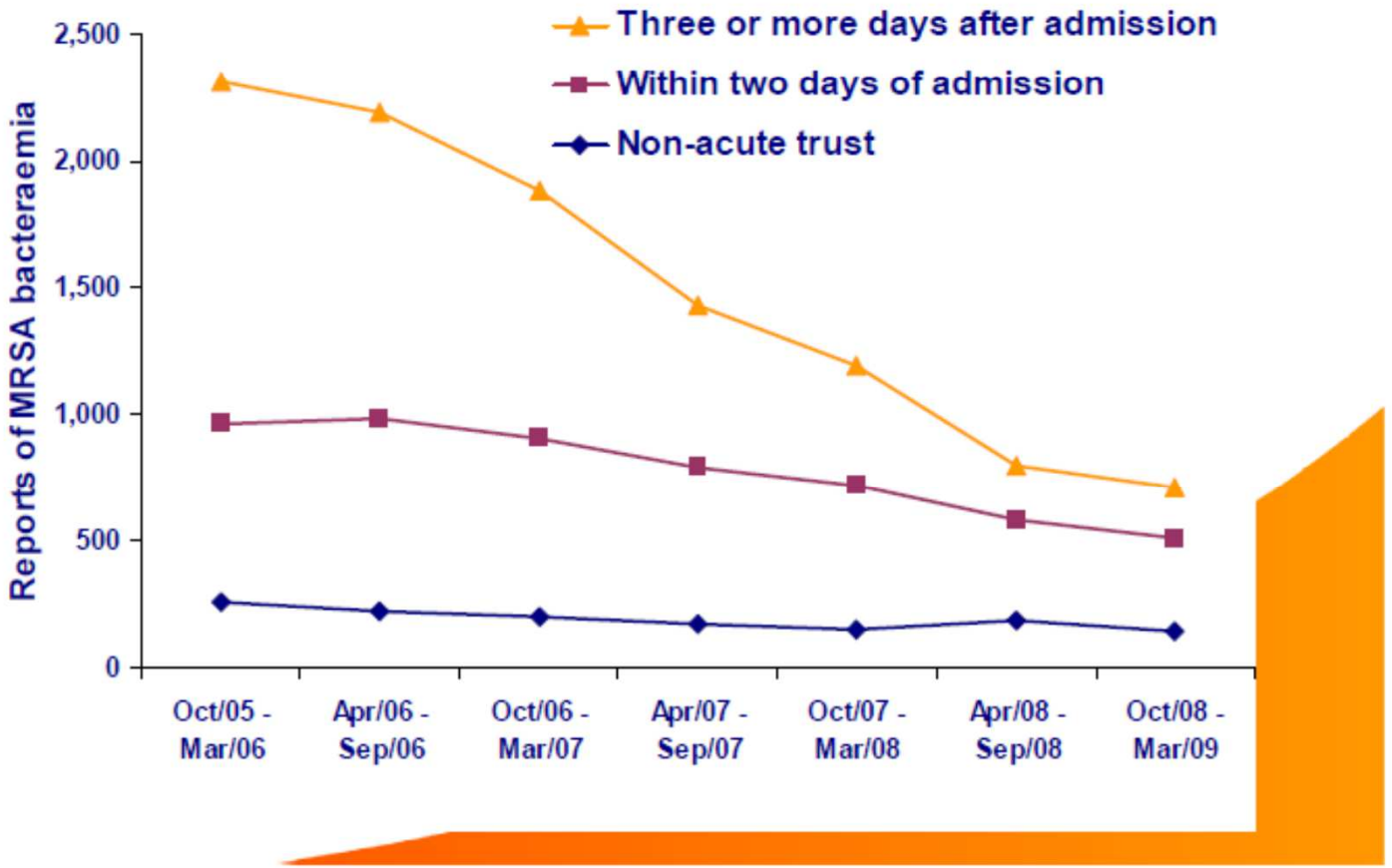


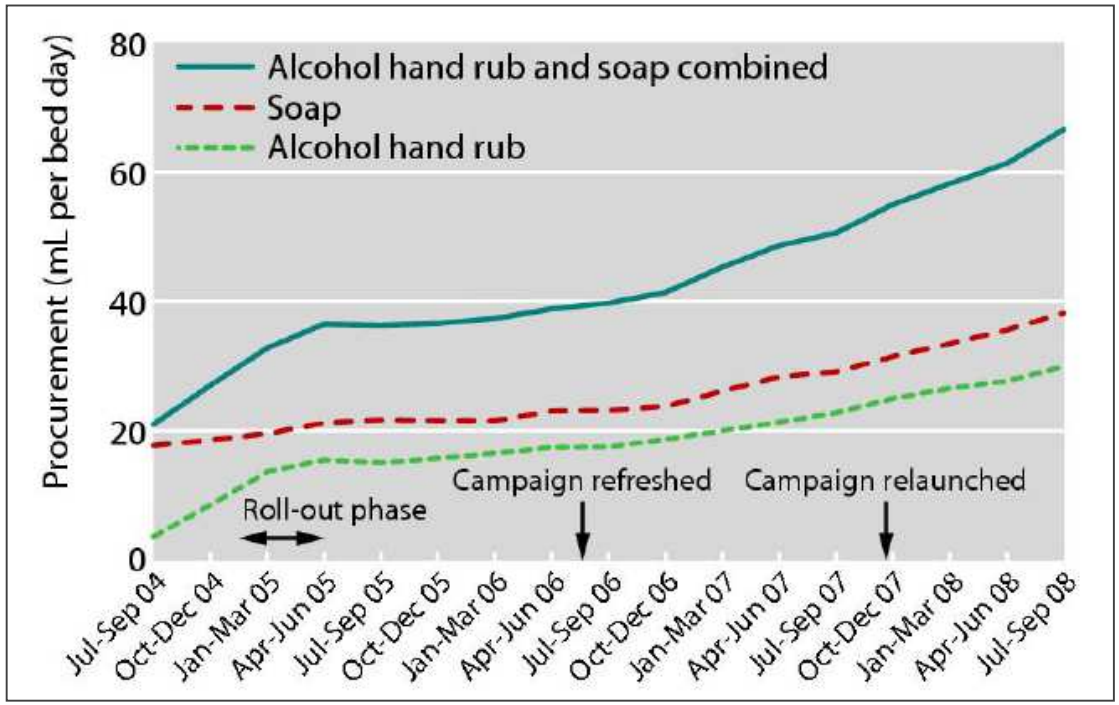
	Baseline	Intervention
Incidence density (n/1‘000 CVC days)	3.9	1.0
	> 70% reduction	
Time to infection (mean ±SD)	6.52 ±3.48	9.3 ±6.63

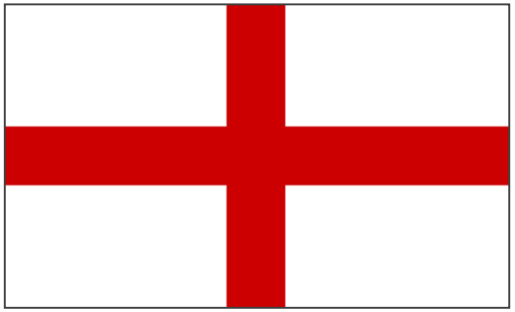
Zingg. *Crit Care Med* 2009;37:2167

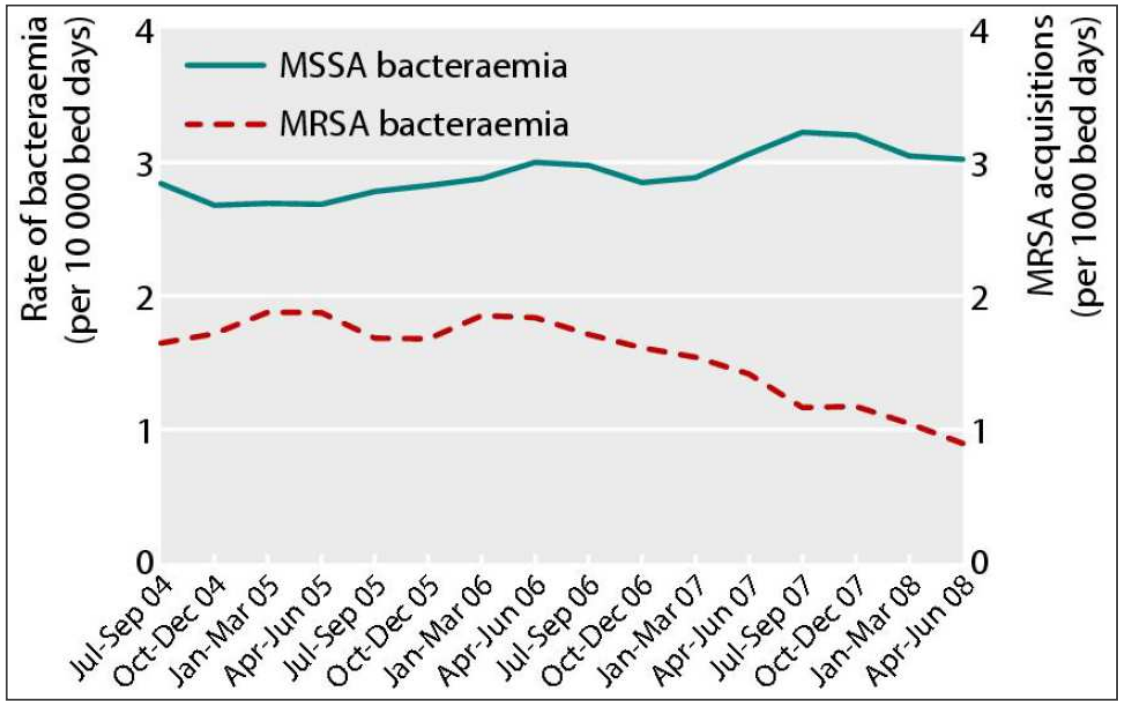
Hôpitaux Universitaires de Genève

Trends in MRSA from 2005 to March 2009





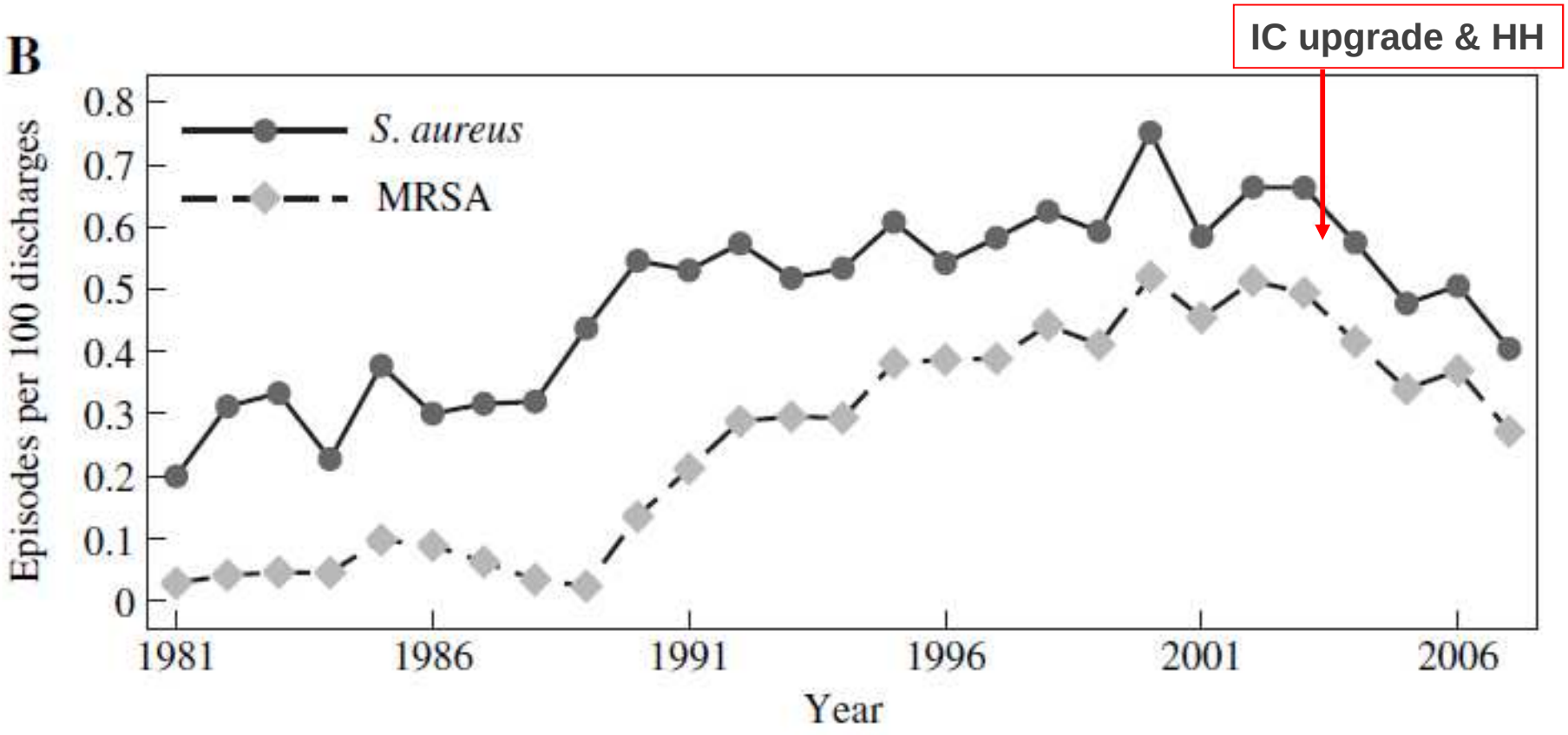




Stone SP et al.
BMJ 2012;344:e3005

Secular trends of healthcare-associated infections at a teaching hospital in Taiwan, 1981–2007

Y.-C. Chuang [a], Y.-C. Chen [b,c,d,*], S.-C. Chang [b,c,d], C.-C. Sun [c], Y.-Y. Chang [c], M.-L. Chen [c], L.-Y. Hsu [b,c], J.-T. Wang [b,c]



Journal of Hospital Infection 2010

Significant reduction of Methicillin-resistant *S. aureus* burden in 38 French hospitals (1993-2007)

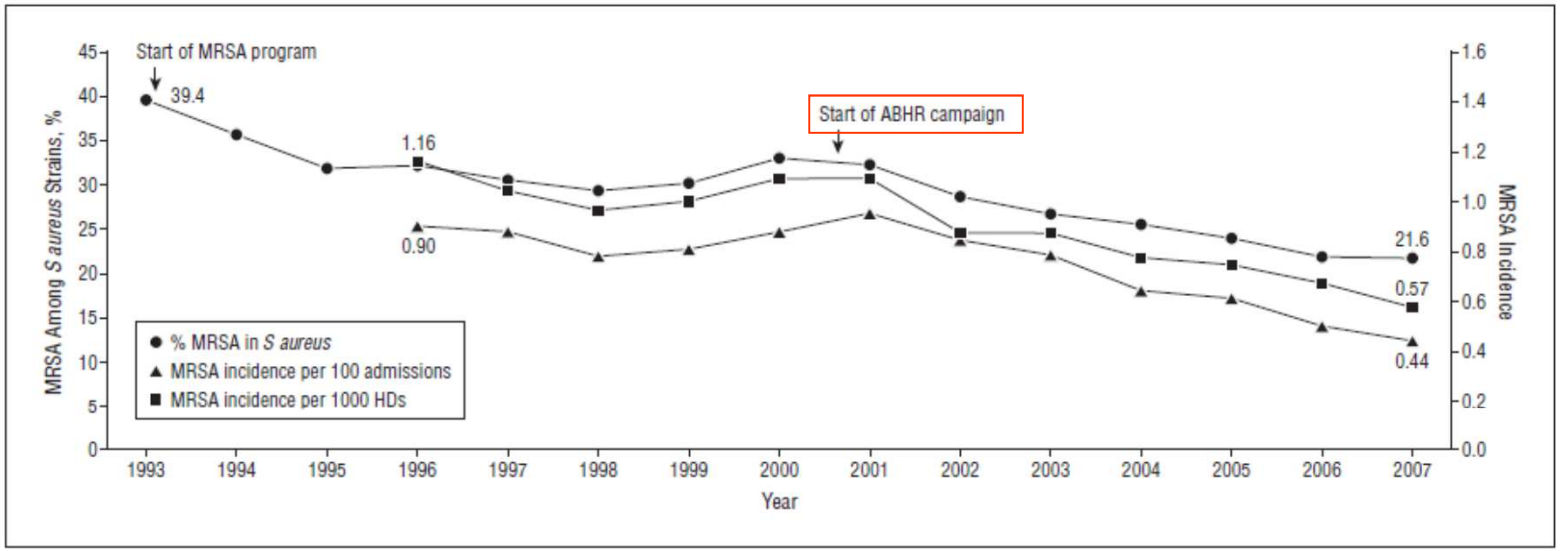


Figure 2. Change in methicillin-resistant *Staphylococcus aureus* (MRSA) rates from 1993 to 2007. Data are given as proportion (percentage) of MRSA in *S aureus*, MRSA incidence per 1000 hospital days, and MRSA rate per 100 admissions.

- **Following the launch of the ABHR campaign the consumption of ABHR increased regulary from 2000 to 2007 (2 L to 21 L per 1000 HD)**
- **In acute care hospitals MRSA rate decrease was sharper after the launch of the ABHR campaign (-2% vs -4.7% per year)**

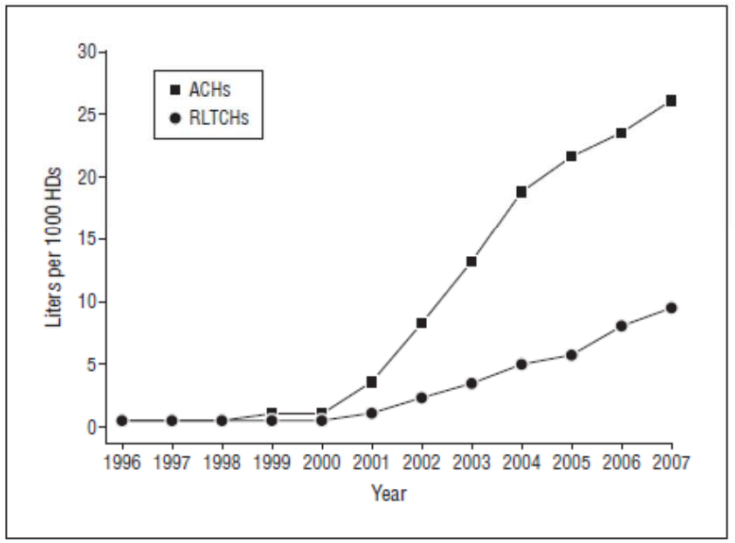
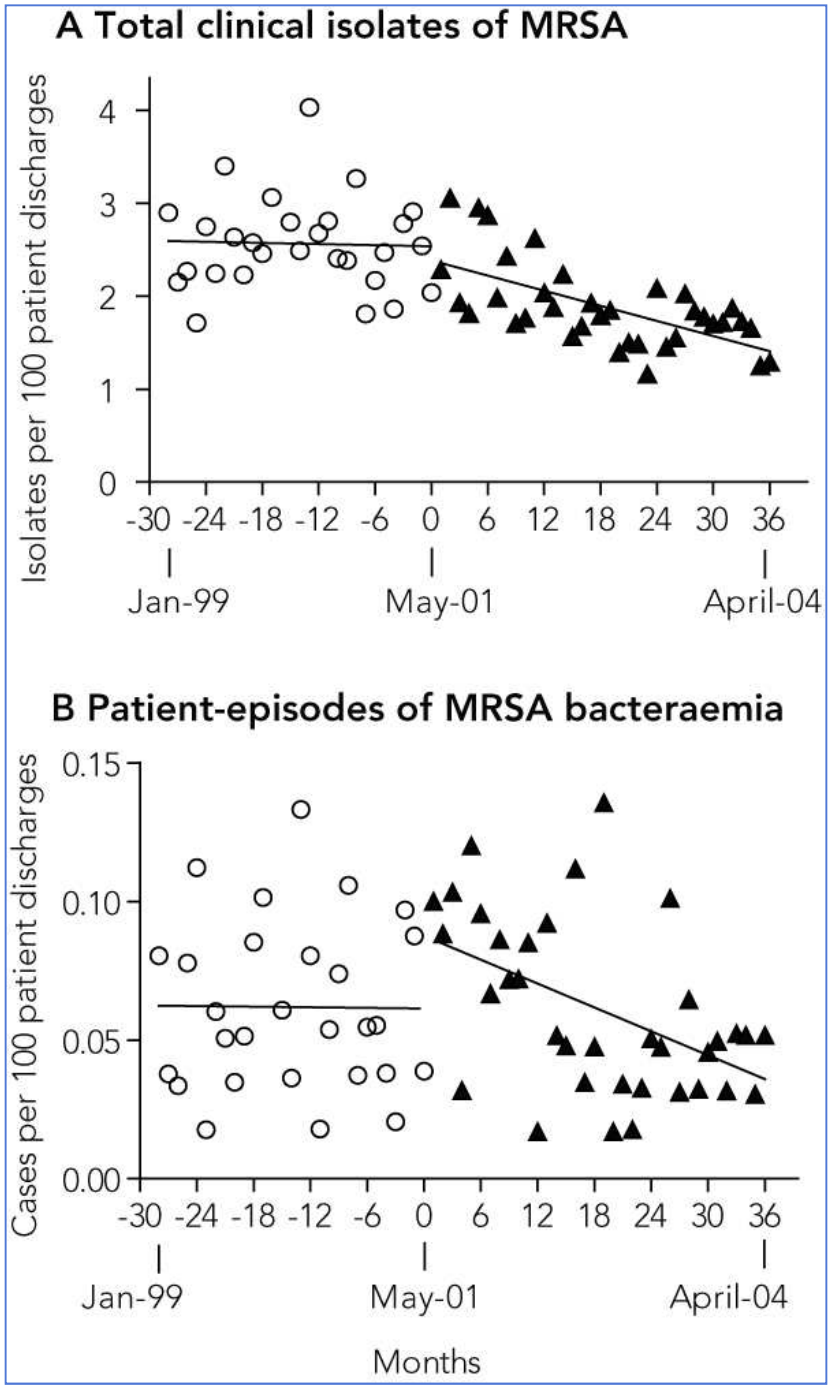


Figure 1. Changes in the use of alcohol-based hand-rub solutions (in liters per 1000 HDs) from 1993 to 2007. ACHs indicates acute care hospitals; RLTCHs, rehabilitation and long-term care hospitals; and HDs, hospital days.

Jarlier et al, Arch Int Med 2010



MRSA isolates and patient-episodes of bacteraemia

After 36 months:

Total MRSA isolates:

- **40% reduction (95% CI, 23%–58%)**
- **1008 fewer clinical isolates**

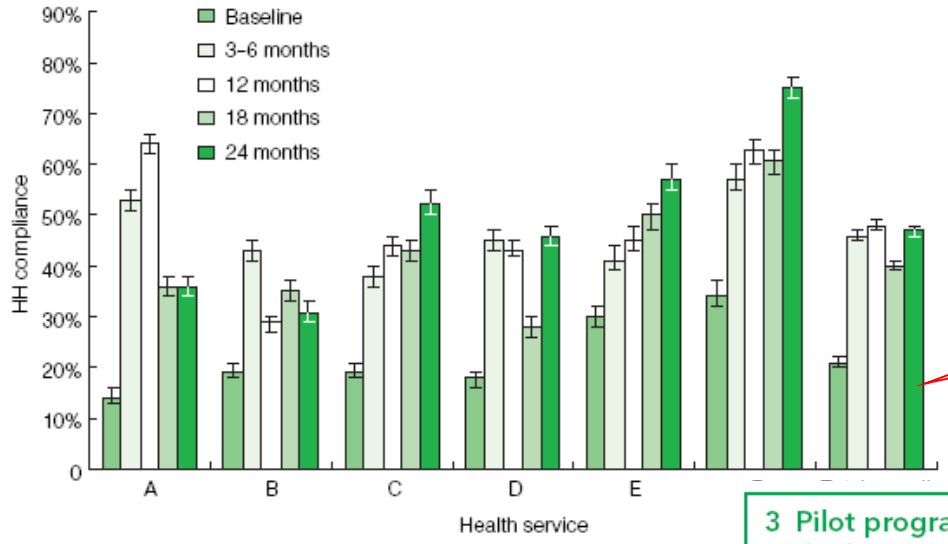
Patients with MRSA bacteraemia:

- **57% reduction in monthly rate (95% CI, 38%–74%)**
- **53 fewer bacteraemias than expected (95% CI, 36–68 episodes)**

Johnson et al. Med J Aust 2005; 183:509-514

Pilot hospitals - Significant reductions of MRSA bacteraemia following hand hygiene promotion

1 Pilot program: hand hygiene (HH) compliance at each of the six pilot program hospitals before and after introduction of the HHCCP*



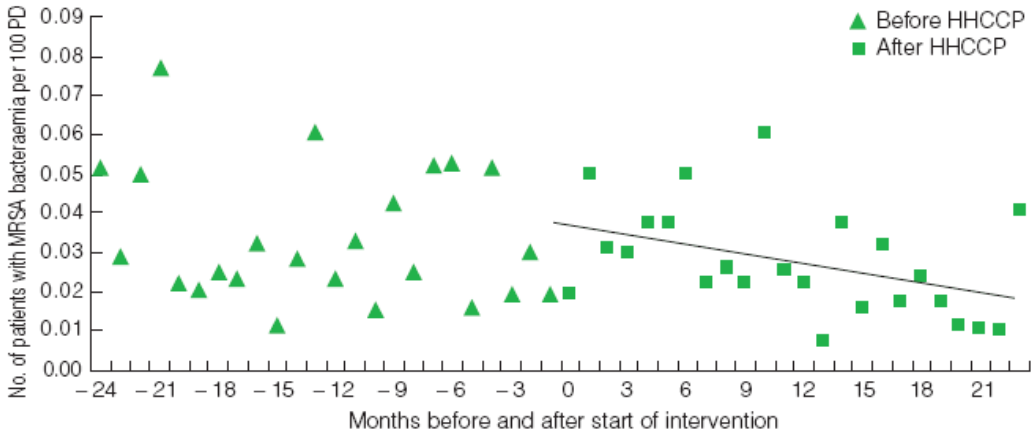
HHCCP = hand hygiene culture-change program. * Mean HH compliance increased 24 months of the pilot study ($P < 0.001$).

Grayson ML et al. Med J Austr 2008

Compliance increase from 21% to 47%

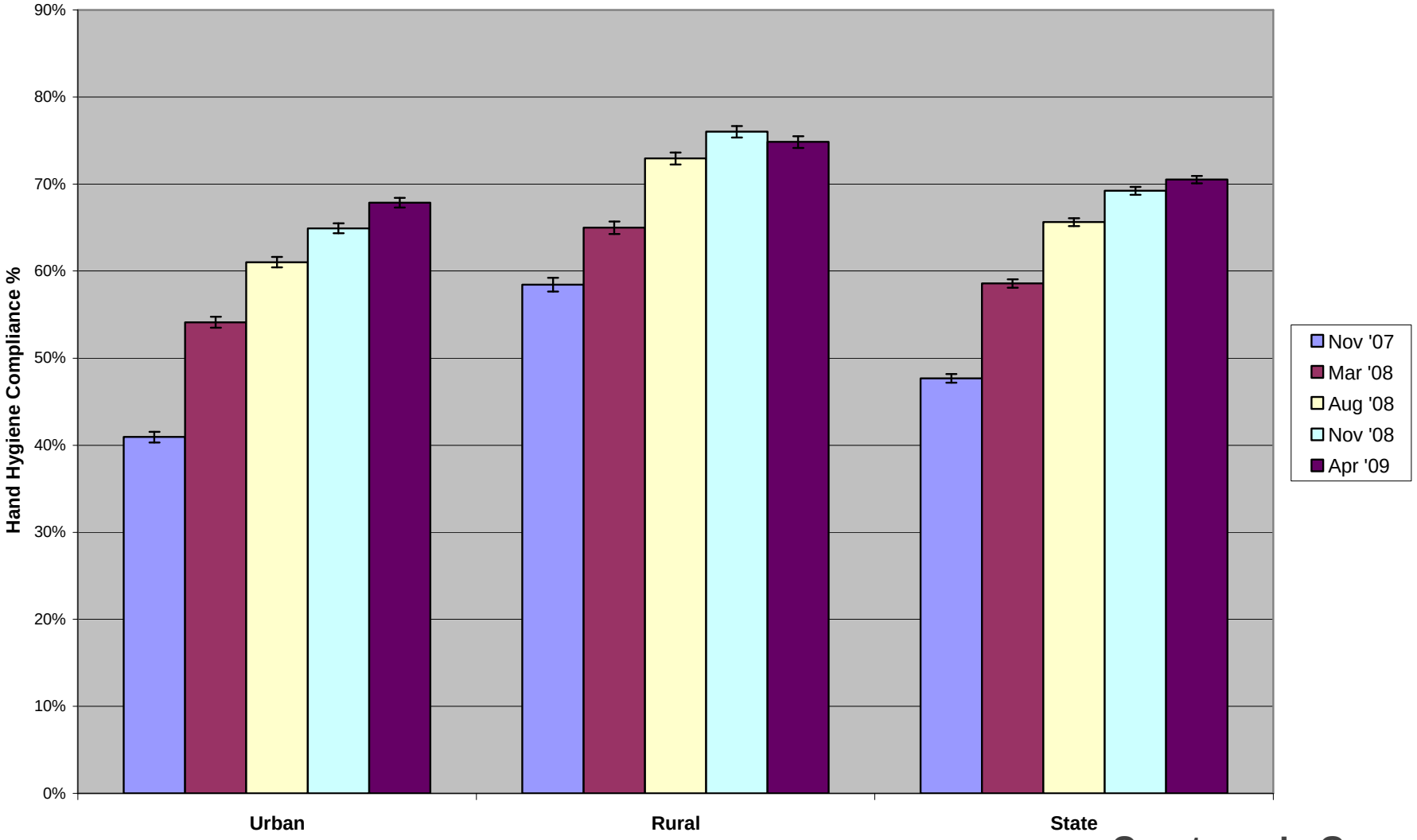
65 (95% CI: 5-126) fewer patients with MRSA bacteraemia in the 6 Pilot hospitals than expected prior to the intervention

3 Pilot program: number of patients with MRSA bacteraemia per 100 patient discharges (PD) per month before and after introduction of the HHCCP*



HHCCP = hand hygiene culture-change program. MRSA = methicillin-resistant *Staphylococcus aureus*.
* A statistically significant reduction in bacteraemias was noted at 24 months after the start of the intervention ($P = 0.035$ for trend).

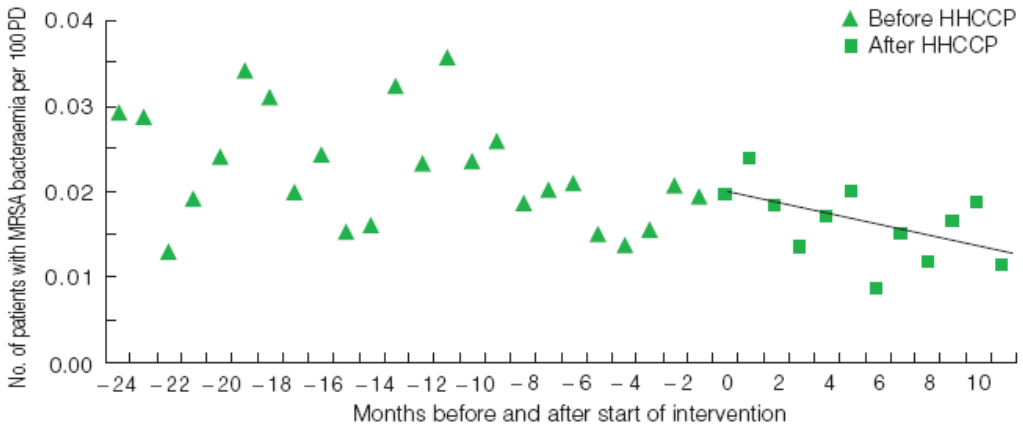
State-wide Hand Hygiene Compliance Monitoring (2.5 y follow-up)



Courtesy: L. Grayson

State-wide - MRSA bacteraemia

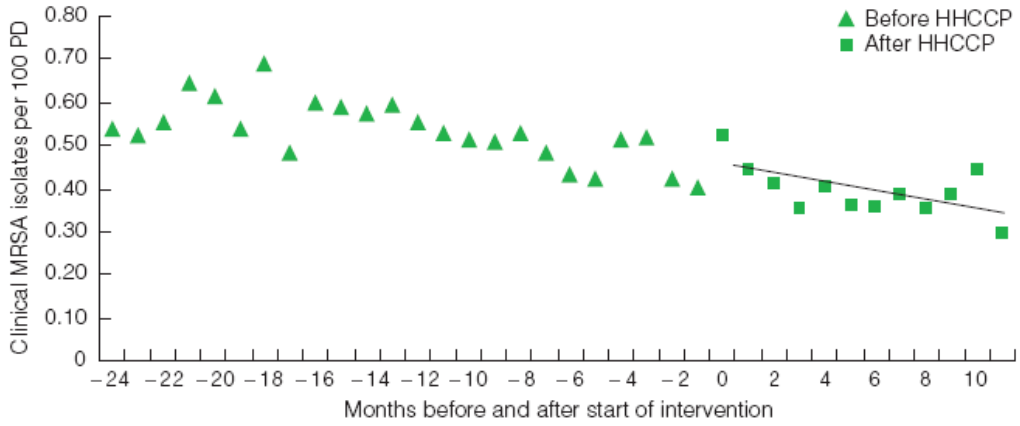
8 Statewide roll-out: patients with MRSA bacteraemia per 100 patient discharges (PD) per month before and after introduction of the HHCCP*



HHCCP = hand hygiene culture-change program. MRSA = methicillin-resistant *Staphylococcus aureus*.
*The number of patients with MRSA bacteraemia per 100 PD fell from 0.029 at 24 months before the intervention to 0.012 at 12 months after the start of the intervention ($P = 0.09$ for

State-wide - MRSA isolates

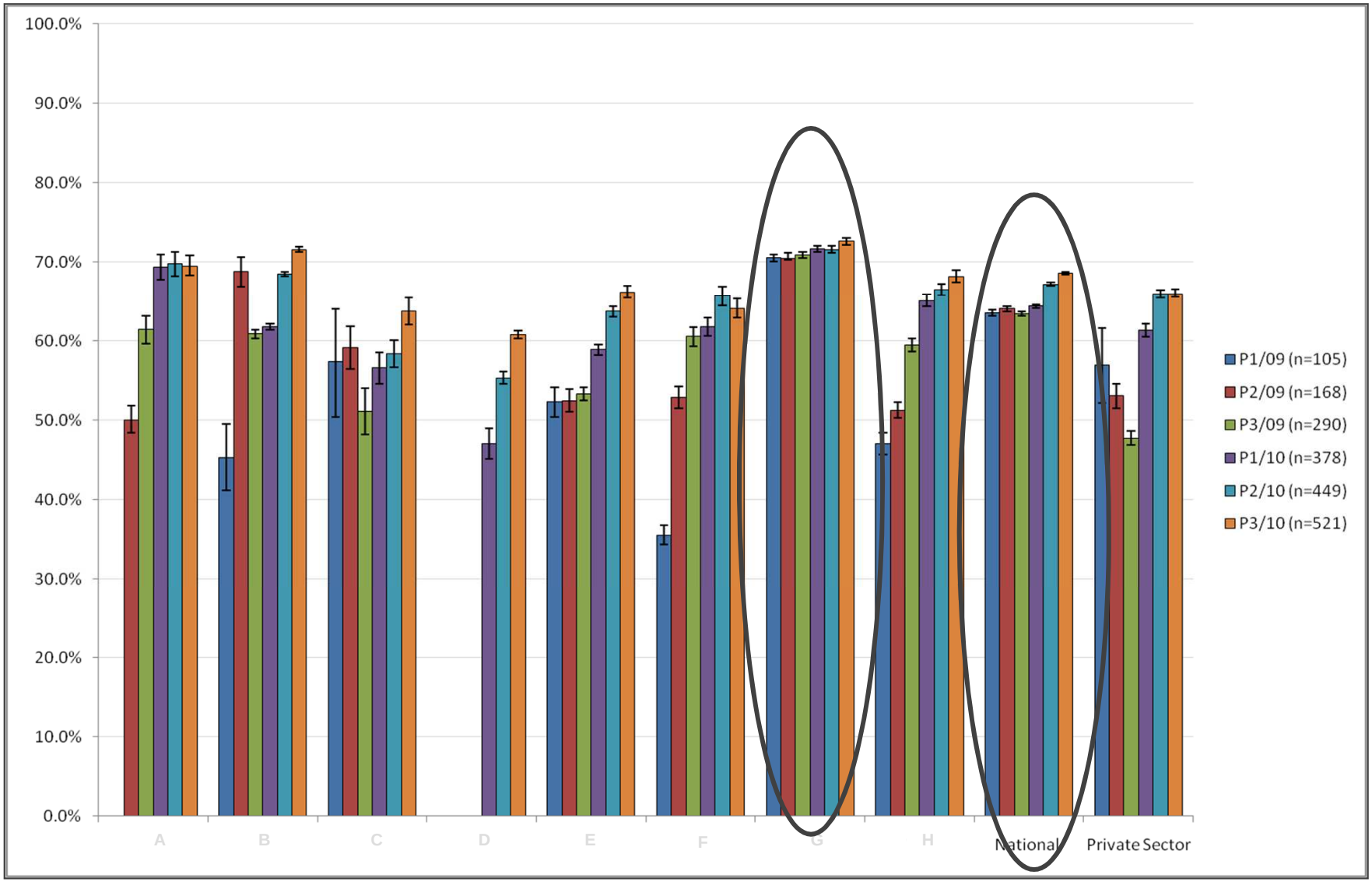
9 Statewide roll-out: total clinical MRSA isolates per 100 patient discharges (PD) per month before and after introduction of the HHCCP*



HHCCP = hand hygiene culture-change program. MRSA = methicillin-resistant *Staphylococcus aureus*.
*During the 24 months before the introduction of the HHCCP there was a significant reduction in rate of MRSA isolates per 100 PD per month ($P = 0.0003$ for trend). After the start of the intervention, the rate continued to decline, falling to a rate of 0.30/100 PD per month after 12 months ($P = 0.043$ for trend). ◆

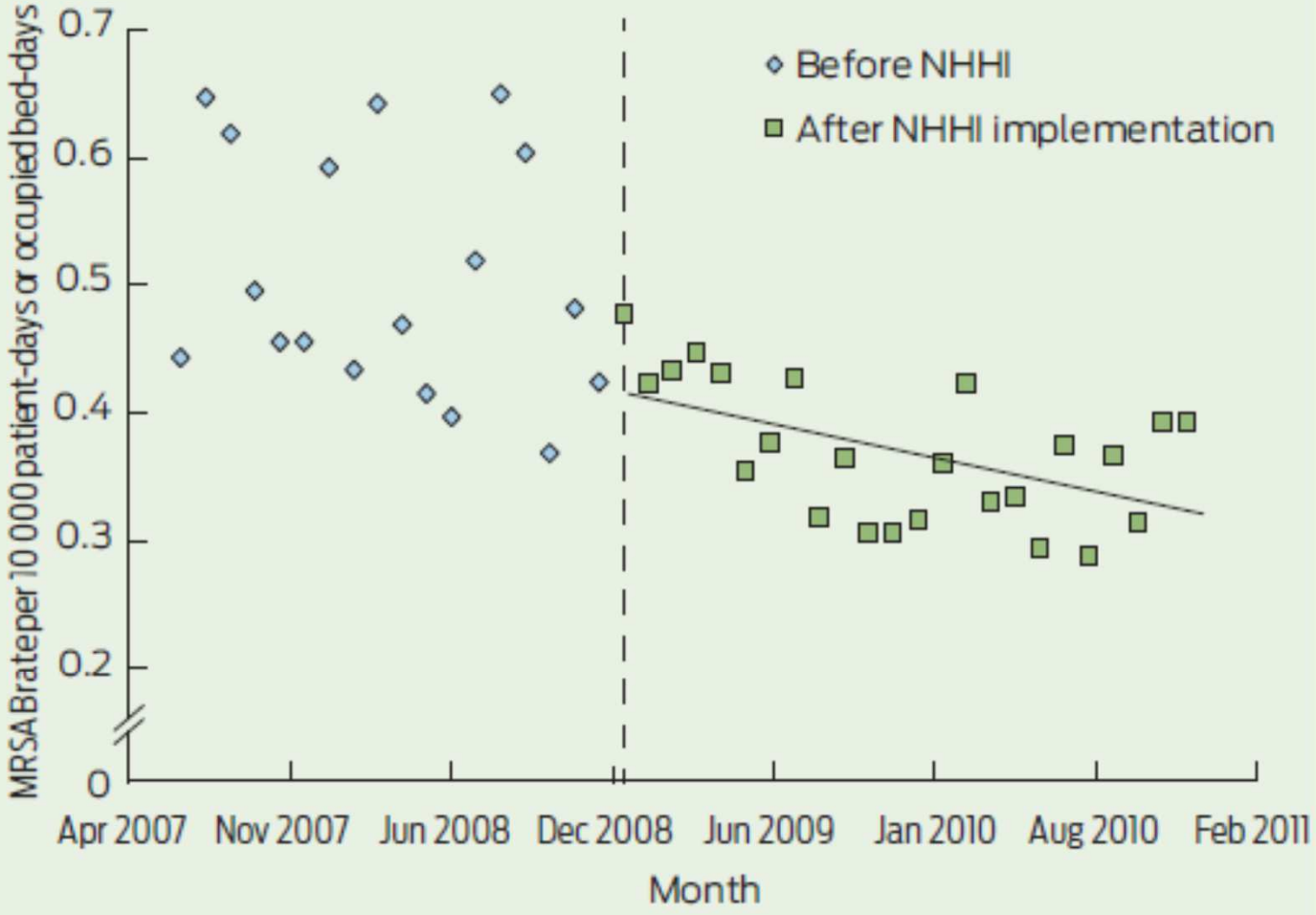
Grayson ML et al. Med J Austr 2008

National Hand Hygiene Compliance rates (521 acute care facilities) - 2009 and 2010



Courtesy: L. Grayson

4 National monthly incidence rates of methicillin-resistant *Staphylococcus aureus* bacteraemia (MRSAB), July 2007 – December 2010*



* Dashed line indicates National Hand Hygiene Initiative (NHHI) implementation. MRSAB rates were statistically stable before implementation ($P = 0.366$) but significantly declined after ($P = 0.008$). ◆

Grayson ML et al.
Med J Austr 2011

The effect of hand hygiene compliance on hospital-acquired infections in an ICU setting in a Kuwaiti teaching hospital

Journal of Infection and Public Health (2013) 6, 27—34

Mona F. Salama[a,b], Wafaa Y. Jamal[a,c], Haifa Al Mousa[d],

"The 3/3 Strategy": A Successful Multifaceted Hospital Wide Hand Hygiene Intervention Based on WHO and Continuous Quality Improvement Methodology

Gabriel Mestre[1]*
Gema Gallemi[2],
Jesús Rodríguez-

Reduction in the incidence of MRSA with use of alcohol-based hand rub solutions and gloves

Kazuaki Matsumoto · Akari Shigemi · Keiko Yaji · Yoshihiro Shimodozono ·

Impact of a hand hygiene educational programme on hospital-acquired infections in medical wards

O. Monistrol[1], E. Calbo[2], M. Riera[1],
1) *Infection Control Nurse and* 2) *Service of*

Impact of a hospital-wide hand hygiene promotion strategy on healthcare-associated

Time-series analysis of the relationship of antimicrobial use and hand hygiene promotion with the incidence of healthcare-associated infections.
Lee YT, Chen SC, Lee MC, Hung HC, Huang HJ, Lin HC, Wu DJ, Tsao SM.
J Antibiot (Tokyo). 2012;65:311-6

Positive deviance: Using a nurse call system to evaluate hand hygiene practices

Rita de Cássia Ribeiro de Macedo RN[a,*], Eloísa Martins Oliveira Jacob RN[a], Vanessa Pio da Silva RN[a], Edson Américo Santana RN[a], Antonio Ferreira de Souza RN[a], Priscila G... MD[c], Miguel Ce...

Impact of a hospital-wide hand hygiene promotion strategy on healthcare-associated infections

Moi Lin Ling* and Kue Bier...

Major article

Promoting and sustainin... resulted in significant re...

Jaffar A. Al-Tawfiq MD[a,*], Mahr...

Impact of a hospital-wide hand hygiene initiative on healthcare-associated infections: results of an interrupted time series

Kathryn B...
Eileen A ...

Effectiveness of a compre... rates in a long-term care facilit...

Steven J...
Douglas ...

Review article

Bundling hand hygiene inte... care—associated infections

Ted Pincock RN, CIC[a,*], Paul Bernstein RN, CIC[b], Shav... Elizabeth Holst BA[d]

[a] Department of Infection Prevention and Control, Queen Elizabeth II Health Sciences Centre, Halifax, NS, Canada
[b] Department of Infection Prevention and Control, New York-Presbyterian Hospital, New York, NY
[c] GOJO Industries, Inc, Akron, OH
[d] Strategic Gear, Cleveland, OH

12 papers in 2012:
1 paper / month





ID






Tools to ensure sustainability of the solution worldwide…

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

Monitoring your institution

“Hand Hygiene Self-Assessment Framework”

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

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 → Five Standardized Questions → Guide to Implementation II.3
	Yes	10	
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

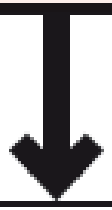
1.
Add up your points.

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)

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



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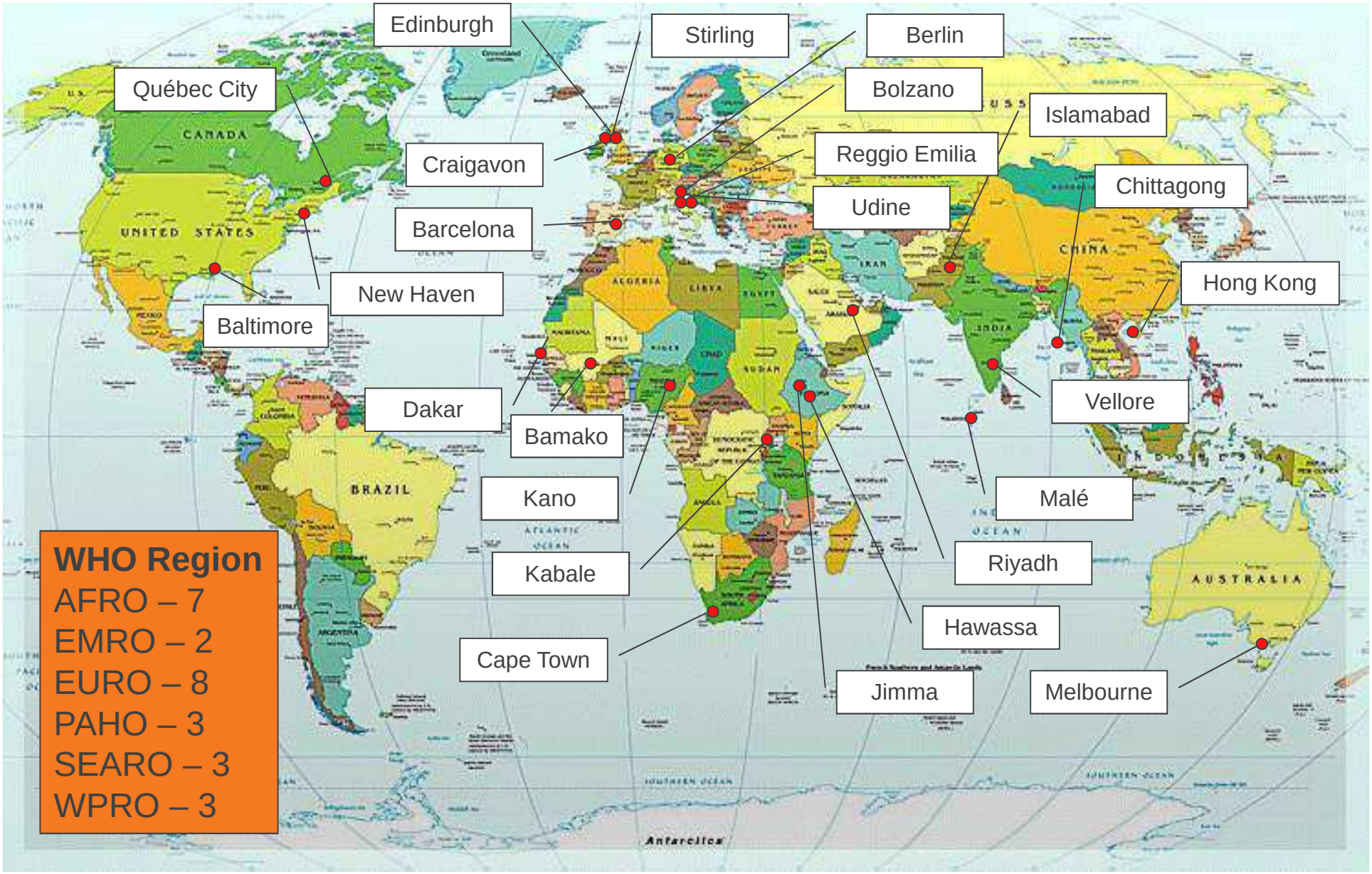
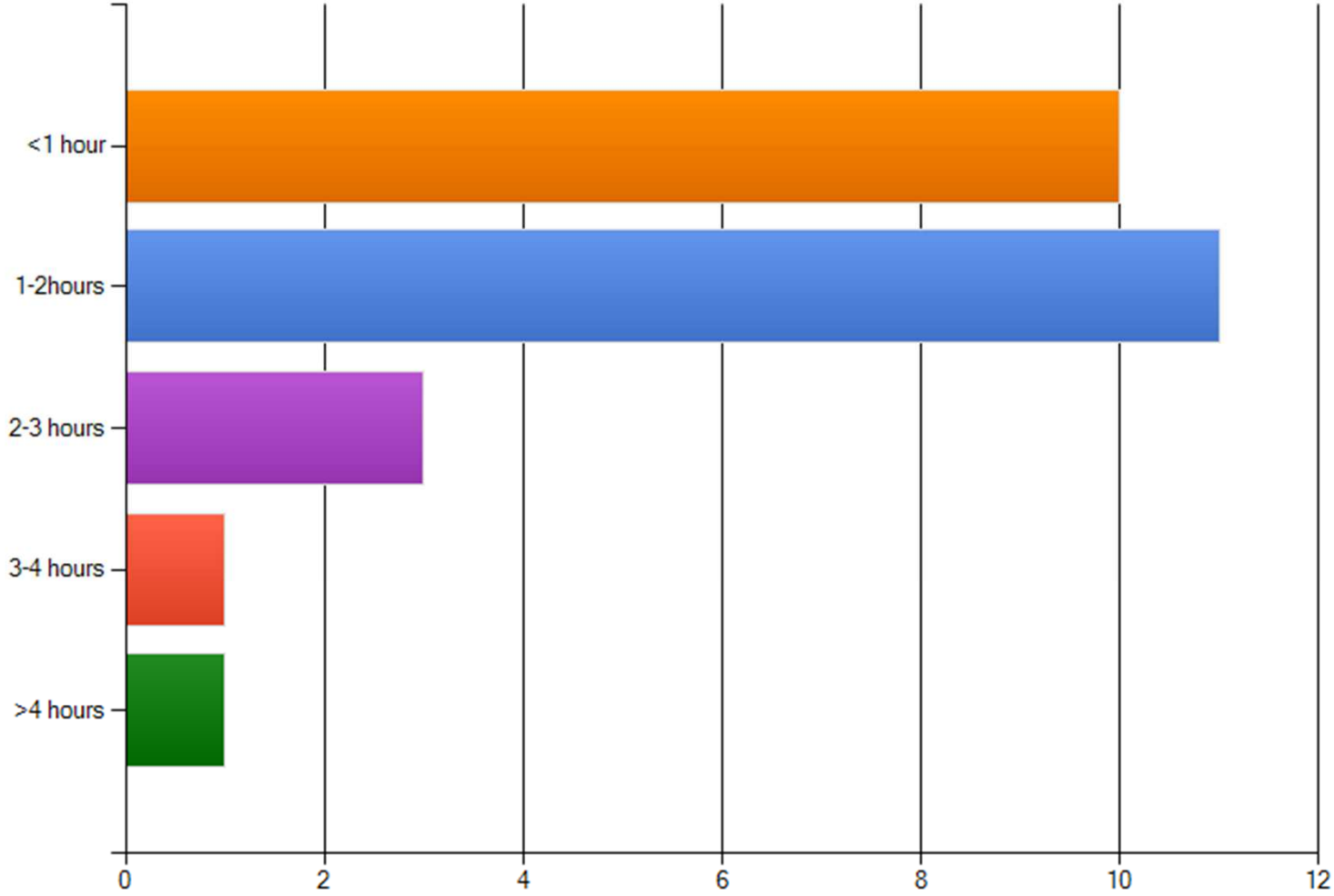
Testing the framework usability- 26 Respondents



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?



Interpretation:

1.
Add up your points.

Score	
Component	**Subtotal**
1. System Change	**85**
2. Education and Training	**60**
3. Evaluation and Feedback	**55**
4. Reminders in the Workplace	**70**
5. Institutional Safety Climate	**65**
Total	**335**

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)

4 levels of HH promotion and practice

1. **Inadequate:** HH practices and promotion are deficient. Significant improvement is required.
2. **Basic:** some measures are in place, but not to a satisfactory standard. Further improvement is required.
3. **Intermediate:** an appropriate HH promotion strategy is in place and HH practices have improved. It is now crucial to develop long-term plans to ensure that improvement is sustained and progresses.
4. **Advanced:** HH promotion and optimal HH practices have been sustained and/or improved, helping to embed a culture of safety in the health-care setting.

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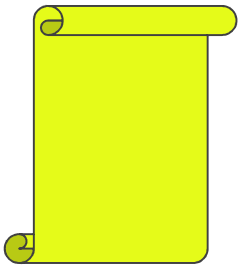
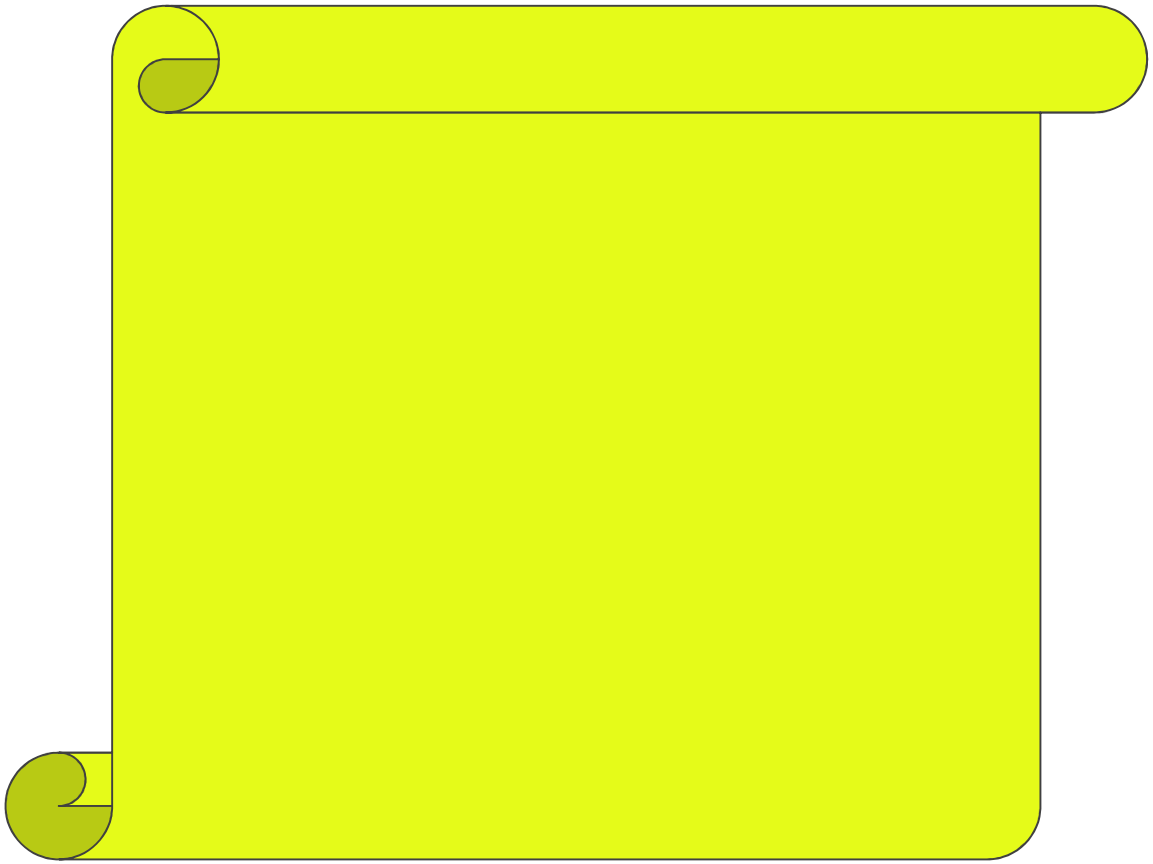


Leadership: *your facility is a reference centre and contribute to the promotion of HH through research, innovation and information sharing.*

Asia-Pacific Award for Excellence in Hand Hygiene promotion



Asia Pacific Hand Hygiene Excellence Award

Asia Pacific Hand Hygiene Innovation Award

2013

AESCULAP ACADEMY

HUG Hôpitaux Universitaires de Genève

APSIC

Expert Review Panel

Professor Didier Pittet (Chair)
Director
Infection Control Program & WHO Collaborating Centre on Patient Safety
Hôpitaux Universitaires de Genève
Geneva, Switzerland

Professor Wing-Hong Seto
Chief Infection Control Officer, Hospital Authority
Senior Consultant Microbiologist & Director
Quality Management, Queen Mary Hospital
WHO Collaborating Centre for Infection Control
Hospital Authority, Hong Kong

Dr Moi-Lin Ling
Director, Infection Control Department
Singapore General Hospital &
President, Asia Pacific Society of Infection Control

Professor Lindsay Grayson
Director, Infectious Diseases & Microbiology
Austin Health
Victoria, Australia

Ms Patricia Ching
Infection Control Specialist
Infection Control & Quality Improvement Department
Queen Mary Hospital, Hong Kong

Ms Glenys Harrington RN, RM
Infection Control Consultant
Infection Control Consultancy (ICC)
Melbourne, Australia

Facilities awarded with the Hand Hygiene Excellence Award in South-East Asia and Western Pacific, in Europe, and in Latin America

WHO Hand Hygiene Self-assessment Framework


Winner of
Asia Pacific
Hand Hygiene Excellence
2011 Award
DR Sardjito
General Hospital
HUG
ASCLEPIAN
ACADEMY

How is the Fra

■ The **Hand Hygiene S** mponents and 27 indicators.

■ The 5 components re **nd Hygiene Improvement Strategy**

■ **Four levels** of hand

- Inadequate: hand hy deficient. Significant improvemer

- Basic: some measure Further improvement is

- Intermediate: an app ace and hand hygiene practices term plans to ensure that improver

- Advanced: han es have been sustained a 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

Leadership

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

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

How to continue …

what's next ?

HUG / Faculty of Medicine
WHO Collaborating Center
on Patient Safety
Geneva, Switzerland

Save the Date:

3rd ICPIC, 16-19 June 2015, Geneva, Switzerland

Semmelweis at ICPIC

New for 2012

SAVE LIVES
Clean Your Hands

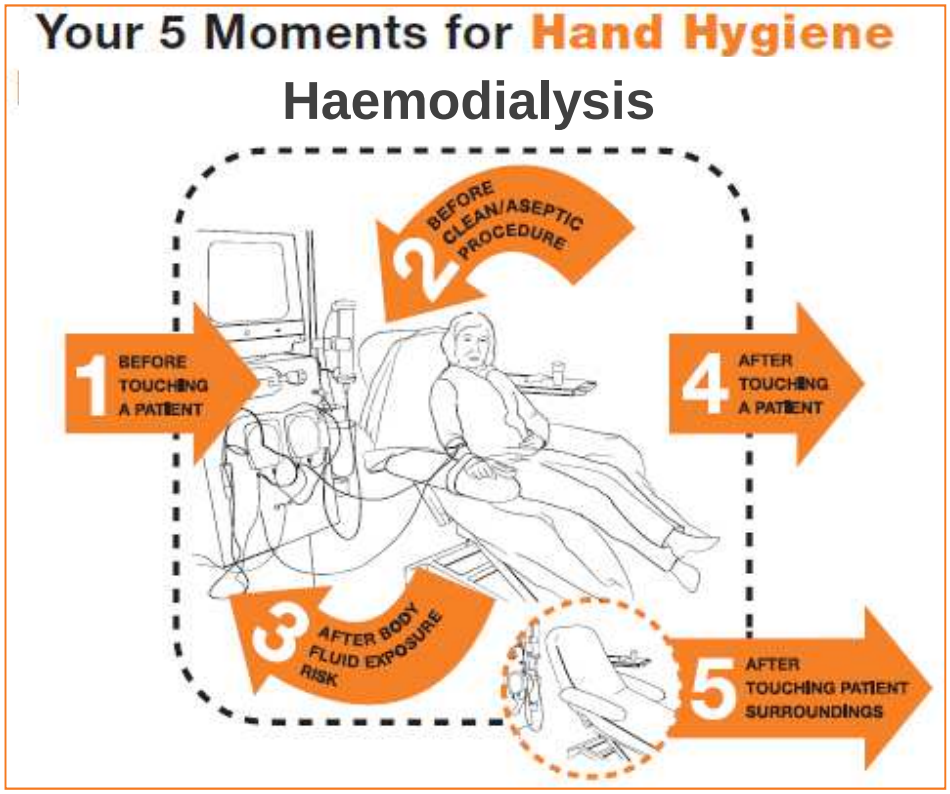
Hand Hygiene in Outpatient and Home-based Care and Long-term Care Facilities

A Guide to the Application of the WHO Multimodal Hand Hygiene Improvement Strategy and the "My Five Moments for Hand Hygiene" Approach

World Health Organization

World Health Organization

It requires adaptation!



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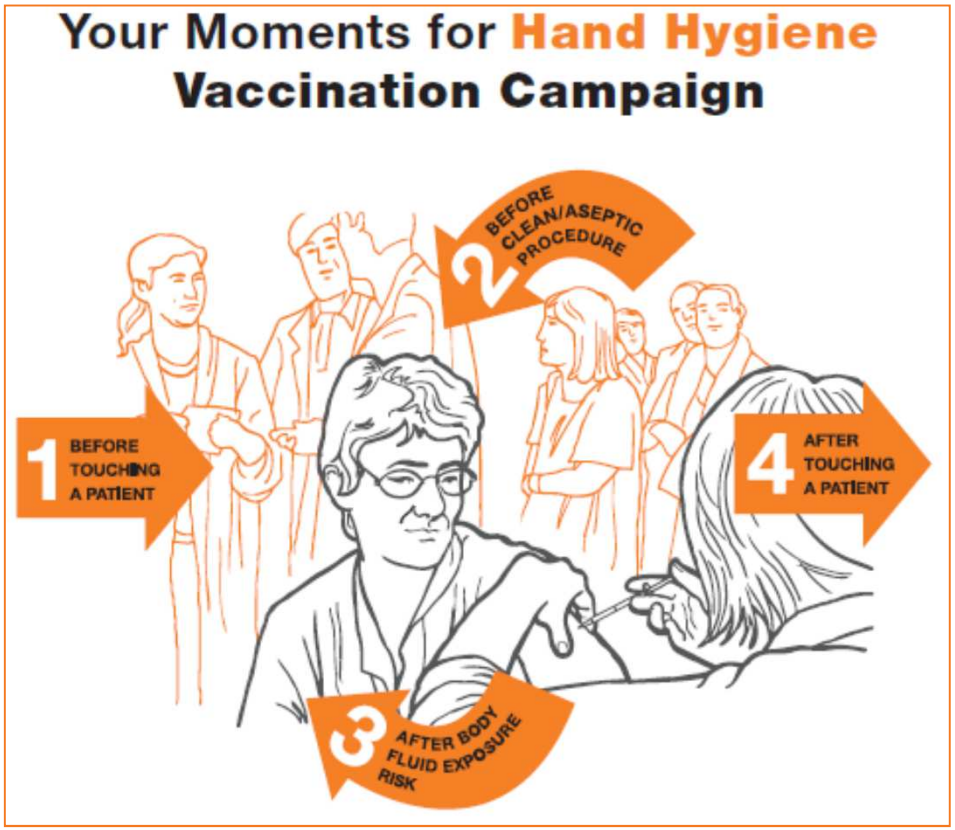
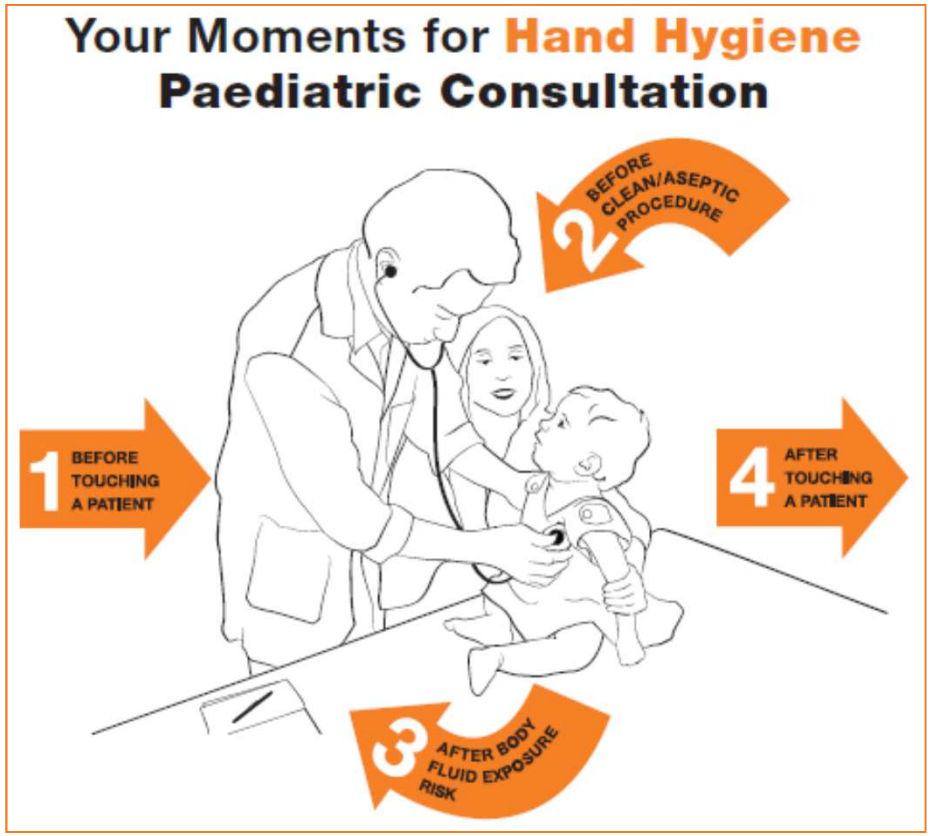




Your Moments for Hand Hygiene
Care in a residential home

1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient.
		WHY?	To protect the patient against harmful germs carried on your hands.
2	BEFORE CLEAN/ ASEPTIC PROCEDURE	WHEN?	Clean your hands immediately before performing a clean/aseptic procedure.
		WHY?	To protect the patient against harmful germs, including the patient's own, from entering his/her body.
3	AFTER BODY FLUID EXPOSURE RISK	WHEN?	Clean your hands immediately after a procedure involving exposure risk to body fluids (and after glove removal).
		WHY?	To protect yourself and the environment from harmful patient germs.
4	AFTER TOUCHING A PATIENT	WHEN?	Clean your hands after touching the patient at the end of the encounter or when the encounter is interrupted.
		WHY?	To protect yourself and the environment from harmful patient germs.

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

Global world - Global Health

Uganda - October 2009

Vision - Perspectives

2006 Annual Report of The Chief Medical Officer

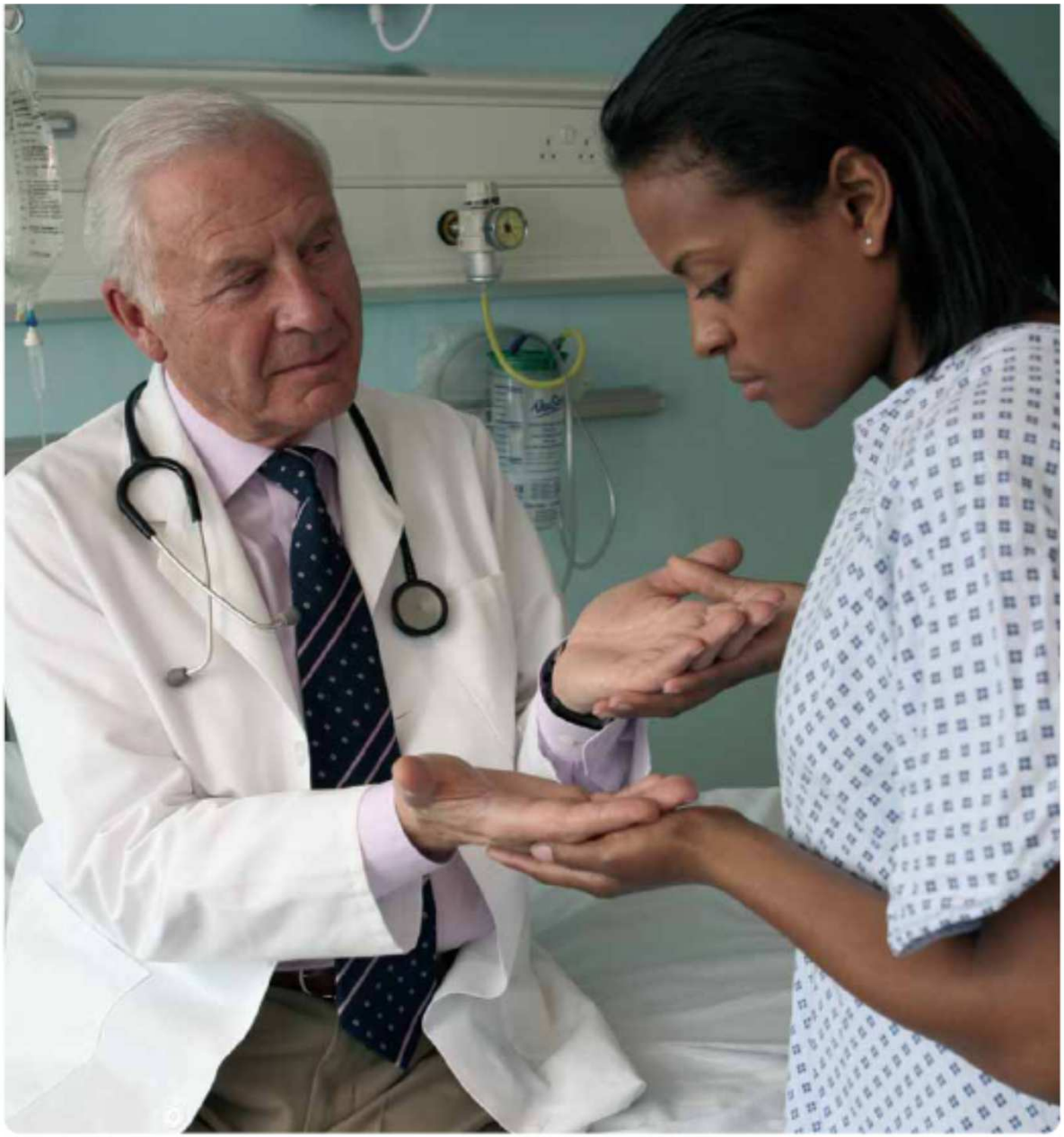
On the State of Public Health

Department of Health

Dirty hands... the human cost

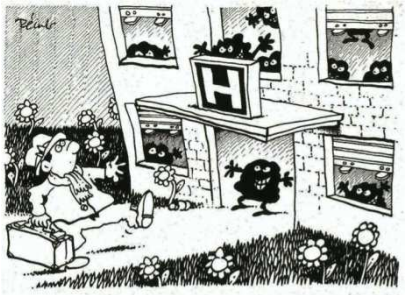
MAIN FEATURES

Healthcare-Associated Infection
Organ Transplants
Radiotherapy
Intrapartum-Related Deaths
Women in Medicine



Longtin Y, Sax H, Leape L, Sheridan S, Donaldson L, Pittet D.
Patient participation: current knowledge and applicability to patient safety.
Mayo Clin Proc 2010, 85:53-62

Health care-associated infection: solutions to the problem



- Prevention strategies reduce infections in developed and developing countries
- Most solutions are simple and not resource-demanding
- Several health-care settings have succeeded in reducing the risk to patients, but others have not

Health care-associated infection prevention: a global health issue…. of global concern

- Gaps in patient safety arise because existing tools and interventions are not being implemented widely

- Gaps exist not only between countries, but also within the same country

  … both in developed and developing countries


IV
Making healthcare safer
... together

The Geneva IC team and HCWs: inspiring WHO on hand hygiene improvement worldwide

World Health Organization

The 1st Global Patient Safety Challenge Team

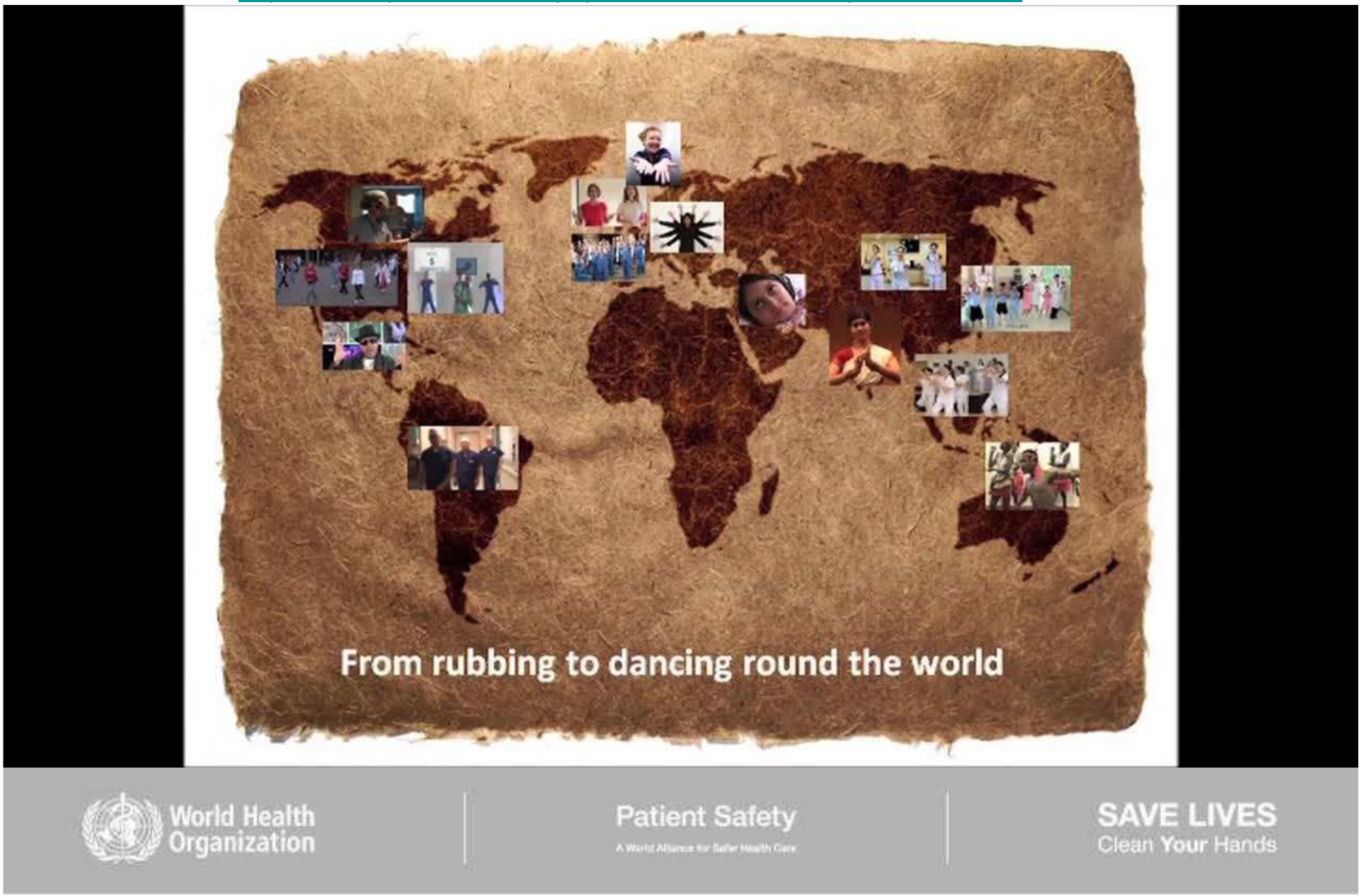
The African Partnerships for Patient Safety Team

Core group of international experts

Core group of international experts

From rubbing to dancing round the world …

http://www.icpic.com/index.php/conference-videos/icpic-2013-trailer



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ICPIC 2013

ICPIC International Consortium for Prevention & Infection Control

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ICPIC 2013 trailer

Save the Date:

3rd ICPIC, 16-19 June 2015, Geneva, Switzerland

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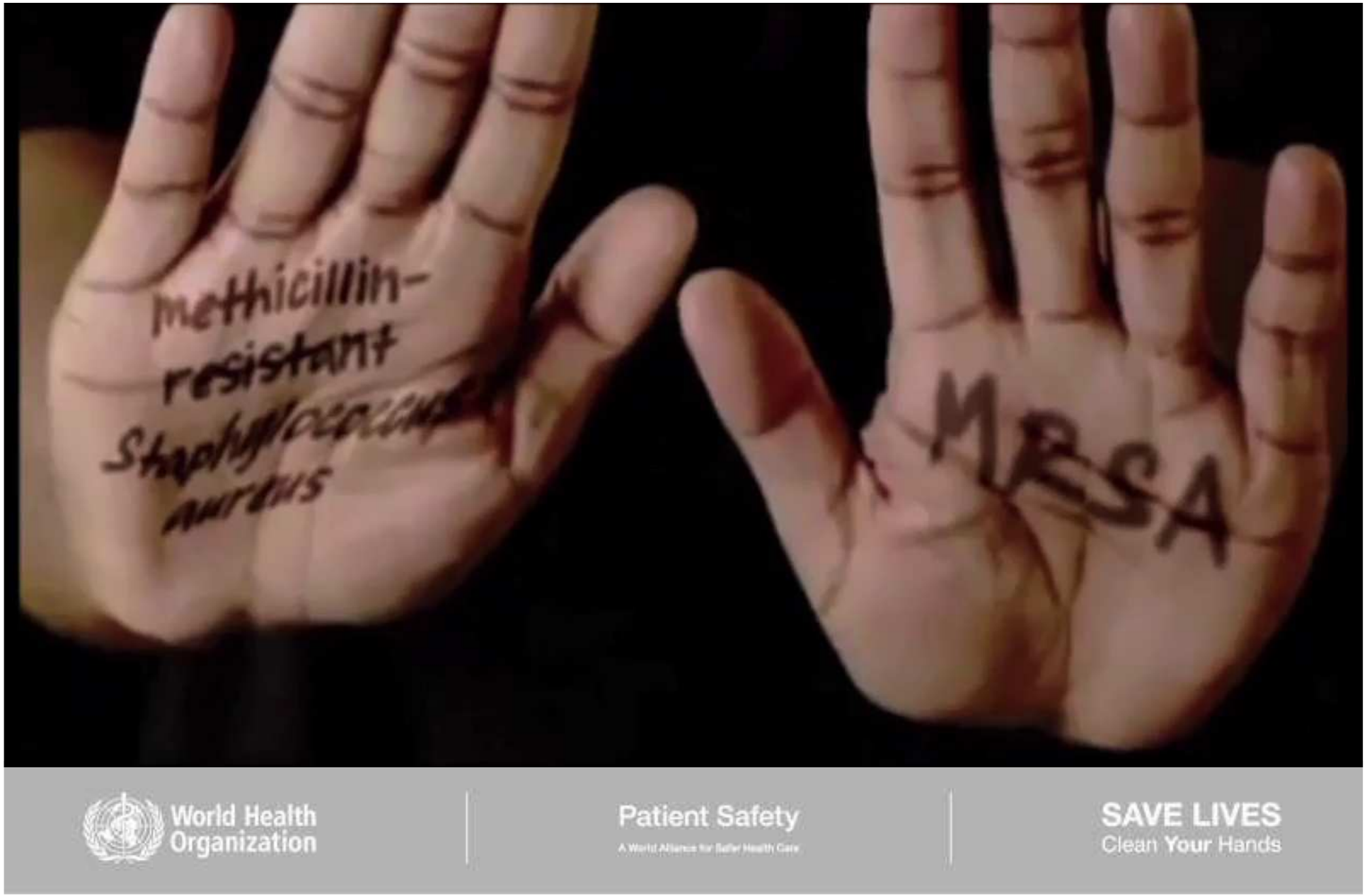

http://www.icpic.com/index.php/conference-videos/icpic-2013-trailer

Healthcare-associated infections affect millions of patients worldwide