The 1st Global Patient Safety Challenge:  
Clean Care is Safer Care  
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WHO World Alliance for Patient Safety &  
Director, Infection Control Program  
The University of Geneva Hospitals, Switzerland

Recap: the World Alliance for Patient Safety

- October 2004 – launch of the World Alliance for Patient Safety by Director General of WHO  
- To address adverse events in healthcare

Overview of the Alliance

- Supports countries in developing safe systems  
- Generates awareness and commitment: political, clinical, patient  
- Engages global and regional partners: private, public, NGO  
- Develops and shares knowledge: guidelines, standards, research data, solutions, reporting & learning  
- Provides technical expertise to countries  
- Mobilises resources to implement country projects

Adverse events in healthcare

- A serious problem  
  - 10% of hospital patients suffer an adverse event each year (UK, New Zealand, Canada and Europe)  
  - 1.4 million hospital patients worldwide acquire HAI (at any given time)  
- High economic impact  
- The problem is even more serious in developing countries  
- Less data available from developing countries

Ten action areas of the Alliance

1. First Global Patient Safety Challenge: Clean Care is Safer Care  
3. Patients for Patient Safety  
4. Taxonomy  
5. Research on patient safety  
6. Reporting and learning  
7. Solutions to improve patient safety  
8. Technology and simulation  
9. Care of acutely ill patient  
10. Exemplar hospitals

Ten action areas of the Alliance

- First Global Patient Safety Challenge: Clean Care is Safer Care  
- Second Global Patient Safety Challenge: Safer Surgery Saves Lives  
- Patients for Patient Safety  
- Taxonomy  
- Research on patient safety  
- Reporting and learning  
- Solutions to improve patient safety  
- Technology and simulation  
- Care of acutely ill patient  
- Exemplar hospitals
Average infection rate:
8-12% of patients in acute care hospitals in developed countries
Risk is higher in critical care (15-40%)
Risk is 2 to 20 fold higher in developing countries

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

Burden of major infections worldwide

<table>
<thead>
<tr>
<th>MALARIA</th>
<th>HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>• N° annual episodes: 300-500 mio</td>
<td>• N° affected: 39.5 mio</td>
</tr>
<tr>
<td>• N° annual deaths: 1.5-2.7 mio</td>
<td>• N° new infections/year: 4.3 mio</td>
</tr>
<tr>
<td>• 90 countries at risk worldwide</td>
<td>• N° deaths in 2006: 2.9 mio</td>
</tr>
<tr>
<td></td>
<td>• Most countries affected with different infection rates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TUBERCULOSIS</th>
<th>HEALTHCARE-ASSOCIATED INFECTIONS</th>
</tr>
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<tbody>
<tr>
<td>• N° new infections/year: 8 mio</td>
<td>• Hundreds of millions of patients infected each year</td>
</tr>
<tr>
<td>• N° deaths in 2005: 1.6 mio</td>
<td>• At any time, 1.4 mio in hospitals</td>
</tr>
<tr>
<td>• 1/3 of the world currently affected</td>
<td>• N° deaths: at least 50,000 per day</td>
</tr>
<tr>
<td></td>
<td>• N° deaths: at least 18 mio per year</td>
</tr>
<tr>
<td></td>
<td>• ALL countries affected</td>
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</tbody>
</table>

Health care-associated infection

is a major patient safety problem

- Affects hundreds of millions of individuals worldwide each year
- Multifaceted causation related to
  - systems and processes of care provision
  - economic constraints on systems and countries
  - human behaviour

Health care-associated infection: solutions to the problem

- Prevention strategies reduce infections in developed, transitional 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

is a major patient safety problem

- Data to assess the size and nature of the problem and to create the basis for monitoring the effectiveness of actions
- Patient safety gap
  Some healthcare institutions and systems control the risk to patients much better than others
• Gaps in patient safety arise because existing tools and interventions are not being implemented widely

• Gaps not only between countries, but also within the same country … both in developed and developing countries

Welcome to the hospital?

• WHO statistics reveal 59.2 million full-time health care workers globally

• Over 100 million hands:
  – Caring
  – Touching
  – Treating patients every day

Action areas to achieve the 1st Global Patient Safety Challenge

1st Global Patient Safety Challenge

1. Global Awareness Raising
2. Country Pledges
3. Technical Work
4. WHO inter-department collaboration
Country pledges on 13 October 2005

The First Global Patient Safety Challenge

- Clean Care is Safer Care
- A programme of the World Alliance for Patient Safety
- Acknowledges the prevention of health care associated infection as a critical patient safety issue

A roadmap

- Offers a "road map" for coordinated strategies/campaigns
- Up to date, evidence based methodologies for hand hygiene improvement - as a starting point
  - Creating a global movement
- Its focus is to ensure clean, safe care of patients – all of the time and everywhere

The 1st Global Patient Safety Challenge – "Clean Care is Safer Care"

- A programme of the World Alliance for Patient Safety
- Acknowledges the prevention of health care-associated infection as a critical patient safety issue

The 1st Global Patient Safety Challenge – Five integrated action areas

- Clean blood
- Clean equipment
- Clean water
- Clean procedures
- Clean hands

Hand hygiene is the entrance door
Improved Hand Hygiene to Prevent Healthcare-Associated Infections

High level leadership is key for success

Objectives of the Challenge

At the global level
1. Awareness
2. Mobilising nations
3. Technical guidelines and tools

At the political level
Stakeholder work
Country pledges
Implementation strategies

1. Awareness raising - general
www.who.int/gpsc/en/
- Website
- News bulletins
- Guideline downloads
- Registration and interactive platform for test sites

1. Awareness raising - Stakeholder support
- IFIC – urges all members to support the Challenge
- ICNA – has pledged formal support
- This will be strengthened in 2007/08

1. Awareness raising & country pledges
- October 2005 – High profile launch of the 1st Global Patient Safety Challenge
- Ministerial Pledges
2. Mobilizing nations - Ministerial Pledges

I resolve to work to reduce healthcare-associated infection (HAI) through actions such as:
• Acknowledging the importance of HAI;
• Hand hygiene campaigns at national or sub-national levels;
• Sharing experiences and available surveillance data, if appropriate;
• Using WHO strategies and guidelines…

Ministerial signature

Ministerial Pledges

I resolve to work to reduce healthcare-associated infection through actions such as:
• Acknowledging the importance of health care-associated infection;
• Developing or enhancing ongoing campaigns at national or sub-national levels to promote and improve hand hygiene among health care providers;

Ministerial signature

Ministerial Pledges

• Sharing experiences and, where appropriate, available surveillance data, with the WHO World Alliance for Patient Safety;
• Considering the use of WHO strategies and guidelines to tackle health care-associated infection

Ministerial signature

One year later – November 2006: more country pledges

Pledges 2005/06

A Year of Cleaner, Safer Care, 2006
Countries committed to addressing HAI
80% of the world's population covered by 2007

Current Status, Jan 2008

Countries committed in 2005, 2006 and 2007
Countries planning to commit in 2008

Pledge Country - progress reports

- New policy development
- Financial and human resources allocation
- National campaigning
- National guidelines
- Training programmes
- Surveillance systems
- Multimodal programmes
  (implementation in health-care settings)

2007: Two years later

44.6% of global population live in a country which has committed to tackle HAI

i.e. 3/4 of the world's population will live in a country which has made a national pledge to tackle HAI

29.5% live in a country which will commit to tackle HAI by the end of 2008

Hand Hygiene National/Sub-national Campaigns

Current status, December 2007

Testing sites and national/subnational campaigns on hand hygiene

Current Status, Nov 2007

- Pilot Sites
- Complementary Sites (>300)
Preview of some of the country campaigns

Core recommendation

- Adoption of alcohol-based handrub as standard of care

Handwashing with soap and water when hands are visibly dirty

Canada
Malaysia
Oman
Scotland
Australia
Bahrain
Use of mass media – a common feature of national campaigns.

Country progress:

**Malaysia**

Launch of the National Hand Hygiene Campaign
3rd to 7th September 2007

**Country progress: Hong Kong**

A Long Journey to Hand Hygiene Enhancement in Public Hospitals

**Hong Kong:**
local production of WHO formulations

<table>
<thead>
<tr>
<th>Test</th>
<th>Control</th>
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<tbody>
<tr>
<td>Pre</td>
<td>23.81</td>
</tr>
<tr>
<td>Post 1</td>
<td>22.16</td>
</tr>
<tr>
<td>Post 2</td>
<td>21.5</td>
</tr>
</tbody>
</table>

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

- 2006:
  - Critical areas of care - 1 million bottles
- 2007:
  - 4 million bottles
- 2008/2009:
  - Yearly allocation of 5 million bottles

**Clean hands a must**
Poll: Most M'sians unaware that washing them prevents infection

- Most Malaysians are unaware that washing their hands prevents infection.
- The majority believe that handwashing is only necessary after using the restroom.
- Only 27% of the population wash their hands before preparing food or after using the toilet.
- The campaign aims to educate the public on the importance of handwashing to prevent the spread of infections.

**9**
Country progress: Mali

Country progress: Saudi Arabia

Country progress: Switzerland

Compliance with hand hygiene (%)

Conclusions – country campaigns

- A global movement is in progress
- Valid data is helping to drive the process to sustainability
- All nations running national campaigns are collecting “pre” and “post” data
- Most nations aware of the importance of integrating clean hands with broader infection control and safety agendas
Regional workshops to promote Clean Care is Safer Care

PAHO/AMRO
SEARO
EMRO
AFRO

2008

Taskforces – working to address unresolved issues

Behaviour change
Glove use & reuse
Religion & culture
Advocacy & communications

Education & training
WHO alcohol formula
Patient involvement
National Guidelines

Indicators
Water quality
Regulation & accreditation
FAQs


• 2 international consultations
• 9 task forces
• >100 international experts
• >700 references
• Ongoing testing in sites
• Summary translated in WHO official languages

Taskforces – working to address unresolved issues

Behaviour change
Glove use & reuse
Religion & culture
Advocacy & communications

Education & training
WHO alcohol formula
Patient involvement
National Guidelines

Indicators
Water quality
Regulation & accreditation
FAQs

Field Testing

Current Status, Dec 2007

Field testing the implementation strategy of the Guidelines

• To provide local data on the resources required to carry out the recommendations
• To generate information on feasibility, validity, reliability and cost-effectiveness of the interventions
• To adapt and refine proposed implementation strategies

http://www.who.int/gpsc/country_work/pilot_testing_info/en/index.html
The Implementation strategy

Aim:
• universal application and implementation
• increased reliability
• increased likelihood of knowledge transfer
• increased hand hygiene
• less infection

Knowledge Action

WHO Guidelines on Hand Hygiene in Healthcare
Recommendations – Five part multimodal Strategy
Five Step Guide to Implementation
Suite of Implementation Tools
Bedside action – e.g. Five Moments for Hand Hygiene

The multimodal strategy

• The 5 core components of the WHO Multimodal Hand Hygiene Improvement Strategy

1. System change
2. Training and Education
3. Observation and feedback
4. Reminders in the hospital
5. Hospital safety climate
Implementation tools

Guide to Implementation and suite of tools

Tools for system change
- Pilot Implementation Pack
- Tools for system change: System change - increasing reliability - overcoming the barriers
- Tools reminding staff in the workplace
- Tools for promotion of a safety culture
- Tools for training & education
- Tools for evaluation & feedback
- Tools for promotion of a safety culture
- Alcohol-based handrub at the point of care
- Sink installation programme - Bangladesh
- Alcohol-based handrub at the point of care

Alcohol-Based Handrub provided by the Facility (for point-of-care placement)

Pilot Implementation Pack

The Guidelines

The Guide to Implementation Suite of Evaluation Materials i.e. Surveys and Monitoring Tools
- How to Use Epi Info Manual and Training Films for Observers
- Education Session on Healthcare-associated Infections and Hand Hygiene for Trainers, Observers and Health-care Workers
- ANNEX 16: WHO Multimodal Hand Hygiene Improvement Strategy
- Data Summary Report
- Annex 37: Data Summary Report

System change - increasing reliability - overcoming the barriers

Ward Structure Survey

Facility Situation Analysis

Facility Situation Analysis

Facility Situation Analysis

Information Sheet 7

Suite of Evaluation Materials: i.e. Surveys and Monitoring Tools
- How to Use Epi Info Manual and Training Films for Observers
- Education Session on Healthcare-associated Infections and Hand Hygiene for Trainers, Observers and Health-care Workers
- ANNEX 16: WHO Multimodal Hand Hygiene Improvement Strategy
- Data Summary Report
- Annex 37: Data Summary Report

Five Moments Poster

Senior Manager Letter Template

Recommendations Leaflet

Advocacy Sheet

Education and Training Presentations
- Education Session on Healthcare-associated Infections and Hand Hygiene for Trainers, Observers and Health-care Workers
- ANNEX 16: WHO Multimodal Hand Hygiene Improvement Strategy
- Data Summary Report
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Tools for system change
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Alcohol-Based Handrub provided by the Facility (for point-of-care placement)
• Adoption of alcohol-based handrub as standard of care

Handwashing with soap and water when hands are visibly dirty

Core recommendation

Solution alcoolique pour la désinfection des mains
Alcohol-based hand rub

1st Global Challenge 2005 - 2006

Clean Care Is Safer Care

Hong Kong

Ontario

Australia

Riyadh, Saudi Arabia

England 2006

Kyrgyzstan 2006

Bangkok 2007

Nairobi
Durban, South Africa

Local production: Mali 2007

- Economies of scale
- Approx. $4 HK a bottle
  (50 cents US; 25 pence)

Implementation tools:
- Training and education

Implementation tools:
- Education Session on Health Care-associated Infections and Hand Hygiene for Trainers, Observers and Health-care Workers
- WHO Multimodal Hand Hygiene Improvement Strategy
- Information sheets, for health care workers, administrators, decision makers…
Implementation tools: Evaluation (observation)

A standardized method for hand hygiene observation

1 INDICATION: Before patient contact
1 INDICATION: After patient contact

1 opportunity – hand hygiene should occur once to fulfill 2 indications

• Indications should be universally understandable and no longer open to interpretation
• User centred, design approach
  • Human factors engineering, cognitive behaviour science and elements of social marketing,
  • Designates the moments when hand hygiene is required to effectively interrupt microbial transmission during a care sequence.
YOUR 5 MOMENTS FOR HAND HYGIENE:

Proposes a unified vision for
- trainers, observers and HCWs
- to facilitate education
- minimize inter-individual variation
- increase adherence

Implementation tools:
Reminders

e.g. Scotland

e.g. Ontario

e.g. Australia
e.g. Hong Kong

e.g. Northern Ireland

What lies beneath...

Use gloves properly
Protect your patients. Protect yourself.
Wear the gloves off, then your hands.

Belfast City Hospital
Safe Hands

e.g. Spain

milieron l’eficiencia
un menys de 30 suigers i un cosfect de 99% de les microorganismes.

Death on Strike

e.g. Riyadh

Attention all BCH staff

Design a poster competition

More info:
- Meet for lunch: Derek at Queens
- £75.00 winner, food funded by
- Meet for tea, Cafe Con
- 2 tickets for City Rugby v Newcastle

Local buy-in

World Alliance
Patien Safety

A long-term investment:
England & Wales

2004/05
2005/06
2007/08

Implementation tools:
Safety culture

Riyadi Medical Complex
Hand Hygiene Campaign Champion

Name:
Dr. Nabil Aliwana
Hosptal:
JMC
Department:
ENT
Date:

e.g. Saudi Arabia
The Spanish Strategy for culture change re Hand Hygiene

(4 million Euros allocated for the campaign)

Strong visible message of commitment - e.g. University Hospitals, Geneva

The 5-step implementation strategy

Step 1: Facility preparedness
Step 2: Baseline evaluation
Step 3: Implementation
Step 4: Follow-up evaluation
Step 5: Action planning & review
Project planning meetings – Costa Rica – National Children’s Hospital

Observer training – Costa Rica – National Children’s Hospital

Step 1: Local production of WHO recommended formulation: Mali 2007

Procurement and production of ingredients for WHO alcohol formulation, Hong Kong

Step 1
Facility preparation

Step 2
Baseline evaluation

Step 3
Implementation

Step 4
Follow-up evaluation

Step 5
Developing ongoing action plan and review cycle

Activities
- Baseline Assessment - undertake
- Senior managers perception survey
- Health-care worker perception survey
- Ward structure survey
- Local production or market procurement of handrubs
- Data entry and analysis
- Hand hygiene observations

Hand hygiene observations, Mali
Step 2: hand hygiene structure survey – Mali pilot site

<table>
<thead>
<tr>
<th>Unit</th>
<th>N° Lavabo (salles)</th>
<th>N° Lavabo (autres lieux)</th>
<th>N° Autres lieux Soins</th>
<th>N° Lits</th>
<th>N° Salles</th>
<th>N° Lieux De Soins</th>
<th>Unite e.g</th>
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Step 3: Launch of the campaign – Costa Rica pilot site

<table>
<thead>
<tr>
<th>Activities</th>
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<tbody>
<tr>
<td>Launch the strategy</td>
</tr>
<tr>
<td>Feedback baseline data</td>
</tr>
<tr>
<td>Distribute posters</td>
</tr>
<tr>
<td>Distribute alcohol-based handrub</td>
</tr>
<tr>
<td>Distribute other WHO materials from the Pilot Implementation Pack</td>
</tr>
<tr>
<td>Educate facility staff</td>
</tr>
<tr>
<td>Undertake practical training of facility staff</td>
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</tbody>
</table>

Step 3: Feedback of local results of baseline evaluation - Mali

![Graph showing compliance detected at the pilot hospital]
Adaptation of reminders, Mali

Adaptation of reminders, Costa Rica

Step 1
Facility preparedness

Step 2
Baseline evaluation

Step 3
Implementation

Step 4
Follow-up evaluation

Step 5
Developing ongoing action plan and review cycle

Activities
- Follow-up assessments undertaken
- Senior executive manager knowledge survey
- Health-care workers perception and campaign evaluation survey
- Facility Situation Analysis
- Data entry and analysis
- Hand hygiene observations

Step 1
Facility preparedness

Step 2
Baseline evaluation

Step 3
Implementation

Step 4
Follow-up evaluation

Step 5
Developing ongoing action plan and review cycle

The Guidelines

The Implementation Strategy

Activities
- Study all results carefully
- Feedback of follow-up data
- Develop a five year action plan
- Consider scale-up of the strategy
**The Tools**

1. **Before Patient Contact**
2. **After Patient Contact**
3. **Before Procedure**
4. **After Procedure**

**Hand Hygiene**
The entrance door to safer patient care

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**The way forward...**
**scaling up, sustainability, impact**

- Invite all WHO Member States to pledge
- Empower stakeholders
- Link to other Alliance streams of work
- Run additional regional workshops
- Strengthen the ongoing collaboration with other WHO departments
- Evaluate the implementation strategy testing in pilot and complementary sites

**The way forward...**
**scaling up, sustainability, impact**

- Promote and actively encourage patient participation
- Expand current networks, in particular create a “hand hygiene club of nations”
- Active drive to share country learning with developing countries
- Create a WHO Collaborating Centre
- Evaluate the impact on patient safety
  - Estimate and monitor the burden of HAI
  - World Clean Hands Measurement Day (point prevalence)

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**“Why don’t you join us ...?”**

Current Status, Dec 2007

- Pilot Sites
- Complementary Sites (>300)

**The way forward...**
**what’s next ???**

- Emerging en Re-emerging pathogens ….
  - HIV / AIDS, Malaria, TB and Multi R TB,
  - HBV, HCV
  - Oncogenic viruses of public health importance
  - Emerging viruses (SARS)
  - Prions diseases
  - Flu, human-flu, avian-flu pandemic preparedness
  - Health-care associated MRSA and community MRSA
  - Enteric pathogens and MultiR gram negatives

...
Emerging and re-emerging pathogens are and will remain of critical importance for public health. We need:

- Powerful and valid surveillance systems / Early warning systems
- International networks / Coordinated sentinel networks
- Public health involvement at the highest level
- Political support and expert endorsement on technical levels
- Coordination by high level agencies / Recognized experts

Global problems need local and global control.

The way forward... what's next???

High level leadership is key for success

"Catch on fire with enthusiasm and people will come for miles to watch you burn."

John Wesley (1703 – 1791)

quoted by Margaret Tannahil – Scottish Executive, at the First meeting of Country Campaigning Nations, WHO Geneva August 2007

It is now possible to improve hand hygiene in your facility! It's your duty to protect patients and yourself! You can make a change!

Easy infection control for everyone...
Simple measures save lives!

Special thanks to:

Easy infection control for everyone...
Thank you for your attention

For further information please visit the website:
http://www.who.int/gpsc/en/
and/or contact us at:
patientsafety@who.int

Any facility can become a complementary site and have access to the Pilot Implementation Pack by registering at:
www.who.int/gpsc/country_work/pilot_testing_info/en/index.html

Thank you to:

All international consultant experts and:

**WHO Collaborating Departments:**
- WHO Lyon Office
- Blood Transfusion Safety
- Clinical Procedures
- Policy, Access and Rational Use
- Vaccine Assessment and Monitoring
- Water, Sanitation and Health

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- Dharan Sasi
- Griffiths William
- Sax Hugo
- Sudan Rosemary
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- HUG administrative and medical directorates

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