



**First Global Patient Safety Challenge *Clean Care is Safer Care*
Save Lives: Clean Your Hands**

Report of Country Campaigns Meeting

WHO HQ, 24-25 August 2009

The First Global Patient Safety Challenge, *Clean Care is Safer Care* (CCiSC) recognizes the importance of coordinated national/sub-national activities to promote hand hygiene in health-care facilities worldwide. Several nations and sub-nations* in different parts of the world already have ongoing, coordinated activities to encourage better hand hygiene. The extent and range of these activities vary from country to country. The aim of the two-day August meeting was to bring together representatives of the campaigns from different parts of the world to facilitate sharing and learning.

* Defined as a whole state or region within a country.

Meeting outline

The objective of the first day was to understand the current situation in different countries and learn from the experiences shared by the campaign representatives. The second day was devoted to evidence gathered by WHO on its tools and recommendations, as well as plenary sessions on specific issues related to sustainability and scaling-up. In addition to the oral presentations, there were also 22 poster presentations from campaigns represented in the meeting. Some representatives shared examples of their materials such as campaign leaflets, brochures and videos. Time was set aside in the agenda for viewing the posters and materials, and for individual discussions.

Day One—24 August 2009

Didier Pittet, Expert Lead for the First Global Patient Safety Challenge, opened the proceedings by welcoming the participants and identifying the three meeting objectives: knowledge sharing, learning from each other and taking forward the concept of a coordinated network. D. Pittet emphasized the importance of meeting in person to build solidarity and encourage the sharing of information. Following his welcome, the Deputy Lead, Benedetta Allegranzi, provided information about the logistics of the meeting.

Keynote address

The keynote address was delivered by D. Pittet, who stressed the importance of hand hygiene. D. Pittet noted that the recent Influenza A (H1N1) outbreak is yet another reminder that hand hygiene is a critical infection prevention measure. He highlighted the role *CCiSC* has played in promoting this intervention at national and facility levels across the world during the past few years. The contribution made by *CCiSC* includes guidance and practical tools, advocacy, evidence-gathering and knowledge dissemination. This has been matched by enthusiastic participation from countries and facilities in signing the national hand hygiene pledge and signing up to Save Lives: Clean Your Hands at a facility-level. 121 countries and territories have signed the national pledge to date, ensuring that *CCiSC* covers 87% of the world's population. The numbers of health-care facilities signed up to Save Lives was significant, exceeding the aim of reaching 5000 registrations. Within two years, the numbers of hand hygiene campaigns have also expanded from 20 to 38.

Another achievement has been the production of alcohol-based handrubs in a range of resource-limited settings using WHO guidelines. Changing to alcohol-based handrubs as the primary mode of hand hygiene is critical to also changing the hand hygiene environment at the point-of-care. The need to expand the work to the community level, to scale-up existing activities and to initiate further nationally-coordinated activities was also highlighted by D. Pittet. He concluded

by indicating his desire, and the aim of the team, to make the Save Lives: Clean Your Hands initiative on 5 May a yearly global focus for hand hygiene.

Patient experiences of health care-associated infections

The attendees heard from 'patient voices' on the real-life consequences of health care-associated infections (HCAI) on patients and families. Evangelina Vazquez-Curiel of Mexico talked about her own personal experiences with nosocomial infections and her involvement with patient safety networks. E. Vazquez-Curiel described how her son, Uriel, who was in a special care nursery after birth, developed a nosocomial infection that almost killed him. Many of the other babies affected did not survive. She then cited another example, that of her brother Gilberto, who contracted nosocomial pneumonia in 1991 when he was being treated for a cerebral haemorrhage. Gilberto subsequently died in hospital. It was only in 2008 that a programme for hand hygiene was launched in Mexico.

National/sub national campaign survey

Elizabeth Mathai, part of the WHO First Challenge team, presented the results of a survey on the current status of nationally/sub nationally coordinated campaigns and programmes worldwide. The information was gathered using a web-based survey and all 38 nations/sub-nations with activities responded. The results confirmed that the focus, scope and extent of activities varied, as did the barriers to success. The role of governments in initiating and sustaining activities and the facilitator role of WHO were clear. The information gleaned from the survey is being used to inform programme objectives for the coming years. The results will be the basis for a journal article and will also appear on the WHO website.

Campaign presentations

The presentations by participants representing campaigns/programmes were grouped based on themes. The first two sessions were on *Campaign organization, tool development, and implementation* and there were ten presentations overall in these two sessions.

1. Jette Holt of Statens Serum Institut in **Denmark** described relevant features of health care in her country. She focused on education and the criteria for creating good programmes, manuals and other tools. She emphasized the need for understanding the background of the setting where the tools will be used.
2. The second presentation was by Ridha Hamza of **Tunisia** who said that their programme aims to improve not only the rate of compliance with hand hygiene protocols, but also the quality of that compliance. Hand hygiene is an essential component of his country's struggle against nosocomial infections.

3. May Osman Gamar Elanbya of **Sudan** followed with an account of her country's efforts in hand hygiene improvement. A hand hygiene campaign was launched in January 2009 with training and awareness-raising as its key components. The WHO alcohol-based handrub was distributed to all federal hospitals and its use monitored.

4. The next presentation was by Anil Kumar of **India**. He recounted the significant political and legal events leading up to the present, such as the signing of the hand hygiene pledge and the constitution of various committees. He then described briefly the activities undertaken to promote patient safety in his country.

5. The last presentation of the first session was made by Omar Aguilar Sanchez of **Mexico**. He described activities concerning awareness-raising and accreditation associated with the launching of the programme in 2008 and its follow-up to the present time.

Following the presentations, there was a discussion where participants clarified and supplied additional information, added their own experiences in related areas and provided opinions on important issues.

6. Presentations continued after the coffee break with Fouzia Zaid Al-Naimi and Esmat Hassan of **Qatar**. F. Al-Naimi emphasized her country's support for the First Global Patient Safety Challenge, citing its early signing of the pledge. Tools and protocols have been developed and implemented, with alcohol-based handrub being used in all hospitals, health-care centres and Ministry of Health buildings. Evaluation activities have also been undertaken.

7. Valérie Drouvot of the Ministry of Health and Sports in **France** presented a brief history of the activities and commitments undertaken, including the programme objectives and indicators as well as incentives for hospitals to improve their hand hygiene practices. There is active communication with health-care professionals on topics including HCAI. She provided details of web sites where local, regional and national results are available.

8. Heiko Thereza Santana and Heder Murari Borba presented on the efforts underway in **Brazil**. H. Santana recounted the various regulations in effect concerning hand hygiene infrastructure and product use in Brazil and the history of her country's relationship with the WHO hand hygiene efforts. She briefly described the ANVISA project and shared some of the material used in its promotion.

9. The hand hygiene campaign in **Portugal** was presented by Ana Cristina Costa. The programme emphasizes monitoring health-care worker hand hygiene compliance before and after the implementation of the WHO multi-modal strategy. She presented the action plan and preliminary data on HCAI.

10. Ziad Memish of **Saudi Arabia** gave an account of the successful campaign in his country, including the scope of the programme and implementation strategy used. Saudi Arabia was one of the first countries to sign up for to support the First Global Patient Safety Challenge and has achieved a significant increase in hand hygiene compliance. A strong education programme, widely diffused, has been crucial to this success.

This session also ended with very useful discussion.

The first session after the lunch break was on *The Impact on structure, process, and outcome indicators* and there were seven presentations during this session.

1. Zrinka Bosnjak presented an account of the campaign in **Croatia**. This included data on compliance with the Five Moments and from other surveys collected during the base line evaluation step of implementation in a cardiac surgery ward. The observations carried out indicated that soap/alcohol use can be a good indicator of hand hygiene compliance.

2. Ganchimeg Gombosuren from **Mongolia**, gave a brief overview of the geography, demography, available health-care facilities and the country's relations with WHO in relation to patient safety. She presented details of the implementation timeline, with nationwide promotion planned in 2010. She cited improvement in hand hygiene compliance during the evaluation step as compared to baseline data for all 5 moments. G. Gombosuren indicated the intention of incorporating hand hygiene as part of national standards.

3. Laura McHard explained that **Scotland** started its activities in 2005. She presented compliance data based on the Five Moments submitted by 14 territorial health boards to Health Protection Scotland. Between February 2007 and January 2009 the compliance rate increased from 68% to 93%. She also presented future plans and measures to improve compliance in specific professional groups.

4. The campaign in **Italy** was presented by Maria Luisa Moro. She noted that the campaign provided tools for use at the local level. 87% of wards joining the campaign completed the implementation on time. 41 ICUs collected data. There was significant improvement in compliance measured using the Five Moments model and also in the structure and knowledge of health-care professionals compared to the baseline.

5. Teresa Pi Sunyer from **Spain** said that with 18 semi-autonomous regions, variations in the allocation of national resources in each regions, a generally poor safety culture and a lack of strong leadership, implementation has been difficult. However, there has been good participation from both health regions, hospitals and primary care settings. A patient safety programme has been developed and funded to the tune of about €9 million per year over the past five years. The

hospitals are implementing the multimodal strategy following the five steps as recommended by WHO.

6. Laurel Taylor, from **Canada** noted that the Canadian Patient Safety Institute (CPSI) provides leadership for activities to ensure safety in health care and presented on their strategy. The CPSI, along with other partners, works to promote hand hygiene in health care. An overview of activities in this context was presented.

7. Sofiya Abdulla presented the evolution of the campaign in the **Maldives**. The barriers included poor hand washing facilities in some places, a poor attitude among health-care staff and a high turnover among expatriate staff. These barriers are being overcome through the education and motivation of staff. Compliance and perceptions are improving and HCAI rates appear to be falling.

The discussion which followed included questions on compliance measurements, HCAI measurements and incentives to stimulate good behaviour. It was lively and educational

Following coffee, there was a fourth session featuring presentations by campaigns. This was entitled *Barriers, success factors, lessons learned from campaigning and scaling-up*.

1. Dag Ström from **Sweden** presented on his country's experiences. The hand hygiene promotion in Sweden sits within an overall National Initiative for Improved Patient Safety which focuses on six different patient safety areas, three of which are HCAs. The goal is to reduce the rates of these HCAI by 50%. D. Ström identified barriers that included lack of sufficient understanding among staff, little available time to make changes, increasing financial constraints and the need to reorganize staff routines to accommodate hand hygiene better. In spite of this, there is widespread commitment to the programme and patient safety is definitely on the leadership's agenda in Sweden. He provided suggestions for sustainability.

Katherine Wilson and JP Nolan followed with a presentation for **England and Wales**. Here hand hygiene is promoted from an overall patient safety perspective and therefore materials are not designed for the public. The diversity of care settings pose a problem for creating materials. Audits are meant to be a part of the regulatory framework, but there are methodological problems. Efforts are underway to standardize methods and resolve this difficulty. Local ownership of the programme is a strength, providing flexibility in using materials in ways suited to local circumstances. Sustainability, however, is a challenge and efforts are being made to integrate hand hygiene better with patient safety efforts and the overall regulatory framework. Yvonne Robertson from Department of Health also spoke reconfirming the government's commitment.

Christiane Reichardt from **Germany** said that sustainability had been considered from the outset. She emphasized that several partners were involved to ensure this. Funding had been obtained from the Ministry of Health. C. Reichardt presented on the criteria for participation and shared some campaign materials. There had been an increase in compliance and product use as compared to the baseline.

The session ended with a presentation from **Thailand** given by Pornpet Panjapiyakul. He explained the process and activities of the programme in his country. He listed many barriers to further progress, such as large workloads, insufficient wash basins in hospitals, inadequate supplies of hand washing materials, a low level of awareness among health-care personnel and resistance to using alcohol-based handrubs because of the fear of side effects.

During the discussion the participants from England and Wales noted that, with regard to feedback, there is a questionnaire accessible on their website and that they were currently involved in developing an observation tool that is user-friendly.

John Boyce from the USA described a wireless device that can be placed in a handrub dispenser to record its use. A person logging the data can download the data wirelessly and upload it to a laptop. The device's programme identifies the various dispensers, making it possible to determine and compare differences in the use of hand hygiene products. D. Pittet said that the best way of determining compliance is direct observation because it allows the observer to note all the various aspects of hand hygiene practice.

Leaders of campaigns in **Iceland** and **Luxembourg** also participated in the meeting. A representative from **Netherlands**, which is in the advanced stages of planning a campaign, was present as an observer.

Outline of the Third Global Patient Safety Challenge

D. Pittet presented on the early work done on the Third Global Patient Safety Challenge concerning antimicrobial resistance. He described the goal of formulating a global strategy to combat drug resistance and emphasized that this will extend well beyond hospitals and health care to agriculture and various other social and economic domains.

African Partnerships for Patient Safety

Shams Syed concluded the day's events with a presentation on the African Partnership for Patient Safety (APPS). He began by noting the huge disparity in health expenditures between the rich countries and Africa, and by pointing out that avoidable deaths in Africa had become banal and routine. This is the context for patient safety efforts on the continent. With the support of Europe and global

health frameworks, a programme of hospital partnerships is being started to develop knowledge sharing and various other initiatives. An initial workshop generated great enthusiasm and appreciation for the concept of partnership. S. Syed ended his presentation with an outline of the next steps for APPS.

Working Dinner

The group gathered in the WHO cafeteria for a working dinner. The purpose of this interactive session was to explore the logistics of moving forward with a network of nations/sub-nations which has coordinated hand hygiene promotion activities.

Claire Kilpatrick introduced the topic and explained the vision & goals and advantages of a network. She also described the scope of the Terms of Reference (TOR). Elizabeth Mathai then spoke about the process that had been followed to date for developing the TOR and clarified some of the queries received. It was explained that the TOR for the network will need to be cleared by WHO centrally following further clarification on membership criteria. The participants were also to give input to this.

Depending on available resources and interest, there are a range of ways in which the network and WHO can continue to work together over the next two years:

- It might be possible to hold an annual meeting of the network. A potential theme for next year's meeting could be "Learning from May 5, 2010".
- An additional proposal is to circulate a six monthly newsletter. This could be disseminated electronically. Representatives from the countries could take responsibility for it on a rotational basis. The newsletter could have abstracts of peer-reviewed articles, news items and case studies. The First Challenge team will take responsibility for publishing the first newsletter so that countries can get an idea of what is involved and subsequently take the lead on this.
- Another activity for the group to be engaged in is the annual 5 May initiative.

E. Mathai invited everyone to send in material for the newsletter and to become actively involved in its creation. C. Kilpatrick asked if late August is a good time for the Annual Meeting. The majority agreed with this suggestion.

There was some discussion around the idea of setting up working groups to prepare strategy documents on certain priority areas of work for the network. These groups would have representation from both the secretariat (WHO) and

the campaigns. Responding to Syed Sattar's question on whether there was still a need for a Core Group, C. Kilpatrick replied that there was still a great deal of work to be done and contributions from the Core Group are essential.

D. Pittet emphasized that WHO has a strong, ongoing commitment to this network and will continue to host it and its annual meeting. He wrapped up the discussion by emphasizing that an important function of the network is to adapt hand hygiene practices effectively to current local circumstances.

Day Two—25 August 2009

Edward Kelley, Coordinator, WHO Patient Safety Programme chaired the second day of the meeting. He stated that WHO's role was not just to raise awareness of the patient safety problem, but that the emphasis is on change and on making change happen.

WHO Guidelines and the results of pilot testing

The first presentation of the day was given by Benedetta Allegranzi, who spoke about the WHO Guidelines on Hand Hygiene in Health Care and the results of pilot testing the multi-modal strategy. She began by thanking all the contributors to the work and noted that the process of WHO developing guidelines is very complex. Over 40 tools were developed to implement the recommendations in this case. B. Allegranzi noted that the strategy was pilot tested at eight sites in seven different countries across the WHO regions.

She explained that the five steps to implementation were enforced, and that a range of surveys were conducted. The result showed improvement in compliance at all sites. High quality alcohol-based handrubs were produced in resource-poor pilot sites at a lower cost than what is commercially available. The long-term sustainability and impact of the work will continue to be monitored and evaluated. Information was also available from over 250 complementary test sites which had used the WHO tools. B. Allegranzi finally highlighted the new features in the finalized WHO Guidelines on Hand Hygiene in Health Care and the Revised Implementation Tool Kit.

Four plenary sessions

These sessions were led by experts with comprehensive involvement in hand hygiene promotion and also by participants from pilot sites

Hugo Sax of Switzerland presented on the topic of **Human Factors Influencing the Hand Hygiene Promotion and Campaign**. He noted that over 800 cases of MRSA per year are avoidable if compliance with hand hygiene protocols became

universal. Achieving compliance a key issue and the assumption cannot be made that people are basically logical. Therefore, methods need to be devised that appeal to various aspects of human motivation, and one that has been created to promote hand hygiene is the concept of Five Moments. H. Sax also gave other examples of what can appeal to and motivate action highlighting the importance of using a social marketing approach in hand hygiene promotion.

The next presentation on **Campaign Spread and Sustainability** was given by Wing Hong Seto of Hong Kong. He started out by emphasizing that the objectives of the hand hygiene campaign were not limited to a temporary effect, but that the goal is to make the changes permanent. In Hong Kong, 90% of the hospital beds are run by the government, which makes a coordinated programme easier. On the other hand, there are also 8000 practitioners of traditional medicine. System change has been accomplished by distributing alcohol-based handrub, making it available everywhere in hospitals at low cost. There is now talk of expanding this programme into the community, and a media campaign has been launched that includes television. The next steps will include linking the hand hygiene effort to other health-care programmes and other implementation bundles and reinforcing messages.

Lindsay Grayson from Australia joined the meeting via teleconference and gave a presentation on the **Impact of Hand Hygiene on Health care-associated Infections**. This presentation was supported by Phil Russo who was present in Geneva. L. Grayson noted a significant reduction of MRSA as a result of improved hand hygiene compliance. One important reason that the hand hygiene promotion has been effective, he added, was that there were only Five Moments of hand hygiene instead of the many there had been in the past. This made it easier for people to remember when to clean their hands. He introduced the concept of a national surveillance for *Staphylococcus aureus* bacteraemia rates. Baseline data is already available. L. Grayson also outlined future directions in compliance measurements and scaling-up in Australia.

Orlando Urroz of Costa Rica followed with a presentation on **Overcoming Barriers to Implementing Hand Hygiene**. Since 95% of the population is covered by social security it was possible to mount a national programme without too much difficulty. O. Urroz emphasized that what was truly essential for achieving its goals was real teamwork. Innovation, communication, gathering evidence, leadership, media support, the support of WHO-PAHO and financial sustainability were other essential elements. The overall strategy involved adapting the global challenge to the national level, making the programme reflect local conditions in each hospital. Designing and placing dispensers was an issue, as was adapting to the architectural conditions in the hospitals. This logistics/material side of the effort had to be mirrored in an awareness-raising campaign and in the training of staff.

Claire Kilpatrick then gave the overall orientation of the group towards **working together to achieve our vision**. That vision, she said, is:

Making infection prevention and control, with hand hygiene as the solid and essential basis, a priority in health care everywhere.

She emphasized that hand hygiene is the entrance door to infection control and patient safety and that the 'point of care' must be the focus. The enthusiasm among hospitals for this programme has been very gratifying, she added, with over 5000 facilities already signed up. The task faced by the group now is to make the member institutions feel empowered, included and appreciated.

D. Pittet concluded the meeting by saying that what is needed for patient safety are effective, easy and cost-effective solutions. Improving hand hygiene in health care is an essential part of the effort to provide these. We need to improve the situation everywhere, he said, at the facility level, country level and at the wider regional level. D. Pittet then thanked the group for their presence and participation and closed the proceedings.

Programme

Day 1: Monday 24 August

- 0845** Welcome & objectives of the meeting: Professor Didier Pittet (Chair for the day)
- 0900** Keynote Address: Professor Didier Pittet, Lead, First Global Patient Safety Challenge
- 0920** Patient Voices: Evangelina Vazquez-Curiel, Patients for Patient Safety, Mexico
- 0940** Campaigning countries-survey results: Dr Elizabeth Mathai, Technical Officer, First Global Patient Safety Challenge
- 1000** Country Presentations (1) *
- 1100** Coffee Break & Poster Viewing
- 1130** Country Presentations (2) *
- 1230** Lunch
- 1330** Country Presentations (3) *
- 1500** Coffee Break & Poster Viewing
- 1530** Country Presentations (4) *
- 1610** The Third Global Patient Safety Challenge - Tackling Antimicrobial Resistance: Dr Gerald Dziekan, Acting Co-ordinator, WHO Patient Safety
- 1630** African Partnerships for Patient Safety: Dr Shamsuzzoha Syed, Programme Manager, African Partnerships for Patient Safety
- 1700** Summary of the day: Professor Didier Pittet, Lead, First Global Patient Safety Challenge
- 1720** Adjourn to regroup for dinner
- 1800** Working Dinner: The way forward for campaigning countries: Claire Kilpatrick, Programme Manager & Elizabeth Mathai, Technical Officer, First Global Patient Safety Challenge

* See detailed agenda overleaf

Day 2: Tuesday 25 August

Chair: Dr Edward Kelley, Head of Strategic Programmes & Coordinator, WHO Patient Safety

- 0830** New aspects of the WHO Guidelines & results from testing the WHO Multi-Modal Strategy: Dr Benedetta Allegranzi, Deputy Lead, First Global Patient Safety Challenge
- 0910** Plenary 1: Human Factors Influencing Hand Hygiene Promotion & Campaigning: Dr Hugo Sax, Geneva
- 0930** Plenary 2: Campaign Spread & Sustainability: Professor Wing Hong Seto, Hong Kong
- 0950** Plenary 3: Impact on Health Care-Associated Infections: Professor Lindsay Grayson and Dr Phil Russo, Victoria Australia
- 1010** Plenary 4: Overcoming Barriers to Implementing Hand Hygiene: Professor Orlando Urroz, Costa Rica
- 1030** Coffee Break & Poster Viewing
- 1100** Working together to achieve our vision: Claire Kilpatrick, Programme Manager, First Global Patient Safety Challenge
- 1130** Summary of proceedings: Professor Didier Pittet, Lead, First Global Patient Safety Challenge
- 1200** Meeting Close

Formal interpretation from French to English and vice versa was available on both days.

Country Presentations

Day 1: Monday 24 August

1000 **Country Presentations (1)** *Campaign organization, tool development, and implementation*

Denmark - Educational material on hand hygiene, campaign organization, tool development and implementation - Jette Holt

Tunisia - La promotion de l'hygiène des mains en Tunisie: Un axe prioritaire du programme national d'hygiène hospitalière de lutte et prévention des infections associées aux soins - Ridha Hamza

Sudan - Clean Hands For Safer Care - May Osman Gamar Elanbya

India - Patient Safety Project in India - Anil Kumar

Mexico - "It's in Your Hands" Campaign Progress and Achievements - Omar Aguilar Sánchez

1130 **Country Presentations (2)** *Campaign organization, tool development, and implementation*

Qatar - State of Qatar Supreme Council of Health - Clean Care is Safer Care - Fouzia Al-Naimi

France - 5 MAY 2009 World day campaign for hand hygiene - Valérie Drouvot

Brazil - Hand Hygiene in Health Care Services/Brazil- Heiko Santana

Portugal - Portuguese Hand Hygiene Campaign - Ana Cristina Costa

Saudi Arabia - Kingdom of Saudi Arabia Hand Hygiene Campaign - Ziad Memish

1330 **Country Presentations (3)** *Impact on structure, process, and outcome indicators*

Croatia - Complementary site: Impact of baseline hand hygiene observation on disinfectant use as process indicator - Smilja Kalenic

Mongolia - Mongolia Project On “Clean Care Is Safer Care” - Ganchimeg Gombosuren

Scotland - Scotland’s National Hand Hygiene Campaign: lessons learned - Laura Mchard

Italy - The Italian national campaign: “Cure pulite sono cure sicure” - Maria Luisa Moro

Spain - Hand Hygiene Campaign in the Spanish National Health System- Main barriers and success factors - T. Pi-Sunyer

Canada - Canadian Patient Safety Institute Canada’s Hand Hygiene Campaign - Laurel Taylor

Maldives - Barriers, Success factors, lessons learnt from campaigning - Sofiya Abdulla

1530 Country Presentations (4) *Barriers, success factors, lessons learned from campaigning and scaling up*

Sweden - National Initiative for Improved Patient Safety - Dag Ström

England and Wales - The cleanyourhands campaign in England and Wales: Barriers, success factors, and lessons learnt from campaigning - Katherine Wilson

Germany - 20 Months German Hand Hygiene Campaign 'AKTION Saubere Hände' - Christiane Reichardt

Thailand - Hand Hygiene in Thailand - Pornpet Panjapiyakul

Attendee List

Lead - Professor Didier Pittet

	NAME	COUNTRY
National/sub national campaign representatives		
1	Dr Phil Russo	Australia
2	Dr Heder Murari Borba	Brazil
3	Heiko Thereza Santana	Brazil
4	Dr Laurel Taylor	Canada
5	Professor Orlando Urroz	Costa Rica
6	Dr Zrinka Bosnjak	Croatia
7	Jette Holt	Denmark
8	JP Nolan	England and Wales
9	Katherine Wilson	England and Wales
10	Valérie Drouvot	France
11	Dr Christiane Reichardt	Germany
12	Professor Petra Gastmeier	Germany
13	Asa St Atladottir	Iceland
14	Dr Anil Kumar	India
15	Maria Luisa Moro	Italy
16	Dr Elisabeth Heisbourg	Luxembourg
17	Sofiya Abdulla	Maldives
18	Dr Omar Aguilar Sánchez	Mexico
19	Dr Ganchimeg Gombosuren	Mongolia
20	Truus de Rooter	Netherlands
21	Dr Cristina Costa	Portugal
22	Dr Fouzia Zaid Al Naimi	Qatar
23	Mrs Esmat Hassan Mohammed Ghuloom	Qatar
24	Laura McHard	Scotland
25	Teresa Pi Sunyer	Spain
26	Dr May Osman Gamar Elanbya	Sudan
27	Dr Dag Ström	Sweden
28	Dr Hugo Sax	Switzerland
29	Dr Pornpet Panjapiyakul	Thailand
30	Dr Ridha Hamza	Tunisia
Core Group		
31	Professor Manfred Rotter	Austria
32	Dr Syed Sattar	Canada
33	Professor Wing Hong Seto	Hong Kong
34	Professor Geeta Mehta	India
35	Professor Ziad Memish	Saudi Arabia
36	Professor A.F. Widmer	Switzerland
37	Dr Nizam Damani	United Kingdom
38	Dr John M. Boyce	United States
39	Dr Trish M. Perl	United States
40	Dr Victor D. Rosenthal	Argentina

Patients for Patient Safety		
41	Evangelina Vazquez Curiel	Mexico
42	Garance Upham	Switzerland
International Federation of Infection Control		
43	Professor Nagwa Khamis	Egypt
44	Gertie van Knippenberg-Gordebeke	Netherlands
Hôpitaux Universitaires de Genève		
45	Dr Walter Zingg	Switzerland
46	Dr Andie Lee	Switzerland
47	Dr Angèle Gayet-Ageron	Switzerland
48	Dr Giulia De Angelis	Switzerland
49	Marie-Noëlle Chraïti	Switzerland
50	Lucile Resal	Switzerland
Other invited guests		
51	Dr Kate Ellingson	United States
52	Dr Andrew Stewardson	Australia
53	Dr Jean Carlet	France
54	Mary-Louise McLaws	Australia
55	Ananthram Murthy	Switzerland
56	Carlos Perez Valdes	Switzerland
57	Dr Stephan Harbarth	Switzerland
58	Mariam Mahdavi	Switzerland
59	Homa Attar Cohen	Switzerland
World Health Organization Headquarters		
60	Dr Benedetta Allegranzi	
61	Dr Sepideh Bagheri Nejad	
62	Dr Cyrus Engineer	
63	Michal Frances	
64	Gabriela Garcia Castillejos	
65	Dr Wilco Graafmans	
66	Claire Kilpatrick	
67	Margaret Kahuthia	
68	Dr Elizabeth Mathai	