WORLD ALLIANCE FOR PATIENT SAFETY

Forward Programme

2008-2009

First Edition

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World Alliance for Patient Safety

FORWARD PROGRAMME 2008-2009

First Edition
This draft is intended for discussion at the Expert Advisory Group Meeting, 25 June 2008

World Health Organization

About the World Alliance for Patient Safety

In May 2002, the Fifty-fifth World Health Assembly adopted WHA Resolution 55.18, which urged Member States to pay the closest possible attention to the problem of patient safety and to establish and strengthen science-based systems necessary for improving patient safety and the quality of health care.

Following this, in May 2004, the Fifty-seventh World Health Assembly supported the creation of an international alliance to facilitate the development of patient safety policy and practice in all Member States, to act as a major force for improvement internationally.

The Patient Safety Programme within the Information, Evidence and Research Cluster incorporates the World Alliance for Patient Safety, which addresses patient safety in health care as an issue of global importance. It promotes the development of evidence-based norms for the delivery of safer patient care, global classifications for medical errors and it supports knowledge sharing in patient safety between Member States. The Alliance advocates for a better understanding of the reasons for unsafe care and identifies the most effective preventive measures and means of evaluating them. It works with leading international experts, organizations, patient NGOs and many others, to draw international attention to the issue of patient safety.

The Alliance, bi-annually, publishes its Forward Programme setting out its two-year work programme, as well as a Progress Report detailing actions taken to deliver its major priorities. The first edition of the 2008-2009 Forward Programme is intended to be a discussion document to allow the Alliance Secretariat, its expert leaders and a multitude of external stakeholders to debate the priorities that should be addressed in the next two years.

Dr Margaret Chan, Director-General, World Health Organization

«WHO Member States have recognized that patient safety is important. WHO's World Alliance for Patient Safety work is supported by a growing number of partnerships with safety agencies, technical experts, patient groups and many other stakeholders from around the world who are helping to drive the patient safety agenda forward.

Significant progress has already been achieved as witnessed by the eighty seven countries that have pledged to address health care-associated infection, a serious patient safety challenge. It is simple actions, such as hand hygiene, that can help reduce this patient safety problem. To date, 20 countries have developed or enhanced national campaigns on hand hygiene based on WHO's guidelines and multimodal strategy. In most cases the campaigns have been initiated or influenced by the ministerial pledges to address this challenge.

In addition, the Alliance is mobilizing those on the front lines of health care systems and hundreds of professional societies of surgeons, anaesthetists and nurses from around the world are endorsing the concepts of the *WHO Surgical Safety Checklist*; hundreds of researchers from more than forty countries are involved with patient safety research, thus using the persuasive power of evidence to catalyze commitment to safer care; and hundreds of patient leaders are contributing to safer health care by playing a central role as partners in these Alliance initiatives. These examples should inspire all to ensure that safe care is the standard everywhere.»

Sir Liam Donaldson Chair of the World Alliance for Patient Safety

«In 2002, when WHO decided to act on the issue of patient safety, we were aware that no single player in the world had the expertise, funding or delivery capabilities to tackle the full range of patient safety issues that needed to be addressed. Six years on, most of these players are working together with the support of Member Sates, and patient safety is on the global health agenda. However, much remains to be done. Every day patients suffer and die because of the care they receive. This Forward Programme provides a blueprint for action to support the efforts of health care providers everywhere in the world.»

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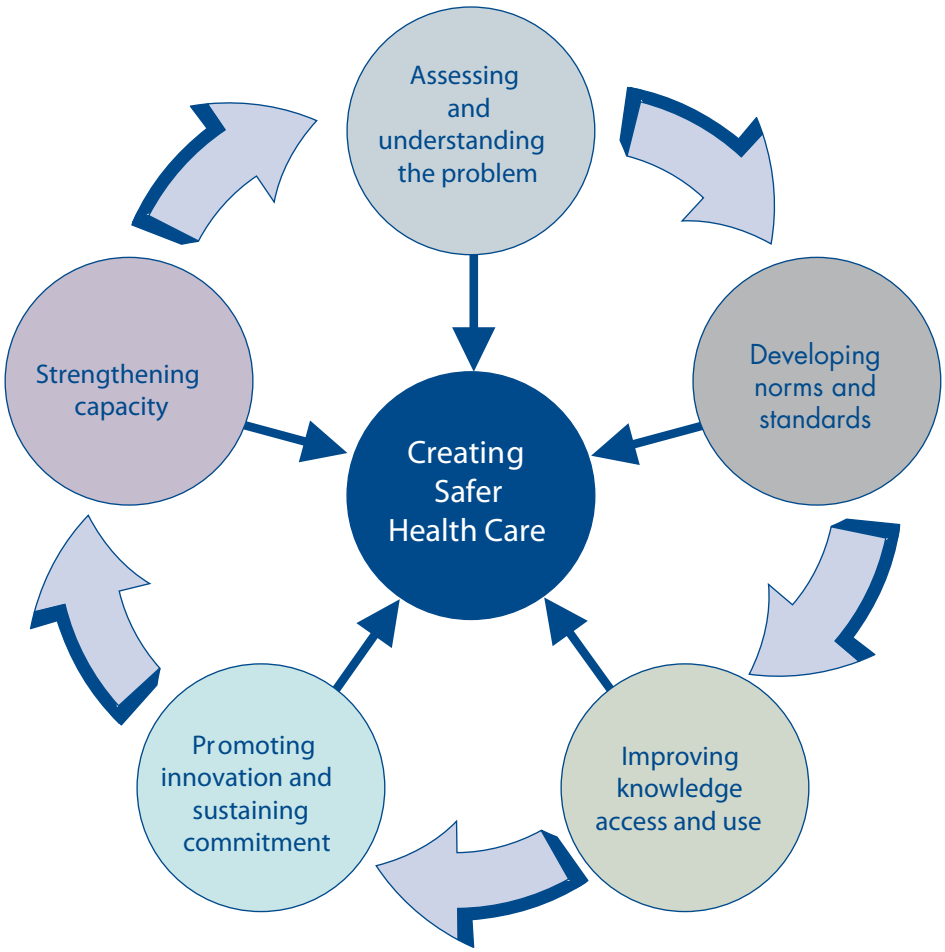
Introduction

In 1994, Betsy Lehman was fighting for her life. The 39-year old was suffering from cancer. However, she and her doctors tried to remain positive as she underwent her chemotherapy, an exhausting treatment regimen that involved numerous injections over an extended period of time. These injections were designed to help save her life. However, it was this very treatment, under the eyes of caring and diligent professionals that killed Betsy. She died in Boston in December 1994 from heart failure resulting from an overdose of her chemotherapy drug. She had been administered four times the accepted dosage.

In August 2005, Fedir Petkanych was nervous for his wife, Zoryana. In their home in the Ukraine she was suffering excruciating headaches and high fevers. Accompanying her to hospital, he was unable to get attention and answers as doctors handed over her case from one team to another without a definite diagnosis. Her diagnosis was changed five times over ten days, with a final diagnosis of meningitis. The delay was fatal and Zoryana, a young mother with a seven-month old child, died of her infection.

Between these two tragic episodes, which represent only two of the hundreds of thousands of patients worldwide who have experienced serious adverse events, the world of health care has changed. Major studies around the world have been undertaken to explore and remediate the problem of adverse health-care events. Partly in response to these studies and the scope of the worldwide patient safety problem, the WHO World Alliance for Patient Safety was established in 2004. Its goal is to mobilize global efforts to improve the safety of health-care for patients in all WHO Member States. The Alliance's first and second Forward Programmes laid out an ambitious agenda in patient safety. Yet, the backdrop of Betsy's and Fedir's stories should show us that, as we release this third Forward Programme, there is a vast, unfinished agenda that still remains. We have done well at raising awareness and assessing the problem. We need, collectively, to do better at developing and evaluating evidence and knowledge for patient safety and disseminating and supporting its use.

The World Alliance for Patient Safety has evolved and has grown tremendously over the past few years since the last Forward Programme was published in 2006. This Forward Programme builds on previous successes and introduces many new areas of work. The initiatives described here aim to support WHO Member States and other key stakeholders to build capacity for improving patient safety and to generate useful information, research and evidence which supports these efforts.



SUMMARY OF ACTIVITIES OF THE WORLD ALLIANCE FOR PATIENT SAFETY

1. Assessing and understanding the problems of unsafe care

- Reporting and Learning for Patient Safety
- The International Classification for Patient Safety
- Research for Patient Safety

2. Developing norms and establishing standards to reduce harm

- Solutions for Patient Safety
- *High 5s*
- Technology for Patient Safety

3. Improving knowledge access, use and evaluating impact

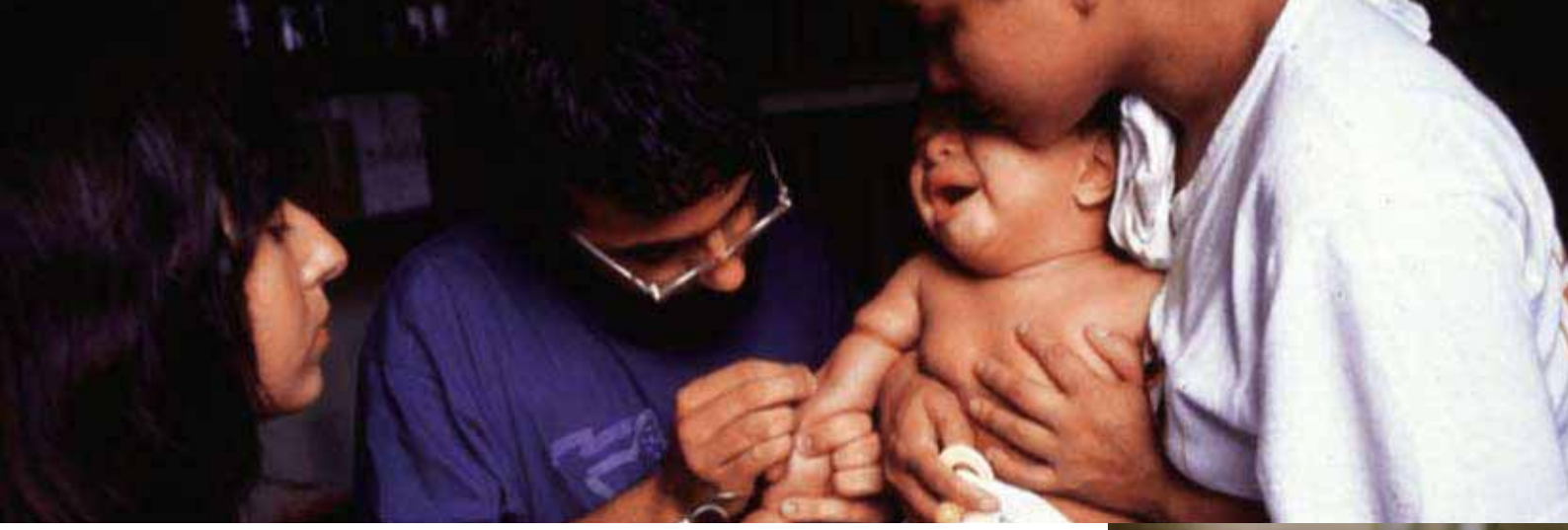
- Global Patient Safety Challenges:
  - First Challenge: *Clean Care is Safer Care*
  - Second Challenge: *Safe Surgery Saves Lives*
  - Third Challenge: Tackling Antimicrobial Resistance
- Eliminating central line-associated bloodstream infections

4. Promoting innovation and sustaining commitment

- Patients for Patient Safety
- Safety Prize

5. Strengthening capacity for patient safety worldwide

- Education for Safer Care
- Knowledge Management



Assessing and understanding the problems of unsafe care

In many countries, even routine surveillance of vital statistics data is incomplete. Even when data exist on the magnitude and nature of harm, research is needed to better understand the complex causal pathways, establish the efficacy and cost-effectiveness of solutions and evaluate the impact of interventions to reduce harm to patients in practice.

The **Reporting and Learning for Patient Safety** programme is intended to help build surveillance and reporting systems worldwide so that policy-makers and health planners can be more aware of the magnitude of the problem of unsafe care and set priorities for action.

One of the difficulties in collecting reliable and valid data on health care-associated harm is the lack of a common language to describe how patients are harmed and the contributing causes. The **International Classification for Patient Safety** programme was therefore established to build an International Classification for Patient Safety (ICPS) to harmonize the description of patient safety incidents, which include adverse events that lead to patient harm, and near misses that could potentially have caused harm.

The **Research for Patient Safety** programme supports a wide range of research initiatives, especially in developing countries and countries with economies in transition, by: setting a global agenda for patient safety research, developing research tools adapted to different contexts, strengthening research capacity, funding research projects, supporting country research and developing a global patient safety research network.

Developing norms and establishing standards to reduce harm

Although much more research is needed on patient safety, there exist pockets of strong evidence in certain areas which can inform the development of solutions effective in addressing common patient safety problems. The **Solutions for Patient Safety** programme was established to provide Member States with the most reliable and credible information and evidence on patient safety solutions. These include enhancing communication during caregiver handovers, preventing errors due to 'look-alike sound-alike' medications, and avoiding wrong site surgery.

The **High 5s** initiative was developed to work with Member States on strategies to improve access and use of evidence in patient safety solutions. The initiative will develop tools and platforms to overcome constraints to knowledge use by health-care providers and facilities.

However, addressing complex problems requires solutions at many different levels. Rather than aiming to change behaviour at the individual level, some strategies involve changing systems and tackling problems at the source. This can be achieved, for instance, by rethinking the design of health-care products and devices to develop "smart technologies" that have safety features already built in. The **Technology for Patient Safety** programme aims to identify areas where technology can be used to enhance the safety of patient care by "designing out" potential risks or by improving communication and the reliable transmission of information.

Improving knowledge access, use and evaluating impact

The **first Global Patient Safety Challenge, *'Clean Care is Safer Care'***, raised awareness and political commitment on the importance of hand hygiene to address health care-associated infection in countries representing more than 78% of the world's population. **The second Challenge *'Safe Surgery Saves Lives'***, aims to reduce patient harm during surgical procedures, by introducing a simple checklist to be carried out during surgery, to make care safer worldwide. The **third Challenge** will focus on the growing problem of **antimicrobial resistance**. Evaluations of these programmes are being carried out in conjunction with Johns Hopkins University to measure the impact of applying this knowledge in practice.

One of the many challenges in patient safety is the lack of evidence on how to address adverse events and medical errors. The nature of these problems, which typically involve multiple human, technological and logistical factors, make it extremely difficult to investigate adverse events and determine root causes in any generalized way. One programme entitled, **Eliminating central line-associated bloodstream infections**, attempts to bridge the gap, at least in this area, of care through building on the results of the Michigan project (see chapter entitled Eliminating central line-associated bloodstream infections).

Promoting innovation and sustaining commitment

Raising awareness is an important step in tackling the challenges of unsafe health care. Given the scale of the problem worldwide, and the challenges in applying even the simplest solutions, such as hand hygiene, the World Alliance for Patient Safety relies on the collaboration of partners to help generate awareness and advocate for change. Many of our most valued collaborators are patients and

their families, who have experienced, at first hand, the devastating effects that unsafe care can have on people's lives. The **Patients for Patient Safety** programme was developed to bring together patients and families worldwide and empower them to voice their personal experiences and advocate for change in their local contexts, working in partnership with Member States and civil society.

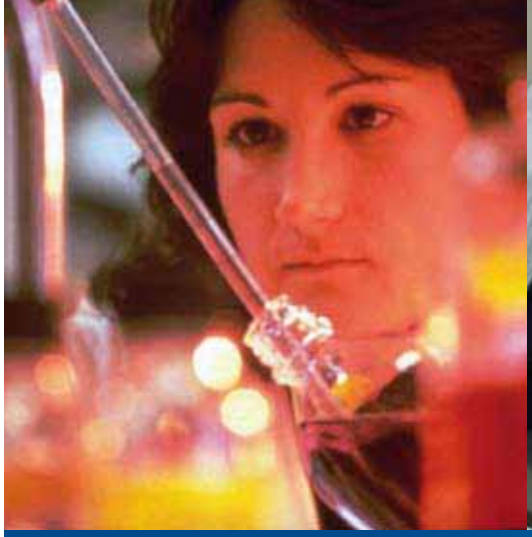
Building partnerships and commitment also helps to develop a culture of safety and provide rewards and incentives for safer care. The **Safety Prize** programme is intended to identify health-care facilities worldwide which are considered role models for safety in health care, and can be sources of learning and sharing of best practices for reducing patient harm in a wide range of settings.

Strengthening capacity for patient safety worldwide

Making the major shift towards safer health care will require the education of a whole new generation of health-care providers in the "science of safety." Each individual working in a health system has a role to play in reducing patient harm. Working closely with Member States and educational experts, the **Education for Safer Care** programme will start by developing a patient safety curricular guide for medical students worldwide, to sensitize them to the importance of patient safety and to teach them how they can contribute to making patients safer.

Finally, coming back full circle to where we started, the key ingredients to improving patient safety are high quality and timely information systems and committed people. The **Knowledge Management** programme aims to provide a platform for accessing up-to-date patient safety information, as well as bringing together the wisdom and experience of people who are engaged in improving the safety of health care on many different fronts, from researchers and policy-makers to patients and hospital planners.

The World Alliance for Patient Safety will be working through its regional focal points in each of WHO's Regional Offices to deliver on the objectives and plans of the above programmes. The Alliance will be working with its external partners to strengthen the impact of evidence-based solutions and programmes. The Alliance will also work, as always, for and with patients to ensure that we become better at evaluating and sharing the lessons learned from patients such as Betsy Lehman and Fedir Petkanych.



FORWARD PROGRAMME 2008-2009

Through concerted effort in key priority areas, the World Alliance for Patient Safety aims to:

- Support the efforts of Member States to promote a culture of safety within their health-care systems and develop mechanisms to enhance patient safety;
- Position patients at the heart of the international patient safety movement;
- Catalyse political commitment and global action on areas of greatest risk to patient's safety through the Global Patient Safety Challenges;
- Develop global norms, standards and guidelines to detect and learn from patient safety problems, to reduce risks for future patients;
- Make safety solutions widely available to all Member States in ways which are as easy as possible to implement and relevant to their needs;
- Develop and spread knowledge about evidence-based policies and best practices in patient safety;
- Build consensus on common concepts and definitions of patient safety and adverse events;
- Initiate and foster research in areas which will have most impact on safety problems;
- Explore ways in which new technologies can be harnessed in the interest of safer care;
- Bring together partners to contribute towards knowledge development and social mobilization;
- Target technical work to reflect the patient safety priorities, both of developed and developing countries.

For more information:

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PROGRAMME OF WORK 2008 – 2009	
ACTION AREA 1	The **Global Patient Safety Challenge** is galvanizing global commitment and action on a patient safety topic which addresses a significant area of risk for all Member States. The first Global Patient Safety Challenge, initiated in 2005, will continue its focus on health care-associated infection with the theme *'Clean Care is Safer Care'*. For 2007-2008, the second Global Patient Safety Challenge is focusing on the topic of safer surgery with the theme *'Safe Surgery Saves Lives'*. Work on the third Global Patient Safety Challenge, *'Tackling Antimicrobial Resistance'*, will commence in 2009 and the Challenge will be launched in 2010.
ACTION AREA 2	**Patients for Patient Safety** is ensuring that the voice of patients is at the core of the patient safety movement worldwide and works with other programmes to ensure that the patient voice is always represented.
ACTION AREA 3	**Research for Patient Safety** is facilitating an international research agenda which supports safer health care in all WHO Member States.
ACTION AREA 4	The **International Classification for Patient Safety** is developing an internationally acceptable system for classifying patient safety information to promote more effective global learning.
ACTION AREA 5	**Reporting and Learning for Patient Safety** is promoting valid reporting, analytical and investigative tools and approaches that identify sources and causes of risks in a way that promotes learning and preventive action.
ACTION AREA 6	**Solutions for Patient Safety** will translate knowledge into practical solutions and disseminate these solutions internationally.
ACTION AREA 7	The ***High 5s*** initiative will spread best practice for change in organizational, team and clinical practices to improve patient safety.
ACTION AREA 8	**Technology for Patient Safety** will focus on the opportunities to harness new technologies to improve patient safety.
ACTION AREA 9	**Knowledge Management** will work with Member States and partners to gather and share knowledge on patient safety developments globally.
ACTION AREA 10	The Alliance will ensure that the results of the work in the State of Michigan, USA, to **eliminate central line-associated bloodstream infections** is replicated in other settings, this could change the lives of tens of thousands of patients worldwide, especially on intensive care patients.
ACTION AREA 11	**Education for Safer Care** will develop a curricular guide for medical students as well as implementing a Patient Safety Scholars programme.
ACTION AREA 12	**The Safety Prize** will be an international award for excellence in the field of patient safety that will act as a driver for change and improvement.

Learning from and improving the work of the World Alliance for Patient Safety

One of the great challenges of implementing safety programmes worldwide is the lack of available data on what has worked and what has not. The World Alliance for Patient Safety has been collaborating with international partners to build the knowledge and evidence base for patient safety through its research programme and through its new knowledge management activities. However, relatively little work has occurred to date to evaluate the Alliance programmes themselves. In 2008-2009, the Alliance will launch a major evaluation of its programmes with Johns Hopkins University (JHU), beginning with the first and second Global Patient Safety Challenges.

Initial work has started on the evaluation of the first Global Patient Safety Challenge '*Clean Care is Safer Care*' and will involve an annual global event focusing on the measurement and compliance with hand hygiene.

Beyond evaluating major global programmes, in many areas, JHU's evaluation for the Alliance will be groundbreaking in the topics its covers. JHU has already worked with the Alliance to conduct one of the first formative evaluations of a safety education programme, the Alliance's Safety Scholars Programme. This evaluation, conducted in 2007 and early 2008 will inform the curriculum for the next cohort of safety scholars due to start in 2009. JHU, will also be working with the Alliance to examine the highly successful Patients for Patient Safety programme with the goal of increasing the programme's reach and helping map new directions. Finally, JHU is leading on the first ever analysis of large adverse event reporting systems with an eye to creating new measures and tools for analysing safety data and using it to improve care.

Professor Peter Pronovost, Director, Quality and Safety Research Group, leading the evaluation work of the World Alliance for Patient Safety at Johns Hopkins University, Baltimore, USA.

Global Patient Safety Challenges

The Global Patient Safety Challenge is a flagship programme of the World Alliance for Patient Safety. Every two years a Challenge is formulated to galvanize global commitment and action on a patient safety issue which addresses a significant area of risk for all WHO Member States. The lifespan of each Challenge is dependent upon the scope of the associated work programme with some Challenges likely to endure beyond their initial two-year timeframe.

The first Challenge, launched in 2005, focused on health care-associated infection with the theme *Clean Care is Safer Care*. The programme to support the second Challenge, *Safe Surgery Saves Lives*, commenced in 2007 and was formally launched on 25 June, 2008.

The third Challenge, to be launched in 2010, will focus on the unprecedented spread of drug-resistant pathogens and the implications for patient safety. Preparatory work on the third Challenge has already commenced and a full work programme will be developed by September 2008.

Clean Care is Safer Care

First Global Patient Safety Challenge

The first Global Patient Safety Challenge addresses an issue of universal relevance to patient safety – action to reduce health care-associated infections (HAI) worldwide. In industrialized countries, HAI complicate between 5-10% of admissions in acute care hospitals. In developing countries, the proportion of infected patients can exceed 25%. Data from research studies clearly indicate that it is a significant yet often overlooked and sometimes hidden problem, affecting patients and health-care workers both psycho-physically and economically. HAI greatly undermine the quality of care of countries' health systems.

The first Challenge has been instrumental in mobilizing countries, organizations and individuals to strengthen, and in many cases commence, intensified action to achieve cleaner and safer care. At its core lies the development of a WHO evidence-based guideline on hand hygiene. The guidelines are the central focus of all actions from the comprehensive field testing and national commitments on HAI, to the regional technical work and partnerships with international organizations. The guidelines have also been significant drivers for action in a growing number of ministries of health, which have started or enhanced national campaigns in relation to hand hygiene improvement. These guidelines and their implementation tools represent a starting point for action in this important area.

Building on the foundations of existing outputs and achievements, the actions scheduled to occur over the next two years are summarized in Box 1.

«Eight years into the 21st century, it is clear that something is changing in the world of infection control. We have woken up to the universal relevance of better hand hygiene for health. During the next two years we will build on and expand this work. Our programme is constructed around a commitment to make infection control and, specifically, enhanced compliance with hand hygiene, synonymous with patient safety. Each aspect of work is influenced by this commitment as we continue to promote hand hygiene improvement as a logical starting point for amazing and transformational patient safety improvements. Progress is being made to halt the spread of microbes from country to country. Now we commit to working effectively with regions, countries, health-care workers and patients to speed up the spread of enthusiasm, commitment and action. Our vision is sustainable improvement across all countries of the world.»

Programme Leader:
Professor Didier Pittet,
Director of the Infection Control Programme,
University of Geneva Hospitals,
Geneva, Switzerland

BOX 1: FIRST GLOBAL PATIENT SAFETY CHALLENGE ACTIONS IN 2008-2009 WILL INCLUDE

1. TECHNICAL

- Pilot testing: Completion of field testing of the implementation strategies of the WHO multimodal hand hygiene improvement strategies in pilot and complementary test sites;
- Guidelines: Finalization of the WHO Guidelines on Hand Hygiene in Health Care and associated implementation toolkit;
- Involvement of patients: Patients will be a core feature of the revised multimodal improvement strategy;
- Burden of disease: Development of a database and report on the burden of HAI;
- Evaluation: Each aspect of the first Challenge, from cost-effectiveness through to the effectiveness of the technical, pledging and awareness-raising activities will be subject to robust evaluation.

2. AWARENESS-RAISING

- A regional technical and advocacy workshop in the WHO Eastern Mediterranean Region;
- A regional advocacy guide on *Clean Care is Safer Care*;
- Publications in peer-reviewed journals, both specialist and non-specialist;
- An expansion of the communications and stakeholder engagement strategy;
- A single worldwide annual event to focus attention on better hand hygiene.

3. COUNTRY COMMITMENT, SUSTAINABILITY AND SPREAD

- Focusing ministerial commitments within the WHO African Region;
- Establishing the University of Geneva Hospitals Infection Control Programme as a WHO Collaborating Centre on Patient Safety (Infection Control);
- Strengthening of the relationship with WHO regional patient safety focal points;
- Coordinating a network of hand hygiene-campaigning nations;
- Exploring public/private partnerships with hand hygiene product manufacturers;
- Launching the *'Africa project for hand hygiene improvement'* in partnership with the Regional Office for Africa, the UK Government and the UK National Patient Safety Agency.

Technical activities

During 2008, a process of revision and update of the Advanced Draft of the WHO Guidelines on Hand Hygiene in Health Care is under way. In parallel, the testing of the Guidelines and their implementation strategy has taken place and the results and lessons learned are being evaluated to assess feasibility, effectiveness, sustainability and potential for scaling up. By the end of 2008, following a final international consultation and incorporating the results of field testing, a final version of the guidelines will be issued.

An economic evaluation tool will enable health-care facilities to estimate the local costs and benefits of implementing the hand hygiene intervention. The tool can help answer the following crucial question: how many health care-associated infections need to be prevented by the hand hygiene programme in order to offset its input cost? It will provide hospital administrations with a clear indication of the number of HAI that must be prevented by the hand hygiene programme to generate savings to the hospital. The tool will be tested and finalized during 2008.

PARTNERSHIPS OF THE *CLEAN CARE IS SAFER CARE* INITIATIVE

Over the coming biennium, the first Global Patient Safety Challenge will work to invigorate its existing partnerships and embark on a new expanded strategy of engagement beyond its established reach. Such engagement forms an essential part of the programme's future plans and priorities. '*Clean Care is Safer Care*' aims to overcome any perceived lack of engagement with partners or professional organizations and ensure that it broadens its interactions beyond specialist professional bodies. To this end, the programme has commissioned an internal review of our communications and stakeholder engagement activity.

Within WHO, '*Clean Care is Safer Care*' aims to strengthen its existing collaboration with the Patients for Patient Safety programme, and its relationships with colleagues in fields related to health care-associated infection. In addition, it will work to strengthen links with the regional patient safety focal points.

Work to develop the first ever single event to focus attention on better hand hygiene will provide an opportunity to connect with and strengthen collaboration with many partners, in particular:

- European Centre for Disease Prevention and Control
- Global Public-Private Partnership for Handwashing with Soap
- International Alliance of Patients' Organizations
- International Council of Nurses
- International Federation of Infection Control and its component member societies across the developed and developing world
- International Federation of Red Cross and Red Crescent Societies
- International Hospital Federation
- Médecins Sans Frontières
- Public Services International
- International Save the Children Alliance
- World Council of Churches
- World Health Professions Alliance

During 2008-2009, the programme will also explore possibilities for facilitating the creation of a public-private partnership related to hand hygiene improvement. The aim of this will be to promote a campaign to expand access to alcohol-based handrubs worldwide, for example through negotiation of lower prices and local production of the WHO formulation.

In addition, '*Clean Care is Safer Care*' will work with the European Society of Clinical Microbiology and Infectious Diseases to share commitment to improve education in infection control across Europe, as well as with networks of professionals in infection control, sharing knowledge and raising awareness in WHO's regions, with a particular focus in Africa.

"Medical workers seem too big to be questioned." Response from Nigeria to the global patient perception survey, when asked the question – *"why would you not ask a health-care worker to clean their hands?"*

Patient involvement activities

To reflect the important role which patients can assume in HAI prevention, the first Challenge will continue partnership work with the World Alliance's Patients for Patient Safety Programme and collaboration with staff from the Infection Prevention and Control Department and Faculty of Medicine of the University of Geneva Hospitals, to ensure that the final strategy has at its centre the tools to facilitate patient participation.

A permanent database on the burden of health care-associated infections in developing countries

In the context of the research work of the first Global Patient Safety Challenge, an extensive literature review of published and unpublished studies will be completed, which will result in a unique and permanent database of the burden of HAI. This will be subject to regular updates. Countries will be supported in collecting reliable information through the provision of surveillance tools for capturing HAI at the facility level.

Evaluation

An evaluation project focusing on outcome measures in terms of global hand hygiene compliance will also assess the impact of the first Challenge at regional, country, facility, health-care worker and patient levels. This evaluation involves collaboration with the Quality and Safety Research Group, Johns Hopkins University. Technical experts, health-care providers and interested organizations from around the world are invited to evaluate the finalized version of the guidelines using the established AGREE methodology. (http://www.agreecollaboration.org/)

Awareness-raising activity

Efforts to promote the activities and aspirations of the first Challenge, through both the academic and popular press, will continue, thus strengthening the case for continued action. The regional technical and advocacy workshops concluded with a workshop in the WHO Eastern Mediterranean Region. A regular news bulletin will be used to communicate effectively with stakeholders. The aim of the first Challenge is for all professional organizations and countries in the world to embrace the recommendations and the philosophy of the WHO Guidelines on Hand Hygiene in Health Care, incorporating them within local implementation strategies and thereby increasing the likelihood of behaviour change at the bedside.

Global action in 2009 on hand hygiene awareness

To enhance global campaigning, the World Alliance for Patient Safety will invite every health-care facility in the world to join together in the first ever single event to focus attention on better hand hygiene. The exact focus of the event is being scoped with key partners and will be announced later this year.

Country commitment, sustainability and spread

Work will continue to build on the efforts to catalyse country level commitment to make the *'Clean Care is Safer Care'* initiative essential to the reduction of health care-associated infection. The 87 signatory countries which have already made a political commitment to tackle HAI will be closely supported, particularly in the area of national campaigning to improve hand hygiene. A network of campaigning nations has already been established and this network will become a vehicle for helping the spread of *'Clean Care is Safer Care'* messages across the developed and developing world.

Strengthening infrastructure – the WHO alcohol-based handrub

During the 2008-2009 biennium, the next steps in terms of the WHO alcohol-based handrub formulation will be considered. Feedback from facilities which have manufactured the WHO formula will be subject to rigorous scrutiny. The results will form the basis for lobbying industrial partners towards making available low-cost, sustainable solutions for developing countries. The goal is solidarity and equity around the world, so that clean, safe hands for health-care workers, at every point where patient care and treatment occur, are both realistic and achievable.

The Africa project for hand hygiene improvement

During 2008, a significant collaborative project will commence in partnership with the WHO African Regional Office, the UK Government and the National Patient Safety Agency. The project is concerned with delivering sustainable patient safety improvements and will focus initially on hand hygiene in health care.

'Clean Care is Safer Care'
website: http://www.who.int/gpsc/en/

Safe Surgery Saves Lives

Second Global Patient Safety Challenge

The World Alliance for Patient Safety began work on its second Global Patient Safety Challenge in January 2007. The goal of the '*Safe Surgery Saves Lives*' initiative is to improve the safety of surgical care around the world by defining a core set of minimum safety standards that can be universally applied across countries and settings, regardless of circumstance or environment.

Surgical care has been an essential component of health care worldwide for over a century. Its rapid growth has had a major impact on public health. Annually, an estimated 230 million major operations are performed around the world - one for every 25 people alive. In developed countries, inpatient surgery results in major complications, disability, and prolonged hospitalization in 3-16% of surgical patients. Globally, reported crude mortality rates following major surgery range from 0.2-10%, depending on the setting. This translates into at least seven million disabling complications, including one million deaths each year. It is estimated that up to 50% of the complications and deaths could be avoided in both the developing and developed world if certain basic standards of care are followed.

During the course of 2007, the World Alliance for Patient Safety convened experts and clinicians with experience in a broad range of health-care settings to review the evidence for improving safety in surgery. This group defined ten core objectives for the safe delivery of surgical care and from them established basic practice standards in the form of a WHO *Surgical Safety Checklist (First Edition)*.

The programme has introduced the Checklist to a wider global audience to obtain input and feedback by professional societies and stakeholders on its contents and use as a tool for improving surgical safety. In addition, it has developed a set of standardized surgical "vital statistics" for measuring the public health impact of surgery and promoting quality improvement as a means of enhancing patient safety.

«Surgery is not usually thought of as part of our public health mission. But the annual volume of surgery worldwide now exceeds that of childbirth. And the death rates from complications are far higher. WHO has devised a simple intervention, the *WHO Surgical Safety Checklist (First Edition)*, to save lives by ensuring basic preventive practices are followed. It is designed for use in even the most resource-limited setting, and we are campaigning to implement it globally. But we remain even more ambitious, for we hope this will be just the first step in transforming the safety of surgical care worldwide.»

Programme Leader:
Dr Atul Gawande,
Associate Professor,
Harvard School of Public Health,
Boston, USA

Technical evaluations of the WHO *Surgical Safety Checklist (First Edition)* in eight test sites in all six WHO regions are currently taking place and the Alliance aims to report the results of these in 2008-09.

During the testing phase, a broad set of data regarding the process and outcome of surgical care is being gathered. Surgical performance, adherence to the standards of practice, and outcomes of intervention (including perioperative complications and death) are all being measured in order to evaluate the effectiveness of the WHO *Surgical Safety Checklist (First Edition)* as a tool for improving quality and safety. Measurement of the cultural aspects of the team and attitudes towards safety and quality performance are also being evaluated. Resistance to the use of the Checklist is being examined to identify impediments to its use or approval by providers and administrators. Information gathered from the various test sites should provide compelling arguments for adoption of the checklist worldwide.

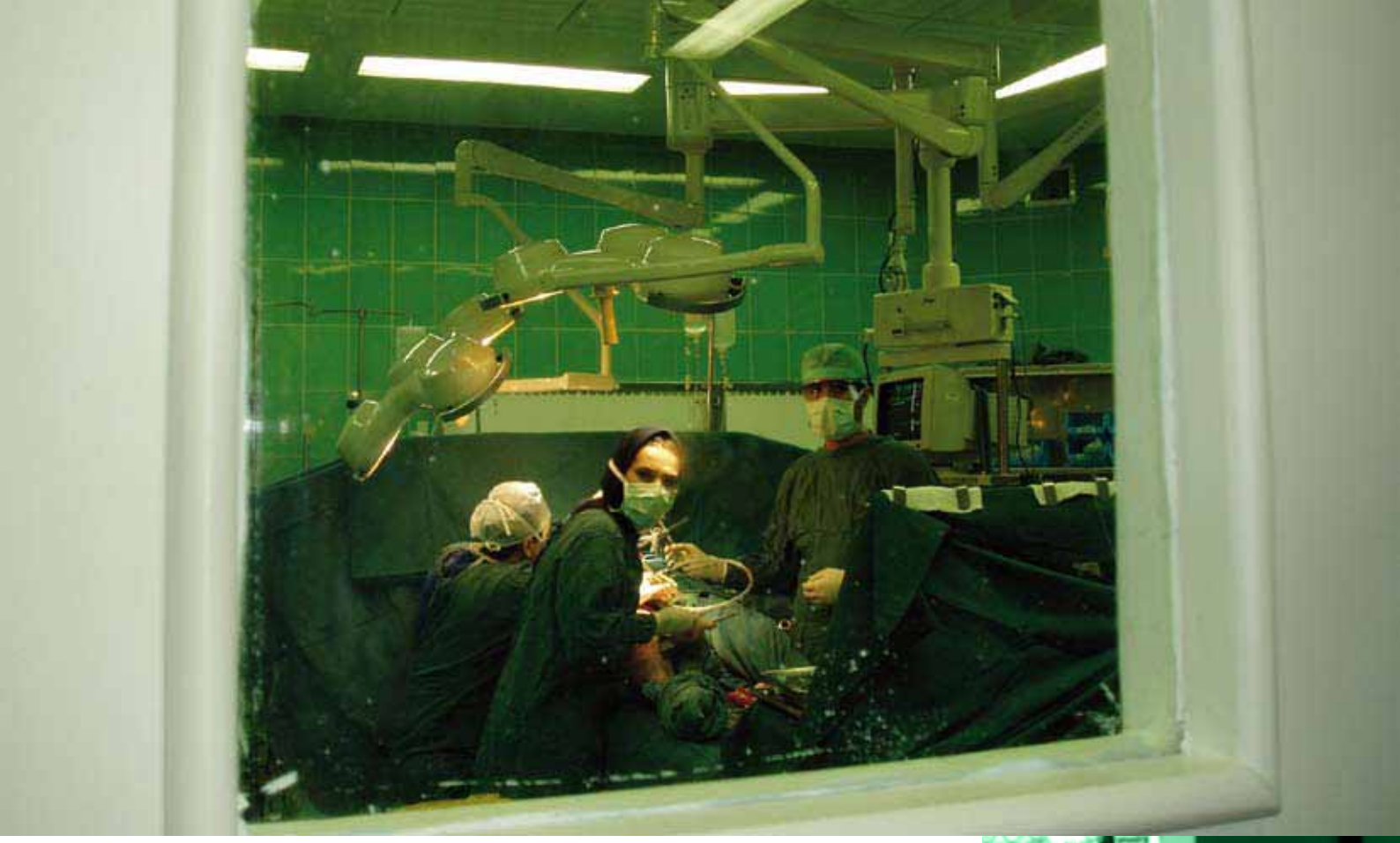
In addition to the eight identified test sites, the WHO *Surgical Safety Checklist (First Edition)* will be made available to a number of Complementary Test Sites as a tool to improve safety in health care. Any health-care facility or individual clinician worldwide is invited to participate in the testing process and to share their feedback and experience.

At the finalization of the second Global Patient Safety Challenge, the WHO Guidelines for Safe Surgery will stand as the detailed scientific work supporting the WHO *Surgical Safety Checklist (First Edition)*.

In addition to developing, promoting and disseminating the WHO Surgical Safety Checklist (First Edition), the second Challenge will extend its focus to include a number of new projects. One of these will focus on pulse oximetry as an essential safety tool in operating rooms. This project is strongly supported by numerous expert groups within the Alliance. The second Challenge is engaging in the development and use of low-cost pulse oximetry solutions in operating rooms worldwide. It also hopes to support performance assessment and quality improvement tools such as Dr Gawande's Surgical Apgar Score, an easily computed outcome predictor based on intraoperative blood loss, heart rate and blood pressure.

PARTNERSHIPS OF THE 'SAFE SURGERY SAVES LIVES' INITIATIVE:

The second Global Patient Safety Challenge, which will be formally launched on 25 June 2008, is liaising with a range of professional organizations in the fields of surgery, anaesthesiology and nursing to promote the uptake, distribution and use of the *WHO Surgical Safety Checklist (First Edition)*. This Challenge will continue to focus on certain key countries during 2008-09, to ensure an equitable geographical representation and distribution between different resource settings.



Endorsement of the WHO Surgical Safety Checklist (First Edition)

To generate awareness of the importance of the *'Safe Surgery Saves Lives'* initiative, professional societies in the areas of surgery, anaesthesiology, nursing and patient safety, from around the world are invited to endorse the principle of the WHO *Surgical Safety Checklist (First Edition)*. With the endorsement, professional societies support the concept that improvements of surgical safety are essential to public health. A growing number of professional bodies, societies, hospitals and individual surgeons have already subscribed to the principle of "safer surgery". In addition, *'Safe Surgery Saves Lives'* and the Patients for Patient Safety programme will explore collaborative initiatives and engage the support of Patient Safety Champions to advocate through their country networks, for the implementation of the WHO *Surgical Safety Checklist (First Edition)*.

For example, on 28 February 2008, in London, a number of British professional organizations endorsed the concept of the WHO *Surgical Safety Checklist*. At the event hosted by UK's National Patient Safety Agency (NPSA), royal colleges, national organizations and associations representing anaesthetists, nurses and surgeons signed up to support, in principle, the *'Safe Surgery Saves Lives'* initiative.

Promotion of the Checklist and engagement of societies and other stakeholders will continue throughout the course of the second Challenge.

WHO SURGICAL SAFETY CHECKLIST (FIRST EDITION)

BEFORE INDUCTION OF ANAESTHESIA → *BEFORE SKIN INCISION* → *BEFORE PATIENT LEAVES OPERATING ROOM*

SIGN IN

☐ PATIENT HAS CONFIRMED
- *IDENTITY*
- *SITE*
- *PROCEDURE*
- *CONSENT*

☐ SITE MARKED/NOT APPLICABLE

☐ ANAESTHESIA SAFETY CHECK COMPLETED

☐ PULSE OXIMETER ON PATIENT AND FUNCTIONING

DOES PATIENT HAVE A:

KNOWN ALLERGY?
☐ NO
☐ YES

DIFFICULT AIRWAY/ASPIRATION RISK?
☐ NO
☐ YES, AND EQUIPMENT/ ASSISTANCE AVAILABLE

RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?
☐ NO
☐ YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

TIME OUT

☐ CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE

☐ SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM
- *PATIENT*
- *SITE*
- *PROCEDURE*

ANTICIPATED CRITICAL EVENTS
☐ SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
☐ ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
☐ NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?

HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?
☐ YES
☐ NOT APPLICABLE

IS ESSENTIAL IMAGING DISPLAYED?
☐ YES
☐ NOT APPLICABLE

SIGN OUT

NURSE VERBALLY CONFIRMS WITH THE TEAM:
☐ THE NAME OF THE PROCEDURE RECORDED
☐ THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)
☐ HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)
☐ WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED

☐ SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.

Launch of the Safe Surgery Saves Lives initiative

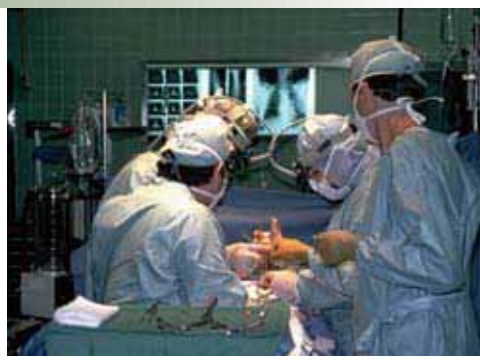
On 25 June 2008, the global launch of the *Safe Surgery Saves* Lives initiative took place in Washington, D.C., United States of America. At this event, the WHO *Surgical Safety Checklist (First Edition)*, together with a user manual, was introduced to a wider audience of policy-makers, health-care providers and associations, non-governmental organizations and the international media.

Test sites were invited to participate in this event to share their experience and to demonstrate the impact of the WHO *Surgical Safety Checklist (First Edition)* implementation. Some attending representatives of professional societies were invited to publicly endorse the initiative at the launch event.

DURING 2008 AND 2009
THE SECOND GLOBAL PATIENT SAFETY CHALLENGE WILL:

- Test and launch the WHO *Surgical Safety Checklist (First Edition)*.
- Launch the *Safe Surgery Saves Lives* initiative in Washington DC, in June 2008.
- Initiate the pulse oximetry project.
- Promote the use of a set of surgical "vital statistics" to measure the public health effect of unsafe surgery.
- Finalize the WHO Guidelines for Safe Surgery.

'Safe Surgery Saves Lives'
website: http://www.who.int/patientsafety/challenge/safe.surgery/en/



Tackling Antimicrobial Resistance

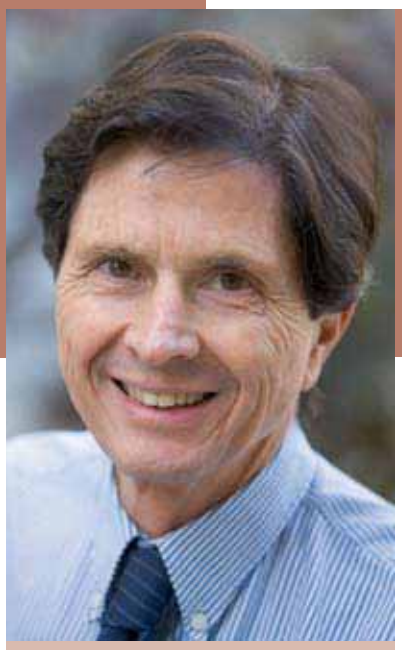
Third Global Patient Safety Challenge

During 2008-2009, the World Alliance for Patient Safety will establish a coalition of internal WHO programmes and external partners, including organizations representing patients, to address antimicrobial resistance, under the direction of Dr David Heymann, as the topic for its third Global Patient Safety Challenge. This programme is due to be launched in 2010.

Many infectious diseases can no longer be treated effectively with common anti-infective drugs. Resistance poses a growing threat to the treatment and control of infectious diseases, ranging from those that have long been endemic in human populations — malaria, tuberculosis, and sexually transmitted infections — to pandemics such as human immunodeficiency virus (HIV). Drug resistance also threatens the control of seasonally-occurring infections such as meningitis and influenza, as well as pandemics such as the H5N1 strain of avian influenza A.

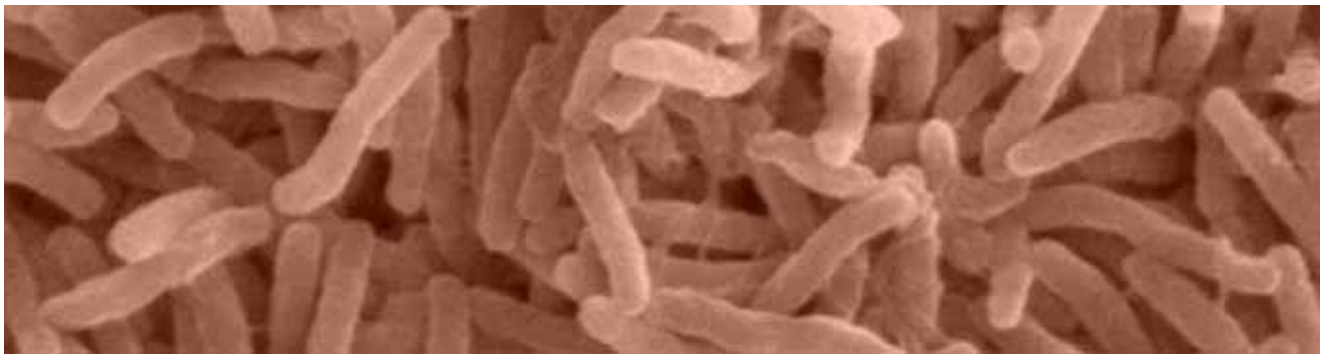
The rapid emergence of drug-resistant pathogens — whether parasites, bacteria, or viruses — leads to increased treatment failure and growing reliance on second line and combination therapy, with increased potential for toxic side-effects. It also increases the cost of treatment, often beyond what can be afforded by patients in developing countries. Reduced investment in research and the development of new classes of anti-infective drugs are also contributing to the decline of remaining treatment options for infectious diseases.

In some cases, treatment options have been reduced to almost zero. The ongoing pandemic of resistance development increases the risk of untreatable infectious diseases. This increases the risk of transmission of resistant pathogens through prolonged infectiveness. This endangers the collective health of entire populations. There is growing evidence that resistance to anti-infective drugs is largely contributing to an increase in infectious disease mortality worldwide.



«Antimicrobial resistance is a natural biological phenomenon by which bacteria, viruses and parasites mutate in ways that permit them to become resistant to the drugs that have been developed to treat the infections they cause. The rate of natural selection of these mutant strains is amplified by many different practices, ranging from the use of antimicrobial drugs in animal husbandry and horticulture, to health providers' practices of prescribing and the way in which patients adhere to treatment that result in the underuse, overuse or misuse of drugs. All these factors lead to a more rapid rate of natural selection of mutant strains and increases in antimicrobial resistance undermining patient care and the global efforts to tackle infectious diseases »

Dr David Heymann,
Assistant Director-General for
Health Security and Environment
and Representative
of the Director-General
for Polio Eradication,
WHO Geneva, Switzerland



This development has been accelerated by a growing connectivity of regions and populations by the speed and volume of air travel, the way food is produced and traded, the way anti-infective therapies are used and misused, and the way the environment is managed.

The reasons for this resistance pandemic are manifold and multifaceted, and in order to minimize the vulnerability of populations to this threat, concerted action in a variety of areas is urgently needed.

Several Resolutions and Recommendations by the World Health Assembly and the WHO Executive Board have addressed antimicrobial resistance development and have urged WHO and its Member States to develop plans to contain the spread of the resistance pandemic. In 2001, WHO published the Global Strategy for the Containment of Antimicrobial Resistance as a response to the growing threat.

PARTNERSHIPS:

During 2008 and early 2009 the work on antimicrobial resistance will centre on engaging with key opinion leaders and stakeholders on an individual basis. The process of identifying key stakeholders has just started and an advisory group will be set up towards the end of 2008 to take a lead role in developing activities in selected areas of focus.

The World Alliance for Patient Safety recently conducted a preliminary situation analysis with the objective of exploring areas of work for the Challenge.

Based on the 2001 strategic plan and the conducted analysis, the following action areas have been identified:

Rational drug use and regulation:

- Regulation targeting the misuse of anti-infective drugs (inadequate access, counterfeit and substandard drugs, over-the-counter sale, direct-to-consumer advertising);
- Action to address lacking or inadequate education of health-care workers and the general population (over-prescribing and over-demanding drugs);
- Development and enforcement of adherence to standard treatment guidelines.

Animal husbandry:

- Regulation of anti-infective drug use in animal husbandry, agriculture and aquaculture (treatment, growth promotion).

Research & Development (R&D):

- R&D of new anti-infective drugs;
- R&D and promotion of vaccines covering new infectious disease areas such as Staphylococcal diseases;
- R&D of diagnostic methods and tools to support a rapid diagnosis and allow for a specification of treatment;
- Alternative therapy.

Surveillance:

- Improvement of surveillance and reporting systems, including assessment of the global burden of drug-resistant infections and the economic burden to the individual and society.

Infection prevention:

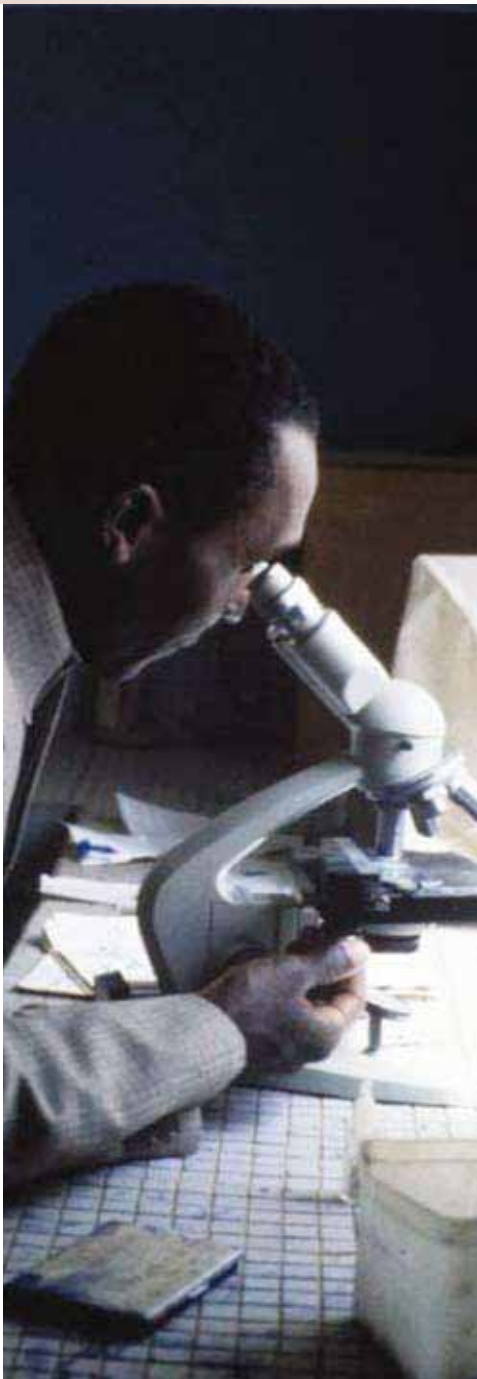
- Promotion of simple and effective non-medical measures to reduce the transmission of resistant pathogens to susceptible individuals in hospitals (infection control) as well as community settings (sanitation, food hygiene, etc).

Addressing some or all of these issues will undoubtedly have a marked impact on the reduction of antimicrobial resistance development.

The WHO World Alliance for Patient Safety is committed to taking a leadership role in the work on these and other action areas over the coming years to address the threat to patient safety due to the rapidly growing pandemic of antimicrobial resistance.

THE NEXT STEPS TO ADDRESSING ISSUES OF ANTIMICROBIAL RESISTANCE WILL INCLUDE:

- Assessing the growing global burden of antimicrobial resistance.
- Establishing an international working group consisting of experts in the areas of drug regulation, animal husbandry, research and development, surveillance and infection prevention.
- Defining the global antimicrobial resistance agenda and preparing for the launch of the third Challenge in 2010.
- Developing guidance on prioritization on how to address the driving forces of antimicrobial resistance development, based on the 2001 Global Strategy.



Patients for Patient Safety

«The forward programme and vision of Patients for Patient Safety will unite the health-care community, and create honourable partnerships never imagined before. It will call on the most courageous leaders in health care and will elevate and celebrate the posture and value of patients and patient networks. But most importantly, it will help prevent harm.»

Programme Leader:
Susan Sheridan,
Co-Founder and President,
Consumers Advancing Patient Safety, Chicago, USA

Patients and their family caregivers lie at the heart of the World Alliance for Patient Safety. The Alliance believes that the experience, knowledge and wisdom of patients and families affected by patient safety incidents are key to efforts to improve safety in health care around the world, and that the best and safest health-care organizations are those that encourage close cooperation with patients and their families.

The Patients for Patient Safety (PFPS) programme recognizes the essential role and value of patient involvement in raising awareness of medical error and advocating for urgent change to prevent patient harm. It acknowledges that patients and families are an untapped resource and that the patient experience is a valuable learning tool. Led by patients, PFPS, is building an international network of patients, family members, health-care providers and policy-makers who are committed to including the patient voice in the drive to create safer health-care systems. Patients are actively engaging in initiatives at local, national, regional and global levels to bring about increased awareness of unsafe care and patient safety. Patients are an essential part of any health-care team and their perspectives bring valuable learning opportunities to patient safety issues, programme design, solutions, research and creating a more patient-oriented safety culture.

PARTNERSHIPS:

Patients for Patient Safety will continue to develop close relationships with a range of stakeholders to actively promote patient engagement in patient safety. The programme has already developed a strong network of collaborative associations, working with patients, family members, patients organizations, health-care providers and national health bodies. Through workshop events in the six WHO Regions, the programme has brought together patients and family members who have suffered harm as well as representatives of ministries of health and health-care providers to build partnerships at the national level. These partnerships have resulted in the creation of action plans, the setting up of organizations and joint working between patients and professionals to tackle patient safety issues nationally. This focus will continue in the planned workshop events over the course of the next biennium.

PFPS has linked with a variety of organizations around the world which share its vision of partnership and patient engagement in safety, including Consumers Advancing Patient Safety, International Alliance of Patient Organizations, National Patient Safety Foundation, the All-Ukrainian Council for Patients' Rights and Security, the Canadian Patient Safety Institute and the Danish Society for Patient Safety. Over the next two years, it is hoped that more organizations will join PFPS to support the programme and the role of patients in tackling patient safety.

PATIENTS FOR PATIENTS SAFETY GOALS:

PATIENT ENGAGEMENT

Patient engagement needs to be mainstreamed across all areas of patient safety and health care: from simply asking patients about their preferences, fostering strong relationships and generating patient safety materials, to developing family advisory boards, policy making and advocating for change through partnerships with regulatory and accrediting agencies. PFPS will begin to embed a new patient safety culture and practice in the global health care environment.

PFPS will undertake to define patient engagement "through the patients' eyes" and provide examples of successful initiatives and innovative concepts. PFPS will develop a programme and tools to encourage increased patient engagement in patient safety. This work will build on the wisdom and perspectives of the Champion community and global experts. The programme will ensure that patient participation is a central element in the work of the Alliance programmes, as well as other patient safety programmes and efforts worldwide.

PATIENTS FOR PATIENT SAFETY GLOBAL AWARENESS

PFPS will develop a global campaign promoting patient engagement and positioning the patient as a "partner" for improving patient safety. This campaign will unite stakeholders, bringing together patients, family members, health-care providers, policy-makers, ministry of health representatives and national patient safety agencies.

Patients for Patient Safety activities

To deliver these goals and to ensure that the patient perspective continues to guide global efforts to create change and provide safer health care, PFPS and its growing network of Champions, collaborating organizations and supporters will address the following issues.

a) Ongoing support to Patients for Patient Safety Champions

- Organize a global event to support, communicate and further develop the work of PFPS Champions;
- Develop new models of PFPS Champions including in-country Champions;
- Further develop Champions' skills and capacity, including advocacy resources and toolkits to support them in their work. Sharing of best practice and models of success is vital to the continuing development of individual Champions and their networks;
- Ongoing collection of patient experiences including the development of film and written materials;
- In-country programmes and models of activities will be shared across the global network to enhance learning and action.

b) Integration with the other programmes of the WHO World Alliance for Patient Safety

- Continue to strengthen PFPS involvement in all the programmes of the Alliance in order to engage stronger patient participation in their activities;
- Integrate some of the methodologies and practices highlighted through the Patient Engagement project into each Alliance programme, encouraging the implementation of a written plan for patient engagement;
- Establish an active partnership with the *When things go wrong* project being led by the Health Information and Quality Authority of Ireland, as well as developing guidance and tools to support patients, families and health professionals in the aftermath of a patient safety incident.

c) Regional work on Patients for Patient Safety

- Hold inaugural regional workshops in the Western Pacific and African Regions;
- Continue developing regional PFPS campaigns, including awareness-raising, develop patient engagement models, carry out workshop events in countries,

follow-up and support to the current regional Champions and integration of their work into regional strategic objectives and activities;

- Support the development of PFPS Regional Declarations, to be endorsed by WHO Regional Committees in order to aid with the integration of the activities of patients and families into the work of each WHO Regional Office;
- Support the WHO Regional Offices in their development of country-level PFPS campaigns, workshops and activities.

d) Patient engagement programme

- Develop a declaration of patient engagement in patient safety;
- Develop resources, case studies and toolkits to inform, advise and support patient engagement for patient safety throughout health systems, at the levels of patient interaction with health-care providers, organizations, policy-makers, ministries of health and WHO;
- Work on scoping key issues that are of importance to the patient community. In particular:
  - education and training of patients, medical students and health professionals;
  - disclosure models based on transparent and open communication, including the communication of risk;
  - reporting systems which integrate patient reporting opportunities.

e) Global campaign

PFPS will work with communication experts, media, patients and key health-care stakeholders to develop a communication and awareness campaign and resources to support campaigning at international, regional, local and organizational levels.

f) Partnership engagement

PFPS will continue to develop partnerships with individuals, organizations, policy-makers, ministries of health, professional associations and others, to actively promote patient engagement in patient safety. The programme will continue to communicate regularly with partners, share information on our activities and supporting campaigning through the participation of Patients for Patient Safety Champions at international and national events.

g) Events

During 2008-09, PFPS will lead and/or support:

- A global Patients for Patient Safety congress;
- Regional workshops in the Western Pacific and African Regions;
- Follow-up regional PFPS events in all four other WHO Regions;
- In-country PFPS events;
- Events with partners, including the participation as key note speakers at major events of Champions and PFPS Steering Group members;
- A key workshop at the International Alliance of Patients' Organizations (IAPO) global congress.

h) Patients for Patient Safety network development

The current governance framework for PFPS and its potential for growing, supporting and managing the network will be reviewed.

i) Evaluation and impact assessment

PFPS aims to evaluate and learn from the programme's activities, as well as from other patient safety activities being carried out around the world in order to continually strengthen this Alliance programme. PFPS will therefore:

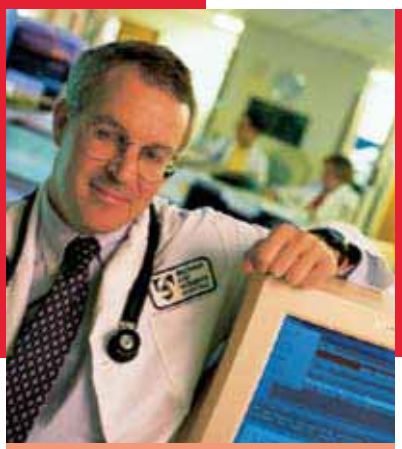
- Create evaluation and culture change tools to assist in measuring social change;
- Develop an evaluation framework for patient engagement in patient safety;
- Undertake an evaluation and impact assessment of the programme including the work of individual Champions, national teams and regional efforts.

THE NEXT STEPS FOR PATIENTS FOR PATIENT SAFETY WILL INCLUDE:

- Integrating the patient voice in all Alliance programmes.
- Holding PFPS workshops in the WHO Western Pacific and African Regions.
- Supporting in-country PFPS workshops and events.
- Supporting PFPS Champions.
- Developing resources and an evaluation framework for PFPS Champions in patient engagement in patient safety.
- Holding a congress for PFPS Champions as part of a global awareness campaign.

Patients for Patient Safety
website: http://www.who.int/patientsafety/patients_for_patient/en/

Research for Patient Safety



«More research on patient safety issues is desperately needed, especially in developing countries and in the outpatient setting. In particular, we need research on solutions for low-resource environments. In the next year, the Research programme of the WHO World Alliance for Patient Safety is considering and making recommendations about programmes for educating patient safety researchers, will be establishing a small grants programme to help stimulate research in these areas, and will be beginning an effort to estimate the global economic burden of patient safety.»

Programme Leader:
Professor David Bates,
Chief, Division of General Internal Medicine, Brigham and Women's Hospital, Boston, USA

Better knowledge is needed to make patient care safer. WHO estimates that tens of millions of patients worldwide suffer disabling injuries or death every year due to unsafe medical care*. Nearly one in ten patients is harmed while receiving hospital care in developed countries, and this rate may be even higher in developing countries. Studies show that additional medical expenses and hospitalization, infections acquired in hospitals, lost income, disability and litigation cost some countries between US$ 6 billion and US$ 29 billion a year. Patient safety is therefore a global public health problem that affects all countries, regardless of their level of economic development.

One of the research priorities for the next biennium is to bring patients' voices into the research agenda. As such, a number of Patients for Patient Safety Champions are participating in key activities, to include the patient perspective in the programme. Work will step up on the development of tools and methodologies to enable lessons to be drawn from patients' stories.

Currently, there is insufficient evidence about the frequency and causes of unsafe care, which is essential to understand the extent of patient harm and to develop solutions. More research is therefore needed to help health-care professionals and policy-makers understand the complex causes of unsafe care, and to come up with practical responses to reduce patient harm. Such research includes:

1) measuring the magnitude and type of adverse events that lead to patient harm,

2) understanding the underlying causes of harm,

3) identifying solutions to make care safer, and

4) evaluating the impact of solutions in real-life settings (Fig. 1).

** The evidence used in this section is drawn from the following document: The Research Priority Setting Working Group of the WHO World Alliance for Patient Safety. Summary of the Evidence on Patient Safety: Implications for Research. Geneva: World Health Organization, 2008.*

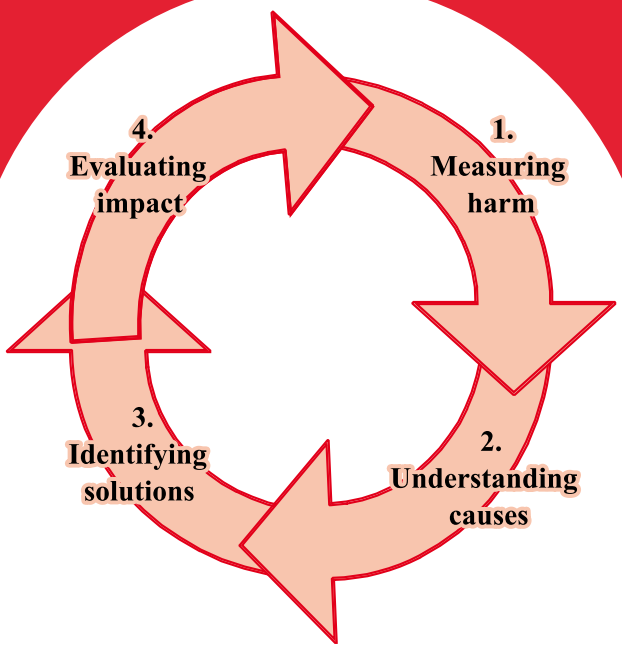


FIG 1.
THE PATIENT SAFETY
RESEARCH CYCLE

Activities

The World Alliance for Patient Safety aims to foster research and facilitate the use of research findings to improve the safety of health care and to reduce patient harm in all WHO Member States. One of the greatest challenges is to build the capacity to address research questions that have the greatest impact on reducing patient harm. Since the establishment of the research programme of the World Alliance for Patient Safety in 2005, the programme has focused on the following activities:

a) Disseminating and promoting the local adaptation of a global research agenda for making care safer

The Alliance worked collaboratively with a panel of international experts in setting a Global Research Agenda for Patient Safety. The recommendations of the expert committee stressed the importance of focusing research on identifying locally effective and affordable solutions to reduce patient harm. Although the identified priorities (Fig. 2 and Fig. 3) can guide research investments globally, local investors and research commissioners are encouraged to further expand and develop the prioritization process at national and local levels.

To facilitate research priority setting at national and local levels, the Alliance will disseminate reports that summarize current knowledge on patient safety issues around the world. The technical report entitled *'Summary of the evidence on patient safety: implications for research'*, presents an overview of 23 patient safety issues and identifies gaps in knowledge where future research is needed. The report *'Highlights of patient safety issues around the world'* is a brochure aimed at raising awareness of the issues among consumers, health-care providers and policy-makers.

FIG 2.
PRIORITY RESEARCH AREAS FOR DEVELOPING COUNTRIES AND THOSE WITH ECONOMIES IN TRANSITION

- Identification, development and testing of locally effective and affordable solutions
- Cost-effectiveness of risk-reducing strategies
- Counterfeit and substandard drugs
- Competencies, training and skills in the workforce
- Maternal and newborn care
- Health care-associated infections
- Extent and nature of unsafe care
- Knowledge management and transfer of knowledge
- Safety of injection practices
- Safety of blood practices
- Communication and coordination
- Safety culture
- Latent organizational failures
- Safety indicators
- Patients' role in health-care delivery

FIG 3.
PRIORITY RESEARCH AREAS FOR DEVELOPED COUNTRIES

- Communication and coordination
- Latent organizational failures
- Safety culture
- Cost-effectiveness of risk-reducing strategies
- Safety indicators
- Human factor considerations in the design and operation of procedures and devices
- Health information technology/ information systems
- Patients' role in health-care delivery
- Adverse drug events
- Care of the frail and elderly
- Patient adherence
- Misdiagnosis
- Identification, development and testing of locally effective solutions
- Health care-associated infections

b) Identifying key methods and measures for conducting research in this multidisciplinary field

The Alliance aims to identify methods and measures to advance research on patient safety, particularly in developing countries and those with transitional economies. Close attention is being given to data-poor environments through the development of rapid assessment methods to estimate patient harm, and to achieve a balance between robust scientific methods and addressing urgent needs.

Among the new projects in this category is the production of a guide to help researchers and patient safety leaders, in developing and transitional countries, understand the magnitude and causes of patient harm through the use of qualitative and mixed methods, and rapid assessment tools. The Alliance also seeks the development of micro-tools to facilitate the assessment and evaluation of the patient safety culture and of organizational latent failures, particularly in institutions with data poorer infrastructures.

Among the most promising avenues for research is the identification of a set of core patient safety indicators aiming at measuring progress towards improving patient safety. This work, undertaken in close collaboration with the Eastern Mediterranean Region, also brings together efforts to build up the patient safety infrastructure of hospitals through the identification of essential patient safety standards.

c) Supporting research projects in developing and transitional countries, where there is currently little evidence on patient safety

The Alliance has initiated prevalence studies to measure the frequency and type of adverse events that lead to patient harm in over 30 hospitals in developing and transitional countries. The research projects will help to build awareness of patient safety problems and encourage concrete actions to reduce patient harm. This approach is also contributing to the reinforcement of local research capacity and is helping to expand the global patient safety research network.

Results of the current international projects will be released during 2008 and 2009. The Alliance will engage with their partners and national organizations in the dissemination of the results and in fostering their translation into policy and practice implications.

d) Developing education and training opportunities to foster leaders in patient safety research who can build the evidence for safer care

The Alliance is working with experts in patient safety and research capacity-strengthening to develop education and training opportunities that will increase competency in patient safety research worldwide, with special emphasis on developing countries and those with economies in transition. The aim is to train leaders in patient safety research who can help build the evidence base, as well as translate evidence into policies and practices that reduce patient harm at the frontline, where care is delivered.

The expert working group is currently defining core competencies for patient safety research that can inform curriculum development, as well as developing a roadmap for the delivery of training worldwide. Institutions will soon begin piloting training materials for patient safety researchers, which will then be more widely available for distribution and use in education and training facilities in 2009.

e) Providing small grant seed funding to help support researchers and to launch promising patient safety research projects

The Alliance has set aside US$ 500 000 to fund between 20 and 30 small research projects commencing in 2009, with an emphasis on supporting early- to mid-career researchers in developing countries and countries with economies in transition. The small grants will be targeted at research projects that aim to identify, develop and evaluate local solutions to priority areas for patient safety. The grants will be awarded on a competitive basis using a peer review process.

It is expected that this initiative will not only stimulate research on patient safety, but will also contribute to building research capacity at the local level. It is also envisaged that it will facilitate the spread of research information, which will help raise awareness of patient safety issues among researchers and policy-makers, as well as promoting greater collaboration at national and international levels.

f) Synthesizing and disseminating evidence on the magnitude of unsafe care and what works best to reduce patient harm

Patient safety research is research for action. If the research evidence is not used to improve outcomes for patients, then it has little impact. It is therefore of great importance to better understand how to synthesize and communicate research findings in an effective way, so as to influence changes in health-care practices

PARTNERSHIPS IN RESEARCH FOR PATIENT SAFETY:

Collaboration and active partnerships are some of the key words that lie at the core of the work of the research programme. These principles are encouraged through the leadership of the Research Advisory Council, which has approximately twenty members representing some of the main constituencies of patient safety and global health research in the world. These institutions are:

- Agencia Nacional de Calidad del SNS (Spain)
- Agency for Healthcare Research and Quality (USA)
- Brigham and Women's Hospital (USA)
- British Medical Journal, (United Kingdom)
- Department of Health (United Kingdom)
- European Commission, Research Directorate General (EU)
- Harvard School of Public Health (USA)
- International Clinical Epidemiology Network (Global, HQ-India)
- Institute of Medicine (USA)
- Japanese Society for Quality and Patient Safety (Japan)
- Johns Hopkins University (USA)
- Joint Commission (USA)
- National Department of Health (South Africa)
- Thailand Health Foundation (Thailand)
- Tohoku University School of Medicine (Japan)
- University of Aga Khan (Pakistan)
- University of Manchester (UK)

The Research programme also carries out its programme of work by promoting networks and encouraging collaboration. International experts and local research teams engage in active research projects working with a number of countries around the world. Active networks around research projects led by the Alliance bring together expertise from a number of leading universities, research institutes, professional associations and health-care organizations and are active in Europe, South America, the Eastern Mediterranean Region, South East Asia, the Western Pacific Region and Africa. These networks involve multidisciplinary teams from a number of countries and have become active agents in partnering with the local health authorities and health-care organizations to deliver the patient safety agenda.

The Research programme will continue to develop relationships with partners, including research institutions and research training organizations, quality improvement and evaluative institutions and expert collaborators worldwide.

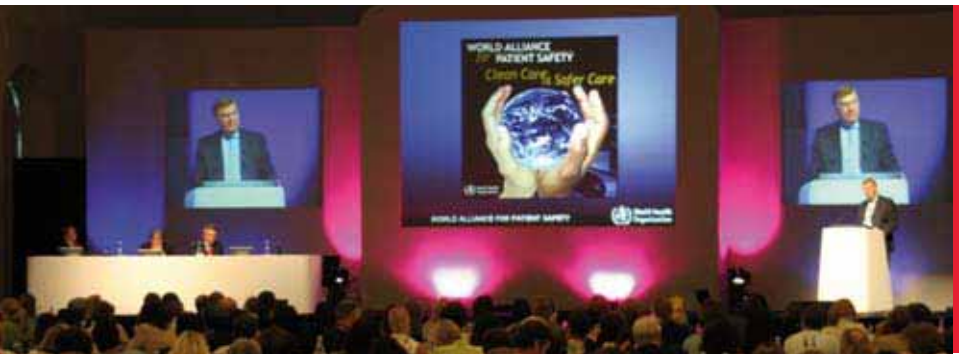
and health policies that will make care safer. A study to measure the global burden of unsafe care has been commissioned by the Alliance to provide the evidence for governments to take action on this silent epidemic, which until now has been understudied and has gone largely unnoticed.

g) Creating a global platform to support knowledge translation by patient safety researchers and research users

The Alliance is developing the Global Patient Safety Research Network to promote greater communication and collaboration among researchers and research users worldwide. The special focus of the research network is to help novice researchers from developing countries and countries with economies in transition to establish careers in patient safety research, by identifying opportunities for mentorship, training and funding. During the coming biennium, the Alliance will continue to expand the research network which currently includes members from South America and Asia, to Africa and the Eastern Mediterranean Region.

Building a strong research community which brings together researchers and research users from around the world requires a user-friendly and flexible platform for communication, collaboration and knowledge sharing. The development of the Global Patient Safety Research Network will therefore occur in phases, with the addition of different components to meet diverse needs.

In addition to virtual communities, the Alliance is developing partnerships with international groups such as ISQua to foster patient safety worldwide, and as part



of their collaboration, have facilitated the attendance of delegates from developing countries at the ISQua international conference. The Alliance has also joined together with the European Commission, as well as national-level partners, in organizing a conference entitled «Patient Safety Research: Shaping the European Agenda», that was held in Porto, Portugal, in September 2007. This was the first international conference on patient safety research and provided a forum for almost 400 researchers, policy-makers and patient groups from 60 countries to explore opportunities to improve patient safety research, to identify a shared research agenda and to form international networks and build collaboration.

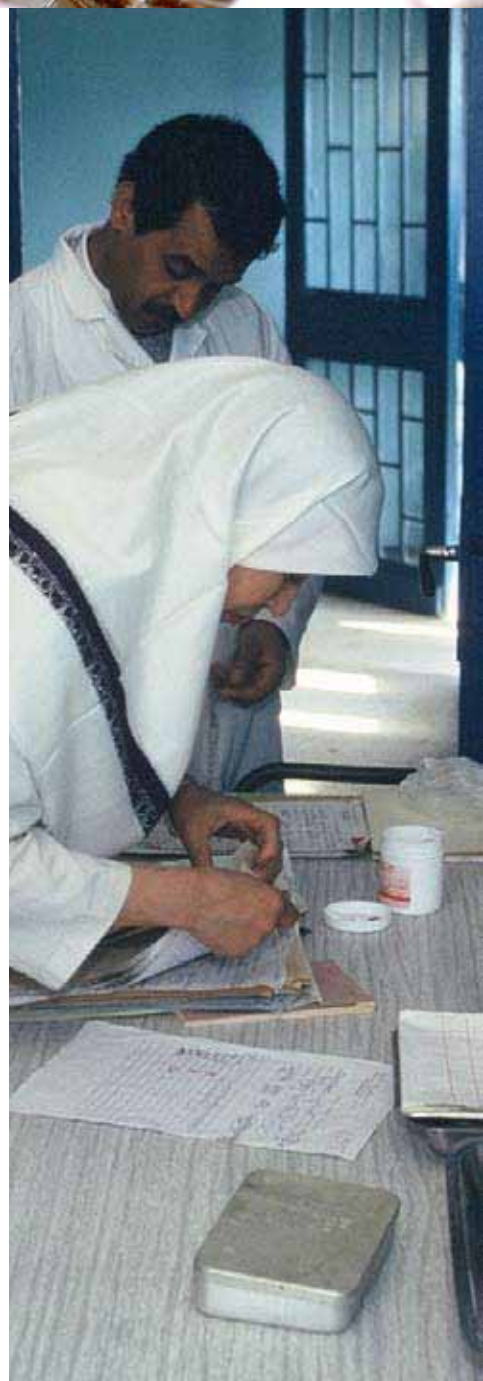
Detailed information about the conference is now available on the following website: http://www.fph.org.uk/patientsafetyresearch/default.asp

Creating a supportive environment for knowledge exchange will help to ensure that researchers and research users feel part of a larger community, striving together towards the same goal: to make health care safer and to reduce patient harm.

DURING 2008 AND 2009
THE RESEARCH FOR PATIENT SAFETY PROGRAMME WILL:

- Develop a summary of the evidence and knowledge gaps on patient safety.
- Estimate the global burden of unsafe care.
- Provide evidence on adverse event rates from over 30 hospitals in developing and transitional countries.
- Develop a guide for conducting research in data-poor environments.
- Develop a guide for establishing training programmes for patient safety researchers.
- Establish a set of core competencies for leaders in research to reduce patient harm.
- Fund 20 to 30 small research projects to make care safer.
- Build up a global patient safety research network.

Research for Patient Safety
website: http://www.who.int/patientsafety/research/en/



The International Classification for Patient Safety (ICPS)

The basis for all communication is a commonly understood language. This is as true in health care as it is in any other sphere of human endeavour. However, too often in health care, a shared set of concepts, definitions and terms to define problems and envision solutions, has been lacking. Efforts to come to a common understanding on a language for health care date back to the early 1700s. From the very first World Health Assembly in 1948, WHO played a leadership role of working with Member States and external experts to advance the common language around mortality and morbidity worldwide, with the International Classifications of Diseases.

In patient safety, the need is great. Building a better means by which the global community can communicate and share knowledge about common risks, hazards and patient safety events requires an internationally accepted approach to the classification of patient safety data. Over time, this will form the backbone of research, reporting, learning and improvement activities across the world, allowing lessons to be shared on common problems internationally. Yet today, there is no internationally accepted or agreed approach.

In order to bridge this gap, the World Alliance for Patient Safety has developed an initiative with a set of the world's experts in patient safety and internal partners in the Department of Measurement and Health Information Systems of WHO to develop the first ever International Classification for Patient Safety (ICPS). The purpose of the ICPS is «to define, harmonize and group patient safety concepts into an internationally-agreed classification in a way that is conducive to learning and improving patient safety across systems». It is intended to:

- Group patient safety data and information into a common (standardized) language;
- Permit the systematic collection of information about patient safety incidents (adverse events and near misses) from a variety of sources;
- Allow for statistical analysis, learning and resource prioritization.

Work to date has focused on the development of the conceptual framework underpinning the ICPS. The conceptual framework is comprised of ten fundamental classes. *Incident Types* and *Patient Outcomes* group patient safety incidents into clinically meaningful

categories. Vital descriptive information is obtained from the classes *Contributing Factors/Hazards, Patient Characteristics, Incident Characteristics* and *Organizational Outcomes.* Data and information pertaining to system resilience, risk reduction, protection against failure and protection against harm are captured in the classes *Detection, Mitigating Factors, Ameliorating Actions and Actions to Reduce Risk*. The practical application of the ICPS lies in its ability to enable aggregation and comparison of data and information in order to identify trends, predict potential problem areas and learn from experience.

During 2008, the World Alliance for Patient Safety will undertake reliability and validity testing to ensure that the ICPS classification captures the major dimensions of patient safety. The field testing will be guided by the approach recommended by the WHO Family of International Classifications.

A key activity will be the convening of the ICPS Challenge Group, in May 2008, to review the ICPS and test its robustness and reliability. A second key activity focuses on the migration of the ICPS, which is currently in English, to other languages. Preliminary testing of this migration at a meeting in Japan in 2007 highlighted the conceptual as well as linguistic challenges which such a migration entails. The initial linguistic translations will be in French and Spanish and work on these will begin in 2008.

Future plans in 2009 include further technical work on the concepts and terminology within the ICPS, dissemination of the ICPS in a form which is most useful to WHO Member States, and work on formal knowledge representation of the ICPS to ensure both its strength and adaptability.

Continuing improvement of the ICPS will be an ongoing effort that the Alliance will undertake with its external partners and with internal partners in the Department of Measurement and Health Information Systems of WHO. The Alliance will also place a continued emphasis on ensuring the ICPS relates closely to continued developments with the WHO Family of International Classifications.

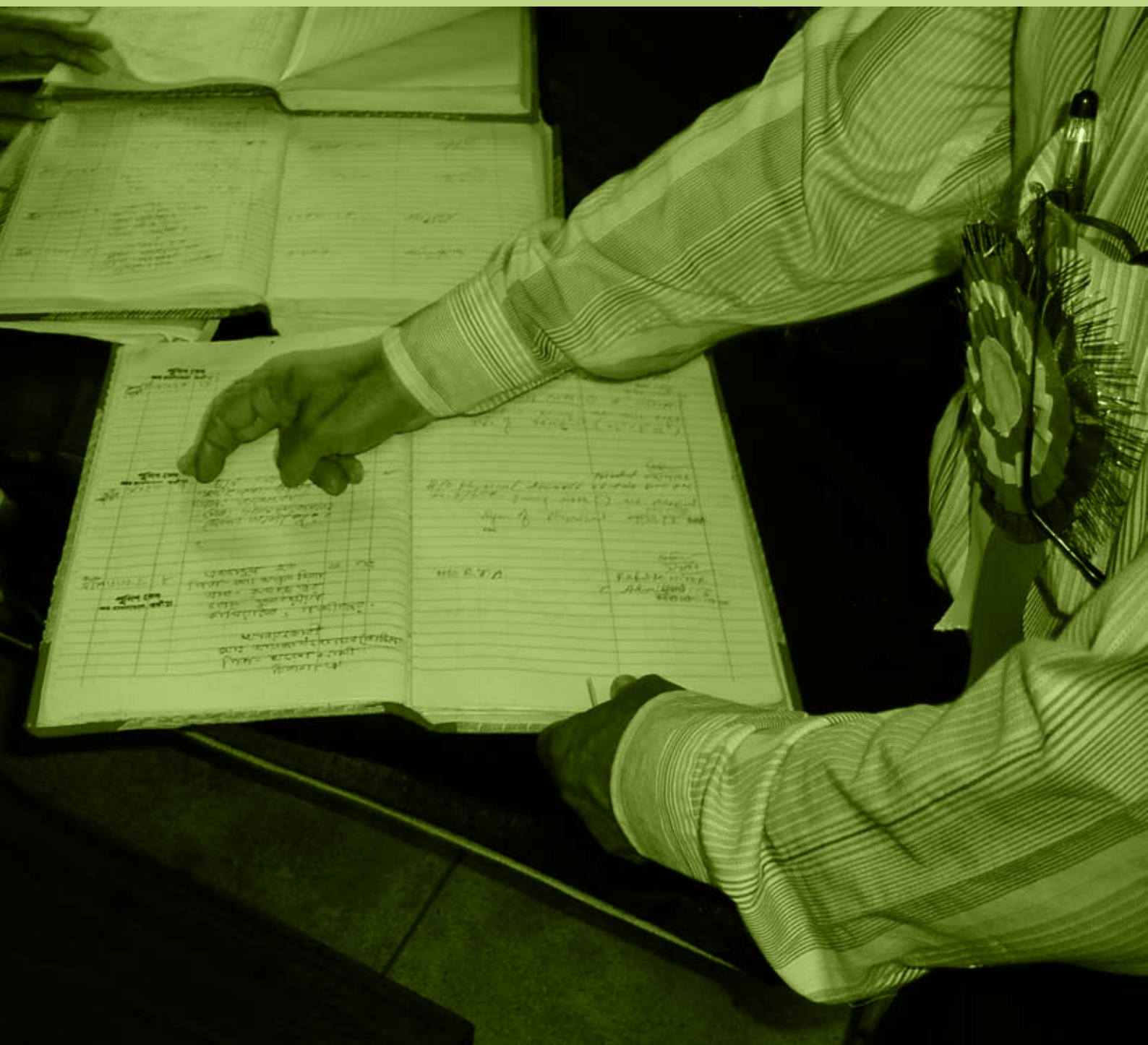
The Alliance will continue to promote awareness and involvement in the work on the ICPS among interested WHO Member States and other key stakeholders. A number of presentations at international conferences and meetings are planned, along with publications on the work undertaken in peer reviewed journals. Through the Alliance web pages on the WHO website, detailed updates on the ICPS will continue to be provided for interested stakeholders.

DURING 2008 AND 2009 THE INTERNATIONAL CLASSIFICATION FOR PATIENT SAFETY PROGRAMME WILL:

- Complete testing through the Challenge Group of the ICPS and produce a summary report on the results.
- Complete a revised edition of the ICPS based on the 2008 testing and disseminate to Member States.
- Produce first edition translations of the ICPS in French and Spanish.
- Develop and implement a strategic plan for further development of the ICPS dissemination.

INTERNATIONAL CLASSIFICATION FOR PATIENT SAFETY
website: http://www.who.int/patientsafety/taxonomy/en/

Reporting and Learning for Patient Safety



Reporting and learning systems are designed to improve the safety of patients. These systems are only just beginning to take shape in health care, compared to the airline and other industries. Many Member States are interested in strengthening their approach to reporting and learning.

There are many challenges to adapting the model of the airline industry in health care, to implement strong reporting and learning systems for patient safety. This includes strategies to engage health care providers – and potentially patients and their families – to report safety concerns, promote better methods and tools for analysing such data to set priorities for action, use data from reporting systems to design risk mitigation strategies and evaluate the effectiveness of reporting systems.

Adam Air flight 574, a Boeing 737, went missing during a domestic flight to Manado, Indonesia on 1 January 2007. The last contact was at 14:07 when the flight was en route. Initial reports indicate that the flight changed course twice as a result of severe crosswinds. However, no news came until the air flight data recorder was found at sea by an Indonesian navy ship. The airplane had crashed there, killing all 102 people on board. The data gathered from the flight data recorder and from the analysis of the recovered airplane were compared with information in existing data systems maintained by the national authorities and other data systems maintained by organizations like the Commercial Aviation Safety Team (CAST) internationally. Consequently, the results were shared globally with national transportation authorities. Data on the crash were logged at both the national and international level using a universal system of airline incident recording, which enables data on similar incidents to be pooled and analysed. These information systems make a real difference to airline safety. The Geneva-based Aircraft Crashes Record Office (ACRO), which compiles statistics on aviation accidents worldwide announced that 2007 had been the safest year in aviation since 1963. Even more importantly, the data in these systems are made publicly available to any researcher, industry analyst, policy-maker or airline passenger.

Source: Aviation Accident Database. National Safety Transportation Board. http://www.ntsb.gov/ntsb/query.asp

The World Alliance for Patient Safety launched its work on Reporting and Learning for Patient Safety with its first Forward Programme. During 2005, the Alliance worked closely with one of the world's experts on adverse event measurement, Professor Lucian Leape of Harvard University, to develop the WHO Guidelines for Adverse Event Reporting and Learning Systems. In 2007, the Alliance began building a relationship with Johns Hopkins University and Professor Peter Pronovost to develop a full agenda on monitoring and evaluating the Alliance programmes. Building on the success of the guidelines, the Alliance has facilitated collaboration between the UK National Patient Safety Agency (NPSA) and Johns Hopkins University (JHU). Working with the NPSA, JHU has carried out an extensive analysis of the NPSA's national adverse event database, the largest of its kind in the world, to identify ways in which data such as these can be more effectively used internationally to improve patient safety.

Reporting and Learning
website:
http://www.who.int/patientsafety/reporting_and_learning/en/

DURING 2008 AND 2009, THE REPORTING AND LEARNING BASELINE WORK WILL SERVE AS THE STARTING POINT FOR MORE IN-DEPTH WORK IN A NUMBER OF AREAS, INCLUDING:

- Further work on methods and tools and methods for data analysis, specifically with the goal of developing approaches that can be used to judge safety threats and organizational resilience.
- Development of tools on how to use feedback on incident reports.
- Collaboration around data mining with a particular focus on analysis of free text data.
- Development of a strategic plan for international collaboration on reporting and learning with Member States.

Solutions for Patient Safety

«The Joint Commission looks forward to continuing to lead the Solutions programme of the World Alliance for Patient Safety and particularly, to advancing our knowledge regarding the design and effective management of the complex systems that support safe patient care. The success of the Solutions programme will depend on the sustainability, durability, and applicability of solutions and the robust process improvement methodologies supporting their development and implementation.»

Mark Chassin, M.D., M.P.P., M.P.H., President, The Joint Commission and WHO Collaborating Centre for Patient Safety Solutions, Chicago, USA

The traditional medical oath "First Do No Harm" is rarely violated intentionally by physicians, nurses or other practitioners, but the fact remains that patients are harmed every day in every country across the world in the course of receiving health care. The first thing we must do is acknowledge this disturbing truth. Then we must reject the notion that the status quo is acceptable, but most importantly, we must act to correct the problems that are contributing to unsafe care.

The process of identifying, developing, adapting and disseminating Solutions for Patient Safety has been carried out by Joint Commission International (JCI) and The Joint Commission, established as a WHO Collaborating Centre for Patient Safety Solutions in 2005, in concert with the International Steering Committee, a collaborative network of experts from around the globe. These experts represent numerous patient safety organizations and bring years of expertise to the solutions development process. In partnership with the World Alliance for Patient Safety, the Collaborating Centre designed a process for developing new solutions, as well as adapting existing ones in order to disseminate these worldwide. The Alliance and the Collaborating Centre launched the first set of nine patient safety solutions for Member States in May 2007. Some have already begun using these solutions as national patient safety goals.

Building on the momentum generated by the 2007 launch of the first set of solutions, the next set, to be issued in 2008, is based on what has been learned internationally during the development of the first set, while focusing on 'where, how, and why' certain adverse events occur.

Additional improvements to the process of solutions development have included the involvement of experts earlier in the process and the introduction of the GRADE approach to grading the strength of the evidence, used by WHO and many other organizations around the world. In addition, improved "solutions at a glance" diagrams and a streamlined field review questionnaire have been introduced.

In January 2008, Collaborating Centre and Alliance staff reviewed and revised the process for developing new solutions in order to improve the scientific soundness of solutions and ensure their relevance to both developing and developed countries.

Improvements to the process and outcomes of solutions development

During 2008 and 2009, the following activities are planned:

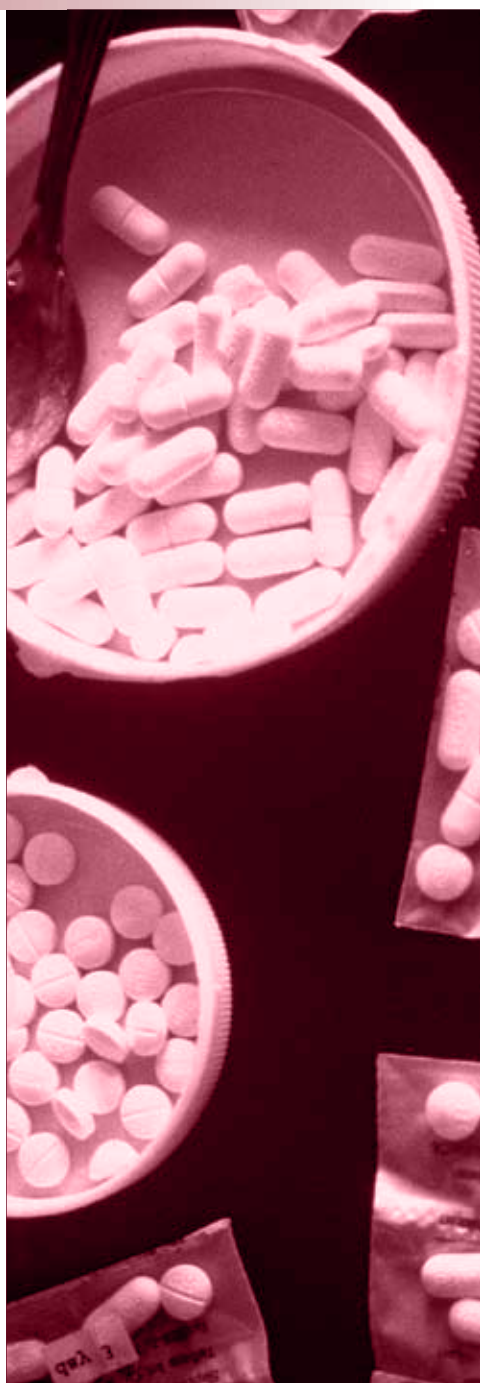
- Finalization of the 2008 set of patient safety solutions, identified as priority areas by the International Steering Committee, the Collaborating Centre and the Alliance. This set of solutions has undergone robust field testing and review by technical experts in diverse fields of patient safety. Following endorsement of the finalized solutions by the steering committee in July 2008, this set of solutions will be prepared for launching in late 2008. The new solutions are:
  - Improved central line care to prevent health care-associated infection (HAI);
  - Recognizing and responding to deteriorating patients;
  - Communicating critical test results to patients;
  - Preventing patient falls;
  - Preventing pressure ulcers.
- The set of newly-developed solutions will be presented in the form of a WHO *Aide-mémoire* and translated into several languages, including Arabic, Chinese, French, German, Russian and Spanish, for dissemination through electronic and printed media, across all WHO regions.
- A system for evaluating the strength of evidence supporting the recommendations in the solutions will be further refined. An evaluation of the quality of the evidence supporting the recommendations, together with expert opinion, will be used to generate a recommendation grade for each suggested action.
- An evaluation project will be initiated, focusing on the impact of the disseminated patient safety solutions in WHO Member States. This will involve the development and implementation of an internet-based survey conducted by the Collaborating Centre in close association with the Alliance. It will also incorporate an evaluation of patient involvement in the solutions process.
- Active promotion of the goals of this programme and existing set of solutions, translated into six languages, will continue through international conferences, publications, WHO Regional and Country Offices and the work of the WHO Collaborating Centre.
- To improve the reviewing process of each newly-generated solution, regional advisory groups will be established across the six WHO regions.

The solutions identified and developed each year provide a unique opportunity to examine systems of care and make changes to enhance the safety of patients. In 2008 and 2009, this Alliance programme will continue to focus worldwide attention on patient safety solutions that can reduce risks to patients.

DURING 2008 AND 2009
THE PATIENT SAFETY SOLUTIONS PROGRAMME WILL:

- Finalize and translate the 2008 set of patient safety solutions.
- Launch the latest set of five solutions in late 2008 and disseminate worldwide.
- Refine the system for evaluating the strength of evidence supporting the recommendations in the solutions and generate a recommendation grade for each suggested action in the solutions.
- Develop a formal evaluation component for the solutions and finalize the database to manage the evaluation data.
- Conduct an internet-based survey to assess the use of the published solutions.
- Expand the use of regional advisory groups for reviewing each developed solution.
- Prioritize new topics, identify and develop the latest set of the 2009 solutions.

For further information and to provide suggestions for future patient safety solutions, please visit:
www.jcipatientsafety.org and
http://www.who.int/patientsafety/solutions/patientsafety/en/index.html



Action on Patient Safety: High 5s

Karen H. Timmons, President and CEO Joint Commission International Chicago, USA

«JCI is proud of its continued commitment to the World Alliance for Patient Safety and its role in building an expert global collaborative network that has been crucial to the initiative. Through the efforts of many, we have the potential to process the development of standard operating protocols that provide a breakthrough in furthering safe care for patients.»

The provision of safe care continues to present daunting challenges around the world. To address this problem, the *High 5s* initiative seeks to leverage the implementation of five standardized patient safety solutions that would have broad impact in preventing adverse events in health care. This initiative received initial funding from the Commonwealth Fund and is sponsored by the World Alliance for Patient Safety. The initiative is coordinated by the WHO Collaborating Centre for Patient Safety. It builds on the established partnership of the Commonwealth Fund with Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

The Action on Patient Safety: *High 5s* initiative aims to learn from the systematic implementation of innovative, standardized operating protocols of five major problems impacting patient safety, over five years in the participating Member States. Over time, this initiative will work towards expanding the implementation of the protocols in further countries across developed and developing countries.

The standardized operating protocols (SOPs) to tackle five widespread patient safety problems in the participating countries are:

- Managing concentrated injectables;
- Assuring medication accuracy at transitions of care;
- Performance of the correct procedure at the correct body site;
- Communication during patient care handovers;
- Improved hand hygiene to prevent health care-associated infections.

Dennis O'Leary, MD, Former President, The Joint Commission Chicago, USA

WHO Collaborating Centre for Patient Safety Solutions, Chicago, USA

HIGH 5s INITIATIVE: STAKEHOLDERS AND PARTNERS

The Alliance and the WHO Collaborating Centre on Patient Safety Solutions will develop mechanisms to share progress and lessons learned from the implementation of this initiative with international stakeholders. The achievement of a truly active learning community on patient safety at global, national and facility levels will be a lasting legacy of the *High 5s* initiative.

The seven national lead technical agencies participating with the *High 5s* initiative are:

1. Australia: Australian Commission on Safety and Quality in Healthcare.
2. Canada: Canadian Patient Safety Institute
3. Germany: German Coalition for Patient Safety
4. The Netherlands: Dutch Institute for Healthcare Improvement - CBO
5. New Zealand: Population Health Directorate, Ministry of Health
6. The United Kingdom: National Patient Safety Agency
7. The United States of America: Agency for Healthcare Research and Quality

Advancing the High 5s initiative in 2008-2009

At the 2007 Commonwealth Fund International Symposium on Health Care Policy, the ministers of health of six participating countries publicly signed a letter of intent to collaborate on the *High 5s* initiative.

Following the ministerial signing, the lead technical agency in each participating country has initiated a recruitment process to identify volunteer participating hospitals. Each agency will seek to enrol at least ten hospitals to participate in the *High 5s* initiative and will select for implementation several SOPs from among those developed. Participating hospitals will be given high visibility and recognition for their willingness to implement and evaluate the protocols and for their leadership in working to standardize patient care processes.

During 2008, it was agreed that:

- Three SOPs and their implementation strategies will be finalized. These SOPs are: *Managing concentrated injectables; Assuring medication accuracy at transitions of care; Performance of the correct procedure at the correct body site.*

- Implementation of the: *Communication during patient care handovers* and *Improved hand hygiene to prevent health care-associated infections* SOPs has been deferred to a later phase of the project.
- Impact evaluation is critical and will focus on assessing the effectiveness of SOP implementation, while SOP-specific trigger events will be identified and monitored.
- Two subgroups of the Steering Committee will be established: a Communication Strategy Subgroup to develop a communications plan and a Collaborative Learning Communities Subgroup, to define and design learning community parameters.
- An expansion strategy to include countries interested in participating in this initiative will be developed.

A key activity within the *High 5s* initiative in 2008-09 will be the execution of the recommendations from this meeting.

The lead technical agency in each country will coordinate and support the implementation of the SOPs at participating hospitals, and monitor their impact through applying the evaluation tools developed under the guidance of the impact evaluation subgroup. Each agency will collect data from participating hospitals and submit them to the WHO Collaborating Centre for Patient Safety Solutions for analysis and tracking, and eventually for dissemination and exchange of knowledge to support effective solution implementation.

THE NEXT STEPS FOR THE HIGH 5s INITIATIVE INCLUDE:

- Creation of standardized operating protocol (SOP) implementation toolkits.
- Provision of lead technical agency and hospital education and training on SOP implementation and evaluation.
- Development of a project website and virtual learning community.
- Convening of a project summation conference.

Websites

Action on patient safety – High 5s
http://www.who.int/patientsafety/solutions/highFives/en/index.html

The Joint Commission International Centre for Patient Safety – High Fives
http://www.jcipatientsafety.org/24433/

Technology for Patient Safety

«The design, implementation, assessment and improvement of technology are all areas that have become core competencies for health systems as health-care delivery has become more technologically dependent and complex. Enabling the development of safer technologies and ensuring the safety of patients being treated with existing technologies are two key areas of national and local safety systems.»

Professor Lord Ara Darzi,
Imperial College London, UK

Technology can be harnessed as a powerful tool for improving patient safety. Electronic patient records, automated prescribing systems, simulation training and failsafe mechanisms in diagnostic tools, such as computerized radiographs, can all prevent error and reduce harm.

During 2008, the Alliance will work with Imperial College London, to review global activities on the state of technology and patient safety. Four advisory committees will be established with distinct technical areas of responsibility, including:

- Information technology and knowledge management in safety programmes;
- Introducing new technology safely;
- Technology in use – monitoring device and drug safety;
- Training technology – simulation, avatars and the future of safety skill building.

Each working group will aim to produce relevant papers in their areas of work. The working groups will then meet at Imperial College London, to review the work plans and set priority areas for further work in technology and patient safety in 2009 and beyond. This work is being actively supported by the Government of Japan.

DURING 2008 AND 2009, THE WORLD ALLIANCE FOR PATIENT SAFETY WILL CONTINUE ITS EFFORTS ON TECHNOLOGY BY:

- Forming four expert working groups in four major technology areas. Producing major reviews of the state of technology in these areas.
- Holding a global workshop hosted by Imperial College London, to review these papers and plan the Alliance technology work programme further.

Knowledge Management

The scenario below is a picture of how the world of health care should be in this age of information technology. Health-care providers should be able to easily access the latest information on medical errors and connect with experts and resources to help avoid such errors. Making this hypothetical scenario a reality is a vision of the World Alliance for Patient Safety.

A four-week old baby hospitalized for bronchiolitis at a teaching hospital receives two doses of the blood thinner heparin at 1000 times the intended dosage. The baby luckily survives without serious injury, but the young faculty member caring for him is horrified and becomes interested in studying how the incident could have happened.

The doctor is trained in epidemiology and infectious diseases, but has not worked on problems of patient safety, so she logs on to the World Alliance for Patient Safety website for guidance. She enters the search term 'heparin', and a newspaper article comes up, entitled «Hospital drug errors far from uncommon» that describes a series of virtually identical incidents that occurred in the United States of America in the past year. She finds a study published in the past month entitled «Reducing anticoagulant medication adverse events and avoidable patient harm.» The entry provides a useful synopsis of the paper, including several safety measures that were found to be effective, and related links. Next, she clicks onto the «Experts» page. She is pleasantly surprised to learn that there is a pharmacologist in the same city, at another hospital affiliated with her medical school, who is studying antibiotic-related errors. She finds several dozen researchers working on anticoagulant adverse events in countries across the world and a grant proposal that has just been funded to study medication errors in ten developing and transitional countries.

The doctor then downloads a copy of the research plan. She also learns that reducing the incidence of anticoagulant adverse drug events is one of the Joint Commission's 2008 patient safety goals, and downloads a copy of their materials. She locates and joins the 'Preventing Medication Errors' community of practice, and posts a query. It is late at night, but she receives responses almost immediately from colleagues in both her own and other time zones. One of them informs her that an important factor in previous incidents has been look-alike packaging of vials of lower and higher dose preparations of the medication. Another directs her to a website on how to investigate a defect in care. Another invites her to apply for a small grant to conduct a mentored research study of the topic. Still another asks if she would consider participating, as a site, in a new multi-centre project on medication errors. The doctor responds directly to this investigator to express her enthusiasm.

The world supply of patient safety knowledge and know-how is expanding rapidly. Research and activities to understand and improve patient safety are taking place in a growing number of centres around the world. However, much of the activity is occurring outside traditional academic institutions. In addition to the current peer-reviewed literature, a great deal of knowledge is in the form of news reports, white papers, websites, grant proposals and ongoing projects. And, although the bulk of patient safety research to date has been performed in English-speaking countries, important work to understand and improve systems and safety is now being conducted in all regions of the world.

How can these resources be marshalled so that knowledge and tools can be transformed into real improvements in the safety of health care? To make meaningful progress, information, knowledge and experts need to be available and accessible. Care providers interested in patient safety need to know who is doing what, where, and the latest tools and techniques that are being applied.

The World Alliance for Patient Safety is in a unique position to gather and share knowledge on patient safety, working in partnership with Member States, via WHO Regional and Country Offices. Fulfilling this responsibility will be enhanced by effective knowledge management, including networking with colleagues within WHO and among partners and stakeholders worldwide. The Alliance's work will be informed by the principles, tools and practices of knowledge management that enable users to create knowledge, and to share, translate and apply what they know, in order to create value and improve effectiveness.

Plans to enhance knowledge management

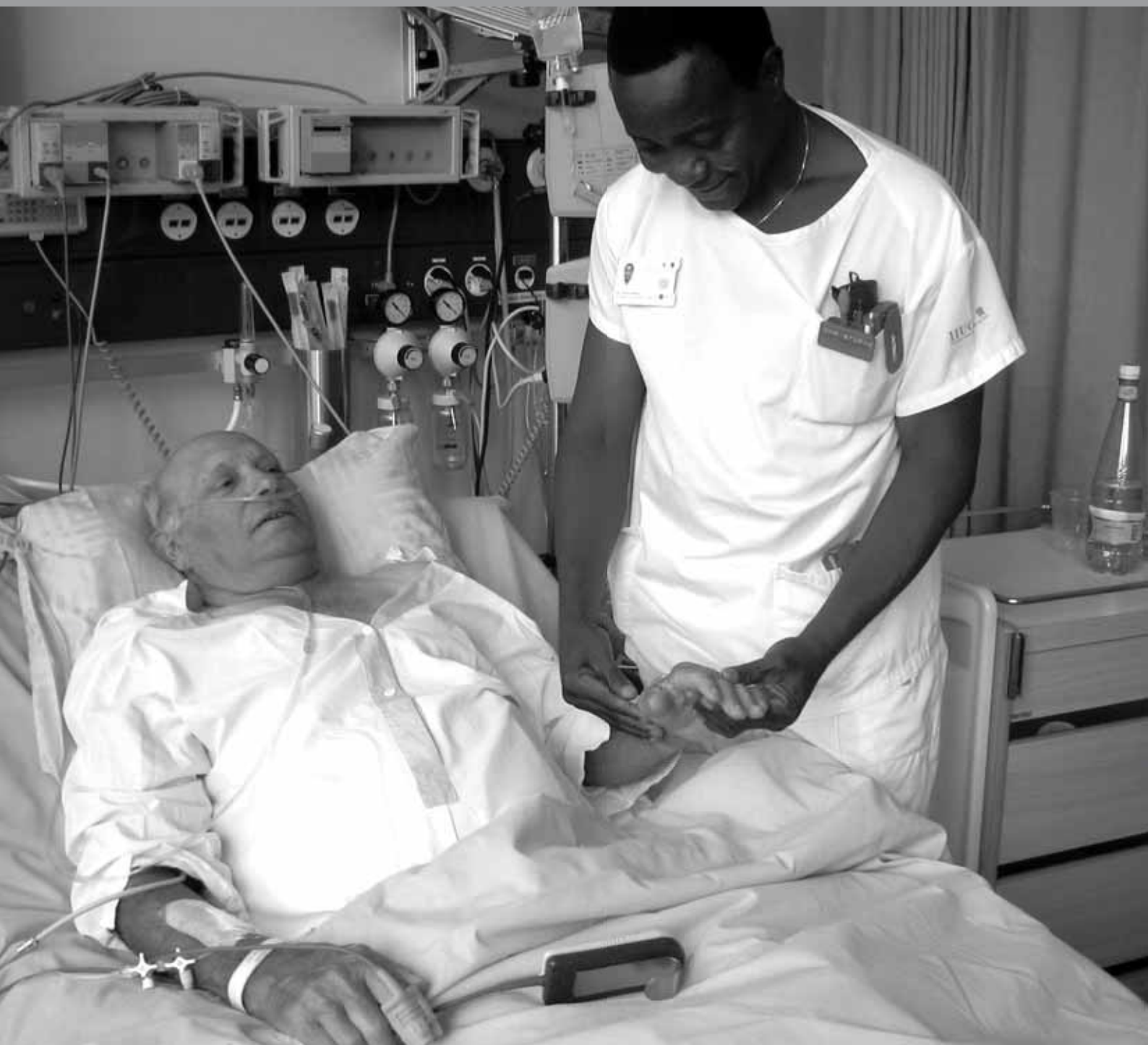
In 2008-2009, activities to enhance knowledge management will take advantage of in-house as well as resources external to WHO. The goal of the Alliance is to achieve enhanced capabilities in disseminating useful knowledge around the world. A key new programme will be a service to provide regular updates of key information related to patient safety worldwide.

The Alliance has already made a good start on addressing knowledge management through a range of strategies, including the development of internal links with related WHO departments, such as the Knowledge, Management and Sharing Department and consolidating thousands of existing contacts compiled through the implementation of campaigns and projects, collaborations and technical consultations. In addition, the Alliance will assimilate the online communities of practice that have begun to grow around specific areas of interest. Members of these communities are key stakeholders and users of patient safety information and knowledge. Meanwhile, the Alliance is seeking the advice of a number of international experts. The Alliance has also engaged the services of a cybrarian, working as an external consultant to describe gaps in current processes and propose options for enhanced information and knowledge sharing to improve patient safety.

DELIVERABLES FOR 2008-2009 INCLUDE:

- A service to provide updates on publications and activities worldwide related to patient safety.
- A report proposing options for improved knowledge management within the Alliance and among its partners.
- Conduct an internet-based survey to assess the use of published solutions.
- Continue to translate the 2007 set of solutions into various languages.

Eliminating Central Line-Associated Bloodstream Infections



Professor Peter Pronovost, Director, Quality and Safety Research Group, leading the work of the World Alliance for Patient Safety at Johns Hopkins University, Baltimore, USA

In the United States of America, over 18 million patient days will be spent in intensive care units (ICUs) this year. For the majority of those, a central venous catheter (central line) will be used to provide medicine and fluid to keep these critically ill patients alive. At the same time, these incredibly important tools are also a source of danger for these patients. An estimated 80,000 bloodstream infections are caused annually by central venous catheters, resulting in as many as 28,000 deaths.

Despite these frightening numbers, little evidence has existed to date on a solution. Intensive care is incredibly complicated and patients are at their most vulnerable, often between life and death, while they are in the care of the intensive care team. The Keystone ICU project in the US State of Michigan, was set up to provide evidence that could be used to address bloodstream infections in ICUs. A team from Johns Hopkins University, led by Professor Peter Pronovost, worked with the Michigan Health and Hospital Association to develop the initiative in over a hundred ICUs across the state from 2003 to 2006.

The method was startlingly simple. A five-item checklist was developed that addressed the most common causes of central line-associated bloodstream infection in ICUs. A comprehensive change management strategy was developed that involved intense input and leadership from the units and the staff themselves. Finally, the change in infection rates itself was closely monitored. The results were startling: the programme saved nearly 1500 lives and nearly US$ 200 million. Moreover, the participating ICUs reduced their central line-associated bloodstream infection rates to 0%.

The World Alliance for Patient Safety and Johns Hopkins University

The Alliance believes that if the results achieved in the State of Michigan could be replicated in other settings, this could change the lives of hundreds of thousands of patients worldwide. Scaling up such work internationally will represent one of the major areas of collaboration between the Alliance and the Quality and Safety Research Group of Johns Hopkins University.

The aim is to develop a package of intervention tools and change management strategies that are based on the Michigan work, adapted to other countries, so that the Michigan results can be matched globally.

The implementation of this project exemplifies many of the core tenets of the World Alliance for Patient Safety, namely; producing a culture of safety, promoting education, proactively identifying risk, encouraging teamwork, basing practice on evidence, and above all, realizing the benefits of knowledge-sharing and collaboration. Such simple strategies have the potential to truly become international and the World Health Organization's World Alliance for Patient Safety plays a vital part in achieving that goal.

Initial work has been developed with the Ministry of Health of Spain, involving the Spanish Sociedad Española de Medicina Intensiva, Critica y Unidades Coronarias, Grupo de Trabajo de Enfermedades Infecciosas (SEMICIUC) and leading the country-wide implementation of a strategy based on the «Michigan» project. This initiative can provide valuable lessons which will serve as inputs to the definition of the Alliance's «Matching Michigan» strategy which will be developed in 2008-2009.

With the aim of assessing feasibility, the SEMICIUC has piloted a preliminary strategy in nine hospitals. Results of the pilot were released in April 2008 and the Alliance, Johns Hopkins University and the Ministry of Health of Spain have begun a second phase of this initiative that will accomplish two objectives in 2008. The first is to scale up the pilot of the Michigan approach to other selected areas of Spain. The second objective is the definition of a «Matching Michigan» package that could be adapted and used to reduce central line-associated bloodstream infections internationally.

Education for Safer Care

Health-care safety can be improved through education, which can transmit the appropriate knowledge and skills on patient safety.

A patient safety curricular guide for medical students

It is vital that all health-care practitioners understand the relevance of patient safety issues in their work and what they can do to improve the safety of care. It is the frontline staff who deliver patient care and who are most affected by patient safety initiatives. However, most training programmes for health-care workers do not include patient safety science, and often only include safety issues in passing.

The World Alliance for Patient Safety is developing a curricular guide for undergraduate medical students, which will be validated by experts in health-care worker education and patient safety. Patient safety education of health-care workers has the potential to improve the safety of patients worldwide by creating a basis for trainees to then build on in professional life. It is vital for all health-care workers to receive training in patient safety, and the curricular guide for medical students aims to encourage the spread of patient safety teaching to all those involved in delivering patient care. Furthermore, the Alliance's Patients for Patient Safety programme and its Champions will help ensure that the patient experience and voice will be part of the process of generating curricula, or the delivery of patient education messages.

Patient safety scholars

This programme, delivered in partnership with Johns Hopkins University, will train a skilled group of patient safety scholars from around the world, who will have the potential to lead change and drive improvements in patient safety at national and international levels.

Each scholar is given the opportunity to undertake a two-year programme. The first year of the scholarship is focused on completing a Masters Degree in Public Health. The second year of the programme is dedicated to applying what has been learned to a specific patient safety issue with international relevance.

Patient safety scholars will graduate equipped with a range of skills in public health and policy that will enable them to influence national policy to improve the safety of care for patients, and act as a powerful force for global patient safety.

DURING 2008 AND 2009, THE WORLD ALLIANCE FOR PATIENT SAFETY WILL CONTINUE ITS EFFORTS ON EDUCATION BY:

- Developing a standard curricular guide in patient safety for undergraduate medical students to raise awareness of the magnitude of the problem and to provide them with the skills to adopt safer practices.
- Implementing a Patient Safety Scholars programme, in conjunction with the Bloomberg School of Public Health, Johns Hopkins University.

Safety Prize

Flaws and errors within health care are often publicized, highlighting real patient safety challenges. Yet, often excellent organizations worthy of a safety prize are not recognized, investigated or do not have the opportunity to share their culture and practices more widely.

It is clear that there are examples of excellent patient safety practice in the health-care sector worldwide. At present, there is no formal way to acknowledge, reward or highlight this good practice on an international level, nor for lessons to be learned and applied in other organizations.

Local quality awards have been successful in drawing attention to high-quality practice across a variety of industries, including health care. Key examples include the Baldrige National Quality Award in the USA and the Deming Prize in Japan. They are widely regarded as key factors in raising the profile of quality and driving quality improvement in these countries.

The World Alliance for Patient Safety aims to devise a methodology and create an international award for excellence in the field of patient safety that will act as a driver for change and improvement across the world.

An award of this sort, showcasing safe hospitals, would provide inspiration to the global patient safety movement and encourage others to achieve similar results.

IN 2008-2009 THE ALLIANCE AIMS TO:

- Develop organizational indicators for patient safety that are relevant worldwide.
- Create a network of experts able to assess safety status.
- Establish an international methodology for an award for patient safety.

AT A GLANCE - KEY DELIVERABLES FOR 2008-2009

ON THE GLOBAL PATIENT SAFETY CHALLENGES:

1. Inviting numerous WHO Member States to participate in the first Challenge, *'Clean Care is Safer Care'*, and to pledge action on health care-associated infection, with particular emphasis and support in the WHO African Region.
2. Establishing the University of Geneva Hospitals as a WHO Collaborating Centre on Patient Safety (Infection Control).
3. Finalizing the WHO Guidelines on Hand Hygiene in Health Care as a result of consultations and pilot testing in all WHO regions.
4. Involving patients as a core feature of the revised multimodal strategy on hand hygiene.
5. Coordinating a network of hand hygiene campaigning nations.
6. Developing a single worldwide annual event to focus attention on better hand hygiene.
7. Implementing robust evaluation of the first Challenge: from cost-effectiveness through to the effectiveness of the technical, pledging and awareness-raising activities.
8. Commencing a major project to address health care-associated infection and hand hygiene in the African region.
9. Launching the second Challenge, *'Safe Surgery Saves Lives'*, in Washington, DC, in June 2008.
10. Testing and launching the *'WHO Surgical Safety Checklist' (First Edition)*.
11. Initiating a project on developing a low-cost pulse oximeter and promoting its use in operating rooms worldwide.
12. Promoting the use of a set of surgical "vital statistics" to measure the burden and public health effect of unsafe surgery.
13. Finalizing the WHO Guidelines for Safe Surgery.
14. Planning the third Challenge on '*Tackling Antimicrobial Resistance*' (AMR) and assessing the growing global burden of antimicrobial resistance development.
15. Establishing an international working group on AMR consisting of experts in the areas of drug regulation, animal husbandry, research and development, surveillance and infection prevention.
16. Defining the global AMR agenda and preparing for the launch of the third Challenge in 2010.
17. Developing guidance on prioritization on how to address the driving forces of antimicrobial resistance development, based on the 2001 Global Strategy.

ON PATIENTS FOR PATIENT SAFETY:

18. Supporting efforts of the international network of Patients for Patient Safety Champions who work in partnership with policy-makers and other key players to improve patient safety.
19. Integrating the voice of patients in all World Alliance for Patient Safety programmes.
20. Developing resources and an evaluation framework for the Patient Safety Champions in patient engagement.

ON RESEARCH FOR PATIENT SAFETY:

21. Synthesizing evidence on patient safety.
22. Estimating the global burden of unsafe care.
23. Identifying key methods and measures for conducting research in this multidisciplinary field.

24. Building research capacity in developing countries and those in transitional economies through training leaders in patient safety research.
25. Funding up to 30 research projects to make care safer and supporting ongoing research in developing countries.
26. Building a global patient safety research network.

ON THE INTERNATIONAL CLASSIFICATION FOR PATIENT SAFETY:

27. Completing testing of the International Classification for Patient Safety (ICPS) and developing a revised edition of the ICPS based on the 2008 testing phase, and dissemination to Member States, including linguistic validation into French and Spanish.

ON REPORTING AND LEARNING FOR PATIENT SAFETY:

28. Producing methods for data analysis to judge safety threats and developing tools for data mining.
29. Developing tools on how to use incident reports for local safety improvements.

ON SOLUTIONS FOR PATIENT SAFETY AND THE *HIGH 5*S INITIATIVE:

30. Launching the 2008 set of field-tested solutions and disseminating these to all Member States, including a formal evaluation component.
31. Finalizing standardized protocols on patient safety, using the experience of leading facilities.
32. Implementing and evaluating the standardized protocols in each participating Member State, led and supported by a technical agency.

ON TECHNOLOGY FOR PATIENT SAFETY:

33. Forming four expert working groups in four major technology areas. Producing major reviews of the state of technology in these areas.
34. Holding a global workshop hosted by Imperial College London, to review the papers in these areas and plan the World Alliance for Patient Safety work programme further.

ON KNOWLEDGE MANAGEMENT:

35. Establishing a robust Knowledge Management programme which will help to ensure that health-care professionals and patients have simplified access to data and information on patient safety worldwide.

ON EDUCATION FOR SAFER CARE:

36. Developing a standard curricular guide on patient safety for undergraduate medical students.
37. Implementing a Patient Safety Scholars programme in conjunction with Johns Hopkins University, Bloomberg School of Public Health.

ON THE SAFETY PRIZE:

38. Developing organizational indicators for patient safety that are relevant worldwide and creating a network of experts able to assess safety status.
39. Establishing an international methodology for an award for patient safety.

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