Appropriate technology serves the interests of patient safety in many ways: it is designed with careful consideration of the end-user and the environment. Not only is such technology easier to use, it is also cheaper to purchase and maintain and is often designed for developing countries as a more appropriate alternative to ‘western’ imports.

The premise is simple: a device should not only function under ideal conditions – it needs to function for real users, who may have limited training or be tired, in the real world, with all its pressures and distractions. In short, it should be simple, robust and sustainable.

Appropriate technology has been the subject of debate, innovation and discussion for many decades. In fact, the term “appropriate technology” was coined by the economist E.F. Schumacher in his 1970s book, Small is beautiful. In it, the author argues that technology must empower and support humans.

But even the best technology can pose serious threats if it is not set up in a systematic way. Also in the 1970s, Jeffery Cooper, a young bioengineer in Massachusetts, observed anaesthetists at work. He noted that in one operating theatre, an anticlockwise turn of a machine's dial increased the concentration of a noxious anaesthetic gas. Next door, a
clockwise turn of the dial was required to produce the same effect. Each device on its own functioned properly, but opposite manoeuvres were needed to reach the same result in each theatre. Under the pressure of an emergency, this was a disaster waiting to happen. Cooper and his team thus redesigned anaesthetic equipment through a human factors lens. Mortality from anaesthetics dropped from 100 deaths for every 1,000,000 operations in that facility at the time, to 3-5 deaths for every 1,000,000 operations today.

This understanding of the end-user and the working environment is fundamental to the development of appropriate technology. It is also the essence of human factors thinking necessary for patient safety.

When technology fails to deliver the hoped-for improvements in patient safety, this is too often due to a failure to consider the needs and limitations of the user. Technology should be seen as an aid to health-care workers and not as a threat. It should strengthen the clinician-patient relationship and not act as a barrier. It should make care simpler and safer. By using appropriate technology, this is what we aspire to do.

Patient Safety Research Small Grants

The 2009-2010 call for applications for the WHO Patient Safety Research Small Grants has been finalized with the selection of 12 new research projects for funding, to be implemented in 13 different WHO Member States, including Argentina, China, Colombia, Ecuador, Kenya, Malaysia, Mexico, Mongolia, Nigeria, Pakistan, Tanzania, Uganda and USA. These projects emerged from a total of 235 applications received and were selected following a rigorous peer-reviewed assessment process.

The new cohort of grantees will join the growing global Patient Safety Research Network. In its third year of operation, the Small Grants programme currently supports 32 projects in 25 Member States, investigating important patient safety issues ranging from measuring harm and identifying local solutions to evaluating the adoption of existing solutions.

The Small Grants contribute to research capacity-strengthening through different methods, such as peer support, in-country collaboration and collaboration between researchers in low and high income countries. These patient safety research projects significantly contribute to awareness-raising about patient safety among local researchers and decision-makers, both at the country and international levels. The success of the Small Grants is attributable to its many collaborators, including grant reviewers and colleagues in WHO Regional and Country Offices.


Patients for Patient Safety

Susan Sheridan - Expert Lead, Patients for Patient Safety

Patients for Patient Safety (PFPS), one of WHO Patient Safety's original action areas, was formed in 2004 with the fundamental belief that informed, engaged and empowered patients, in partnership with health-care professionals, will help transform the global health-care system so that it is safe, compassionate and just.

Led by patients, PFPS has grown from an informal group of eight patient representatives in 2005, to a structure that includes a Steering Group, 10 PFPS Regional Representatives across all WHO regions, and a vibrant global network of 203 champions. The champion network includes patients, patients' family members, NGOs, health-care workers and policy-makers, all of whom are committed to including the voice of the patient in the health-care process and to work together to improve patient safety through advocacy and open dialogue.

Over the past five years, PFPS has conducted 15 workshops in 11 countries, involving more than 600 participants from 52 countries. The range of participants is...
a testament to the level of interest across all levels in health care and the community. Declarations have been adopted in regions and countries as a result of these workshops. These include the formational London Declaration, the Jakarta Declaration and most recently the Perth Declaration, adopted in 2009, each representing a call to action to improve patient safety through partnership.

In December 2009, an impact analysis of the PFPS champions was undertaken, which provided valuable data on the wide variety of activities in which champions have been involved over the last five years. More than 65 champions are members of committees such as regional health quality boards, hospital boards, national quality and safety boards, local patient safety groups, health ministries and WHO expert committees. A large number of these champions often give presentations or training to healthcare workers, students, patients, hospital management and national groups on the importance of patient safety. Champions have also produced a range of patient safety materials including films, patient safety guidelines, posters, collections of patient experiences and peer-reviewed journal articles.

PFPS has capitalised on the power of story-telling by producing a number of “Patient Voices” films in which patients and family members who have suffered harm in health care share their experiences. These powerful films help raise awareness of the need to engage, empower and include patients and their families in their own care. Some of the films are also used for training purposes, such as ‘When Things go Wrong’, a film illustrating the difficulties experienced by families trying to understand and obtain information after an adverse event.

Despite the global challenge associated with the reluctance of organizations to embrace change and to involve patients as partners, emerging evidence cites patient engagement as one of the top requirements for improving the safety of care. PFPS was recently recognised in a Discovery Channel television documentary narrated by actor Dennis Quaid, called Chasing Zero: Winning the War on Healthcare Harm. The documentary is a powerful collection of experiences from patients, healthcare workers and leaders in patient safety. It highlights errors attributable to systems rather than individuals and calls for patient engagement to improve patient safety.

http://link.brightcove.com/services/player/bcpid79301804001

PFPS is committed to helping achieve the Millennium Development Goals and this is reflected in one of its key work areas. It is developing a tool to help improve the safety of mothers and their new babies across the world, with a particular focus on the first seven days following birth. This work is being carried out in partnership with the National Patient Safety Agency (UK) with support from other WHO departments and external experts. Patient champions in all WHO Regions are driving every stage of development to ensure this work has real value for patients and their families. PFPS looks forward to sharing more news on the progress of this work in the near future.

http://www.who.int/patientsafety/patients_for_patient/en/

**Patient Safety Checklists**

WHO Patient Safety has completed the usability feedback cycle for both the Safe Childbirth Checklist and the Trauma Care Checklist. This initial feedback phase was conducted in 18 different sites for the Safe Childbirth Checklist and six different sites for the Trauma Care Checklist around the world. The feedback received by frontline clinicians on both checklists has been very positive and invaluable in the checklist development process. This summer in Belgaum, India, WHO Patient Safety will begin a more formal evaluation of the Safe Childbirth Checklist and its impact on process measures around the time of childbirth. WHO Patient Safety will also be leading an evaluation of the Trauma Care Checklist in approximately 10 countries starting this summer.