Computers and Global Health Challenges:
Climate change, disease eradication and global access to healthcare data

Improving disease eradication initiatives through HIT

Under the strategic direction of the World Health Organisation, the global healthcare community is mobilized from time to time to focus on a disease of international concern in order to eradicate it. This multipronged effort usually requires participation of a wide range of stakeholders and the investments are usually massive. The need to have optimized utilization of resources in accomplishing these goals brings to the fore the importance of using various health information technologies (HIT). Looking on from success with smallpox last century, the current focus of the WHO is on Poliomyelitis and Dracunculiasis (guinea worm) eradication. There are other diseases that have been effectively controlled and may move towards eradication soon.

How do we integrate HIT in the planning of these eradication efforts? What solutions are available for activities such as surveillance, immunization, logistics, training and epidemic control? What social-economic and political factors come in to play? How does the IT industry come in to play a role? These are some of the questions to be considered.

Making Personal Health Records Accessible Globally: Towards a Global Health Information System

The need to have patient information accessible to care givers is becoming increasingly pertinent as rapid international travel, urbanization and trade fuse our planet into a global village. The reality however is that not everyone on the move is perfectly fit and there may be a need to occasionally have access to patients' information on the other side of the planet. This would yield faster and better care delivery and save health management costs for both patients and institutions.

How can we achieve this? How can patient information be made available to various healthcare providers as they need it? What are the technologies available to achieve this? What forms of legislation need to be put in place? What about privacy and security of data? Who bears the costs? These are some of the issues to be considered in dealing with this topic.

Climate Change and Emerging Diseases: Improving detection, surveillance and outbreak prevention through HIT

The changing climate and its effect on health is a growing issue of international concern. Climate change affects plants, animals and other factors in the environment and also plays a role in human health. Human nutrition, zoonoses, deforestation, access to potable water and natural disasters are all linked to climate change and are directly related to human health.

What increased threat to disease is actually being faced? What HITs are useful in the detection and surveillance of such diseases? Whose role is it to monitor and prevent these? What can and is being done by the scientific community, governments and international organisations? What technologies are in use to this end? What part do we have to play as individuals and professional communities?