NHS Confederation's response to the Royal Society of Medicine's working group examining developments in information and communication technology (ICT) relating to health and healthcare in the next ten to fifteen years.

The NHS Confederation welcomes the opportunity to provide our thinking on developments in ICT in healthcare relating to healthcare in the next ten to fifteen years. The NHS Confederation is the representative body for the majority of NHS organisations and many independent sector providers of NHS care across the UK.

This short response has drawn on our existing knowledge of our members' views and concerns surrounding this issue. We would welcome the opportunity to engage our members more closely with the Royal Society's work in this area as it develops.

What relevant technology trends are likely to impact on health and healthcare in the next ten to fifteen years?

We believe that other organisations and publications have covered this ground well and would draw the Working Group's attention to the following links:

- Better health through partnership: a programme for action, Health Industries Task Force (HITF), Department of Health 2004
- Association of British Healthcare Industries Manifesto 2005
- The National Horizon Scanning Centre, University of Birmingham
- European Observatory on Health Systems and Policies

What areas in the provision of health and healthcare could be positively or negatively affected by these developments?

There are many innovations which could improve the working lives of healthcare staff and the quality of the care they give, and help to meet the expectations of patients. These include:

- Telemedicine – remote working and making better use of scarce expertise
- Substituting technology for people to improve efficiency and reduce errors
- Improved scheduling of care to reduce the unused capacity created by multiple queues
- Timesharing within the UK and with other countries to handle peaks and troughs in workload
- Better sharing of information across organisational boundaries

- Web based person based records
- Using mobile phone technology for patient medication and appointment reminders
- Linking medical devices with IT systems

There is existing technology which is currently not well used which could help us meet current and future workforce and skills shortages. Less skilled staff may undertake decision making and treatment, supported by ICT and robotics.

ICT enables separation of location of patient and professional, and professional from hospital. Technology can enable patients to be treated outside the hospital setting, redefining the role of the GP and Primary Care and increasing the importance of NHS Direct. This will provide greater opportunity for independent living for the elderly and disabled.

Technology offers great opportunities to improve safety, efficiency and procurement, but the NHS needs a way of improving its procurement. 15 – 30% of the costs of hospital PFI projects relate to medical equipment, but there is no clear guidance about what to buy or how to handle the procurement. The NHS needs to be clearer about what it requires so that the manufacturers can respond e.g. currently there is no standard medical equipment specification for trusts to use.

What actions should be undertaken now to maximise positive impacts, or to prevent or minimise adverse effects?

Some ideas include:

- Better definition of the problems to avoid “technology push”, rather than use “service pull”.
- Ensuring that technology is user- friendly and well designed by involving patients and staff in design
- Bedding new technology into organisations
- Mainstreaming pilots.
- Using data registries (e.g. cancer registries) to monitor side effects of new technology
- Evaluating the wider implications of relevant future technological developments through NHS Purchasing and Supply Agency (PASA).
- Sharing “tried and tested” ideas after evaluation.
- Greater linkage to other providers, such as social services.
- An assessment process that supports technology in reducing staffing costs, increasing patient safety, and improved experiences

Do you have any concerns associated with the generation, release and subsequent use of personal data?

There is a trade off between whether the data belongs to each patient or whether it all belongs to the state. It is a political decision about where policies

put the balance in practice. The NHS Confederation has a number of views in this context:

- The NHS number and the National Identity card must be kept separate
- We need an open debate on the use of personal data. Confidentiality and security need greater clarification and understanding to avoid them being used as “red herrings” to prevent take up of new technologies. Confusion around theses issues (by relatively small number of clinicians rather than the public) has hindered the implementation of the National Programme for IT in the NHS.
- Some confusion and lack of understanding of the Freedom of Information and Data Protection Acts also need addressing.
- The current rules hinder clinical research as permissions are needed from individual patients to use the data.

What medico-legal and ethical issues merit consideration when introducing new technologies, such as the responsibilities, processes and liabilities for decision making?

One of the biggest current changes is the increasing use of Decision Support Systems (DDS) where responsibilities, processes and liabilities need to be clear. In many instances the DDS is linked to the use of a medical device and provides automatic interpretation of results. The National Institute for Health and Clinical Excellence is setting up a process for evaluating DSS which needs to address the following:

- when should clinicians override a DSS
- In what circumstances does a clinician take responsibility on behalf of an individual?

What regulations or other mechanisms (including standards) would facilitate the responsible development of relevant technologies?

- Universal labelling to ensure that operators know what a device/system should be used for, how and when it should be used to protect people from misuse and abuse.
- Common standards and connectivity.
- Confidentiality and security standards: particularly around access by other agencies such as education and social services.

What infrastructure would be required to allow any new technologies to be used effectively?

- A programme of training that ensures all relevant staff are able to use all new technology in a clinically safe manner
- Good support for the users of new technologies
- Feedback to manufacturers on faults and problems

What are the most likely promoters and barriers to the take up of new ICT devices and systems?

A key promoter is patient safety. This is possibly best driven through the National Patient Safety Agency
Lack of trained staff and ability to find space to train in a service that has little headroom for training is potentially the biggest barrier to the effective and safe introduction of new technologies.

To ensure that patients benefit from new developments, NHS Connecting for Health is running a Technology Innovation and Exploitation Forum, involving IT suppliers:
http://www.connectingforhealth.nhs.uk/news/technologyinnovation

What education and training would need to accompany the introduction of any technologies, and who would need to be involved?

To exploit ICT's full potential, major investment will be required in training for all staff. NHS Connecting for Health is best placed to give more detail for IT. There is a substantial problem of back filling clinical staff when they are taken off the front line for training. This will need to be addressed but given the shortages of certain clinicians this is likely to require considerable long term planning.

How are professional roles and responsibilities likely to be affected by the increasing use of ICT?

Technology will support relatively unskilled people to provide hands on clinical care safely e.g. using decision support systems. This could be seen as quite a threat to professionals in many fields.

Technology will allow continuity of information to replace continuity of carer where the latter is less practical.

Timesharing of skills (e.g. reading images abroad) mean that everyone has to adhere to same standards internationally.

How can the development of technologies that meet patients' and informal carers' needs and are practically useable be best facilitated?

More patient and carer involvement in development of technology will be required to ensure that it is service led rather than technology led. It is important to ensure that we do not end up with technological solutions looking for a problem.

What are the potential impacts of the costs of any of these new technologies?

The new technologies should result in greater productivity and reduced staffing cost if handled well. However it often proved difficult to find well documented research that can quantify cost benefits of new technologies.

What is required is a robust and comprehensive analysis of the benefits of the initiatives being implemented by NHS Connecting for Health and other initiatives such as the electronic staff record. This should help ensure that future developments build on technologies that are best placed to benefit patient safety and productivity.

What are the implications of the international use of future technological developments, such as global use of health data, variability of ICT-enabled support, and interoperability?

There should be huge benefits from migration towards common standards and interoperability. This should drive down costs of introduction new technologies enabling wider take up around the globe.

The transfer of goods, services and people around the European Union poses issues that warrant consideration to future proof new technologies. The introduction of the European Union card for entitlement to health care (the replacement to the current E111 paper form) being an obvious case.

Issues around confidentiality and security (and the different international approaches to Freedom of Information and Data Protection issues) will also need addressing.

NHS Confederation
September 2005