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Identifying relevant future technological developments

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

Smart technology supported by digital communication to help people stay at home longer. Also for developing individualised rehabilitation plans following acute intervention.

Assessing the potential positive and negative impacts of relevant future technological developments

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

Non-invasive investigations/treatment. Care of the elderly. Care of children, etc. All positive affects with support through communication technology (digital TV/mobile comms) allowing for greater independence of the individual and carer whilst at the same time offering greater support directly into the home.

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

Better understanding by health care professionals that they can support at a distance and better understanding by health care professionals of how to manage information for the benefit of the patient/client not themselves.

Evaluating the wider implications of relevant future technological developments

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

I am happy for personal data to be released when it needs to be released to the right authority/person. Indeed, I would be happy to have my basic data, DoB, blood group, allergies, address, next of kin on a chip – rather like dogs and cats already have. I would not be happy for this chip to be GPS activated.

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

My main concern rests with exchange of data. In the near future individuals will be tested for life threatening disorders/diseases and the likelihood of them suffering from these through DNA testing. It would be inappropriate for this information to get to insurance companies or potential future employers. We as individuals must deal with our DNA outcome knowledge as we want to, not be forced to when taking out life assurance or a mortgage. I understand that with the new Adoption Act (2002) which comes into action at the end of the year that birth records will need to be held for 75 years, the GRO currently relies upon microfiche, but will all abide by this and what

other alternative other than paper do we know will be around to read these files in 75 years time?

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

Transparency by authorities when developing new technologies that impinge upon our lives. Transparency includes assuring that individuals understand, without being patronised, the implications. I would suggest that the way in which the revised constitution for the EU would not be the way forward.

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

Digital communications. Population education.

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

Barrier: Nothing perceived useful to be gained by using the new system.
Promoter: Value and added value associated with using the new system.

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

If the technology was perceived as having value then the user is more likely to train themselves – eg ATM for cash. If the technology is not perceived as having value then any amount of education and training will not help. Inclusive education and training rather than exclusive would be best.

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

If we look at the information map of a health agency, eg a Foundation Trust, then following admission, it is the nurse who plays the pivotal role in information on behalf of the patient, their relatives and friends. The nurse alerts others such as doctors, physiotherapists, dieticians, podiatrists etc to the needs of the patient and yet not one single ICT system in the UK or elsewhere recognises this fact and generally adds a poor 'nursing system' to the main HR system and then wonders why it fails! To date most health care professionals have been little affected by ICT systems as they have conflicted with practice and have not been used. If an ICT system came along that had value to the health care professional then I am convinced they would use it effectively but until it does I'm not holding my breath.

In the community and out patients, effects are already being seen with patients bringing with them masses of internet information. We are not preparing our front-line professionals in how to deal with this, we need our own 'digest' of latest information from the internet in order to stay parallel with the patient – we cannot keep saying, 'oh yes, and where did you get this from?' or 'I'm sorry I know nothing about this.'

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

Kite mark internet sites that match NICE.
Develop support infrastructures using digital communications in the home. We found superb results with the ACTION Project (An EU funded 3 year project between 1997-

2000) where carers and health care professionals found the system implemented extremely useful and made them feel supported and no longer alone.

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

Lower than health care costs, particularly given that most of the infrastructure is already in place.

13 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?

I'm sure that one of the reasons why the NHS is investing so heavily in ICT at the current time is to meet the needs of the pharmaceutical companies and deliver (at high cost return) de-identified patient data for statistical drug trials. I don't think that the NHS is getting vast resources because the government thinks it's a good thing to go digital. The NHS has been developing ICT since the mid 1960s and still remains behind almost every other industry in the country in its effective use of ICT. Global use health data will happen – indeed we have been told that the 2011 census will take population health data from or NHS record, we will not be required to fill in this information on the census. If health data means DNA results, then please see earlier response.

The time has come now to accept that the bull is running and be ready to take it by the horns, develop systems that really do meet the needs of the user, not the needs of the system designer. We don't want systems that conflict with practice; we want systems that support what we are doing whether we are employed by healthcare or being cared for within healthcare.

Are there any other important issues that have not been addressed by the questions above and that you think the working group should address?

The NHS is an organisation – albeit a very large organisation – that is in place to serve the population with meeting basic health care provision. Sadly, over recent years there has been evidence that the NHS sees itself as an entity of itself and thus develops structures and systems that support the NHS rather than the supporting the job it is supposed to be doing. ICT if implemented into such a mind-set will have no where else to go other than failure. ICT if implemented into a transparent, enthusiastic, well educated and positive mind-set which sees meeting the needs of the population as its goal, will have no where else to go other than success.