The potential for research and new technologies to enhance health and wellbeing

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• What are we talking about?
• What is the Policy Context?
• What research are we doing in IHW?
• Future Directions.........

One given by Eng in 2001:
"e-health is the use of emerging information and communications technology, especially the Internet, to improve or enable health and healthcare"

Management Systems

Includes electronic medical record systems (for example the systems that were being implemented within NPfIT (Connecting for Health) and those being used on a daily basis within primary care in the UK (for example, EMIS and VISION systems).

Management Systems

Includes synchronous and asynchronous information and communications systems used for clinical information sharing, ranging from e-mail through telemedicine and telecare systems.

Communications Systems
Examples are telemedicine and telecare applications.

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Decision Support Systems

Includes computerised/automated systems used to support health professionals in adhering to clinical guidelines and importantly to promote shared decision making between clinicians and patients and promote evidence based care.

For e.g. Decision support for hypertension

Computerised Clinical Decision Support

For e.g. Decision support for hypertension
Includes:
web-based resources
e-Health portals for information retrieval.

Information Resources

Scottish Government
Vision for e-Health

“This is about exploiting the power of
electronic information to help ensure that
patients get the right care, involving the right
clinicians, at the right time, to deliver the
right outcomes. It is as much about
transforming traditional processes as it is
about the technology”

E-Health Strategy 2008-2011
Enthusiasm for New Technologies in Health Care Delivery

The possibilities that new technologies present to health care systems; practitioners, and carers and patients are considerable.

Policymakers have been quick to recognise the possibilities of new technologies in the health service.

The Policy Context

- NHS Plan
- Delivering for Health
- Crossing the Quality Chasm
- The power of information: putting all of us in control of the health and care information we need. Dept of Health. May 2012
- E-Health Strategy 2011 – 2017
- Health Information Technology for Economic and Clinical Health (HITECH) Act 2009. USA is spending $25.9 billion to promote and expand the adoption of health information technology.
- European Commision. eHealth action plan 2012-2020

Few Real Services

Despite an abundance of pilot and demonstration work, the use of e-health, most notably in the form of telehealthcare services, has struggled to become part of routine service delivery.
While new technologies are subject to very rapid development, the professional, organizational and institutional terrain on which this technology is set in play is much less amenable to change.

**Barriers To Use**

- The EU has recently argued that implementing e-health strategies “has almost everywhere proven to be much more complex and time-consuming than initially anticipated.”
- Lack of awareness of, and confidence in eHealth solutions among patients, citizens and healthcare professionals.
- Limited large scale evidence of the cost effectiveness of eHealth tools and services.
- Regional differences in accessing ICT services and limited access in deprived areas.

**WHO 2011**

mHealth - New horizons for health through mobile technologies

WHO 2011

http://www.who.int/goe/publications/goe_mhealth_web.pdf
Key Findings

• Mobile health (mHealth) report by WHO based on a survey of 112 countries.
• Of the 83% reporting mHealth initiatives, most reported implementing 4 or more.

Most popular:
Health call centres and help lines (59%)
Emergency toll-free telephone lines (55%)
Appointment reminders, compliance, patient records and patient monitoring are between 30%-40%

Importantly…..

There is little evaluation of the results. Only 12% of countries reported evaluations.

SO POTENTIAL FOR RESEARCH IS GREAT!

Recent Research

• RCTs of Internet Based CBT (Williams)
• Trials of Internet-based psychoeducational treatment for bipolar disorder (Smith)
• Development and RCT of a digital intervention for asthma (Morrison)
• Public perspectives on e-Health (Hunt)
• Barriers and facilitators to e-Health implementation (Mair)
More Research

- Developing Information Systems for the Integration of POA across primary and secondary care (Bouamrane)
- How sharing experience on the Internet affects Health (Wyke)
- RCTs of pedometer based walking programme (McConnachie)
- Delivering Assisted Living Technologies and Lifestyles at Scale (Mair et al.)

Evaluation

- There is a need for the benefits or disbenefits to be transparent.
- IHW members ideally placed to undertake research in this sphere.....

Funding

- HTA
- NIHR
- CSO
- EU
- Charities
- EPSRC
- SFC
- Wellcome
- TSB
Concluding Thoughts.....

• Potential for research is great
• IHW members ideally placed to undertake this work
• Funding available
• Lots of gaps in knowledge
• Much to do.......