

Some thoughts about telehealth and e-health

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Telemedicine (telehealth)

- (a subset of e-health)
- it's been around for a long time
- first ATA meeting c1994



Telecardiology, 1905
(Wm Einthoven's transmission of ECGs in Leiden)

Background

- 1994-1999 Institute of Telemedicine and Telecare (Queen's University, Belfast)
 - RCT teledermatology
 - teleneurology
- 2000-2008 Centre for Online Health (University of Queensland)
 - telepaediatrics
 - automatic message handling (Swinfen Charitable Trust)
- 2008- Scottish Centre for Telehealth

Building the evidence base

- peer-reviewed publications, e.g. *Journal of Telemedicine and Telecare*
- publication bias ...
- annual conference held in Brisbane since 2002
 - Successes and Failures in Telehealth

Why evaluate?

Policy makers, administrators and health care professionals need clear answers to questions such as:

- *Does a technology offer a clinical advantage over the alternatives?*
- *Who would benefit from its use?*
- *Is it a better use of scarce resources than conventional alternatives?*

Widespread adoption

- unlikely to occur without solid evidence
- two factors are important
 - quality
 - cost
- other factors
 - user acceptability

The ethical question

Is it better to use scarce resources for telemedicine, or to use them on health measures that are known to work?

For example—

clean drinking water
sanitation
vaccination
oral rehydration fluids
... or telemedicine?



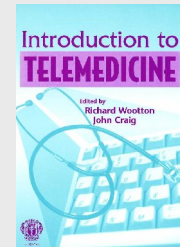
Why so few examples of success?

- main advantages are to patients; there are few advantages to central specialists
- savings to patients; but costs to hospitals

Factors in success

- the key factors are well understood*
- can't be done by a top-down, authoritarian, imposed-on-doctors approach
- there has to be an *incentive* for the users
 - ✓ patient: reduced travel etc
 - ? provider: improved cost-effectiveness
 - ? clinician: better than the conventional alternative

*e.g. see *Introduction to Telemedicine*, 2nd ed.
Wootton R, Craig J, Patterson V (eds). RSM Press, 2006



Conclusion

The key issues in health care delivery

- access (distance, speed)
- quality (uniformity, accuracy)
- cost (savings, but also costs)

are not likely to be significantly affected by further telemedicine technology development

Organizational issues are probably more important

... cont

If the principal advantage of telemedicine is equitable access ...

then perhaps its main role in the future is in providing services to disadvantaged peoples, e.g. indigenous populations



South Africa - phone shop