Is sustainable health a paradigm based in reality?

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Introduction

- Could the transformational changes in delivery that technology has brought about in industries such as banking and international travel be forseen?

  This presentation puts forward a view that paradigm changes in delivering healthcare requires more than technology and political imperatives and that Social and cultural acceptance are also essential.

- Technology has a history of both acceptance and rejection, not just because of cultural fit, or social acceptance, but leadership, entrepreneurialism and plain luck. For example VHS v Betamax. Beta max was perceived as the better technology and more economic to produce but the entrepreneurs who created film libraries chose VHS. They led a new market which found a stronger demand than technological robustness; a social appetite for a new service and cultural acceptance of libraries.

- Technology is on occasion very rapidly embraced. UK records are sold on line and downloaded straight to an MP3 player [1]. transforming the industry and supply chain

Why hasn't health made same strides?

- Is it because it isn't possible to anticipate the extent of change? In banking concerns about closures and accessibility have long been surpassed by a plethora of contact and accessibility mechanisms.

- Governor Olson, Before the First Annual Convention of the Ohio Bankers League said that "In the process, we also spawned a new generation of more sophisticated and rigorous risk-management practices. " [2]

- Is the eHealth story one of bad luck despite good technology or just that we are only on the first page? Arguably no health service anywhere in the world has yet managed to bring teleHealth into the mainstream of service delivery.

- Picture Archiving and Communication Systems (PACS) [3] has been heralded as bringing significant patient benefit, but fundamentally it too is a replacement technology for film, although some institutions still print film for orthopaedic consultants. An attraction for purchasers is that the cost benefits that occur in introducing PACS largely do so within an organisation [4].

What healthcare transformation is needed?

- Globally the population is ageing, with specific countries facing acute problems of healthcare crises as a result - according to Gingrich [5]

  "Healthcare consumes 26% of all federal spending and growing, dwarfing every other priority."

- UK demand for change in delivering patient, community based preventative care rather than high spend on hospital based curative measures.

- Will transformational change happen because; policy makers and consumers want it, or because technology is driving it, or are other factors key to success?

The people factor

- Political drive and technology capability are inevitably generic in approach, however there exists differing experiences and expectations of technology within age groups.

- Using a simple PEST (political, economic, social, technical), framework we consider why health has not undergone a transformation in service delivery by looking at 3 age groupings, albeit no group is homogenous.

Current mid-teens to 20-somethings

Technical

- Early adopters of technology.
- Always in communication with their peers
- Most, not least, have a mobile phone
- Some with asthma receive high risk SMS warnings
- Some update their health record, upload physiological data, receive health care education, access to health providers directly
- Convergent technologies allow multi media through single devices
- Communication Technology standards increase interoperability possibilities, breadth of coverage and security

Political

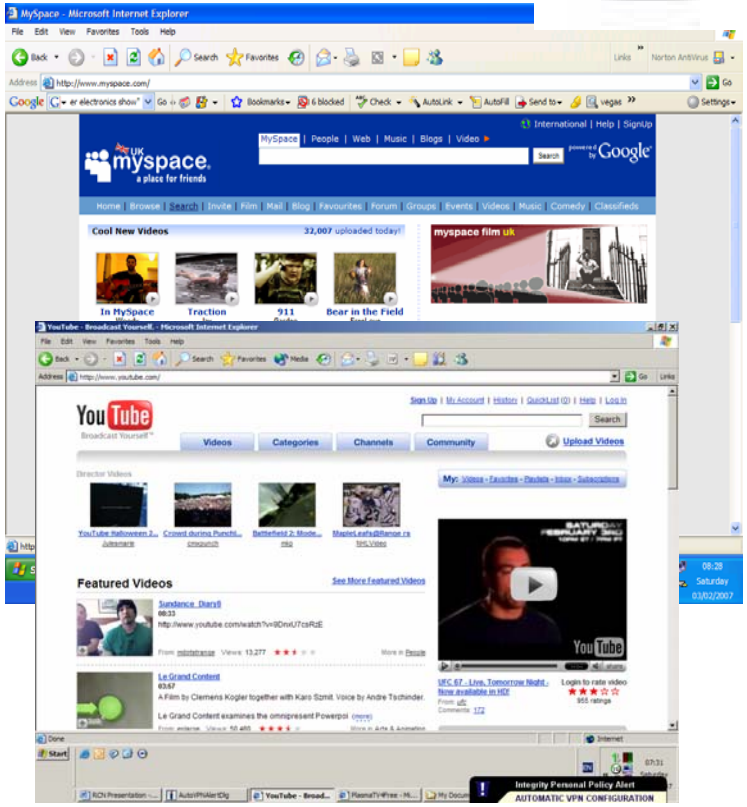
- Concerned about the environment, but less interested in actually getting out in it.
- Not exposed to the competing interests of curative v preventative care

Economic

- Likely to have to work longer, with a fragmented career path
- Stay at home longer than their parents did, and buy homes later
- Expect service, for things to happen when they want it to in a way and time that they want. They are not used to queueing

Social

- Their communication is fragmented, abbreviated language, one line of text with long gaps between and use computers for communication far more than for data processing .
- interact any time, any place anywhere, allowing more collaborative working too.
- seamlessly alternating between channel-hopping and 150% focus.
- intolerant of having less access to knowledge and real-time mentoring
- lifestyle and health choices are heavily influenced by friends and family



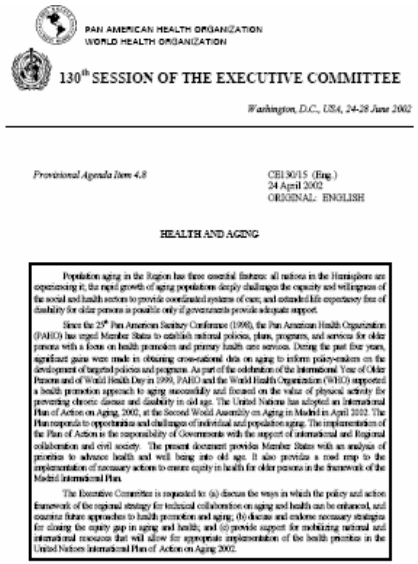
What of that of the 75+

Technical

- A generation of letter writers, but also the first users of the telephone and television but less dexterous fingers cannot readily send text, and aged eyesight finds small font size even on keyboards difficult
- They use sensors in the home to identify changes in their routine, with alarms to instigate a response

Political

- The Age discrimination act is too late for them, many are already to old to work or already out of the workplace
- They have seen some Acts, such as Sunday shopping introduce significant social change (only in some countries)



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HEALTH AND AGING

Population aging in the Region has three essential features: all nations in the Hemisphere are experiencing it; the rapid growth of aging populations deeply challenges the capacity and willingness of the social and health sectors to provide coordinated systems of care; and extended life expectancy free of disability for older persons is possible only if governments provide adequate support.

Since the 23rd Pan American Sanitary Conference (1990), the Pan American Health Organization (PAHO) has urged Member States to establish national policies, plans, programs, and services for older persons with a focus on health promotion and primary health care services. During the past four years, significant gains were made in obtaining cross-national data on aging to inform policy-makers on the development of targeted policies and programs. As part of the celebration of the International Year of Older Persons and of World Health Day in 1999, PAHO and the World Health Organization (WHO) supported a health promotion approach to aging successfully and focused on the value of physical activity for preventing chronic disease and disability in old age. The United Nations has adopted an International Plan of Action on Aging, 2002, at the Second World Assembly on Aging in Madrid in April 2002. The Plan responds to opportunities and challenges of individual and population aging. The implementation of the Plan of Action is the responsibility of Governments with the support of international and Regional collaboration and civil society. The present document provides Member States with an analysis of priorities to advance health and well being into old age. It also provides a road map to the implementation of necessary actions to ensure equity in health for older persons in the framework of the Madrid International Plan.

The Executive Committee is requested to: (a) discuss the ways in which the policy and action framework of the regional strategy for technical collaboration on aging and health can be enhanced, and examine future approaches to health promotion and aging; (b) discuss and endorse necessary strategies for closing the equity gap in aging and health; and (c) provide support for mobilizing national and international resources that will allow for appropriate implementation of the health priorities in the United Nations International Plan of Action on Aging 2002.

Economic

- The demographic changes will result in less people working (including nurses), and paying taxation to support those who are retired
- Pensions have not kept up with cost of living expenditure, causing many to suffer financial hardship.

Social

- Communication is a whole conversation, a social time or phone call in a place and often appointed time
- Longer life expectancy
- Lifestyle will be dependent on their income, social network and relationship with their families
- Healthcare choices influenced by their community pharmacist, GP
- They are used to, and continue to, wait for their turn

Providers for all 25 - 65

Technical

- Technology is used to make life easier and to maintain status quo overall rather than changing what they do
- Growing use of on line shopping and internet banking
- Communication technology overload – email
- Those working in health have concerns of technology output overload of telehealth – who is going to look at the output of telemonitoring, home sensors?

Political

- Terrorism has impacted on travel both in where they go, and the experience of travel itself
- These are the active policy makers, organisational and government managers, clinicians, technicians with vested interests at national, local and familial level

Economic

- Busy looking after younger and older generations leaves them time poor and economically strained

Social

- For those in health there is insecurity as to what the workforce will look like, and is what they became a professional for?
- Will they need new skills that are more technical and what are their expectations of social interaction with the patient and at work?
- They expect queues and waiting times which are somehow seen as fair
- Heath visitors and midwives came to the house but you go to a surgery to see a doctor
- shopping as a social event, and growth of coffee shops

how does this impact on the shift from cure to prevention?

- Consumerism challenging acceptability of waiting times, poor conditions and service.
- Improving citizen access and increasing the knowledge base
- Healthcare buildings will downsize per head of population.
- ICT and ‘Labour-saving” technology will consolidate and expand key services with Governments optimising return on investment
- Traditional notions of organisational boundaries will need to give way to a concept of ‘health care without walls’.
- Economic imperatives; staff shortage internationally, less children being born, less future tax payers and healthcare workers. s
- Importing expertise v recruitment from overseas

Chronic Disease

Previous causes of death and disease, are tamed through planned interventions. But chronic disease is now the problem at both individual and national economic levels. with causal factors and impact of the disease heavily influenced by lifestyle choices. Chronic disease requires personalisation not generic IT support. Given that each age group and societal strata readiness to accept or adopt change may differ there is a need for different methodologies to be adopted.

Technology

- Computing will be ubiquitous and incorporate decision support and communications with knowledge management available at the point-of-care. But who will pay for these cross boundary solutions, and who will reap the benefit? Which organisations will be altruistic, or is entrepreneurialism to be the luck factor?

- Integrated technologies will increasingly find their way into use in health care enabling entrepreneurial delivery of services.

- Technology is developing so quickly that legalisation and policy development are lagging behind.

- Traditional notions of organisational boundaries will need to give way to a concept of 'health care without walls'.

Enabled applications

Unified messages

IP Fax

Instant Messaging

Personal web pages

VoIP

Conclusion

- It is not always possible to foresee social change
- People and technological infrastructure are needed in combination to make transformational pilots successful on a scaleable way in healthcare but at a way that is meaningful and desirable to the individual. Systems need to target lifestyle if chronic disease is to be avoided, The health professions may not look anything like they do now in ten years time.
- The social expectations of those manning the organisations at the moment has yet to be adressed - Several teleHealth projects have used nurses within specialised call centres but do nurses want to work this way
- Perhaps it's just too soon to know what patients really need
- "Experience suggests that if the investment requires integration of information and processes across these systems and business units in order to be cost-effective, then re-organising processes, changing responsibilities, re-training large numbers of staff, and finding additional funding can be an incredibly complex undertaking."

  Professor Denis Protti (6)

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4. *National PACS Team (NPfIT) and National Radiology Service Improvement Team (2005) PACS Benefits Realisation and Service Redesign Opportunities http://www.radiologyimprovement.nhs.uk/%5Cdocuments%5Ckey_documents%5CPACS_Realisation_Final_May_IRB.pdf*

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