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Telehealth Policy: Looking for Global Complementarity

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Introduction

Telehealth, or increasingly 'e-health',[1] has been accepted by the World Health Organization as an important tool in achieving the goal of health for all. It has also been accepted in developing countries.[2] The primary motivators include the expectations that e-health will reduce health-care costs, expand services to under-served areas and populations, facilitate the change to a more public health orientation, and improve people's health, nutrition, knowledge and standards of living.[2-4] However, e-health needs to be integrated into existing health-care systems, in both a practical and a policy sense. Indeed, policy decisions will affect the ability of e-health to function effectively and efficiently in a global manner.

In the policy context, 'success' can be seen in the increasing number of jurisdictions that are addressing policy issues. In contrast, 'failure' can be seen because these policy decisions have been taken by individual health institutions, regions, provinces/states or countries in isolation from one another. By its nature, e-health has the ability to transcend geo-political boundaries. This characteristic does not fit easily into traditional, country-specific health systems largely unfamiliar with cross-border services. Thus, as perspective broadens and global e-health takes root, issues are arising such as competitiveness, data protection and sovereignty. If this situation continues, it will hamper or even prevent e-health from fulfilling its global potential.

Policy

What is policy? This is not so naive a question as it may at first appear, and it is certainly important to have a clear understanding. Is policy written commands or step-by-step directives? Or is it loose agreement that results in movement in a particular direction within a given jurisdiction? Hernon's definition of 'information policy' has been used as a guide to develop a specific definition.[5] E-health policy is thereby defined as 'a set of statements, directives, regulations, laws, and judicial interpretations that direct and manage the life cycle of e-health'. This perspective is important as it tends to discard the looser preliminary activities (general agreement), yet retains the firmer 'statements' and 'directives' which are the progenitors of more defined material, such as 'regulations', 'laws' and 'judicial interpretations'.

Methods

A counter to the fragmented approach to policy development requires the identification of common building blocks and steps that would encourage multinational collaboration. We have designed a telehealth assessment data collection tool, with a total of 102 specific questions and 101 sub-questions in six domains: country data, demographic data, health-care setting, telehealth setting, evaluation setting, and technology setting. Standardized definitions for each data element were either adopted or developed, and as far as possible standardized sources were identified for each data element. The data collection tool is being used to collect data for the 236 countries of the World Health Organization's country classification scheme. Data and responses are being collected at present.

Results

Collection of information about the telehealth setting and evaluation setting has been difficult. This is largely due to the lack of published data and the lack of response when attempting to contact government representatives. To date, the countries identified as having some defined e-health policy or clear policy activity are: Australia, Canada, China, Croatia, Denmark, Finland, Iran, Malaysia, Malta, New Zealand, Russia, Singapore, South Korea, Sweden, Taiwan, Tanzania, Thailand, UK, USA and Vietnam.

For example, Malaysia is the country with the most public and clearly defined policy statements, including a 1997 Telemedicine Act,[6] and a 2000 National Telehealth Policies statement.[7]

Canada enjoys a significant level of federal and provincial policy support for e-health, and development of the e-health sector is viewed as a strategic priority. Several years of deliberation resulted in the creation of the Office of Health and the Information Highway (OHIH) in 1999. A Canadian Health Infostructure (CHI) initiative has also been established. The CHI is a national health information highway intended to improve communications among health-care providers and between professionals and the general public.[8]

Australia also views e-health as a strategic priority. Two recent publications,[9][10] have outlined key policy objectives and specific strategies. Australia has also investigated e-health policies in other countries.[11] New Zealand's policy is closely aligned with that of Australia. This is demonstrated in a recent report.[12]

Within the European Union (EU) many telehealth activities flourish, funded by both national governments and the EU, but policy development lags.[13] National e-health policy in some countries is absent because e-health is considered a responsibility delegated to regional authorities (e.g. in Italy). The UK and some Nordic countries have well defined e-health policies.[14] Within the EU overall,

e-health is considered to be a component of the governmental health-care telematics policy.

Discussion

Factors such as decreasing technology costs and 'globalization' make closer interconnection and interdependence of nations inevitable.[4] Globalization is defined as:

growth and development of global interconnectedness: technological developments in transport and communications; economic developments such as multinational and transnational corporations; and the emergence of globally dominant cultural and organizational forms e.g. the standards, measures and nomenclature of science.[15]

Each jurisdiction will have to accept the fact that local and national e-health policy cannot be independent of the international environment. However, e-health policy development has occurred so far in a largely ad hoc manner, with only limited efforts to consider policy elsewhere.[11][13] This policy fragmentation is of as much concern as a policy void.

E-health is not merely the convergence of telecommunications and information technology with the health-care setting. It is also the meeting point for a host of policy issues, most of which have yet to be confronted, and participants, many of whom have yet to address policy (Table 1). This complexity makes the formulation of complementary policy difficult. In addition, regulations that apply in the public sector may not apply in the private sector, which might create a new 'policy divide'. There is also an underlying sense that existing policy is adequate to accommodate e-health issues.

ISSUES	ACTORS
Professional	International Bodies
Credentiailling	WHO (World Health Organization)
Reimbursement	ITU (International Telecommunications Union)
Licensing	ISO (International Standards Organization)
Registration	World Bank
	UNDP (United Nations Development Programme)
Operational	Non-Government Organizations
Reimbursement	Charitable groups
	Private Sector Foundations

Ethical	Private Sector
Confidentiality Consent	Multinational Corporations
Legal	Governments
Privacy Security	National Regional (regional vs. rural) Local
Interoperability	Institutions
Technical Administrative	Hospitals (regional vs. rural) Clinics Academic Institutions
Communications	Agencies
Cross-Border Acceptance Common 'Language' Common Policy	Accreditation Agencies
	Professional Groups/Associations
	Physicians
	Nurses
	Dentists
	Allied Health-Care Professionals (multiple)
	Public
	Individuals
	Interest Group

Table 1: Examples of policy issues and actors converging on e-health

Even if complementary policy is accepted, a more crucial hurdle may then arise. Policy positions may represent an attempt either to accommodate the global environment or to resist it. If e-health is viewed as a tool to facilitate the goal of 'health for all' a patient-centred stance then accommodation is the appropriate response. Conversely, if e-health is viewed as an encroachment on sovereignty or simply a commercial opportunity, then parochialism and protectionism may prevail, creating further hurdles to the development of a global e-health environment and complementary policy.

Health-care policy including e-health policy will remain the sovereign domain of individual countries. But if a borderless e-health world is to be achieved, such policy must not be developed in an ad hoc and 'global policy naive' manner. The predominance of loose rather than firm policy makes it difficult to identify elements of commonality or disparity, and gaps. However, it is already clear that much policy is parochial in nature, that there is a lack of national policy leadership, particularly in developing countries, and a lack of recognized international leadership in considering global e-health policy.

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REFERENCES

1. Mitchell J. Increasing the cost-effectiveness of telemedicine by embracing e-health. *Journal of Telemedicine and Telehealth* 2000;6 (suppl. 1):16-19.
2. Wright D. Telemedicine and developing countries. A report of Study Group 2 of the ITU Development Sector. *Journal of Telemedicine and Telehealth* 1998;4 (suppl. 2):1-85.
3. Jennett PA, Kulas DP, Mok DCM, Watanabe M. Telehealth: a timely technology to facilitate health decision making and clinical services and support. In: Tan JKH, Sheps S, eds. *Health Decision Support Systems*. Gaithersburg, MA: Aspen, 1998: 352-69.
4. Today's technological transformations creating the network age. In: *Human Development Report 2001 Making New Technologies Work for Human Development*. United Nations Development Programme. New York: Oxford University Press, 2001: 27-64.
5. Hernon P. National information policy. *Government Information Quarterly* 1989;6:229-36.
6. Telemedicine Bill. See <http://www.mycert.mimos.my/telemedeng.html>. Last checked 19 July 2002.

7. National Telehealth Policies 2000. See http://www.telehealth.com.my/policy_a.htm. Last checked 19 July 2002.
8. Health infostructure in Canada. See http://www.hc-sc.gc.ca/ohihbsi/chics/index_e.html. Last checked 20 July 2002.
9. National Health Information Management Advisory Council. Health On Line Report Into Health Information Management and Telemedicine. Canberra: Australian Government Publishing Service, 1997.
10. National Health Information Management Advisory Council. Health Online: A Health Information Action Plan for Australia. 2nd edn. Canberra: Australian Government Publishing Service, 2001.
11. Milstein R. Telemedicine Creating Virtual Certainty Out of Remote Possibilities. Victoria: Department of Human Services, 1999.
12. Australia New Zealand Telehealth Committee. National Telehealth Plan for Australia and New Zealand. Canberra: Australian Government Publishing Service, 2001.
13. TELEPLANS WP4 Report National Policies and Strategies. See http://biomant.die.unina.it/teleplans_doc/WP4_index.htm. Last checked 19 July 2002.
14. Burns F. An Information Strategy for the Modern NHS 1998-2005. Leeds: NHS Executive, 1998.
15. Loughlin K, Berridge V. Global Health Governance: Historical Dimensions of Global Governance. London: World Health Organization, 2002 .