Creation of an IT-based health care platform

Country: Switzerland
Partner Institute: Università della Svizzera Italiana, Lugano
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Health Policy Issues: New Technology, System Organisation/ Integration, Quality Improvement

Current Process Stages

| Idea | Pilot | Policy Paper | Legislation | Implementation | Evaluation | Change |

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1. Abstract

In 1998 the government of Ticino decided to work out a plan aimed at "creating an overall set of rules that will encourage the proper utilization of health structures and services". Modern IT management has been pinpointed as the best strategy tool to achieve the targets. After an intensive process of debating the issue the health care partners decided to focus on an electronic health card. Since November 2004 more than 1,000 people in the urban region of Lugano have been using the card.

2. Purpose of health policy or idea

The need for improved coordination of health care supply and better monitoring of health care demand

Health is one of the issues over which the Swiss people voice the greatest concerns (see reference [1]). Although most citizens and public officials are by and large satisfied with the way the health system works, the current trend of rising health costs is placing a heavy burden on the system's viability. In order for its solidity characteristics to remain intact a balance must be struck between effectiveness, efficiency and fairness. Effectiveness in the sense of the system's capability to produce the expected results, efficiency as the best possible allocation of the health system's available resources (cost/results ratio) and fairness in terms of the right to equal access to health care for everyone (equal opportunity) with proper regard for the specific needs of each individual (justice).

As early as in the first half of the nineties, as the groundwork was being laid for the Federal Health Insurance Act (FHIA) and the Swiss Federal Council's urgent federal decrees aimed at curbing the spiraling trend of health costs, the government of the Canton of Ticino began to look into its own possibilities of helping to slow the growth of costs in the health care arena. In October 1995, in an effort to implement "exclusion protection", which was one of the aims of the Canton's political action program, the government voiced the need for "coordinating inpatient, outpatient, and home-bound medical and social services" in order to "ease the optimum assignment of clients/patients across the various services" and thus provide assistance in a manner that is "the most appropriate, thus at a lesser cost for the same results".

A health system is a complex, multifunctional structure run by a multitude of people who cover many diverse aspects and whose specific interests are mutually supportive even though they are sometimes at odds with one another. There are instances where personal inclinations hinder health operators from working in a way that would be supportive of the health system's stability, which is ultimately in everyone's best interest. That is why in 1998 the
cantonal government decided within the framework of *Amministrazione 2000* (a project of Public Administration reform) to work out a plan aimed at "creating an overall set of ground-rules that will encourage the proper utilization of health structures and services". Culture, social phenomena that have an impact on health, operational coordination, incentives, the spread of technology and planning are listed as possible areas of intervention.

And indeed the project's subsequent refinement homes in on precisely these issues. It must, in substance, provide the Canton's main health operators with the inspiration toward strategic choices, to be implemented in the mid to longer term, that will be capable of fostering coordination and cooperation. The Swiss health system does appear vast and generous, certainly, but complex, redundant and fragmented as well. This project, in the end, is meant to spark a process of cultural change and to get it rolling in cooperation with the Canton's senior health operators during the course of the coming decades.

**From the focus on information technologies to the choice of a Health Card**

Modern IT management - neutral in the face of the political power in the world of health care - has from the very outset been pinpointed as the best strategy tool to achieve the targets that have been set. Because of the complexity and fragmentation of the system, it is absolutely necessary to vastly improve the exchange of information among health operators, which ought to enhance efficiency but also bring about greater security (privacy) and better quality of care.

Various e-health care tools that may impact the organizational setup were then given consideration: from telemedicine to computerized medical files, from e-health cards to a computerized health care network. Every tool was looked at, then studied in terms of the feasibility and timeliness of its introduction. After an intensive process of debating the issue, the healthcare partners decided to focus their efforts on the electronic health card.

Unassuming at first glance and thus not fraught with emotional overtones, this tool does have great potential to radically change the habits of patients and health operators alike. Whether used as a means of transporting data (stored in a microchip) or as an electronic access key, the card is a means of lending purpose and harmony to the incipient data network and, more so, of providing a strong symbol for the patient's central position in the health-care system. This last feature - its capability to act as a tech-nological tool in support of the patient's self-determination process - has the potential to revolutionize the patient's role within the system and to allow him/her to better take responsibility for himself/herself.

These considerations have been corroborated by the experiments conducted in most European countries (notably in Germany, France and Italy), but in Canada, the US and Japan as well, where the health card has been introduced not only to streamline administrative procedures (insurance card) but also to improve the quality of care (health card). In March 2002, within the framework of its employment policy, the European Union decided to introduce a compulsory insurance card.

**The introduction of an "Insured Card" at the federal level and the link to the "Health Card" at cantonal level**

By virtue of the bilateral agreements with the EU Switzerland feels impelled to do the same by fostering the introduction of a similar card (fitted with a euro-compatible microchip) in conjunction with the plan of the second revision of the Federal Health Insurance Act (FHIA - see reference [2]). But because health policy is a cantonal matter, it is here - and not at the federal level - that such a tool can be legitimately developed beyond its current scope of a card that serves mere accounting and insurance purposes. A health card is in fact a tool for good health care governance; the insurance aspects are no more than a sub-group. Aware of this problem, the Federal Council has urged Ticino - whose project has been literally embodied into the message dealing with the Insurance Card (new article 42a of the FHIA, approved in October 2004 - see reference [3]) - to join in the work of developing an "Insured-Card" by relying on the experience it has gained during these past years.

The future Health Card based on international standards will offer patients the opportunity to record things like emergency medical data, allergies, vaccinations, drug therapy, as well as a list of the main medical events that have marked their lives. The possibility of accessing this information allows health operators to save human lives and avoid needless suffering while considerably harnessing the costs of health care. Besides, the possibility of using the Health Card as an electronic key to access the e-health network that is soon to be in place promises even better results. The card's introduction just as the network is going online implies the guarantee of safe transfer of information from one operator to another. This means that the e-health network is "prompted" to develop smoothly around the Card as the
The possibility of guaranteeing the interaction between the Health Card and the e-health network is enhanced by the cooperation agreement signed in August 2002 between the Ticino Health and Social Services Department and the Geneva Department of Health and Social Action. Geneva is in fact defining the requirements for the creation of a shared medical information network to which access can be gained via the Health Card, with the proper respect for patients' rights.

Both - the Ticino and the Geneva one - are projects in which the technological component plays a minor role compared to the cultural one, which is the real challenge; few structures today resort to computerized management in connection with medical procedures. This is why its advantages and drawbacks are little known, something that easily causes misunderstandings and natural prejudice, as the issue of privacy safeguards clearly shows. In this connection the projects point to the problems raised by today's systems of conveying information: e-mail and fax offer no guarantees as to who will ultimately read the contents and there are structures where archives can be accessed without any particular constraints. Conversely, introducing the Health Card and putting health operators online will allow the patient to systematically decide who should be permitted to safely access his personal information.

The pilot experiment in the urban area of Lugano and the following steps towards an IT-based health care platform

Like elsewhere, for instance in the banking system with the e-card, the introduction of a new tool does imply a long learning and familiarization curve. For this very reason the leaders of the project decided, in concert with the Canton's health care partners, to launch a pilot experiment which was meant to favor cultural change and to afford a second look at the operational choices involved in the use of the Health Card. After an 18-month preliminary phase, during which the participants (about 3-4,000 patients, 3-400 health operators working in medical practices, drugstores, public and privately-run health care structures, ambulance services and providers of home care) were selected, the cards readied and health-care operators trained in the use of the new hardware, a first Health Card experiment has been launched in the Lugano area (see reference [5]).

Since November 2004 more than 1,000 people have been using the Health Card in the urban region of Lugano. This first step will finish at the end of June 2006. During this time several initiatives will bring the program to the awareness of the Canton's inhabitants. After the pilot phase, once e-health tools have been better understood and have gained wider acceptance, the time will be ripe to start working toward the necessary amendments to the Cantonal Health Care Act, with a view to expanding the use of the card to the entire Canton while paving the way for the smooth creation of the e-health network.

The main objective of the next step is the creation of the health care network, based on ICT technologies, connecting health care structures. Thanks to the platform it will also be possible to implement some services with added value like drug and document management. In the next few months the promoters of the project will try to find the necessary consent between the main health care actors and the private service and IT providers.

Main objectives
To promote the cooperation and the coordination between the health care structures through the creation of an IT-based health care platform and a better data exchange. ICT as been identified as the best way to achieve this objective.

Type of incentives
Satisfaction of perceived needs, founding of the ICT infrastructure risk by the State and remuneration of the patient recruiting (following the roles used in the clinical studies).

Groups affected
Patients, Physicians, Pharmacists, Nurses, Ambulance staff, Administrative staff responsible for health care structures
(hospitals, nursing homes, ...)

3. Characteristics of this policy

<table>
<thead>
<tr>
<th>Degree of Innovation</th>
<th>traditional</th>
<th>innovative</th>
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<tbody>
<tr>
<td>Degree of Controversy</td>
<td>consensual</td>
<td>highly controversial</td>
</tr>
<tr>
<td>Structural or Systemic Impact</td>
<td>marginal</td>
<td>fundamental</td>
</tr>
<tr>
<td>Public Visibility</td>
<td>very low</td>
<td>very high</td>
</tr>
<tr>
<td>Transferability</td>
<td>strongly system-dependent</td>
<td>system-neutral</td>
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It's a pragmatic strategy that will need time, to be sure, but will in turn provide the State with the means to define the rules needed to address the interests of the community at large, while preserving patients' rights, and building up the necessary consensus among health operators: very much a Swiss way of doing things.

4. Political and economic background

- In 2003 the cantonal legislative approved the realization of the first step of the e-health project (experimental introduction of the Health Card) to achieve the government objective defined in the strategic plan of the legislature.

- In the meantime this plan has been adapted to the federal decision to introduce an Insurance card. At the beginning of 2006 Swiss citizens will receive a European health insurance card to be shown in case they have to resort to medical care (both because of illness or accident) while they are in a country of the European Union (EU). The agreement on the freedom of movement of persons concluded with the EU obliges Switzerland to introduce such a card in its basic insurance by 31 March 2006. The insured's card will contain purely administrative data, like name, sex, date of birth, name of the sickness fund and insured's number.

- The deployment of e-health instruments in Lombardy (Italy) will also affect Ticino's strategy.

5. Purpose and process analysis

<table>
<thead>
<tr>
<th>Idea</th>
<th>Pilot</th>
<th>Policy Paper</th>
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<tr>
<td>Legislation</td>
<td>Implementation</td>
<td>Evaluation</td>
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Origins of health policy idea

The idea was generated within the public administration (Health department), but it has been proposed to the main Ticino Health actors since the very beginning. The proposal to create a health care network, which was transmitted in 2003 to the Ticino government and parliament, is the result of cooperation between those actors and the public administration at the cantonal level. The approach is bottom-up: the main health professional organizations are involved in the political and organizational process and all the decisions depend on them.
**Initiators of idea/main actors**

- Government
- Parliament
- Providers
- Patients, Consumers
- Private Sector or Industry
- Media

**Approach of idea**
The approach of the idea is described as: new:

**Stakeholder positions**
The idea of the Canton Ticino to introduce a Health Card has influenced the legislation process at the federal level. In October 2004 the Swiss parliament decided to introduce an Insurance card, starting from 2008. This card has similar characteristics of functionality as the Health Card of the Canton of Ticino.

**Actors and positions**
Description of actors and their positions

**Government**
- Public Administration of the Canton: very supportive
- Cantonal Government: very supportive

**Parliament**
- Cantonal Parliament: very supportive

**Providers**
- Physicians, Hospitals: very supportive

**Patients, Consumers**
- Patients: very supportive

**Private Sector or Industry**
- IT Industry: very supportive

**Media**
- Local Media: very supportive

**Influences in policy making and legislation**
At the end of the pilot project the project leaders (based at the Department of Health and Social Affairs of Canton Ticino) plan to submit a legislation bill to the cantonal parliament. The new legislation should regulate e-health in the canton.

**Legislative outcome**
pending
**Actors and influence**

Description of actors and their influence

- **Government**
  - Public Administration of the Canton: very strong
  - Cantonal Government: very strong

- **Parliament**
  - Cantonal Parliament: very strong

- **Providers**
  - Physicians, Hospitals: very strong

- **Patients, Consumers**
  - Patients: very strong

- **Private Sector or Industry**
  - IT Industry: very strong

- **Media**
  - Local Media: very strong

**Positions and Influences at a glance**

<table>
<thead>
<tr>
<th>Positions</th>
<th>Influence</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>very strong</td>
<td>none</td>
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**Monitoring and evaluation**

- During the pilot project an external and internal evaluation is scheduled.
1. The external evaluation will analyze the acceptance of the Health Card by the providers and patients. It will be available from the second half of 2006.

2. The internal evaluation, based on a health care technology evaluation model, will investigate different dimensions: sociological, ethical, professional, organizational, public health, clinical and material aspects.

The observations have enabled some of the main problems to be solved that the project management has encountered till now and to better identify the providers’ needs. To adapt the solution to the context as much as possible, it is necessary to achieve the final objective of the process.

6. Expected outcome

The Health Card project brought the Canton of Ticino recognition from a fair number of outside observers, first and foremost from the relevant agencies of the Federal Department of Home Affairs (especially the Office for Social Insurance and the Office of Public Health), which are attentively following the progress of the Ticino project, but from other cantons and from various associations of professional operators as well. The Federal Department of Finance’s Office for Technology and Occupational Training has outspokenly acknowledged the goodness of the project for its capability to innovate, for its countrywide pioneering work and for the capability to gain the consensus of the health care community.

In the end, by its comprehensive action, this project launched by the Republic and Canton of Ticino enriches and rounds out the various initiatives brought to bear in terms of health care supply and demand. Looking at the great difficulties all measures aimed at containing health care costs are confronted with, it becomes increasingly clear that only a broad-based strategy targeting both supply and demand can permit some hope of success.

The intended outcomes are:

- A bill of law
- A consent about the following steps
- The introduction of a Health Card for each insured person living in the canton
- A better consensus about the diffusion of e-health.

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<tr>
<th>Quality of Health Care Services</th>
<th>marginal</th>
<th>fundamental</th>
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<tr>
<td>Level of Equity</td>
<td>system less equitable</td>
<td>system more equitable</td>
</tr>
<tr>
<td>Cost Efficiency</td>
<td>very low</td>
<td>very high</td>
</tr>
</tbody>
</table>

7. References

Sources of Information


2. Schweizerischer Bundesrat (2004), Botschaft zur Änderung des Bundesgesetzes über die

3. Bundesversammlung der Schweizerischen Eidgenossenschaft (2004), Bundesgesetz über die


5. www.retesan.ch

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