

### pHealth: Personalized Health Technologies and Comparative Effectiveness



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# Towards Sustainable Business Models for the Personal Medical Record in the Vertical Family

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### Introduction





Scientific literature published about a number of projects demonstrating the usefulness of personalized health informatics applications and personal health record. On the other hand, there are so many products on the shelf, but no one can be named the leader. Among the qualities that affect the success and lifetime of a software product there are the set of available useful capabilities, the friendless of user interfaces, however the adopted business model is another heavy aspect.



♣ Barriers to diffusion of personalized health informatics applications regard deployment and delivery aspects such as who should pay for the service, who trains the users, who guarantees the reliability of data inserted by the users. All of them relate to the type of health system available into a country, however, the third point can lead to additional new tasks for healthcare personnel: the evaluation of data inserted into the personal record system, supposing the agreement of the consumer.





# Aims





■ We hypothesized some sustainable business models for a widespread use of personal health record applications, also for a vertical, i.e. multigenerational, family environment considering the elements and the workflow of the service, how to train the end users, where allocate the costs maintaining the aim of a high level quality health service for the patient and the consumer.





## Methods



#### 1 - Like a CD in a magazine

the PHI application can be delivered as a CD-ROM inserted in (/ attached to) a weekly magazine (e.g. Focus – or a similar international magazine).

#### **TRAINING**

In this case the training on application use is on the family own, also making available a toll free number for help.

#### COSTS

The publisher of the magazine should maintain a call-center service.



#### 2 – Like an addition to Microsoft Office components

Are the PHI software application already included into Microsoft Office System/Suites?

At present, Office Suite consists in nine applications and some tools: the "classical" ones, such as Word, Excel, PowerPoint, Access, Outlook, Publisher, and the newer ones, such as Groove, InfoPath, OneNote. Then into Office Tools a number of specific application are available, e.g. "Document Imaging", "Document Scanning" and "Picture Manager".

For marketing reasons, an additional fully Family Health Record application may be distributed at no extra costs.



In fact, we can use Excel (electronic data sheet) to create the table for the schedule of drug's administrations, also including the dates in the Outlook calendar (to gain remainders); we can use Access (database management system) to store data about healthcare documents regarding Medical Conditions, Medications, Laboratory and Diagnostic tests, and Immunizations; we can use InfoPath to design and fill forms easier than using Word, which is a word processor. Then, we can use Groove to share healthcare documents with the GP or a specialist, though sessions of cooperating work can be hold, for example among the patient, the GP and the specialist. The paper-based medical reports gave us by the healthcare providers can be digitized – when a scanner is connected to the PC -using the "Document Scanning" Office Tool. Though, a Family Health Record application can be implemented using the available building blocks of Office Suite and should be ease to realize for Microsoft software development staffs.





### 3 – Like covering the last mile of a regional healthcare provider towards the familiy level

The PHI software application is viewed as the last leaf toward the family of the Lombardia Informatica network. "Lombardia Informatica" is the HI&CT provider/implementer of CRS-SISS Project of the Lombardy Region. The Regional Health Information Organizations (RHIO) essentially represents a distributed clinical database which resembles a federated system.





The PHI software application as a service of private outside suppliers, for example banks. To reach wide diffusion the applications could/can/must be accessible as a feature of the Home banking application.





### Conclusions







### Results

