Getting eHealth to live up to its promise

With Europe's population ageing rapidly and the demand for healthcare growing, healthcare services need to become more efficient. However, little hard evidence is available on the contribution of eHealth solutions. Now one EU project, eHealth Impact, has demonstrated that eHealth can provide enormous benefits – if the technology is properly implemented.

Electronically enhanced healthcare promises to reduce costs, improve quality and efficiency and treat more patients with the same resources. However, to date, no reliable data has been available to support this claim.

Now that data exists. The eHealth Impact project, which finished in May 2006, conclusively demonstrated that there is over a 2:1 ratio between economic benefits and costs. In other words, the benefits gained from implementing eHealth systems are more than two times greater than the additional cost of implementing them. "An eHealth system might cost more, but the benefits far outweigh the costs," says Alexander Dobrev of the project team.

"But that ratio needs to be treated with caution," he warns. "This is the cumulative average from ten of the best eHealth implementations we could find in Europe."

Assessing the impact of eHealth

eHealth Impact was set up to discover what, if any, is the impact of eHealth projects on cost efficiency, quality of care and citizen access to health services. To answer that question, the project team developed a methodology for assessing the economic impact of eHealth solutions, identified 100 examples of good eHealth services, and then applied the method to ten flagship projects.

During the research, the team discovered that ineffective eHealth services are often caused by poor service implementation. They therefore analysed the ten evaluated sites to identify lessons to be learned for successful implementation of effective eHealth solutions.

Past assessments of eHealth technology were often applied on a case-by-case basis. With a standard methodology, assessment is simpler and it is possible to compare between differing initiatives.

From supply chains to ambulances

Developing a methodology that can be applied to any eHealth service was difficult. "Any service that uses ICT in a way that impacts health services is an eHealth solution. That's a very broad definition and applies to a very wide range of services," says Dobrev.

Such services range from ICT in the healthcare supply chain, through telemedicine and teleradiology, to electronic health records, vaccination programmes and even tele-triage, where emergencies are prioritised to deliver a best match between ambulance team and equipment and the severity and urgency of cases. With such a wide variety of services, developing a standard assessment methodology for all was a tough challenge.

eHealth Impact focused on the three stages in the lifecycle of eHealth investments – planning and development, implementation, and routine operation. The project team developed a set of tools to collect relevant information on each stage (these tools are hosted as a handbook on the project website http://www.ehealth-impact.org). This approach meant the project could draw lessons from a wide variety of European projects to identify universal success factors.

Staff need to be on board

"There are some key elements required to roll-out a successful eHealth project," Dobrev remarks. All relevant stakeholders – be they patients, doctors, nurses, management, public authorities or industry – must be represented from the very beginning of the planning process. "The more stakeholders and the earlier they are brought in, the greater the chances of success."

Successful projects also require changes in working practices. Technology will make no difference if hospital management and/or healthcare professionals don't move to take advantage of it. "There are cases where staff still work with paper even though an electronic health record system is in place, which just increases the workload for no benefit," Dobrev emphasises.

Successful implementation therefore means getting the staff on board; a process which should be part of a long-term vision. "Results don't come in a big bang, on average it takes five years for the benefits to exceed costs. It might come earlier, but you can't plan the project on that basis," Dobrev stresses. Implementation projects therefore require strong organisation, and the backing from clinical leadership and management to see them through.

Cost not the deciding factor

However, Dobrev emphasises, eHealth is not about costs alone. "We provide an economic analysis, that looks at social impacts, the quantity and quality of patient care, the efficient use of resources. Cost alone cannot be the deciding factor," he warns.

"People still question whether there's any real benefit to eHealth. Often there is not, if projects fail to address the success factors, at least to some extent. But with the results from our project, policymakers, clinicians, and hospital managers now have the tools to both assess and implement a successful eHealth initiative," Dobrev remarks.

eHealth Impact ended in May 2006, and Dobrev says that the partners would be interested in working with organisations engaging in an eHealth initiatives. The team would welcome approaches from interested parties such as healthcare providers, insurers, or health authorities.

In the meantime, the work will continue through a second, follow-on project, called Good eHealth, which will identify 120 eHealth implementations and provide a synopsis of their purpose.

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