A framework to weigh up health innovation options

Health-care systems are finding it harder to keep up with the pace of innovation, especially given current economic constraints.

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In most Western economies, health-care systems are facing significant challenges. Scientific and technological innovation in patient treatment has steadily increased life expectancy and quality of life. However, health-care systems have not evolved toward models that are able to incorporate such innovation within the context of current economic conditions, requiring a balancing of limited resources while trying to maintain existing levels of service.

To address this, Jaume Ribera, Magda Rosenmöller and Pablo Borrás of IESE's Center for Research in Healthcare Innovation Management, in collaboration with Accenture, have produced a conceptual framework to help evaluate health-care innovation, in order to optimize the use of health resources when treating patients. Their framework consists of three key components, which they describe in detail.

1. Innovation checklist

The first component is a descriptive fact sheet requiring that you ask yourself several key questions related to:

- *Mission & Objectives*. What was the problem or opportunity that sparked the innovation? Why are we doing it? What needs are being met?
- *Expected Impact*. What is the innovation expected to achieve? How will it be measured?
- *Scope.* What are the limits of the project? The key here is to prevent "scope creep," which is when the innovation encompasses so many dimensions that it renders the

project unfeasible.
- *Deliverables.* What tangible and intangible results can we expect?
- *Risks.* What are the main risks?
- *Constraints.* What are the limitations in terms of budget, available resources, time of completion, start date, etc.?
- *Charter.* Is there a contract or agreement between all players involved, and what will it consist of?

2. Classification model

The second component of the framework attempts to classify the innovation according to the following categories. Some of these may overlap, but the key is to try to determine which main type of innovation it is.

- *Product or Service Innovation.* Focused on a tangible product, service or experience, and aimed at creating or improving it. Examples: geriatric emergency units; devices to monitor patients at home.
- *Market Innovation.* Focused on opening or expanding a market. Example: medical tourism to attract patients to go abroad for surgery.
- *Process Innovation*. Focused on the creation or improvement of a production process or service. Example: electronic prescriptions.
- *Marketing Innovation.* Focused on marketing efforts. Examples: online appointments; health service webpages; providing healthy lifestyle advice.
- *Organizational Innovation.* Focused on new structures, business models, integration, networking or partnerships. Example: integrating primary, specialized, mental health and emergency care.

Once the innovation has been classified, it needs to be evaluated according to its attributes, which can be divided into two groups.

Dimension attributes seek to understand the magnitude, complexity or challenge of the innovation. These would be: novelty, improvement, technology, complexity, pace, uncertainty, originality and purpose.

Facilitator attributes estimate the driving forces and barriers to the implementation or expansion of the innovation. These would be: adaptability, trial-ability, observability, reputation, compatibility, effectiveness and scalability.

Each of these attributes needs to be assigned a level. For example, "uncertainty" could be

rated as "safe," "normal" or "risky." Doing this helps in being able to measure and compare various initiatives.

Sometimes the level assignment may depend on stakeholder perceptions. For example, the "technology" attribute measures not only the application of modern technology to the innovation, but the perception of stakeholders about the technology: Is it "familiar," "common," "known" or "unknown" to users?

3. Assessment tool

The final component is a 360-degree assessment tool derived from the previous classification model. This diagram allows the perceived impact on each and every innovation stakeholder to be evaluated according to: contribution, processes, channels, capabilities, relationships, value, strategies and context.

Four innovation projects put to the test

To test its practical worth, the authors applied their framework to four innovation projects recently implemented in the health-care industry in Spain:

- *AISBE Emergency Project*: restructuring emergency services in an area of Barcelona, led by the Hospital Clínic of Barcelona.
- *HORUS Project*: sharing medical histories of the Community of Madrid, led by the Madrid Healthcare Service.
- *UAI Project*: created by the Procurement Unit of the Murcia Healthcare Service.
- *Mobile Nursing Workstation Project*: designing and implementing a new mobile nursing cart at La Fe Polytechnic and University Hospital in Valencia.

Although the impact of innovation on health outcomes can be difficult to define and measure, their findings show that this framework is applicable to innovation, whether in the planning stage, under way or already completed. It can facilitate analysis, the comparison of initiatives and learning from innovation experiences.

As Dr. David Font, director of strategy and planning at the Hospital Clínic and member of the Barcelona Esquerra Standing Committee, says: "The application of the model to our project has clarified the value that the innovation generates for each stakeholder, and has taught the innovation team important lessons that should be applied to all future innovation projects."