Roundtable discussion "Attractiveness of innovations"

By Thomas Rundall

Health professionals from the Netherlands, Germany, Sweden, and the United States participated in the roundtable discussion of innovation in healthcare organizations. Major points discussed during the roundtable discussion include the following:

Innovation in healthcare organizations includes the development and implementation of entirely new technologies and ways of doing work, as well as the transfer of existing technologies and work processes from other sectors. Depending on its impact on people, work processes, and production costs, an innovation could be incremental (e.g. a new drug that improves treatment outcomes for a particular disorder) or disruptive (e.g. low cost medical clinics located in grocery stores and pharmacies).

Innovation is almost continuously occurring in healthcare organizations, and the development in recent years of internet-based applications for patients, providers, and managers has only increased the pace of innovation. Some examples of technological innovations that have been widely adopted include: health information technology (e.g. Epic), robotic surgery, voice recognition medical charting (e.g. Dragon Direct), patient portals, online expert diagnosis tools (e.g. Zipnosis), online diabetic monitoring, and of course advances in biotechnologies and upgrades to a wide number of medical devices (e.g. cardiac implants).

But, there are many innovations in healthcare organizational structures and care processes being adopted as well, including: patient care protocols, medication reconciliation procedures, high reliability tools and processes, open scheduling for doctor appointments, online psychotherapy tools, creation of clinically integrated networks, relational coordination, Lean management, the medical home, and the accountable care organization among many others. At least three of these organizational innovations came to healthcare from other industries: high reliability organization (aircraft carriers, nuclear power plants), Lean management (Toyota Production System), and relational coordination (Southwest Airlines).

Historically, the adoption of innovations could be characterized as a "push" mechanism, whereby the producer marketed the innovation in various ways to potential buyers. At least in the United States, "pull" mechanisms are developing whereby a hospital or health system creates the in-house capability to identify, assess, and implement new technical and organizational innovations, and in some cases to create innovations to address problems identified in clinical or managerial processes. At least 25 U.S. hospitals have established innovation centers. Examples of such hospital-based innovation centers include: the Mayo Clinic Center for Innovation, Cleveland Clinic Innovations, Intermountain Healthcare Transformation Lab, Partners Healthcare Innovations, and Kaiser Permanente's Garfield Innovation Center. These centers vary in their approaches to creating, identifying and adopting innovations, developing capabilities that support the mission of their parent organization. While some centers, such as Cleveland Clinic Innovations, search the globe for the next early-stage health information technology companies that will disrupt the market and streamline the delivery of better care to patients, other centers, such as Partners Healthcare Innovation, work directly with researchers in their university-based hospitals to commercialize their bio-medical innovations.

No such hospital-based innovation centers could be identified in European countries. Roundtable participants identified five changes that would help create such "pull" processes in European health systems:

1. More proactive regulatory processes, including more "pull" oriented technology assessment and a quicker review and approval process for innovations;

2. More engagement among stakeholders, including structured mechanisms to communicate needs and emerging tools;

3. Willingness to accept risk among regulatory agencies;

4. Patient involvement in innovation design and development; and

5. Better communication between the health care industry and innovators.

As healthcare continues along its perpetual evolution, innovations in clinical care and the organization and management of organizations in which care is provided hold promise for helping organizations achieve the triple aim of improved population health, lower per capita cost of care, and improved patient experience of care. Many hospitals and health systems are developing innovation centers to facilitate identifying and "pulling" needed technologies into their organizations. While flourishing among large hospitals and health systems in the U.S., such innovation centers have not been developed in Europe. Several changes in the regulatory environment and improved communication between healthcare innovators and the user community will be needed to enable the creation of such innovation centers in European countries.