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Disseminating and Diffusing Internal Innovations: Lessons from Large Innovative Healthcare Organizations

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What is the message?

Top-down models of innovation need to be complemented with management policies that promote the diffusion of small-scale, front-line innovations. Innovation programs at large healthcare organizations focus on removing structural barriers and developing human capital.

What is the evidence?

Insights and examples from 33 innovative healthcare organizations in the United States and the European Union.

Links: Methods appendix

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Introduction

Large organizations in all industries need to innovate. This is especially pressing in healthcare, where spiraling costs, unequal access, and technology changes make innovation crucial. Often, people working at the front lines are first to identify innovative solutions to an existing problem, but if there is no organizational mechanism for development and spread, good ideas do not come to fruition, become lost, or both. Other times, organizations mandate top-down innovations that fail to take hold or prove ineffective. Whether generated at the top or the front lines, how can organizations spark, support, spread, and sustain innovation?

To help answer this question, we interviewed 32 leaders of large, innovative healthcare organizations in the United States, the European Union, and the UK, including insurance companies, provider networks, medical technology organizations, and public institutions (see the Methods Appendix). Nearly every organization we studied blended bottom-up diffusion that enabled front-line staff to experiment with top-down dissemination processes that removed structural barriers, supported innovation, and actively spread the most successful ideas. The top-down approaches were often structural, while the bottom-up ones focused on the development of human capital through, for example, innovation awards; dedicated promotion tracks for innovation; online repositories for ideas; and mentorship programs.

This article highlights practical techniques that large, innovative healthcare organizations have used to disseminate and diffuse internal innovations. They are described in generalizable terms that are broadly applicable. Though our focus here is the healthcare industry, we hope that companies in other industries will take these broad lessons to heart.

Needs for and Challenges of Healthcare Innovation: Examples from the NHS

To illustrate the need for successful and robust innovation, as well as the challenges to doing so, consider the National Health Service (NHS) in the U.K., which currently serves over 54.3 million people with 1.5 million employees. It has been left creaking at the seams by increasing demand for services, largely driven by an aging population. To cite only one example of the strain on the NHS, during a three-week period in 2015, ambulances were forced to sit idle for more than 30 minutes 30,000 times due to dispatch challenges. More broadly, workforce morale had dipped, and many NHS hospitals continued to miss a wide range of key performance indicator targets,

such as cancer mortality and access to primary care.

To address these issues, the NHS initially adopted a dissemination strategy. Top-down innovation activities often have champions and mechanisms in place for dissemination; at the NHS, Chief Executive Simon Stevens played this the role when he announced a systematic restructuring in an “NHS Five Year Forward View,” which focused on initiatives such as integrating out-of-hospital services into Multispecialty Community Provider groups, combining hospital and outpatient services, and re-designing urgent care services across geographies.

Although these top-down plans were laudable, the NHS faced an uphill battle to actually implement the plans. Past NHS dissemination innovation initiatives had not produced meaningful results. For example, only about 38 percent of general practitioner clinics in the country that potentially could offer online booking, and only about 1 percent of practices that potentially could provide patients access to their records had done so.

The NHS subsequently adopted bottom-up diffusion activities, evolving out of experimentation at the front lines, to influence both operations and strategy at the organizational level. Initiatives included community-based models of Alzheimer’s care, algorithms to increase emergency department efficiency, and new suicide-prevention programs.

But diffusions can be difficult to implement. The NHS’s Diabetes Appointment via Webcam in Newham (DAWN) pilot program, launched at a clinic outside London, illustrates the difficulty of diffusing relatively small, but successful innovations. The pilot program, which offered patient appointments via Skype, reduced “do not shows” and costs, demonstrated significantly improved patient glucose control, decreased Accident & Emergency department utilization, and improved patient satisfaction. But the pilot program has yet to be meaningfully diffused to other NHS diabetes clinics.

How to Make Innovation Happen

Nearly every organization we studied had mechanisms for both bottom-up diffusion that enabled front-line staff to experiment, and for top-down dissemination, such as formal processes to fund pilot programs at the discretion of senior management. We found that astute innovative organizations blended top-down removal of structural barriers to facilitate front-line priority

setting and experimentation.

Prioritize Innovation

Large organizations often feel a tension between prescribing innovation and giving employees free rein to innovate. Some managers hesitate to circumscribe innovation initiatives in fear that they will constrain productivity, or indeed, innovation itself. Explicitly stating quantifiable goals is often the best way to focus efforts without constraining solutions. A central body needs to define innovation priorities and quantitative metrics for success, leaving the specific solutions to the front lines. One hospital made it a priority to reduce the number of six-month hospital readmission rates for congestive heart failure by 5 percent. Because of its quantitative nature, these aspirational goals are easily tied to compensation and yet give latitude for experimentation.

If you do not prioritize innovation, procedural and political barriers too often prevent innovators from experimenting and scaling. Enlist experienced innovators to mentor new innovators in navigating the practical challenges of ensuring adoption across systems. To be effective, organizations need to choose qualified and motivated candidates for the mentorship role. Once assigned, the mentorship should be accompanied by dedicated time to devote to developing or scaling a particular program. Creating dedicated time and providing one-on-one contact with someone who is familiar with innovation processes can often give the boost needed to bring about meaningful diffusion.

Train Leaders to Innovate

Investing in human capital to lead innovation within your organization is a key requirement. A leading pharmaceutical company we studied offered innovation leadership training to empower managers to take personal and proactive responsibility. The training program was intended to diffuse innovation culture company-wide; innovation was emphasized as something done by everyone in the organization rather than by a select few.

Talented senior managers in organizations with a track record of innovation can be deliberately shuffled to other institutions in either temporary or permanent capacities. In some cases, this will take the form of an extended full-time role; in others, this will simply involve sitting in on management meetings or board meetings at neighboring facilities. Senior management

rotations encourage two-way exchanges of ideas and facilitate professional development.

Gentherm: For example, when automotive cooling and heating company Gentherm bought medical device firm Cincinnati Sub Zero (CSZ), their innovation diffusion pipeline was initially hindered due to traditional senior leadership's inexperience in the medical arena. Likewise, the medical device experts did not understand the technology and expertise available within the Gentherm community.

Gentherm responded to this innovation challenge by innovating a new, hybrid approach to laterally spread innovation, one that required inter-industry collaboration. Key healthcare opinion leaders who were conversant in patient thermal management were consulted to identify problems that had the most clinical value and effect on patient outcomes. Commercial and regulatory teams provided input on what was reimbursable and certifiable, as well as an estimate of the overall market value. This information was then collated and used to set priorities for the product development organization.

Gentherm promoted diffusion by making company experts available to the CSZ medical product development staff and by providing training on basic thermal management technologies. These efforts were intended to give CSZ staff a broad understanding of the available technologies that could apply to future problems, as well as the organizational knowledge and contact necessary to leverage relationships when opportunities did arise. An early innovation that emerged from the lateral diffusion process involved using the automotive team's prototype facilities and technology to create a new type of operating room heating pad.

Anthem Healthcare: Anthem, the largest insurer in the U.S., used a version of an innovation scorecard when they sought to persuade independent physicians and hospitals to adopt an innovative payment model that reimbursed a bundle of care rather than every separate element of the care delivery process. Anthem placed physicians from 20 specialties and primary care at the front of decision-making, emphasizing a focus on outcomes that could best re-orient the doctor-patient relationship. The physicians rotated the meeting location to different practice facilities and shared best practices among practice management staff. These practice walk-throughs led to specific changes in waiting room protocols, staff priorities, and other consumer-centric items that impacted the efficacy of treatment. From this, Anthem moved to the dissemination tactic of allocating per member-per month capitated premium to each specialty,

to further motivate physicians. After twelve months, Anthem's independent physician organizations completely re-contracted the majority of the company's doctors, with most of them joining capitated panels that took risk as partners with Anthem in healthcare delivery.

To reduce the fear of failure, errors were reframed as learning opportunities that occur inevitably as part of the innovation process. Rather than trying to micromanage the innovation process, one training program posited that the future goal of innovation leaders was to become a "vanishing leader;" i.e., a leader who inspires others to innovate via self-determination and self-motivation.

Innovation Portal

Innovation occurs as part of the natural workflow for many front-line workers. Yet the potential gains from diffusing a particular innovation are often lost, especially in work environments where resources and time are constrained. Online innovation portals, which document and share front-line innovations within an organization, are one response to this challenge. All providers, staff, and managers can access such portals to upload information about local initiatives. The portal is easily searchable and can connect individuals interested in a particular program. The portal is often teamed with an award or sponsorship program to encourage use, as user engagement is typically a challenge.

Innovation zones: Innovation zones foster collaboration based on proximity. Innovation zones, which simply provide a shared physical space, have been effectively employed across industries and resulted in the freer exchange of ideas and greater facilitation of cross-functional work. Tax breaks are often offered to create these zones and regulatory requirements may be relaxed. Innovation zones often self-perpetuate by spinning out new companies, attracting entrepreneurs, and creating a critical mass of talented employees.

Scorecards: Scorecards have become popular throughout many industries to prioritize activities and structure self-evaluation. Two organizations we studied adapted scorecards to analyze innovation. Such scorecards require units within organization to evaluate their ability to innovate around specific initiatives and, at times, incorporated objective data, such as rate of surgical site infections. One organization found that the major benefit of scorecards was the competition that they brought about.

Scorecards not only facilitated peer-to-peer benchmarking, but also encouraged diffusion by demonstrating the value of an innovation and promoting discussion about it. Within our sample, the scorecards were never linked to funding or compensation.

Funding Innovation

Finding that career and financial disincentives often deter talented individuals from pursuing innovations, some organizations have created a promotion track for both professionals and administrators to enable career advancement based on innovation work. Including innovation as a criterion for promotions both legitimizes work on innovations and encourages development of new models. At Gentherm, the leaders of strategy, business, and product development teams were incentivized to innovate using both short-term rewards, such as patent awards and bonuses, and long-term rewards, such as company equity.

Proof-of-Concept Sponsorship: Some organizations created a central body for overseeing innovation, often led by a Chief Innovation Officer. Clinicians and front-line workers applied to a central body for both financial support and human resources to help trial an innovative initiative. Criteria for investment were separate from normal budgeting decisions, as benefit realization for innovations will likely take longer than other expenditures.

For example, the diffusion process for MyCOPD, a patient IT self-management system for pulmonary rehabilitation (https://mymhealth.com/), was led by a physician-innovator in England's National Health Service who applied for and was awarded a public grant, enabling him to reduce his clinical time to focus on the innovation. Once the self-management innovation system was nearing completion, the physician-innovator was matched to a high-level innovation mentor, provided advisory support for writing contracts and bids to appropriate funders, and supported in evaluation of the innovation for its cost-efficiency.

Early-Stage Venture Funding: Early-stage venture funding can provide access to capital for innovators in organizations that otherwise invest for efficiency or fast returns. Proof-of-concept and venture funding look at the same stage of funding: early, untested ideas. But venture funding draws in more of the investment industry practices, including (1) focusing on the entrepreneur and a belief in the person, rather than the institution, (2) taking a formal board seat, (3) making equity investments rather than awarding grants, and (4) looking at the organization as well as the idea.

Conclusion

Small-scale front-line delivery innovations can be easily overlooked, but in aggregate, if appropriately diffused, they can have a transformative effect on even the largest organizations. Dissemination of top-down models alone is unlikely to meet the innovation needs of large organizations. Instead, deliberate management policies to promote the diffusion of small-scale, front-line innovations are essential. The programs used by large healthcare organizations to enable top-down dissemination and the diffusion of grassroots innovation focus on removing structural barriers and developing human capital, and include the movement of key personnel, astute human resource management, and effective priority setting.