
Abstract

The Impact of Providing a Tool Kit for Innovators in an Academic Medical Center to Scale Digital Health Innovation

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Abstract

Background: An internal iHub survey shows that 72% of innovators within Academic Medical Centers abandon their ideas due to a lack of direction for their visions. While internal innovators are frustrated without direction and support to launch their ideas, hospitals need to balance innovation while ensuring information security-HIPPA compliance. Brigham and Women's Hospital houses a digital innovation hub (iHub) that fosters innovation for Brigham clinicians, scientists, researchers, administrators, and staff. In 2014, BWH founded a program called Digital Health Innovation Guide (DHIG) to provide structure for innovators to pilot new and novel technology in a safe, efficient, and successful manner. As a continuous cycle of innovation, the iHub identified successes and ways to improve the DHIG process and quality of service.

Objective: We gathered and analyzed data from participants of the DHIG and creators of the program to project the outcomes of the Digital Health Innovation Guide. With that information, we were able to quantify the impact of providing these resources and determine ways to improve the process of helping scale and structure digital health innovation.

Methods: We conducted a case review of existing data on DHIG projects. This included gathering data on projects from 2014-current. We reached out to 40 participants that went through the DHIG program to fill out a survey of questions regarding logistics of their project, successes and failures they faced, their thoughts on DHIG process, and its impact on the piloting process. We interviewed 10 participants to discuss the impact of the DHIG process, and to quantify where more support is needed from the iHub to better aid innovators to utilize and innovate new technologies in health care.

Results: From the responses collected, 50% of the innovators collaborated with external startups, while the other 50% were custom developments. 86% of teams had over 4 members, and of the remaining 14%, only 20% were still actively working to pilot completion. Conversely, 100% of stalled projects had less than 4 members. Participants listed that upholding deadlines and maintaining communication with internal stakeholders as well as external, such as developers and other hospitals, brought on successes for their project. Internal bottlenecks like indeterminate delays of IRB approval timelines and info sec reviews slowed down progress and, in some cases, led to withdrawal from sponsors.

Conclusions: Based off team sizes and member engagement, we found that it is crucial to have a team of at least 4 members with an engaged clinical champion, administrative champion, and project manager to ensure pilot completion. The iHub and DHIG process can improve pilot completion by expanding external support resources such as developers and other hospitals. The DHIG, while successful in providing a clear and rigid structure for innovators in an AMC to further develop their innovations, must continue to breakdown internal barriers by acting as an expediter.

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implementation; innovation; innovation adoption process; digital health; startups; scaling innovation; pilot

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