Institute for Healthcare Improvement

INSTITUTE FOR HEALTHCARE IMPROVEMENT
SUMMARY REPORT: 90-DAY PROJECT
Wave 56
Observations on Innovation
August 2020

I. Research and Development Team:
John Whittington

II. Intent:
The aim of this work is to understand how IHI's innovation team develops content, how we source topics, with whom we collaborate, and how we ensure the products of innovations can be operationalized by the field. Although making the products consumable is not innovation's work alone, what are the improvements we could make that would increase the likelihood of success?

III. Background:
Since IHI's formation, it has been an innovative organization. There is a brief history of the early innovation period in the IHI white paper on Innovation. In the same paper there are extensive details about our present innovation system. The plan of this short paper is not to repeat that material but to suggest observations based on 16 years of working in both informal and formal aspects of innovation at IHI.

IV. Results and observations.
Below is a set of observations regarding innovation work at IHI, Even though I put them in a specific order, you should not think of this process as linear. It often uses feedback loops.

Organizational oversight
Organization/executive oversight is a necessary requirement for a successful innovation project, particularly if it is a new internal initiative. There needs to be a leader or sponsor who wants this innovation work and has an idea of how they would use it once completed. For example, when we started on the Triple Aim, the board had been persuaded by Tom Nolan that this was an important concept and needed to move forward. I was asked to do the research and spent several initial cycles on the concepts, measures, etc. Penny Carver then took this early work and authorized it to develop a collaborative. Penny also went out and raised money from the RX foundation to support the work. Carol Beasley and I both went and recruited organizations to be part of the collaborative. As we were recruiting, we were also introducing the concepts of the Triple Aim even if an organization didn't sign up. We also identified potential faculty for the work. This led to a major initiative that lasted seven years for IHI. Obviously, not all work goes as well as this

example, but I do think it illustrates that you need an executive sponsor like Penny Carver in this example who will support the work and understand how it can be used in the organization.

I can think of other projects that had some mild interest from executives, but they really weren't investing in the idea and/or they had no vision on how to move it forward. I think in some cases they just didn't know what to do with an idea. It is very important that the executive sponsor understand the mechanics of innovation such as clear topic selection, the process of innovating starting with creating the initial charter, the innovation research and synthesis, the development of testable ideas, identification of testing sites and doing testing, summarization in a 90 day report, identification of faculty if the idea is going to move forward and the marketing and selling of whatever the final product is along with potential fundraising through grants that may be needed for the work.

To improve the process I recommend that you have an executive sponsor who first will read and sign off on the charter and who has clarity on their responsibility for the work.

A comment I would make is that often, for innovation work I did, I actually acted as the executive sponsor and researcher for the question/topic. I would be working as faculty on a collaborative such as the Triple Aim and a question would arise from the collaborative and then with my other hat as an innovation lead I would spend a 90 day cycle working on that question. The knowledge from that work would be shared and tested within the collaborative so it had a home where it could be tested right away. Also, some of that self-sponsored work laid the foundation for new work. The Triple Aim led to our work on the complex patients collaborative and both of these projects informed our work on equity which led to the pursuing equity collaborative.

A lot of what I have said above specifically refers to the creation of new work that is created for and generated by IHI. There is another path that innovation pursues which is contracted work where we are given a grant and a direction by another organization and we work with the partner to develop the topic. Age friendly healthcare would be a good example of that. I have limited experience in this area since the vast majority of my work was devoted to internally controlled research by and for IHI.

Topic/Question selection

Topic/question selection and organizational oversight are interconnected. Clarity of the question is very helpful to a researcher to create a clear aim for the innovation cycle. It is understandable that when any question for investigation is articulated, the sponsor may not fully understand what they are asking for and how it might be used. In one extreme case on a 90 day project it took over two months to gain some clarity on what was truly wanted. I would do some work send it back to the executive sponsor and find out that it was not what they wanted and start again until 2 months later we finally had defined the question. Sometimes the question being

asked is too broad and the sponsor is not engaged and therefore the researcher is left on their own and produces something that no one really wants.

A nice example of a reasonably well formed question that led to clarity in the aim is the work that Alex and I did on emergency operations centers (EOC) and incident command structure (ICS). The question was what can we learn from EOC and ICS that can be improved upon for the community around Covid and how might we use this knowledge for the community problems. We had a quick back and forth discussion in regards to the charter and focus for this work. This led to several well formed aims and deliverables. The executive sponsors, Paul Howard and Ninon Lewis, besides being involved with the charter development met two times with us during the development cycle to discuss the direction of this work. The final product will be incorporated into ongoing work that Paul and Ninon support.

One last question to ask is how much this question/topic is really needed. I believe sometimes the selection has not been as well thought out as it should be. We are researching a topic almost at the whim of someone with a very limited idea on how we might use it. However, I need to balance this statement with the fact that it is fine to do exploratory work in innovation. If every question that we ask leads to a specific product, it is doubtful that we are taking enough risk.

If the topic/question is chosen by an outside organization that is paying for the work, then we should be even clearer in the question, subsequent aims and deliverables. In a recent project that will remain nameless, we were 6 months into the project with the outside agency and they were constantly shifting questions and deliverables. Ultimately, this led to us ending the relationship with that organization.

I do think, in fairness, the question might have been well thought out, the executive sponsor might have been committed, but we as researchers were unable to produce a product/report that actually had testable ideas in it that could be moved forward. Basically, we had just created a "term paper" without valuable insight for the reader and with nothing to test and learn from. The researcher may have gained some fluency in the subject, but we did not create enough that could be used in any way.

The recommendation is that we need to do our work upfront in defining the question and the importance of the question. We should have at least a rudimentary idea of where and how this work could be used

What makes for good innovation? How do we come up with breakthrough ideas?
So we have discussed the need for a sponsor and a well-formed question. The next part is doing the research. As mentioned earlier, IHI has a very comprehensive white paper on innovation that goes through much of the detail on IHI's innovation system. In that paper the authors discuss a

sequence of steps for the first 90 days: charter development, scanning, theory building and validation along with summarizing and reporting. They then follow that sequence of steps with another 90 day cycle devoted to testing.

All those steps in the first 90 day cycle are ones that I generally follow. *Another practical insight I have gained is that to be successful you have to really live with an idea.* I find that when I live with a topic for a while, often the eureka insights come at times that I am not directly thinking about the topics. There were over 30 ninety day cycles of innovation work devoted to topics related to the Triple Aim. That allowed for a lot of deep thinking on related topics.

I think another important aspect is just the general experience of the researcher. It is hard to understand the culture of health care without working with it for awhile. This does not mean that someone needs to be a clinician. Some of the best work at IHI has been done by non-clinicians But it does mean that we really need to understand how health care is actually produced, what the culture looks like and how we can realistically improve it. Tom Nolan was not a clinician but he really understood the issues because he had worked closely with health care for years and that is why he proposed the Triple Aim for the sake of society. It was a way to break through some of the self centric nature of health care to help improve it and give it a new focus.

I think my best work was when I worked with at least one other person. It is important to have some interaction with others on topics. Generally, the work is complex and needs input and challenge from others.

I think IHI's competitive advantage can be summarized as actionable cutting edge content, supported by good content faculty, great quality improvement faculty and a strong IHI support team. In innovation, we are often the ones responsible for putting together the actionable cutting edge content. Therefore we always need to try to take ideas and synthesize them into something that is testable which can lead to action for the target organization or population that we are working on.

I think something else that helps us with our work is to recognize that we need a systems approach. I don't think we ever try to look for single solutions for our work. We normally come up with a multi-pronged approach to the issue we are working on. In our equity work, for example, we came up with 5 things that health care needed to work on: make equity strategic, build the infrastructure, work on the multiple determinants of health that you can influence, address institutional racism and partner with your community. I think these 5 illustrate a systems approach that is cutting edge and actionable.

Good innovation work ultimately requires testing of ideas. Otherwise, as said earlier, you are just creating "term papers" which are nice summary reports that do not lead to any significant

change. The challenge over the years has been to find testing sites. When the work has been coupled to an ongoing collaborative like Age Friendly Health Care, or Pursuing Equity or Complex Patients, you create a natural testing ground that makes it easy to share ideas and see how they are used. Also, you may, as a researcher, have a natural testing ground to work with. The work by Karthik on equity and safety is a great example of ongoing work being tested within the organization he works for. When I worked for both IHI and OSF Healthcare, I also had a good opportunity for testing. Sometimes, when we do work, particularly the first or even the second research cycle, we don't have a place to test our ideas and without testing that work has a greater chance of failure. Therefore, we need to consider the need for testing at the very start of all of our work.

What else needs to be considered?

We have discussed the need for a sponsor, clear problem definition and some thoughts on how to do the research. So what else should we consider? *I have worked on R and D for 16 years and almost all successful work that led to action required me to help on the project as faculty past the research cycle.* I was sometimes also involved in faculty selection. I have worked on marketing, the creation of a prospectus, change package and even made many sales calls to talk with organizations about participating in a collaborative. *What I have found is that we struggle to do a pure handoff of a research project.* Often the author of the research becomes part of the team working on the utilization of the report. Perhaps that is not a bad thing, but we need to acknowledge that it happens and plan our resources accordingly or change our process so that we can do a cleaner handoff.

Another issue, which we may have gotten better at, is not connecting or involving the innovation team to help with ongoing work at IHI. Any time IHI is doing work out in the field with organizations in some form of a collaborative structure, we are probably generating new questions to work on. And those questions should be explored because that will generate new insights that can be used by the ongoing collaborative and perhaps by a wider audience. And it is great not to waste the testing possibilities. Tom Nolan was advocating for dynamic testing opportunities and these collaboratives provide us with that opportunity. The original impetus for a formal R and D structure at IHI came out of the collaborative work of 13 organizations on Pursuing Perfection. That collaborative realized that they needed more support and hence the R and D team was formed. Over the years, we have used the research team unevenly to support the work of various collaboratives. So we should ask what the system is to address ongoing questions within a collaborative. All questions do not need to come to the innovation team. For example, Leadership Alliance forms small work groups and these are supported by IHI staff assigned to Leadership Alliance who do support the ongoing learning and research of these workgroups. But if there aren't identified resources available, then the R and D team can act as potential support to ongoing questions/topics from the collaborative. A secondary gain from a connection with R and D is

the fact that we document the findings and keep them in a structure that is retrievable for future work.

My last comment is about resources/people to work on innovation. We have more people than we realize. Over the years I have been able to recruit a number of folks who volunteered time to work on an occasional research cycle with me. They were motivated by the topic and the chance to work with IHI and me.

VII. Conclusions and Recommendations:

Research is complex and there are no simple answers on how to do the work. This report tries to share observations from 16 years of work. The points we have emphasized deal with having a senior sponsor, a clear topic/question, living with the topic over time and being able to develop a testable set of ideas to use in the field. In most cases, it seems that the main researcher has continued with the project as it moves from development to implementation.