TRIO STUDIO: How to develop more meaningful, mutually beneficial engagement by developing clinical ambassadors for the All of Us Research Program?

David Sedillo, RUMC

At IIT Institute of Design

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Facilitators: Santosh Basapur, IIT Institute of Design

Research Assistants: Abhignan Sai Godha, Divya Jain, Shuyi Liu, and Yun Yang (MDes Students)

Attendees:
Design Thinking Team: Rachel Pulido Northshore Health System, Cynthia Tom-Klebba Loyola Medical University, Cherese Pullum RUMC, Denise Voskuil-Marre RUMC, Raj Shah RUMC, Gerald Stacey ITM U of Chicago, and Sherry Robison ITM, U of Chicago.

Summary
David Sedillo, Rush University Medical Center (RUMC), introduced the goal of the All of Us Research Program and the challenge of creating an infrastructure wherein the many clinicians in our health systems can be advocates for their patients’ participation in the study.

He gave background information and introduced the challenges to the studio on how to best create and maintain interest of clinicians and encourage enrollment of their patients in the All of Us Research Program. Patients want and need support from their clinicians to participate, but clinicians are overwhelmed with various messages. So, how do we get busy clinicians engaged?

Design thinking approach was primarily used to solve these problems faced by David and his team at RUMC. Many innovative suggestions were made:

Top 3 Actions Proposed by the Studio Participants to David Sedillo:

1. Broaden “Clinician Ambassador” group to include Medical School Students/Residents, Faculty/Researchers, Research Team Members and get buy in at the Institution level

2. Continued Education Credits can be a good way to entice Clinicians. Genomics education/safety of big data/ how to conduct research/ how to recruit for research can be potential topics for credits

3. Enable Promotion Ladders (Growth) to acknowledge clinicians efforts to help recruit for All of Us Research program. If Institute is participant in PMI then this becomes easier to envision and participate.
TRIO Studio:

Problem Description: Recruitment for All of Us Research Program by creating effective Clinical Ambassadors program

David Sedillo, Rush University Medical Center (RUMC), introduced All of Us Research Program as the cornerstone program of the larger initiative of Precision Medicine – led by the NIH. The goal is to enroll one million or more U.S. residing volunteers, collect a variety of data, and contribute health data over many years.

Figure 1. Precision Medicine Initiative

All of Us objectives include deliverance of the largest, richest biomedical dataset ever, nurturing relationships with one million or more participant partners and lastly, catalyze a robust ecosystem of researchers and funders. Figure shown below explains the mission and the objectives.
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Figure 2. All of Us Mission and Objectives

The challenge is to create an infrastructure wherein the many clinicians in our health systems can be advocates for their patient participation in the All of Us Research Program. Clinical Ambassadors:

- Are viewed as integral to project success
- Represent trusted intermediaries for the program
- Can facilitate access to or engage a variety of patient populations
- Provide trusted guidance about research opportunities

Problem is that patients want support from their clinicians to participate in All of Us. All of Us researchers need clinician engagement. Clinicians are overwhelmed with various messages. How do we get busy clinicians engaged? Current efforts to address these problems include identifying clinicians who have supported research or are part of the same department, identifying clinicians with large potential participant populations and lastly getting approvals through General Internal Medicine Research Committee. All of these efforts take time, multiple strategies and approaches as well as personal relationships and right network connections.

Potential plan is to explain to the Clinical Ambassadors that there is value in it for them to get involved with this research program. They will be able to learn about precision medicine via their patient participation. They will be able to submit clinically relevant research ideas and get funded for future research projects, as well as they will be in the know by getting annual updates with/without a presentation on program. The clinical ambassadors’ patients will receive information about health status and be engaged in their health.
Furthermore, clinicians could get continuing education credits as they become available. How do we get busy clinicians engaged? Currently, the team is trying to get information out through Medical Group Newsletters, doing one-on-one engagements by site PI and team as well as conducting Grand Rounds for Clinical Departments.

Figure 3. Digitized view of whiteboard about issues in this “All of Us Research Program Challenge”
Main problem for the studio participants to solve:

How to develop more meaningful, mutually beneficial engagement by developing clinical ambassadors for the All of Us Research Program?

Studio Methodology

Design thinking approach was used as part of the studio to solve this problem(s).

Design Thinking Method

We used the Design thinking approach with four steps:

1. Create a free form mind map of the problem and identification of issues – Mind Mapping technique

2. Actionable insights were identified

3. Generating ideas to address issues

4. Synthesizing solutions from the smaller ideas – Creative integration of smaller ideas led by Design Thinking Expert facilitator was done using white boards.

5. Solutions were proposed to PI. Solutions were rated by the team on implement-ability (0-4 scale)
Design Thinking Based Solutions:

Problem visualized with Insights
Group first discussed the problem and its context yielding the following context diagram.

Figure 4. Mind map of Issues with context
Mind Map of Innovation Space Generated during Studio Session:
Following which insights were generated as follows:

1. There is not enough follow up with patients who already agreed to be a part of the research.
2. The community is an important but unutilized resource.
3. Some forms of visual cues have proved to be working in initiating conversation in the past.
4. Trust is an important factor to consider while trying to convince patients/subjects. Some patients only trust an expert.
5. The clinicians and the subjects feel a need for incentivisation to promote and be a part of the research respectively. In that sense, how might we track the patient’s enrollment back to the clinician.
6. Making the patient feel like a part of the research to improve the healthcare industry may motivate them further to take part.
7. People want to know their genetic information but are also concerned about privacy of their data.
8. There are a lot of unutilized resources/stakeholders within the health institution itself which can be leveraged - clinicians, nurses, resident doctors, physicians, social workers, etc.
9. Most times the doctors themselves do not happen to know about a particular research study that has been advertised, and so they can’t speak about the same even when the patient asks.
10. Studies should not become a competition within the health institution.
11. There is not enough pressure on the clinicians to promote these kinds of research programs - Institutional Quotas can be a barrier affecting recruitment efforts.

Concepts/Ideas were then discussed including:

1. Gamification
2. Incentives for Patients as well as Clinicians and their teams of staff
3. Credit and Visibility for individuals as well as institutions – Acknowledgements from ITM if possible
4. Visual cues – Lapel buttons/lanyards/TV screen/ etc.
5. Goodwill
6. Marketing/Outreach
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Digitized MindMap of Design Thinking Group Solutions
Solutions were created inspired and informed by the context, issues and ideas discussed by the group.

Solution

1. Broader Clinical Ambassadors Group

- Health System
  - Medical School Students
  - Clinicians
  - Research Teams
  - Institution

- Direct Volunteers
  - Community

2. Continued Education Credits
   1. Safety of Data/ Genomics
   2. Research+PMI+Relevance
   3. How to do research → Help clinicians participate in research/ self-study
   4. How to recruit

3. Support Promotion Ladder(Growth)

4. PMI recruits for institute - Accelerate Precision Medicine Initiative (Institution buy-in)

5. Prepare the environment with visual cues to prompt questions
   1. Buttons/ Cards /Postcards/ Brochure
   2. Newsletter inform people what’s going on
   3. Link to the info
   4. Numbers on the card connect back to clinicians
   5. Gamification

6. Provide feedbacks to clinician/ Institution
   1. Dashboard to inform physicians what’s going on
   2. A big database where everyone have access to
   3. Regional reputational journal
   4. A way to track clinician’s effort in institutional enrollment

Figure 4. Digitized Mindmap of Solutions
Solutions Generated by Design Thinking Approach Team:

Six relatively comprehensive yet pragmatic solutions were created to solve the issues of getting clinicians engaged with All of Us Research Program. They are as follows:

**Suggestion 1: Broaden Clinical Ambassador definition:** Broaden "Clinician Ambassador" group to include Medical School Students/Residents, Faculty/Researchers, Research Team Members and get buy-in at the Institution level

**Suggestion 2: Set up Continuing Education Credits system:** Continued Education Credits can be a good way to entice Clinicians. Genomics education/safety of big data/how to conduct research/how to recruit for research can be potential topics for credits

**Suggestion 3: Culture of Promotions committees acknowledging recruitment efforts.** Enable Promotion Ladders (Growth) to acknowledge clinicians' efforts to help recruit for All of Us Research Program. If Institute is participant in PMI then this becomes easier to envision and participate.

**Suggestion 4: System of credits at Institute level for participation in Precision Medicine initiatives.** Accelerate Precision Medicine Initiative buy-in by institutions and create a system, which gives proper credits for their efforts. ITM could play a role in this especially with their honest broker systems in place that gets participants and properly acknowledges who gets what credit for the recruitment effort.

**Suggestion 5: Prepare the environment with visual cues to prompt questions from patients (to clinicians)** Lapel pins, lanyards, buttons will be useful. Postcards, brochures and newsletters are another way. There should always be a consistent website link available. Contact numbers on the cards should connect back to clinicians so that we know which clinical ambassador created the link so that acknowledgement of effort can be done properly. Maybe gamification can be tried to encourage clinicians and their teams to participate in recruitment game.

**Suggestion 6: Providing feedback to clinicians and their institutions about progress of All of Us is very important** Creating informative dashboards to inform physicians about what is going on will be useful. Newsletters to inform patients about progress and status are good ideas, as well. A big database where everyone has access to the status is possible. Regional well-reputed journals could be places for clinicians to engage in publications and content of interest. A way to track clinicians’ efforts in institutional organization is quite important as well. So an institution level enrollment effort and encouragement to clinicians to enroll more is needed and that effort should somehow be acknowledged and applauded.

<End of Document. Thank you.>
Appendix 1.

Slides used by David Sedillo, RUMC for the studio kick off.

Appendix 2.
Actual pictures of white board from the studio session.
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Addendum 1 – One Month Follow up
Top 3 Actions Proposed by the Studio Participants:

1. Broaden “Clinician Ambassador” group to include Medical School Students/Residents, Faculty Researchers, Research Team Members and get buy-in at the institutional level.

Implementation and Results:

Since Trio Design Studio on April 18, 2018, All of Us has 1 physician buy-in who is listed as a Clinical Ambassador. There is a Faculty Nurse who is also an Ambassador talking with nursing students and medical students to gain interest.

David Sedillo has met with the Research Administrator for Neurosurgery in an attempt to gain more interest. He has met with Anesthesiology research assistants who are also helping with recruitment in pain clinic.

Midwest Orthopedics at Rush was provided information on the study with hopes of it being included in the patient care/education packages they are given prior to their clinic visit. Also working with PM&R to recruit from their clinic.

A Community Partnership has been established with an individual enrolled in the All of Us Research Program. The community partner will provide guidance on the program. The first meeting was the week of 5/21/18.

2. Continued education credits can be a good way to entice clinicians. Genomics education/safety of big data/how to conduct research/how to recruit for research can be potential topics.

Implementation and Results:

Educational materials are being created which consist of posters, flyers, buttons, and visual cues for providers.

All of Us is being presented at Grand Rounds in Cardiology, Geriatrics and OB/GYN.
Three different areas are being targeted for education and involvement in the program; genetics, nursing, and precision medicine.

Anyone SOCRA certified that is participating in recruitment/education of the All of Us Research Program will be given a letter for SOCRA credits.

A newsletter is being created with the help of Rush ORA and once a TRIO communications position is filled they will also provide feedback.

3. Enable promotion ladders (growth) to acknowledge clinicians’ efforts to help recruit for the All of Us Research Program. If institute is participating in PMI then this becomes easier to envision and participate.

Implementation and Results:

A leaders’ letter is being sent out from the Dean of Rush Medical College.

A newsletter is being created with the help of Rush ORA, and once a TRIO communications position is filled they will also provide feedback. It’s anticipated the newsletter will give kudos to different departments for their recruitment efforts.

Misc:

Recruitment prior to Design Studio was 96 participants and as of May 21, 2018, 234 subjects have been enrolled. The week of May 14, 2018, was the biggest week, to date, for the All of Us Research Program with 42 visits scheduled and over 25 completed.
Addendum 2- Three month Follow up
Suggestions Proposed by the Studio Participants:

1. Broaden “Clinician Ambassador” group to include Medical School Students/Residents, Faculty Researchers, Research Team Members and get buy-in at the institutional level.

Implementation and Results:

Currently the big push for Ambassadors are student groups. A presentation was made to Student Life Engagement in an attempt to attract student leaders as ambassadors.

Midwest Orthopedics at Rush will begin sharing information from the All of Us Research Program with their patients.

2. Continued education credits can be a good way to entice clinicians. Genomics education/safety of big data/how to conduct research/how to recruit for research can be potential topics.

Implementation and Results:

All of Us was presented at Grand Rounds and one hour of continuing education credit was awarded to participants.

In the fall, Grand Rounds presentations will be done and recorded. The recording will be posted to the Rush website so people who weren’t at Grand Rounds can watch the presentation. Grand Rounds will also be presented to cardiology in the fall.

3. Enable promotion ladders (growth) to acknowledge clinicians’ efforts to help recruit for the All of Us Research Program. If institute is participating in PMI then this becomes easier to envision and participate.
Implementation and Results:

A leaders’ letter has been drafted. Once it’s approved by the Dean, it will be sent to the medical college and all departments at Rush.

4. System of credits at Institute level for participation in Precision Medicine initiatives. Accelerate Precision Medicine Initiative buy-in by institutions and create a system, which gives proper credits for their efforts. ITM could play a role in this especially with their honest broker systems in place that gets participants and properly acknowledges who gets what credit for the recruitment effort.

Implementation and Results:

Rush’s Honest Broker is working with different departments to make them aware of the study.

5. Prepare the environment with visual cues to prompt questions from patients (to clinicians) Lapel pins, lanyards, buttons will be useful. Postcards, brochures and newsletters are another way. There should always be a consistent website link available. Contact numbers on the cards should connect back to clinicians so that we know which clinical ambassador created the link so that acknowledgement of effort can be done properly. Maybe gamification can be tried to encourage clinicians and their teams to participate in recruitment game.

Implementation and Results:

Prescription pad type of advertisements are being created/ordered so clinics can easily tear off an advertisement and give it to the patient.

Monitors throughout campus are advertising the All of Us Research Program.

David Sedillo is working with marketing to add advertisements for the All of Us Research Program to patient televisions in their hospital room. The advertisements will come on when the TV is turned on or when there is a break in programming.

Banners are being ordered and will be placed in the parking garage next to the pay stations.
6. Providing feedback to clinicians and their institutions about progress of All of Us is very important. Creating informative dashboards to inform physicians about what is going on will be useful. Newsletters to inform patients about progress and status are good ideas, as well. A big database where everyone has access to the status is possible. Regional well-reputed journals could be places for clinicians to engage in publications and content of interest. A way to track clinicians’ efforts in institutional organization is quite important as well. An institution level enrollment effort and encouragement to clinicians to enroll more is needed and that effort should somehow be acknowledged and applauded.

Implementation and Results:

A newsletter template was created, and a newsletter will be sent out once more staff is hired (interviews have been conducted). Currently a list is being compiled of departments and their enrollment numbers.

Misc:

Recruitment prior to Design Studio was 96 participants and as of May 21, 2018, 234 subjects have been enrolled. May averaged 17 subjects enrolled in the All of Us Research Program a week. June saw an average of 19 subjects per week enrolled. As of July 23, 2018, 410 subjects have been enrolled in the All of Us Research Program.

One year follow up will be done in April of 2019.
Addendum 3- One Year Follow-up

Suggestions Proposed by the Studio Participants:

1. Broaden “Clinician Ambassador” group to include Medical School Students/Residents, Faculty Researchers, Research Team Members and get buy-in at the institutional level.

Implementation and Results:

One Physician Ambassador has been identified from the Family Practice clinic at Rush.

Midwest Orthopedics at Rush is also referring their patients to the All of Us Research Program.

Non-clinical ambassadors are also referring people to the All of Us Research Program.

2. Continued education credits can be a good way to entice clinicians. Genomics education/safety of big data/how to conduct research/how to recruit for research can be potential topics.

Implementation and Results:

All of Us has been presented at two Grand Rounds and has reached out the National Library of Medicine. They are looking at hosting some events at Rush to help promote the All of Us Research Program.

3. Enable promotion ladders (growth) to acknowledge clinicians’ efforts to help recruit for the All of Us Research Program. If institute is participating in PMI then this becomes easier to envision and participate.

Implementation and Results:

A leaders’ letter was sent out to all Rush leaders and has helped to facilitate meetings within different departments at Rush.
4. System of credits at Institute level for participation in Precision Medicine initiatives. Accelerate Precision Medicine Initiative buy-in by institutions and create a system, which gives proper credits for their efforts. ITM could play a role in this especially with their honest broker systems in place that gets participants and properly acknowledges who gets what credit for the recruitment effort.

Implementation and Results:

David is currently creating a volunteer program for students to meet their volunteer hours in various classes. They also have a student that is interested in receiving course credit for research.

5. Prepare the environment with visual cues to prompt questions from patients (to clinicians) Lapel pins, lanyards, buttons will be useful. Postcards, brochures and newsletters are another way. There should always be a consistent website link available. Contact numbers on the cards should connect back to clinicians so that we know which clinical ambassador created the link so that acknowledgement of effort can be done properly. Maybe gamification can be tried to encourage clinicians and their teams to participate in recruitment game.

Implementation and Results:

Monitors throughout campus are advertising the All of Us Research Program.

David Sedillo is working with marketing to add advertisements for the All of Us Research Program to patient televisions in their hospital room. The advertisements will come on when the TV is turned on or when there is a break in programming.

Banners are located in the parking garage next to the pay stations to advertise the study. Banners are also located on the different floors of the parking garage.

Advertisements and banners are now posted on all floors at Midwest Orthopedics at Rush.

6. Providing feedback to clinicians and their institutions about progress of All of Us is very important. Creating informative dashboards to inform physicians about what is going on will be useful. Newsletters to inform patients about progress and status are good ideas, as well. A big database where everyone has access to the status is possible. Regional well-reputed journals could be places for clinicians to engage in publications and content of interest. A way to track clinicians’ efforts in institutional organization is quite important as well. An institution level enrollment effort and
encouragement to clinicians to enroll more is needed and that effort should somehow be acknowledged and applauded.

Implementation and Results:

A newsletter has been sent out and will continue to be sent out every 4-6 months. David Sedillo is currently working with the departments Communications Specialist and will collaborate on future newsletters.

Misc:

Recruitment prior to Design Studio was 96 participants and as of May 21, 2018, 234 subjects have been enrolled. May averaged 17 subjects enrolled in the All of Us Research Program a week. June saw an average of 19 subjects per week enrolled. As of July 23, 2018, 410 subjects have been enrolled in the All of Us Research Program. Recruitment at the one-year follow-up is 1,000 subjects that enrolled on the study.

The plan for 2019 is to move off campus and go out in to the community to recruit for the All of Us Research Program.