

Collaborative Healthcare Using Patient-Generated Data

Integrating Wearable Device Data into Mental Health Care for Veterans



by Northwestern University &
Rush University Medical Center



Support for this initiative was provided by the Robert Wood Johnson Foundation. The views expressed here do not necessarily reflect the views of the Foundation.

Produced by Reos Partners
December 2017

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All the materials produced are available at the Reos Partners website:
www.reospartners.com/pgd

If you have other ideas for how to build on these use cases, please let us know:
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Acknowledgment

The use case methodology is adapted from *Writing Effective Use Cases* by Alistair Cockburn.

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Technology has made it easy for people to capture data about their health, giving users insights that are more accurate and accessible than ever.

From counting steps to tracking fertility, people are drawn to using new tools to bring transparency and self-awareness to their well-being. Despite its promise, it is still unclear how to transform this wealth of self-generated data into meaningful improvements to the partnership between a patient and their healthcare provider. Proactive patients who wish to improve their personal health, as well as stakeholders from across the healthcare and health research field, are invested in finding ways to use patient-generated data (PGD, also known as PGHD or patient-generated health data) to inform healthcare and to transform it to be better, safer, more efficient, and more collaborative than before.

To provoke innovation within this emerging space, the Robert Wood Johnson Foundation engaged Reos Partners, an international social enterprise with experience in bringing collaborative innovation processes to life. Reos defined the scope of this inquiry through the question: **How might the use of patient-generated data enhance collaboration between patients and providers to improve individual health outcomes?** In two phases of work, Reos Partners investigated the opportunities and challenges facing thought leaders and researchers around this question. Reos Partners started with interviewing leaders and stakeholders from the healthcare field, including patients, healthcare providers, academics, technologists, designers, and representatives from public institutions. The outcome was a report that synthesized these conversations to capture insights, trends, and actions that could most directly improve health outcomes for patients.

With this research foundation, Reos Partners initiated a second phase of work by inviting four health innovation teams from across the United States to propose approaches that could use patient-generated data to make healthcare more collaborative. Over three months, these teams produced a series of scenarios that articulate how PGD could be used to improve the clinical encounter between a patient and their care team (a methodology known as “use case”).



While the initial Reos Partners report identified a number of emerging challenges and opportunities in the PGD landscape, these four teams were asked to pursue research advancing one or more of the following focus areas:

Shift Toward Trust

Patient-generated data should be viewed as a trusted, valid, and reliable input to the clinical encounter that enables collaborative decision-making between patients and their care team.

- > How might we increase clinicians' receptivity to using patient-generated data in the clinical encounter?
- > How might we find the balance between clinically generated and patient-generated data?
- > How might we establish rigor within the context of patient-generated data?

Identify Mechanisms for Meaningful Collaboration Between Patient and Provider

Patient health and well-being should be co-produced with providers through meaningful communication and collaboration.

- > How might we translate and present large amounts of data into comprehensible and relevant information that can be used by patients and providers?
- > How might we improve the quality of data-driven conversations between patients and their care team?
- > How might we use patient-generated data to meaningfully incorporate patients' experiences into decisions about care and treatment plans?

Bring Patient Stories into the Clinical Encounter

The day-to-day lived experience of patients should be understood to be important and reliable data that can inform their healthcare options.

- > How might we track behaviors that promote wellness and well-being?
- > How might we track and synthesize qualitative data that enables patients to tell their whole story?
- > How can the burden of recording large amounts of data be reduced?

Each innovation proposed a unique approach to integrating patient-generated data, through several use cases that explore different perspectives and outcomes within the same topic (referred to as "use case suites"). By publishing these use case suites, along with a how-to guide to create your own use case, we aim to inform the future of using patient-generated data to make healthcare more collaborative.

Four research teams investigated various ways to co-produce improved health outcomes using patient-generated data.

Each team's use cases are outlined in a respective document and corresponding video overview, available at: www.reospartners.com/pgd



Using Patient-Generated Data Reports to Individualize Care for COPD

by Propeller Health

Using an inhaler sensor that pairs with a smartphone app, researchers created a platform to collect and reflect data about inhaler usage from patients living with chronic obstructive pulmonary disease (COPD). For this use case suite, the patient-generated data is translated into reports to be used by patients to help self-manage their care as well as by physicians to help improve their methods for creating individualized treatment plans for their patients.

Integrating Wearable Device Data into Mental Health Care for Veterans

by Northwestern University & Rush University Medical Center

Researchers created recommendations for ways to integrate Fitbit devices into a mental health treatment program for veterans living with post-traumatic stress disorder (PTSD). This team speculates how providers might be trained to use patient-generated data to provide physiological insights that could be used as a point for reflection and conversation with patients.

Standardizing and Evaluating Consumer Wearable Device Measurement

by RTI International & the University of North Carolina at Chapel Hill

By analyzing the broad use of wearable technology in health studies, researchers established an evidence-based protocol to evaluate the reliability and validity of these devices. This framework is designed to evolve and scale as patient-generated data technology expands and improves.

Mobile Apps for Generating and Sharing Food-Related Data

by the University of Washington

To help patients identify opportunities for healthy change within their diet, researchers developed a suite of mobile phone applications that empower users to monitor symptoms and form hypotheses about what might be affecting them. Foodprint is a photo-based diary that patients can use to capture visual records of what they eat, as well as notes detailing ingredients and symptoms. TummyTrials is a mobile app that structures low-impact diet experiments that the user can explore on their own to better understand what elements of their diet might be triggering undesirable symptoms. These apps help the patient make more informed food choices and improve communication between the patient and their health provider.

What are use cases and why are we using them?

A use case is a story that tells the journey of a person as they work to achieve a specific goal within a defined scope or “system.” Use cases, as a problem-finding methodology, were first created by software designers to discover what needed to be in place for the software user to engage with a program successfully. By starting with understanding users’ needs and possible challenges as they attempt to navigate a system, designers could then create with this journey in mind as well as anticipate where things could go wrong.

For this initiative, we have taken the use case methodology and adapted it to explore the question:

“How might the use of patient-generated data enhance collaboration between patients and providers to improve individual health outcomes?”

If you are interested in knowing more about use case methodology, please see the appendix for an overview.

Fully Dressed Use Case Template		Team Name
Patient Generated Data Focus Area <input type="checkbox"/> Shift Toward Trust <input type="checkbox"/> Mechanisms for Meaningful Collaboration Between Patient and Provider <input type="checkbox"/> Bring Patient Stories into the Clinical Encounter		Patient Generated Data Challenge Tell us about the specific challenge your team is trying to address within the focus area you have identified
Use Case Name The name should be the goal as a short action oriented statement		
Design Scope Describe the system within which the use case is taking place	Goal Level Is this a summary or a user-centered goal?	
Primary Actor Who is trying to achieve a successful outcome within this use case?	Stakeholders & Interests List all stakeholders and key interests that are impacted by this use case	
Preconditions What conditions need to exist for this use case to be relevant or actionable?	Triggers What are the events or actions that start the use case?	
Minimal Guarantees What will be achieved in the course of the use case no matter what?	Success Guarantees What are the outcomes if the use case goal is successful?	

Integrating Wearable Device Data into Mental Health Care for Veterans

by Northwestern University & Rush University
Medical Center



About This Use Case Suite

For veterans and their families, the transition from military to civilian life is often a challenge. The Road Home Program: The Center for Veterans and Their Families at Rush offers confidential support, counseling, and mental health services to veterans and their families at no cost. In addition to outpatient care, the Road Home Program offers a unique three-week Intensive Outpatient Program (IOP) designed to treat post-traumatic stress disorder (PTSD) through both individual and group treatment, combining evidence-based psychotherapy with health and wellness practices.

Upon enrollment in the program, each patient receives a complimentary Fitbit, which records data on the patient's health indicators. While there is general optimism for using patient-generated data to improve PTSD care, there is little protocol or direction for how program administrators and providers can incorporate the Fitbits into their patient care.

To address this challenge, the team at Road Home partnered with researchers from Northwestern University to explore how the Fitbit and its data could be used in the care process. After interviewing patients, providers, and administrative staff, the team created recommendations that speculate how clinicians might be trained to identify opportunities for using patient-generated data. We hypothesize that the integration of PGD into the patient's care can improve the clinical engagement two-fold: by measuring, reflecting, and encouraging progress, and by introducing data as a conversation point for improving rapport between the patient and the provider.

We have identified four scenarios that could potentially support integration of Fitbit data into the intensive outpatient program. This suite of use cases considers how influencers and data-proficient clinicians could provide insight and feedback on a pilot and training workshop. These training materials could ultimately be applied to a three-week supervised program where clinicians would learn to effectively integrate the Fitbit and its data into the patient care workflow while gaining feedback on their patient interactions by reviewing audio recordings with their supervisor.

We believe that these recommendations could provide direction for how the Road Home Program might integrate individualized and data-supported care in mental health for patients in the intensive outpatient program.

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Use Cases in this Suite

Summary Use Cases **x2**

1

**Clinician influencers
explore use of patient-
generated data in patient
sessions**

2

**Train clinicians to use
patient-generated data
in patient sessions**

User Goals **x2**

2.1

**Conduct workshop in use
of patient-generated data**

2.2

**Clinician uses patient-
generated data in session
with audio recording**

Use Cases 2.1 and 2.2 are User Goals, which define specific goals that the primary actor is trying to achieve in order to achieve the larger goal (Summary Goal) described in Use Case 2.

Clinician influencers explore use of patient-generated data in patient sessions



Focus Area & Challenge

The specific patient-generated data challenge addressed

How can clinician influencers* inform a pilot program to help clinicians within the Road Home Intensive Outpatient Program use patient-generated data to improve the care of their patients?

**Clinician influencers are defined on the following page.*

Scope

The system within which the use case is taking place

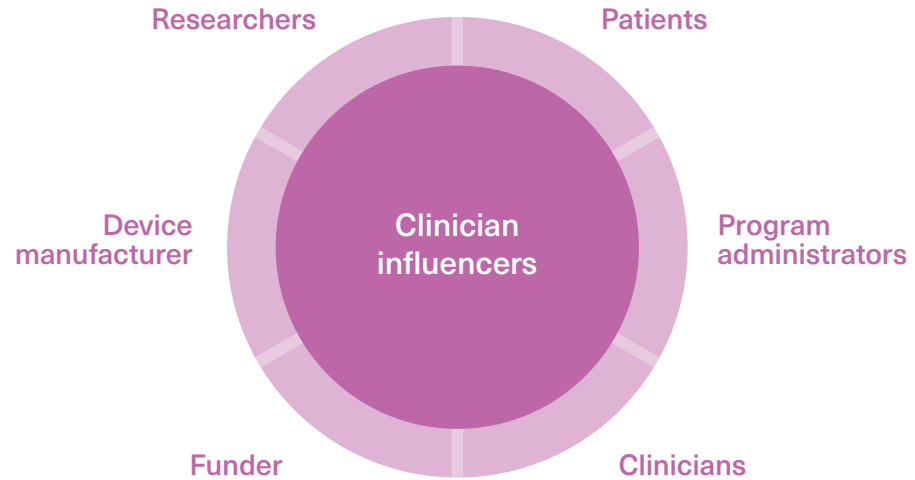
We are focused on Road Home's Intensive Outpatient Program (IOP), an evidence-based treatment program for veterans with PTSD that includes group and individual therapy sessions with mindfulness and wellness over a three-week period.

Primary Actor

The person/people trying to achieve a successful outcome within this use case

Clinician influencers

- Program staff, including administrators and clinicians, who have a keen interest in the data and its potential to enhance patient-clinician collaboration, and who can influence their colleagues by championing the integration of PGD into the Road Home program. Staff with more years of education tend to be more excited about the data.



Stakeholders & Interests

The stakeholders and key interests that are impacted by this use case

Patients

- improved quality of life as a result of better care through collaboration with clinicians

Program administrators

- improved success of program

Clinicians

- improved care for patients in the program through collaboration with patients

Funder

- return on investment, program outcomes
- knowledge-sharing

Device manufacturer

- publicity
- valid outcomes to help promote Fitbit as a reliable tool in this context

Researchers

- new findings and a unique new research application

Preconditions

The conditions that need to exist for this use case to be relevant or actionable

Patients

- Patient-generated data from Fitbit must exist.
- Patient must consent to use of data.

Clinicians

- Patient-generated data from Fitbit must be available and accessible.
- Data must be valid, valuable, and presented in a usable format at the right time in the clinical workflow.
- Clinician influencers must exist among program staff.
- Clinician influencers must be confident in the reliability and usefulness of the patient-generated data (this level of confidence may ebb and flow throughout the process).

Program administrators

- Administrators must buy in to the use of PGD.

Triggers

The events or actions that start the use case

- Program administrators identify clinician influencers and invite them to help develop a pilot program for PGD.

Minimum Guarantees

What will be achieved in the course of the use case, no matter what

- Clinician influencers use patient-generated data in a patient session.

Success Guarantees

The outcomes if the use case goal is successful

- Clinician influencers identify the outcomes (both positive and negative) of integrating patient-generated data into the care program.
- Clinician influencers propose a protocol for integrating PGD into the program.
- PGD “super users” exist among program staff.

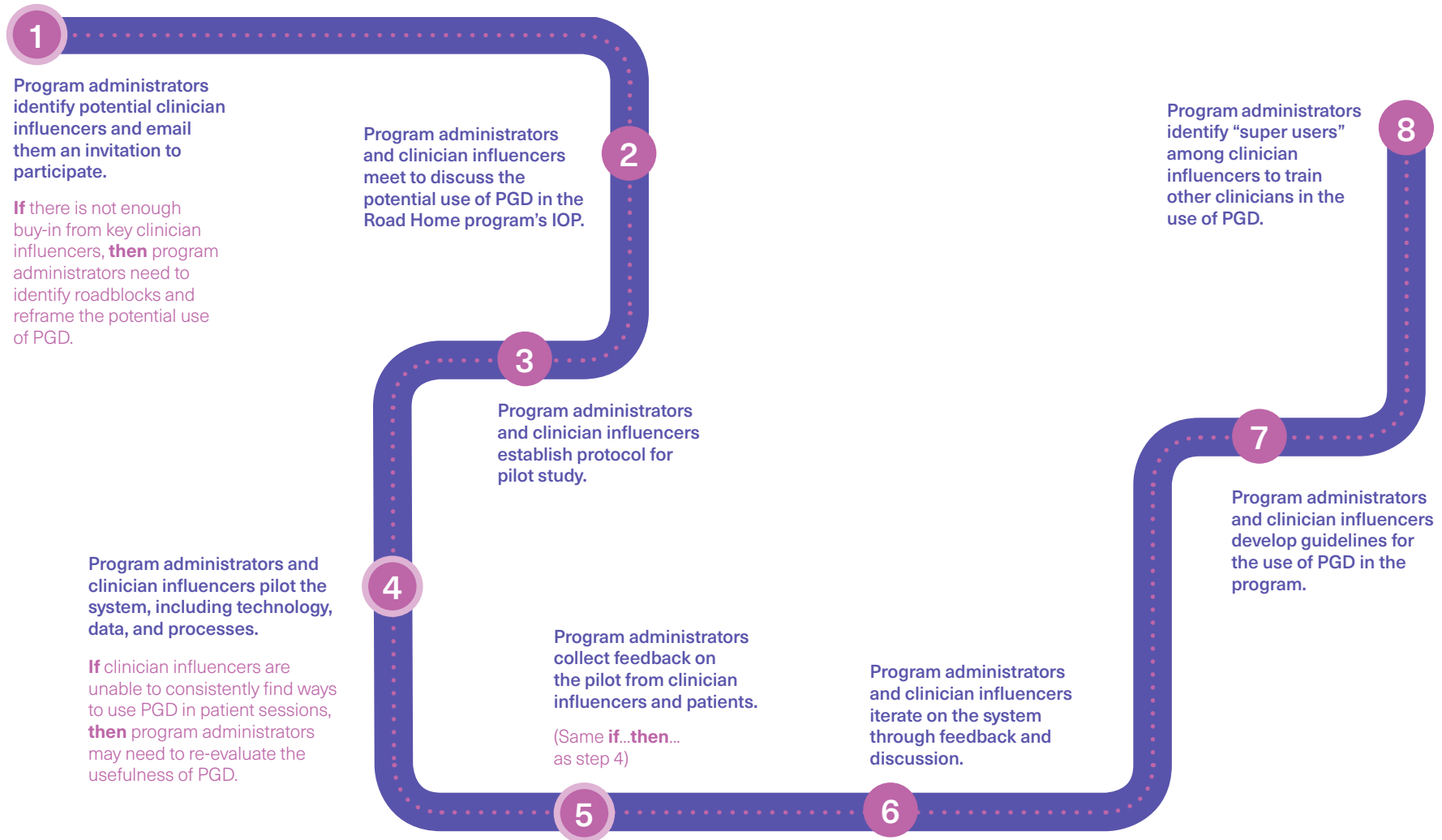


Success Scenario

The narrative sequence of events (steps) that lead from the preconditions and trigger to the completion of the goal by the primary actor

“If...then...”

Crucial breakdowns in the main Success Scenario steps, and the way in which the breakdown will be handled



Train clinicians to use patient-generated data in patient sessions



Focus Area & Challenge

The specific patient-generated data challenge addressed

How can clinicians be trained to recognize and capitalize on opportunities for patient-generated data for improving the care of patients in the Road Home Intensive Outpatient Program?

Scope

The system within which the use case is taking place

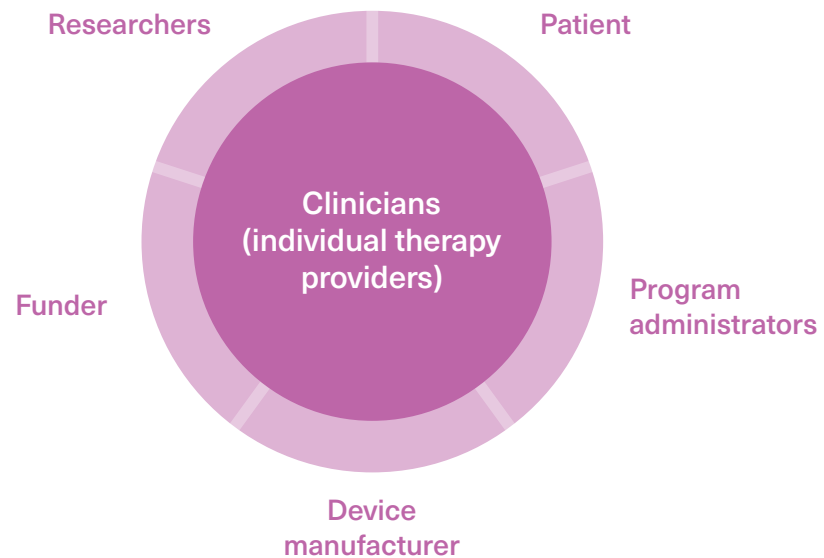
We are focused on Road Home's Intensive Outpatient Program (IOP), an evidence-based treatment program for veterans with PTSD that includes group and individual therapy sessions with mindfulness and wellness over a three-week period.

Primary Actor

The person/people trying to achieve a successful outcome within this use case

Clinicians (individual therapy providers)

- Clinicians assigned to the role of providing daily one-on-one psychotherapy sessions with veterans over the course of a three-week program cycle



Stakeholders & Interests

The stakeholders and key interests that are impacted by this use case

Patient

- improved quality of life as a result of better care through collaboration with clinicians

Program administrators

- improved success of program

Funder

- return on investment, program outcomes
- knowledge-sharing

Device manufacturer

- publicity
- valid outcomes to help promote Fitbit as a reliable tool in this context

Researchers

- new findings and a unique new research application

Preconditions

The conditions that need to exist for this use case to be relevant or actionable

Patients

- Patient-generated data from Fitbit must exist.
- Patient must consent to use of data.
- Patient must consent to audio recording of their individual session.

Clinicians

- Patient-generated data from Fitbit must be available and accessible.
- Data must be valid, valuable, and presented in a usable format at the right time in the clinical workflow.
- Clinician influencers must exist among program staff.
- Clinician influencers must be confident in the reliability and usefulness of the patient-generated data (this level of confidence may ebb and flow throughout the process).

Program administrators

- Administrators must buy in to the use of PGD.
- Administrators must be prepared to conduct a training workshop.

Triggers

The events or actions that start the use case

- Program administrators run an introductory workshop in the use of PGD, attended by clinician

Minimum Guarantees

What will be achieved in the course of the use case, no matter what

- Clinicians become aware of data collected by Fitbits.
- Clinicians become aware of uses of patient-generated data.

Success Guarantees

The outcomes if the use case goal is successful

- Clinicians use patient-generated data in a patient session.
- Clinicians become competent in use of patient-generated data in clinical context.
- Patient-generated data is accepted as a clinical tool.



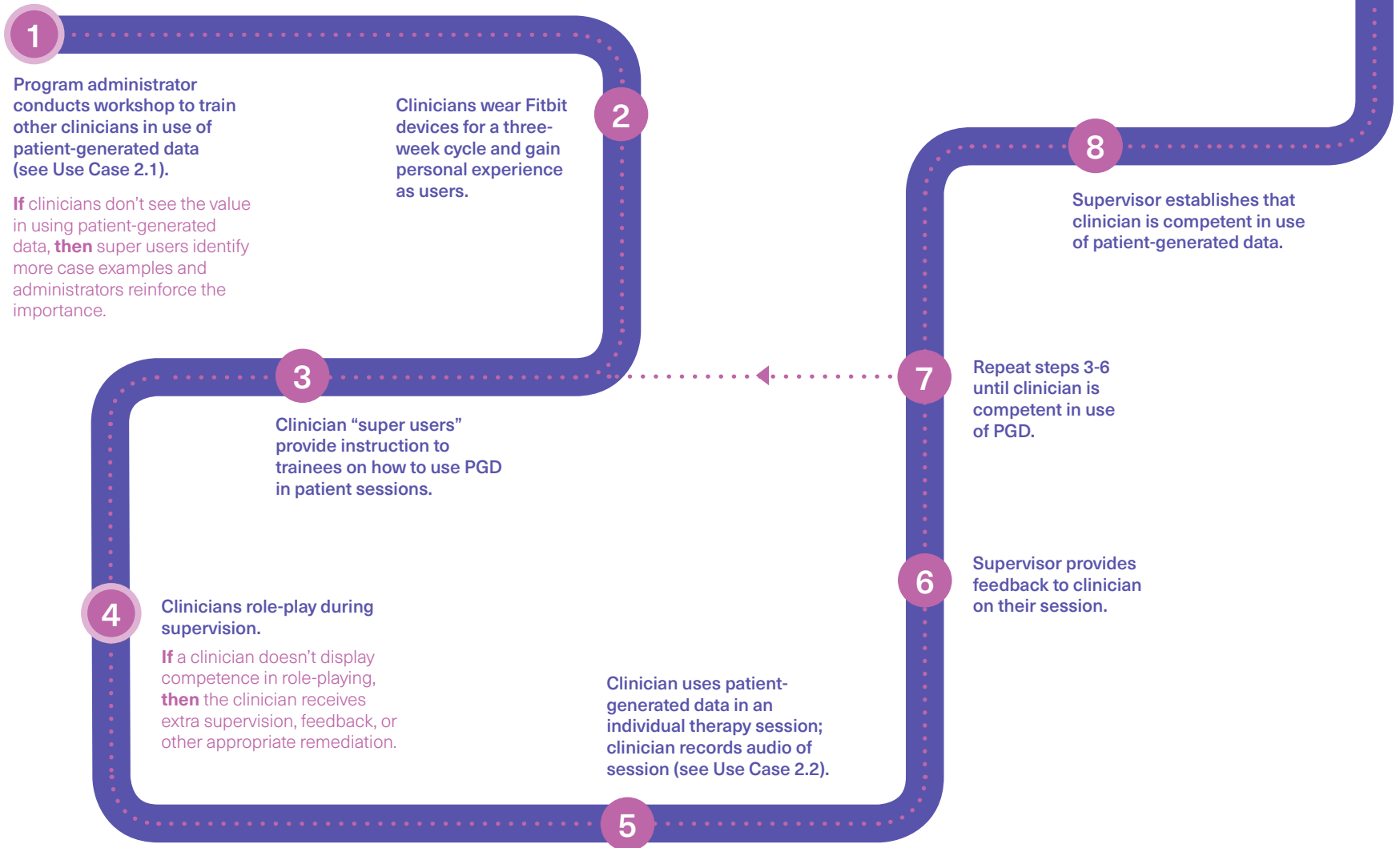
Success Scenario

The narrative sequence of events (steps) that lead from the preconditions and trigger to the completion of the goal by the primary actor

“If...then...”

Crucial breakdowns in the main Success Scenario steps, and the way in which the breakdown will be handled

Use of PGD becomes an integrated part of supervision.



Conduct workshop in use of patient-generated data

This use case articulates the details of how to successfully achieve step 1 from the Success Scenario described in Use Case 2.



Focus Area & Challenge

The specific patient-generated data challenge addressed

How can a workshop kick off a training program on how to use patient-generated data to improve the care of patients in the Road Home Intensive Outpatient Program?

Scope

The system within which the use case is taking place

We are focused on Road Home's Intensive Outpatient Program (IOP), an evidence-based treatment program for veterans with PTSD that includes group and individual therapy sessions with mindfulness and wellness over a three-week period.

Primary Actor

The person/people trying to achieve a successful outcome within this use case

Trainer

- Program administrator or clinician who is well versed in patient-generated data and the processes of the Road Home Program



Stakeholders & Interests

The stakeholders and key interests that are impacted by this use case

Clinician

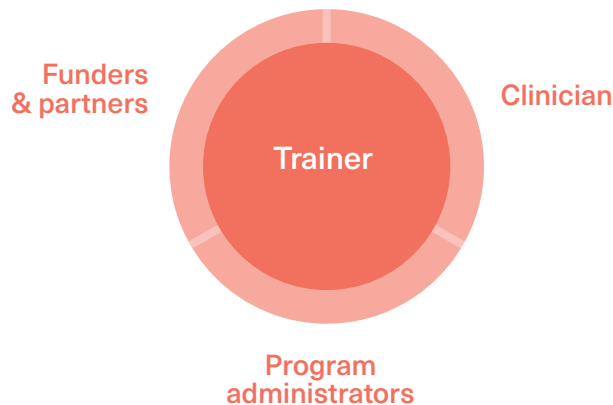
- gains competence and an expanded skillset in collaborative uses of PGD

Program administrators

- improved competence of clinicians in training

Funders & partners

- A program funder such as Wounded Warrior Project and other partners may be invited to attend the workshop.
- gains insights that could inform other initiatives and research
- education and knowledge-sharing



Preconditions

The conditions that need to exist for this use case to be relevant or actionable

Clinicians

- Patient-generated data has been found to be useful after the pilot conducted by clinician influencers.
- Clinician influencers must be confident in the reliability and usefulness of the patient-generated data.
- Trained PGD “super users” exist among staff and are confident in the use of PGD.

Program administrators

- Administrators must buy in to use of PGD.
- Administrators must be prepared to conduct a training workshop.
- PGD training materials must exist for reference by clinicians.

Triggers

The events or actions that start the use case

- Program administrators decide to roll out PGD training for clinicians in the Road Home program.

Minimum Guarantees

What will be achieved in the course of the use case, no matter what

- Clinicians learn how Fitbits work.
- Clinicians become aware of the patient-generated data that is collected from patients.
- Clinicians become aware of the uses of patient-generated data.

Success Guarantees

The outcomes if the use case goal is successful

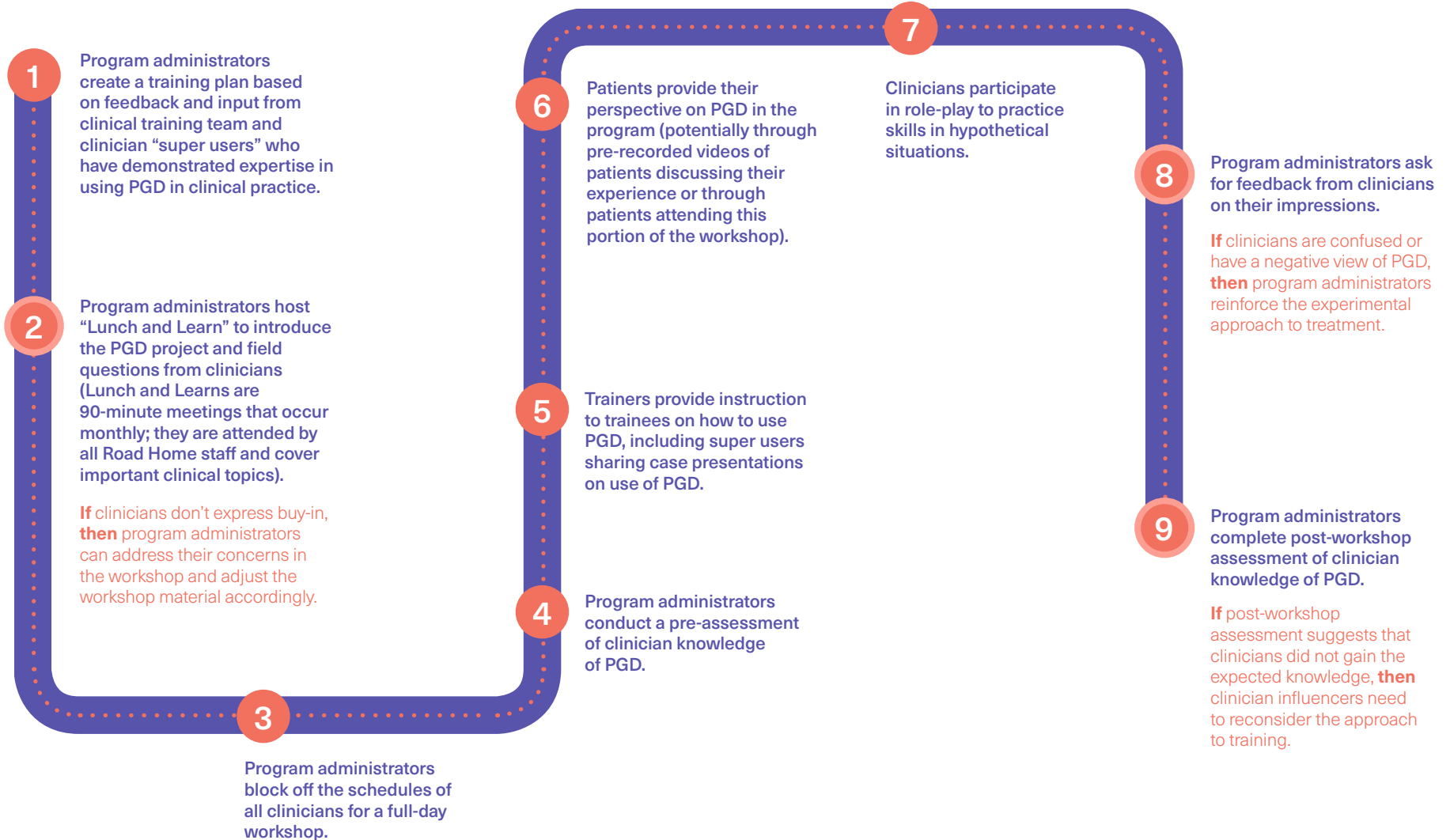
- Clinicians are interested in the use of Fitbits and patient-generated data.
- Clinicians can articulate how patient-generated data can be useful (benefits of PGD).
- Clinicians can articulate how patient-generated data might be used (applications of PGD).

Success Scenario

The narrative sequence of events (steps) that lead from the preconditions and trigger to the completion of the goal by the primary actor

“If...then...”

Crucial breakdowns in the main Success Scenario steps, and the way in which the breakdown will be handled



Clinician uses patient-generated data in session with audio recording

This use case articulates the details of how to successfully achieve step 5 from the Success Scenario described in Use Case 2.



Focus Area & Challenge

The specific patient-generated data challenge addressed

How can audio recording support a clinician in learning to effectively use patient-generated data in an individual therapy session with a patient in the Road Home Intensive Outpatient Program?

Scope

The system within which the use case is taking place

We are focused on Road Home's Intensive Outpatient Program (IOP), an evidence-based treatment program for veterans with PTSD that includes group and individual therapy sessions with mindfulness and wellness over a three-week period.

Primary Actor

The person/people trying to achieve a successful outcome within this use case

Clinicians (individual therapy providers)

- Clinicians assigned to the role of providing one-on-one psychotherapy sessions with veterans daily over the course of a three-week program cycle

Stakeholders & Interests

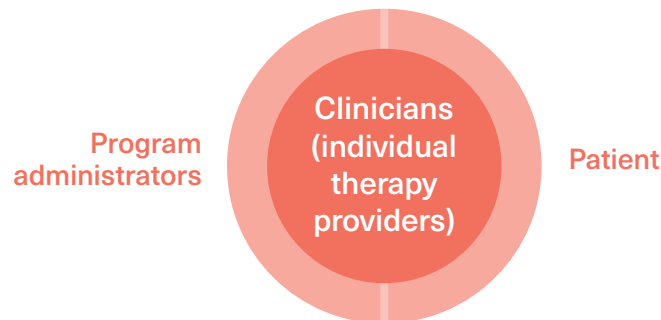
The stakeholders and key interests that are impacted by this use case

Patient

- improved care as a result of PGD use in therapy session

Program administrators

- improved competence of clinicians in training



Preconditions

The conditions that need to exist for this use case to be relevant or actionable

Patients

- Patient-generated data from Fitbit must exist.
- Patient must consent to use of data.
- Patient must consent to audio recording of their individual session.

Clinicians

- Patient-generated data from Fitbit must be available and accessible.
- Data must be valid, valuable, and presented in a usable format at the right time in the clinical workflow.
- Clinician must be trained in the use of PGD in session.
- Clinician must understand the baseline of what is normal for the patient.

Program administrators

- Administrators must buy in to the use of PGD and audio recording in individual sessions.
- PGD training materials must exist for reference by clinicians.

Triggers

The events or actions that start the use case

- Clinician and patient begin an individual therapy session.

Minimum Guarantees

What will be achieved in the course of the use case, no matter what

- Clinicians learn how Fitbits work.
- Clinicians become aware of the patient-generated data that is collected from patients.
- Clinicians become aware of the uses of patient-generated data.

Success Guarantees

The outcomes if the use case goal is successful

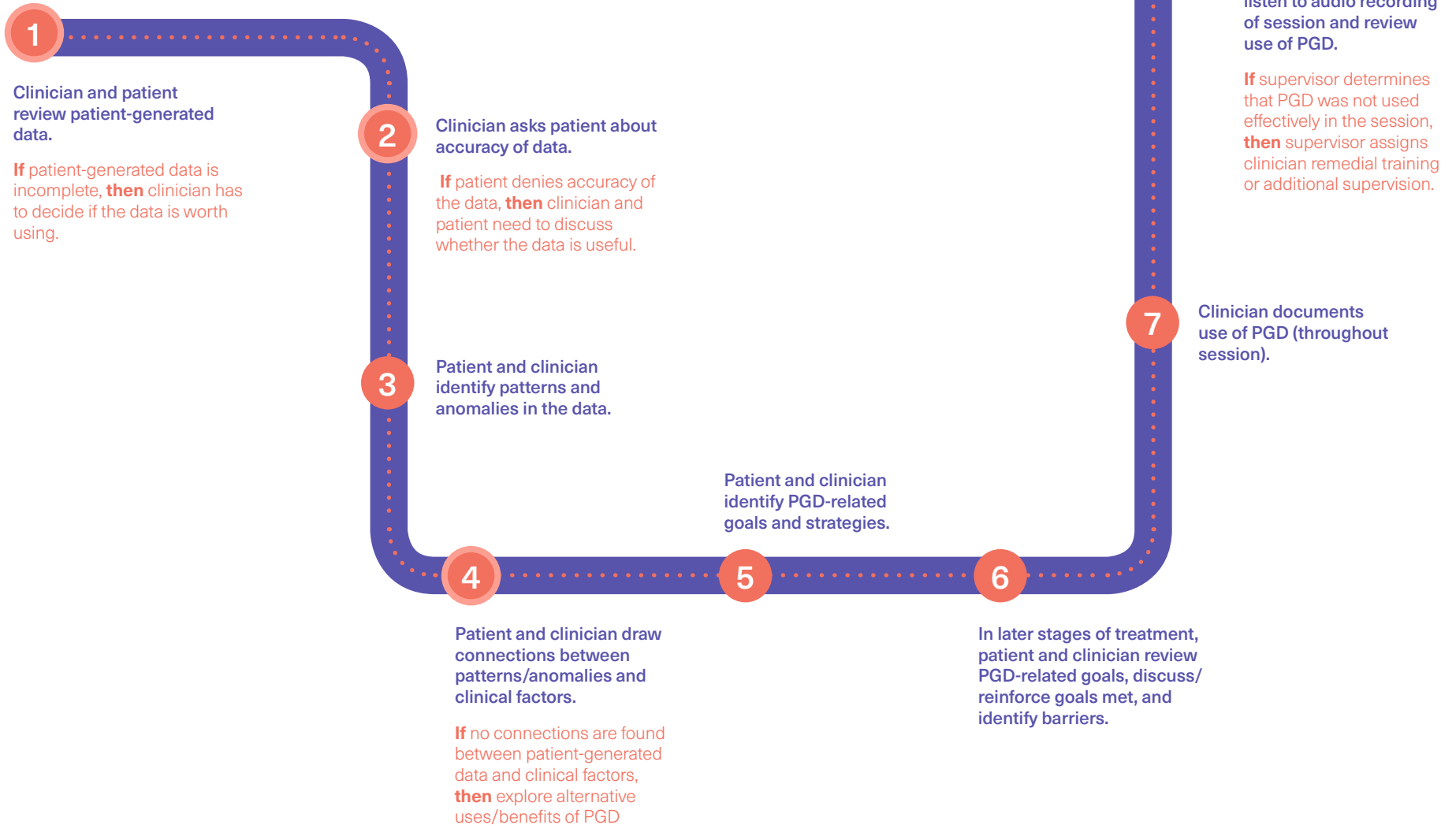
- Patient, clinician, and supervisor believe that discussion of patient-generated data enhanced the session.
- Patient gains a positive experience in session and improved rapport with clinician.
- Clinician gains confidence in the use of PGD in session.

Success Scenario

The narrative sequence of events (steps) that lead from the preconditions and trigger to the completion of the goal by the primary actor

“If...then...”

Crucial breakdowns in the main Success Scenario steps, and the way in which the breakdown will be handled



Related Information

Other information or details important to this suite of use cases

More information about the Road Home program: www.roadhomeprogram.org

- Outcomes versus resources: Consider the value of different types of PGD versus the resources required. For example, if a clinician wants to know how much sleep a patient had the night before their session, it may be more efficient to simply ask the patient about their quality of sleep rather than combing through data to find out the exact number of hours.
- Clinician use of Fitbits: During interviews with Road Home IOP alumni, a few patients mentioned being more open to discussing their data with clinicians who regularly wear Fitbits as well, as it suggests that the clinician cares about patient-generated data.
- The device model used in the Road Home program is the Fitbit Charge HR.
- There are two different hypothetical models of how patient-generated data might correspond to clinical outcomes:
 - Treatment for the patient triggers the benefits that are revealed in the data (for example, improved sleep and activity).
 - Access to the data encourages the patient to get more activity and better sleep, which makes the treatment more effective.
- Patient-provider rapport is directly related to the effectiveness of therapy, and discussion of patient-generated data may influence rapport.

Emerging Questions

Further questions that surfaced from this work

- > How do we incentivize mental health clinicians to care more about patient-generated data and to integrate PGD into their care?
- > What value does patient-generated data bring into the clinical mental health space? Does PGD relate to clinical outcomes for mental health? Is their value dependent on this relationship or could PGD bring novel contributions to clinical encounters in mental health?
- > What is the primary outcome of using patient-generated data in the program? Is it improved health indicators or improved rapport? Is it necessary for the Fitbit to contribute to improved health indicators in order to be deemed a valuable tool, or is it enough that it could be a tool to help build rapport between patients and clinicians?
- > How do we design effective training for patient-generated data in mental health? Has it been done before? What other institutions or programs are using PGD to enhance mental healthcare, and what might we learn from one another?

About Use Cases

Use cases—as a methodology—were designed to discover the “requirements” needed when designing computer software. These requirements are what the software system needs to be able to do for the “primary actor” who is seeking to achieve a goal. The requirements would tell the software designers what they need to build if the primary actor is to be successful in reaching their goal and alert them to the pitfalls that could be encountered along their journey. Important in this process is that “a use case only documents a process, it doesn’t reengineer or redesign it.” **Use cases are narratives that articulate the journey of someone (a “primary actor”) as they interact with a system in order to achieve a goal.** An example would be someone logging into a website to find a specific piece of clothing, buy that piece of clothing, and have it shipped to their home.

For this initiative, we have taken the use case and adapted it to explore the question: “How might we enhance the collaborative use of patient-generated data among patients and providers to improve individual health outcomes?” While the use case methodology was originally designed to create solutions for mechanical systems, this adaptation offers a contextual shift in order to articulate solutions for a human social system. The work shared here is based on the work of Alistair Cockburn and his book *Writing Effective Use Cases*.

Articulating the Situation

The use case methodology is an effective way of articulating a current situation. When a group of people work together to identify key aspects of a situation, they create a shared understanding and build the design requirements: what must be considered as they develop a response to the current situation. The five areas a group needs to articulate to develop a use case are:

Scope

The scope identifies the boundaries of the current situation you are trying to address. There is no way to address the entirety of any situation, so we need to clearly delineate the area of focus for our work. This is also referred to as the **system under discussion (SuD)**.

Actors

This is the list of anyone or anything within your scope that has behavior. By “behavior,” we mean anyone or anything that acts within the SuD. In this way, an actor can be a person, an organization, or a community.

Primary actor

The actor who initiates an interaction with the SuD to achieve a goal (and whose journey we follow through the use case).

Goal (and goal level)

This is naming what the primary actor is trying to achieve by interacting with the SuD. The two areas of focus with regard to the goal level are whether it is a **summary goal** (a goal whose achievement encompasses the entire SuD) or a **user goal** (a goal whose achievement completes a specific part of a summary goal within the SuD).

Stakeholder

Someone or something with a vested interest in either the primary actor or the system under discussion (SuD). A stakeholder is like an actor; the difference is that they may or may not behave within the SuD but are impacted or have interest in what occurs as a result of the behavior of the primary actor as they pursue their goal within the SuD. Communities are stakeholders when they are not acting within the SuD but rather have an interest or may be impacted by what happens as the primary actor seeks to achieve their goal.

Working Across a Continuum: Creating greater levels of precision

There is no one way to apply the use case methodology in a healthcare setting. Rather, it is best to begin and then start iterating on what you create. Regardless of where you begin, there is real benefit in working on greater levels of precision on the use case as you move forward, both to frame your ongoing experiments and as a way of capturing the insights and options created by your work.

The first layer of precision is to articulate your best understanding of the five areas defined on the previous page. We are not trying to achieve a “right answer” with this work, but rather we are trying to articulate what we know now. Throughout the process, we can revise our previous work. With that in mind:

- > What is the scope of your project?
- > What are the boundaries of the situation you are looking to explore?

Now create a three-column list. In the first column, list all actors who have “behavior” within the scope identified. In the next column, name the goals that each of these actors have within the scope (what are they seeking to achieve?). In the last column, identify the goal level of these goals (is it a summary goal or a user goal?). Once you complete the list, circle the actors with summary goals. These are places to begin creating use cases.

Actor	Goal	Goal Level

There are three levels of detail you can work at while creating a use case: **narrative use case**, **casual use case**, and **fully dressed use case**. As a way of starting, we suggest you develop a narrative brief and then a casual use case for one of the primary actors. From that, you can begin to work and develop a fully dressed use case as you continue. At this point, these use cases end in success (and are therefore speculative). Later, when using them as a way for framing experiments, you will move the use case to being an outline of what needs to happen.

Narrative Use Case

This is a two- to six-sentence description of the actions of the primary actor as they pursue their goal within the SuD. The purpose is to get an understanding of the arc of the project and begin to get a sense of the complexity.

Casual Use Case

This builds on the narrative use case and begins to pull out detail in some areas. For this, you can use the following structure, filling in each area:

Use case name: usually the goal that is being pursued

Primary actor: identifying who they are or their role

Scope: brief outline of the situation and the boundary

Goal level: either summary goal or user goal

Main success scenario: the narrative of actions that the primary actor takes (and the reactions from the SuD) in achieving their goal

Fully Dressed Use Case

This is the most detailed version of the use case and is created in stages as you come to understand, through action, the nuances of the SuD. The structure for a fully dressed use case is:

Use case name: usually the goal that is being pursued

Context of use: a longer statement of the goal

Scope: outline of the situation and the boundary

Goal level: either summary goal or user goal

Primary actor: identifying who they are or their role

Stakeholders and interests: list of stakeholders and their key interests in the use case

Preconditions: what we expect is already the state of the world

Trigger: what starts the use case, which may be a time event

Minimum guarantees: what we can guarantee as outcomes, no matter what happens

Success guarantees: what happens if everything goes well

Main success scenario: the steps of the scenario, from trigger to the successful achievement of the goal by the primary actor (minimum of three steps, maximum of nine steps)

"If..., then...": the steps to take if there is a failure in one of the main success scenario steps

Related information: whatever additional information is important for your project

For an outline of the fully dressed use case, refer to the template (PDF) used by the research teams:

www.reospartners.com/pgd



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