

2024

The Health Innovator's Toolkit

**Using a Human-Centered Design Approach in Quality
Improvement and Communications**

MCT2D.org | HBOMich.org

Agenda



01

INTRODUCTION

Overview of design concepts

02

EXAMPLE

Using HCD in practice

03

ACTIVITIES

Try this on your own!

04

DISCUSSION

Q&A



Objectives



1. Learn how to think like a designer
2. Learn more about the human centered process and methods.
3. Identify opportunities to apply design methods in quality improvement & communications.



01

Introduction

Hello!



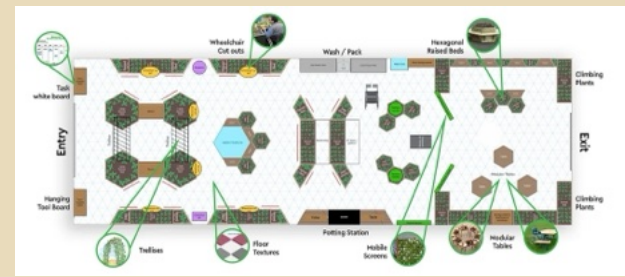
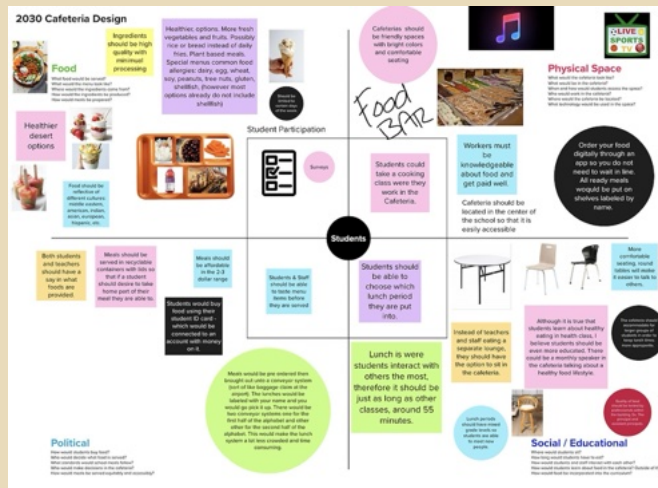
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ANNALS OF FAMILY MEDICINE™



#DocsWithDisabilities
— PODCAST —
With Hosts: Drs. Lisa Meeks & Peter Poullos



AAMC Association of
American Medical Colleges



THE WARREN ALPERT
Medical School
BROWN UNIVERSITY



MEDICAL SCHOOL
UNIVERSITY OF MICHIGAN
FAMILY MEDICINE

Why is this important?



Using the design process and design methods can lead to better, more effective interventions and solutions.

Design can do this by:

1. Making the voices of stakeholders central to the planning and development process
2. Building in ways to test and iterate
3. Identifying new, more innovative possibilities
4. Helping to anticipate unintended consequences

Why is this important?



Vanderbilt University apologizes for using ChatGPT to write mass-shooting email

By Jennifer Koon
© 3 minute read · Updated 1:30 PM EST, Wed February 22, 2023



Jennifer Koon says he had a messy encounter with new tech that left him unable to sleep

0:28 Source: CNN

New York (CNN) — Vanderbilt University's Peabody School has apologized to students for using artificial intelligence to write an [email](#) about a mass shooting at another

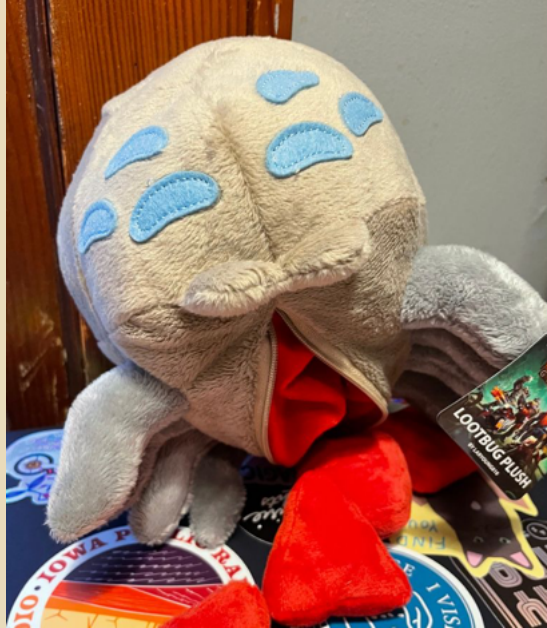
Can you think of a solution/program/intervention that didn't work?



"Creative potential is the most precious human resource. It is the capacity for creative problem solving and the human right to co-create solutions that address the needs of your community."

- *Dalberg Design*

Secret Skills (your 5-9)





**What does it
mean *to design*?**



**Design ≠
making it pretty**



"Design is a process by which aesthetic,
cultural, social, technical and economic
**potential is imagined and then
translated** to give order to objects,
environments and activities."

- *John Marshall*



"The natural sciences are concerned with how things are ... **Design, on the other hand, is concerned with how things ought to be.**

Everyone designs who devise courses of action aimed at changing existing situations into preferred ones."

- *Herbert Simon*



“Every human being is a designer. Many also earn their living by design - in every field that warrants pause, and careful consideration, between the conceiving of an action and a fashioning of the means to carry it out, and an estimation of its effects.”

- *Norman Potter*



Design =
Envisioning &
building a preferred
future



**Everyone can
design**

The Design Process

The background of the slide features a light beige color. In the upper right corner, there are stylized autumn leaves in shades of yellow, orange, and red. Below the leaves, there are three stylized mountain shapes in shades of tan and brown. The title 'The Design Process' is written in a large, dark brown, serif font.

START WITH A “HOW MIGHT WE” OR PROBLEM STATEMENT

"How Might We" (HMW) statements are small but mighty questions that allow us to reframe our insights into opportunity areas and innovate on problems found during user research.

<https://dscout.com/people-nerds/how-might-we-statements>

The Design Process



DISCOVER

DEFINE

DEVELOP

DELIVER

The Design Process



DESIGN THE RIGHT THING

DISCOVER

DEFINE

DESIGN THINGS RIGHT

DEVELOP

DELIVER

**REVISE YOUR HMW
STATEMENT**



Human-centered Design (HCD)

Centering real human needs, wants, and perspectives at all stages of the design and development process.

What is Human-Centered Design? Interaction Design Foundation - IxDF. (June 2021)
14).<https://www.interaction-design.org/literature/topics/human-centered-design>



People-centered

Focus on people and their context in order to create things that are appropriate for them.



Understand and solve root problems

Work to solve root causes not just address symptoms of a problem



Everything is a system

Think of everything as a system of interconnected parts.



Small and simple interventions

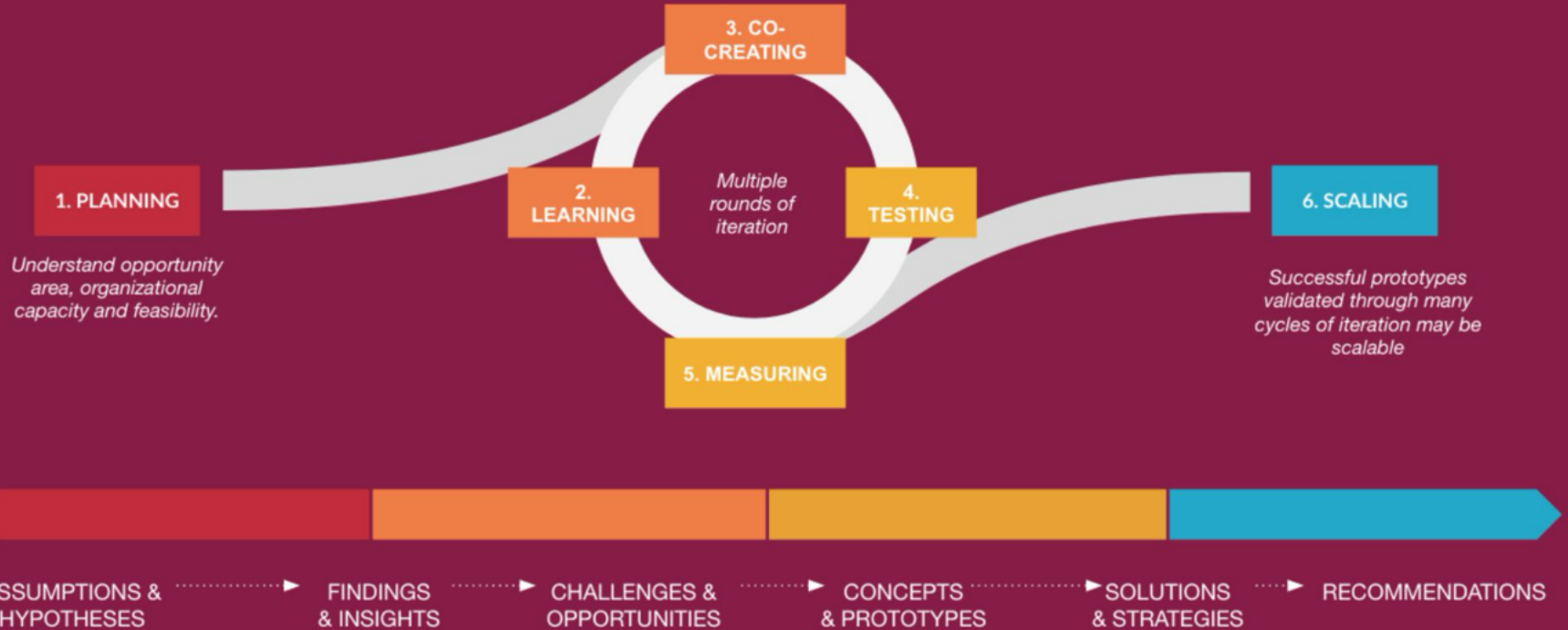
Do iterative work and don't rush to a solution.

DISCOVER

DEFINE

DEVELOP

DELIVER



A quiz



When starting a piece/project, do you:

- ❑ Identify stakeholders or target audiences?
- ❑ Investigate and define what matters most to them?
- ❑ Ask how your work will help solve a problem they face?

Throughout development, do you:

- ❑ Brainstorm and generate multiple ideas?
- ❑ Test your ideas and make changes along the way?
- ❑ Build buy-in through testing, feedback, and adaptation?

Once you've launched/published/delivered, do you:

- Measure your success?

Congrats you're a designer!

You're already doing it.



Communicators as Designers

Design can de-escalate your toughest problems.



- Why is no one taking ownership of this problem?
- Why is our approach just not working?
- How do we get unstuck?
- How do we get the right people to read/click/act?
- How can we prioritize to make the most of our limited resources?
- How can we show value or impact?



Solving your 2 am challenges



DISCOVER

Who is the audience?

Audience-first communication

- Active listening
- Defining their pain points

Decide on the deliverable

Plan development with key stakeholders and checkpoints

DEFINE

Audience-first communication

Audience first = User centered

Market research and active listening

DEVELOP

DELIVER

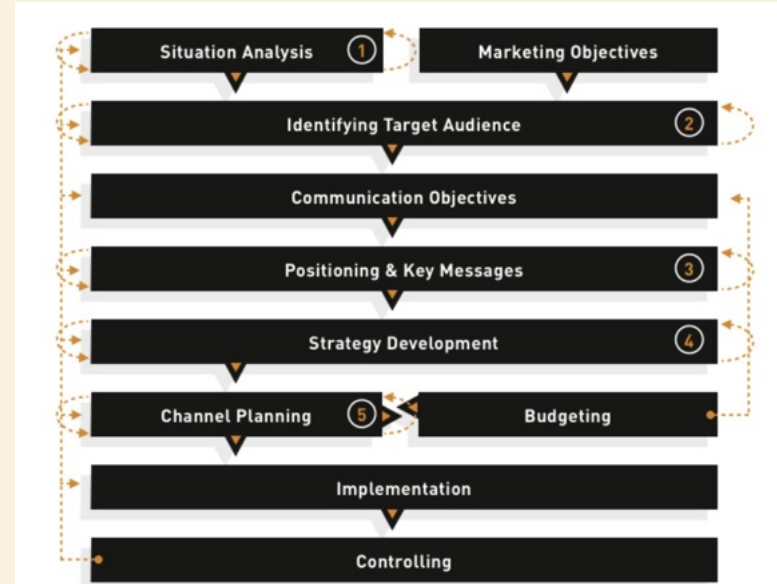
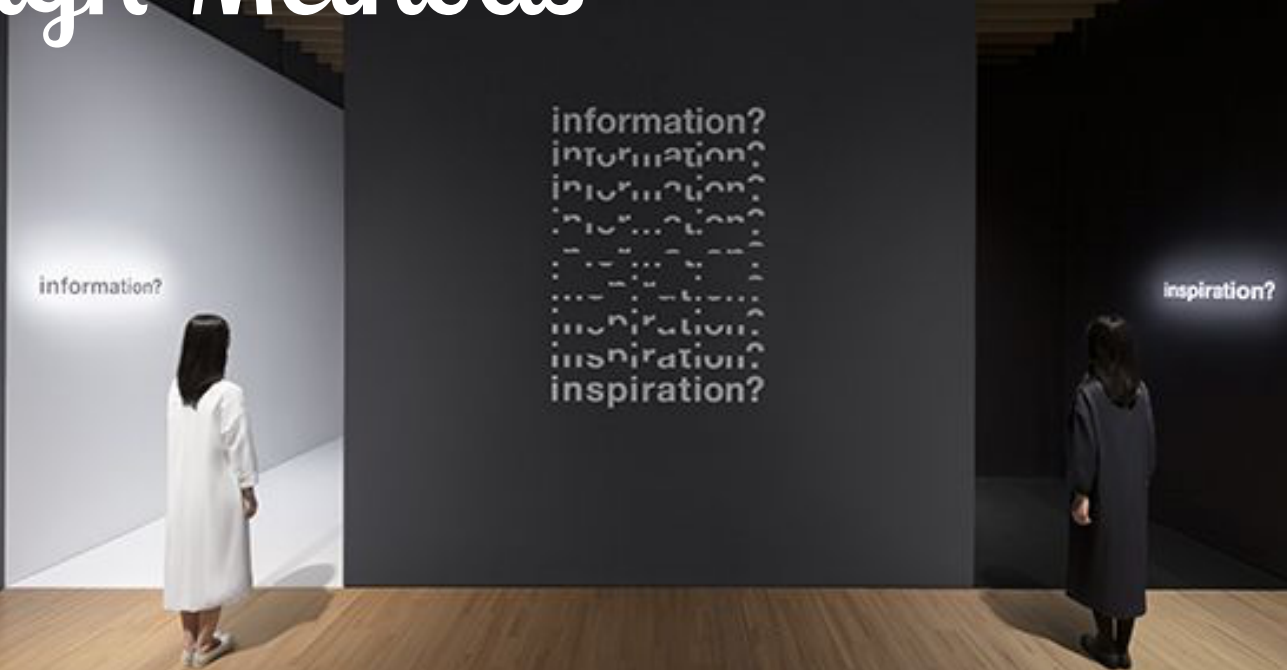


Fig. 4. Iterative communication planning model (own illustration)

Design Methods



information (qualitative and quantitative data) & **inspiration** (generative ideas and solutions)



"If I had asked people what they wanted, they
would have said faster horses."

- *Henry Ford*



Design Methods



information (qualitative and quantitative data) & **inspiration**

There are 100s of possible methods - choose the method that fits best with your work, your team, and the phase of the design process.

DISCOVER

Methods that generate lots of information.
(Divergent thinking)
Ex. Brainstorming

DEFINE

Methods that allow you organize and analyze your findings and refine your HMW statement.
(Convergent thinking)
Ex. Affinity Mapping

DEVELOP

Methods that help you generate and explore lots of ideas.
(Divergent thinking)
Ex. Rapid prototyping

DELIVER

Methods that help you evaluate and refine your ideas.
(Convergent thinking)
Ex. Focus groups or user testing

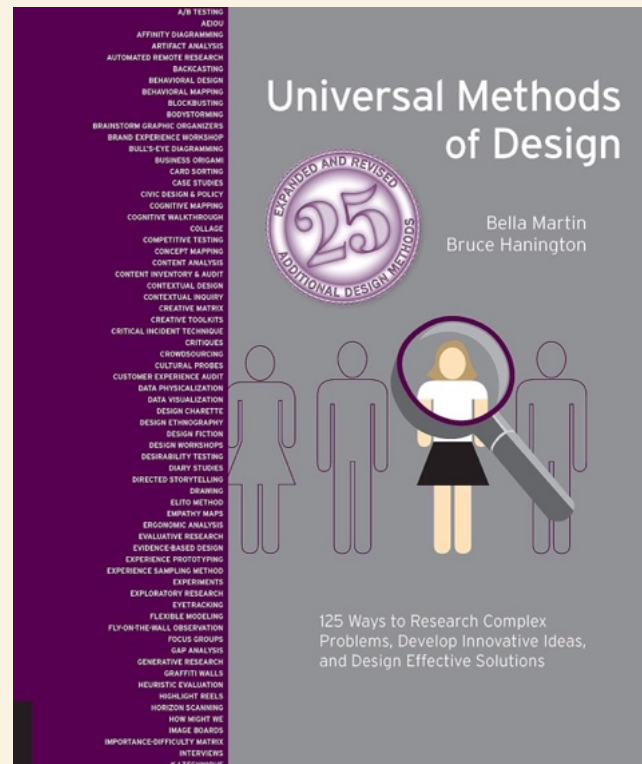
From 1 to 125



Design methods are expansive and exist to inspire

The User Experience Team of One: A Research and Design Survival Guide

Universal Methods of Design, Expanded and Revised: 125 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions





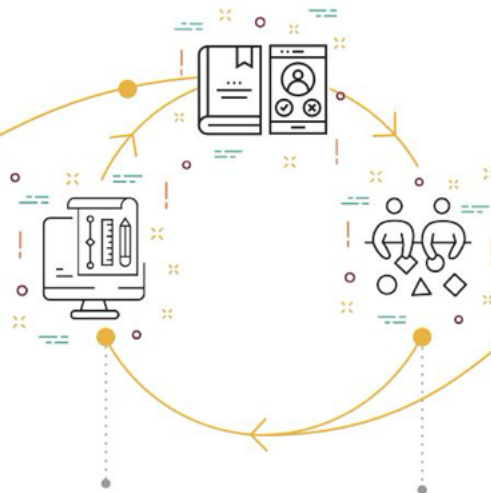
Foundational research methods

Learn about specific challenges, experiences or contexts from your participants



Prepare

Get your team and participants comfortable and ready with the tools and tech support they need



Prototyping methods

Test ideas, concepts and prototypes developed with your participants and iterate them based on findings

Co-creation methods

Collaborate with participants to explore and bring to life ideas that can improve a challenge or situation they are facing

The background is a solid warm orange color. It is decorated with several autumn-themed elements: a red maple leaf in the upper left, a brown leaf in the upper left, a yellow ginkgo leaf in the upper right, a cluster of red berries in the upper right, a large orange pumpkin with a black stem and leaf in the bottom left, a cluster of red berries in the bottom left, a small orange pumpkin with a black stem in the bottom center, and a large orange pumpkin with a black stem in the bottom right. A white, cloud-like shape with a semi-circular top and rounded rectangular body is centered on the page.

02


Example



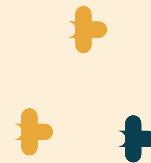
NEW

BEAT

A FRESH START TO A HEALTHIER HEART

An autumn-themed illustration with a warm, orange-toned background. In the foreground, a winding white path leads through rolling hills. Several stylized trees are scattered across the landscape: a large orange tree on the left, a smaller brown tree in the middle, and a red tree on the right. In the upper left, there are clusters of red and orange leaves. A single orange butterfly is flying in the upper center. The sky is a light beige color with a few white clouds and a small yellow sun or moon in the upper right.

How might we address
improving healthy behaviors
related to **physical activity**?



DISCOVER

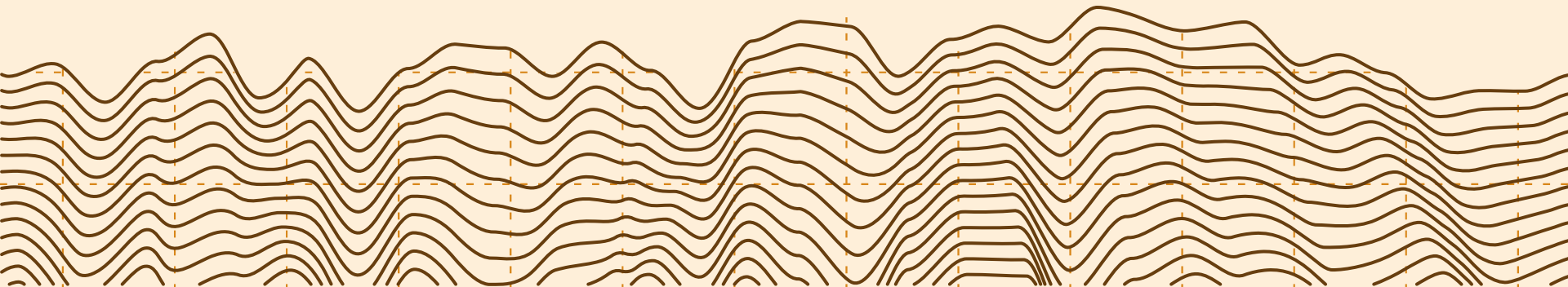
Methods

Mapping

Interviews

Co-creation

Literature



DISCOVER

**Cardiac rehab is
underutilized**



DISCOVER



Individuals who attend 36 sessions of
cardiac rehab have a

47% **LOWER RISK OF DEATH**

than those who attend only 1 session.

Save **25,000 lives** and prevent
180,000 hospitalizations annually in
the US.



CENTERS FOR DISEASE
CONTROL AND PREVENTION

**Estimated benefit of increasing cardiac rehab enrollment from 20% to 70%, as part of the CDC's Million Hearts Collaborative.*

millionhearts.hhs.gov

DISCOVER

Enrollment rates are far lower than the Million Hearts initiative goal of 70%

Cardiac Rehab Participation Rates by Race (601,000 Medicare Patients)

19.6%
of eligible
white
patients
participate



7.8%
of eligible
black
patients
participate



Black women are 60% less likely to be referred and enroll in cardiac rehab programs, compared to white women.



One of the best predictors of cardiac rehab referral is whether the eligible person speaks English.

millionhearts.hhs.gov

Method: Literature review

Understanding the challenge

- Participants who received a personal letter were significantly more likely to attend vs usual care.
- 86% vs 59% $p < 0.0025$

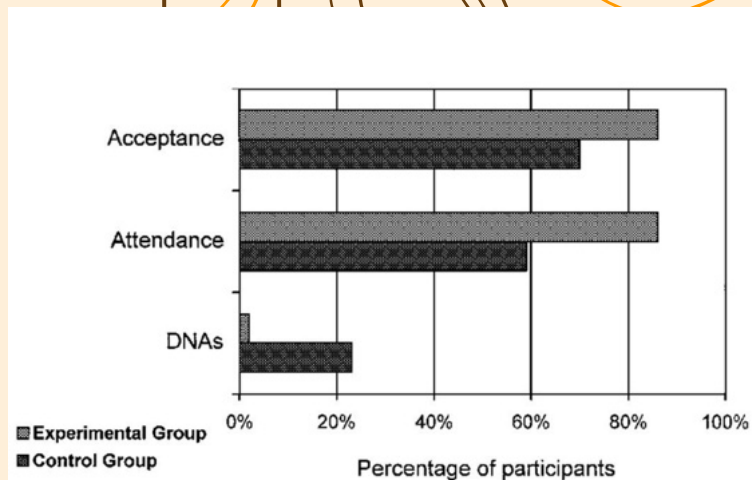
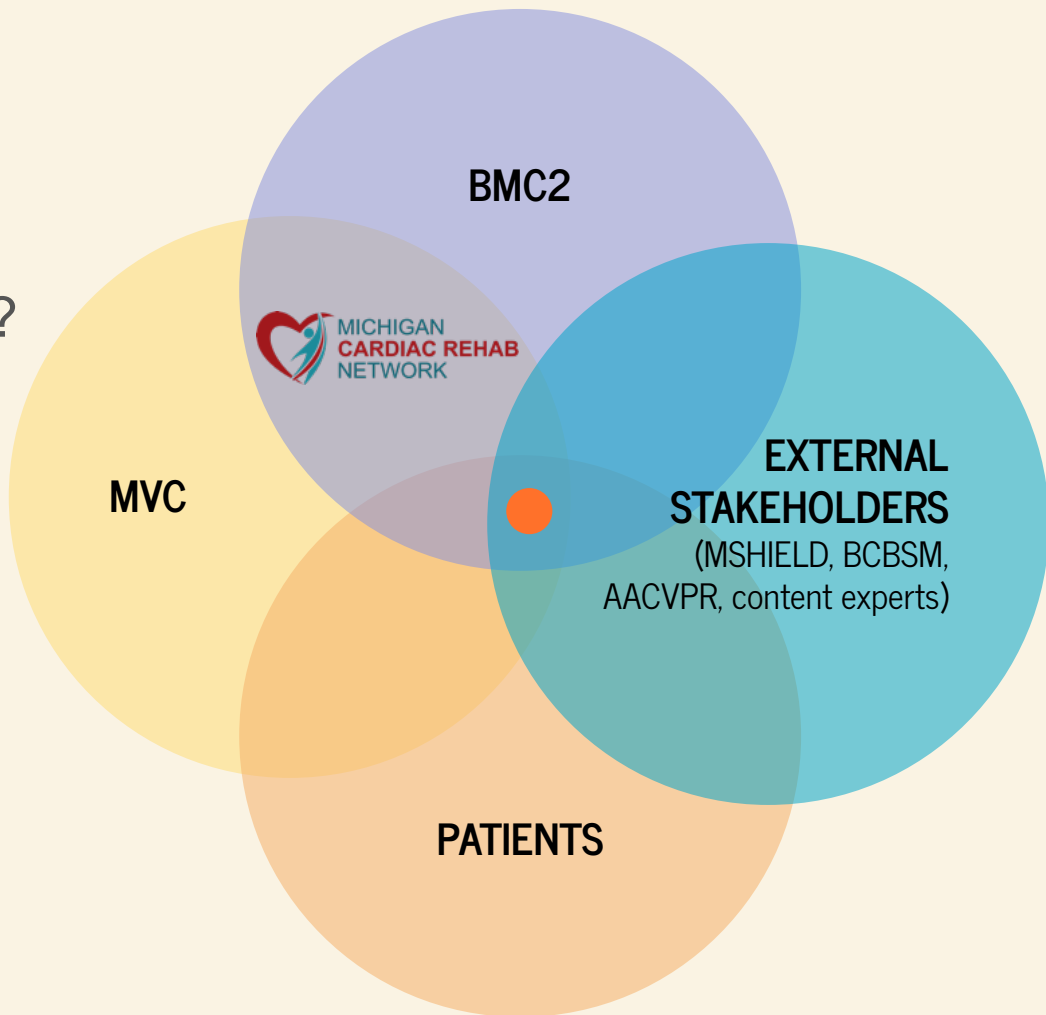


Fig. 1 Acceptance, attendance and 'did not attend' (DNA) rates for experimental and control groups.

DISCOVER

Method: Stakeholder Mapping

Who needs to be “at the table”?



Method: Semi-structured Interviews

Patient Perspectives

By some miracle, I survived what turned out to be a pretty serious heart attack—they were calling it a “widowmaker” and had emergency surgery to get a stent put in.

Somewhere in that process, once I was completely stable, at the point of kicking me out [of the hospital] they gave me a whole bunch of paperwork.



When you leave the hospital, your health care team will discuss with you how you can resume different types of exercise or activity. Your ability to return to normal physical activity will be based on the amount of damage to your heart, complications from your hospital stay, and procedures or treatments you received. Once you return to the clinic, your health care team can provide more detailed advice about a recommended plan to resume your activity level.

When you are able to do more after a heart attack. Others may have to start more slowly. Increase your activity level gradually by following the instructions below.

- Start by walking up to 10 minutes twice a day. Increase the amount you walk each day by one or two minutes until you are able to do 20 minutes per walk.
- Only move to the next stage when you meet your walking target without discomfort.
- Once you can walk 20 minutes, walk once a day for 20-30 minutes. Increase the length of time you walk by a few minutes every day.
- If walking causes chest pain, shortness of breath, or any of the symptoms you had before or during your heart attack, stop right away.
- Do not walk outside if it is very cold or very hot. Go to a shopping mall and do your walking inside.

When you turn to work in a very important part of your overall recovery. Most patients go back to work 2 weeks to 3 months after they go home from the hospital. Your return to work depends on how fast you recover and the type of work you do. If you have a physically demanding job, you may need to build up your strength first. Do not return to work until you have been cleared by your provider at the first follow up clinic visit.

Before leaving the hospital, you will receive instructions on how to take your medications. You will also receive information on how to take your medications. You will also receive information on how to take your medications.

When you understand the importance of taking your medications as directed. You will also receive information on how to take your medications. You will also receive information on how to take your medications.

When you have a doctor's appointment. You will also receive information on how to take your medications. You will also receive information on how to take your medications.

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What Steps Should I Take With Blood Pressure (BP) at Home?

Before 2 Hours
2 hours before your BP is taken: No Tobacco, No Caffeine

30 Min
30 minutes before your BP is taken: No Tobacco, No Caffeine

5 Min
5 minutes before your BP is taken: Have log sheet ready to record BP

During (When taking your BP)

- Use correct cuff size for your arm
- Put cuff on bare upper arm
- Sit in a chair with your back straight and feet flat on the floor
- Support arm at heart level on a flat surface
- Do not talk while taking your BP

After (After checking your BP)

- Wait 1 minute and measure a 2nd time
- If your blood pressure is high you may repeat the reading a 3rd time the 2nd readings
- Record measurements in your BP log

EXPLANATION OF BENEFITS

JOHN A DOE
1234 ANTHWERE DRIVE
FARGO ND 58103

Date: 02/20/12
Benefit Plan Number: YGAS99999999
Page Number: 1 of 2

Member Services
Local: 701-277-2227
800: 800-342-4718

Payment Summary				
Patient/Claim Number	Paid to :	Total Charge	Covered Amount	Previously Processed
JOHN A 992010000/00	PROVIDER	135.00	60.00	0.00
YOUR RESPONSIBILITY TO THE PROVIDER		75.00		

YEAR TO DATE COST SHARING STATUS : 2012

Applied to \$1000 per member deductible:
JOHN A \$ 35.00
\$ 35.00 has accumulated toward family deductible maximum.

Applied to \$1500 per member coinsurance:
JOHN A \$ 15.00
\$ 15.00 has accumulated toward family coinsurance maximum.

How to Take Medication

BIRMINGHAM AL 36333

(205) 956-1222

ALPL142000007071-000210

HOOVER, AL 36216

Pat Acct#: 1232, 1797

STATEMENT

DATE	DESCRIPTION	CHARGE	PAYMENT	INSURANCE	PATIENT
09/28/2002	PATIENT ACCOUNT # 1232				
06/27/2002	08213 OFFICE/OUTPATIENT VISIT, E&T H&T FILED TO UNITED HEALTHCARE GA PATIENT PAYMENTS INSURANCE PAYMENTS INSURANCE ADJUSTMENTS VISIT BALANCE	\$80.00		\$-10.00 \$-26.25 \$-10.75	\$0.00
11/27/2002	08213 OFFICE/OUTPATIENT VISIT, E&T H&T FILED TO UNITED HEALTHCARE GA PATIENT PAYMENTS INSURANCE PAYMENTS INSURANCE ADJUSTMENTS VISIT BALANCE	\$80.00		\$-10.00 \$-26.25 \$-10.75	\$0.00
12/05/2002	08213 OFFICE/OUTPATIENT VISIT, E&T H&T FILED TO UNITED HEALTHCARE GA PATIENT PAYMENTS INSURANCE PAYMENTS INSURANCE ADJUSTMENTS VISIT BALANCE	\$80.00		\$-10.00 \$-26.25 \$-10.75	\$0.00
07/28/2003	08213 OFFICE/OUTPATIENT VISIT, E&T H&T FILED TO UNITED HEALTHCARE GA PATIENT PAYMENTS INSURANCE PAYMENTS INSURANCE ADJUSTMENTS VISIT BALANCE	\$80.00		\$-10.00 \$-26.25 \$-10.75	\$0.00
10/15/2004	08213 OFFICE/OUTPATIENT VISIT, E&T H&T FILED TO UNITED HEALTHCARE GA PATIENT PAYMENTS INSURANCE PAYMENTS INSURANCE ADJUSTMENTS VISIT BALANCE	\$80.00		\$-10.00 \$-26.25 \$-10.75	\$0.00
11/10/2004	08213 OFFICE/OUTPATIENT VISIT, E&T H&T FILED TO UNITED HEALTHCARE GA PATIENT PAYMENTS INSURANCE PAYMENTS INSURANCE ADJUSTMENTS VISIT BALANCE	\$80.00		\$-10.00 \$-26.25 \$-10.75	\$0.00

RESPONSIBLE	CURRENT	OVER 30 DAYS	OVER 60 DAYS	OVER 90 DAYS	BALANCE DUE
PATIENT	\$5.00	\$0.00	\$0.00	\$0.00	CONTINUED
INSURANCE	\$0.00	\$0.00	\$0.00	\$0.00	

Instructions for Care after a Heart Procedure
heart procedure performed during your hospital stay, the below will help you care for yourself when you go home.

What after my heart procedure?
The procedure was performed in the femoral artery in your groin (the top of your thigh) or the radial artery in your arm. It is normal to feel the following at your procedure site:
Tenderness or discomfort
Bruising (may take 2-3 weeks to go away)
A small lump or knot (about the size of a quarter) that should go away after 7 to 10 days.
A small amount of bleeding from the site for 48 hours after the procedure

- Wash your procedure site daily with soap and water.
- Remove the bandage over the site after 24 hours, unless there is drainage.
- Keep the area clean and dry when you are not showering.
- Do not use creams, lotions, powders, or ointment on the site until it heals.
- Do not soak in a bath, hot tub, or swim in a pool or lake for one week after your procedure. If your wrist was used for the procedure, do not wash dishes by hand for the first 7 days.

This includes and bowing, then coughing

For the next weeks.

After myself at home?
The role in monitoring your health at home. It's important to monitor your health at home. It's important to monitor your health at home. It's important to monitor your health at home.

To perform and record the following self checks daily:
Check your blood pressure in the morning 2 hours after you are taken your morning medication.
Check your pulse (heart rate) in the morning 2 hours after you have taken your morning medication.

Be sure your pulse on either your wrist or your neck. Follow the below to count your pulse:



Cardiac Rehabilitation

Cardiac Rehabilitation?

Cardiac Rehabilitation is a program designed to teach you how to be more active and make lifestyle changes that can lead to a stronger heart and better health. Your cardiac rehabilitation program will be tailored to you and based on the amount of damage to your heart and health. We use a patient and family centered approach to empower you towards better health.

When in Cardiac Rehabilitation?

Cardiac Rehabilitation will learn how to:

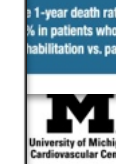
- Exercise safely under the supervision of a certified exercise physiologist.
- Eat a heart-healthy diet under the supervision of a registered dietitian.
- Reduce your risk factors.
- Reduce stress and depression.

What are the benefits of Cardiac Rehabilitation?

Benefits of a Cardiac Rehabilitation program include:

- Improvement in risk factors.
- Improvement in symptoms.
- Lower risk for a heart attack or dying from heart disease.
- Better overall health and a better quality of life.
- Improvement in energy level and ability to return to usual activities.
- Improvement in taking medications correctly and safely.
- Prevention of future hospital stays.
- Feeling more hopeful and less depressed, stressed, or worried.

What is the 1-year death rate seen by nearly 1/3 in patients who participated in Cardiac Rehabilitation vs. patients who did not.



Why are fish oils helpful?

Fish oils contain two types of omega-3 fatty acids: EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid).

With a heart attack, fish oils can help reduce the risk of a second heart attack. Fish oils can also help reduce the risk of a stroke. Fish oils can also help reduce the risk of heart failure.

Recommendations for fish oil intake:

For most people, a daily intake of 1,000 mg of omega-3 fatty acids is recommended. For people with heart disease, a daily intake of 2,000 mg of omega-3 fatty acids is recommended.

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Exercise Instructions: Heart Valve Surgery

Follow the advice of your provider (doctor/nurse practitioner/physician). The instructions below are general and should only be done with your provider's approval.

Guidelines	
Walking	10-15 minutes
Stair climbing	20-40 minutes continuous exercise (use Rating of Perceived Exertion - see next page)
Swimming	10-20 minutes
Light stretching	5-10 minutes
Light stretching	Up to 5 minutes of light stretching

Exercise that prepares muscles for aerobic and/or weight training

Most days of the week. Goal is exercise time not intensity.

- Uses large muscle groups working together.
- This should cause an increase in heart rate (HR) and breathing rate, but you should still be able to carry on a conversation.
- Examples: walking, swimming, biking, and using a Nustep®.

After You Leave the Hospital

What Is My Follow Up Care After a Heart Attack?

After you leave the hospital, you will have a follow up appointment scheduled with a Heart Doctor or a Nurse Practitioner at a Michigan Medicine Clinic. It is very important you keep this appointment.

What happens at my follow up appointment?

You can expect to spend at least 1 hour at your follow-up appointment. During your visit your health care provider will do the following:

- Perform a physical exam
- Review the blood pressure readings you recorded on your log sheet (on the following pages)
- Review and adjust your medications (if necessary)
- Explain your health status
- Listen to your concerns
- Provide education and counseling

How can I keep track of my appointments?

A log can help you keep track of the dates and times you need to see your doctor or other health care providers. Use the log included in this booklet to help you keep track of your upcoming appointments.

Your Hospital Stay

The Intensive Care Unit (ICU)

After your surgery, your cardiac surgeon will update. After this, there will be a see you in the Intensive Care Unit (ICU) family/visitors lounge during this time your family in the lounge.

After your surgery is completed, you will be in the Intensive Care Unit (CV-ICU), an underground open-heart surgery. During this time, your family will be in the lounge. Once your nurse finishes settling you into the ICU to see you.

Visitation Policy

- In alignment with Michigan's Intensive Care unit welcomes
- "Family" members are welcome. We want you to feel supported but by your loved one's presence
- Family, for purposes of visitation one or more individuals who "Family" members may be related legally, or emotionally. Thus, include a person(s) who is not

We welcome the presence of loved ones.

Method: Co-creating

Advocate Perspectives

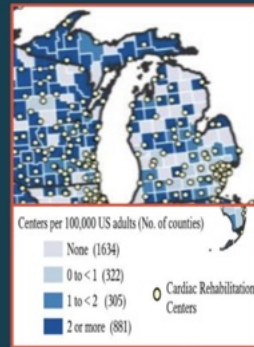
- Affordability and availability of CR in non-hospital based outpatient settings
- Smarter Medicare reimbursement for CR - regardless of geographic proximity to a hospital
- Expanding the ability of APPs to order CR
- Reduce delays in CR enrollment
- Increase capacity of CR programs to take new patients

But Many Barriers Prevent Patients From Accessing These Beneficial Services.

Since the onset of Covid many CR & PR programs have had to close.

PR programs are more dire, with 1 center per 6,000 Medicare beneficiaries with COPD.

You can help.



Bhatt et al 2018

Two bipartisan bills that will greatly impact CR & PR providers and their patients

1

HR 3348 SOS: Sustaining Outpatient Services Act

A bipartisan bill that allows site-neutral reimbursement to remain under hospital outpatient payment system for hospital-based cardiac, intensive cardiac, and pulmonary rehabilitation services (CR/ICR/PR), despite program location on or off-campus. **We need a sponsor in the Senate to introduce this bill.**

Fiscal Implications - External CBO Score (Moran company) = **Less than 8 million dollars.**

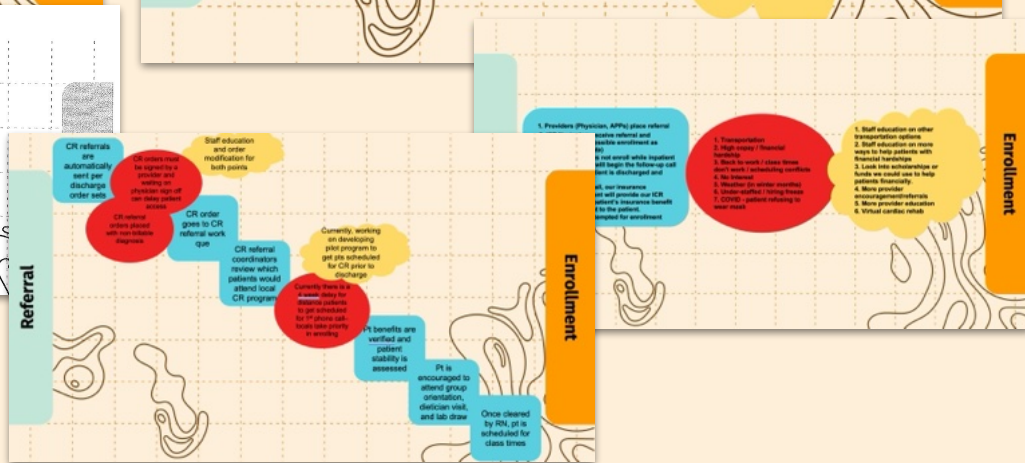
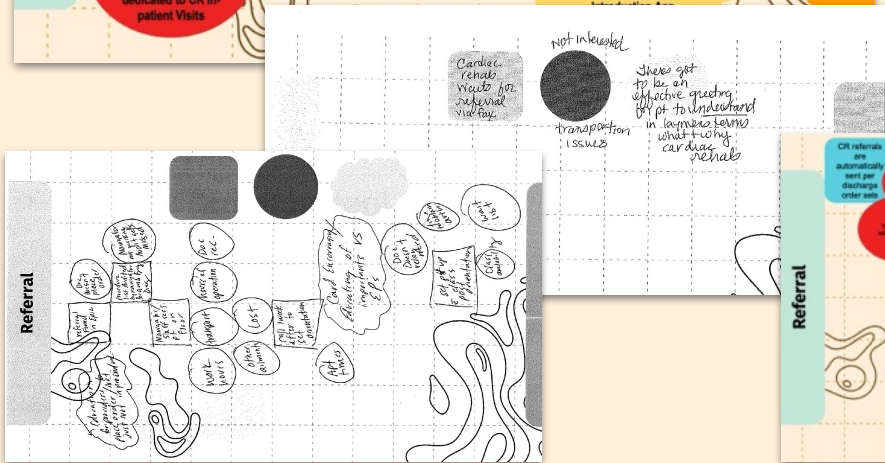
2

HR 1956/S1986 Increasing Access to Quality Cardiac Rehabilitation Act of 2022

A bipartisan bill that will allow advanced practitioners (NPPs) to order & supervise CR/ICR/PR services.

This moves up the effective date to 2022 from 2024, and allows NPPs to supervise CR/ICR/PR. (Physician Assistants and Nurse Practitioners)

Provider Perspectives



Pause and Reflect

What has the “discover” phase looked like for you?
How have you incorporated stakeholders perspectives in your work?



DEFINE

Methods

Opportunity
Mapping

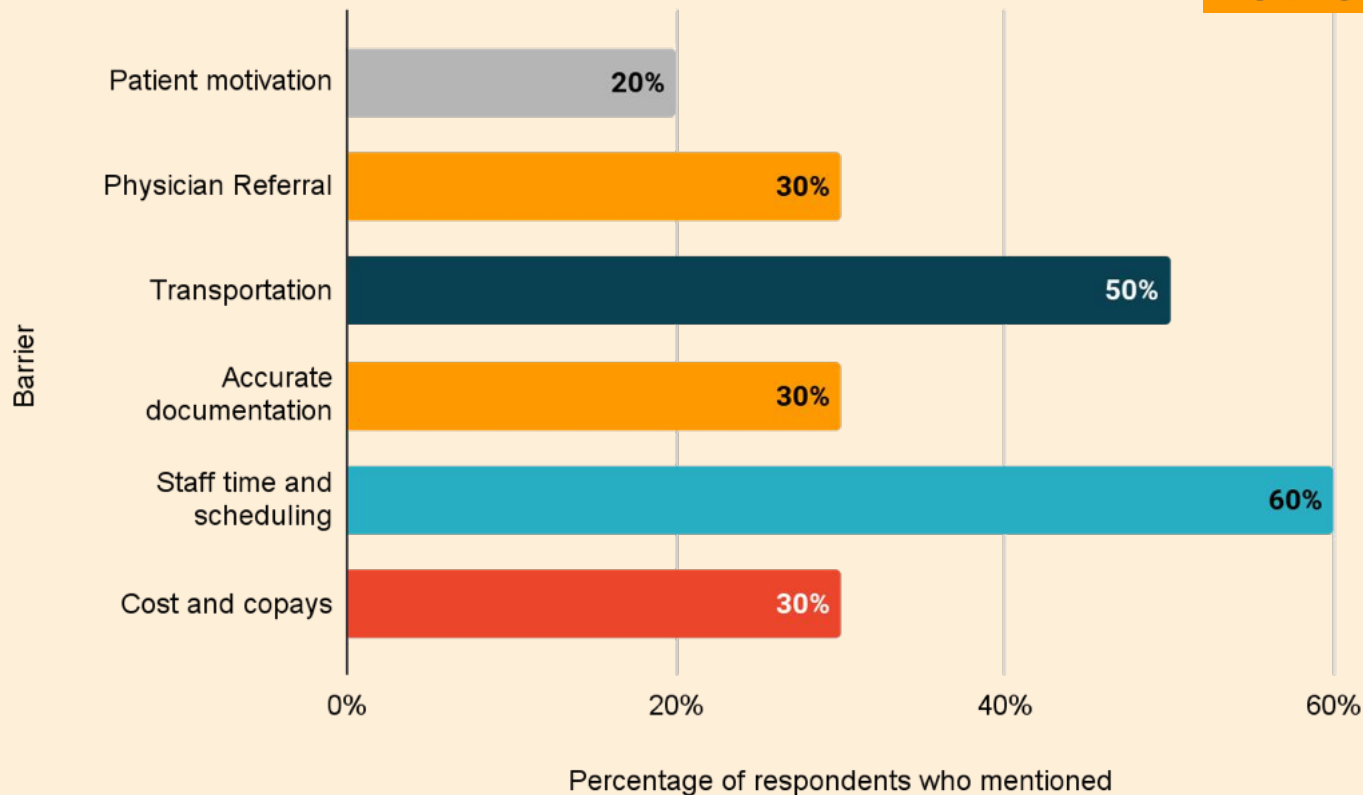
Prioritizing
User Needs

Data
Analysis



What were your most common barriers?

Method: Data Analysis



BARRIERS

**Provider
Knowledge &
Referral
Process**

**Limited CR
staffing, time,
program
capacity**

**Affordability
& Copays**

Transportation



Provider Knowledge & Referral Process

"Doc doesn't place order, procedure first audited by navigator for qualifying diagnosis" BUT "navigator not working, audit gets missed."



Cardiology
Fellow orders
Cardiac
Rehab on
correct
order set

Referrals
are
electronically
placed per
charge
r sets

CR orders must
be signed by a
provider and
waiting on
physician sign off
can delay patient
access

CR referral
orders placed
with non-billable
diagnosis

CR order
goes to CR
referral work
queue

Staff education
and order
modification for
both points

CR referral
coordination

Once TAVR implant
completed. Cardiac Rehab
Evaluation Order built in
postop orders for them to be
seen prior to discharge.

"CR eval order
built into post-op
orders for them
to be seen prior
to discharge."

Accurate orders and timely MD sign off

Lunch and Learn: CR
team educates
referring provider
on billable Dx code
-Cindy Haskin

Lunch and learn,
email, letters:
Educate APPs and
MDs that order
needs Dr. signature
to be valid - Cindy
Haskin

Workflow: A
physical checklist
and EMR smartset
or dot phrase to
remind providers to
sign, to outline the
necessary
billing/diagnosis
codes

Automatic referral
increased referral
rates. Phase 1
rounding and
scheduling patient
prior discharge to
get patient buy-in

Phase 1/CR eval prior to discharge

For planned/elective
procedures, need a
better way to
counsel patients on
the expectation that
after said procedure
they will be going to
cardiac rehab.

Have CR
Liaison
present short
info at Unit
huddles

We need to train the
providers to talk to
patients face to face,
and then they will
enroll, Dr. Grace's
cochrane review
<https://pubmed.ncbi.nlm.nih.gov/30764517/>

Currently, working
on developing pilot
program to get pts
scheduled for CR
prior to discharge

Method: Opportunity Mapping

OPPORTUNITIES

There's got to be an effective greeting for patient to understand in layman's terms what why cardiac rehab

Educate patient on benefits and CLASS I RECOMMENDATION – as important as your medications

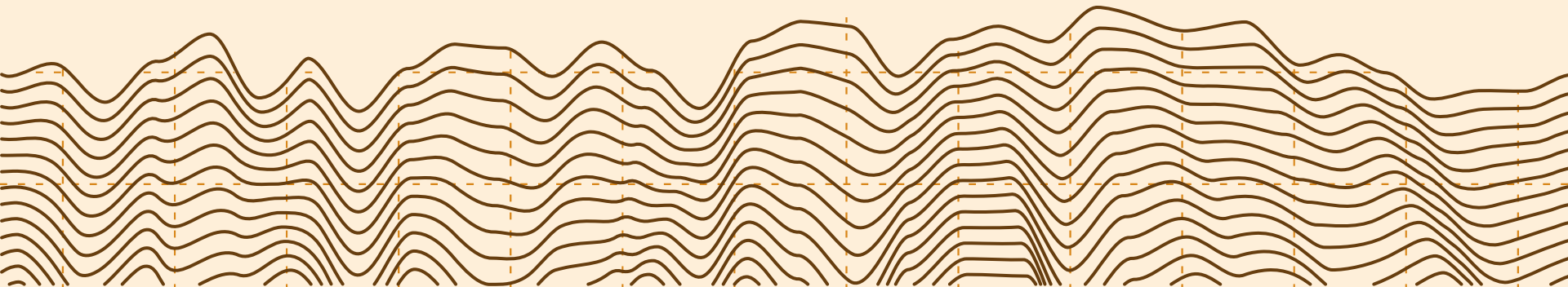
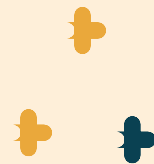
New fellows and interventional cardiologists will be provided with CR education and will be made aware of NCDR/BMC2 P4P requirements

Staff education

Offer other facilities; creative scheduling; Risk Stratification for all patients/visits to prevent long waits

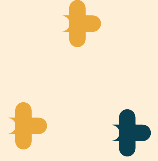
How might we...

Increase enrollment in and utilization of cardiac rehab by addressing the major barriers of patient/provider knowledge and transportation?





DEVELOP

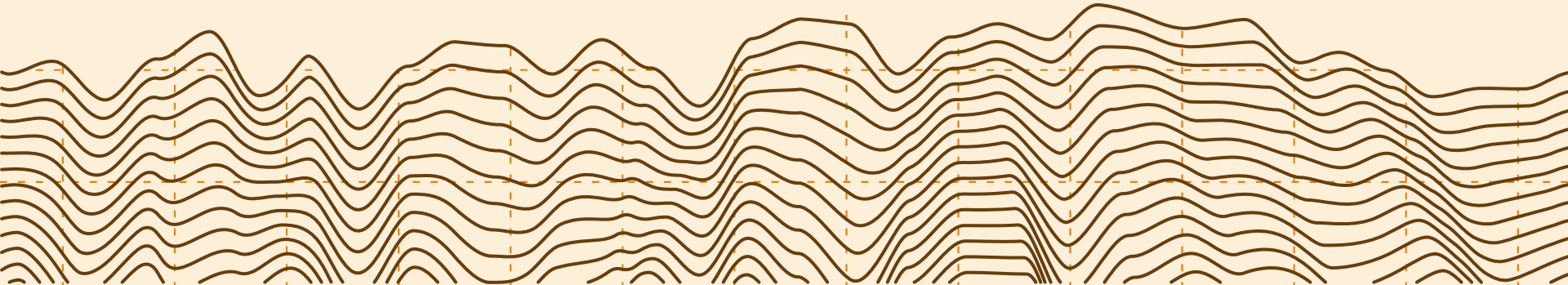


Methods

Prototyping

Focus
Groups

Co-creation



Method: Prototyping

New Beat Card Collage



working together program
collaborative work with others, sharing ideas and
resources, who makes decisions about the program and
how well it works.

inside left & right



B.1 Program Overview

Cardiac Care Cards Initiative:

Patients who have been referred to a CR as part of their care plan following a cardiac event (ex. heart attack, heart transplant, PCI, CABG) will receive a cardiac care card during their in-patient stay. Card options will be designed leveraging patient stories, quotes, and artwork and include basic information about CR, its benefits, and next steps for enrollment. Referring physicians (either the patient's cardiologist, primary care provider, or other specialist) will select one of the options and sign the card, providing additional endorsement for the importance of CR for the patient's health.

Who will participate: Between 2-20 physicians who regularly refer patients to cardiac rehab will participate in the program. Each physician will be provided with 5 card options, 20 of each, totaling 100 total cards. Each card will include:

- 1) A story or quote from a previous graduate of CR
- 2) information about CR, its benefits, and next steps for enrollment
- 3) Connection to additional resources
- 4) A unique link and QR code that allows for tracking of card use
- 5) A space for the referring physician's signature and personalized note

Outside

How will they be enrolled: We will employ rolling enrollment, based on physician PCI/CABG caseload. Participating cardiologists will integrate the Cardiac Care card in their usual care referral process.

Cardiac

Enrollment in Uber Health - Simple: As determined by the participating cardiac rehab facility team, as needed. *Hybrid:* Offer Uber Health screening and onboarding to ride support for participating cardiac rehab facilities at the time of enrollment, *Standard:* Offer screening and onboarding to all who receive the card

What is the goal outcome of the intervention/program

What will happen during the intervention period

What are the outcome measures

How will the coordinating team operate to potentially adapt during the intervention period

Uber Health Transport Initiative:

- 1) Training period:
 - a) Participating cardiac rehab sites will include 1-3 staff members who will hold the following program roles (these roles could all be held by the same individual):

Method: Focus Group

's Review!

Cardiac Rehab Point-of-Care handout

? How can we improve this resource to make it a helpful tool for teaching patients and providers about the importance of CR?

https://michmed.org/WAG

Jenna Scott: I would encourage the patients to call their cardiac rehabs - they might not have received the referrals or the patient might be in a backlogged waitlist

GM: Totally Agree with @steven! It needs to be standard-- no one suggests to hip replacement patients-- If you'd like to go to PT, here's why it's important

authoritative - has been this approach in the past. But use "the next step in your care is..." the doctor has referred you and I'm here to get you started. proactive

"We don't feel empowered to make change and we don't have time to make changes that improve enrollment" important to whether it will get used

when you are bombarded with paperwork, how will it stand out as something other than homework? - Devraj

Greg I had a HUGE folder of MANY MANY things when I was discharged and it overwhelmed me-- much of this is read by family... but most important is WHAT IS NEXT for me-- no one

Jackie Evans really loved it. suggestion: CR text gets lost, the orange is helpful on the liaison postcard

Devraj: Change fresh start > the next step in your care. Larger, bolded, 1. you've received a referral, 2. it's a critical next step, 3. reduce readmissions and death

Jana the checklist on the back could maybe be moved to front to give the next steps more immediate attention

Delucia: the next step. Just like an athlete, pt after surgery to get back on the team. It's the same thing

Frank Smith Simple AHA one pager on sleep/CVD. Might extract brief info for brochure from it. <https://www.heart.org/en/health-topics/sleep-disorders/sleep-and-heart-health>

Steven K: comment re: sleep is good, important to include. overall, you guys have done a wonderful job, over the top, expertise is impressive. materials in general, be more forceful

"CR can help with sleep--that's a problem I have"

Greg Merritt Curious that role of "sleep" is not mentioned here? Is there not sufficient data to include it's importance and what is taught in programs?

Devraj I think including a general comment regarding sleep (as a part of healthy lifestyle).

REHA A FRESH START TO A HEALTHIER HEART

Cardiac rehab is a comprehensive program to support individuals recovering from heart-related conditions. It helps patients regain strength and confidence, allowing them to live a healthier and more active life.

Cardiac rehab is the next step in treatment and recovery after a cardiac event.

WHAT IS cardiac rehab?

36 sessions



Cardiac rehab programs typically consist of 36-56 1-hour sessions at a rehab facility that are customized to meet patient's needs.

The cornerstone of these programs is monitored exercise, which aids in rebuilding strength and fostering confidence in a safe environment.

Additionally, cardiac rehab offers education and counseling on topics like nutrition, stress management, medication usage, risk factor modification (like quitting smoking), and mental health.

WHO IS eligible?

Individuals who have one of the following may be a good fit for cardiac rehab:

- ✓ Heart Attack
- ✓ Angina
- ✓ Cardiac surgery
- ✓ Coronary artery angioplasty or stents
- ✓ Heart failure
- ✓ Heart transplant

Michigan CR is 2012 Accredited Cardiac Rehabilitation unit, assessed and Public Accredited Cardiovascular diagnosis and therapy

WHY cardiac rehab?

Individuals who attend 36 sessions of cardiac rehab have a

47% lower risk of death

than those who do not

usually covered by insurance

by your health plan

Cardiac rehab is the

next step in your recovery

Is cardiac rehab covered by your insurance?

Call your insurance provider for more information

For more information, visit michmed.org/WAG

or call 1-800-368-7222

Need more or get help?

Call 1-800-368-7222

or visit michmed.org/WAG

For more information, visit michmed.org/WAG

or call 1-800-368-7222



DELIVER

Methods

Interviews

Surveys

Scenario
Building



Interventions for All



MiCR website

*One-stop-shop for CR
resources*



Cardiac Care Cards

*Leveraging the influence of
the cardiovascular provider*



Transportation Support with Uber Health



**MiCR launched
a new website**
to organize patient- and
provider-facing resources,
MiCR event dates,
publications, and more





New Unified Cardiac Rehab Resources

High-quality resources to
educate providers and
patients on the value of
cardiac rehab

CARDIAC REHAB

A FRESH START TO A HEALTHIER HEART

Cardiac rehab is a comprehensive program to support individuals recovering from heart-related conditions. It helps patients regain strength and confidence, allowing them to lead a healthier and more active life.

Cardiac rehab is the next step in your care after a cardiac event.

GETTING STARTED Checklist

Ready to enroll in a cardiac rehab program? Review the steps below to help you get started.

- ☐ **Get a referral from your doctor**
Ask your cardiologist or primary care provider if you are a good candidate for cardiac rehab. If yes, you may have already received a referral, or you can ask them to send one for you.
- ☐ **Find a rehab program near you**
Search for the closest rehab program to you by searching online or using the linked map.
- ☐ **Complete an initial call**
The rehab facility will usually call you within two weeks, but if you haven't heard from anyone, **give the facility a call.**
- ☐ **Check your health insurance**
Find out if you will have any out-of-pocket costs by calling the phone number on the back of your insurance card.
- ☐ **Get ready for your first session!**
Make sure to bring a water bottle and gym shoes. Arrive a few minutes early so you can find parking and fill out any required paperwork.



SCAN ME with your phone camera for more information or visit
MichiganCR.org/find

Michigan, W. M. (2012, March). Cardiac rehabilitation past, present and future. An overview. Cardiovascular diagnosis and therapy.

"In a sense, the initial heart surgery saved my life the first time; but cardiac rehab saved it a second time. The rehab people performed a small miracle by restoring my self-confidence."

- John, Cardiac Rehab Participant



WHY cardiac rehab?

Individuals who attend 36 sessions of cardiac rehab have a **47% lower risk of death** than those who attend only 1 session.

- Improves your quality of life
- Builds confidence and it's fun!
- Can reduce the need for medication

Cardiac rehab is the gold standard of care.

Is cardiac rehab COVERED by insurance?

Medicare and most insurance providers cover the cost of cardiac rehab if you meet the medical criteria.

Depending on the plan, participants may be responsible for some out-of-pocket costs, such as a per-session copay. Rehab facility staff can work with participants to understand their insurance coverage.



Want to learn more or get help? Visit MichiganCR.org/patients

social network for mental health support



Download Now!

michiganocr.org

WHAT is cardiac rehab?

9-12 Weeks



Cardiac rehab programs typically consist of 36-54 1-hour sessions at a rehab facility that are customized to meet patient's needs.

The cornerstone of these programs is monitored exercise, which aids in rebuilding strength and fostering confidence in a safe environment.

Additionally, cardiac rehab offers education and counseling on nutrition, stress management, medication usage, risk factor modification (like getting smoking), and mental health.

WHO is eligible?

Individuals who have one of the following may be a good fit for cardiac rehab:

- ✓ Heart attack
- ✓ Angina
- ✓ Cardiac surgery
- ✓ Coronary artery angioplasty or stents
- ✓ Heart failure
- ✓ Heart transplant
- ✓ Transcatheter valve replacement

Do you need a RIDE?

Getting to and from cardiac rehab can be a challenge. If you need help getting to your cardiac rehab sessions, ask your insurance.

© Michigan Cardiac Rehab, a division of Michigan Cancer Research.



Cardiac Care Cards

Leveraging the influence of
the cardiovascular provider





Partnering with Uber Health

Uber Health is on a mission to help improve health outcomes and the patient, caregiver, and clinician experience by helping enable better access to care and services.



Uber
Health



The background is a warm, golden-yellow color. It features stylized autumn-themed illustrations: a large tree with yellow leaves on the left, a pinecone in the upper right, a log with a small blue bird on the bottom left, another pinecone on the bottom right, and a bare tree trunk on the far right. In the center, a white, cloud-like shape contains the text.

03 Activities

Try these at home!

Micro Design Jam



DISCOVER

01

LIGHTNING INTERVIEW (4 mins)

What is one challenge you are experiencing in your work?

DEFINE

02

MINDMAP (5-10 mins)

Write your HMW statement and quickly map out the topic including important themes

DEVELOP

03

IDEATE SOLUTIONS (10 mins)

What are some things that you could design for this theme that would answer your HMW statement?

DELIVER

04

PROTOTYPE & SHARE OUT!

Sketch out an idea and share it with a coworker for feedback.



Discover: Lightning Interview



2 mins for each person.

What is one challenge that is currently impacting your work?

What is causing this? Who are the stakeholders impacted by this challenge? What has already been done to try and address this challenge?

Take notes!





Discover: Lightning Interview

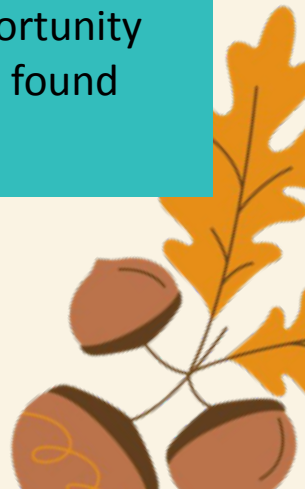


Draft a HMW statement that will help you frame the challenge your partner is experiencing as an opportunity area.

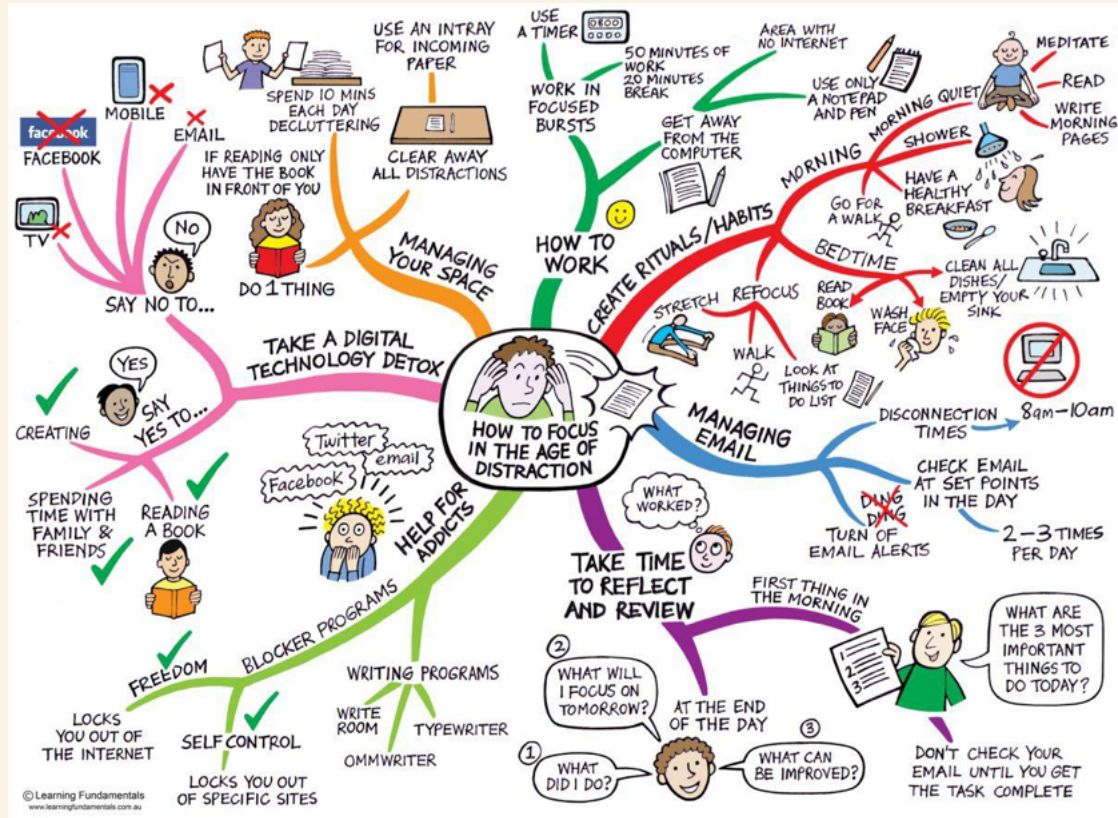
HOW MIGHT WE...

"How Might We" (HMW) statements are small but mighty questions that allow us to reframe our insights into opportunity areas and innovate on problems found during user research.

Write your HMW statement down on a piece of paper!



Define: Mind Mapping



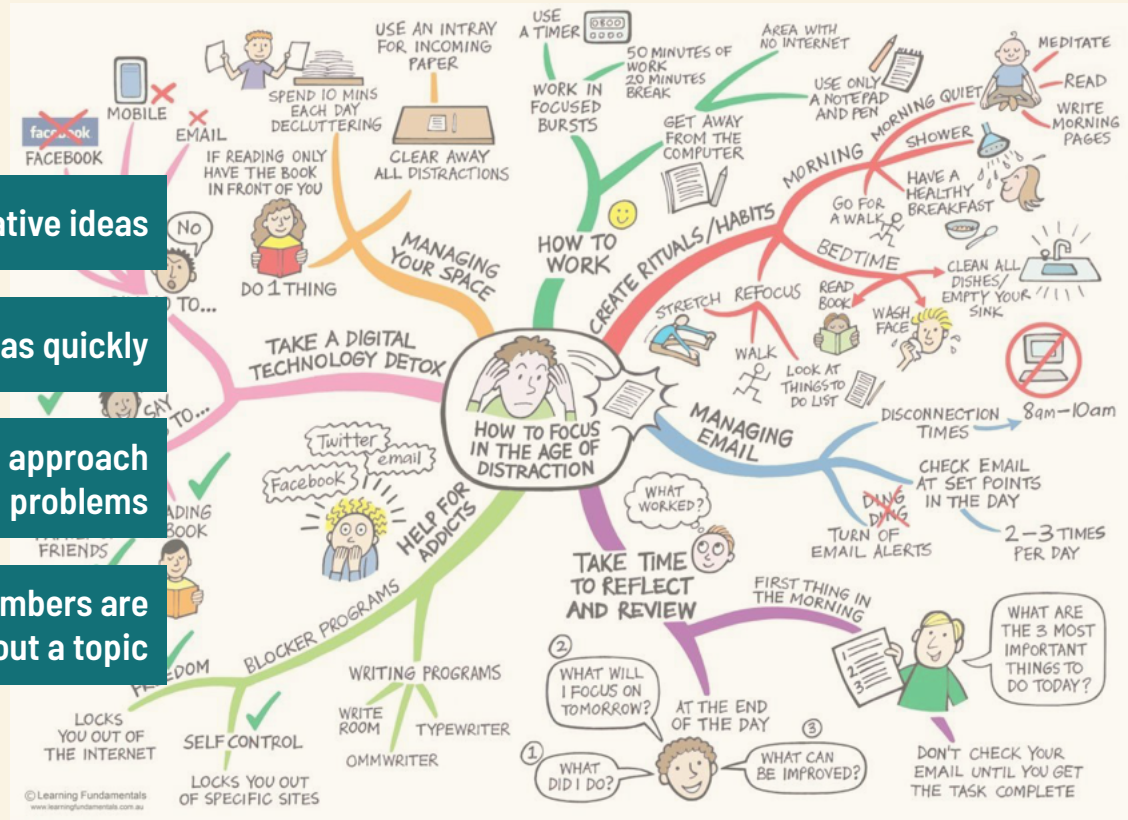
Define: Mind Mapping

Generate innovative ideas

Capture & share ideas quickly

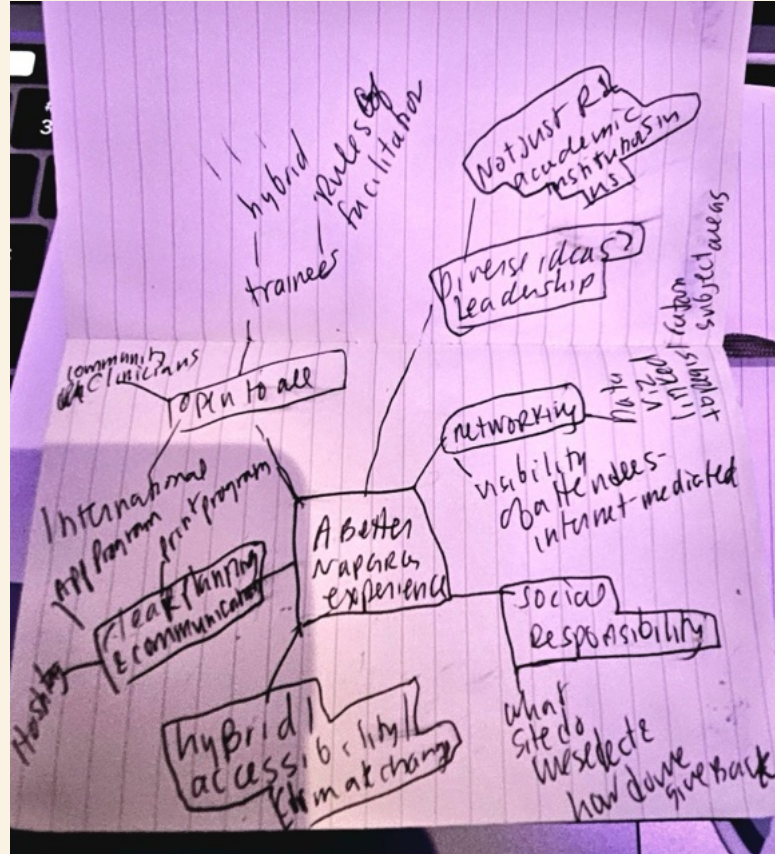
Identify new ways to approach problems

See how other team members are thinking about a topic



Define: Mind Mapping

How might we...



Discover: Mind Mapping

Take 5 minutes

Start with a central topic or question

As quickly as you can start by writing out major theme and then branch into subthemes

Use as few words as possible for each theme/subtheme

Look for places to make connections between themes





Define: **Major themes**



Over the next 5 mins, share your mindmap with your coworker and identity 3 major themes.

What are some major themes related to your challenge?

Then choose 1 of these themes to focus on.



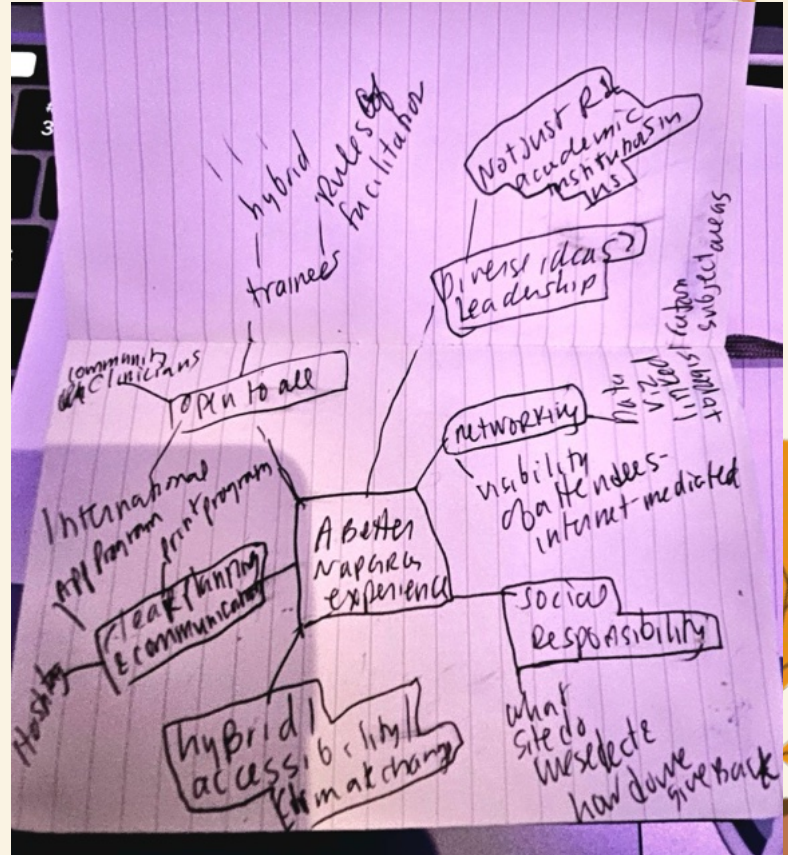
Define: Major themes

Example:

Accessibility

Relationship building

Reaching diverse audiences



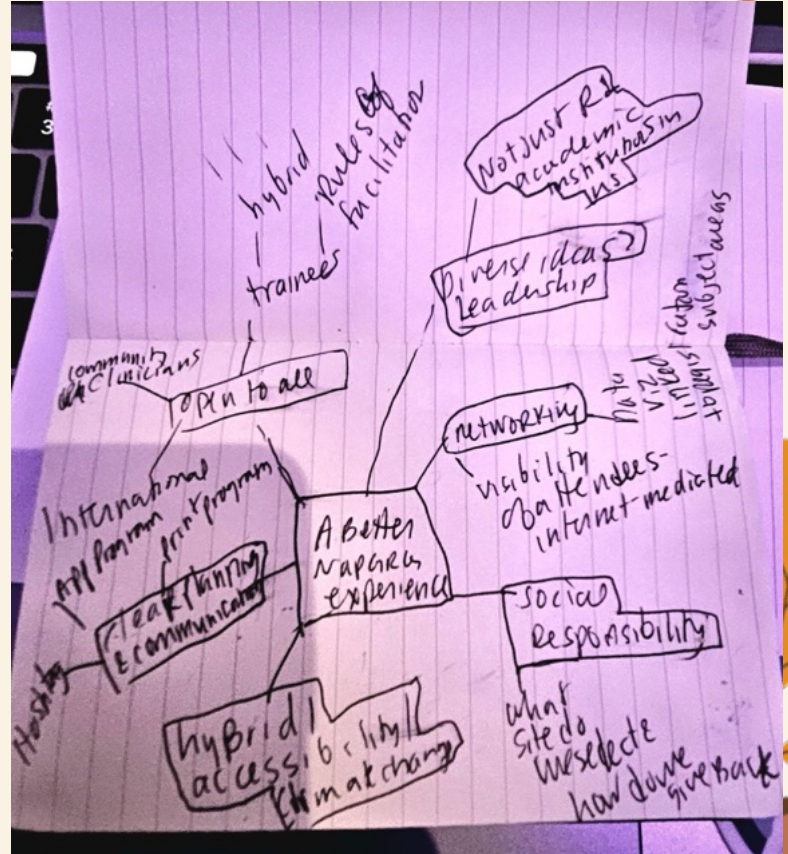
Define: Major themes

Example:

Accessibility

Relationship building

Reaching diverse audiences





Develop: **Ideate Solutions**



Generate ideas that address the HMW statement under this theme!

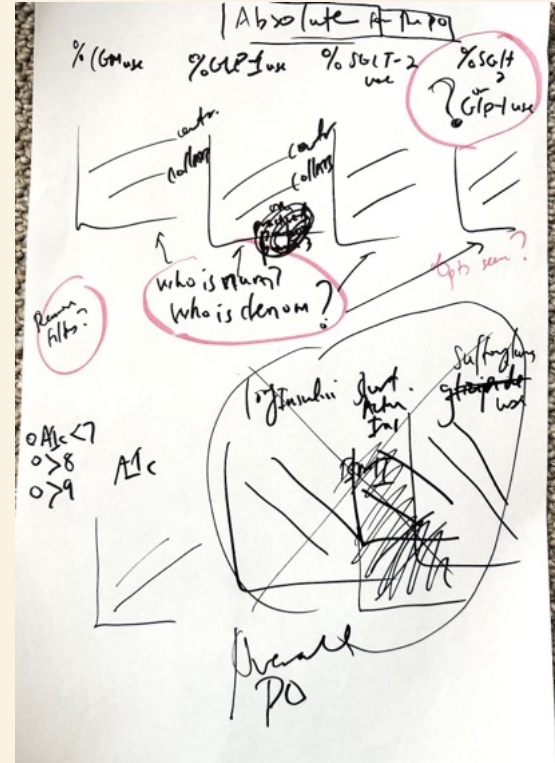




Deliver: Sketch an idea and share it!



Choose one of your ideas and sketch it out. It can be rough, just a enough to give your idea form so that you can gather feedback on it from your coworker.



Thank you

Contact me at
laryoung@med.umich.edu
& Noa
cczu@med.umich.edu
with any questions!

