VMMC

Pain-O-Meter Redesign Project

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Project Objective

To design a tool that addresses fear of pain as a key barrier to voluntary medical male circumcision (VMMC) uptake among adult men.



Process Overview



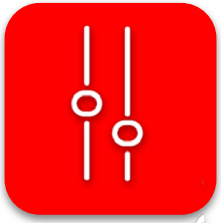
Research



Ideation



Testing



Refinements



Final Concept



Moving Forward



Research

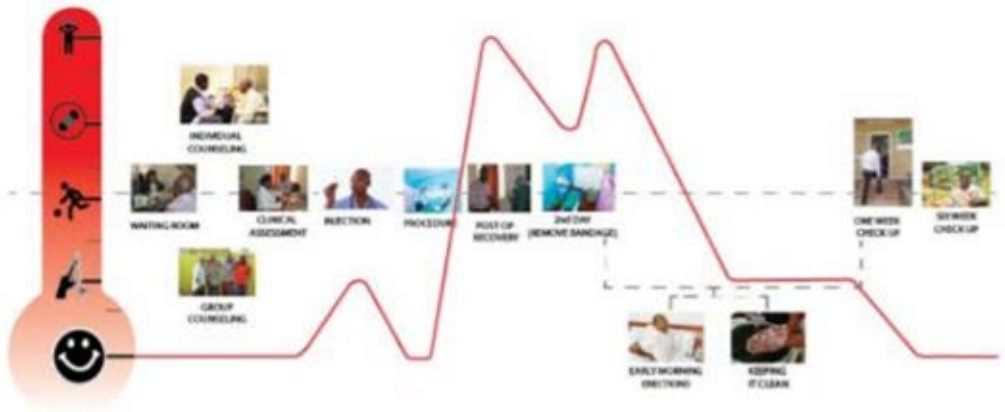
VMMC + Current Model

The first step in the team’s research was understanding VMMC and how mobilizers are currently explaining pain.

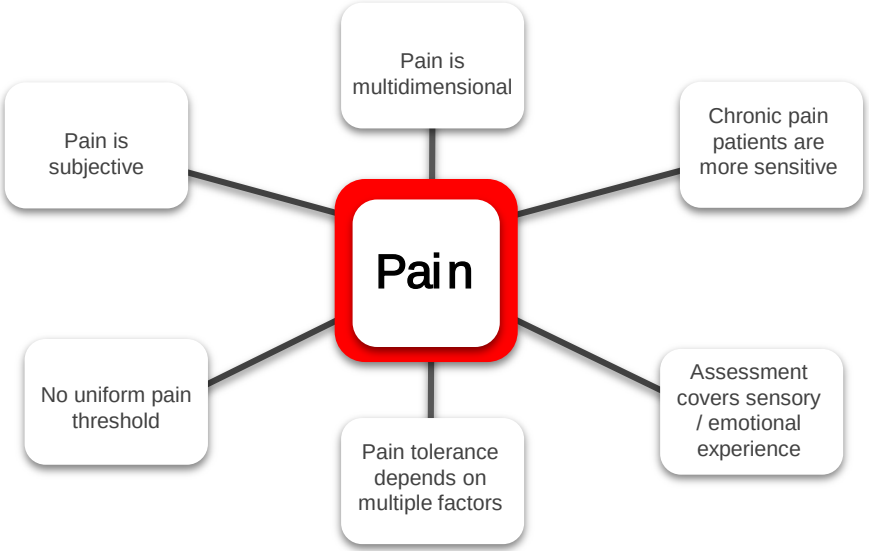
Current Model

The current Pain-O-Meter (used in Zimbabwe and Zambia) uses pain analogies at each phase of the process. However, there is a disconnect between the anticipated pain and the actual experienced pain. By creating a more comprehensive yet still simple pain model we can eliminate lack of knowledge and fear of the unknown.

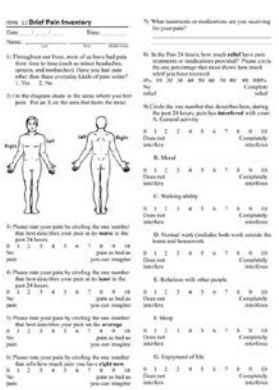


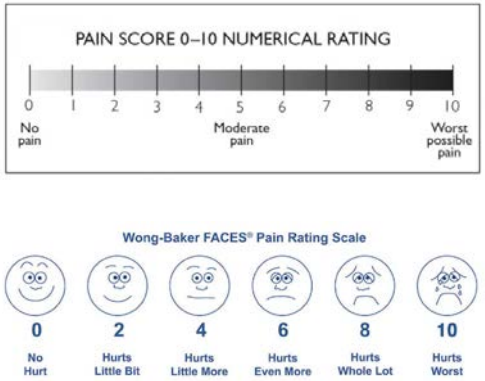


Understanding Pain



Pain Considerations





Pain Assessment Tools

Journey Mapping

Kidney Transplant Experience Map

	Kidney Failure. Waiting to get on the list. 6 to 8 years				Surgery Moves fast		In Patient 3 to 5 days	After Care 3 to 6 months, then yearly check in		
Caregiver	Referring Physician		Admin Asst	Nurse	MD		Floor Nurses	NP	NP, Pharm	MD
Milestones	Patient in CKD	Referral (Dialysis should be trigger)	1st visit	Listed	Prepare	Surgery	In Patient	1st Out Patient appt	Follow up short term	Follow up long term

Touchpoints

Referral form faxed

In-take form (online soon)

Clinic call to verify info

one month

Email with forms, links to videos & directions

Meeting with AA, RN, DV, Diet, Financial Counselor (4 hours + labs)

Listing letter

LD process starts

Pre-surgery info

Education Binder

lab scheduled

1st lab

Green Card (Meds, RX)

Teaching (pregnancy MMF)

Calls (auto?)

Patient Voices



"I was shocked when I was told that I had kidney failure. I thought, 'Oh no, why me.' I didn't know anything about it so I had to hurry up and do a crash course on what it does and how it will affect your body."
- Constance Cooper



"My second oldest son said I can have one of his kidneys and I turned him down because I don't want something to happen to him later on down the line and he have to go through the same thing I'm going through."
- James Savage Jr.



I received a phone call from "...my nurse Victoria, 'Guess what. Oh my gosh, there's a kidney for you.' And oh my gosh, my heart just went wooooosh."
- Gladis Cole



"When you have a transplant you have to think about your timing. Timing for taking your medication. Think about paying for your medication. I think long term about travel. I don't want to put myself in a position that would compromise my kidney."
- Anna Bennett

Mobiliser Discussions



Motivation
Motivated by the benefits



Common Jobs
Farmers, Businessmen, Bike & Taxi Drivers



Explaining Pain
Men want to know procedure pain & effects of pain



Pain Expectations
Pain was expected or less compared to previous pain



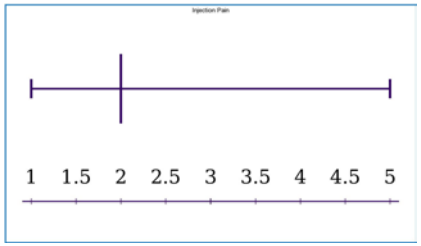
Most Painful Stage
Bandage removal repeatedly mentioned over erection pain



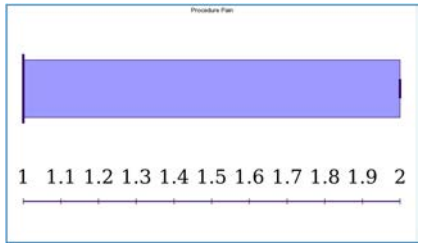
Current Guide
Information is sufficient

Mobiliser Feedback

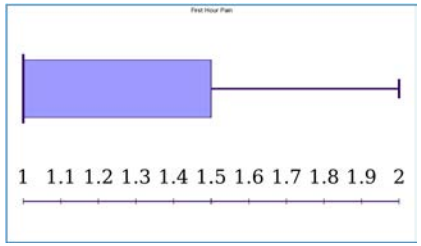
Injection
(1-5)
Median: 2
Mean: 2.25



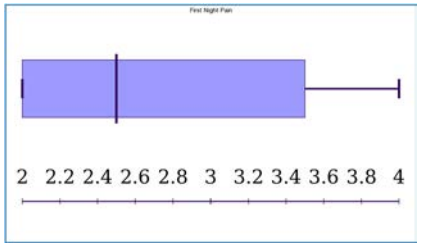
Procedure
(1-2)
Median: 1
Mean: 1.38



First Hour
(1-2)
Median: 1
Mean: 1.25



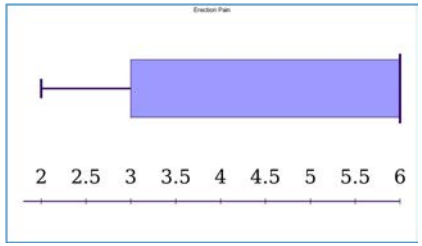
First Night
(2-4)
Median: 2.5
Mean: 2.75



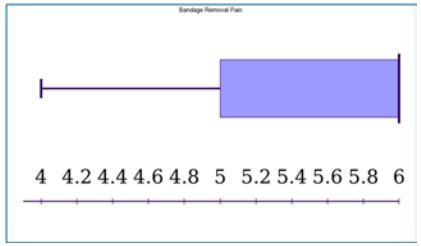
Day 1-2
(2-4)
Median: 2.5
Mean: 2.75



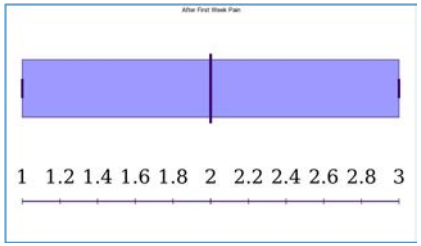
Erection
(2-6)
Median: 6
Mean: 4.71



Bandage Removal
(4-6)
Median: 6
Mean: 5.5



After First Week
(1-3)
Median: 2
Mean: 2



1-No Pain 2-Minimal/Little Pain 3-Bearable Pain 4-Moderate Pain 5-Painful 6-Terrible Pain



Ideation

Design Criteria

Based on the research and mobiliser discussions, the team crafted design criteria that the designs should consider to ensure success.

Design Criteria

Must

- Explain procedure pain + effects on recovery/daily activities
- Simple to Use + Easy to Understand

Should

- Encourage men to continue with VMMC
- Manage expectations/anticipation of pain
- Be applicable to most countries

Nice to Have

- Visuals, words, numbers
- Segmentation by age/occupation

Attributes

- Encouraging, comprehensive, user-friendly, simple

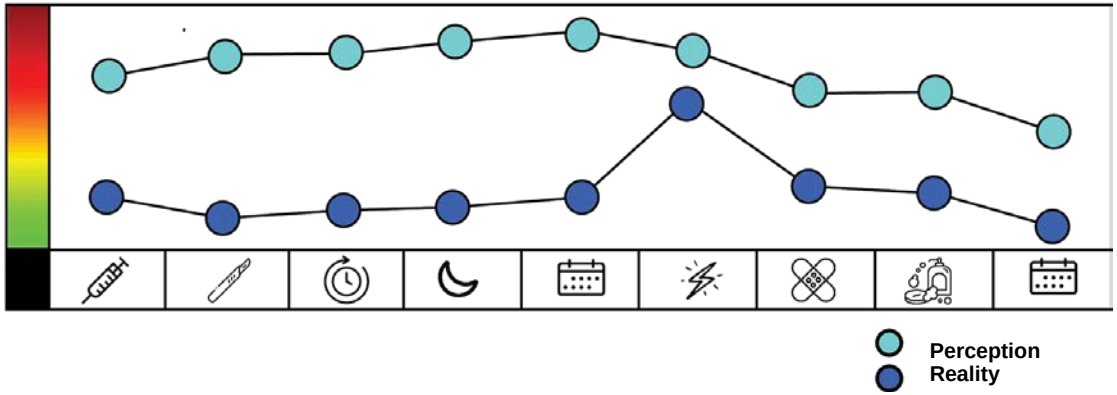
Design Question:

"During mobiliser discussions, how can we ***motivate + reassure*** *men in order to overcome the fear of VMMC pain?"*

Phase 1

The design team presented 7 initial models. The purpose of this phase is to identify elements of each model that could move forward and even combine with each other.

Perception vs. Reality



PRO

- Combats false/amplified perceptions
- Comparative to reduce fear
- Shows pain journey

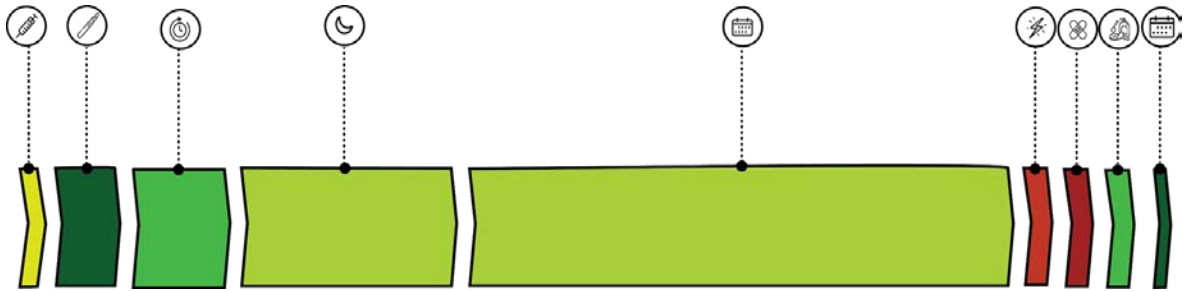
CON

- Potential to create anxiety if man never had false/amplified perception

Team Feedback:

- Worries about creating unnecessary fear
- Graph difficult to understand

Pain Duration Meter



*icons are placeholders

PRO

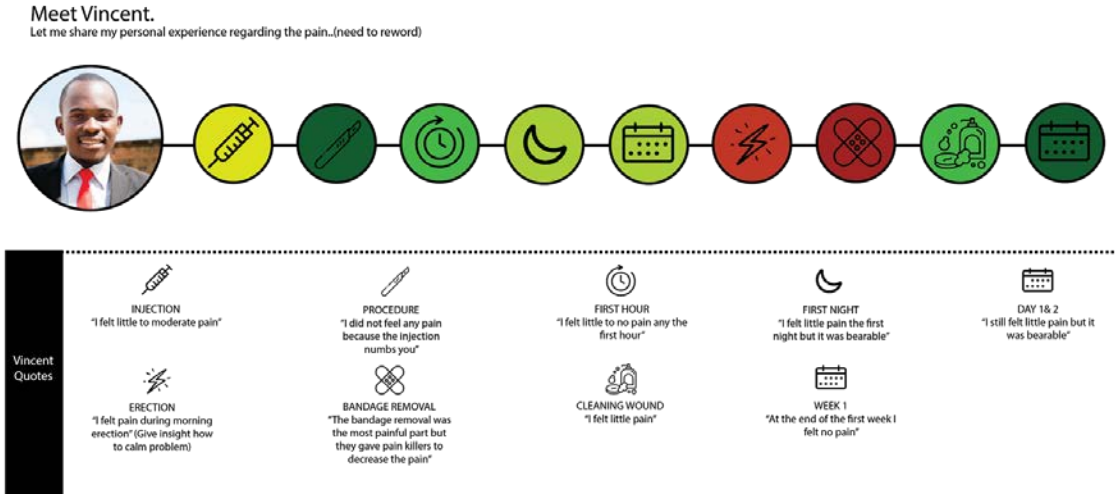
- Shows duration of time and associated pain
- “Little pain outweighs momentary pain”

CON

- Color choice is a subjective choice based on average pain described

Team Feedback:

- Length of time needs to be defined
- Bar format is hard to understand



*icons are placeholders

PRO

- Personal experience humanizes the tool
- Gives men ability to better comprehend pain
- Ability to segment by age/occupation

CON

- Problem of varying pain thresholds
- Color choice is a subjective

Team Feedback:

- Helps to hear other peoples stories
- Model 1-3 friendly appearance
- Need text with icons
- Colors easy to understand



PRO

- Personal experience feedback humanizes the tool
- Able to see how in the grand scheme of things, the process is not painful

CON

- Graph could set unrealistic or misleading expectations
- High pain level of erections and bandage removal can be intimidating

Team Feedback:

- Medical looking
- Remove percentages and graphs



PRO

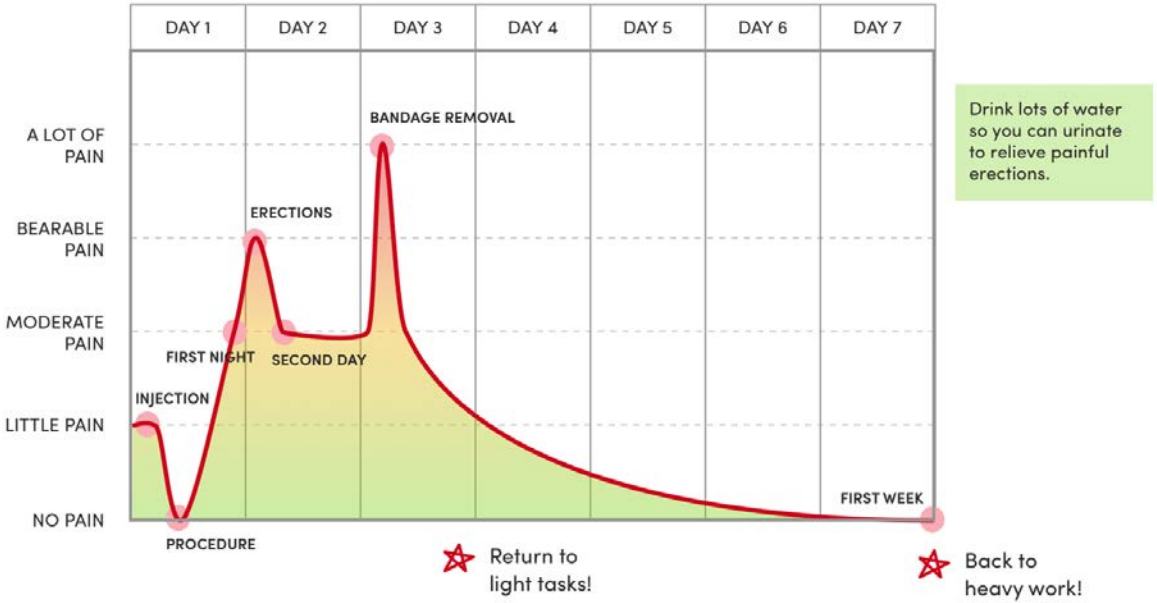
- Personal voices humanize the tool
- Able to address concerns

CON

- Perception of pain is different for everyone
- Could be viewed as overly simplified

Team Feedback:

- Tips help show pain is not as bad as expected



PRO

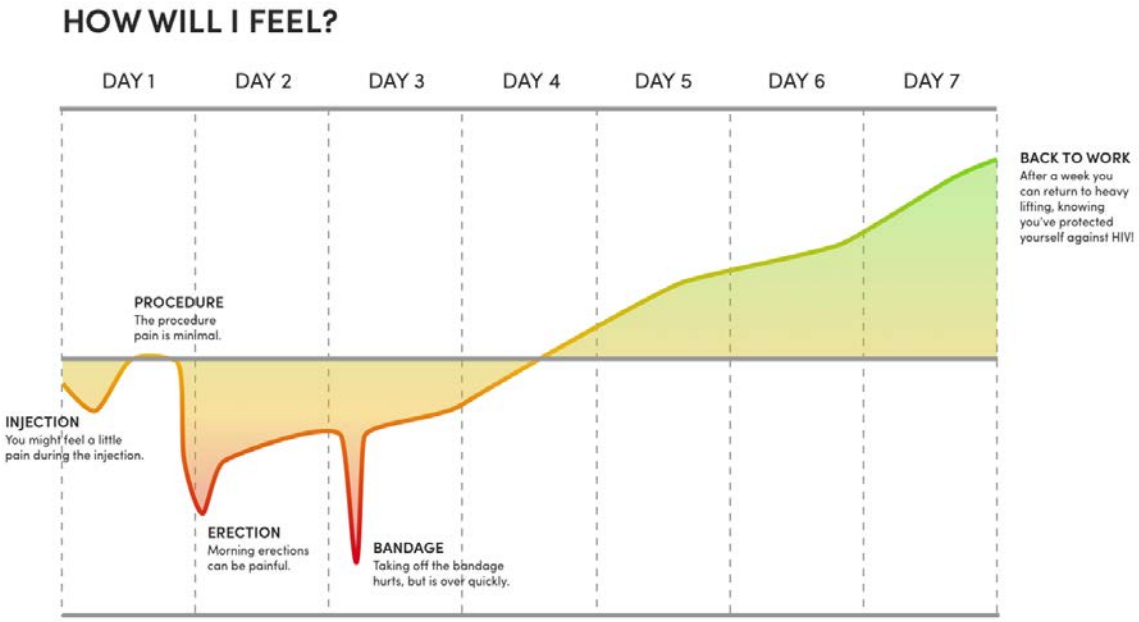
- Pain scale using relative words is more understandable
- Emphasis on life events like returning to work

CON

- Text-heavy; POIs could be replaced with icons

Team Feedback:

- Graph is intimidating and medical looking
- Likes milestone markers



PRO

- Shows positive emotional state after recovery
- Less text heavy by focusing on key points

CON

- Very generalized
- Less info about pain, the main concern according to interviews

Team Feedback:

- Graph is intimidating and medical looking

Other Considerations

- Tool should be immediately intuitive, if they see a graph they won’t relate well. The majority have lower education levels so they need to easily understand.
- Erections are ongoing but get better over time - this should be shown.
- A milestone to add is soccer, since it is a common activity for these men.

Phase 2

The design team generated another round of models to present to the team based on the feedback from the first phase.

My VMMC Experience



DAY 1 | DAY 2 | DAY 3-7

INJECTION | PROCEDURE | FIRST HOUR | FIRST NIGHT | ERECTIONS | BANDAGE REMOVAL | END OF DAY 2 | ERECTIONS | CLEANING WOUND | DAY 3-7

Mobiliser Script

"Hello my name is Vincent and I will share with you my personal experience with the procedure and post recovery of VMMC. I started my journey when I was 32 years old and got circumcised. The first step is getting the.."

Vincent's Script

INJECTION
"When the provider gave me the injection, I felt a little bit of pain."

PROCEDURE
"I did not feel any pain during the procedure because the injection numbs you."

FIRST HOUR
"I felt no pain after the first hour."

FIRST NIGHT
"I started feeling a little pain the first night but it was bearable."

ERECTION
"I felt pain during the first morning erection."

Tip: My tip for the morning erections is to take the pain killers, those helped decrease the pain.

BANDAGE REMOVAL
"The bandage removal was the most painful part but they gave pain killers to decrease the pain."

Tip: The removal only took a couple of seconds so the pain lasted for only minutes.

END OF DAY 2
"I still felt little pain but it was bearable."

ERECTIONS
"The morning erection pain lessens and becomes bearable as the wound heals throughout the week."

Milestone: By the start of third day, you are able to do light activities, play soccer and bathe.

CLEANING WOUND
"I felt little pain when cleaning the wound."

DAY 3-7
"At the end of the first week I felt no pain and was able to go back to hard labor work."

Tip: As long as you follow the doctors instructions on caring for the wound, the recovery is not difficult.

Milestone: By the end of the week, you are able to go back to hard labor work.

Team Feedback:

- Add tip section
- Change biking and soccer milestone to day 7

My VMMC Experience



VINCENT'S SCRIPT

1. INJECTION
"When the provider gave me the injection, I felt a little bit of pain."

2. PROCEDURE
"I did not feel any pain because the injection numbs you."

3. FIRST HOUR
"I felt little to no pain any the first hour."

4. FIRST NIGHT
"I felt little pain the first night but it was bearable."

5. ERECTION
"I felt pain during morning erection."

Tip: My tip for the morning erections is to take the pain killers, those helped decrease the pain.

6. BANDAGE REMOVAL
"The bandage removal was the most painful part but they gave pain killers to decrease the pain."

Tip: The removal only took a couple of seconds so the pain lasted for only minutes.

7. END OF DAY 2
"I still felt little pain but it was bearable."

8. ERECTIONS
"I pain lessens and becomes bearable as the wound starts to heal."

Milestone: By the start of third day, you are able to do light activities, play soccer and bathe.

9. CLEANING WOUND
"I felt little pain."

10. DAY 3-7
"At the end of the first week I felt no pain and was able to go back to hard labor work."

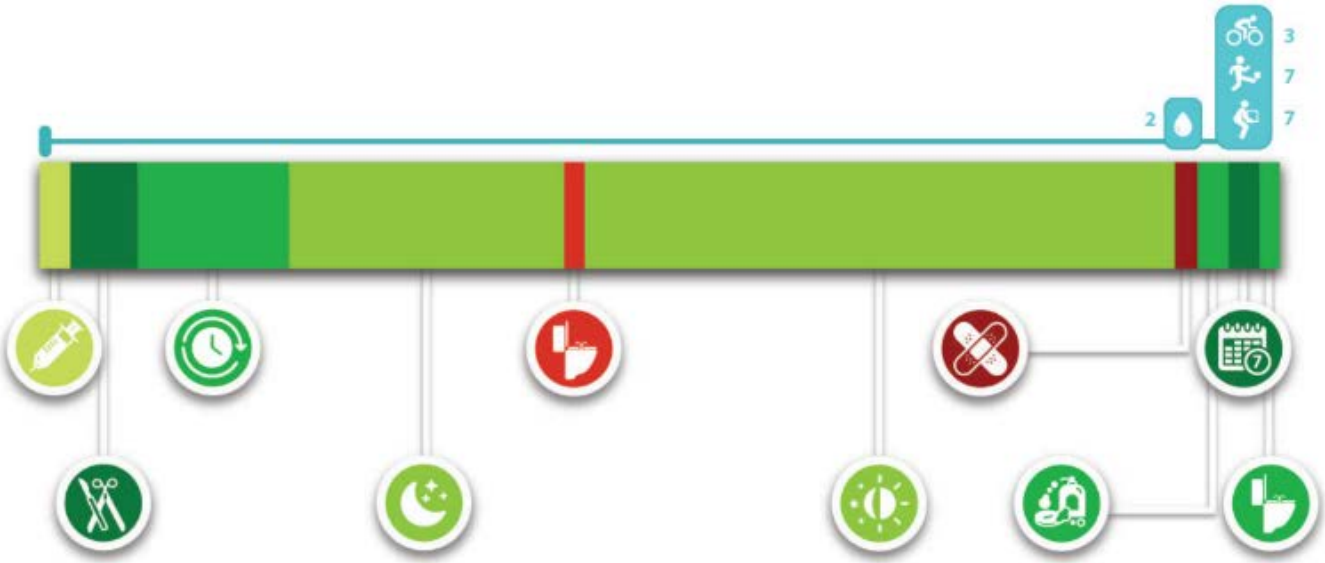
Tip: As long as you follow the doctors instructions on caring for the wound, the recovery is not difficult.

Milestone: By the end of the week, you are able to go back to hard labor work.

Team Feedback:

- The model incorrectly represents VMMC as a cyclical process





Team Feedback:

- Tips portion is helpful
- Change wording of tip section
- Use inset graphs to help with scaling
- Replace toilet icon

MEET MARSHALL



MARSHALL GOT CIRCUMCISED TO PROTECT HIS FAMILY.
Here's what it was like for him.

DAY 1

- **INJECTION** — I only felt a little pain.
- **PROCEDURE** — I didn't feel any pain. The injection numbs you.
- **1st HOUR** — I felt very little pain the first hour.
- **1st NIGHT** — I felt a little pain but it was bearable.

DAY 2

- **ERECTION** — The morning erection was painful.
- **2nd DAY** — I still felt a little pain but it wasn't bad.

DAY 3

- **ERECTION** — Peeing helps the erection go away faster.
- **BANDAGE REMOVAL** — This was the most painful, but they gave painkillers.
- **SHOWER!**

DAY 4

- **ERECTION** — I drink lots of water so I can relieve any erections.
- **BACK TO LIGHT WORK!**

DAY 5

- **ERECTION**

DAY 6

- **ERECTION**

DAY 7

- **ERECTION**
- **FIRST WEEK** — I felt no pain at the end of the first week.
- **SOCCER & HEAVY LIFTING!**

Team Feedback:

- Shows erections getting better over time
- Calendar format easy to understand
- Replace “DAY #” with calendar icon

Phase 3

The design team made minor adjustments to the models from Phase 2 in preparation for user testing.

My VMMC Experience

DAY 1 | DAY 2 | DAY 3-7



VINCENT

INJECTION
PROCEDURE
FIRST HOUR
FIRST NIGHT
ERECTIONS
BANDAGE REMOVAL
END OF DAY 2
ERECTIONS
CLEANING WOUND
DAY 3-7

"Refrain from sexual intercourse for the next 6 weeks."

"If you follow the doctor's instructions, the recovery is not difficult."

"Painkillers are given to decrease the pain."

"Drinking water helps prevent painful erections."

"The pain was less than what I expected."

*Shown to man

Mobiliser Script

"Hello my name is Vincent and I will share with you my personal experience with the procedure and post recovery of VMMC. I started my journey when I was 32 years old and got circumcised. The first step is getting the.."



1. INJECTION
"When the provider gave me the injection, I felt a little bit of pain."



2. PROCEDURE
"I did not feel any pain because the injection numbs you."



3. FIRST HOUR
"I felt no pain after the first hour."



4. FIRST NIGHT
"I started feeling a little pain but it was bearable."



5. ERECTION
"I felt pain during the first morning erection."

Tip: Take painkillers to decrease the pain.



6. BANDAGE REMOVAL
"The bandage removal was the most painful part."

Tip: The removal only took a couple of minutes so the pain was short lasting.



7. END OF DAY 2
"I still felt little pain but it was bearable."



8. ERECTIONS
"The morning erection pain lessens and becomes bearable as the wound heals throughout the week."

Milestone: By the start of third day, you are able to do light activities and bathe.



9. DAY 3-7
"At the end of the first week I felt no pain and was able to go back to hard labor work."

Milestone: By day 7, you are able to go back to hard labor work, bike taxi driving and playing soccer.



10. CLEANING WOUND
"I felt little pain when cleaning the wound."

*Only viewed by mobilizer

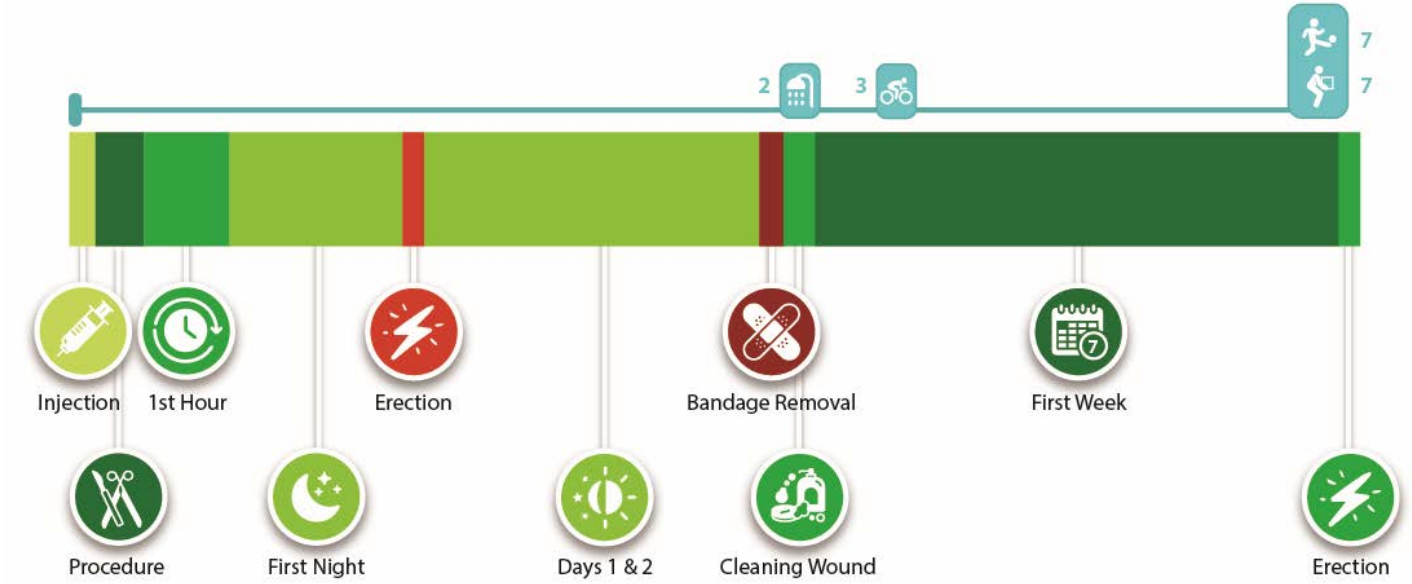


"My name is Vincent, and this is my journey with VMMC."

Drink water to urinate and prevent painful erections

Refrain from sexual intercourse for 6 weeks

Use condoms to protect yourself against HIV & STDs



MEET MARSHALL



MARSHALL GOT CIRCUMCISED TO PROTECT HIS FAMILY.
Here's what it was like for him.

TIP: Erections can be painful. Drink lots of water so you can pee to help them go away.

1

INJECTION
I only felt a little pain.

PROCEDURE
I didn't feel any pain. The injection numbs you.

1st HOUR
I felt very little pain the first hour.

1st NIGHT
I felt a little pain but it was bearable.

2

ERECTION
The morning erection was painful.

BANDAGE REMOVAL
This was the most painful, but they gave painkillers.

3

ERECTION
Peeing helps the erection go away faster.

SHOWER!

4

ERECTION
I drink lots of water so I can relieve any erections.

BACK TO LIGHT WORK!

5

ERECTION

6

ERECTION

7

ERECTION

FIRST WEEK
I felt no pain at the end of the first week.

SOCCER & HEAVY LIFTING!



Testing

Testing Models

The team sent the three models to Malawi and asked local mobilizers for their thoughts and feedback.



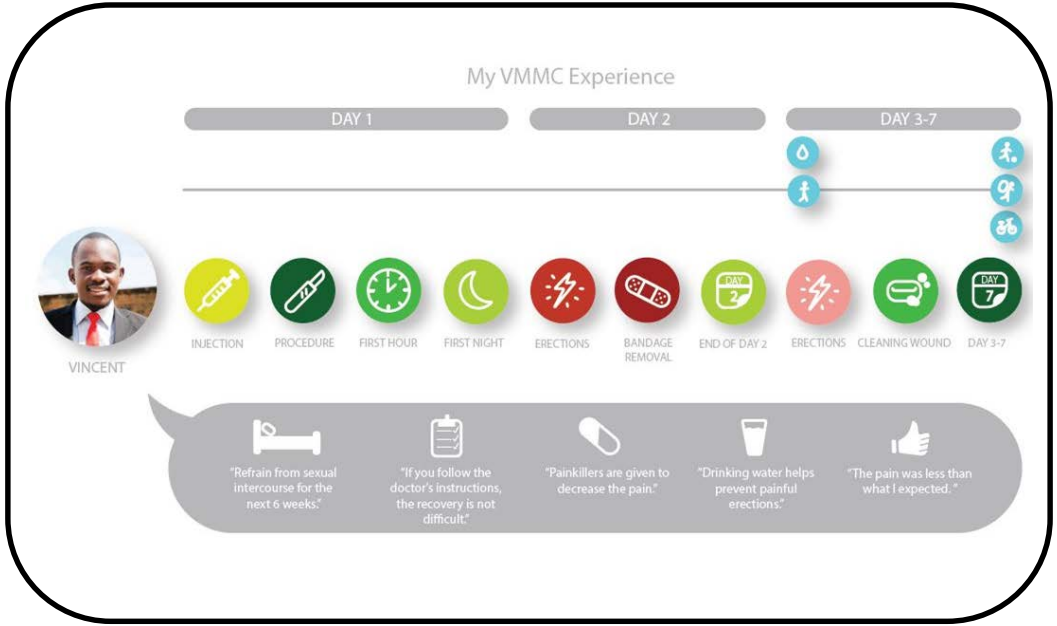
- “*Very easy to follow*”
- “*Intuitive… clear and easy to use*”
- “*Honest and clear*” *which is calming for potential clients*



- *“Insight into whole procedure and recovery”*
- *Shows that “the process is not as painful as they may think”*
- *“The chat can be difficult to interpret”*



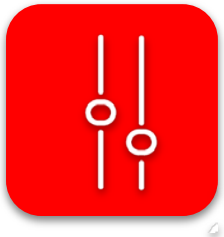
- *“Vivid picture of how the pain decreases with each passing day”*
- *“Clearly proves that the healing process is less painful”*
- *“Long and… may confuse the mobilizer to interpret”*







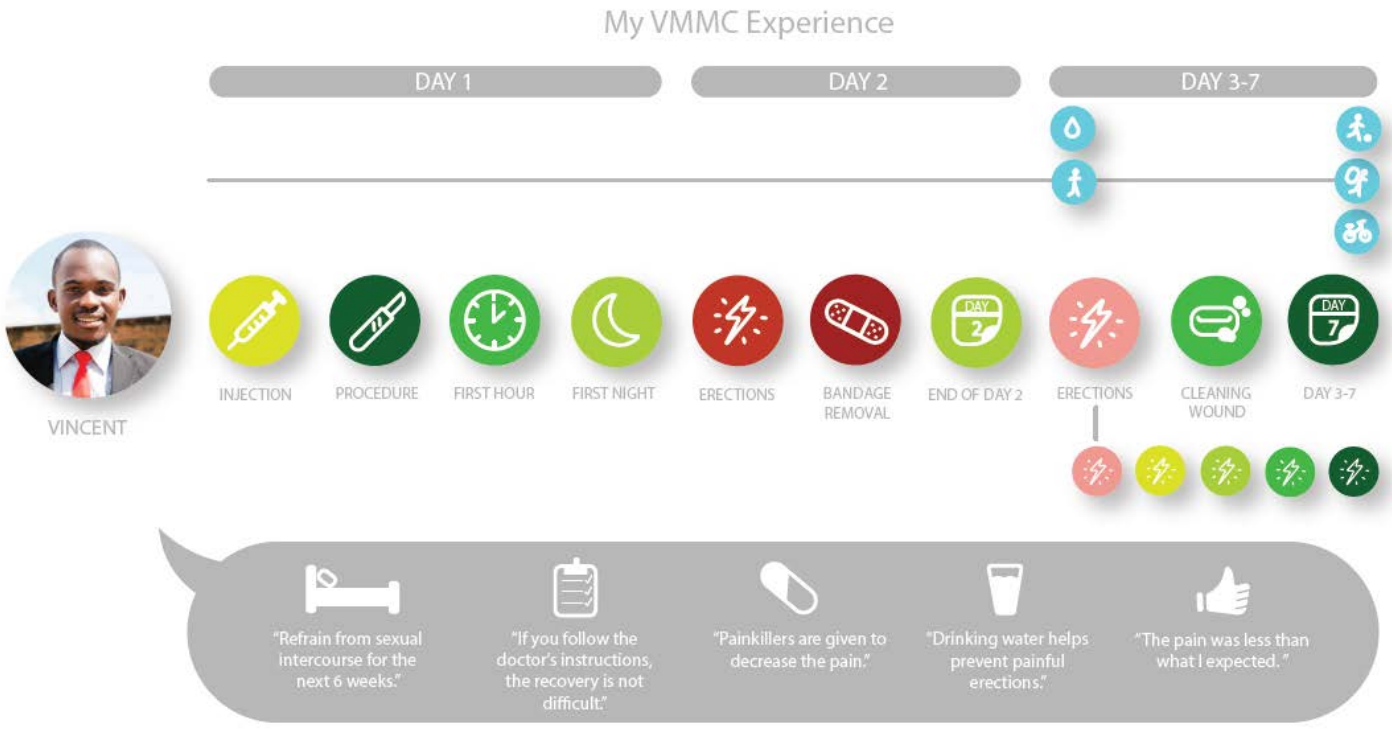
"For sure [this model] will encourage men to undergo VMMC and also help mobilizers to explain the pain to the potential client."



Refinement

Testing Refinements

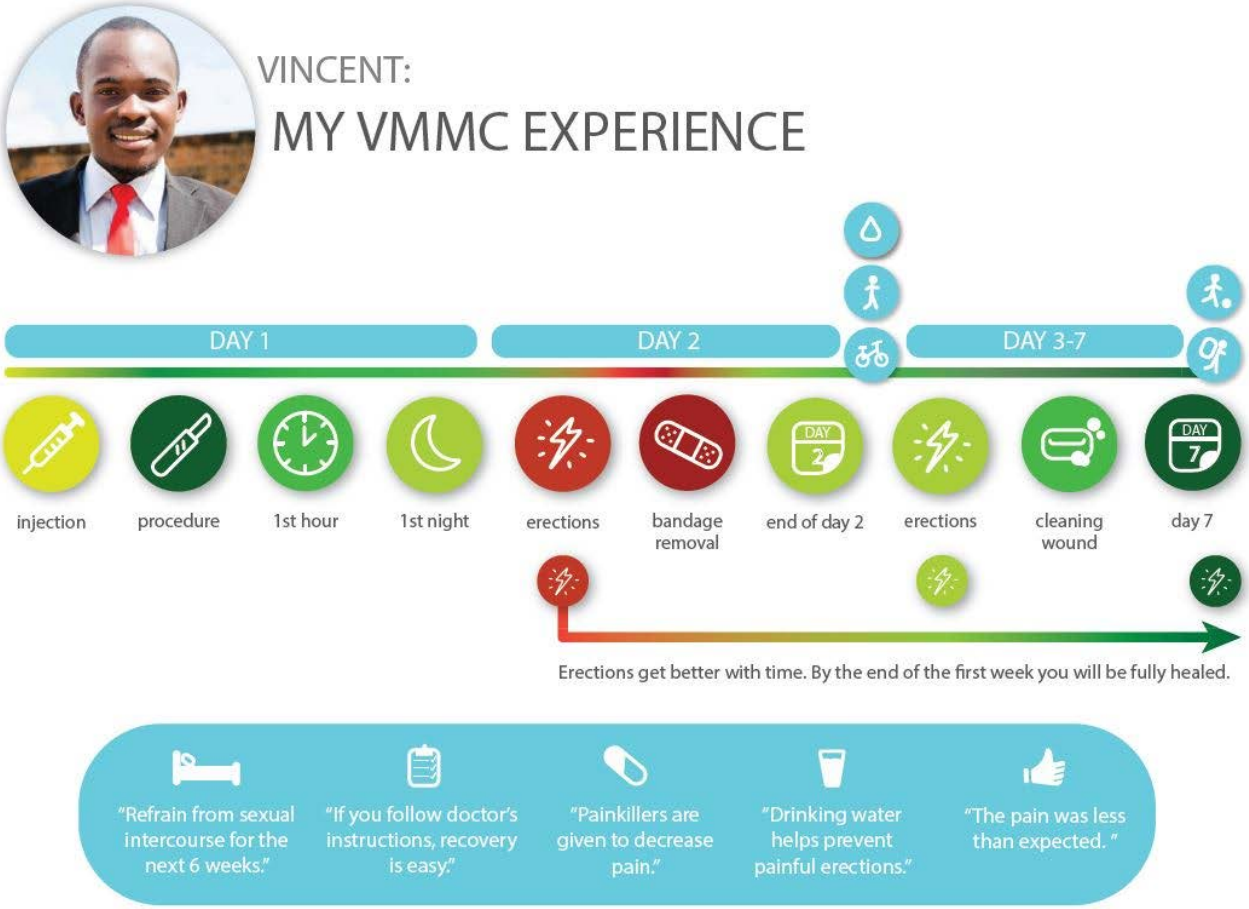
After receiving user testing feedback, the team decided to move forward with Model 1. We made a few minor adjustments to try to incorporate elements that mobilizers liked from the other models.



*Shown to man

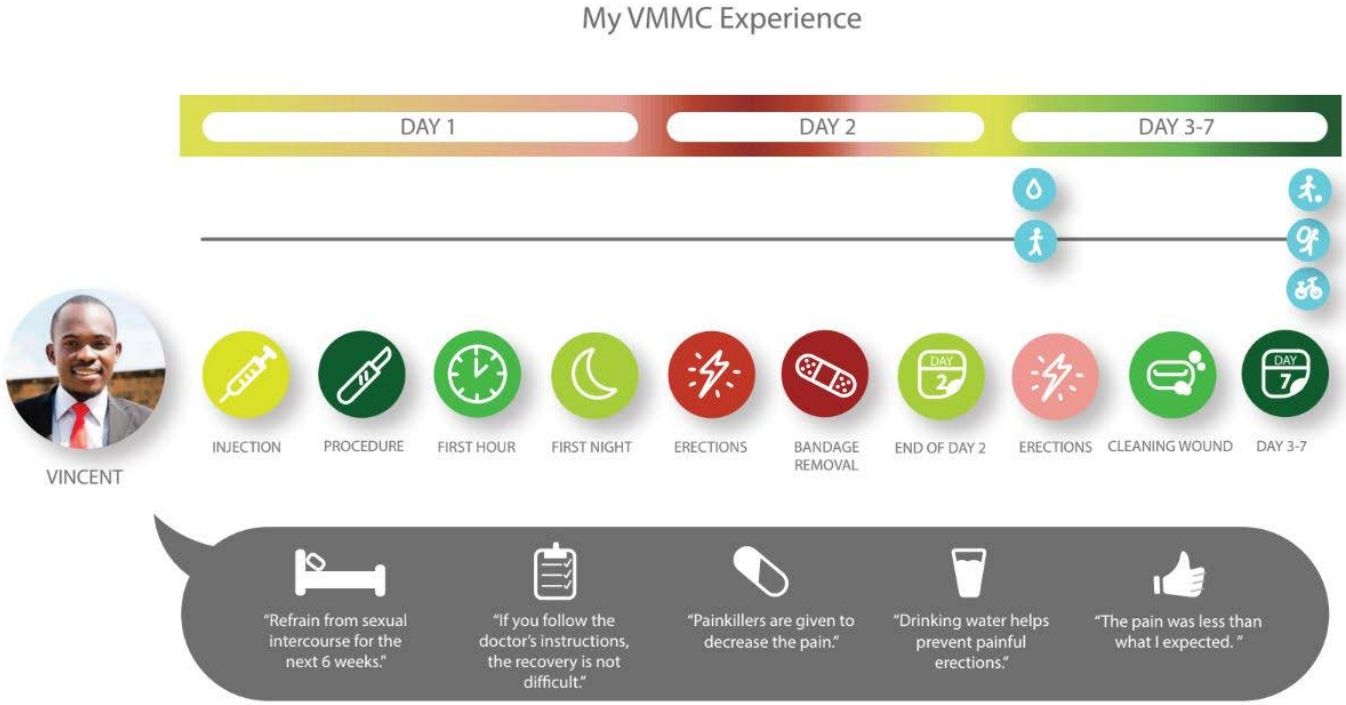
Added

- Simple erection icons to show it gets better over time



Added

- Larger picture of Vincent
- Color change to make more cohesive
- Bar gradient to show overall pain experience
- Erection gradient arrow to show better over time



Added

- Color change
- Bar gradient to show overall pain experience

Synthesis

The team decided to adopt the color and layout changes of the second fine-tuned edit since they were the most cohesive. We also decided to merge the gradient arrow and use the erection graphic from the first fine-tuned edit since it fit better with our visual language.



Final Concept

Overview

The model frames the pain of VMMC through the personal experience of a man named Vincent. Vincent represents an average 27 year old Malawi man who has already been circumcised. The pain described by Vincent came from a compilation of responses given by 8 VMMC mobilisers. The goal of this model is to humanize the tool instead of simply using numbers and relative words, but instead give perspective of the pain through another person's eyes. When the mobilisers use this device, they can say that either they had similar experiences to Vincent or that Vincent represents a handful of mobilisers who were interviewed about the pain/process.



VINCENT:
MY VMMC EXPERIENCE

DAY 1 | DAY 2 | DAY 3-7

Injection | Procedure | 1st hour | 1st night | Erections | Bandage removal | End of day 2 | Cleaning wound | Day 7

The erections get better with time and fully heal by the end of the week.

"Refrain from sexual intercourse for the next 6 weeks."

"If you follow doctor's instructions, recovery is easy."

"Painkillers are given to decrease pain."

"Drinking water helps prevent painful erections."

"The pain was less than expected. "

VINCENT'S SCRIPT

"Hello my name is Vincent and I will share with you my personal experience with the procedure and post recovery of VMMC. I started my journey when I was 27 years old and got circumcised. The first step is getting the.."

1. INJECTION
"When the provider gave me the injection, I felt a little bit of pain."

2. PROCEDURE
"I did not feel any pain because the injection numbs you."

3. FIRST HOUR
"I felt no pain after the first hour."

4. FIRST NIGHT
"I started feeling a little pain but it was bearable."

5. ERECTIONS
"I felt pain during the first morning erection."

"The next morning erection pain is bearable and lessens as the wound heals throughout the week."

Tip: Take painkillers to decrease the pain.

6. BANDAGE REMOVAL
"The bandage removal was the most painful part."

Tip: The removal only took a couple of minutes so the pain was short lasting.

7. END OF DAY 2
"I still felt little pain but it was bearable."

8. CLEANING WOUND
"I felt little pain when cleaning the wound."

9. DAY 3-7
"At the end of the first week I felt no pain and was able to go back to hard labor work."

MILESTONES

By the start of DAY 3, you are able to bathe and do light activities.

By DAY 7, you are able to go back to hard labor work, bike taxi driving and playing soccer.

After 6 weeks, you are able to have sexual intercourse.

*Only viewed by mobilizer

Comparing to Original

In comparison to the original Pain-O-Meter used in Zimbabwe and Zambia, the new Pain-O-Meter addresses perception versus reality by using a personal storytelling layout to explain the pain.



Moving Forward

- Implementation in Malawi and by other interested programs
- Potential for segmentation

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Thank you!

Questions?

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