Hera

Birth Control Support & Community

White Space Design Challenge 2019

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A data-driven, crowd-sourced digital platform to help women navigate their birth control journey.

welcome to

Hera

a supportive community to help you navigate your birth control journey with data driven analytics to find what's best for you

start

Problem Statement

Users struggle to effectively navigate through the process of choosing a birth control method.

Methods

Research Synthesis

Ideation Testing

- 8 interviews with birth control users
- 1 expert interview with a women's health nurse
- 1 immersive research with a birth control doctor appointment
- Secondary research on birth control studies, social media groups, and existing solutions

- 3 sets of paper prototypes
- 4 in-depth testings with birth control users
- 1 expert interview with a data scientist
- Secondary research on business models
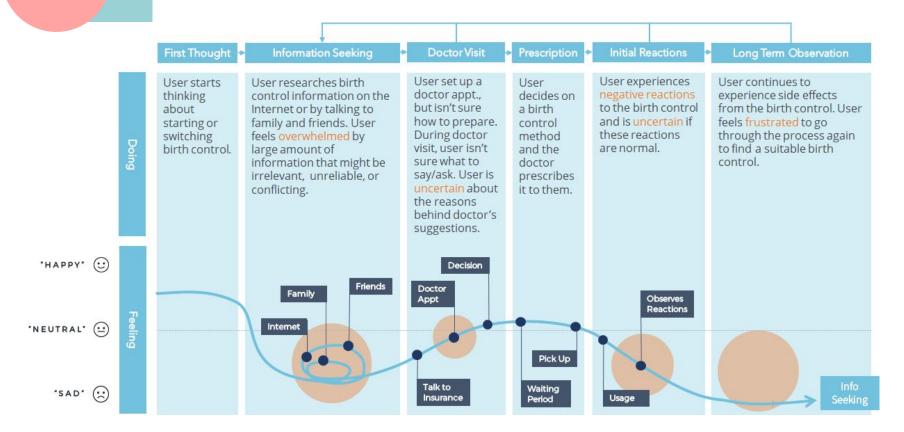
Meet Cathy

"
I try to do a lot of research, but it can get confusing because everyone is different. ... The trial and error process is difficult."

Meet Cathy

Cathy is a 35-year old woman working and living in Chicago. She has used 4 different kinds of birth control methods since the age of 22. The most recent switch is due to high blood pressure that her doctor thought might be related to her birth control. After the switch, she has irregular periods and is annoyed by it, so she is now thinking about switching again. She is actively looking for suggestion by researching online, joining social media groups, and talking to friends.

Journey Map

First Thought	Information Seeking	Doctor Visit	Prescription	Initial Reactions	Long Term Observation

Doing

User starts thinking about starting or switching birth control.	User researches birth control information on the Internet or by talking to family and friends. User feels overwhelmed by large amount of information that might be irrelevant, unreliable, or conflicting.	User set up a doctor appt., but isn't sure how to prepare. During doctor visit, user isn't sure what to say/ask. User is uncertain about the reasons behind doctor's suggestions.	User decides on a birth control method and the doctor prescribes it to them.	User experiences negative reactions to the birth control and is uncertain if these reactions are normal.	User continues to experience side effects from the birth control. User feels frustrated to go through the process again to find a suitable birth control.

Feeling

"HAPPY" ☺

"NEUTRAL" 😐

"SAD" ☹

Internet
Family
Friends
Doctor Appt
Decision
Talk to Insurance
Pick Up
Waiting Period
Observes Reactions
Usage
Info Seeking

Insights

1

Overwhelmed by potentially irrelevant or unreliable information

"
I felt overwhelmed by all the information on the internet. … There's information out there but I couldn't sift through it."
- birth control user

"
Patients typically initiated contraceptive discussions seeking clarification of something they heard from their peer group."
- Linton, A. & Hammond, C.

2

Uncertain about the reasons behind the recommendations

"
I thought [the doctor] was going have some sort of testing to see, [for] my hormones, what pill would be best, but I think she just gave me a more generic one."

- birth control user

3

Affected by social taboos
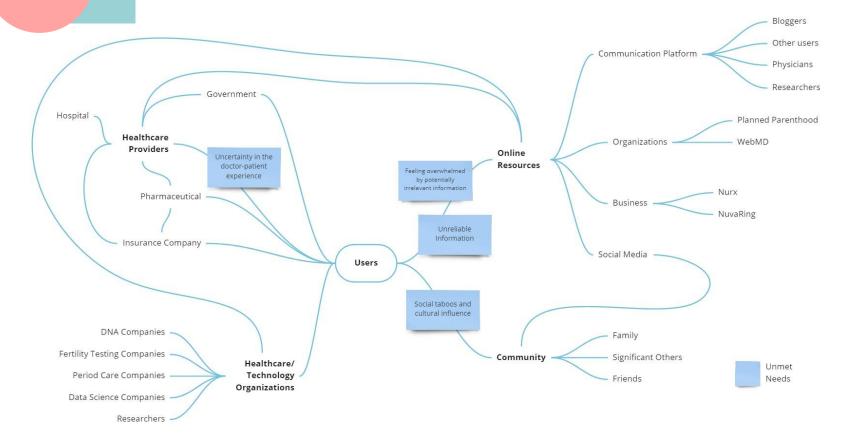
> " The gynecologist actually had to ask me 'are you comfortable with me putting on this form that you're having menstrual cramps? I can't say that I'm giving you birth control for contraceptive reasons.' "
>
> - birth control user

> " I scheduled an appointment Planned Parenthood because I don't want to go through my parents' insurance."
>
> - birth control user

Stakeholder Map

Healthcare Providers
- Hospital
- Government
- Pharmaceutical
- Insurance Company

Uncertainty in the doctor-patient experience

Healthcare/ Technology Organizations
- DNA Companies
- Fertility Testing Companies
- Period Care Companies
- Data Science Companies
- Researchers

Users

Feeling overwhelmed by potentially irrelevant information

Unreliable Information

Social taboos and cultural influence

Online Resources
- Communication Platform
  - Bloggers
  - Other users
  - Physicians
  - Researchers
- Organizations
  - Planned Parenthood
  - WebMD
- Business
  - Nurx
  - NuvaRing
- Social Media

Community
- Family
- Significant Others
- Friends

Unmet Needs

Root Cause Analysis

Problem: Users struggle to effectively navigate through the process of choosing a birth control method.

Key Tensions

Users have a lot of uncertainty about how each method will work for them, in terms of side effects, efficacy, or other impacts on their life.

When researching birth control methods, users struggle to find information that is relevant to their personal situation.

When researching birth control methods, users struggle to assess the reliability of different sources.

Users feel uncertain about the outcomes of contraception consultations with their doctor.

Users have limited access to resources about birth control methods.

Sources present conflicting information

Knowledge about birth control comes from a range of sources with differing levels of legitimacy.

Users have a hard time communicating their needs and concerns to their doctor.

Doctors perform a less rigorous assessment of health conditions than patients expect in order to make a recommendation.

Women don't feel comfortable directly asking people in their social circles or family about their experiences with birth control because the topic is taboo.

Root Cause

People take birth control for a variety of reasons. There are often unwanted outcomes associated with different birth control methods. There is currently very limited medical ability to predict these outcomes.

Existing Solutions

Healthcare Providers

Healthcare providers offers in-person consultation about birth control.

Planned Parenthood

A nonprofit that provides sexual health care globally. Its online resources offer extensive information about diverse birth control options.

Nurx

A service that allows users to get birth control pills without having to see a doctor, but it doesn't offer diverse options or extensive conversations.

Facebook Groups

Private forums for users to ask and answer questions. It is easy for users to find other people's experiences but it lacks reliable answers from health experts.

Existing Solutions

Healthcare Providers

Healthcare providers offer in-person consultation about birth control.

Pro:
- Provide reliable, extensive information
- Offer more personalized discussion if users feel comfortable with their providers

Con:
- Don't always offer clear reasoning for recommendations

Existing Solutions

Planned Parenthood Online Resources

A nonprofit that provides sexual health care globally. Its online resources offer extensive information about a range of birth control options.

Pro:
- Provides reliable, extensive information

Con:
- Offers less personalized recommendations
- Lacks clear reasoning for recommendations
- Lacks space for discussion or conversations

Existing Solutions

Nurx

A service that allows users to get birth control pills without having to see a doctor, but doesn't offer many alternate options or extensive conversations.

Pro:
- Provides reliable information
- Increases accessibility to healthcare

Con:
- Offers limited birth control options
- Lacks personalized recommendations
- Lacks clear reasoning for recommendations
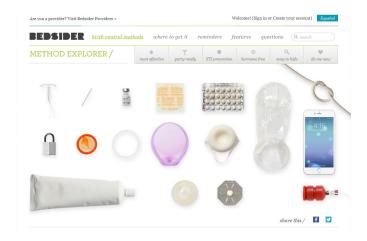- Lacks space for discussion or conversations

Existing Solutions

Facebook Groups

Private forums for users to ask and answer questions. It is easy for users to find other people's experiences but it lacks reliable answers from health experts.

Pro:
- Provide safer space for discussion

Con:
- Lack reliability in the information or reasoning
- Offer only moderately personalized suggestions

Existing Solutions

Bedsider

A comprehensive informational website. It not only offers extensive information about all widely used contraceptive methods, it also lets users filter the options by a handful of considerations.

Pro:
- Provides reliable, extensive information

Con:
- Does not offer personalized recommendations
- Questions are deferred to an external entity and are made via phone or email

Competitive Analysis

	Healthcare Providers	Planned Parenthood		Nurx	Facebook Birth Control Group	Bedsider
		Website/App	Appointment			
Personalization	Moderate	Bad	Moderate	Moderate	Bad	Bad
Reliability	Good	Good	Good	Good	Bad	Good
Recommendation Reasoning	Bad	Bad	Bad	Bad	Moderate	Not Applicable
Comfort in Discussion	Moderate	Bad	Good	Moderate	Good	Bad

Good **Moderate** **Bad** **Not Applicable**

White Space

Overwhelmed

Existing solutions often offer general or overwhelming amount of information that are not all relevant to the users.

Lack of Trust

It is hard for user to sift through all the biases, misinformation and conflicting information on existing platforms.

Uncertain

Existing solutions often lack clear reasoning behind their recommendations.

Uncomfortable

Birth control is a taboo topic in some social circles, which makes discussion harder in existing solutions.

Design Principles

Overwhelmed

Personalized

We offer personalized birth control information so users don't need to sift through an overwhelming amount of information.

Lack of Trust

Reliable

We provide reliable information that users can trust to yield expected results.

Uncertain

Clear

We provide clear and thorough reasoning behind our recommendations so that users feel confident about their decisions.

Uncomfortable

Comfortable

We provide a safe and comfortable space for users to discuss what they have learned and what they are still wondering.

Iterations

Iteration 1: Paper Prototypes
- Quiz Feature
- Match Feature
- Discussion Forum
- Doctor Discussion Guide
- User Stories
- Community Chat
- Tracking Tool
- Community Analysis

Iteration 2: Paper Prototypes
- Extensive Quiz
- Various Match Presentations
- Discussion Forum
- Tracking Tool

Iteration 3: Digital Prototype
- Quiz
- Match
- Discussion Forum
- Tracking Tool

Iterations

welcome to

Hera

a supportive community
to help you navigate your
birth control journey with
data driven analytics to
find what's best for you
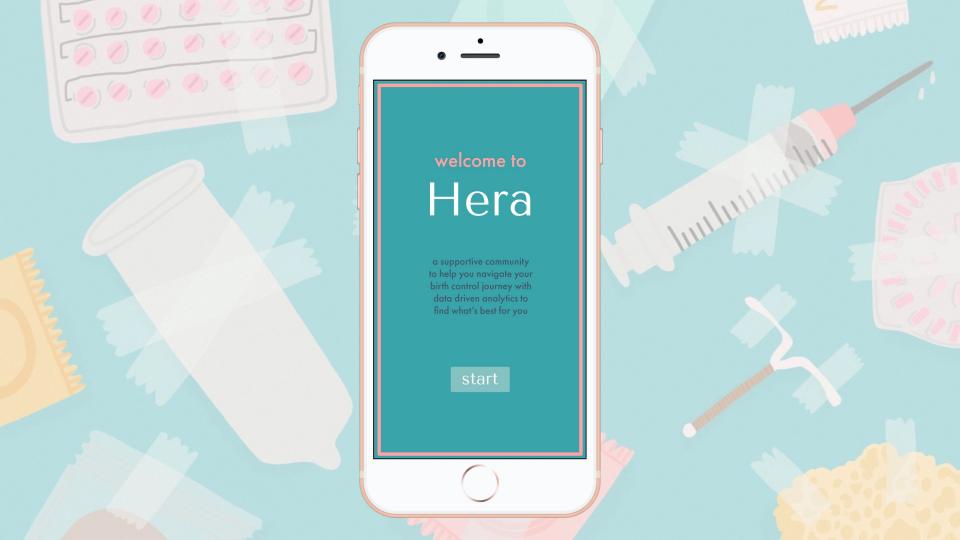
start

Features

Personalized

A **quiz** feature that intakes users' demographic info, health condition, and preferences to generate best matches.

Reliable

A **match** feature based on science and data. The matchmaking will be designed by health professionals and improved by user data as more users provide their data anonymously.

Clear

A **match** feature that shows clear reasonings behind the matches and clear explanation of each matched birth control method.
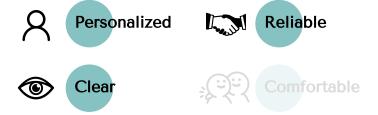
Comfortable

A **discussion forum** feature that provides users a safe space to discuss their birth control experiences and have health moderators to verify information.
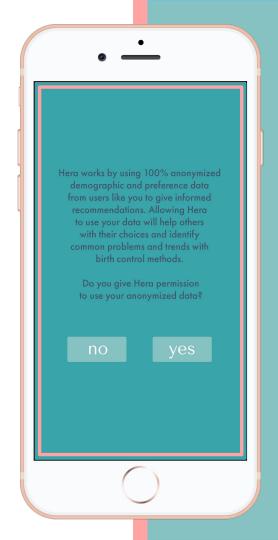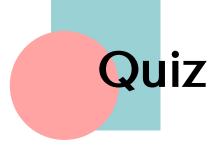
A **research contribution** feature which gives users the opportunity to share their data with Hera and researchers who partner with Hera. The goal here is to determine and explain relationships between birth control outcomes and an individual's characteristics.

Research Contribution
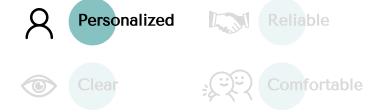
Hera users who agree to share their experience in the form of anonymized data will strengthen the platform and contribute to research into common problems and trends.

Personalized

Reliable

Clear

Comfortable

Hera works by using 100% anonymized demographic and preference data from users like you to give informed recommendations. Allowing Hera to use your data will help others with their choices and identify common problems and trends with birth control methods.

Do you give Hera permission to use your anonymized data?

no   yes

Quiz

Users complete a 5-minute questionnaire to provide information about their demographics, birth control history, sexual activity, health conditions, and preferences.

Personalized   Reliable

Clear   Comfortable

demographic information

1. which best describes you?
○   male
○   female
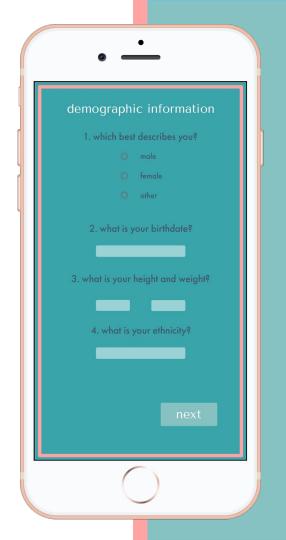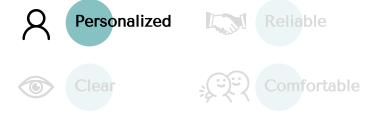○   other

2. what is your birthdate?

3. what is your height and weight?

4. what is your ethnicity?

next

Quiz
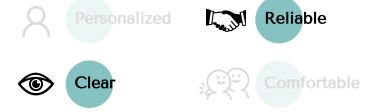
Users can indicate the reasons they want to use birth control, which helps inform the recommendations they get, and helps them recognize their priorities when making a decision.

Personalized

Reliable

Clear

Comfortable

reasons for birth control use
(click and drag)

highest importance

contraception

medium importance

manage cramps

lowest importance/not important

next

irregular periods   acne

PCOS   ovarian cysts

hormone balance   reduce heavy periods

make periods more regular   reduce migraines

Match

At a glance, users can compare the top three matches based on their quiz responses in terms of the factors most important to them.

Personalized

Reliable

Clear

Comfortable

your matches
select a method to learn more

what's important to you contraception period relief low maintenance

1 hormonal IUD
99.9% effective
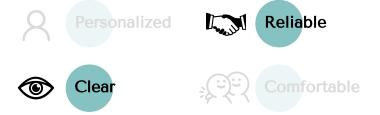can reduce cramps and make periods lighter
good for 3-12 years after insertion by your doctor

2 injection
99% effective when you get each shot on time
can make periods lighter or stop them altogether
get an injection from your doctor every three months

3 combination pill
99% effective when you take it perfectly
can reduce menstrual cramps and PMS
take a pill at the same time every day

key
one of the best options
okay, but there are better options
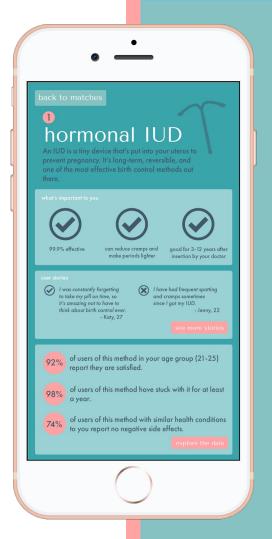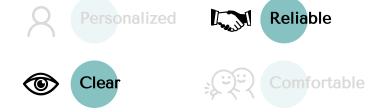not the best option for this criteria

Match

Each method's detail page contains stories and statistics catered to the user's demographics, health, and preferences. Users can dive deeper into medical information, community stories, and data.

Personalized

Reliable

Clear

Comfortable

back to matches

hormonal IUD

An IUD is a tiny device that's put into your uterus to prevent pregnancy. It's long-term, reversible, and one of the most effective birth control methods out there.

what's important to you

99.9% effective

can reduce cramps and make periods lighter

good for 3-12 years after insertion by your doctor

user stories

I was constantly forgetting to take my pill on time, so it's amazing not to have to think about birth control ever.
- Katy, 27

I have had frequent spotting and cramps sometimes since I got my IUD.
- Jenny, 22

see more stories

92% of users of this method in your age group (21-25) report they are satisfied.

98% of users of this method have stuck with it for at least a year.

74% of users of this method with similar health conditions to you report no negative side effects.

explore the data

Match: Parameters
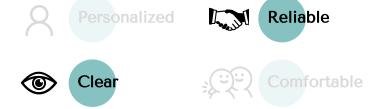
Hera offers a brief evaluation of a birth control match by a set of parameters based on user priorities, demographics, and health conditions.
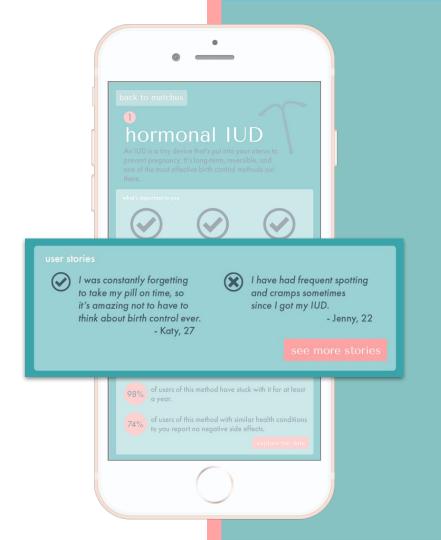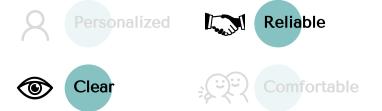
Personalized

Reliable

Clear

Comfortable

back to matches

1

what's important to you

99.9% effective

can reduce cramps and make periods lighter

good for 3-12 years after insertion by your doctor

suitable for age group (21~25)

will require a doctor to put in

98%   of users of this method have stuck with it for at least a year.

74%   of users of this method with similar health conditions to you report no negative side effects.

explore the data

Match:
User Stories

Curated stories from other users in the community highlight the pros and cons of each method.

Personalized

Reliable

Clear

Comfortable

back to matches

1

hormonal IUD

An IUD is a tiny device that's put into your uterus to prevent pregnancy. It's long-term, reversible, and one of the most effective birth control methods out there.

what's important to you

user stories

✓ I was constantly forgetting to take my pill on time, so it's amazing not to have to think about birth control ever.
— Katy, 27

✗ I have had frequent spotting and cramps sometimes since I got my IUD.
— Jenny, 22

see more stories

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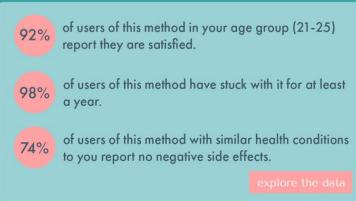
explore the data

Match: Statistics

Personalized statistics give an overview of how the method has worked for users with similar preferences or conditions. Users can further explore the data to view statistics of their choice.
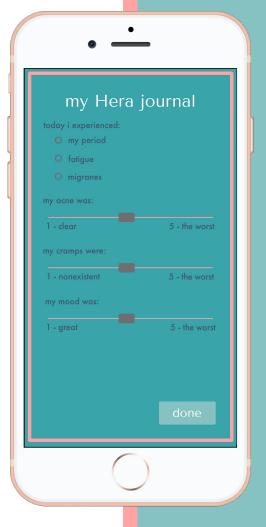
Tracking

Push notifications prompt the logging of symptoms and side effects at user-specified intervals: daily, weekly, or any other duration. This helps users track their own journey while contributing their experience to the Hera community's data set to find patterns and trends.

Personalized

Reliable

Clear

Comfortable

my Hera journal

today i experienced:
○ my period
○ fatigue
○ migranes

my acne was:

1 - clear   5 - the worst

my cramps were:

1 - nonexistent   5 - the worst

my mood was:

1 - great   5 - the worst

done

Competitive Analysis

	Healthcare Providers	Planned Parenthood		Nurx	Facebook Birth Control Group	Hera
		Website/App	Appointment			
Personalization	Moderate	Bad	Moderate	Moderate	Bad	Good
Reliability	Good	Good	Good	Good	Bad	Good
Recommendation Reasoning	Bad	Bad	Bad	Bad	Moderate	Good
Comfort in Discussion	Moderate	Bad	Good	Moderate	Good	Good

Good   Moderate   Bad   Not Applicable

Business Models

Sponsorship

Medical Research Groups
partner with and become sponsored by acclaimed medical research groups that focus on birth control research. These research groups provide reliable birth control information on Hera and utilize user data to advance their research to determine and explain relationships between birth control outcomes and an individual's characteristics.

In-App Advertising

In-app advertising is an effective monetization strategy that allows Hera to provide its services to users, free of charge.

Mobile Health Market

Market Growth

In 2018, the mobile health market value was projected to reach somewhere between 46 and 58.8 billion USD by 2020. This would be a significant growth from the value of 21-25 billion USD in 2017.

Development

Time: A 2018 report on 8,000 mobile health apps showed that 84% of them took an average of 2 years to develop.

Cost: The same report showed that the average cost of developing a mobile health app, when outsourcing about half of the development to 3rd party developers, was $425,000.

Strategic Partnerships

Medical professionals: partner with doctors and other medical professionals for screening of user-submitted information to ensure reliability.

Pharmaceutical companies: partner with R&D departments of birth control manufacturers to provide them with data that show trends and problems in users' experiences, indicating opportunities for innovation.

Data scientists: partner with data science experts to build and refine algorithms for recommendations and predictions.

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