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***I am an interdisciplinary designer passionate about problem-solving and human-centred designs that can add value and create an impact on society. With a background in Architecture, I channel my skills as a UX Designer, researcher, and visual communication designer. Along my journey, I have discovered that in the realm of design, it is the interconnections and free-flowing nature of ideas that truly bring about innovation and allow us to explore limitless possibilities.***



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***I am a versatile Interaction Designer with a strong academic foundation that bridges architecture and interaction design. My passion is to use design as a force for positive social change. With a Bachelor's degree in architecture and a Master's Degree in Interaction Design, I have a solid grounding in user research, ethical design principles, and behavioral psychology nuances. I am recognized for my skill in translating user insights into compelling and effective solutions. My interdisciplinary background provides a holistic perspective on design, enabling me to approach problems with a deep understanding of both physical and digital spaces.***

## Efficiency in the practice of ASHA Workers

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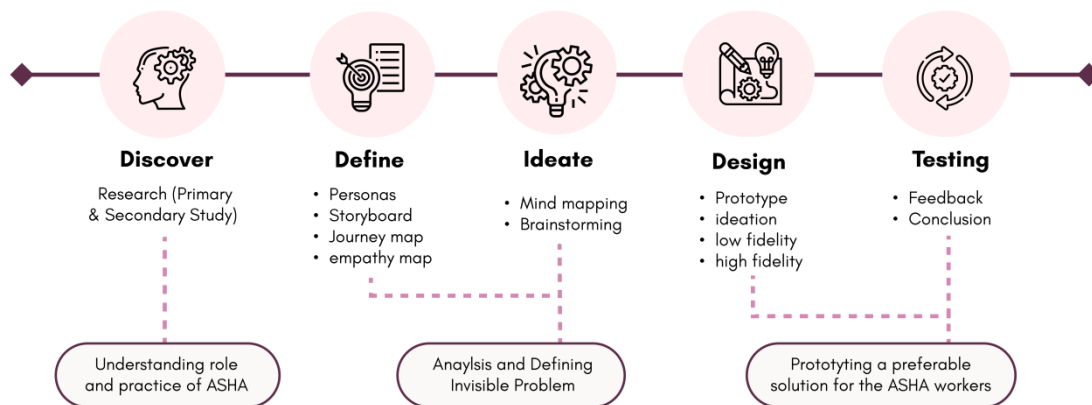
### Abstract

The National Rural Health Mission (NRHM) of India, initiated in 2005, aims to address rural healthcare needs, especially among vulnerable populations. Central to NRHM is the deployment of Accredited Social Health Activists (ASHA) to facilitate access to healthcare. However, ASHA workers face challenges like inadequate resources and communication issues, impacting their productivity. This project explores a novel approach to enhance healthcare awareness among pregnant women by introducing a new method of sensitization as a crucial component of the ASHA (Accredited Social Health Activist) kit. The aim is to bridge the gap of miscommunication and insufficient awareness that often hinders ASHA workers in their mission to connect marginalized communities with essential public health services. The proposed solution involves incorporating a health information asset into the ASHA kit—a user-friendly household product designed to convey vital health information in the context of prenatal care. This innovation empowers pregnant women, streamlines ASHA workers' efforts, and improves their productivity by reducing time consumption and workloads.

## Keyword

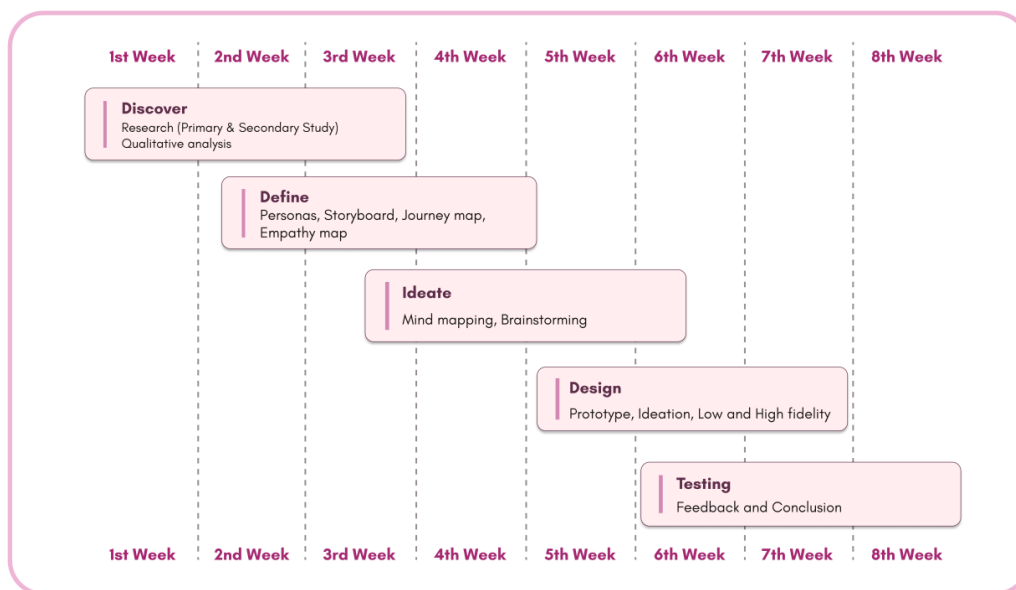
**Accredited Social Health Activists (ASHA), Rural Healthcare, Sensitization, National Rural Health Mission (NRHM), Healthcare services, Prenatal Care, Productivity, Fieldwork Experience.**

## Design Process



**Figure 17: Design Process**

## Scope of Work and Timeline



**Figure 18: Scope of Work and Timeline**

## Empathize and Discover

### Introduction

The Accredited Social Health Activist (ASHA) program plays a pivotal role in addressing the healthcare needs of marginalized communities in India. ASHA workers are the connecting bridge between these communities and essential public health facilities. Their responsibilities include counseling for awareness, fostering community participation, and facilitating the utilization of health services, especially during pregnancy and prenatal care.



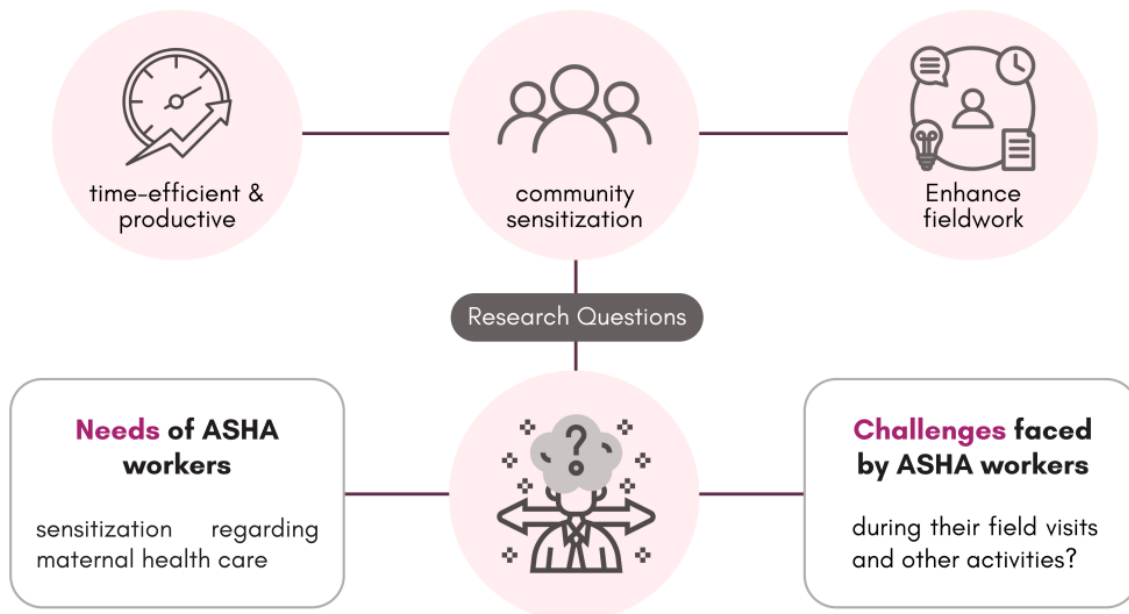
**Figure 19: ASHA Workers: Bridging Communities to Vital Health Services**

However, the efficacy of ASHA workers in fulfilling these vital roles is often compromised due to a lack of proper materials in their kits, miscommunication issues, and a general lack of awareness among their target population. This situation creates challenges in convincing pregnant women to adopt healthier practices and in addressing their specific healthcare needs. Consequently, the productivity of ASHA workers is hampered, leading to increased time consumption and workloads. Addressing

**this gap can empower pregnant women to make informed healthcare decisions and allow ASHA workers to carry out their responsibilities with greater efficiency.**

### **Opportunity Statement**

**How might we support ASHA workers in making their practice more time-efficient and productive, proposing easier ways of sensitization, and enhancing their fieldwork experience?**



**Figure 20: Research Questions**

## The Eco System

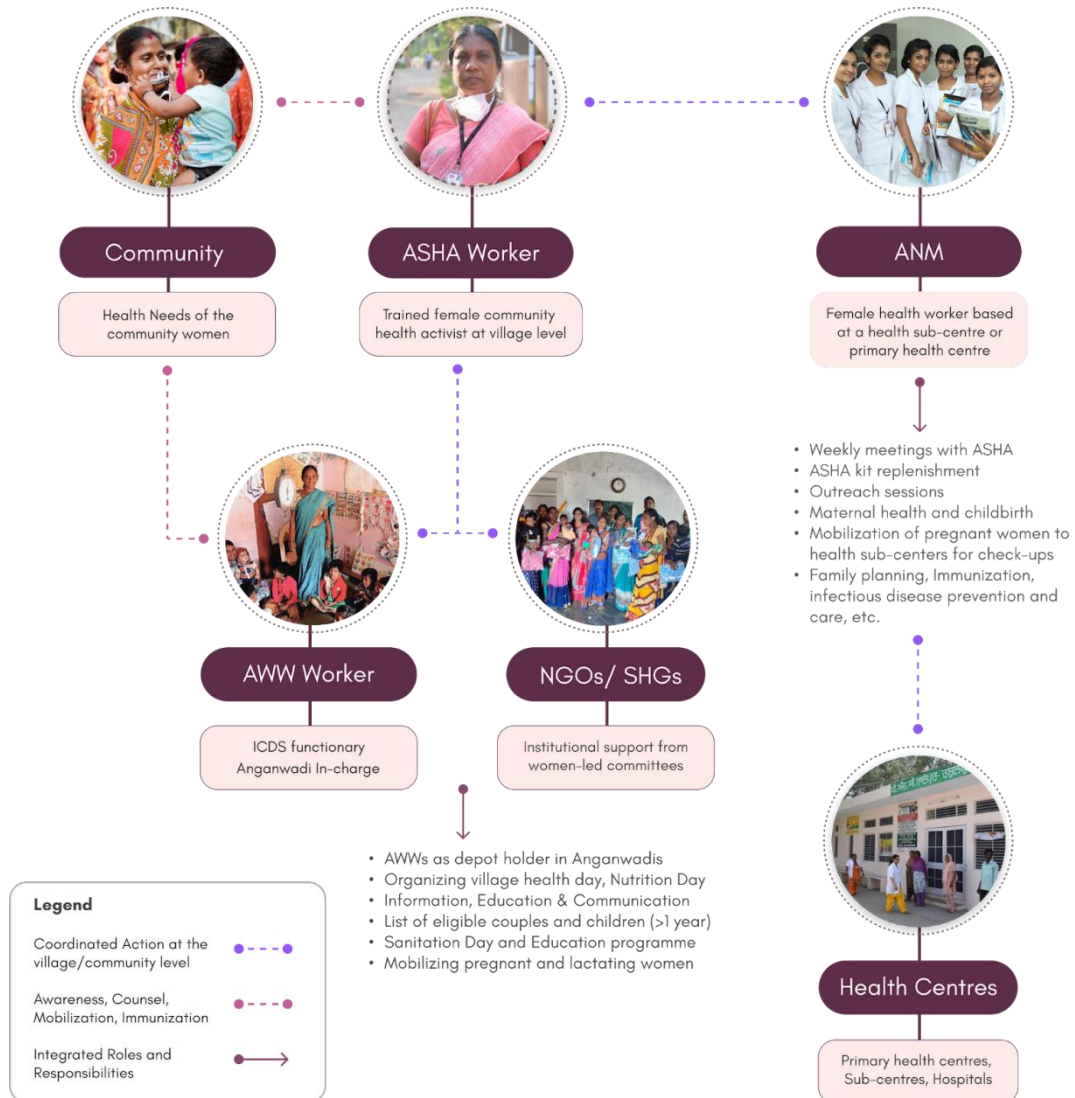


Figure 21: Healthcare Ecosystem

In the healthcare ecosystem, each village has an ASHA (Accredited Social Health Activist), an Auxiliary Nurse Midwife (ANM), and an Anganwadi worker (AWW). They are responsible for delivering health and nutrition services to the communities.

Each of the workers plays a distinct yet interrelated role in the same village. Their collective efforts can lead to improved maternal and community health outcomes.

### Criteria and Selection of ASHA

- *A resident of the village*
- *Age Group 25-45 yrs*
- *Education upto eight class*
- *Communication skills and leadership qualities*

### Selection of ASHA

- **1 ASHA  $\geq$  1000 Population**
- **1 ASHA Per Habitation/village/Community**

### Field research



**Figure 3: Anganwadi center (left), Paper pamphlets that were distributed to ASHA Workers (right)**



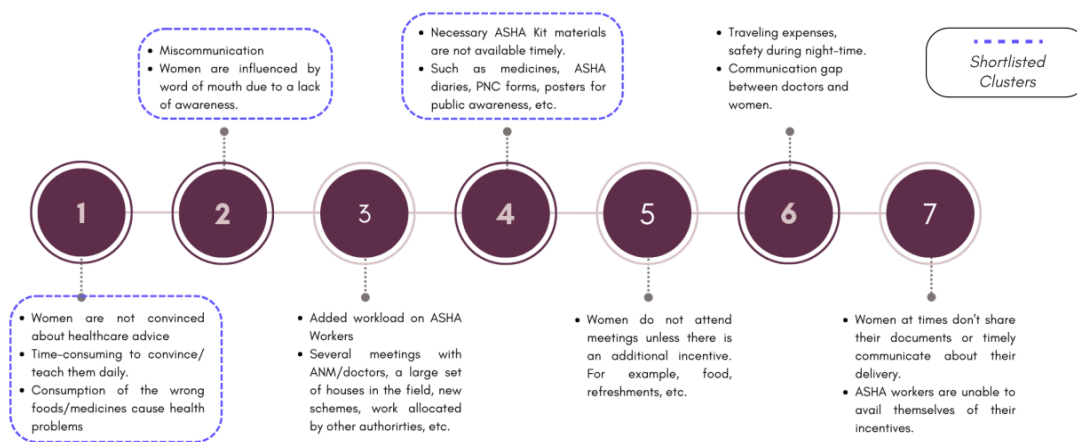


**Figure 22: Mother being counseled by the ASHA and NGO worker at AWC (left), Noticeable posters on the wall of Anganwadi centers (right)**

Following our field visit, several key observations emerged regarding the practice of ASHA workers.

### Findings | Shortlisted Problem Clusters

There are multiple barriers and challenges in effectively delivering healthcare advice and services to women in the community. These challenges include skepticism among women, time-consuming efforts to educate and convince them, health issues arising from improper food and medication choices, miscommunication, reliance on word-of-mouth information due to low awareness, and a lack of timely access to essential materials and resources within the ASHA kits, such as medicines, ASHA diaries, PNC forms, and awareness posters.



**Figure 23: Primary Research Findings**

## Define and Ideate

### User Personas

Two different Personas were created based on the target users. The two characters were based on the ASHA worker and a first-time pregnant mother. The motivations, frustrations and goals of the characters were defined to get a better understanding.

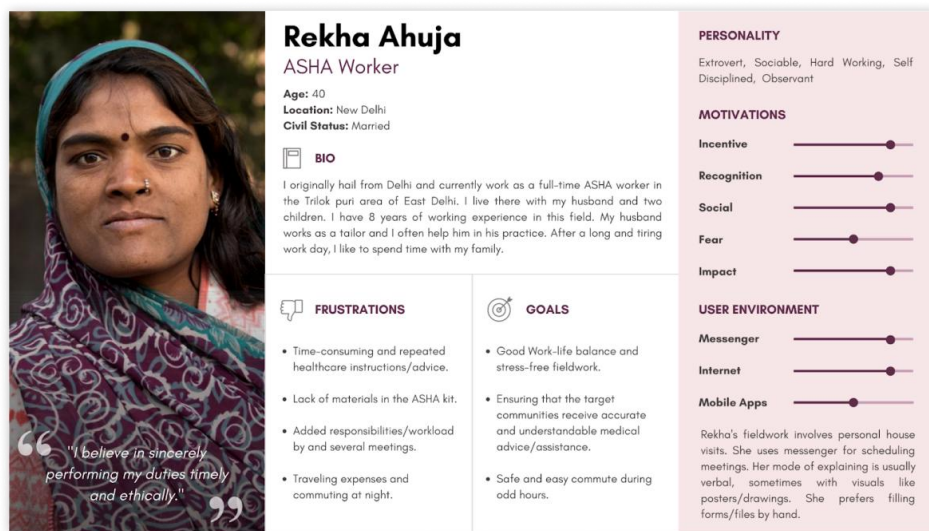


Figure 24: Persona I-The ASHA Worker

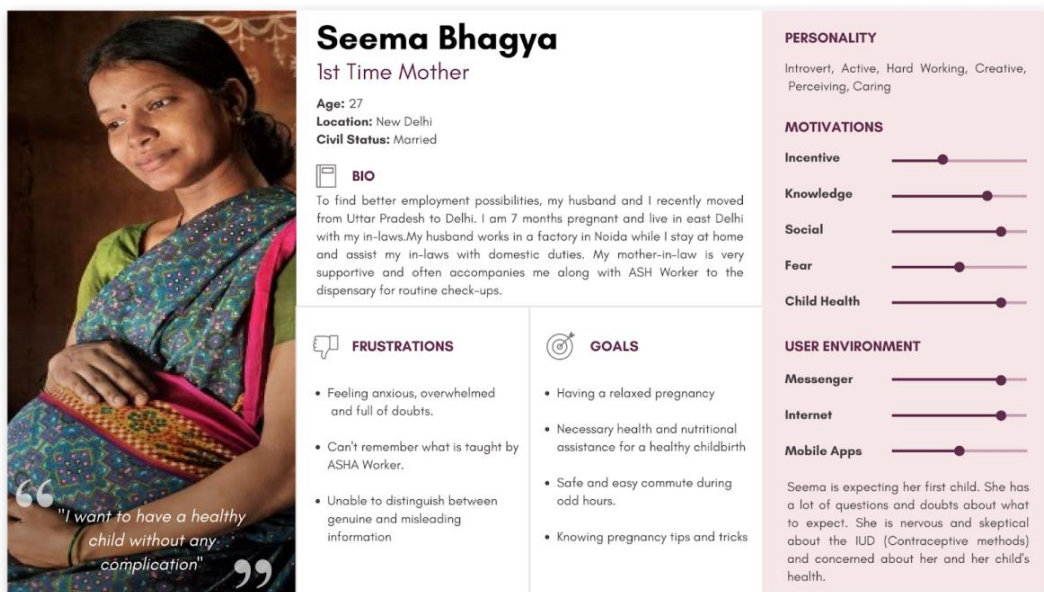


Figure 25: Persona II-First-time Mother

## Storyboards

These storyboards illustrate various situations encountered by ASHA workers during their visits to communities as part of their fieldwork.

### Scenario 1

Rekha, an ASHA worker gets ready for her daily rounds and visits. Rekha, including the other ASHA workers, are instructed about their task by the ANM, which is to be completed by the end of the day.



Rekha (an Asha worker) is getting ready for work when she suddenly receives a message for an urgent meeting



She arrives at the dispensary



After all the ASHA workers assemble they are instructed to create a report of their area regarding a new scheme



To do so, during her field visit, she attempts to gather women in her area and persuade them to incorporate new health supplements into their diet.



However, many of them are not convinced, have many doubts and uncertainties, or are influenced by word of mouth.



By the end of the day, Rekha is unable to complete her report as very few women agreed and she also had to deal with the angry ANM

**Figure 26: Scenario 1**

### Scenario 2

Rekha is on her door-to-door field visit. She counsels a new mother verbally about the diet requirements, medicines, breast-feeding, etc. But, the woman gets overwhelmed with the amount of information received and forgets about some important details.

**As a result she is bound to make a misinformed health choice and bear its negative consequences.**



Rekha is on her field visit, going door to door for her daily survey



In one such house, she helps a new mother clear her doubts and verbally advises/ explains to her about meals, medicines, bread-feeding, etc.



Later in the day, the woman forms about a few details of the drugs she supposed to take due to the overwhelming amount of information she received



She seeks advice from her relatives, family members, and friends who give her different suggestions



Later in the night, She ends up taking the wrong medicine at the wrong time resulting in stomach pain.



Feeling helpless, she reaches out Rekha, late at night when she is at home spending time with her family.

**Figure 27: Scenario 2**

## Journey Mapping

**After the story boarding the findings were categorized in way that would lay out users journey.**



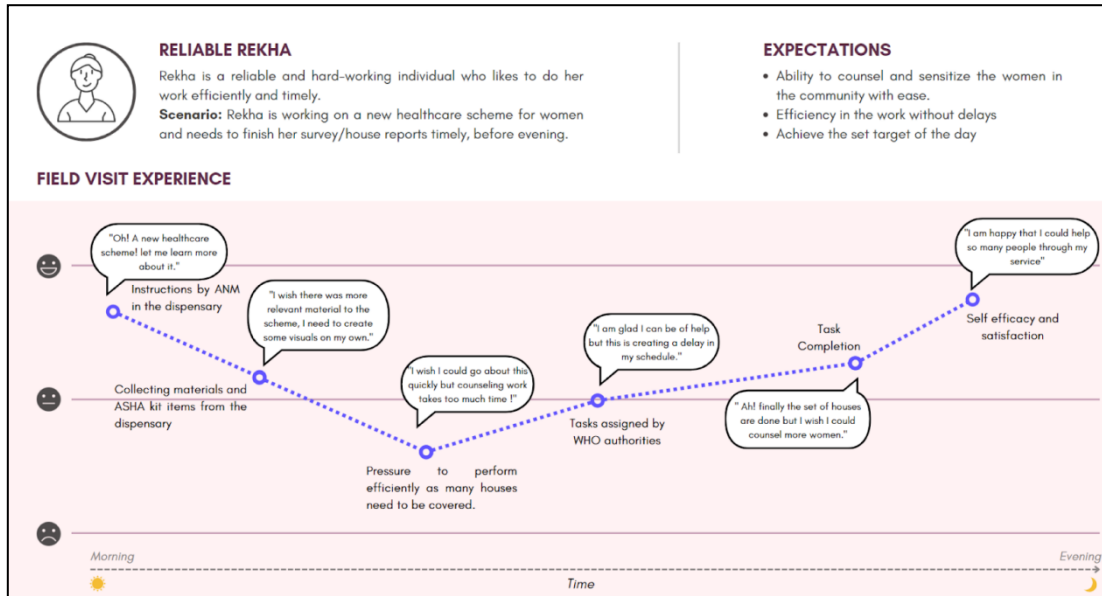


Figure 28: Journey Map

## Empathy Map

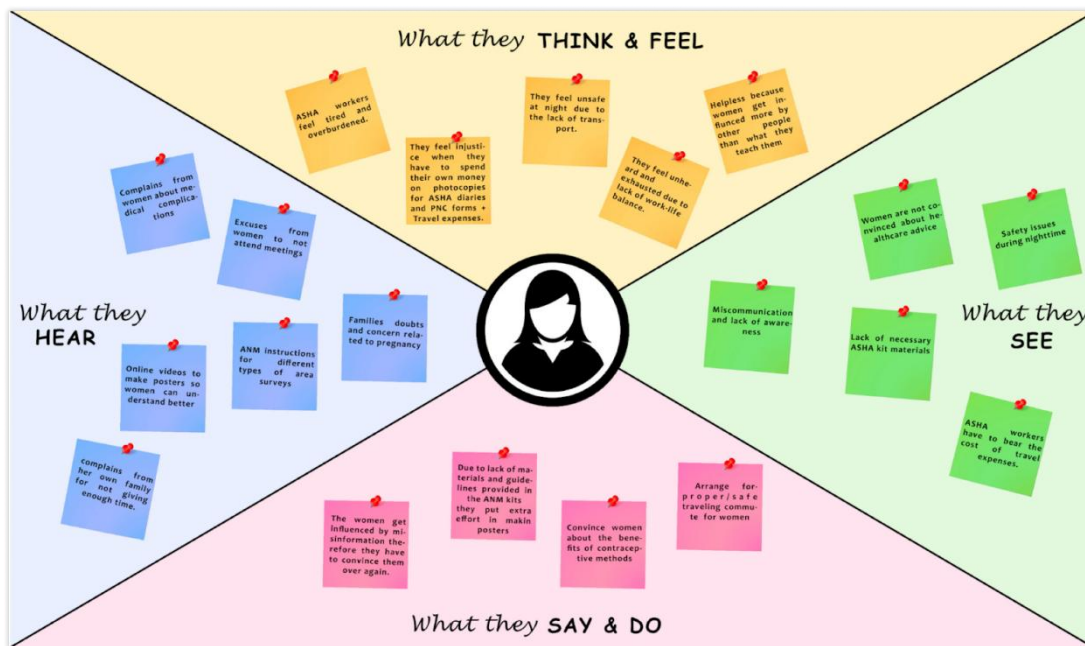


Table 23: Empathy Map

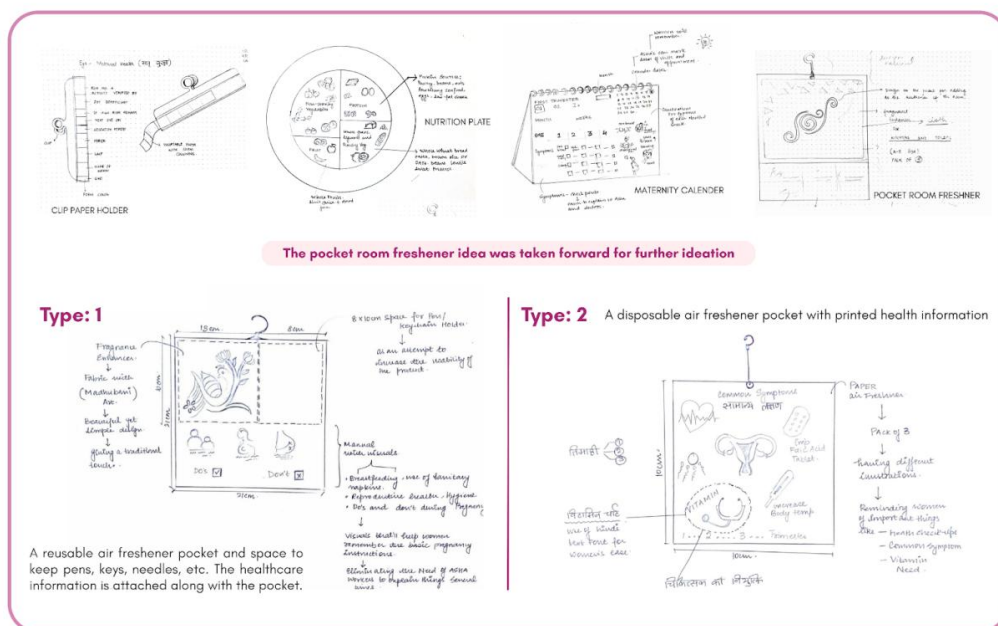
# Iceberg Model

**Table 1: Iceberg model for the problem**

<b>What we see?</b>	<ul style="list-style-type: none"> <li>• Women are not convinced about healthcare advice.</li> <li>• Miscommunication and lack of awareness.</li> <li>• Lack of necessary ASHA kit materials.</li> <li>• ASHA workers have to bear the cost of travel expenses.</li> <li>• Safety issues during nighttime</li> </ul>
<b>What users feel?</b>	<ul style="list-style-type: none"> <li>• ASHA workers feel tired and overburdened.</li> <li>• They feel injustice when they have to spend their own money on photocopies for ASHA diaries PNC forms and travel expenses.</li> <li>• They feel unsafe at night due to the lack of transport</li> </ul>
<b>Why users do what they do?</b>	<ul style="list-style-type: none"> <li>• There is a lack of materials and guidelines provided in the ANM kits due to which convincing is time-consuming and tiresome.</li> <li>• The women get influenced by misinformation and also fear the side effects of extreme contraceptive methods, such as Injections, Copper-T (IUD), etc.</li> <li>• Lack of proper traveling commute leads to various safety concerns for ASHA workers.</li> </ul>

Through the iceberg model we gained a deeper understanding of the issues at hand, addressing the root causes rather than just the visible problems.

## Brainstorming

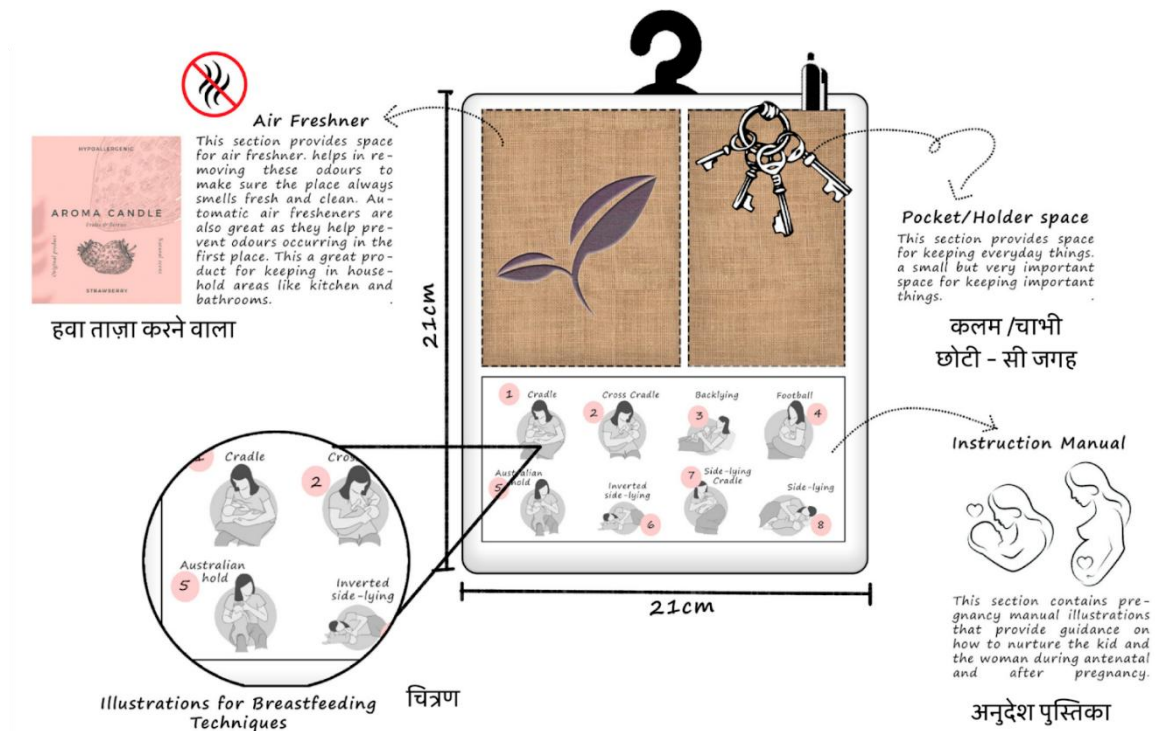


**Figure 29: Concept Ideas**

## Design and Testing

### Proposed Solution and Prototypes

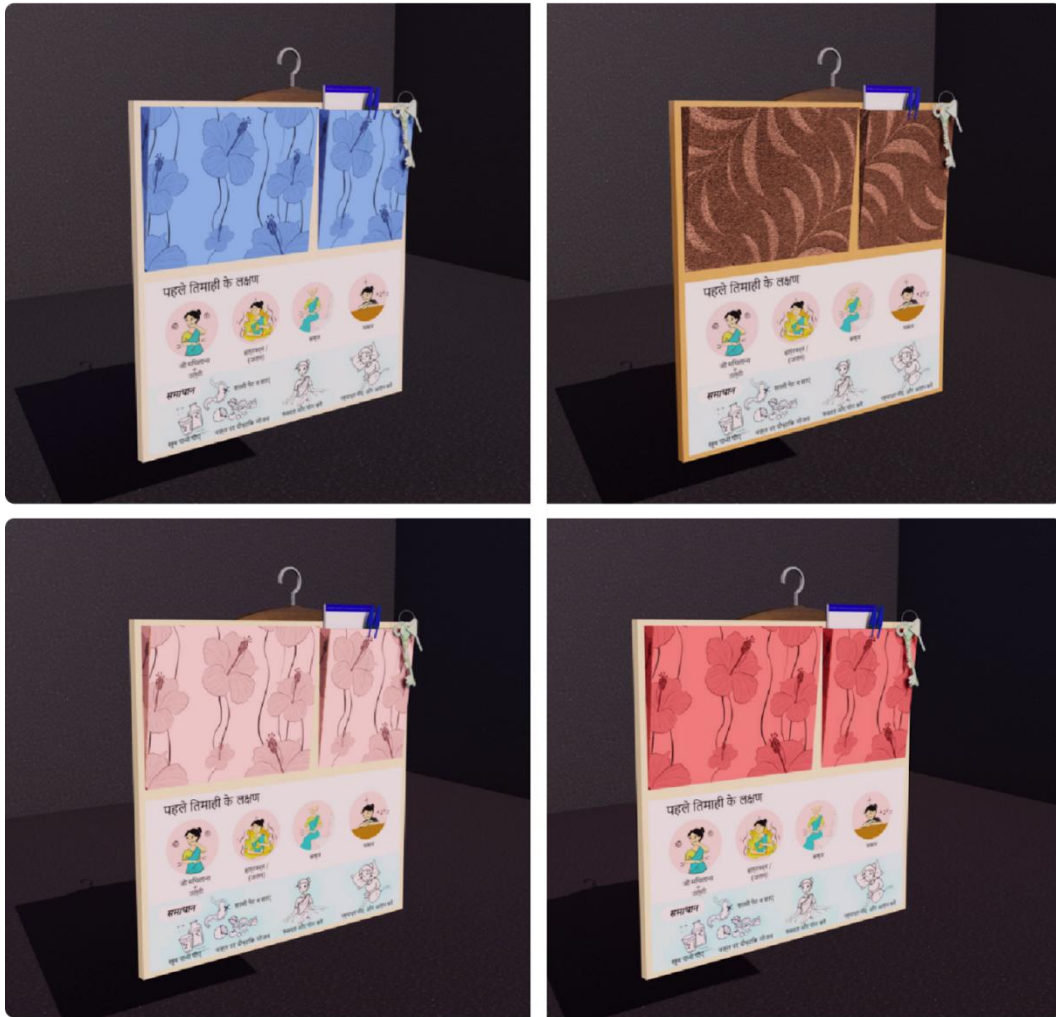
**Proposal: Introducing a method of sensitization/awareness about healthcare for pregnant women as a part of the ASHA kit materials.**



**Figure 30: Proposal Idea**

### Health Information Asset | Easy-to-use household product:

Communicate important health information in the context of prenatal care/ pregnancy that can empower pregnant women and mothers and act as a facilitator in making the practice of ASHA workers more efficient.



**Figure 31: High Fidelity Prototype**


### Key Features:

1. The product features a health information manual, incorporating visuals and regional language for effortless access and sharing, thus serving to enhance community awareness.




Space to fill visit dates/  
Remarks by ASHA worker  
↑


## पहले तिमाही के लक्षण




जी मचिलाना  
+  
उल्टी



हार्टबर्न /  
(जलन)




कब्ज




थकान


**समाधान**




खूब पानी पीएं



खाली पेट न खाएं  
वक़्त पर पौष्टिक भोजन



कसरत और योग करे



पर्याप्त नींद और आराम करे

Figure 32: Visuals for Trimester 1

## दूसरा तिमाही के लक्षण

**Illustrations**



चक्कर आना



सूजन



बंद नाक



पैर में ऐंठन

**समाधान**



लंबे समय तक खड़े ना रहे



करवट लेकर सोये

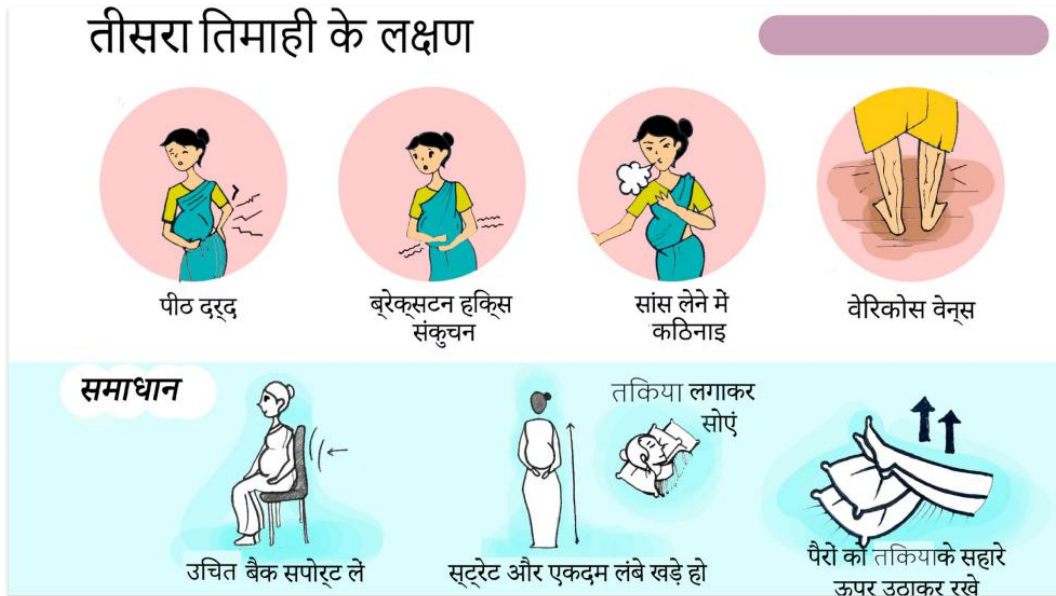


वेसलिन और क्रीम लगाए



फैलाव और मालिश करे

Figure 33: Visuals for Trimester 2



**Figure 34: Visuals for Trimester 3**

2. It also includes a reusable air freshener pocket designed for prolonged usage within household areas.
3. To enhance the product's practicality, multipurpose sections for everyday items have been thoughtfully integrated.
4. Notably, the product upholds ecological and environmental sustainability principles by employing jute fabric for its pockets and sections.
5. The reusable air freshener pocket effectively reduces waste generation.
6. Furthermore, the health information manual is printed on white biodegradable coated paper, providing an environmentally-friendly substitute for conventional plastics. This paper is water and tear-resistant while remaining lightweight.



**Figure 35: Proposed Solution**

## Feedback

- ***It was found that the illustrations could convey the health information message to the user.***
- ***While the use of pockets was earlier thought to be for items like notepads and pens, the user suggested that it can be rather used to place medicines.***
- ***A useful approach for the ASHA workers, as they can advice them about specific medicines to be kept in the pocket.***



*Figure 36: Feedback with solution prototype*

## Conclusion

Our idea is focused on spreading important health information in the context of prenatal care/ pregnancy that can empower pregnant women and mothers and act as a facilitator in making the practice of ASHA workers more efficient. It can help enhance the overall knowledge and awareness in the community where women are closely connected and provide access to an environment where there is clear communication, elimination of doubts/ misconceptions, relevant healthcare advice, etc.

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