



PAGIR

Enabling shared decision making for birth spacing



ABSTRACT

Birth spacing is the planned interval between two pregnancies to improve the nutritional status of the mother and child. Our project investigated the knowledge, attitudes and practices of married men and women living in Manamathy village pertaining to birth spacing.

Our design solution aims to fill the gap between the need for desirable and effective birthspacing methods and access to contraceptives. First we have designed a communication tool for the village health nurse to introduce contextually appropriate birth spacing methods according to family specific parameters. Secondly, we have ideated a low cost contraceptive container, designed to remind the couple about their personal commitment to maintain the gap of Birth Spacing and makes contraceptives readily available secretly near the bedside.

The project is planned to be continued with support from community leader Dr.Sujata and could be applied in different cultural contexts.



CONTEXT

WHAT IS FAMILY PLANNING?

Family Planning is one of the big health challenges that developing countries worldwide face. Following the definition of the WHO Family Planning “allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births.” Consequently the term addresses the size of the family, means the total number of children on one hand and the time of giving birth to the children, including the spacing between one and another child, on the other hand.



CURRENT SITUATION OF FAMILY PLANNING WORLD WIDE

During the last several decades, great progress in the area of Family Planning has been achieved. But nevertheless the goal of family planning remains unaccomplished.

Currently an estimated number of 225 million women in developing countries would like to delay or stop child bearing but do not use any kind of contraception. The reasons for that are various: Worries of side effects, social disapproval and partner's oppositions are a few reasons. The fact that distribution services and supplies are not yet available everywhere, limited choices as well as lack of knowledge about contraceptive methods are others.

THE FOCUS BIRTH SPACING

This project focuses specifically on the spacing between two children called Birth Spacing, which is one aspect of the field of Family Planning. The aim of creating a gap between one and another child is to reduce the infant/child mortality as well as to improve maternal health. Publications of the WHO and other international organizations recommend a gap of 2-3 years. Recent studies of USAID suggested a gap of 3-5 years.

Research has shown that there is a number of issues which is more likely to occur when a woman is pregnant again within a year of giving birth. These issues include an increased risk of:

- low birth weight
- small gestational size

- preterm birth
- infant death
- labor issues such as uterine rupture

A gap between the first and the second child of 2-3 years allows the woman to replenish vital nutrients that were lost during the child birth and to allow the organs to store back to normal. Besides these health effects there are also positive social effects of birth spacing as ensuring that the parents have the energy and the ability to focus on the newborn.

This project aims to enable couples to maintain the gap of birth spacing by supporting them in making the choice of different contraceptive methods and turn this choice into reality.



MARRIAGE



FIRST
BABY

3
YEARS



SECOND
BABY

THE COMMUNITY MANAMATHY

Manamathy is a village in Tamil Nadu, south India at the south side of Kanchipuram. In the village live about 874 families and it has a total population of approximately 3457 people. The number of men and women is almost equal. The literacy rate in Manamathy is lower than the average rate in Tamil Nadu. The only government tertiary health centre in the district of Manamathy is the Chengalpattu Medical College, which serves as a referral unit for several secondary care centres as well as primary health centers.

The Family Planning Association India (FPAI) is engaged in the village since a couple of years. The work is mainly driven by Dr. Sujatha, who was our contact person and host during the visits.





FAMILY PLANNING IN MANAMATHY

The work of the FPAI has already shown results in Manamathy. During our work with the community we realized that the understanding of Family Planning seems to be limited to the size of the family and strongly connected to the sterilization of the woman after the second child. Consequently most of the younger families only have two children. Nevertheless the work in the communities has shown that there is a big variety regarding the spacing between two children.

We found that in a lot of families the gap between the birth of the first and the second child is only one year, including the 10 months of pregnancy. This harms the health of the mother and the baby. Consequently this project particularly focuses on Birth Spacing in Manamathy.



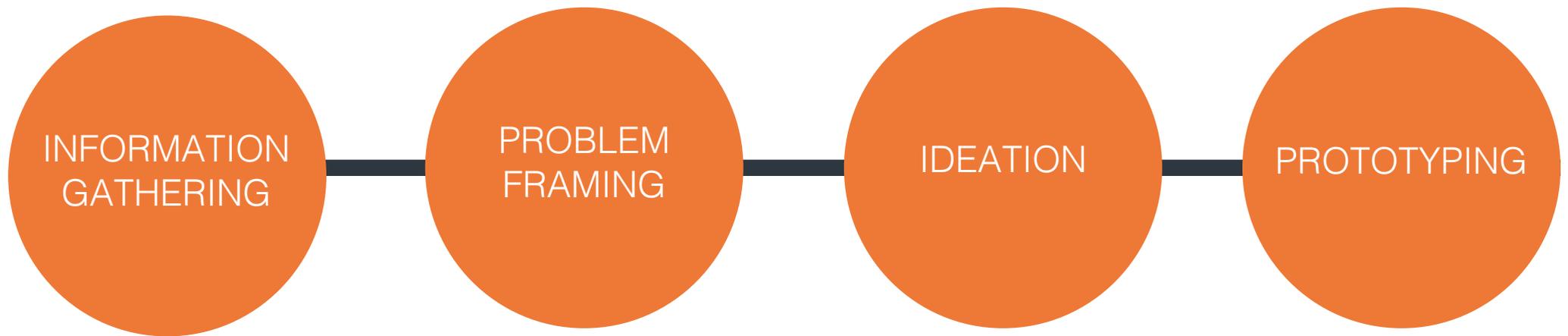
PROBLEM FRAMING

Enabling families to make desirable and effective choices for birth spacing



DESIGN PROCESS

DESIGN PROCESS



HOW DID WE GATHER INFORMATION



FIRST VISIT

In the beginning of the information gathering we did not specifically focus on the aspect of Birth Spacing and followed a wider scope regarding the whole concept of Family Planning. During our first visit we had several interviews with men as well as with women. We aimed to learn about the family structures in this village and their understanding and knowledge about Family Planning. Thus our approach was to focus on the individual 'family stories' to get insights about the point of marriage, the number and the timing of having children as well as to ask questions regarding Family Planning in general.



SECOND VISIT

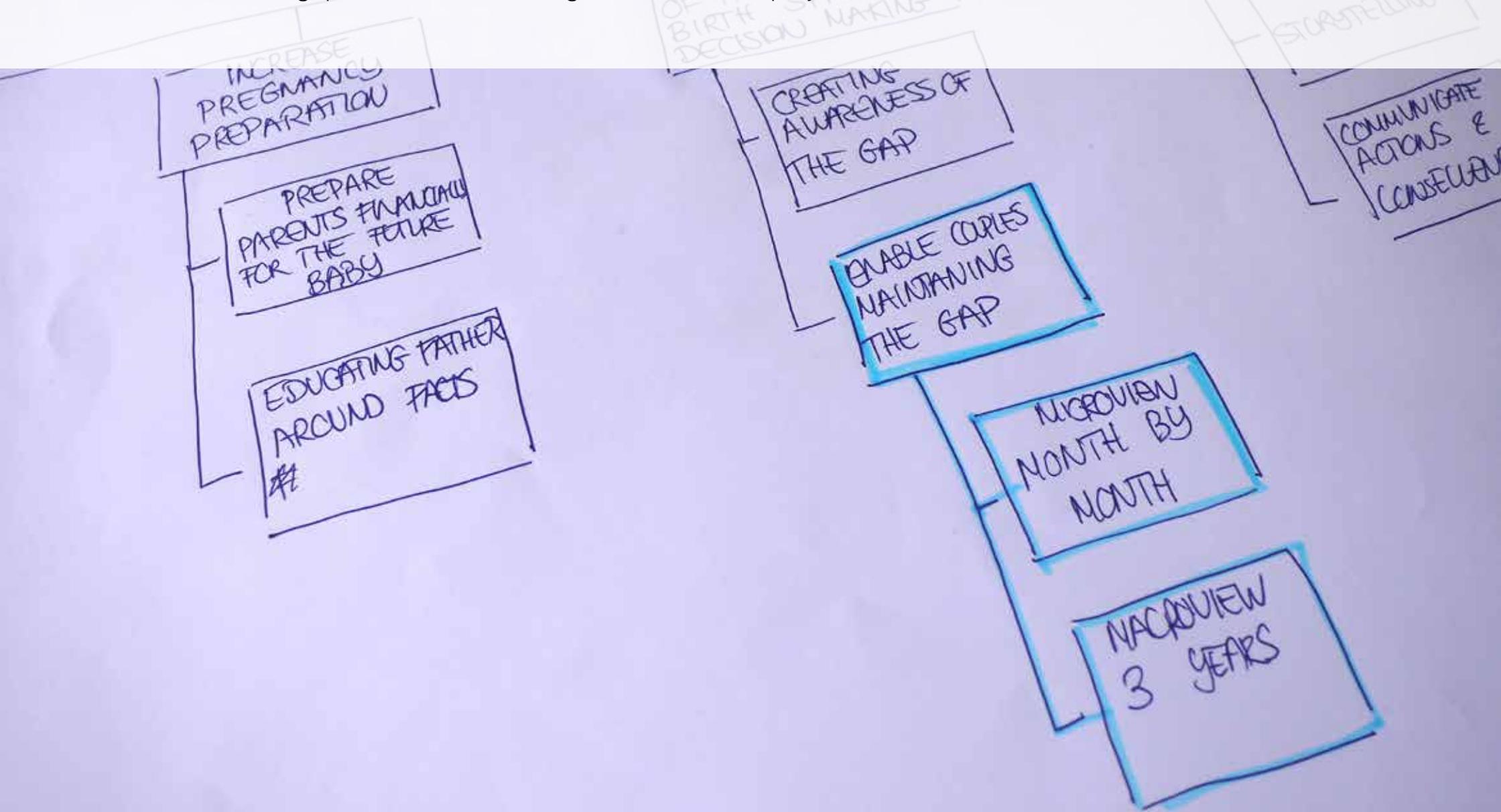
During our second community visit we prepared several focus group workshops with men and women separately as well as with couples. In the workshops we used the story of a fictive couple (Nisha and Kumar) that was represented by props. With this approach we hoped to make it easier for the people to speak openly about Family Planning by depersonalizing the conversation. During our second visit we focused on Birth Spacing and tried to gather information about preferred contraceptive methods as well as the experience of the time between one and another child (3 years) in general.

WHAT IS THE INFORMATION BASIS WE BUILD OUR PROTOTYPE ON?

- Birth Spacing is no primary problem in Manamathy
- Some families in the village are not interested in maintaining the gap, some are aware of the importance of birth spacing and others try to maintain a gap between one and another child.
- The families in Manamathy lack knowledge about contraceptive methods other than withdrawal, abstinence and condoms. This makes them incapable of maintaining the gap.
- Regarding the choice of contraception and the maintaining of the gap, men seem to be the decision makers.
- 90% of the families that come to the Sex/HIV counselor use condoms as contraceptive method, 10% use IUDs. The oral contraception pill is not in usage right now.
- There is a lot of social stigma around condoms. The condoms that are freely available at the PHC are perceived to be less effective. People feel extremely uncomfortable to speak about the usage of condoms as well as buying them.
- In this area only three types of contraceptive methods are available for free at the PHC: Copper-T, Condoms and Oral Contraception pills.
- Right now the conversation about sex as well as any form of contraception is awkward. Our interview partners as well as the translator felt extremely uncomfortable to talk about anything related to Family Planning.

PROBLEM FRAMING TREE

The problem of Birth Spacing can be divided into the creation of awareness regarding the importance of Birth Spacing and the realization of the gap itself, the latter being the focus of this project.



PROBLEM FRAMING

The work in Manamathy has shown that in the context of Birth Spacing, it is important to differentiate between awareness and willingness. A lot of people in Manamathy are already aware of the importance of Birth Spacing. But at the same time awareness does imply willingness of the couple. Some families in our interviews said that they want to wait 2-3 years for the next baby but they were not actively trying to prevent a pregnancy within this gap.

Besides this group of people who are only aware of Birth Spacing there are also families who are willing to maintain the gap between the first and the second

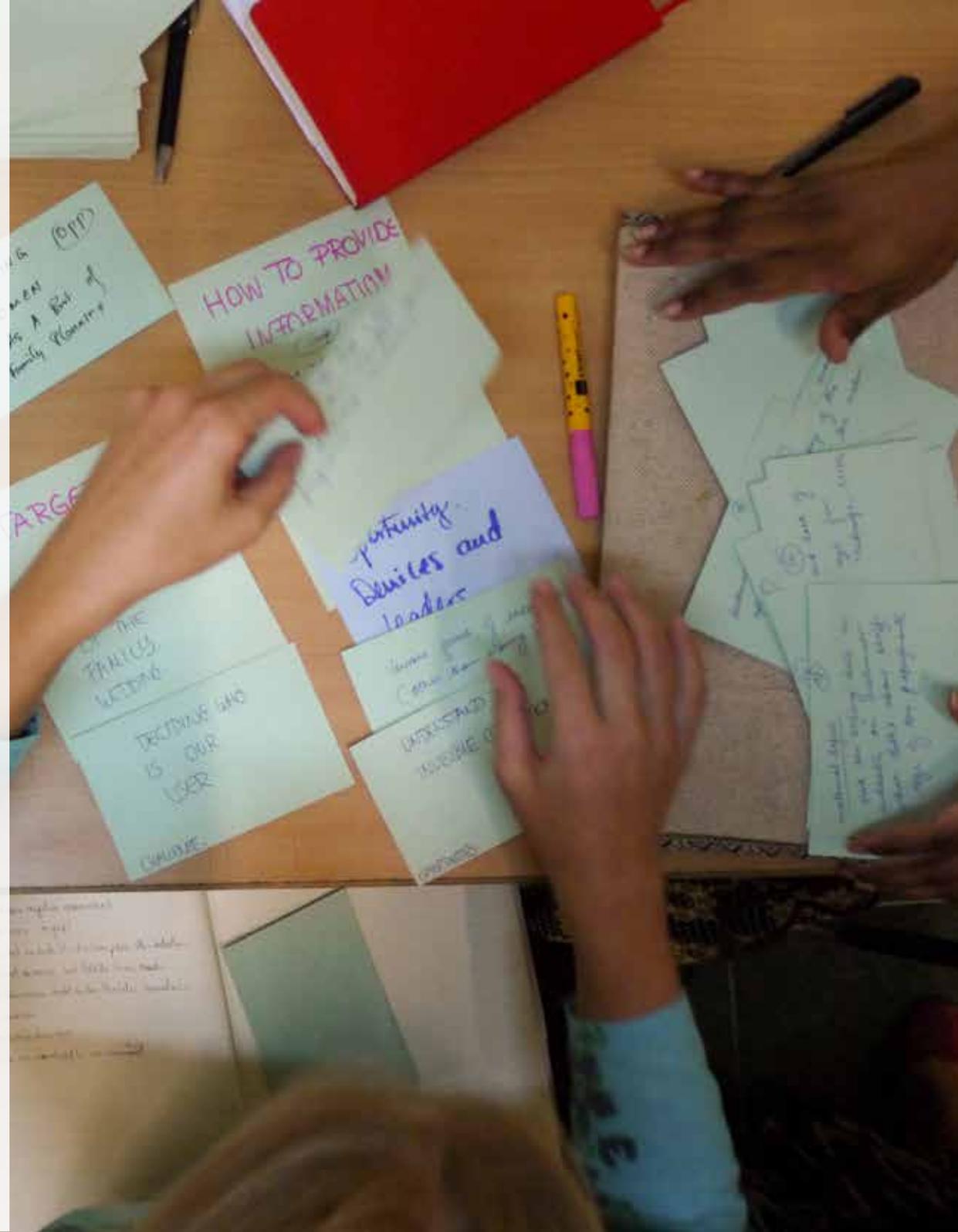
child. The methods that are currently used are withdrawal, which is not effective or abstinence, which is not pleasant for the couples. We identified this as a need for more effective and desirable contraceptive methods. The access to those methods already exists like: Copper-T, condoms or oral contraceptive pills are freely available at the health care facilities. Nevertheless the people lack knowledge about those contraceptive methods. Hence there seems to be a gap between need and access, which we want to address with our solution. By doing this we want to enable couples to make desirable and effective choices for birth spacing.

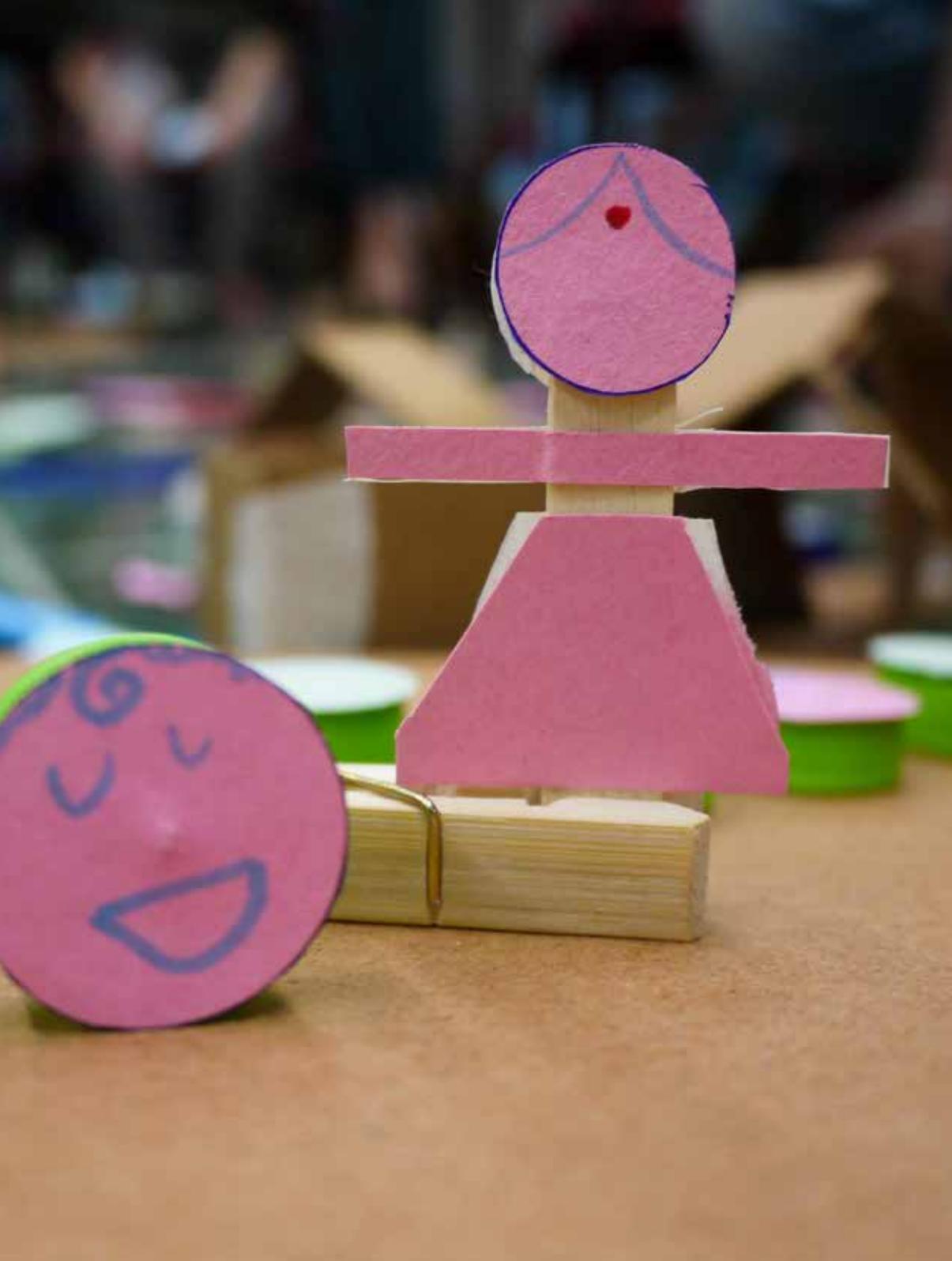


IDEA GENERATION

We started to look at the birth-spacing-gap from two different perspectives: The micro perspective focuses on the prevention of pregnancy each day during the three-years-gap. The macro perspective focuses more on the maintenance of the whole length of the cap. This perspective deals more with questions like: How can the family track how much time has already passed? What kind of activities/events could fill the three-years-gap?

Our first approach was designing a box that implements the calendar based method for avoiding pregnancy. In this context we focused on different methods which the villagers would use to track the menstrual cycle like a calendar, a necklace or an automatic timer





IDEA GENERATION

For our second community visit we prepared a sketch model to use for the workshops.

The usage of the sketch model brought us two key insights: It is important to introduce a variety of contraceptive methods so that the couple can make the choice on their own. Besides the introduction of contraceptive methods it is important to enable the realization of couple's choice.

Our main goal during the ideation was to make the Birth Spacing Gap a better experience for the couple, having in mind that the most common contraception currently is abstinence.



SOLUTION

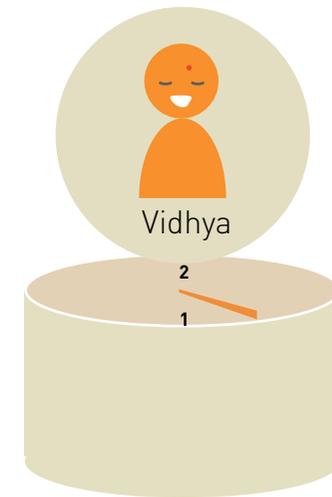
SOLUTION

Making birth spacing a **BETTER** experience



Making the decision
WHEEL

PAGIR



Enabling the decision
POUCH

MAKING THE DECISION

THE SOLUTION

Our solution addresses the identified gap between need and access regarding contraceptive methods in Manamathy and tries to make Birth Spacing a better experience by enabling the willing couples to make effective and desirable choices for Birth Spacing.

Based on the information we gathered during the community visits the result of our ideation is a solution that consists of two different parts: The Pagir Wheel as a decision making tool. The Pagir Pouch which is a family planning box in order to address the stigmatization around the use of condoms.

Because of time constraints we were not able to work on both parts of the solution in detail during the summit. Due to the fact that the pouch needs more research and exploration regarding the functionality and design we focused on the wheel and only give an overview about our key thoughts regarding the pouch.



MAKING THE DECISION

WHY

The first part of the solution focuses on making the decision which includes the introduction of available contraceptive methods. Our work in the community has shown that the introduction of contraceptives is a challenging task for the health professionals in Manamathy since this is a taboo topic. Given that, we decided to focus on a decision making tool in order to enable the health professionals with an instrument that allows them to introduce contraceptives and interact with the couple in a softer and easier way: The Pagir Wheel.

The Pagir Wheel as a decisionmaking tool provides a double value: On one hand we provide the health professionals with a tool that facilitates the conversation about contraceptives which is right now an awkward topic and makes the choice of contraceptives a natural decision for families regarding the realization of Birth Spacing. On the other hand the tool provides value for the willing couples that currently lack any knowledge of contraceptive methods. The Pagir Wheel provides contextually and individually appropriate contraceptive methods and empowers the couple as a decision maker of their own sexual and reproductive life.



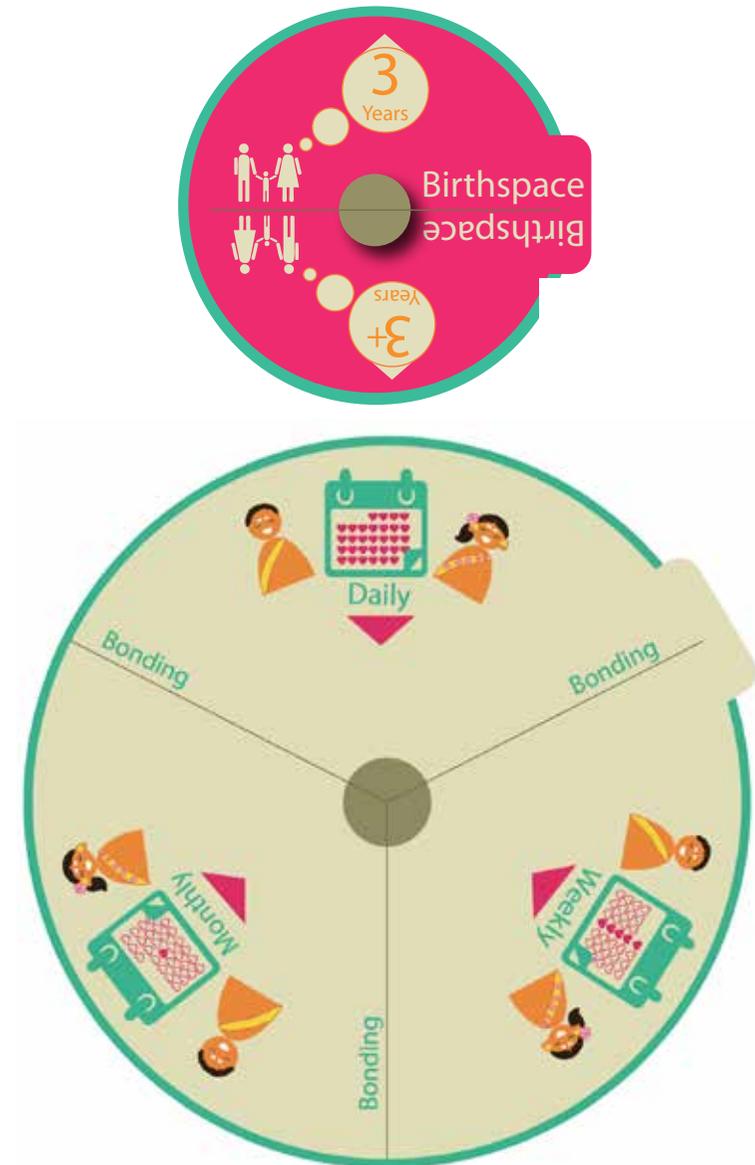
MAKING THE DECISION PAGIR WHEEL

The Pagir Wheel consists of several layers that represent the parameters which influence the output of appropriate contraceptive options. The parameters should be adapted depending on the context and the amount of contraceptive methods that are available. For this specific context we decided to build a two-layers-prototype based on the parameters:

a) bonding time and b) length of the gap.

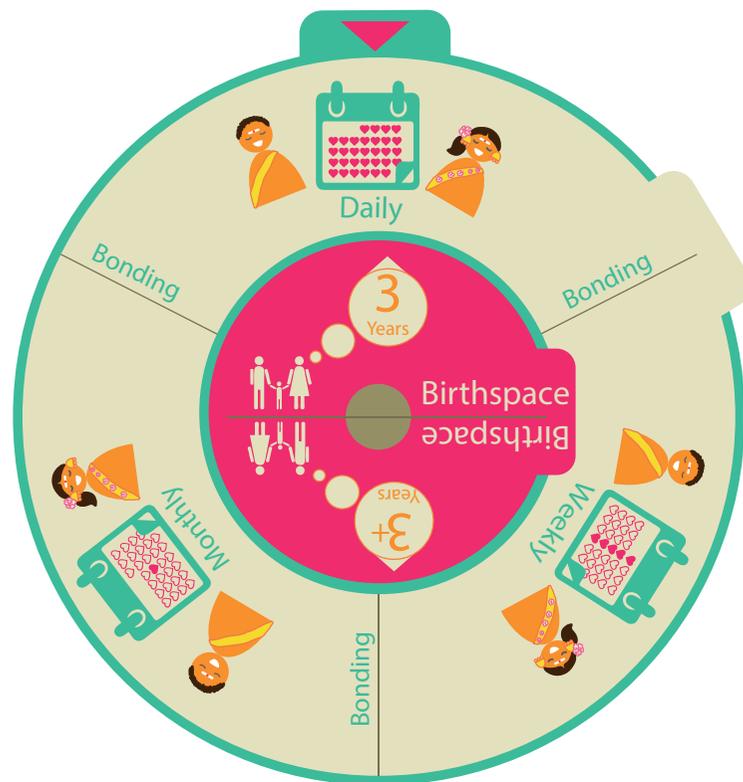
The parameter of bonding time enables the proposition of suitable contraceptions depending on the amount of time that the couple spends together. By asking if the couple sees each other daily, weekly or monthly it relates to the couple's possibility of having sex which determines the most appropriate method on basis of comfort and side effects.

The parameter of the length of the gap enables the couple to choose the duration of the gap and creates a space for reflection about the goals as a family.



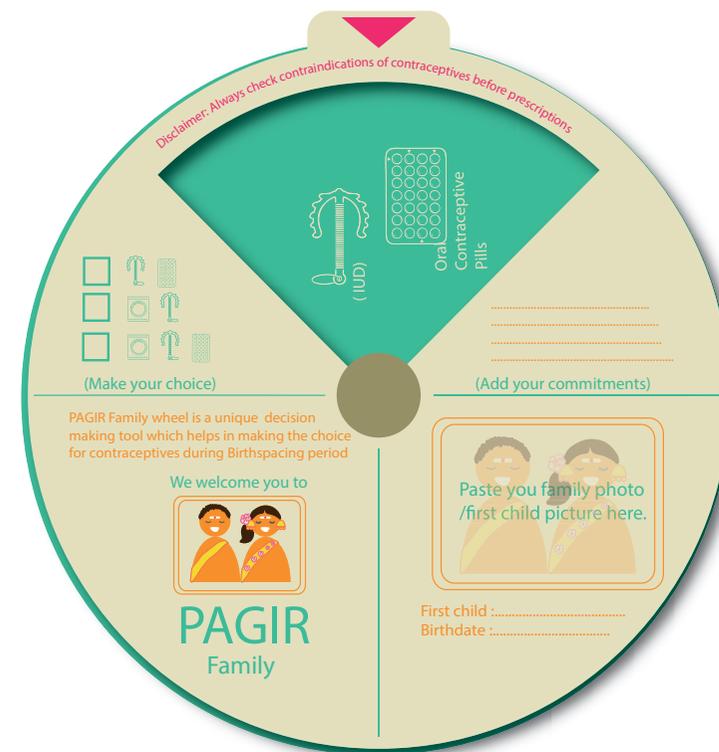
MAKING THE DECISION

PAGIR WHEEL



FRONT

The frontside includes the two layers and an indicator that guides the user in the interaction with the tool.



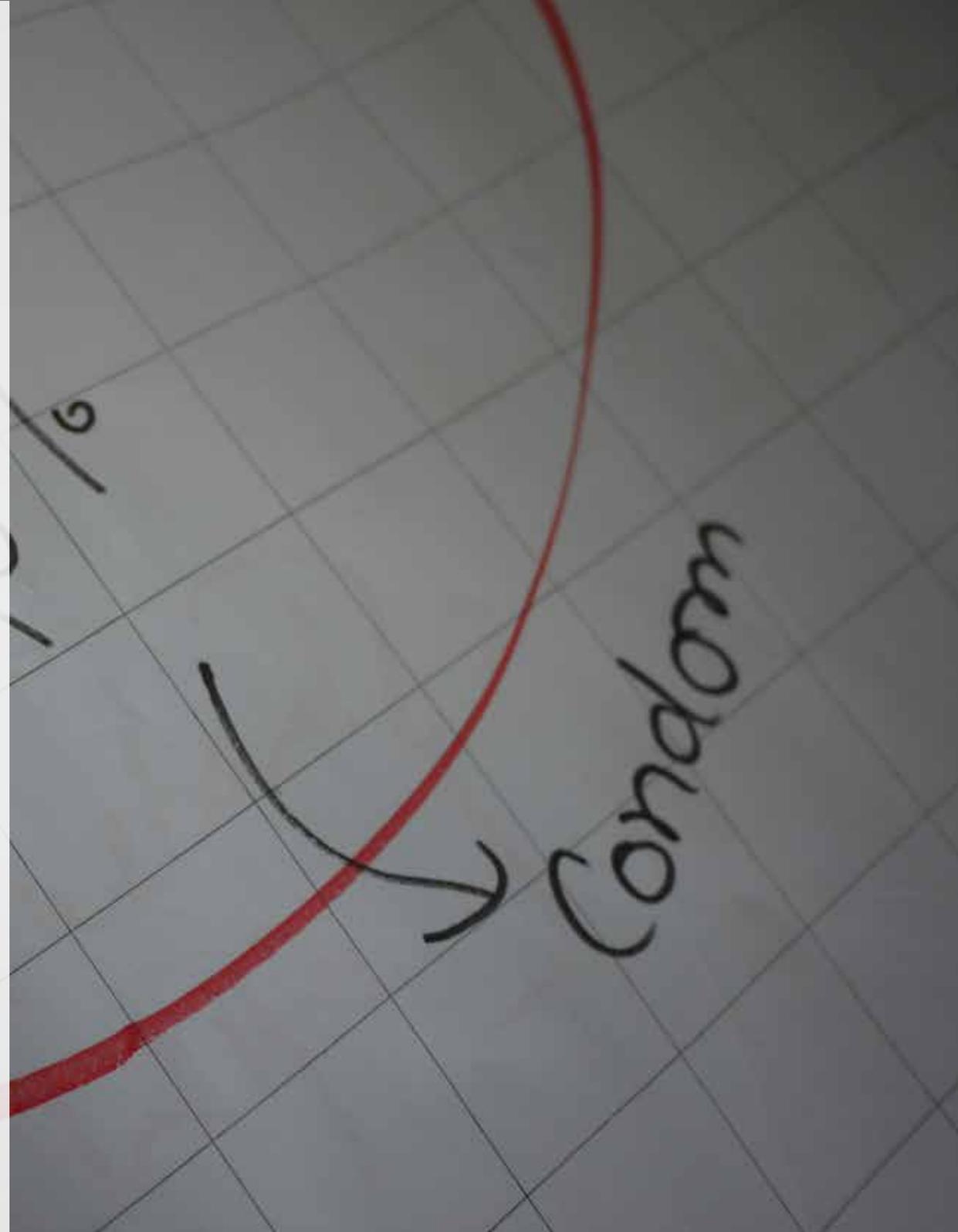
BACK

The result of appropriate contraceptive methods will appear on the reverse side, depending on the adjustment of the two layers on the frontside. The results should be discussed mutually between the couple and the health professional in order to choose the best suitable method.

ENABLING THE DECISION

WHY

Besides the Pagir Wheel as a decision making tool we address the gap between the need and the access of contraceptive methods by the second part of our solution: the Pagir Pouch which focuses on enabling the decision that has been made with the wheel. It addresses the use of condoms which are on the one hand most commonly used by people who visit the HIV/Sex counselor but which are on the other hand stigmatized in Manamathy. In the interviews with men we found that there are existing myths and misconceptions around condoms in the community. The usage of condoms is strongly related to HIV or extra-marital sex which makes it an unacceptable solution for married couples in the context of Birth Spacing. The experience of procuring and using condoms has several pain points, which we are trying to address through the **Pagir Pouch**.

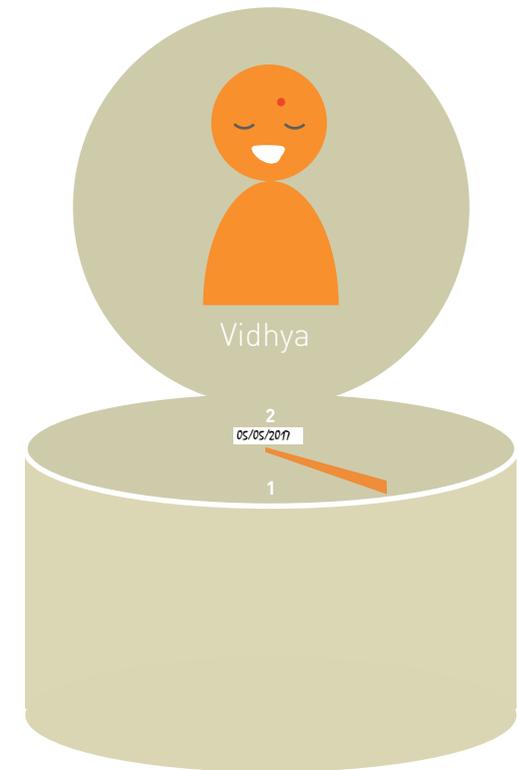


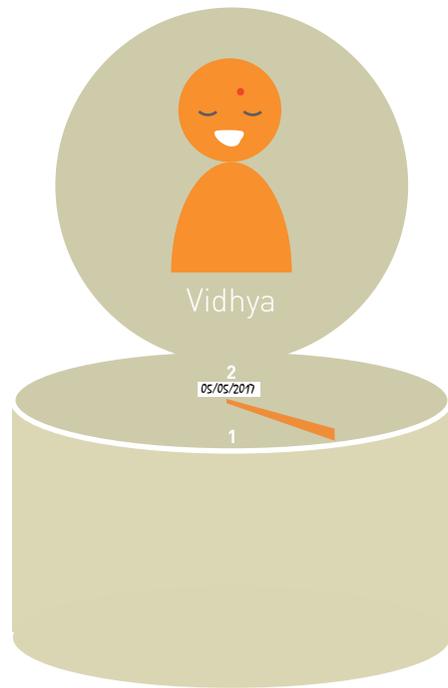
ENABLING THE DECISION

PAGIR POUCH

This container functions as a secret contraceptive storage pouch. It is made from locally accessible low cost materials and requires minimal effort for assembly. One possible distribution channel is through the sub-center, where condoms can be kept in these pouches, free for the men to pick up. It is designed to remind the couple about their personal commitment to maintain the gap of Birth Spacing. The pouches have a picture of an healthy baby smiling, which can be personalized by the couple by putting a picture of their first child in a slot, along with the second birthday of the first child. There's a clock-like rotating pointer, which counts the number of birthdays the first child has had. This milestone motivates the couple to maintain the habit of using contraceptives, till the third birthday.

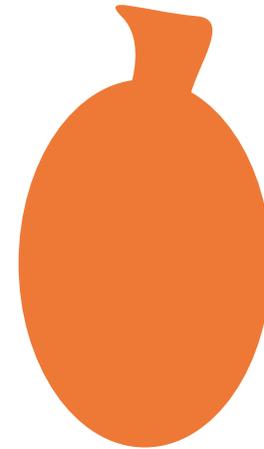
The form of Pagir Pouch is designed to be suited to the context of the Manamathy community, and the functionality of contraceptive storage isn't apparent to non-users (friends and family of the couple). The pouch is designed to be used near the bed side, so that it's always in reach, when needed.





Mirror Box

This cylindrical box can be made with bamboo, or with newspaper roll plus adhesive technique, it has a lid with the smiling baby picture on the interior face and a slot for personalization. The box has the birthday clock feature and some space to store small objects. There's a secret compartment for storing contraceptives. This compartment dispenses condoms once the user pushes the bottom face of the box. This unique feature ensures that no one other than the couple can get access to contraceptives.



Cloth Bag

We are reusing waste cloth to make pouches, which can be closed by a thin rope. A circular piece of cloth is taken and slots are made along radial direction. This pattern also resembles a clock, a metaphor for time. On putting the rope through the slots and tying it around the neck of the pouch tightly encloses the contents of the bag. This bag can be easily tied to the couple's bed so that it's readily available when contraceptives are required. A secret pocket may be added for storing contraceptives.

The following chart gives a short overview of a customer journey including the use of the Pagir Wheel as well as the Pagir Pouch

AWARENESS

WILLINGNESS

DESIRABLE

EFFECTIVENESS

FACILITY

COMMUNITY

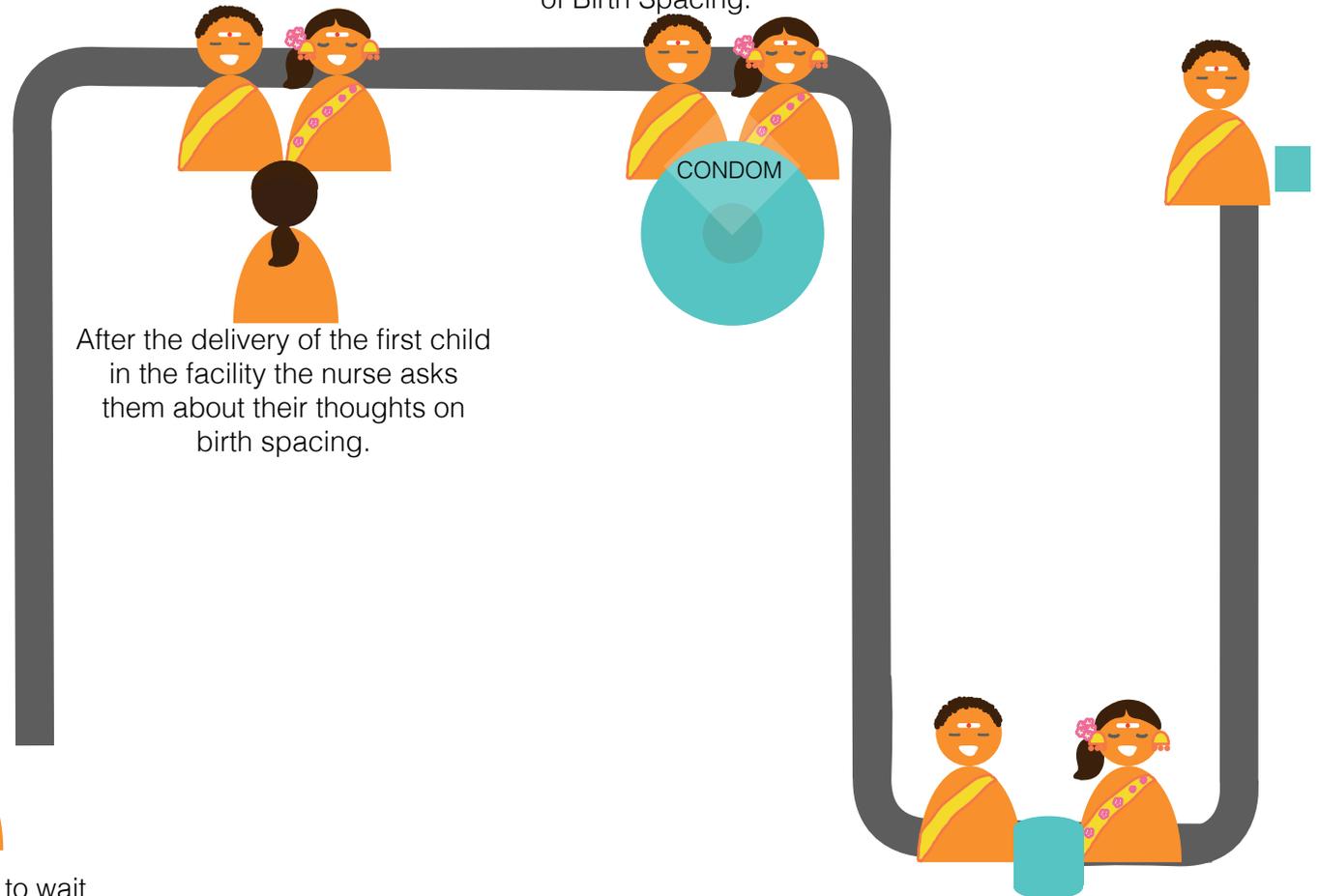
Within the conversation the nurse uses the Pagir Wheel to introduce the different contraceptive methods that are available and most appropriate. Nisha and Kumar decide that condoms are the best contraceptive method for them to maintain the gap of Birth Spacing.

Within the next 3 years Kumar goes to the facility regularly to pick up refills for the Pagir Pouch.

After the delivery of the first child in the facility the nurse asks them about their thoughts on birth spacing.

Nisha & Kumar decide to wait 3 years until they get another child.

Back at home they assemble the Pagir Pouch that was given to them at the facility and mark the date for the next child on the box.



CUSTOMER PROFILE

GAINS

Having a healthy mother & family

Have more sex

Awareness of options to enable them to make a choice

Enough time for the first child

Better economic position

The couple wants to maintain a gap between the first & second child

Becoming a better family

Be prepared for parenthood

Family pressure

Limited options / poor knowledge

Social stigma

Creating new habits / attitudes

Follow the expectations of the family

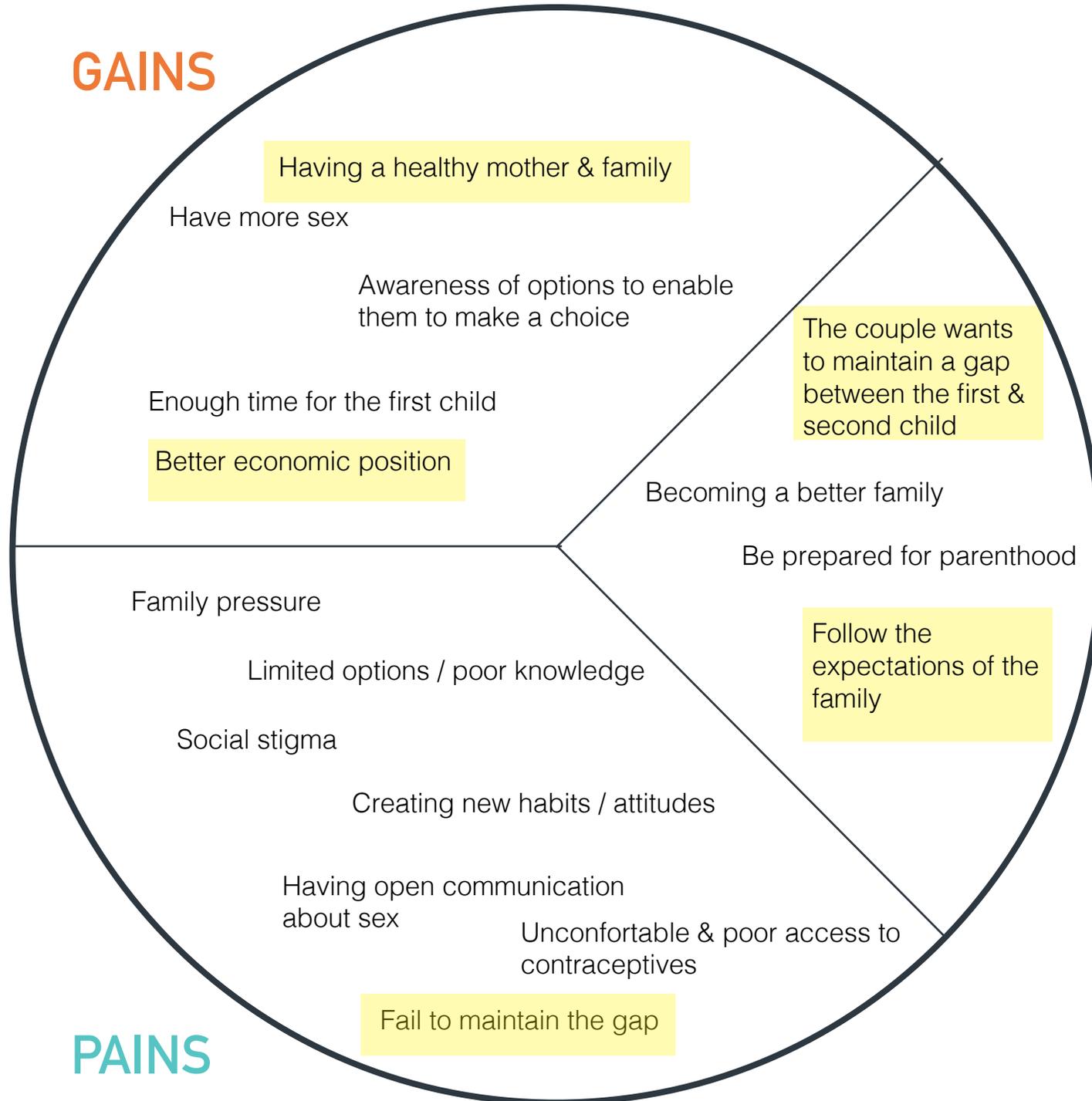
Having open communication about sex

Uncomfortable & poor access to contraceptives

Fail to maintain the gap

PAINS

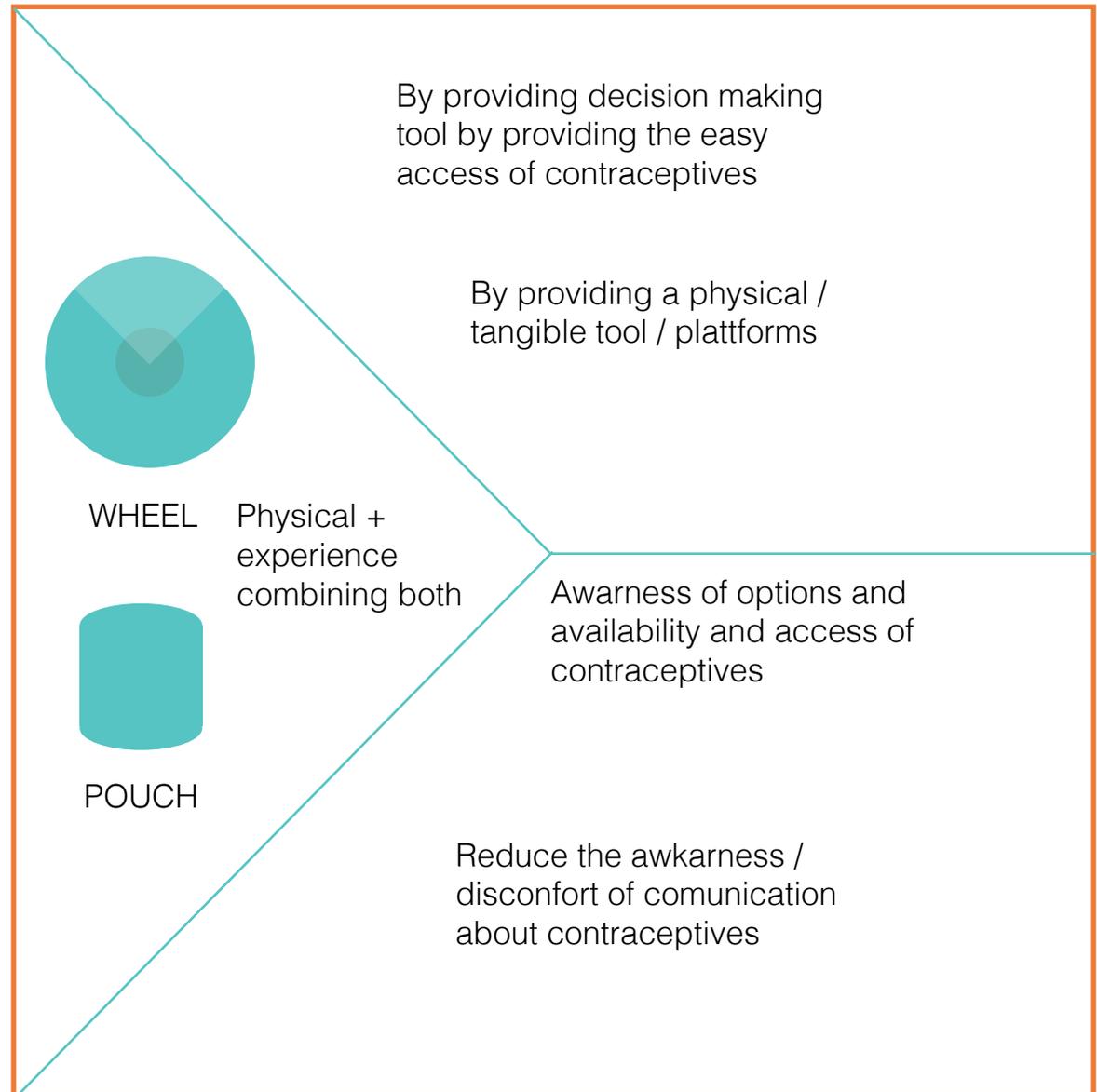
JOBS



VALUE MAP

GAIN CREATORS

PRODUCTS & SERVICES



PAIN RELIEVER



REFLECTIONS

KEY LEARNINGS

“The best way is to do it in their way”

Process Learnings

During the project work we experienced that a design process never goes straight forward but includes a lot of circles. The problem framing itself took most of the project time. Getting more and more information by working in the community and considering research that already exists on Birth Spacing we had to reframe the problem a couple of times. In the end we tried to understand the problem in depth. This was necessary to ideate solutions as Birth Spacing in this context is extremely complex. Spending a large amount of time on gathering information and framing the problem enabled us to develop a culturally and contextually appropriate solution.

Key Learnings regarding the project itself

Birth Spacing in India is an extremely sensitive and intimate issue and there exist various communication barriers which hinder the gathering of information. This is why it needs a lot of time to build relationships with community members to build on in the interviews. We also realised that it is helpful to have interviews outside of the community itself so that the interview partners are in a neutral surrounding.

A solution in this field has to be desirable in terms of individual and cultural aspects to be effective and to be accepted by the community members.

There is an immense variety regarding the culture of a single community even in India itself (comparison north/south India). “The best way to do it, is to do it in their way” Overcoming communicative barriers and starting an open communication is not possible in this cultural context. It is very important to verify if the problem that the project focuses on is an existing problem in the context of the project (community). One has to differentiate between the problems that external people see in a community and the problems that community members themselves identify.

PROJECT CONTINUITY

Explore other contexts

One of the things that we as a team are interested in is to explore the applicability of our tool in another context. For us this seems especially interesting as the context of Manamathy seems to be limited because of cultural restrictions regarding the number of available contraceptive methods and the existing communication barriers. Exploring other contexts would include the translation in local languages and a variation of parameters as well as included contraceptive methods. Besides the applicability in other countries it also seems interesting for us to think about the applicability of the tool in a more urban context.

As a next step we want to collect feedback on our tool: Dr. Sujatha, our contactperson and host in Manamathy is going to present the tool at the FPAI. Besides this one team member has the chance to present the tool in front of researchers from Nigeria and Zambia who are engaged in maternal health. Furthermore another team member is going to present the tool to nurses in a community in Costa Rica. This gives us the possibility to get information about the applicability in other countries.

In order to evaluate the tool we think about developing a standardized feedback form and to professionalize the report to use it as a sophisticated basis for the feedback.

Regarding the business model we think that the opportunity for the rural context is a public private partnership with the government. The tool can be integrated in a programme regarding awareness creation of Birth Spacing. Apart from a programme in the rural areas we think that the business model for urban areas can be based on an app, that can be downloaded for a small amount of money by doctors and couples to use it together and at home. The idea of creating two business models around the same product seems a valuable opportunity for a balanced concept but needs further exploration.

THANK YOU

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