# Design of Audio-visual Messages for timely immunization

To imagine a world where in we interact with Audio-visual messages

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Visual Communication 2011 - 2013

Guide: **Prof. Mandar Rane** 



- The whole world starts
   interacting with each other
   through audio-visual messages.
- In coming few years when we will be able to answer an incoming call as visual IVRs on mobile phones.

**IVR**s- Interactive voice response system

## Aim

- Audio-visual messages will help run the child vaccination program for 1- 5 years age group.
- Through these audio-visual messages parents will receive detailed information about various diseases and vaccines.



- I visualize a system for immunization program, the vaccination should happen timely as well as simplify the process.
- How the interface would be, what will be the comprehension challenges with the language.
   How the information will be presented through visual.



# **Target audience**

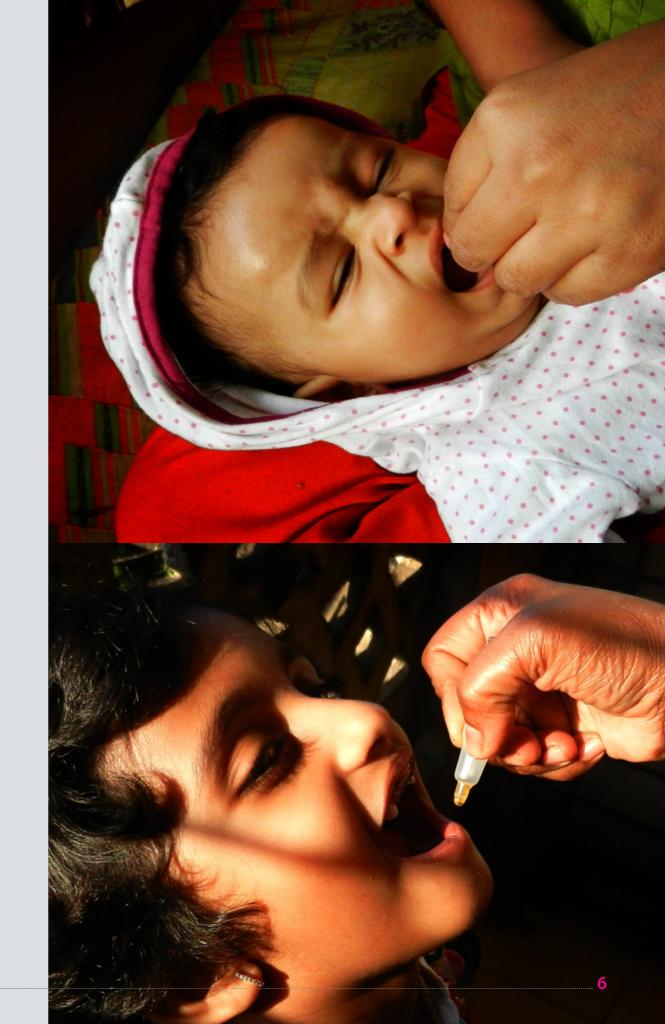
 My target audience is people who can read, write and speak in marathi.

• If this interface works effectively, then it can be made in any language.



# Introduction

- 26 initial doses of vaccine for every child are very important.
- These 26 vaccines are included in government Immunization plan for children from age group 1- 5 years.
- Some of vaccines are oral whereas the others are injected.



- It is important to educate parents who avoid vaccination.
- Health care workers or doctors are unable to reach each and every place, for educate parents.
- To avoid various incurable or difficult to cure diseases such as Polio, T. B., vaccination required to a child on time.



# **Immunization process**

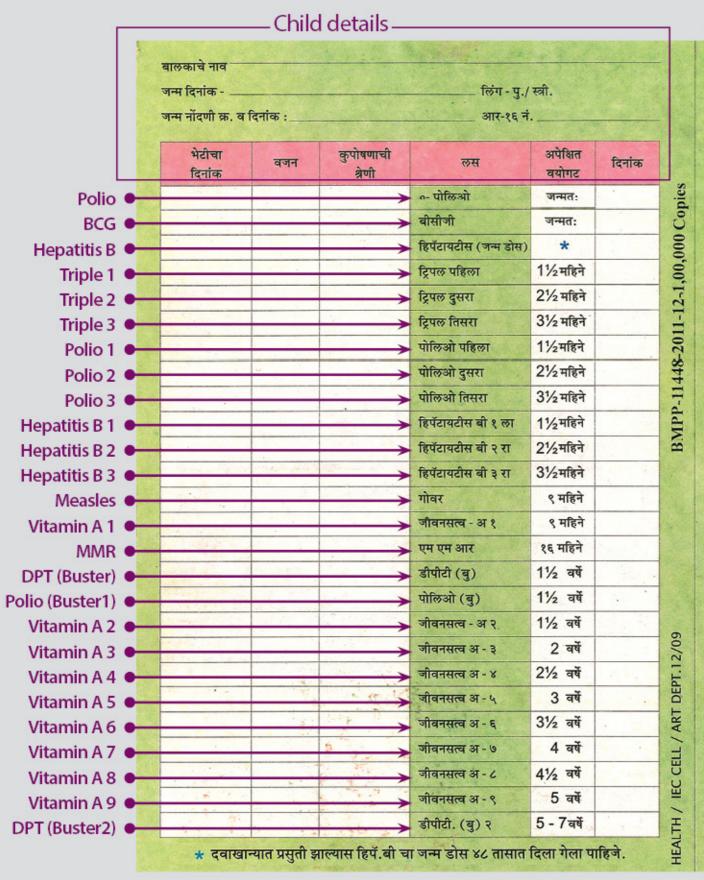
- When mother visit the hospital for vaccination of the baby, she doesn't have any detail knowledge about vaccination.
- Mostly mothers visit vaccination centre with husband or responsible person for company.



- Government provides 2 vaccination schedule cards for maintain every child record.
- One card is carried by parents/ mother and another is in the doctor's record.
- Doctor fills up current vaccination date and next date in card after vaccinate a baby.

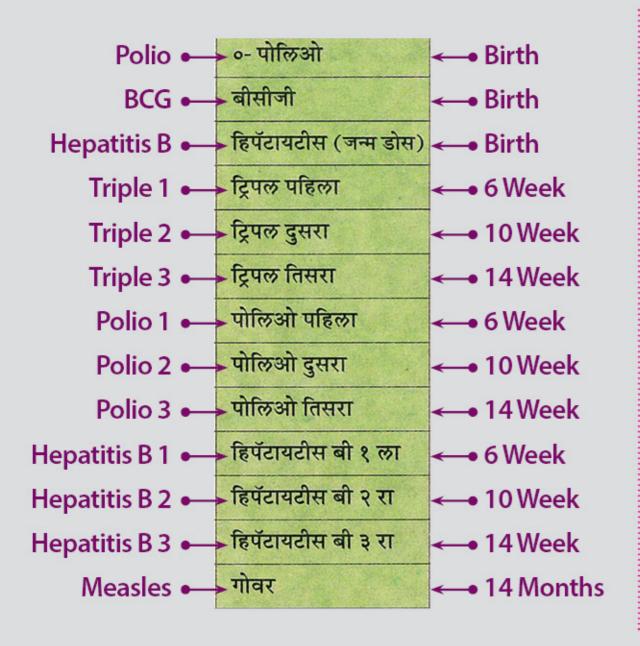


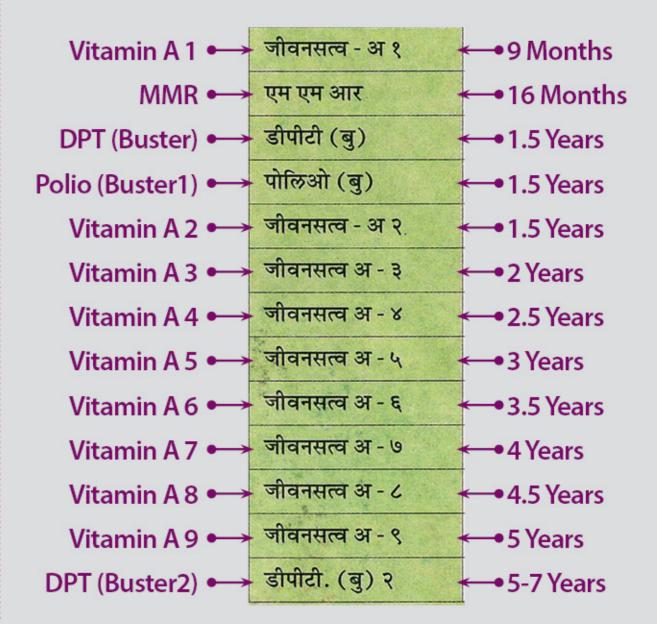




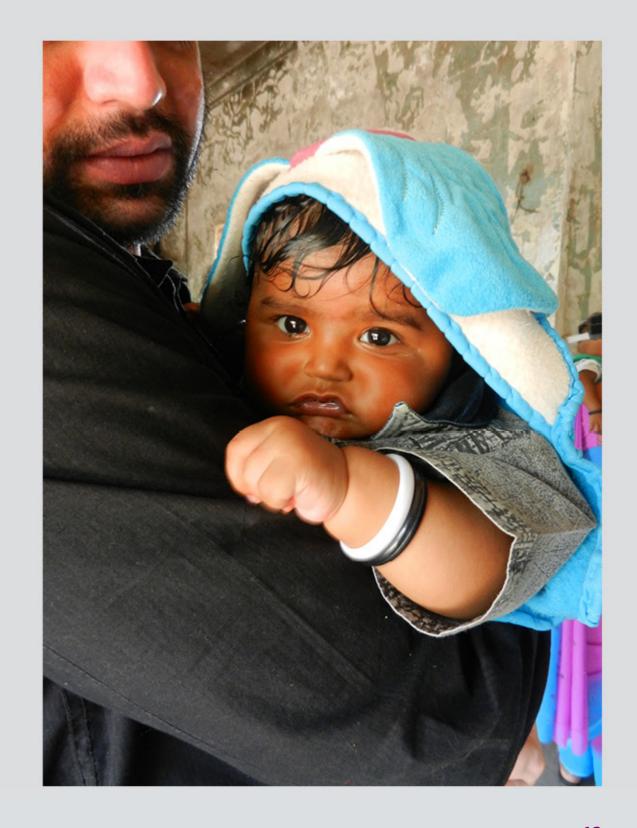
#### Mother details बृहन्मुंबई महानगरपालिका - सार्वजिनक आरोग्य खाते माता बालक संरक्षण कार्ड हे कार्ड गर्भवती स्त्री/बाळाच्या आईजवळ राहील. उपकेंद्र/प्रा.आ.केंद्र/ ना. दवा./नाव गरोदर मातेचे नावः पतीचे नाव : दूरध्वनी क्र./मोबाईल क्र. ---आर १५ नं. उंची -खेप -प्रवर्ग - खुला/इतर मा. व/अनुजाती/ अनुजमाती/इतर: जननी सुरक्षा योजनेचा नोंदणी क्र.: शेवटच्या मासिक पाळीचा दिनांक : प्रसुतीचा अपेक्षित दिनांक: एकुण बाळंतपणे (गर्भावस्था)/ यापूर्वीचे जिवंत जन्म: शेवटचे बाळंतपण कोठे झाले? दवाखान्यात घरी कोणी केले: प्रशिक्षित दायी / परिचारिका अप्रशिक्षित दायी / व्यक्ती प्रसुतीचा प्रकार : स्वाभाविक अस्वाभाविक संदर्भ सेवेकरिता रुग्णालयाचे नाव दिनांक धनुर्वात लस दिनांक लोहयुक्त गोळ्या पहिला पहिला दुसरा दुसरा तिसरा बुस्टर तपासण्या RH: रक्तगट : Positive/Negative व्ही.डी.आर.एल.: एक किंवा दोन मुले पुरेत दोन मुलात कमीत कमी ३ वर्षाचे अंतर ठेवा जुळाब होता बाळराजा, क्षारसंजीवनी पाजा.

पाच वेळा प्रस्तीपूर्व तपासणी वेळचे वेळी करुन घ्या.



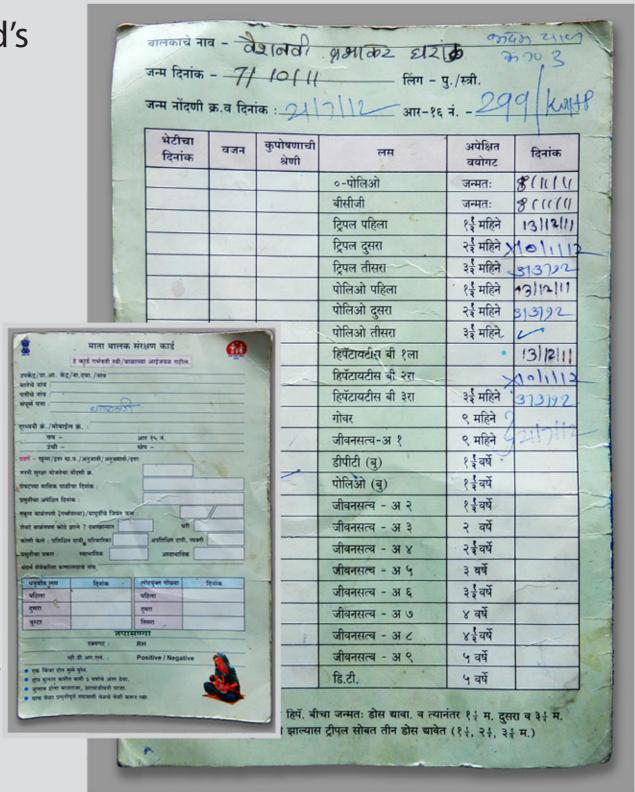


- If baby is suffering from cold and flu, then doctor decides next date for vaccination.
- Doctor takes about 10-15 minutes for vaccination procedure.
- Doctor tells about the reaction might be seen on baby after each vaccination.



## **Issues about Immunization**

- Many a times due to crowd, the child's vaccination card is also not updated properly or left incomplete.
- Many times the card is misplaced by parents and child's data is gone.
   In such cases the hospital provides new card.
- Some times parents forget to get the card along while vaccination.
- Some information is unclear and people avoid the vaccination centre.



## **Interaction With Parents**

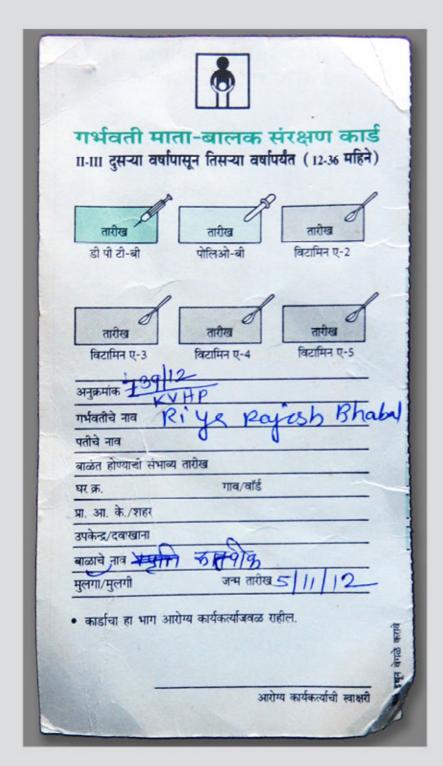
- Mother checks cards within
   1-2 weeks; also write it down on calendar. Sometimes a family member keeps a remind her.
- Some parents is delay in child's vaccination and afraid. Then they avoid going to the hospital.
- People want to know more about vaccines.

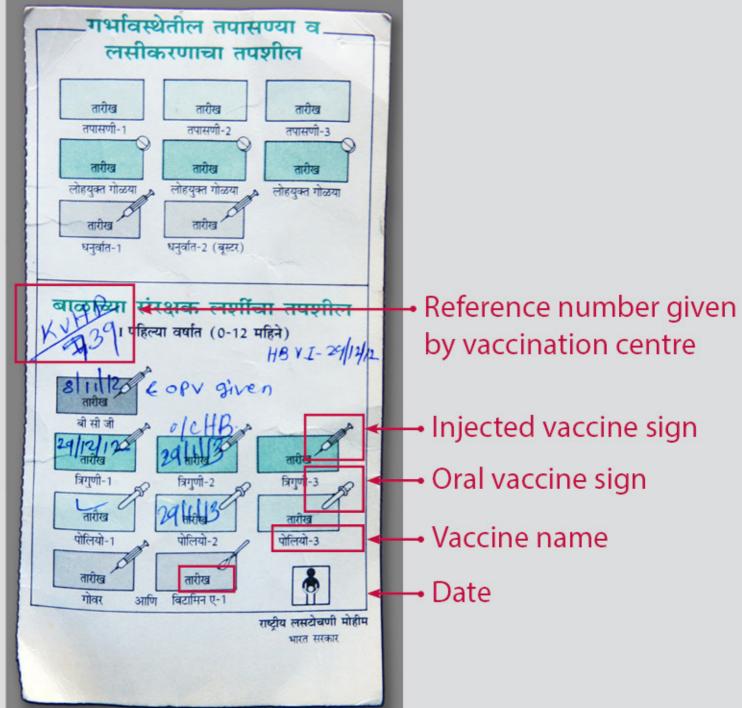


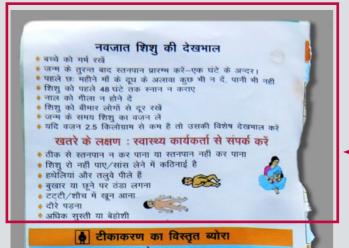
- Parents like to see information in video format.
- Audio visual message will be useful and easy to remember.
- Parents find few thing difficult to understand which is much more easier by showing graphics or photographs.



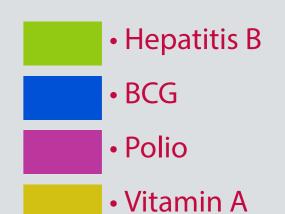
# Study other cards



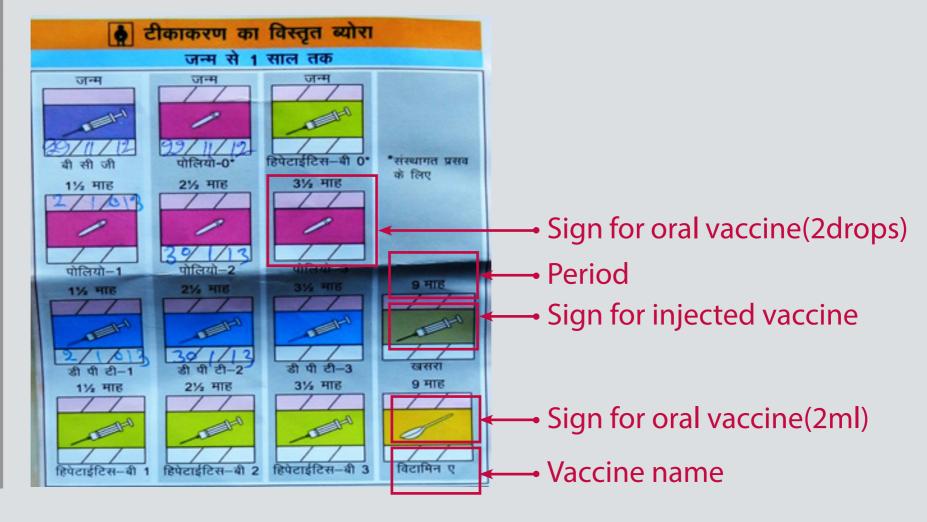




← Instruction for baby care







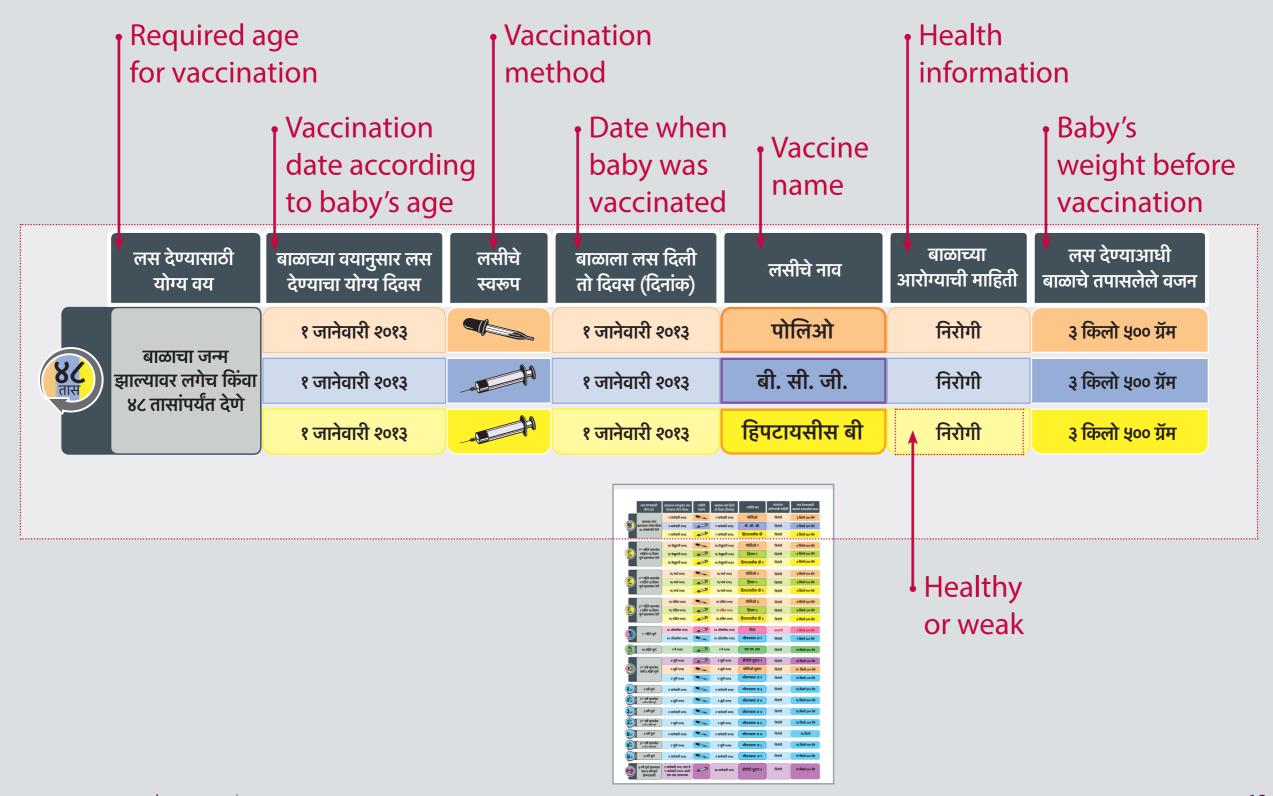
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# Reference number given by vaccination centre

# **Design: Vaccination card**







Polio



• BCG



Hepatitis B



Triple



• MMR



Measles



Vitamin A



• DPT



 After 9 months after birth



 After 2 years after birth







• For 2 ml

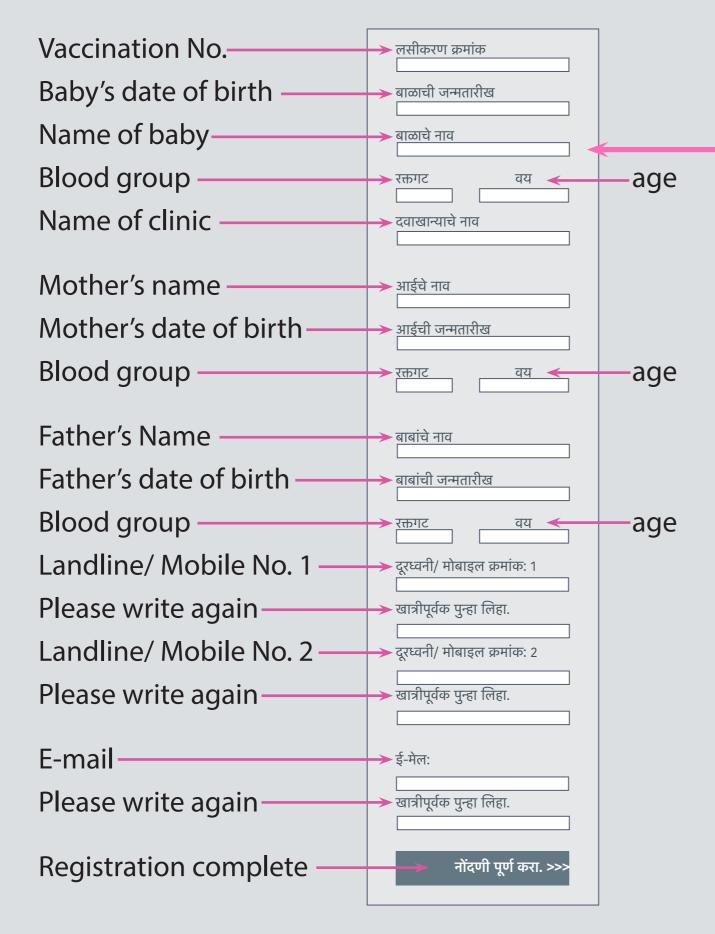
- This card directly mail to parents mail account.
- Card will regularly update by system after babys' vaccination done.
- Parents need not carry card when visit hospital.
- Parents can download card through phone.



# Registration form

- Vaccination ID and date of birth is important.
- Baby's name is edit able for three months due to Indian tradition of baby shower.
- Parents fill UID number in the form.

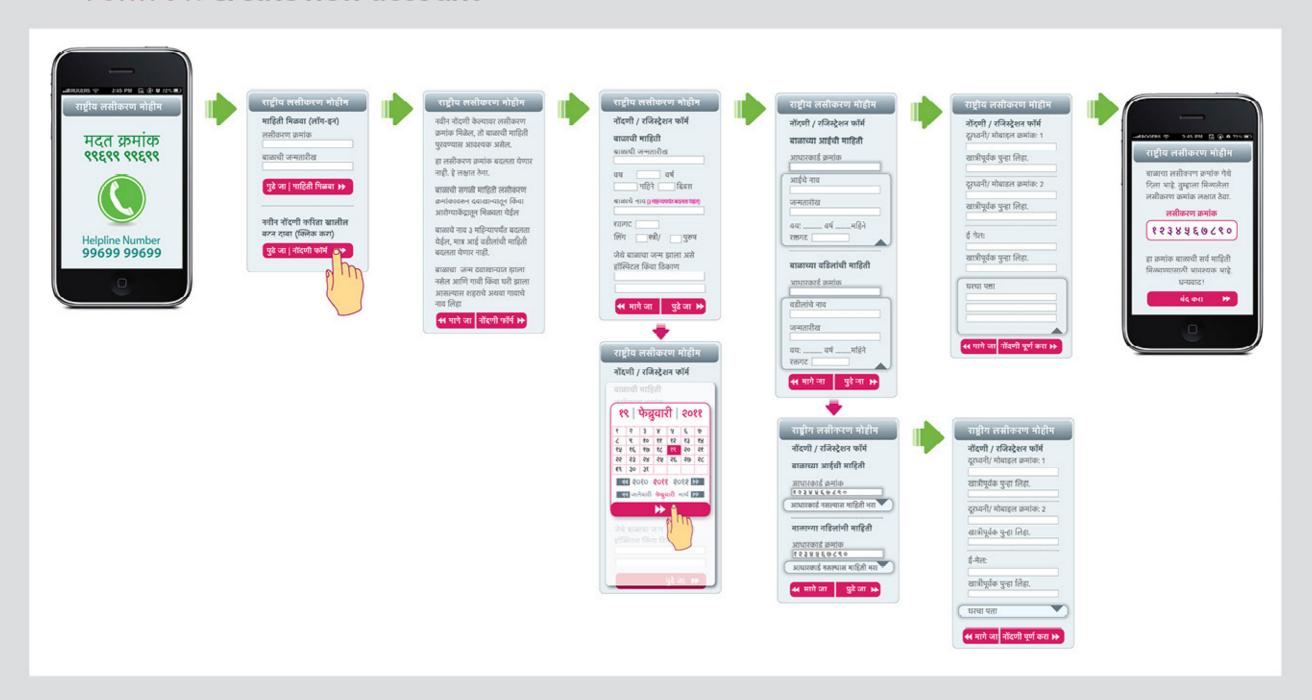






# Form Design

#### Form 01: Create new account



After completing registration procedure you will get a vaccination number.

This number is important for getting your baby's vaccination status. Vaccination number is never editable.

This number is helpful for getting information about baby from the nearest hospital or health centre.

You can edit yours baby's name within 3 months, but parent's information can be added only once.

If your baby's birth is at your native place, then put city name in this form.

### राष्ट्रीय लसीकरण मोहीम

नवीन नोंदणी केल्यावर लसीकरण क्रमांक मिळेल, तो बाळाची माहिती पुरवण्यास आवश्यक असेल.

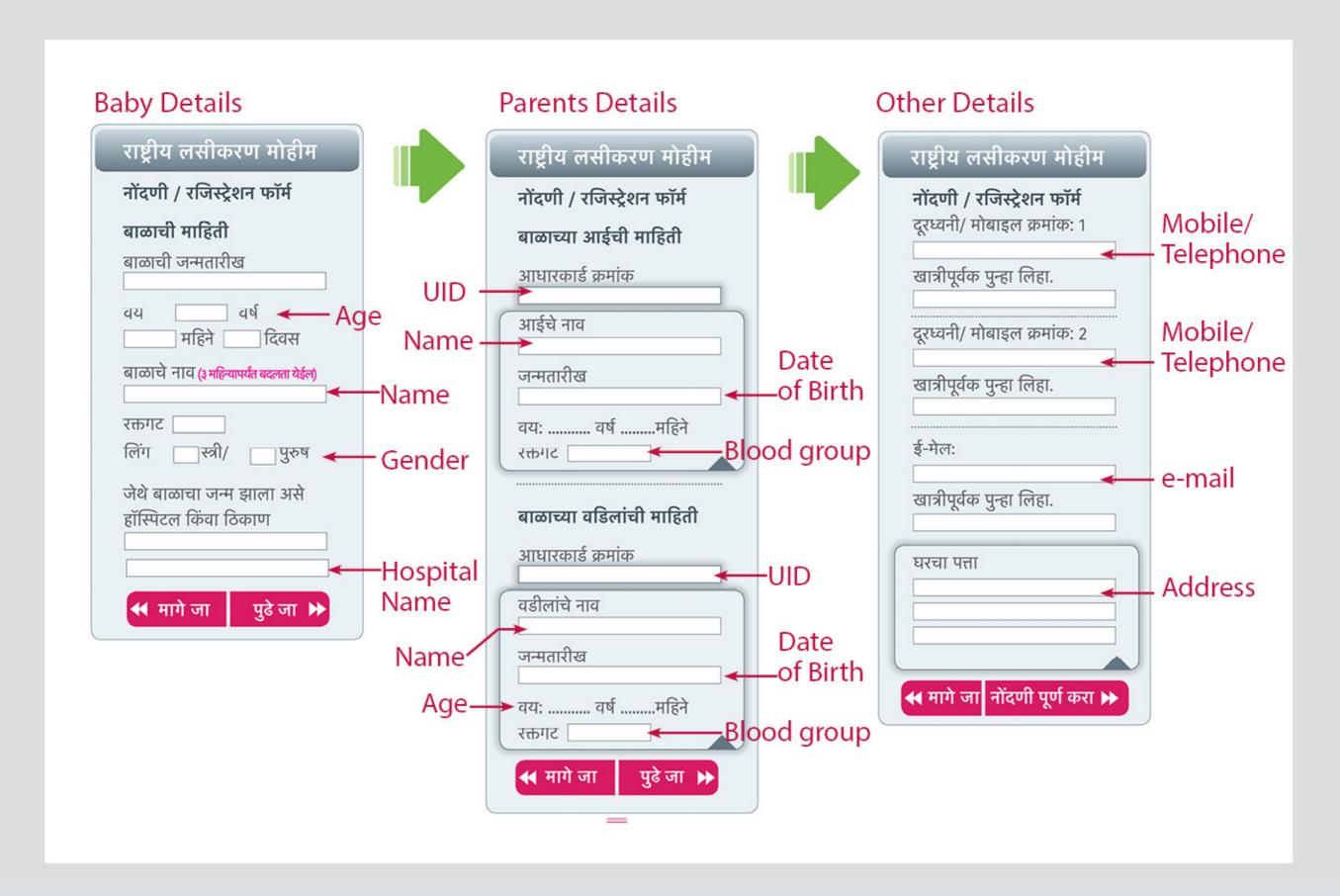
हा लसीकरण क्रमांक बदलता येणार नाही. हे लक्षात ठेवा.

बाळाची सगळी माहिती लसीकरण क्रमांकावरून दवाखान्यातून किंवा आरोग्याकेंद्रातून मिळवता येईल

बाळाचे नाव ३ महिन्यापर्यंत बदलता येईल, मात्र आई वडीलांची माहिती बदलता येणार नाही.

बाळाचा जन्म दवाखान्यात झाला नसेल आणि गावी किंवा घरी झाला आसल्यास शहराचे अथवा गावाचे नाव लिहा

**स** मागे जा नोंदणी फॉर्म **≫** 



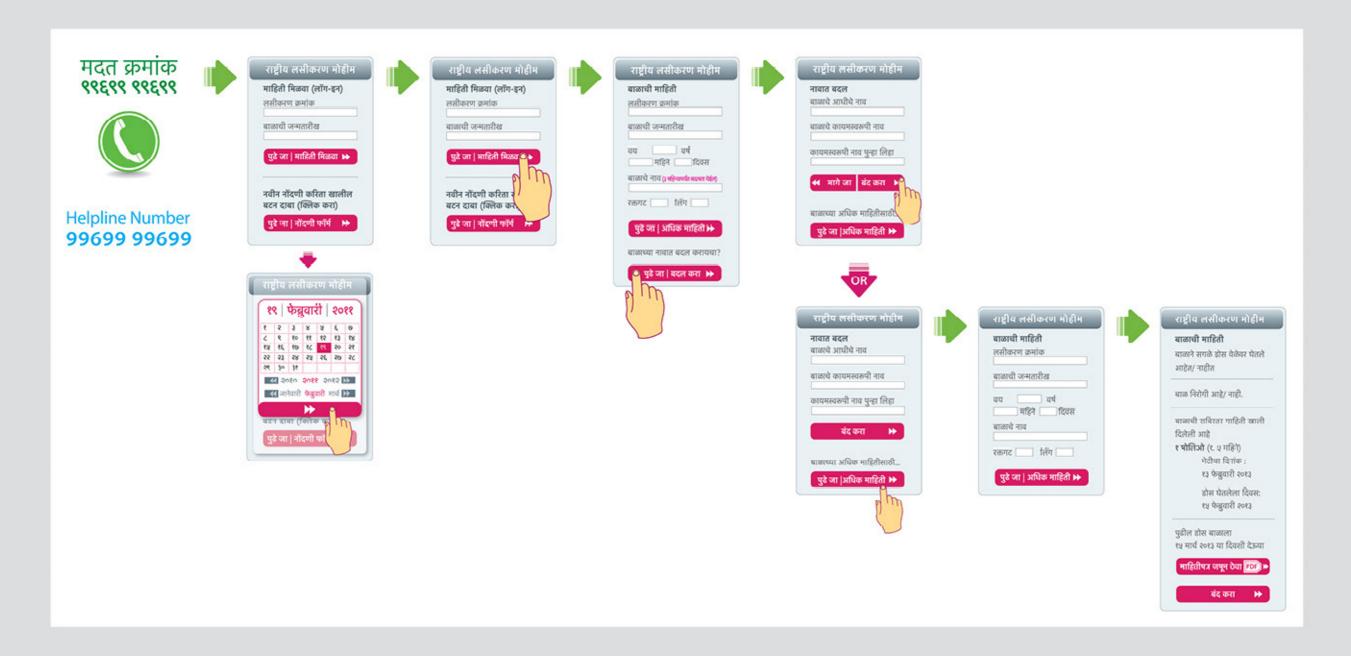


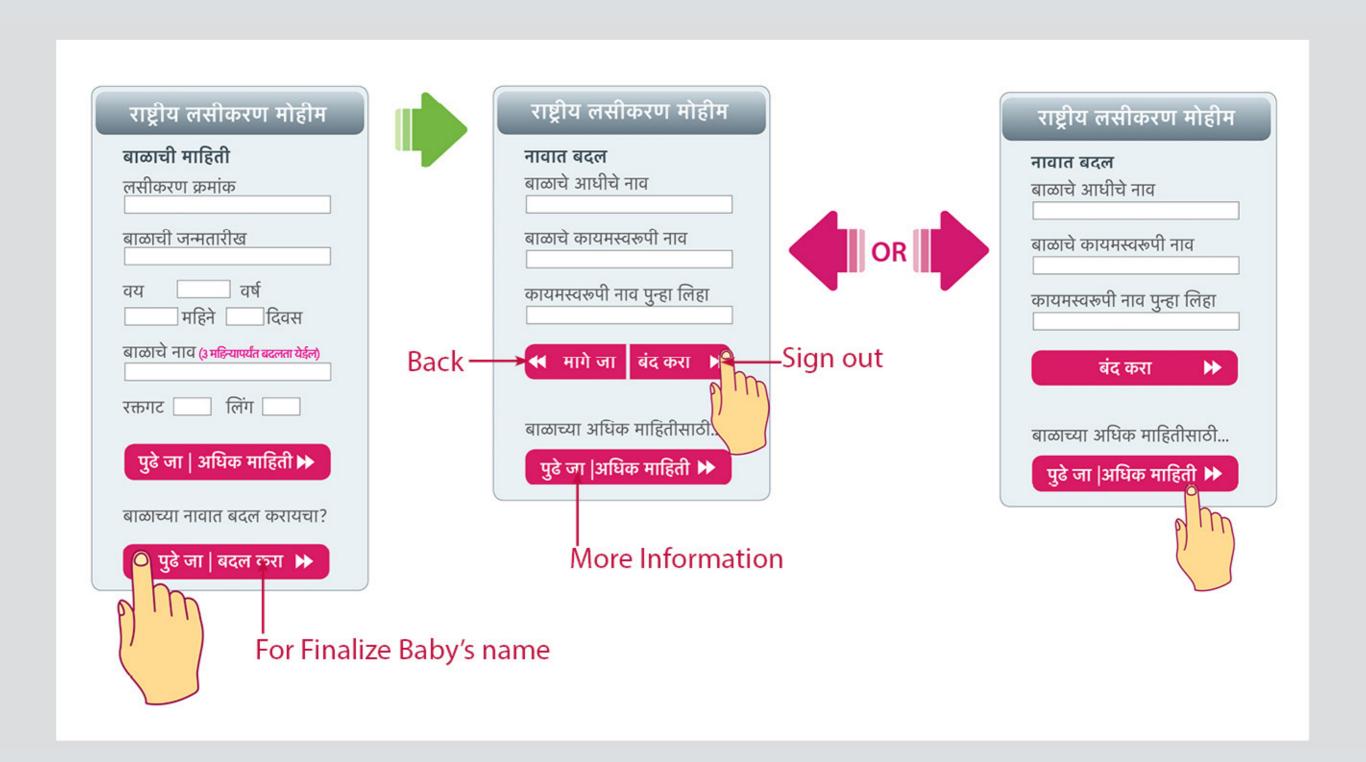


# राष्ट्रीय लसीकरण मोहीम नोंदणी / रजिस्ट्रेशन फॉर्म दूरध्वनी/ मोबाइल क्रमांक: 1 खात्रीपूर्वक पुन्हा लिहा. दूरध्वनी/ मोबाइल क्रमांक: 2 खात्रीपूर्वक पुन्हा लिहा. ई-मेल: खात्रीपूर्वक पुन्हा लिहा. घरचा पत्ता ধ मागे जा नोंदणी पूर्ण करा ⊳

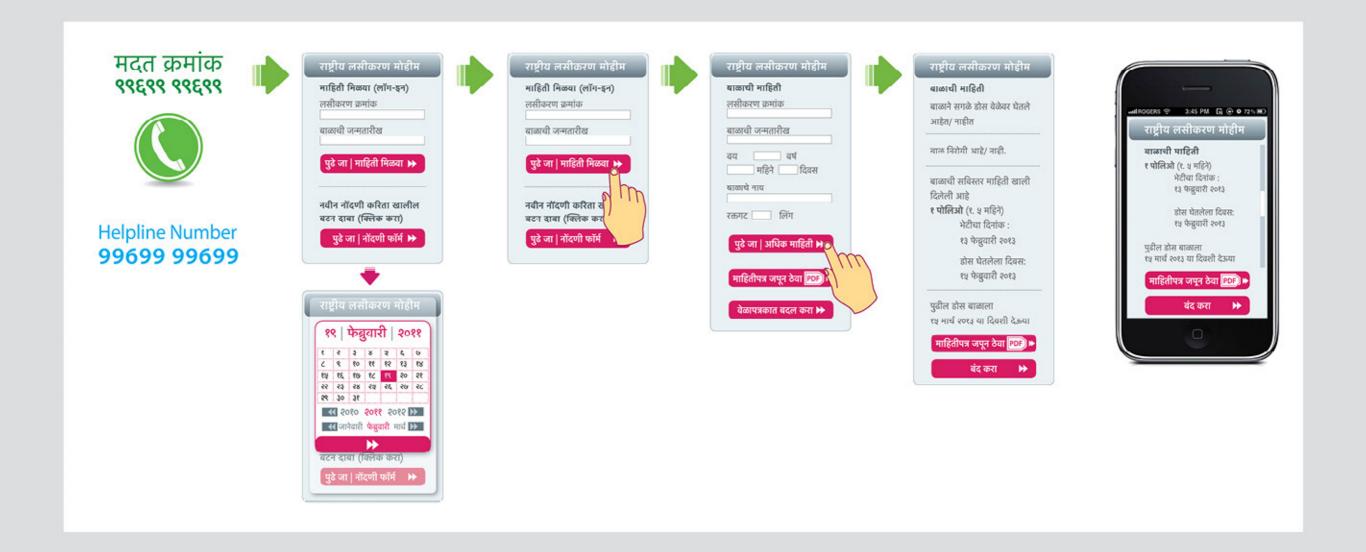


#### Form 02: Edit an account for finalize child name





#### Form 03: Sign in for get more information

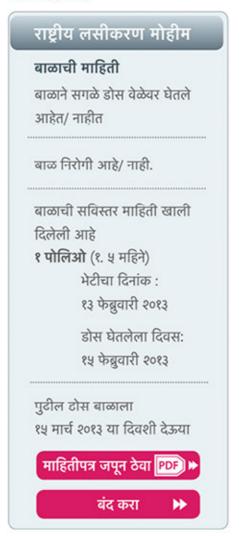




# Baby's personal details

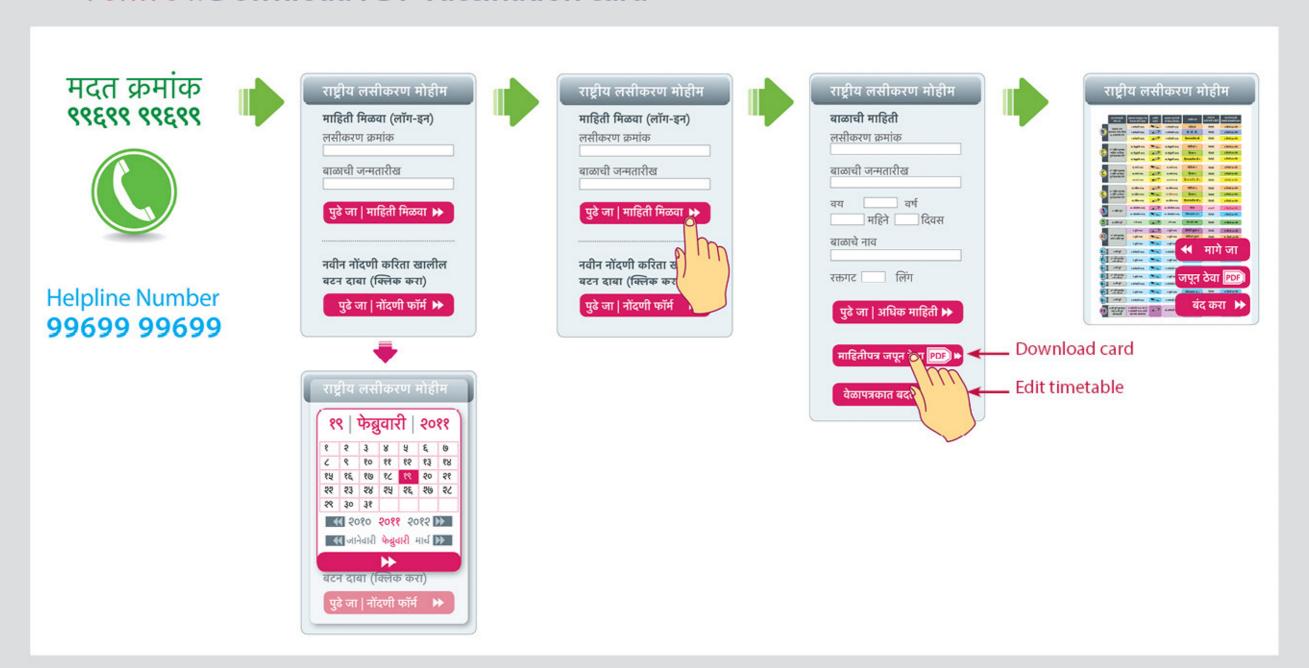


# Baby's vaccination details

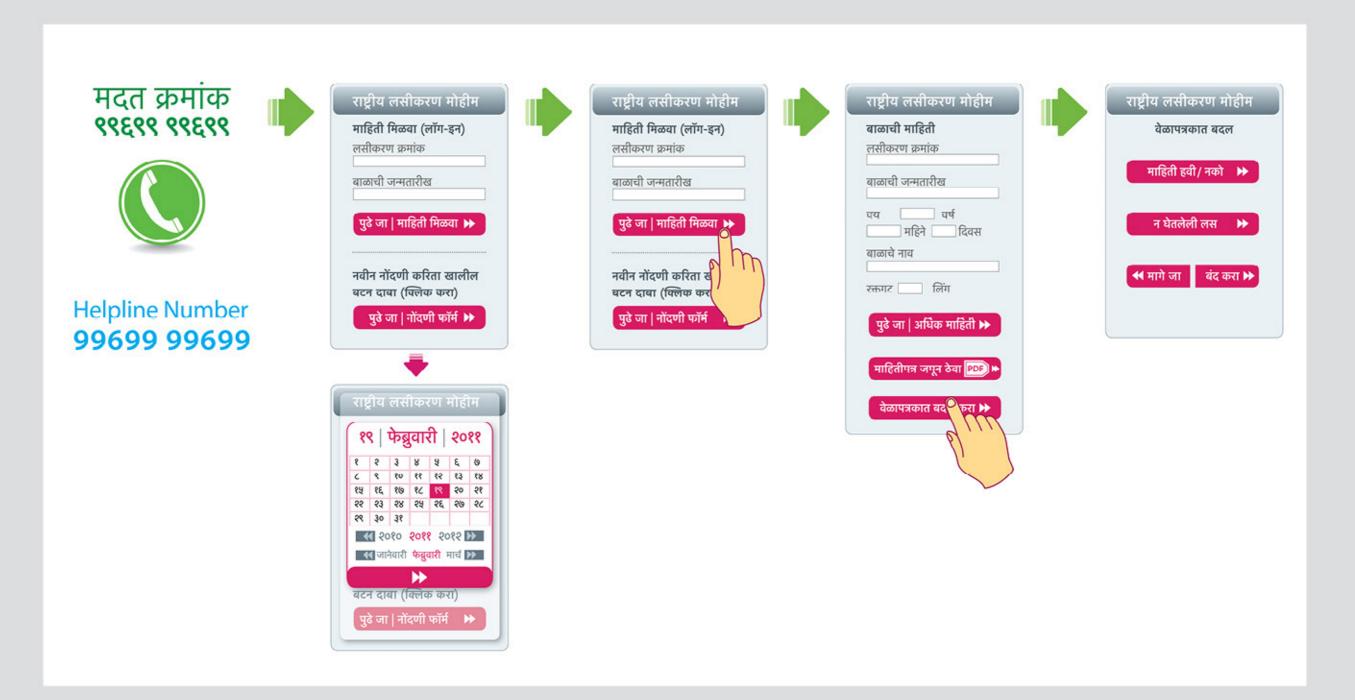




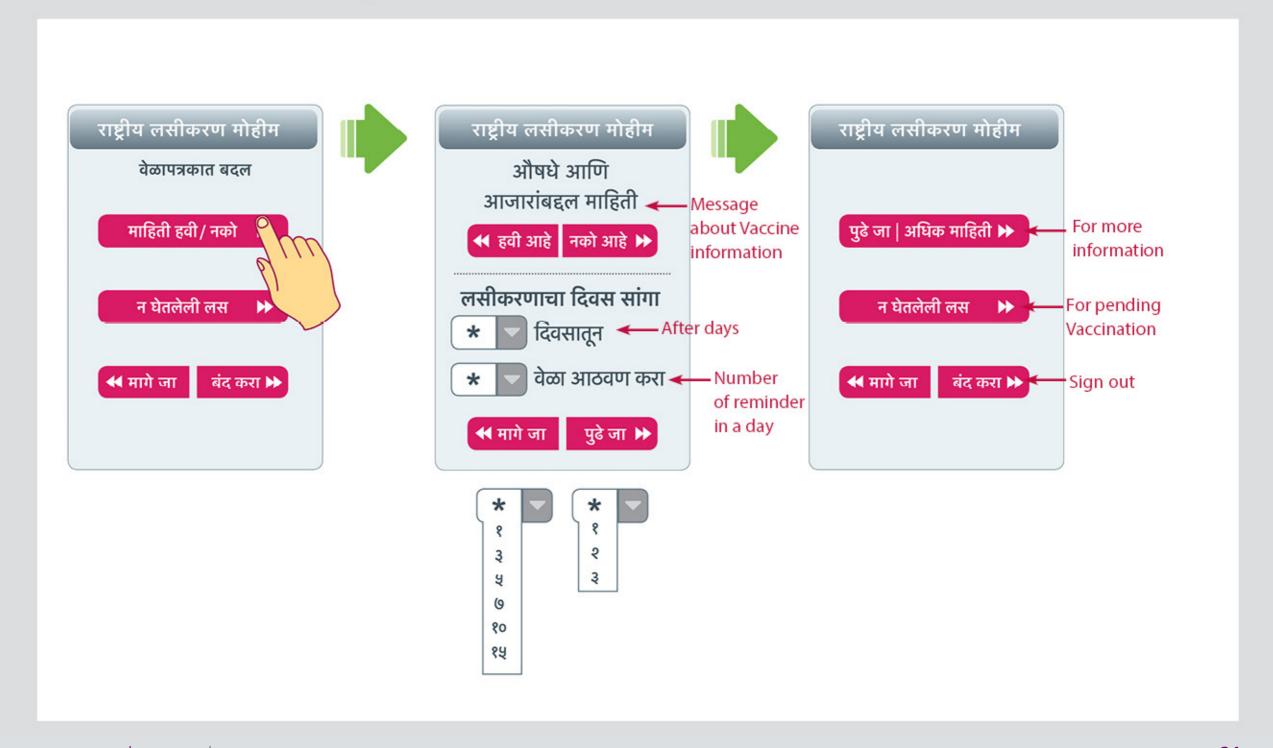
#### Form 04: Download PDF vaccination card



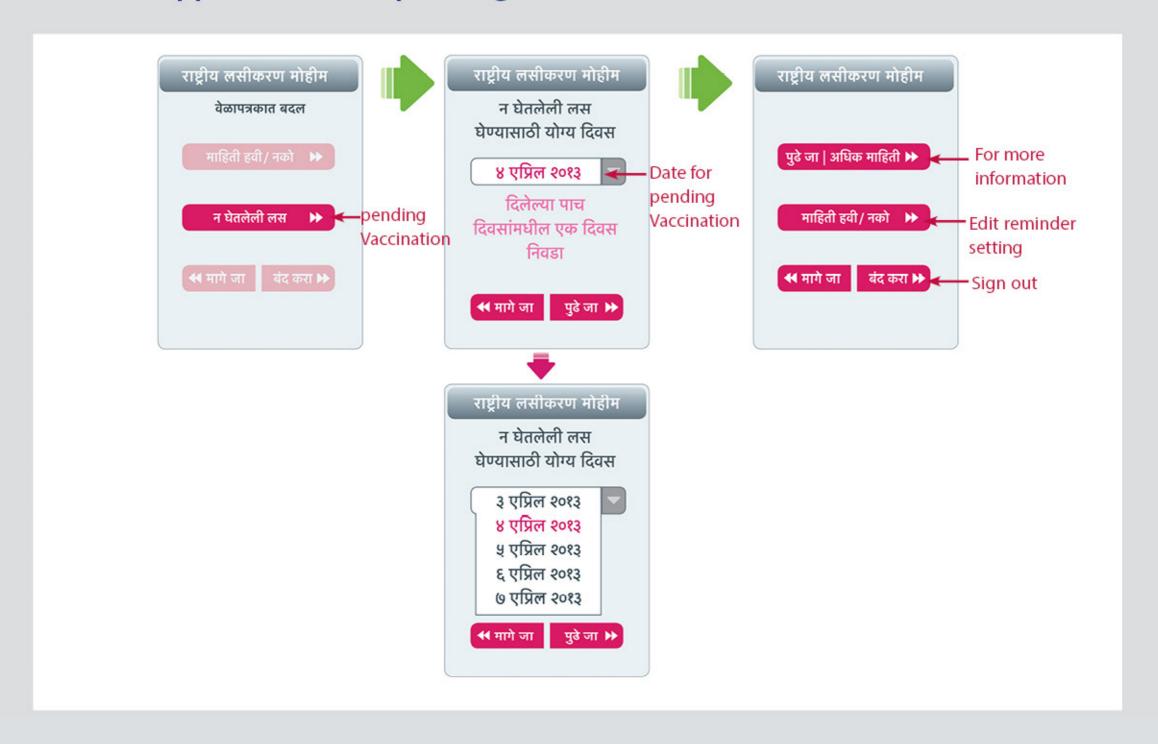
#### Form 05: Edit timetable



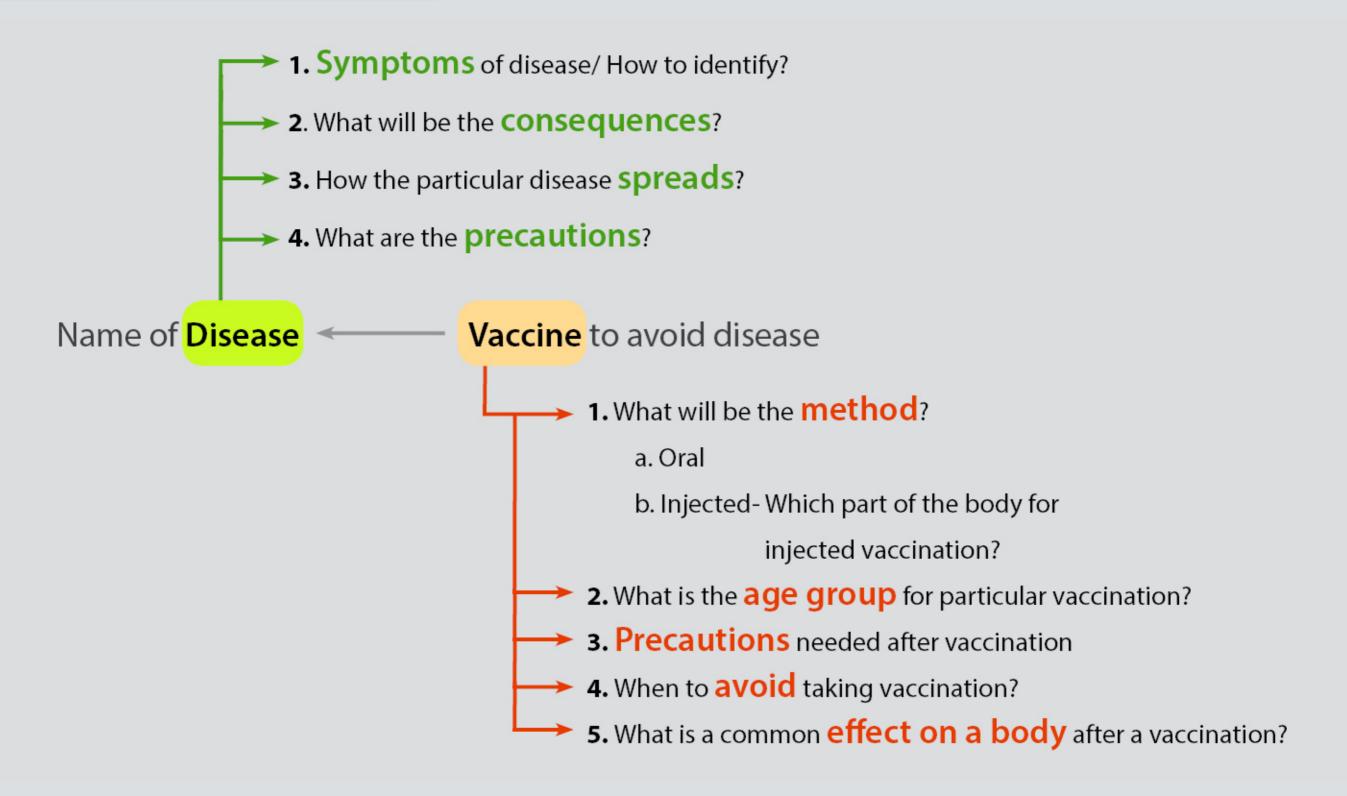
#### Form 06: Custom settings for reminder



#### Form 07: Appointment for pending vaccine



# Information



## Initial plan: Polio vaccine

#### Day 01

तुम्हाला आपल्या बाळाबद्दल अधिक माहिती हवीय का? बाळाने एकूण किती डोस घेतले आहेत? बाळ निरोगी आहे ना?



#### Day 03

अधिक माहितीसाठी # दाबा. पुन्हा माहिती मिळवण्यासाठी \* दाबा व मागे जा. माहिती जपून ठेवण्यासाठी १ दाबा



#### Day 05

बाळाला औषध कसे देणार? पोलिओची लस बाळाला तोंडावाटे देऊया. सुई टोचून बाळ रडणार नाही



#### Day 07

लसीचे नाव : पोलिओ १ १५ फेब्रुवारी २०१३/ सोमवार आपल्या बाळाला दवाखान्यात घेऊन जा. बाळाला पोलिओची लस देऊया.



#### Day 09

पोलिओची लस घेणे गरजेचे आहे का? पोलिओची **लक्षणे** काय? पोलिओ झाला तर काय करणार?



## Day 11

पोलिओची लस घेण्यासाठी तुमचे बाळ ३.५ महिन्याचे झाले आहे का? तर १५ फेब्रुवारी १०१३/ सोमवार आपल्या बाळाला दवाखान्यात नेऊया आणि लस देऊया



#### Day 13

पोलिओ कसा पसरतो? बाळाला दुषित पाणी तर पाजले नाही ना?



#### Day 15

आज बाळाने पोलिओचे लस घेतली का? बाळाने पोलिओचे औषध वेळेत घेतले बाळ अधिक रोग प्रतिकारक झाले. धन्यवाद !!!



#### Day 15/16

बाळाने पोलिओचे लस घेतली. बाळ बरे आहे ना? नाही? आपण हे करूयात जर बाळ आजारी असेल तर त्याला ताबडतोब दवाखान्यात घेउन जाऊया आणि डॉक्टराचां सल्ला घेऊया.



## Day 16

बाळाने पोलिओचे औषध वेळेत घेतले, आता बाळ अधिक रोग प्रतिकारक झाले. धन्यवाद



तुम्हाला आपल्या बाळाबद्दल अधिक माहिती हवीय का? बाळाने एकूण किती डोस घेतले आहेत? बाळ निरोगी आहे ना?



Do you want all vaccination history/ information of your baby? Is your baby healthy?

अधिक माहितीसाठी # दाबा. पुन्हा माहिती मिळवण्यासाठी \* दाबा व मागे जा. माहिती जपून ठेवण्यासाठी १ दाबा.



For additional information press #. To read the information again press \* and go back. To save the information press 2.

लसीचे नावः पोलिओ १ १५ फेब्रुवारी १०१३/ सोमवार आपल्या बाळाला दवाखान्यात घेऊन जा. बाळाला पोलिओची लस देऊया.



Vaccination – Polio 2 25th February 2013/ Monday Take your baby to clinic for Polio vaccination. बाळाला औषध कसे देणार? पोलिओची लस बाळाला तोंडावाटे देऊया. सुई टोचून बाळ रडणार नाही.



How the vaccination will be given? Oral method will be used for polio dose so your baby won't cry as injection won't be used.

लसीचे नावः पोलिओ २ १५ फेब्रुवारी २०१३/ सोमवार आपल्या बाळाला दवाखान्यात घेऊन जा. बाळाला पोलिओची लस देऊया.



Vaccination – Polio 2 25th February 2013/ Monday Take your baby to clinic for Polio vaccination. पोलिओची लस घेणे गरजेचे आहे का? पोलिओची लक्षणे काय? पोलिओ झाला तर काय करणार?



Is it necessary to take polio vaccine? What are the symptoms of polio? What you should do if polio gets detected? पोलिओची लस घेण्यासाठी तुमचे बाळ ३.५ महिन्याचे झाले आहे का? तर १५ फेब्रुवारी १०१३/ सोमवार आपल्या बाळाला दवाखान्यात नेऊया आणि लस देऊया.



Is your baby
3.5 months old?
Then take your baby
to clinic on
25th February 2013/
Monday, for
polio vaccination.

बाळाने पोलिओची लस घेतली. बाळ बरे आहे ना? नाही? आपण हे करूयात जर बाळ आजारी असेल तर त्याला ताबडतोब दवाखान्यात घेउन जाऊया आणि डॉक्टराचां सल्ला घेऊया.



How is your baby after vaccination? If baby is not well then take your baby to the clinic and take doctor's advice.

बाळाने पोलिओचे औषध वेळेत घेतले, आता बाळ अधिक रोग प्रतिकारक झाले. धन्यवाद!



The vaccination has been done as per schedule so your baby has become healthier. Thank you.

## **Comprehension issues**

- Few Marathi high-level words are difficult to understand
- Some supportive words to make parents get the right meaning.

3.5 months
3.6 months
3<sup>1/2</sup> months
What is a right way
to tell/write for more
understanding?



3 <sup>1/2</sup> months can be understood by more people however details such as '3 months and 15 days' can be added for clarity.  To clarify the vaccination method, a graphical injection, dropper or spoon has been shown.







- Kshayrog (क्षयरोग)
  Kshayrog Is not a familiar word
  but when supported by T. B. is
  known to all.
- The format of dates
   Using 24 Feb 2013 rather than
   24/02/2013 is preferable because many numbers create confusion.

- Prevention (प्रतिबंध)
  To explain prevention (प्रतिबंध)
  I had to use a supportive word
  'to stop' (थांबवणे) or to reduce".
- Upper arm (दंडावर) Hatacha Dand (दंड) means the upper arm (वरील भाग) had to be mentioned.
- Sankshipt (संक्षिप्त)
  Sankshipt means compact (थोडक्यात)
  was related better.

# Some Graphic Illustrations to convey message





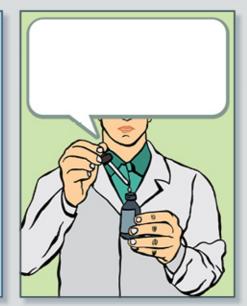








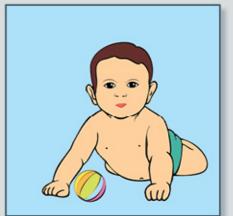








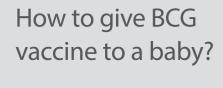




## Message Design

- Message convey through Question & Answer format
- Use supporting words when required
- Using supporting graphics









Let's give this vaccine on baby's left arm

Because it is convenient for doctor to check whether essential BCG vaccine is given or not.





Vaccine given by injection is called injected vaccine.

How to give a hepatitis - vaccine to a baby?





Let's give this vaccine on a thigh (upper part of leg).

It is important to — give this medicine in muscle than in a skin to secure your baby with Hepatitis.

कारण आवश्यक अशी ही लस बाळाने घेतल्यावर त्याचा योग्य परिणाम होण्यासाठी ती शरीरात वरच्या त्वचेवर देण्यापेक्षा खोलवर म्हणजेच आतील स्नायूत देणे महत्वाचे आहे.



 Vaccine given by injection is called injected vaccine. How to give a measles vaccine to a baby?





Let's give this vaccine on baby's right arm

it is convenient for doctor to check whether essential Measles vaccine is given or not.





 Vaccine given by injection is called injected vaccine.



How to give polio vaccine to a baby?



Let's give oral polio dose to a baby so that baby will not cry due to injection pain.



Vaccine which is given to a baby by mouth is called oral vaccine.

## Message schedule

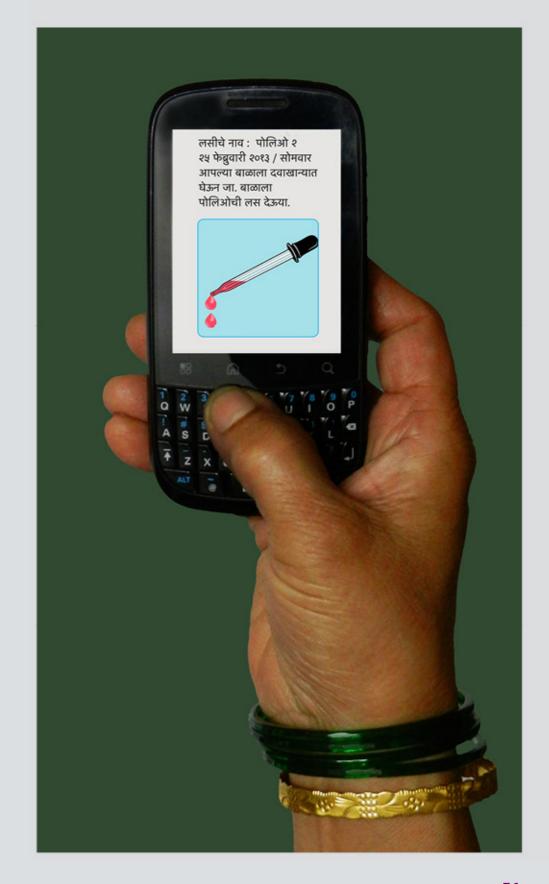
## Within 48 hours after birth: Polio | BCG | Hepatitis B pending vaccine

- Message starts from 7 months to send pregnant mother/ baby's family
- This plan for 3 months (90 days),
   ie. 7th, 8th and 9th month
- 7th month (30 days) schedule repeat for next two months,
   30 days schedule X 3 = 90 days



## Learning

- I have tried to learn how to handle issues related to a social subject.
- Discussion with various parents
   I found out that instead of reading visual graphics; audio messages are easier to comprehend.
- I learned how various thing are to be organised while working on this subject.



## Thanks to...

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## **Resources: Books**

• आरोग्य कर्मचाऱ्यांसाठी लसीकरणासंबंधी माहितीपुस्तिका - १००६ Immunization Guidebook for health centre employee- 2006

Published by government of India, Ministry of Health and Family Welfare, New Delhi

 IAP Guidebook on Immunization 2009-2011

Published by Indian Academy of Paediatrics Mumbai, India 400 007

## **Resources: Websites**

- www.iapcoi.com (Accessed on Jan 2013)
- http://www.iapcoi.com/gp/vaccines%
   20\_preventable\_diseases.html (Accessed on Jan 2013)
- http://mohfw.nic.in/ (accessed on Dec 2012)
- http://www.vaccineschedule.in/(Accessed on Dec 2012)
- http://www.ima-india.org/RECOMMENDED\_ IMMUNIZATION.html (Accessed on Dec 2012)
- http://opemide.blogspot.in/2012/05/polio.html (Accessed on Jan 2013), [page no 7]
- http://followuidai.wordpress.com/2012/07/23/the-mumbaiepisode-big-data-in-the-wake-of-the-total-failure-of-tuber culosis-treatment/ml (Accessed on Jan 2013), [page no 7]

## Thank you.

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**PROJECT 3** 

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