

# NIOS lesson adaptation project

by  **Embrace**  
The power within you!

Volunteers

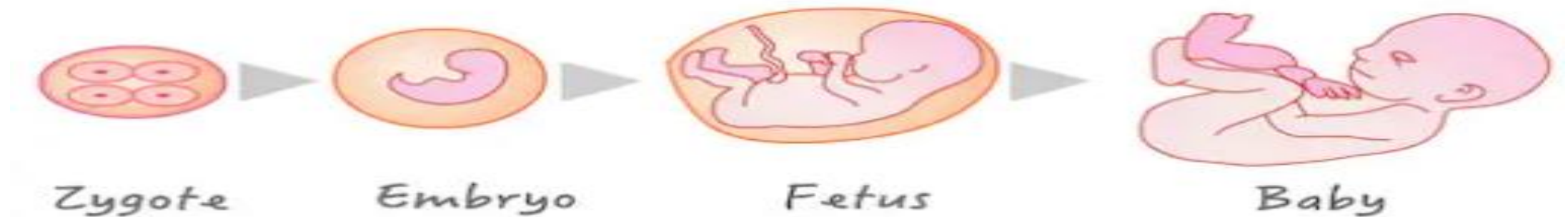
(A community initiative of Harchan Foundation Trust)

## CHAPTER -17 LIFE BEGINS

This project is aimed at supporting children with different needs. Information provided is adapted to the best of knowledge by the volunteers. For complete information please refer to the NIOS resources in <https://www.nios.ac.in/online-course-material/secondary-courses.aspx>.

# Introduction (Prior Information)

- ☐ It needs both mother and father to bring a baby into the world
- ☐ Mother has the unfertilized egg (ovum) in her womb
- ☐ Father's sperm carries the chromosome that decides the sex of the baby
- ☐ Process in which the egg and sperm unites is called fertilization
- ☐ Zygote is formed through the process of fertilization
- ☐ Zygote gets attached to mother's uterus
- ☐ It takes nutrition from the mother's body
- ☐ The zygote is called a foetus till it is born
- ☐ After birth it is called a baby



# KWL Chart

<b>K</b> - What does the child KNOW	<b>W</b> - What does the child WANT to know	<b>L</b> - What has the child LEARNT
	Signs of pregnancy	
	Changes in woman's body	
	Development over 3 trimesters	
	Special care needed for woman before and after delivering a baby	
	Rights of female foetus	
	Planning the family	
	Consequences of unplanned pregnancy	

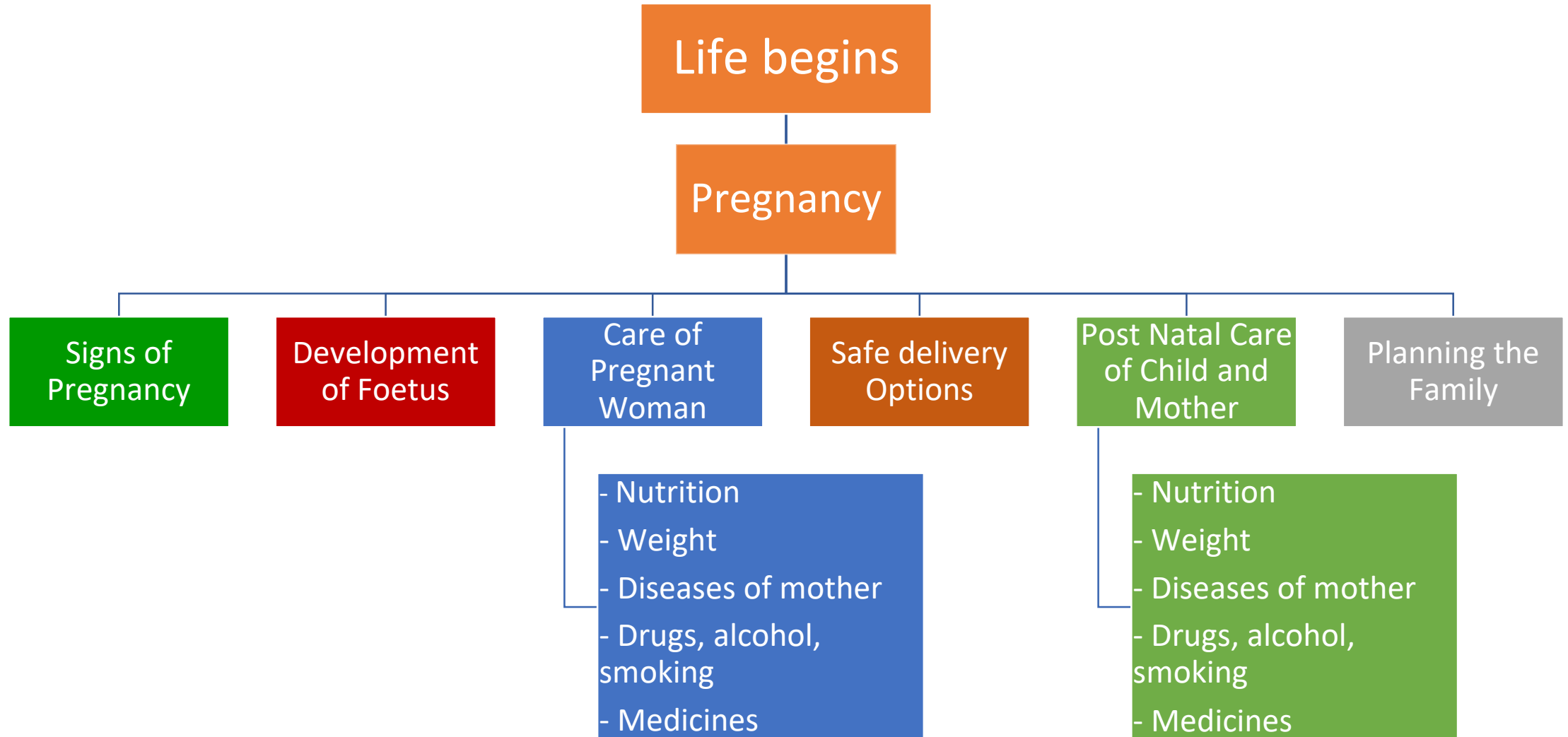
# KEYWORDS and MEANINGS

KEYWORD	MEANING
Trimester	A period of three months.
Menstrual Period	Flow of blood and other material from the lining of the uterus, lasting for 4-5 days and occurring in mature women
Morning Sickness	Nausea usually experienced in the morning by a pregnant woman
Craving	a powerful desire for something
Aversion	a strong dislike
Womb	The organ in the lower body of a female where offspring are conceived and grow
Prenatal	Before the birth

# KEYWORDS and MEANINGS

KEYWORD	MEANING
Ultrasound	A technique where sound waves of very high frequency are used to check the growth and development of the foetus
Infection	affect a person with a disease-causing organism:
Myth/ Superstition	a widely held but false belief or idea
Anxiety	a feeling of worry, nervousness, or unease about something
Amniotic sac	the fluid-filled sac that contains and protects a fetus in the womb.
Placenta	The placenta consists of vascular tissue in which oxygen and nutrients can pass from the mother's blood into that of the fetus, and waste products can pass in the reverse direction.

# Mind Map



## Development of Foetus inside the mother's womb

- Foetus remains in the mother's womb for about nine months (280 days)
- This is called prenatal period. 'Pre' means before and 'natal' means birth
- Expected date of Delivery = First day of last menstrual period + 7 days + 9 months
- We can divide nine months of pregnancy into 3 trimesters

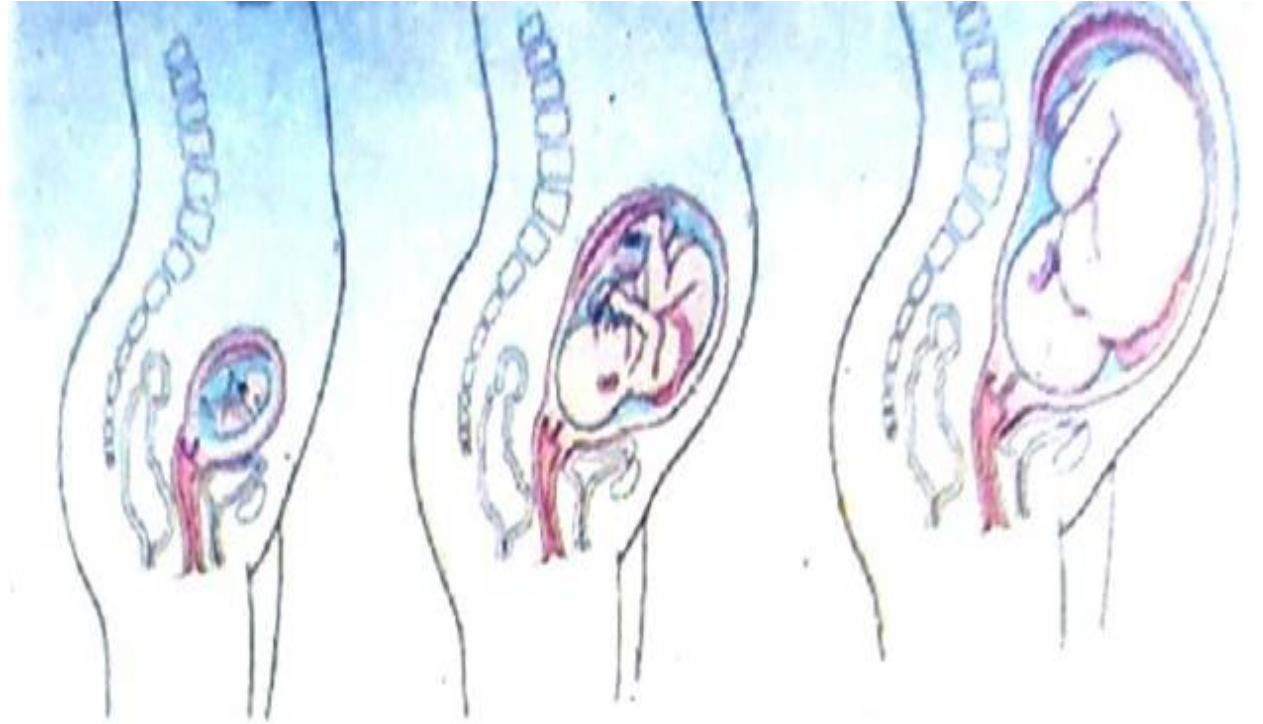
# Signs of Pregnancy

- After fertilization, many physical, hormonal and emotional changes occur in a woman's body
  - Woman misses her menstrual period
  - Morning sickness or nausea
  - Changes in breasts
  - Frequency of urination increases
  - Craving of certain foods like sweets, spicy or sour food
  - ✓ Some crave for indelible things like mud, chalk, etc. They must consult a doctor
  - ✓ Aversion to certain foods and smells such as onion, apples, etc



# Trimesters

Trimester	Month	Weeks
	one	1-4
	two	5-8
	three	9-13
	four	14-17
	five	18-21
	six	22-26
	seven	27-30
	eight	31-35
	nine	36-40



# First Trimester



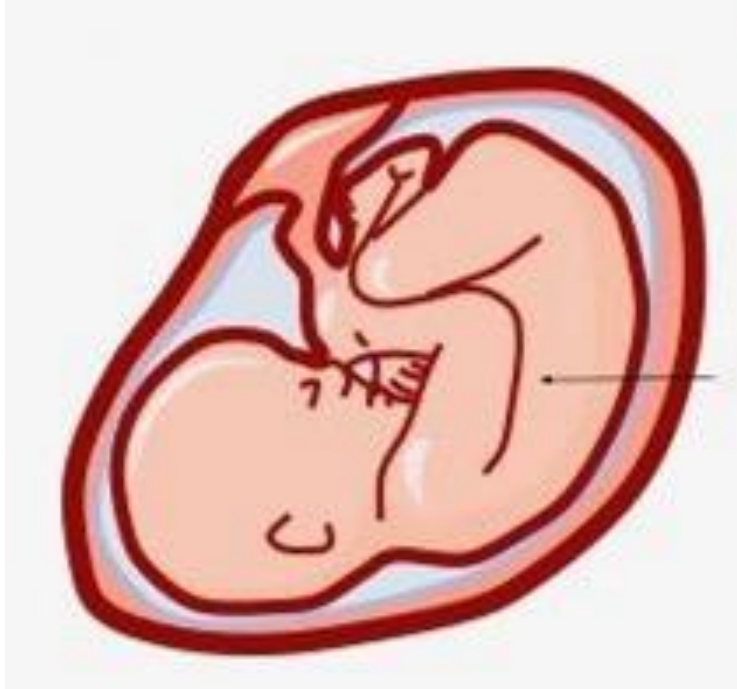
- It begins after fertilization
- The fertilized single cell begins to divide and becomes a ball of cells
- The ball of cells attaches to the wall of the uterus
- It becomes an embryo
- The amniotic sac, placenta and umbilical cord protect and feed the embryo
- Embryo attains a human form called foetus

# Second Trimester



- Rapid increase in the size of the foetus and the brain
- The foetus begins to move and mother can feel the movement

# Third Trimester



- The increase in size of the foetus
- The foetus can regulate breathing, body temperature and suck its thumb
- It gets antibodies from mother to protect itself from diseases

# Factors affecting the growing foetus

## Mother's emotional state

- A happy mother gives birth to a happy baby
- Pregnant women must avoid tension and stress





# Factors affecting the growing foetus

## Mother's diet

- Only a healthy woman can give birth to a healthy baby
- A mother must take a nutritious diet so that her baby gets proper nutrition to grow
- A mother's diet should contain foods from all the food groups

## HEALTHY DIET



# Factors affecting the growing foetus

## Age of the mother

- The right age to have a baby is when the mother is between 20 – 35 years old
- It is important to maintain a gap of minimum 3 years between 2 children



# Factors affecting the growing foetus

## Medicines taken by mother

- A pregnant woman should always ask her doctor before taking any medicines
- Some medicines can pass through the placenta and enter the baby's body and can be harmful for the baby
- She should avoid getting x-rayed
- Getting an ultrasound done is safe

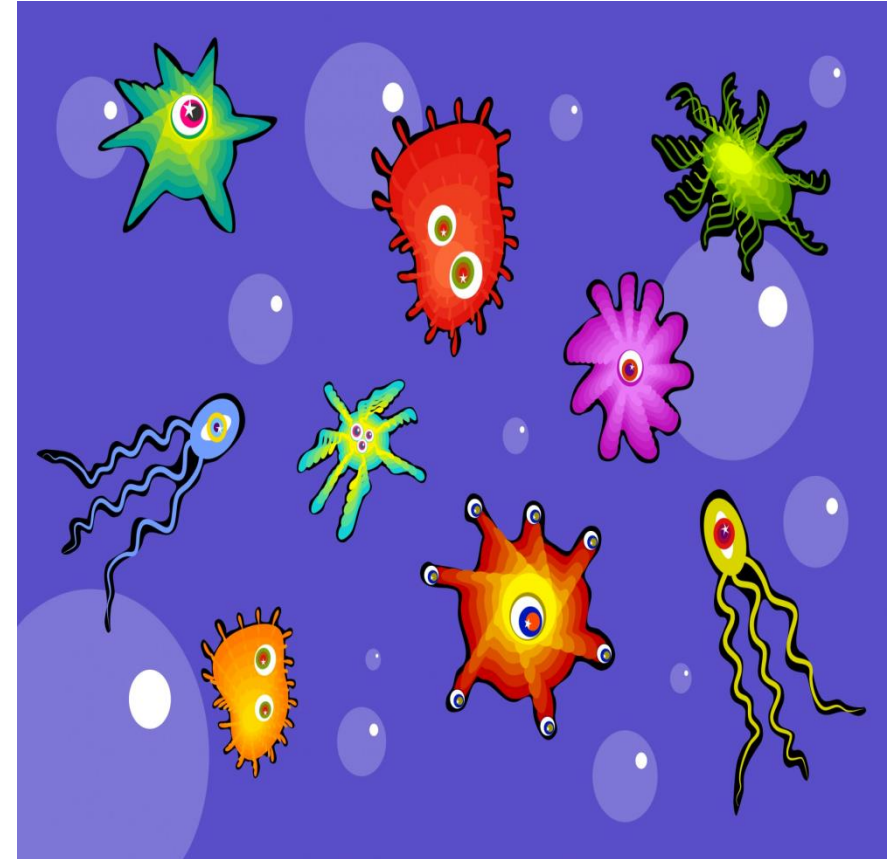




# Factors affecting the growing foetus

## Disease, germs that affect the foetus

- Some diseases or infections can pass through the placental wall and damage the growing foetus.
- E.g. German measles, HIV/AIDS



# Factors affecting the growing foetus

## Drugs, alcohol and smoking

- Smoke from cigarette, chemicals from alcohol and drugs pass to the foetus through the placenta and
- can cause major damage to the foetus.



# Caring for a pregnant woman (Prenatal Care)

## Medical checkup

- After the first missed period, the woman can confirm if she is pregnant.
- It can be done with a simple urine test done by the doctor or by using kits to test pregnancy at home
- It is extremely important for all pregnant women to go to a doctor or a trained midwife for a proper medical check up.
- The doctor ensures that a pregnant women undergoes some routine blood and urine tests
- A visit to a doctor at least once a month for the first 8 months of pregnancy and once a week during the last month is a necessity



# Female foeticide

- Doctors may advise ultrasound test or sonography to check for any abnormalities in the growth and development of the foetus
- Some parents and doctors misuse this facility to determine the sex of the foetus
- They terminate the pregnancy if the foetus is found to be female.
- This is called female foeticide.
- The practice of female foeticide has led to a serious decline in the number of baby girls being born in our country.
- It is our duty to oppose it



# Caring for a pregnant woman (Prenatal Care)

## Nutrition

- Eating balanced diet is a must during this time
- Women need to consume extra nutrients during pregnancy.
- Eat meals at regular times
- Constipation can be overcome by eating lots of fruits and raw vegetables and drinking fluids.





# Caring for a pregnant woman (Prenatal Care)

## Nutrition

- A diet rich in iron, like green leafy vegetables, amla, jaggery, eggs, meat, helps prevent anaemia
- Constipation can be overcome by eating lots of fruits and raw vegetables and drinking fluids.
- Nausea and vomiting are common during mornings in the first 3 months
- To combat this morning sickness, a pregnant woman can eat a toast or biscuit or puffed rice in the morning



# Caring for a pregnant woman (Prenatal Care)

## Nutrition

- Spicy and fried foods should be avoided.



# Caring for a pregnant woman (Prenatal Care)

## Weight

- A pregnant woman gains weight as the foetus grows.
- Normally, she should gain on an average of 12 kg.
- This indicates healthy growth of the baby.





# Caring for a pregnant woman (Prenatal Care)

## Medicines taken by mother

- Any medicine taken by a pregnant woman must be strictly under medical supervision of a doctor.
- Taking medicines must be avoided as far as possible.
- The pregnant woman must take a tetanus vaccination in order to prevent tetanus in the newborn child



# Caring for a pregnant woman (Prenatal Care)

## Clothes to be worn

- A loose kurta worn with a salwar would look good and be comfortable at the same time.
- A well draped sari also gracefully conceals the growing abdomen.
- Ensure that the clothes allow free and unrestricted movement of the body.



# Caring for a pregnant woman (Prenatal Care)

## Exercise and rest

- The pregnant woman must remain active and continue her daily work
- She should avoid picking heavy items or getting injured
- She must get adequate rest and remain stress free
- Minimum 10 hours of sleep is recommended
- Family, friends and colleagues should give constant support



# Safe Delivery

## Lowering Anxiety

- A woman is very anxious at the time of giving birth for the safety of her baby and herself
- She should finalize the hospital, primary health center (PHC) or a trained midwife where she would have a safe delivery.
- It is always safer to have an institutionalized delivery in a hospital or nursing home.
- the next best option is to call a trained midwife or dai to the house for the delivery



# Safe Delivery

## Trained Midwife is important

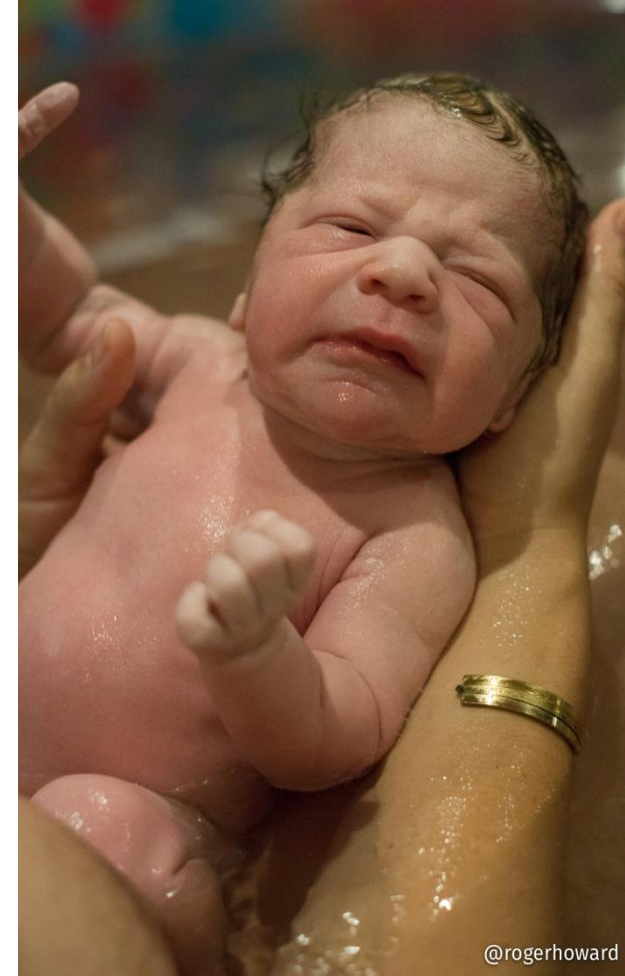
- She would
  - Do everything scientifically
  - Follow the rules of cleanliness
  - Know what to do in case of complication



# Safe Delivery

## Delivery at home

- The five Rules of Cleanliness :
  1. Clean hands and fingernails
  2. Clean surface for delivery
  3. Clean sheet
  4. Clean all items to be used for delivery with antiseptic solution and soap
  5. Clean cutting of the cord with a new blade and tying with new (fresh) thread



@rogerhoward



# Care of new born baby and mother (Postnatal care)

## Care for mother and child

- The new mother needs a lot of care to recover her strength after giving birth
- She can also catch infections if she does not take care of her properly
- The newborn sleeps a lot (about 16 hours), sometimes cries and needs frequent feeding
- First few months are a time of adjustment for the family



# Care of new born baby and mother (Postnatal care)

## Hygiene

- The baby is covered with a white cheese like substance. Wipe it with clean cloth soaked in warm water
- The baby is separated from the placenta by cutting the umbilical cord. The cord must be kept dry
- Mother's room must be kept clean, well-lit and ventilated
- Mother should also take a bath regularly





# Care of new born baby and mother (Postnatal care)

## Immunization

- The baby needs to be immunized against preventable infectious diseases.
- We must get immunization schedule for the baby and take the baby for immunization at the right time.
- Immunization is done free of cost at all government hospitals and health centres.



# Care of new born baby and mother (Postnatal care)

## Immunization Schedule for new born

Vaccine	Disease prevented	Birth	6 <sup>th</sup> week	10 <sup>th</sup> Week	14 <sup>th</sup> week	9-12 months
<b>Primary vaccination</b>						
BCG	TB					
Oral Polio	Polio					
DPT	Diphtheria Pertissis Tetanus					
Hepatitis B	Jaundice					
MMR	Measles Mumps Rubella					



# Immunization Schedule for newborn and pregnant women

Rooster Doses	New born child
DPT+ oral Polio	6 to 12 months
DT	5 years
Tetanus Toxoid	At 10 years and at 16 years
Vitamin A	9, 18, 24, 30 and 36 Months

Pregnant women	
Tetanus Toxoid dose 1	As early as possible during pregnancy
2 <sup>nd</sup> dose	One month after first does
Booster	With in 3 years

# Care of new born baby and mother (Postnatal care)

## Nutrition

- It is the right of every child to be breast fed
- A mother's breast produces a yellow fluid called '**colostrum**' for the first few days
- Colostrum is very important for the health of the baby
- Colostrum has a lot of antibodies and proteins
- It is not bad or dirty and must be fed to the baby
- Only breast milk is best for baby for the first 6 months

# Care of new born baby and mother (Postnatal care)

## Breast feeding Vs Bottle feeding

Characteristic	Breast-feeding	Bottle-feeding
Nutrient content	Breast milk contains adequate proportions of all the nutrients that a baby needs. It can be easily digested.	The nutrients may be made adequate by fortifying powdered milk. If fresh milk is used, there may be an imbalance in dilution, making it difficult to digest.
Hygiene	Breast milk is clean and reduces chances of the baby getting diarrhoea.	Bottles need to be sterilized properly; otherwise the baby may catch infections and become ill.





# Care of new born baby and mother (Postnatal care)

## Breast feeding Vs Bottle feeding

Characteristic	Breast-feeding	Bottle-feeding
Temperature	The temperature of breast milk is always right. It can directly go from the mother's breast to the child's mouth.	The temperature of milk has to be adjusted.
Protective quality	Breast milk contains antibodies that protect the baby from certain illnesses.	This milk does not contain any protective agents.



# Care of new born baby and mother (Postnatal care)

## Breast feeding Vs Bottle feeding

Characteristic	Breast-feeding	Bottle-feeding
Emotional bond between the mother and baby	Breast-feeding helps in developing a special bond between the mother and child.	The baby can be bottle fed by any other person, so it may not form any special bond between the mother and child.



# Care of new born baby and mother (Postnatal care)

## Breast feeding mother

- Mother should have a balanced diet to produce milk in appropriate quantity and quality
- A woman can take 6 months maternity leave to take care of their babies
- Father, who are government employees, can not take 15 days of paternity leave
- Mothers can also extract breast milk and store them in clean, sterilized bottles.
- The baby's caretaker can then feed this milk to the baby





# Family Planning

- The couple decide when to start their family and how many children to have
- There should also be an adequate age gap between two children in a family
- Both mother and children stay healthy and raising children is a stress free process for the parents.



# Family Planning

## Disadvantages of large families

- The mother's health is affected with many pregnancies
- The mother is unable to give proper attention and care to the older ones with the birth of a second child immediately after the first
- She becomes irritable and scolds and beats her children often
- Such children feel very insecure and unloved.
- Even the father feels helpless and often frustrated as he is not able to offer much help to the mother or the babies



# Family Planning

## Advantages of small families

- The mother has more time and energy to look after all the needs of her child
- The family spends time together so that the child feels loved and secure.
- A small family can also spend more money to meet the needs of the children such as education, entertainment and professional training.







**THANK  
YOU**