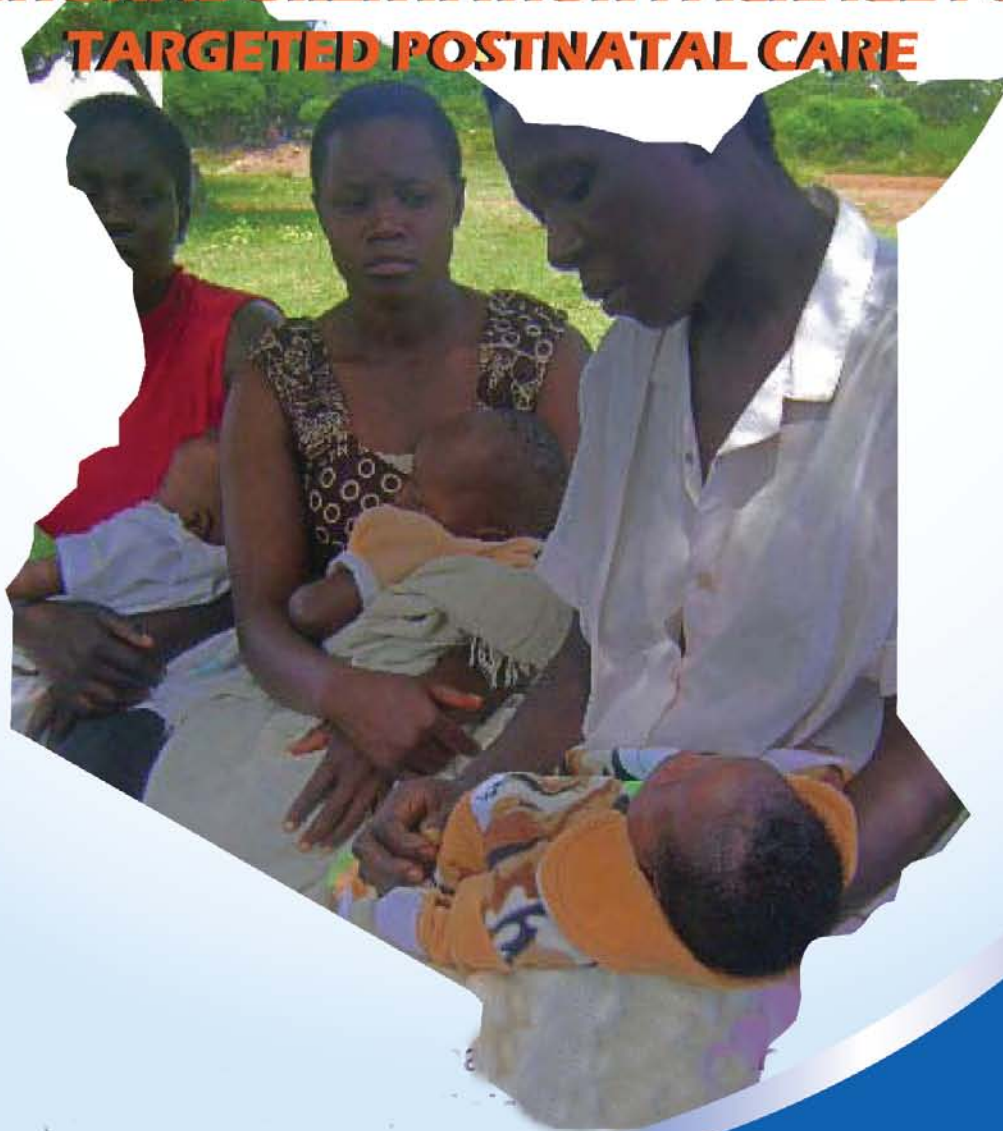




# **NATIONAL ORIENTATION PACKAGE FOR TARGETED POSTNATAL CARE**



April 2011



# Orientation Manual for Health Providers

## (Nurses, Midwives, Clinical Officers and Medical officers)

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Division of Reproductive Health  
Ministry of Public Health & Sanitation  
Old Mbagathi Road  
P. O. Box 43319, Nairobi.  
Tel: 725105/6/7/8  
E-mail: [drh-head@africaonline.go.ke](mailto:drh-head@africaonline.go.ke)  
Website: [www.drh.go.ke](http://www.drh.go.ke)



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A handwritten signature in blue ink, appearing to read 'Shiphrah Kuria'.

Dr Shiphrah Kuria  
Ag Head Division of reproductive Health  
Ministry of Public Health and Sanitation



## Foreword

Providing a continuum of care from Antenatal, childbirth and Postnatal period results in reduced maternal and neonatal morbidity and mortality. It is recommended that all women and their newborn babies receive a postnatal care within two days after childbirth. This is the period during which most of them die. Unfortunately less than half of the mothers access PNC within this period. (KDHS 2008/09). It has been estimated that if routine PNC reached 90% of babies and their mothers, about 10 to 27% of newborn deaths could be averted.

In order to have the full benefit, PNC needs to be of high quality and responsive to the needs of the client. Therefore skilled birth attendants must be equipped with knowledge, skills and a favourable environment for provision of prompt comprehensive Targeted Postnatal Care services

Involving individuals, families and communities in health promotion, emergency preparedness, detection of complications and prompt referral during pregnancy, childbirth and postnatal period will reduce the delays usually experienced and therefore alleviate serious consequences of morbidity and mortality.

The Ministry of Public Health & Sanitation through the Division of Reproductive Health hopes that this manual will be a resourceful document to all health care providers in the course of their duty as they provide Targeted post partum care; thereby reducing maternal morbidity and mortality and accelerating the attainment of MDG5.

A handwritten signature in blue ink, appearing to read 'Shiphrah Kuria'.

Dr Shiphrah Kuria  
Ag Head DRH/ MOPHS  
April 2011



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# Course Schedule

	Day 1	Day 2	Day 3
Session 1 (8.30-11.00)	Introduction Icebreakers  Expectations and Norms  Objectives	Management of TB  PMTCT	Post partum FP
Session 2 (11.15-1.15pm)	Targeted Postnatal care	Puerperal sepsis  Obstetric fistula	Psychotic disorders  Maternal nutrition
Session 3 (2.15 – 4.30pm)	PPH	Eclampsia	M&E/ Records  Wrap up Closing



# ACRONYMS

- AFASS- Acceptable, feasible, Affordable, Sustainable, Safe
- AMTSL- Active management of Third Stage of labour
- ANC- Antenatal Care
- APH- Ante partum Haemorrhage
- ARV- Antiretroviral Therapy
- BF- Breast feeding
- BP- Blood Pressure
- CCC- Comprehensive Care Clinic
- CHW- Community health Worker
- C/S- Caesarean Section
- COCs- Combined Oral Contraceptives
- CPR- Contraceptive Prevalence Rate
- CT- Counselling & Testing
- DBP- Diastolic Blood Pressure
- DOT- Directly Observed Treatment
- ESAR- Eastern & Southern African Countries
- FBOs- faith based organisations
- FGC- Female genital Cutting
- FS- Female sterilisation
- HAART- Highly Active antiretroviral Therapy
- Hb-Haemoglobin
- HTSP- Health Timing and Spacing of Pregnancy
- IYCF- Infant and Young Child Feeding
- IUCD- Intrauterine Contraceptive Device
- KAIS- Kenya AIDS Indicator Survey
- KDHS- Kenya Demographic and Health Survey
- KEPH- Kenya Essential Package for Health
- LAM- Lactational Amenorrhoea
- LBW- Low Birth Weight
- LLITN-Long Lasting Insecticide Treated Net
- MEC- Medical Eligibility criteria
- M&E- Monitoring and evaluation
- MMR- maternal mortality ratio
- OF- Obstetric Fistula
- PIH- pregnancy Induced Hypertension
- PMTCT- prevention of Mother to Child transmission
- PNC- Postnatal care
- POC- Products of Conception
- POPs-progesterone only pills
- PPH- Post partum haemorrhage
- RHL- Reproductive Health library
- S/S- Symptoms and Signs



## Introduction- 1

- Of the estimated 529,000 global annual maternal deaths
  - 48% are in the African region, a region that constitutes only 12% of the world's population and 17% of all births in the world
  - Poor women in the region are especially vulnerable
  - In many countries in the region, between 25% and 33% of all deaths of women of reproductive age result from complications of pregnancy or childbirth





## Introduction-2

- The lifetime risk of maternal death in the African region is estimated at 1:16 compared to 1:3500 in North America, 1:2400 in Europe, 1: 160 in Latin America and the Caribbean, and 1:100 in Asia
- In Kenya, the maternal mortality rate is at 488 per 100000 live births [KDHS,2008/9]
- **The risk of dying from pregnancy in Kenya is 1:20**



## Objectives of this course

By the end of the course, the participants should be able to:-

- Define Postnatal care
- Discuss the justification for PNC
- Discuss the elements and schedule of targeted postnatal care
- Discuss management of Tuberculosis during PNC
- Discuss PMTCT during postnatal period
- Discuss the management of Post partum haemorrhage
- Discuss the management of puerperal sepsis



## Objectives Continued

- Discuss the management of post partum Eclampsia
- Discuss the management of Obstetric fistula
- Discuss the management of post partum psychotic disorders
- Discuss maternal nutrition during PNC period
- Discuss postpartum family planning
- Demonstrate knowledge and skills in M&E /data management for targeted post-natal care.



# What is postnatal care?

- **Postnatal care** this is care given to both the mother and the baby from birth in order to reduce the incidence of complications and deaths as well as to promote the health of the mother and baby  
**The post partum period** for the mother starts after the expulsion of the placenta up to 42 days (6 weeks) after delivery
- However it is now recommended that the regular follow up of both mother and baby be extended until at **least the first year**



# The overall goal of PNC

- To equip the service providers with knowledge and skills on targeted postnatal care

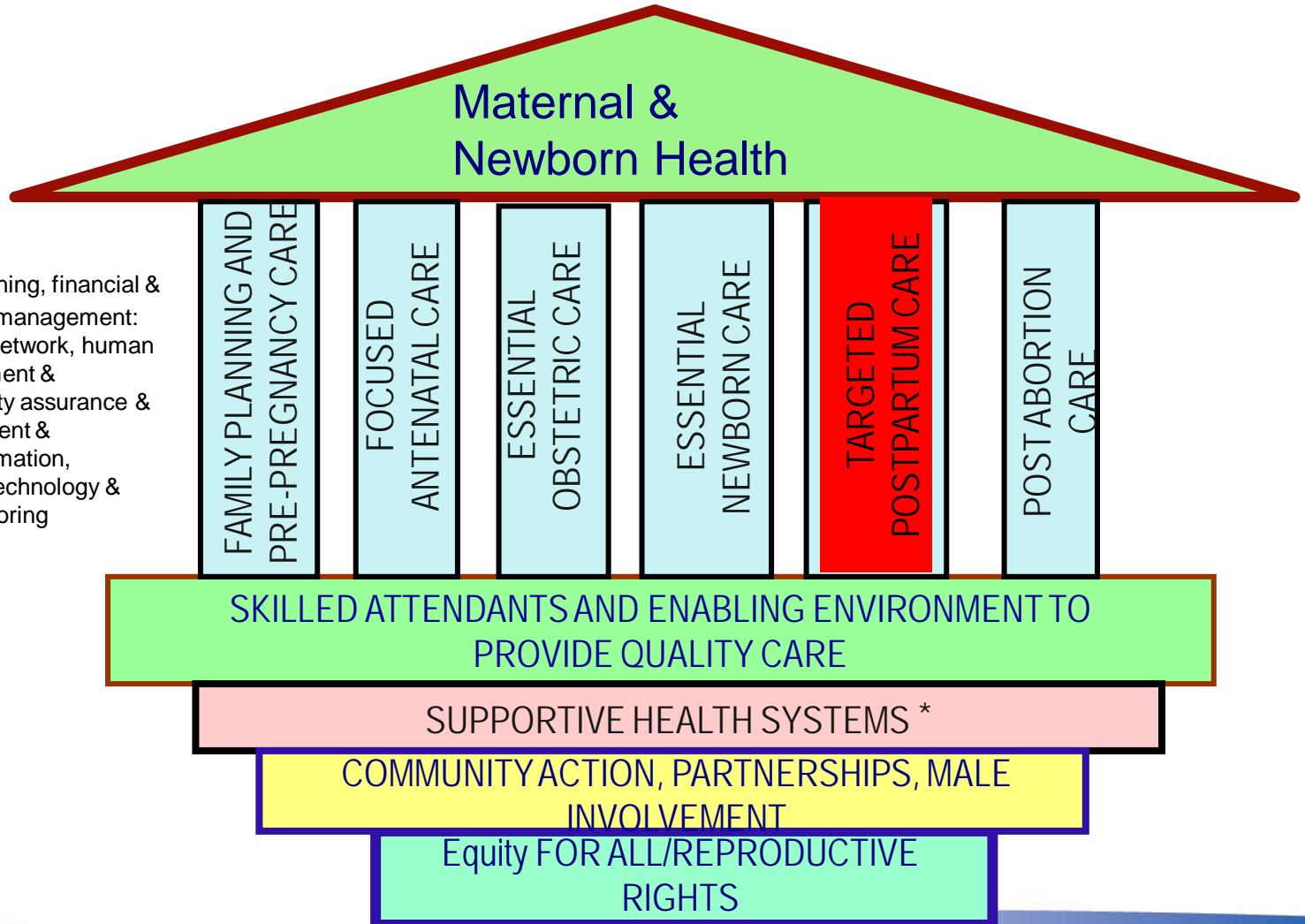




Targeted Postnatal care is one of the pillars of Maternal and newborn health in Kenya



# Kenya Maternal and Newborn Health Model



\* M&E; Health planning, financial & commodity supply management: functional referral network, human resource management & development, quality assurance & standards, investment & maintenance, information, communication & technology & performance monitoring



# Why focus on PNC?





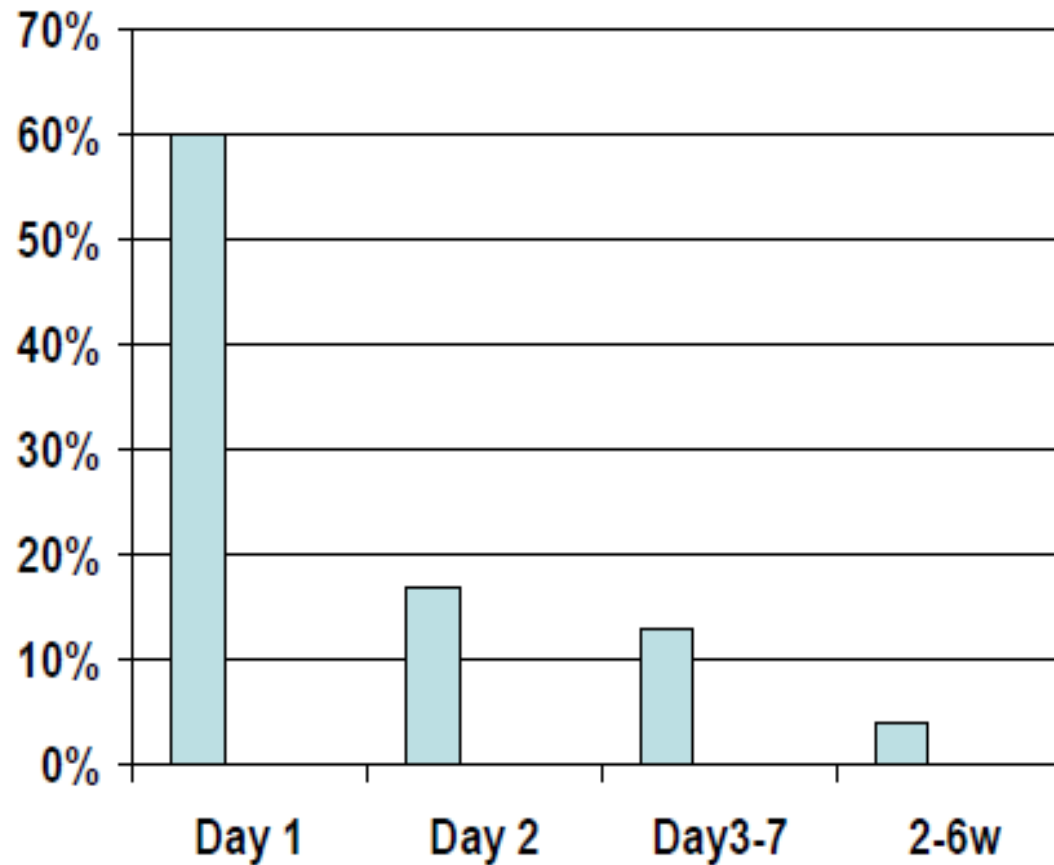


## Maternal Mortality Rate in Kenya

- Kenya has a high Maternal mortality ratio: (488 maternal deaths per 100,000 live births)
- Kenya also has a high Neonatal mortality rate: (31/1000 live births)
- Most of these deaths occur in the post natal period

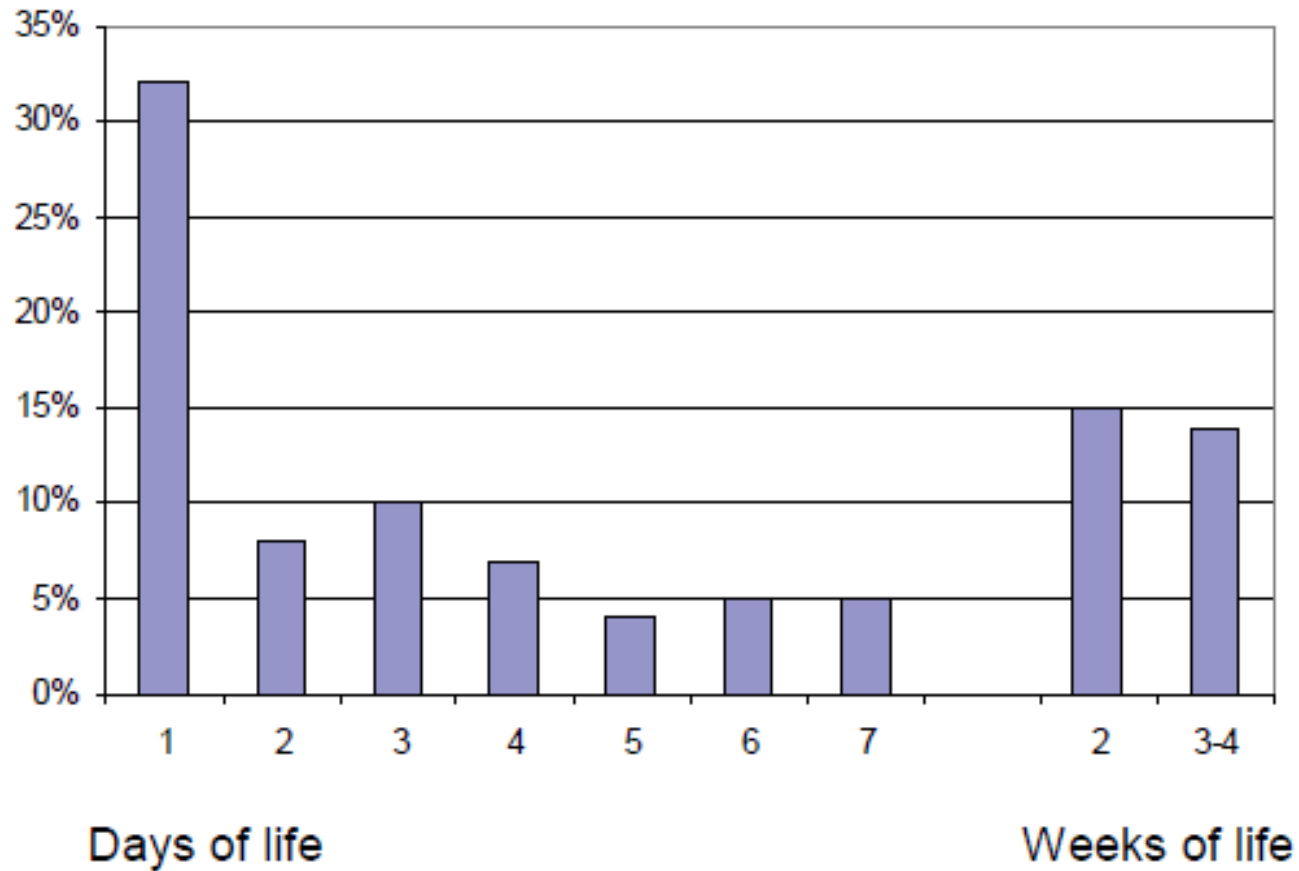


## Proportion of maternal deaths by days post partum





## Proportion of newborn deaths by days post natal





## Major Causes of Maternal and newborn mortality

- **Mother**

- Haemorrhage
- Eclampsia  
(hypertensive disorder)
- Sepsis
- Obstructed labour
- Unsafe abortion

- **Newborn**

- Asphyxia
  - Neonatal sepsis
  - Low birth weight
- **Intra-partum Stillbirth**



## Risk of dying in postnatal period - by day and cause

Mother	Day 1	Day 2-4	Day 5-7	Day 8 - 14	Day 15 - 42
PPH					
PIH					
Sepsis					
<b>Newborn</b>					
Asphyxia					
Trauma					
LBW/small					
Sepsis					
Tetanus					



# Targeted PNC





# Justification for PNC

- Providing a continuum of care from ANC, delivery, PNC and beyond results in reduced maternal and neonatal morbidity and mortality
- It has been estimated that if routine PNC reached 90% of babies and their mothers, 10 to 27% of newborn deaths could be averted.
- However 58 % of women who deliver in Kenya **DON'T** come for postnatal care (KDHS, 2009)



## Targeted Postnatal Care

- This describes a comprehensive postnatal package that is now recommended as a key strategy in reducing maternal and neonatal deaths
- This type of PNC focuses on supporting and maintaining maternal and newborn/infant well-being throughout the postnatal period
- It is goal oriented, timely, friendly and simple
- It comprises four focused personalised visits or assessments after the birth to at least 6 months postnatal



It should be given to every mother and her newborn baby





## Elements of targeted postnatal care

- Assisting the mother and family to develop a personalised postnatal care plan
- Provision of care to mother and baby by skilled attendant
- Emergency preparedness and Complication readiness for the mother and baby
- Early detection and treatment of problems such as TB, Eclampsia, haemorrhage etc; and referral as necessary
- Counselling for HIV and testing; Family planning, Breast feeding, personal hygiene, nutrition; etc
- Health promotion using health messages



# When Does Postnatal Care (PNC) Begin?



# Start postnatal care during ANC

- The main aspect of PNC provided during the ANC period is to assist the mother and her family to have a postnatal care plan





## A postnatal plan ensures that the client and her family:

- Can identify danger signs in the mother and baby and action to take
- Identifies a health facility in case of an emergency
- Identifies a decision-maker in case of an emergency
- Have money set aside to use in case of an emergency
- Has a transport plan in case of emergency
- Can identify a blood donor
- Knows that **Birth Registration** for the baby is a child's right

**Review this plan with mother and her partner  
During each PNC visit**

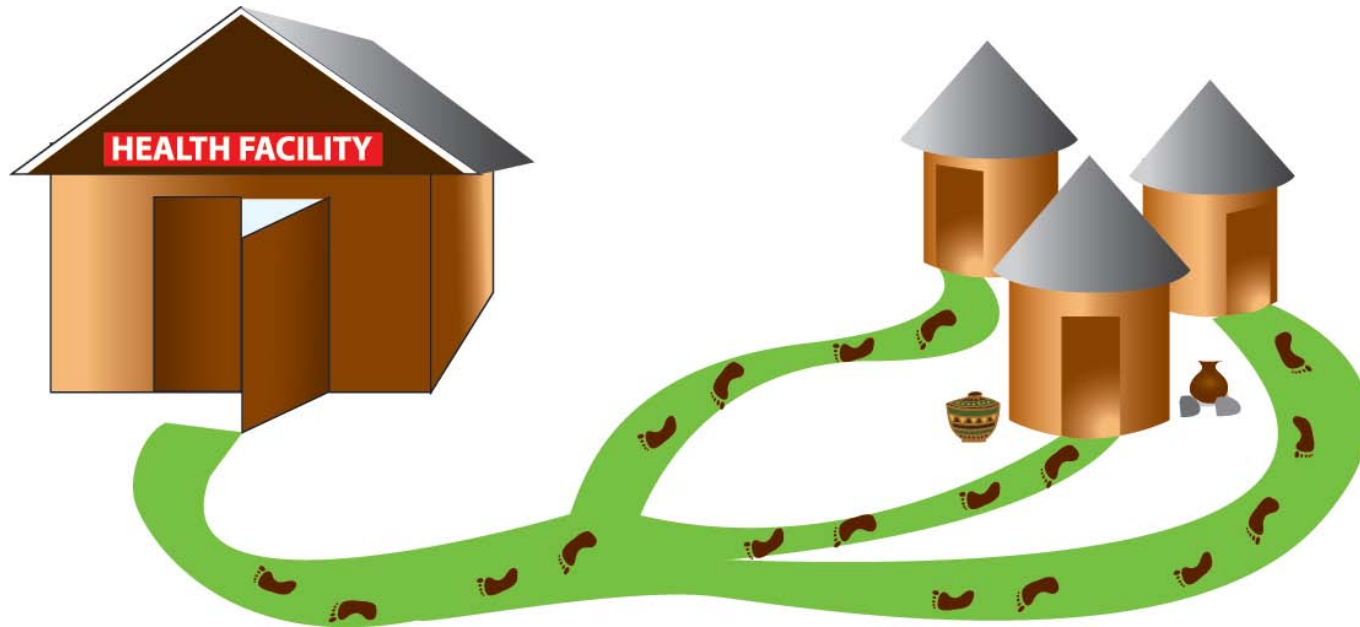


## Four (4) Targeted PNC Assessments

The following are the recommended timings for PNC for Mother & baby

- Within 48 hours after birth
- Within 1-2 weeks
- Within 4-6 weeks
- Within 4- 6 months

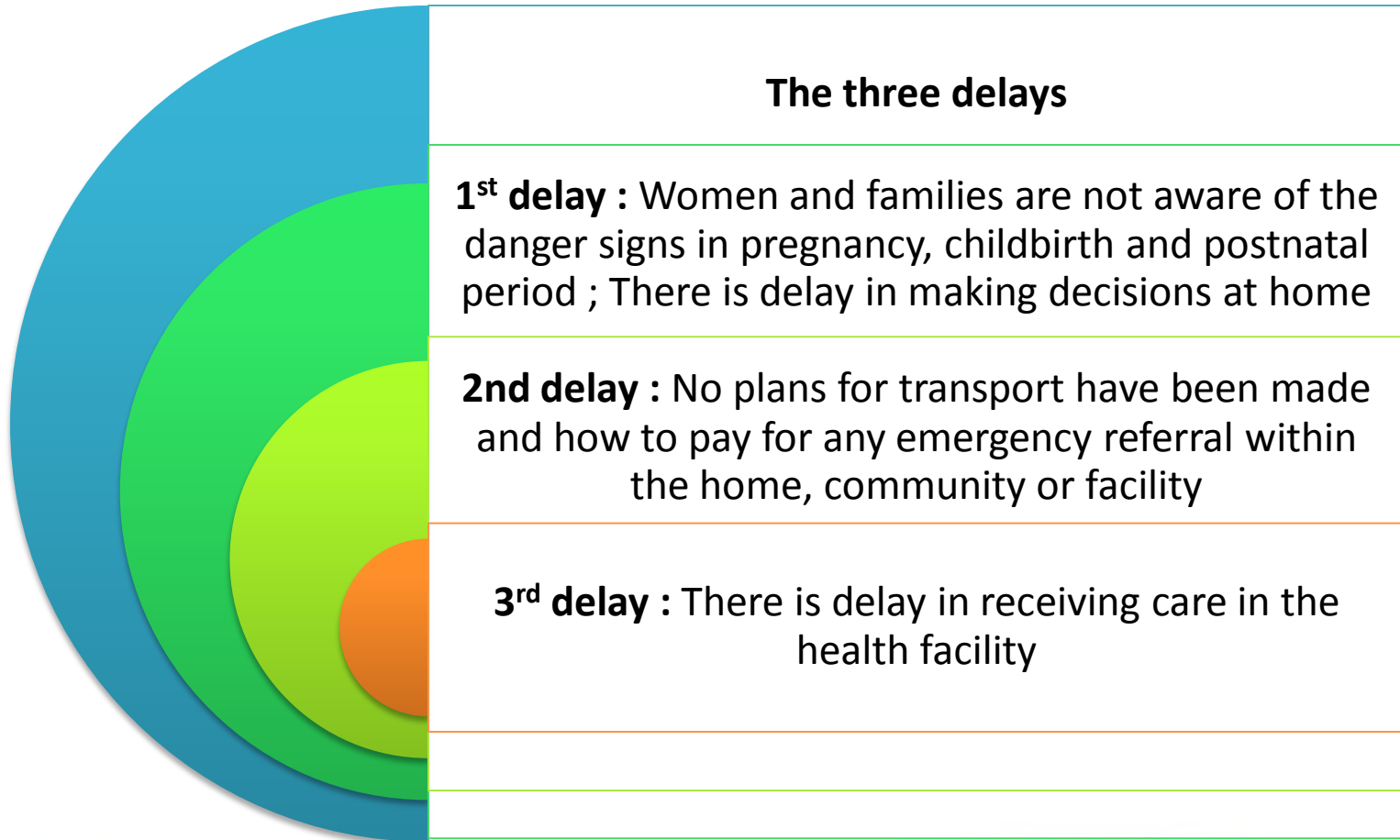




All women who deliver at home should visit the health facility and be reviewed by a trained health provider as soon as possible after delivery- within 48 hours



## Factors contributing to maternal and newborn death:





Recognize danger signs and provide prompt medical attention!

Acting quickly is important because a woman could die in a short period of time:

- in **postpartum hemorrhage** she can die in just **2 hours**.
- with complications of **eclampsia** in as few as **12 hours** and
- with **sepsis** in about **3 days!**





## Danger signs in the mother during the postnatal period

- High fever, lower abdominal pain and foul smelling discharge (infection)
- Severe headache blurred vision, High BP, (pre-eclampsia)
- Convulsions or fits (eclampsia)
- Heavy vaginal bleeding (PPH)
- Urinary or fecal incontinence (obstetric fistula)
- Extreme tiredness, Anemia
- Anxiety and depression (puerperal psychosis)
- Breast problems: Engorgement, sore, cracked bleeding or inverted nipples **Note:** Most cited reason for stopping breastfeeding



## Other maternal health problems

- Stress incontinence (long second stage)
- Backache (long second stage, epidural analgesic)
- Pelvic pains /pain in symphysis and or legs (relaxation of pelvic joints during pregnancy)
- Hemorrhoids (long 2nd stage, heavier babies, forceps delivery)
- Perineal pain / dyspareunia (assisted vaginal delivery, episiotomy)
- Constipation



## Dangers signs for the newborn

- Baby refuses to feed, poor sucking
- Poor body temperature control (baby feels very hot or very cold)
- Difficulty breathing (grunting or wheezing, fast breathing, in-drawing of chest, blue around mouth)
- Wet cord with blood/ pus & swelling around cord
- Swollen eyes, pus draining from eye or ear
- Jaundice – yellow body, eyes or palms
- Lethargic/floppy
- Convulsions





How can we address the 3 delays?

**BRAINSTORM.....**



## PNC services within 24 - 48 hours

<b>Mother</b>	<b>Baby</b>
<p><b>Check / perform:</b></p> <ul style="list-style-type: none"><li>•Mental status assessment</li><li>•Physical assessment: Pallor, Temperature, Blood Pressure, uterine involution,</li><li>•Inspection of the C/S wound- if present- for bleeding</li><li>•Assess lochia and blood loss</li><li>•Breast examination for establishment of lactation,</li><li>•Calf tenderness</li><li>•Record in PNC register and mother Child booklet</li></ul>	<p><b>Check / perform:</b></p> <ul style="list-style-type: none"><li>•Apgar scoring</li><li>•Take temperature</li><li>•Take and record birth weight</li><li>•Head to toe examination</li><li>•Assess for danger signs for baby</li><li>•Observe a breast feed</li><li>•Record in PNC register and mother Child booklet</li></ul>




## PNC services within 24 - 48 hours

<b>Mother</b>	<b>Baby</b>
<p><b>Provide:</b></p> <ul style="list-style-type: none"><li>Pain management</li><li>Screening for TB and treat as appropriate</li><li>Vitamin A (200 000 iu)</li><li>Iron/folic acid supplements</li><li>LLITN</li><li>Treat or refer if any complications are detected</li><li>Appropriate FP method</li><li>If HIV positive give ARV's for prophylaxis or treatment</li></ul>	<p><b>Provide:</b></p> <ul style="list-style-type: none"><li>Ensure warmth and put hat on baby</li><li>Delay baby's first bath for the first 24 hours</li><li>If pre term encourage skin-to-skin care</li><li>Encourage early initiation of, and exclusive breastfeeding</li><li>Tetracycline eye ointment 1%</li><li>Vitamin K</li><li>Immunization (BCG &amp; birth Polio)</li><li>Infant prophylaxis for HIV as indicated</li><li>Treat or refer the infant if any complications are detected</li><li>Encourage and facilitate birth registration</li></ul>



## PNC services within 24 - 48 hours

<b>Mother</b>	<b>Baby</b>
<p><b>Counsel on:</b></p> <ul style="list-style-type: none"><li>•HIV Counselling and testing /re-testing</li><li>•FP Counselling (healthy Timing &amp; spacing of pregnancy)</li></ul> <p><b>Advice on;</b></p> <ul style="list-style-type: none"><li>•Danger signs for mother</li><li>•Personal hygiene and hand washing,</li><li>•Breast care</li><li>•Exercises</li><li>•Care of the perineum</li><li>•Harmful practices</li><li>•Maternal nutrition</li><li>•Use of Insecticide Treated Nets.</li><li>•Return date</li></ul>	<p><b>Counsel on:</b></p> <ul style="list-style-type: none"><li>•Cord care</li><li>•Hand washing for care giver</li><li>•Return date</li></ul> 



## PNC services within 1-2 weeks

Mother	Baby
<p><b>Check /perform:</b></p> <ul style="list-style-type: none"><li>•Mental status</li><li>•Pallor, BP, temperature, pulse rate</li><li>•Lochia loss- (colour, amount, smell)</li><li>•Assess for calf tenderness</li><li>•Infection /pus from C/S site or perineal wound</li><li>•Breast condition</li><li>•Uterine involution</li><li>•Observe a breast feed</li><li>•Record in PNC register and Mother Child booklet</li></ul>	<p><b>Check /perform:</b></p> <ul style="list-style-type: none"><li>•Growth monitoring; chart weight</li><li>•Head to toe examination</li><li>•Assess for danger signs for baby</li><li>•Check eyes for discharge</li><li>•Immunisation status</li><li>•Observe a breast feed</li><li>•Record in PNC register and Mother Child booklet</li></ul>





## PNC services within 1-2 weeks

<b>Mother</b>	<b>Baby</b>
<p><b>Provide:</b></p> <ul style="list-style-type: none"><li>•Vitamin A supplementation (if not yet given)</li><li>•Haematinics</li><li>•LLITN (if not yet given)</li><li>•Treatment for any complications detected</li><li>•Referral as appropriate</li></ul>	<p><b>Provide:</b></p> <ul style="list-style-type: none"><li>•Vitamin A if not yet given</li><li>•Immunisations if not yet started</li><li>•INH prophylaxis as appropriate</li><li>•Treatment of any complications detected</li><li>•Referral as appropriate</li><li>•Birth registration if not yet done</li></ul>



## PNC services within 1-2 weeks

<b>Mother</b>	<b>Baby</b>
<p data-bbox="276 539 510 575"><b>Counsel on:</b></p> <ul data-bbox="372 596 915 1203" style="list-style-type: none"><li data-bbox="372 596 861 632">•Danger signs for mother</li><li data-bbox="372 654 585 689">•CT for HIV</li><li data-bbox="372 711 836 746">•Family Planning / HTSP</li><li data-bbox="372 768 755 803">•Maternal Nutrition</li><li data-bbox="372 825 915 925">•Personal hygiene and hand washing for caregiver</li><li data-bbox="372 946 877 1039">•Breast care and Exclusive breast feeding</li><li data-bbox="372 1061 736 1096">•Harmful practices</li><li data-bbox="372 1118 880 1153">•Cervical cancer screening</li><li data-bbox="372 1175 620 1203">•Return date</li></ul>	<p data-bbox="967 539 1360 575"><b>Counsel mother on:</b></p> <ul data-bbox="1064 596 1673 1032" style="list-style-type: none"><li data-bbox="1064 596 1503 632">•Danger signs for Baby</li><li data-bbox="1064 654 1541 689">•Exclusive breast feeding</li><li data-bbox="1064 711 1609 746">•Hand washing for caregiver</li><li data-bbox="1064 768 1464 803">•Keeping baby warm</li><li data-bbox="1064 825 1263 861">•Cord care</li><li data-bbox="1064 882 1673 975">•Adherence to ARV prophylaxis as appropriate</li><li data-bbox="1064 996 1309 1032">•Return date</li></ul>



## PNC services within 4 -6 weeks

<b>Mother</b>	<b>Baby</b>
<p><b>Check:</b></p> <ul style="list-style-type: none"><li>•General condition of mother</li><li>•Mental status</li><li>•BP, Weight, temperature</li><li>•Uterine involution</li><li>•Lochia (amount /colour)</li><li>•Observe a breast feed</li><li>•Record in PNC register and Mother Child booklet</li></ul>	<p><b>Check:</b></p> <ul style="list-style-type: none"><li>•Growth monitoring; chart weight</li><li>•Head to toe examination</li><li>•Assess for danger signs for baby</li><li>•Immunisation status</li><li>•Record in Integrated register and Mother Child booklet</li></ul>



## PNC services within 4 -6 weeks



<b>Mother</b>	<b>Baby</b>
<p><b>Provide:</b></p> <ul style="list-style-type: none"><li>FP method of choice</li><li>CT for HIV</li><li>Screening for cervical</li><li>Clinical breast examination</li><li>Screening for STI/ RTI</li><li>Screen for TB</li><li>Treatment for any complications detected</li><li>Referral as appropriate</li></ul>	<p><b>Provide:</b></p> <ul style="list-style-type: none"><li>Immunizations as per schedule</li><li>INH prophylaxis as appropriate</li><li>Treatment of any complications detected</li><li>Referral as appropriate</li><li>Early infant diagnosis (EID) for HIV</li><li>Management of HIV positive infant</li><li>Birth registration if not yet done</li></ul>



## PNC services within 4 -6 weeks



<b>Mother</b>	<b>Baby</b>
<p><b>Counsel on:</b></p> <ul style="list-style-type: none"><li>•Danger signs for the mother</li><li>•Exclusive breast feeding and Breast care</li><li>•Family Planning (HTSP)</li><li>•Maternal nutrition</li><li>•Harmful practices</li><li>•Personal hygiene and hand washing for the caregiver</li><li>•Return date</li></ul>	<p><b>Counsel mother on:</b></p> <ul style="list-style-type: none"><li>•Danger signs for Baby</li><li>•Exclusive breast feeding</li><li>•Hand washing for caregiver</li><li>•Hygiene</li><li>•Return date</li></ul>



## PNC services within 4 - 6 months

Mother	Baby
<p><b>Check:</b></p> <ul style="list-style-type: none"><li>•General health of mother</li></ul> <p><b>Provide:</b></p> <ul style="list-style-type: none"><li>•FP method of choice</li><li>•Screening for RTI /STI</li><li>•Screening for cervical cancer –if not done</li><li>•Screening for TB</li><li>•Clinical Breast examination</li><li>•CT for HIV</li><li>•Treat any complications that are detected</li><li>•Refer as appropriate</li><li>•Record in PNC register and Mother Child booklet</li></ul>	<p><b>Check:</b></p> <p>Growth monitoring; chart weight Head to toe examination Assess for danger signs for baby Immunisation status</p> <p><b>Provide:</b></p> <p>Vitamin A supplementation Immunizations as per schedule INH prophylaxis as appropriate Treatment of any complications detected Referral as appropriate Birth registration if not yet done Record in Integrated Register and Mother Child booklet</p>



## PNC services within 4 - 6 months

<b>Mother</b>	<b>Baby</b>
<p><b>Counsel on:</b> Continued breast feeding Complimentary feeding Maternal Nutrition Harmful practices Family Planning /HTSP Hygiene and hand washing for the caregiver</p>	<p><b>Counsel mother on:</b> Danger signs for Baby Hand washing for caregiver Continued breast feeding Complementary feeding Treatment adherence for HIV positive infant</p>



## What opportunities exist for increasing demand for Targeted postnatal care?

- Focused Antenatal Care
- During Labour and Childbirth
- Community involvement/male support
- Supportive policies and management
- Supportive health system
- IEC materials available for mothers to take home





## What can we do during Focused Antenatal Care to improve PNC?

- Counsel the mother and her birth partner on dangers signs and the importance of focused postnatal visits
- Ensure she has a postnatal family planning method in mind
- Ensure she has a birth plan that includes the postnatal period
- Detect and manage diseases during pregnancy to avoid complications in the post natal period e.g. anaemia
- Prevention of diseases e.g. Malaria, tetanus and hookworms also reduces the incidence of postnatal complications



## Linking care during labour and childbirth to PNC:

- Clean and safe delivery reduces complications to both the mother and the baby in the Postnatal period.
  - Provide education on the importance of the **4 cleans** (hands, perineum, surface of delivery, cord cutting)
- Skilled care at birth ensures competence and hence complications are reduced
- Psychological support to the mother during delivery reduces anxiety that could lead to psychosis during postnatal period
- After a normal delivery if there are no problems the mother can be discharged after 24 - 48 hours. This allows for proper monitoring and care during the most vulnerable time



## How we can involve the community?

- Identify the community's perception of events in the postnatal period in order to overcome barriers to postnatal services
- Update community health workers (CHWs) and support groups on the importance of focused PNC and the visit schedule
- Work with CHWs to ensure prompt referral soon after home delivery to ensure that the mother and baby receive postnatal services
- Provide domiciliary services where possible
- Target populations with special needs (Adolescents, women with HIV/AIDS )



**Improving family  
and community  
practices**



## What is the role of health program managers?

- Re-organise the health system to accommodate postnatal care (physical facilities-rooms, registers and other logistics)
- Improve knowledge, skills (including counselling) and attitudes of health workers to provide normal and complicated postnatal care in an integrated manner
- Develop, together with the community, a complete functional chain of referral from community to health facilities



## Practicum/ skills review

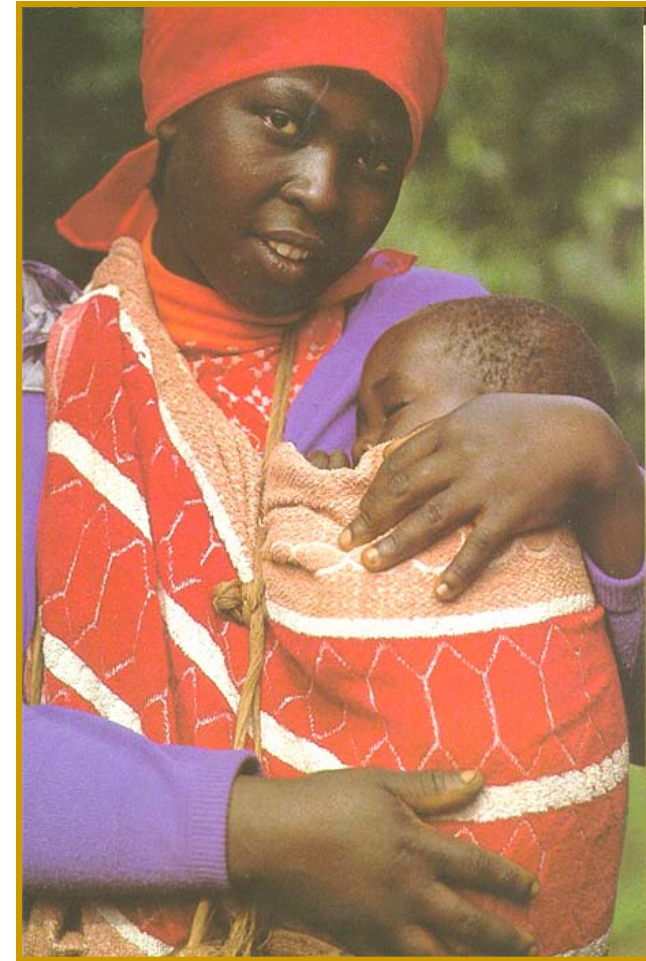
- Site visit to the
  - ANC clinic- counsel pts on PNC
  - Postnatal ward - Practice elements of PNC within 48hrs







# Integrating Tuberculosis screening in postnatal period





# Why integrate TB into PNC services.

- TB is public health concern in Kenya; Kenya is 13<sup>th</sup> of the 22 TB high burden countries which account for 80% of the global TB burden
- HIV - the biggest risk factor for TB disease is prevalent in pregnant populations; HIV+ persons have 10% annual risk of TB disease and 50% lifetime risk of developing TB disease.
- TB is the leading cause of mortality in PLWHA





# Why integrate TB into PNC services...

- TB is one of the leading infectious causes of death among women of reproductive age
- HIV prevalence among pregnant women is 9.6 % (KAIS,2007)
- These women are eligible for TB screening according to the national TB/HIV guidelines even after delivery
- Children born to smear positive mothers are at high risk of TB infection.



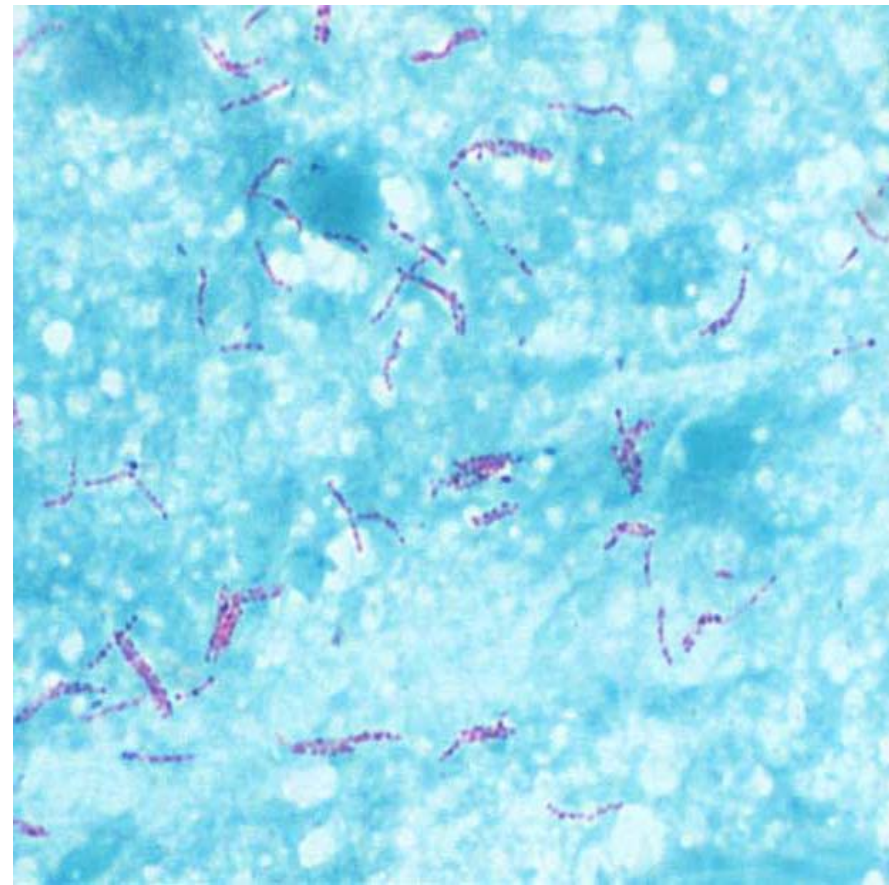
# Why integrate TB into PNC services..

- Postnatal care is one of the most important maternal health-care services that provides continuum of care from the ANC, labor and delivery
- All these mothers visit health facilities for their babies' immunization and growth monitoring and this offers an opportunity for TB screening and management.



# What is tuberculosis?

- Tuberculosis is a chronic infectious disease caused by a bacillus called *Mycobacterium tuberculosis*.
- This is an acid fast, rod shaped bacillus (AFB).





# TB transmission

- Mode of transmission is mainly through coughing, sneezing, laughing and even talking.
- Natural history of infection:
  - Most infections do not lead to disease, the TB germs are contained by the immune system, and remain dormant for the rest of a person's life without any problem.



# Risk of TB infections

This depends on:

- Exposure to bacilli
- Duration of exposure with pulmonary tuberculosis
- Intensity of exposure
- Undetected smear positive TB



# Risk Factors for Tuberculosis Disease

## Major risk factors

- HIV infection
- Poorly treated previous TB

## Other factors:

- Age ( extremes of age)
- Sex ( males more than females?)
- Malnutrition
- Diabetes
- Silicosis
- Other conditions e.g. immune- suppressing therapy



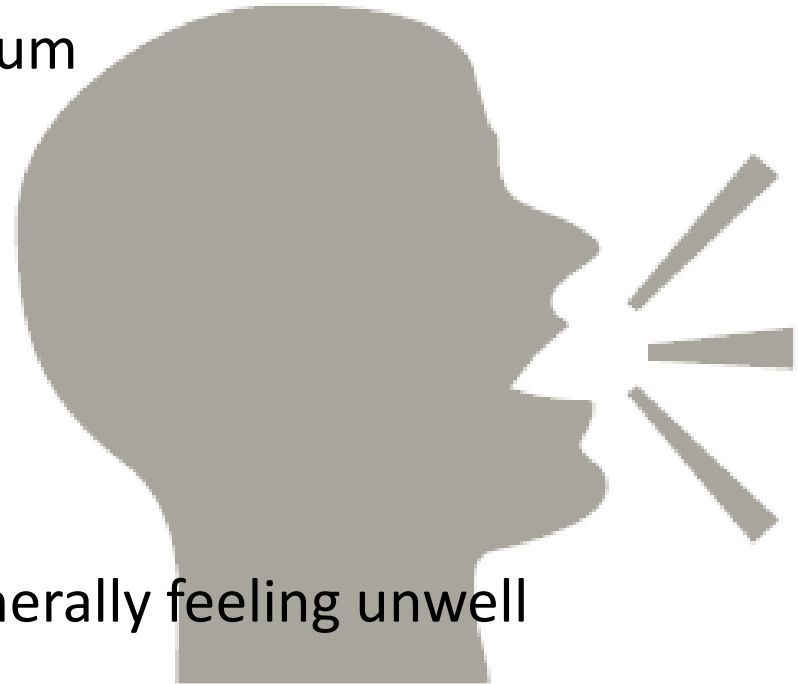
# Clinical forms of Tuberculosis

<b>Pulmonary TB</b>	<b>Extra-pulmonary TB (TB outside the lung)</b> Virtually any body organ can be affected
<ul style="list-style-type: none"><li>• Smear positive PTB</li><li>• Smear negative PTB</li></ul>	<ul style="list-style-type: none"><li>• Lymph nodes</li><li>• Pleura</li><li>• Pericardium</li><li>• Meninges</li><li>• Bones</li><li>• Spine</li><li>• Kidneys</li><li>• Bladder</li><li>• Skin</li><li>• Eyes</li><li>• Gastro-intestinal system</li></ul>



# Pulmonary (Lung) TB signs and symptoms

- Cough lasting for more than 2 weeks with or without blood stained sputum
- Chest pain
- Excessive night sweats
- Intermittent fever
- Loss of appetite
- Loss of body weight
- Excessive tiredness and generally feeling unwell







# TB of the glands: signs and symptoms

- Slow painless enlargement of the lymph nodes which then become matted and eventually discharge pus
- The most commonly affected lymph nodes are glands of the neck (cervical lymph nodes)
- Lymph node enlargement is becoming common in HIV related TB



<b>TB Screening for Adults</b>		
Symptom	YES	NO
1. Cough (> 2 weeks)?		
2. Blood stained sputum?		
3. Night sweats >2 weeks?		
4. Fever ?		
5. Weight loss?		
6. Chest pain?		
7. Breathlessness?		
8. Fatigue?		
9. History of previous TB treatment?		
10. History of close contact with a person confirmed to have TB?		
11. Swellings in the neck, armpits or elsewhere?		
12: Diarrhea for more than two weeks?		



# Results of TB screening

- If **“Yes”** to question one: Do sputum test and carry out clinical evaluation of the patient using the algorithm of diagnosing PTB below.
- If **“No”** to question 1 and **“Yes”** to any other question; continue investigating for TB according to clinical signs. Refer when necessary.
- If **“No”** to all questions: Stop investigations for TB and repeat intensive detection during the next medical visit.



## PTB confirmation is based on 3 sputum specimens collected within a 24-hour period

- 3 specimens are collected and examined by direct smear for acid fast bacilli (AFB)
- “Spot” refers to a specimen obtained right there in the clinic
- The process goes:
  - spot
  - Morning plus
  - Spot
- #1 specimen at the lab, or “on the spot”–Provide container for next day home collection
- #2 client takes specimen 1<sup>st</sup> thing early morning the following day and brings it to the Lab
- #3 specimen “spot” at the Lab right after she drops off the one from home.



# PTB Diagnosis..

- ***NOTE: A specimen collected under the supervision of a health worker is likely to be better than one under No supervision***
- Sputum smear examination for acid fast bacilli (AFB) confirms the diagnosis and therefore the drug regimen to be used.
- Negative smear test for TB does NOT exclude TB; consider other signs and symptoms and refer



# Process of taking sputum

- ASK client to rinse the mouth first if had taken some food shortly before sputum collection
- Then ask client to cough deeply
- Ensure no one is standing in front of the patient while producing the sputum
- Encourage the patient not to contaminate the sputum container
- The sufficient amount of the sputum should be 3-5mls and **contains no saliva**



# After sputum collection

- Ask the patient to place the lid of the sputum container and close it firmly
- Let them wash hands with soap and water
- Store the sputum specimen in a cool and dark place
- Send the sputum specimen to the lab as soon as possible (within 24hrs)
- Accompany each specimen with a properly completed LAB request form



# Case Definition for Smear Positive PTB

A patient with:

- At least two initial sputum smear examinations positive for acid-fast bacilli (AFB) by microscopy.
- One sputum smear examination positive for AFB plus radiographic abnormalities consistent with active PTB as determined by clinician, or
- One sputum specimen positive for AFB plus sputum culture positive for *M. tuberculosis*.





# Case definition of smear negative PTB

A patient with:

- Consistently negative Sputum smears
- Compatible clinical features
- Compatible chest x-ray
- No response to antibiotics



# Aims of TB treatment

- To cure patient of TB
- To prevent death from TB
- To decrease TB transmission
- To reduce TB relapse/recurrence
- To prevent drug resistance



# Principles of TB treatment

- Never use single drugs
- Always use drugs in combinations –using Fixed Dose Combinations (FDCs)
- Drug dosage is based on weight
- Drug intake should as far as possible be directly observed.
- Ensure the entire 6-8 months treatment is taken



# Drugs used in TB treatment

- Rifampicin ( **R** )
- Isoniazid ( **H** )
- Pyrazinamide ( **Z** )
- Ethambutol ( **E** ) ,

**Combined as RHZE**

- Streptomycin ( **S** )





# TB treatment regimens

Category	Purpose	Drug Regimen
Cat I	Smear positive PTB/Severe forms of TB	2ERHZ/6HE (4RH)
Cat II	Re-treatment	2SRHZE/1RHZE/ 5RHE
Cat III	Smear negative/ Extra pulmonary PTB	2RHZE/6HE (4RH)
Children	All forms	2RHZ/4RH

- ***Use of fixed dose combinations (FDC's)***
- ***Direct observation of pill swallows (DOT)***



# TB treatment...

- The drugs collection
  - Initial Phase -weekly
  - Continuation phase- every 2 weeks
- Follow up sputum specimen exam;
  - 2 months
  - 4/5 months
  - 6 months
- Defaulter tracing



# Common side effect of TB drugs

## Drug

- Isoniazid (H)
- Rifampicin ( R )
- Pyrazinamide (Z)
- Ethambutol (E) , (RHZE)

## Common Side Effect

- Peripheral neuropathy and hepatitis
- GI disturbances, hepatitis  
Red-discoloration of body fluids
- Joint pains auditory and vestibular damage may damage the kidney
- Optic neuritis

*All drugs may cause skin rash. HIV positive patients prone to more and severe side effects*



# Don't forget to DOCUMENT at every step of the process!

- PNC nurse documents her assessment
- Laboratory documents results and sends copy to PNC nurse
- PNC nurse looks for and documents lab results in register and Mother Child booklet
- PNC nurse refers to TB clinic as indicated and documents referral
- At each subsequent PNC visit nurse inquires about TB treatment progress, looks for TB clinic information and documents updates in the register





# TB Health Education- key messages

- TB is highly infections (Pulmonary TB).
- The risk of infecting others is high especially for breast feeding baby
- There is need for TB screening of contacts ( contact invitation )
- There is **Free** TB treatment in all GOK facilities, FBOs and selected private facilities
- Treatment is for a period of six months
- Anti TB drugs are **safe to use** during breastfeeding



# TB Health education

- Family planning
  - Dual FP method – When hormonal contraceptives /long term hormonal methods are used the patient must also use condom as a barrier method.
  - If condoms are not acceptable to the couple ,counsel on other non hormonal FP methods e.g. IUCD
- Eat a balanced diet with locally available sources





# TB Health education.

- Patients will be required to swallow TB drugs under supervision of health care worker or Treatment supporter(friend or relative).
- The treatment supporter should report to the health worker on DOT compliance
- Explain to the patient that once treatment is started TB symptoms disappear quickly but the drug must be continued daily for six months
- Failure to comply risks recurrence of TB and likelihood of drug resistance



# TB and ARV

- ARV and TB drugs can be used together
- **BUT** priority should always be given to TB treatment in the co-infected mothers





# When to start ART in HIV/TB co-infection PNC

## **CD4 Count not available**

- Start anti-TB treatment
- Start ART in the continuation phase

Rule out pregnancy

## **CD4 Less than 100/mm<sup>3</sup>**

- Start anti-TB treatment
- Start ART as soon as possible

## **CD4 Count 100-350mm<sup>3</sup>**

- Start anti-TB treatment
- Start ART in the continuation phase

## **CD4 count >350 mm<sup>3</sup>**

- Treat TB
- Defer ART and follow up the patient



# TB /HIV co-infection cont...

In HIV co-infected mothers

- Give cotrimoxazole (CPT) 960 mgs OD
- Monitor for skin rashes and Gastro-intestinal disturbances
- Explain that CPT is life long
- Refer to Comprehensive Care Clinic (CCC)



# TB and the new born

In HIV negative mothers

- If the woman is diagnosed with PTB all children under 5 should be screened for evidence of active TB
- Those found with TB should be put on treatment
- Children <5 years without TB disease should be put on Isoniazid 5mg/kg daily for 6 months
- If TB disease develops during the six months period **STOP** isoniazid and switch to anti-TB treatment (See National TB guidelines)



# TB and newborn

- If you suspect TB in the new born do a mantoux test
- If the Mantoux test is reactive (>5mm) and the baby was on Isoniazid for 3 months then **CONTINUE** treatment for another 3 months
- If a mother has TB and has started treatment 2 months or more before the due date, she should have 2 sputum smear tests done before delivery
- If she is sputum smear negative just before delivery then she is non-infectious and the infant does not need prophylaxis and BCG is given at birth





# TB/HIV infected Babies



- Up to 75 percent of HIV-infected infants develop symptoms in their first two years of life
- Co-infection with HIV and TB is common in children
- HIV-infected children are more likely to experience progressive primary TB disease and severe forms of extra-pulmonary disease, such as meningitis
- TB in HIV-infected children is more difficult to diagnose
- Micronutrient deficiencies are common in HIV-infected and HIV-exposed children



# TB/HIV co-infection in the children

- According to the National Leprosy and TB Programme, children account for about 11 percent of new TB infections per year
- If the newborn is HIV exposed give SDNVP and Co-trimoxazole prophylaxis
- Ensure early and regular clinical assessment for TB
- Failure to thrive is the most common suggestive sign associated with TB in children



# Management of TB in children



- Recommended TB treatment for child weighing < than 10kg:
  - Rifampicin 60 mg + Isoniazid 30mg + Pyrazinamide 150 mgs (RHZ) **OR**
  - Rifampicin 60 mg + Isoniazid 30mg (RH)
- If HIV+ and below 3 years or weighs < than 10kg give AZT+3TC+ABC
- Provide counseling and support to the mother
- Admit all children with severe cases of TB



# TB/HIV and immunization for the baby

- Like other children, HIV-exposed children should receive all routine childhood immunizations, according to the national immunization schedule
- HIV-infected children should receive all routine ***non-live*** viral immunizations





# TB and breastfeeding

- Encourage the mother to continue breast feeding
- Breast feeding women on INH should also take a diet rich in Vitamin B6
- If mother is HIV+ explore other feeding options and discuss with the mother according to the infant and young child feeding (IYCF) guidelines -AFFASS
- Monitor the babies growth



# Nutritional support for TB postnatal mother

- TB is usually associated with poverty therefore rule out malnutrition and closely monitor for signs of malnutrition
- Provide nutritional education /counseling
- Where available enroll on patient therapeutic feeding program in case of moderate and severe malnutrition
- Provide de-worming regularly
- Give Vitamin A every six months
- Provide micro-nutrient supplementation



# TB/HIV collaborative activities

Objective	Activity	Progress
To establish mechanisms for collaboration	Setting up coordinating bodies for TB/HIV activities at all levels: Nationally, Province and the Districts	Done since 2005
	Conduct surveillance of HIV prevalence amongst TB patients	
To decrease the burden of TB in PLWHA	Establishing intensified case finding	Delayed: starting
	Introduction of IPT	
	Ensure infection control in health care and congregate settings	
To decrease the burden of HIV amongst TB patients	Provide HIV testing and counselling (DTC)	Done since 2005
	Introduce HIV prevention methods	
	Introduce CPT	
	Ensure HIV/AIDS care and support	
	Introduce ART	



# Skills/practicum

## Role play-

- Counsel a mother diagnosed with open Tuberculosis at delivery





# Preventing mother-to-child transmission (PMTCT) of HIV





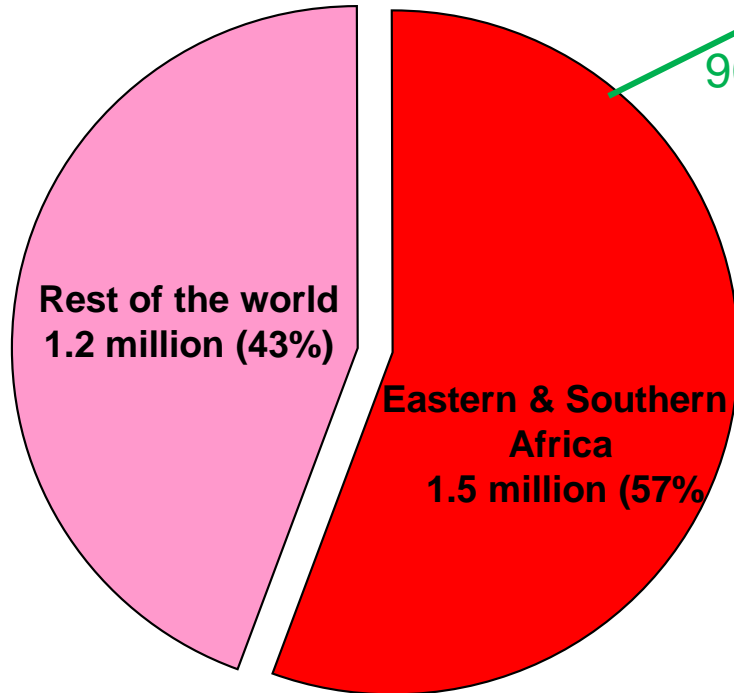
# Burden of PMTCT in the African Region

- Estimated 430 000 children newly infected in 2008
- Over 90% through MTCT
- Without intervention MTCT is 20% - 45%
- With intervention MTCT:
  - < 2% ( No Breast Feeding)
  - < 5% (Breast Feeding)



# Kenya is one of 8 countries which account for 90% of New Infections in ESAR

Global New Infections,  
2.7 million (2007)



	No. New infections	% of total new infections	% of total HIV+ pregnant women
South Africa	473,499	31.0%	24%
Kenya	245,162	16.0%	9.6%
Mozambique	156,108	10.2%	10%
Tanzania	139,151	9.1%	11%
Zambia	103,077	6.7%	8%
Ethiopia	94,489	6.2%	7%
Malawi	86,905	5.7%	8%
Uganda	78,769	5.2%	8%
Zimbabwe	45,652	3.0%	
Lesotho	22,666	1.5%	
Angola	21,777	1.4%	
Namibia	16,082	1.1%	
Swaziland	15,131	1.0%	
Botswana	13,518	0.9%	
Rwanda	9,225	0.6%	
Eritrea	4,838	0.3%	
Madagascar	1,491	0.1%	
Mauritius	584	0.0%	
Comoros	28	0.0%	
<b>Total</b>	<b>1,528,152</b>	<b>100%</b>	



# Risk factors for MTCT

## Maternal:

- Unprotected sex with an infected partner
- Substance abuse; including Smoking
- RTIs /STIs and other co infections
- Becomes **FIRST** infected **while pregnant** or while she is **breastfeeding**
- Vitamin A deficiency
- Mother not on ART
- Malaria infection in pregnant women





# Risk factors for MTCT

- **Viral Factors:**
  - Clinical stage of infection: new and advanced infections
  - Low maternal CD4 count (the lower the maternal CD4 count the more sick the mother is likely to be)
  - High viral load in blood and genital tract



# MTCT risk factors

## Obstetric:

- Invasive fetal monitoring
- Prolonged rupture of membranes
- Routine episiotomy
- Placental disruption
- Vaginal delivery





# MTCT risk factors: Infant

- Preterm delivery
- Neonatal birth injuries
- Vigorous naso-gastric tube suction





# Counseling and testing for HIV

- **Preventing** mother to child transmission depends on being able to identify women early for them to **benefit** from interventions
- Every woman and her partner should be offered HIV testing during their pregnancy and postnatal period





# When does Mother-To-Child Transmission Occur?

- during pregnancy, (5-10%)
- during labour and delivery or (10-20%)
- when the mother is breastfeeding her baby (5-20%)
- **Not every baby born to an HIV infected mother will be infected:** without intervention about 1 out of 3 babies born to mothers with HIV will get the virus
- Simple interventions can reduce the chance of getting the HIV virus by about half if proper medication is used.



# HIV infected mothers...

Require care and support which includes:

## Counseling

- Prophylaxis and treatment
- Link to support groups
- Assessment of the need for ART
- Early infant diagnosis should be provided at six weeks using DNA-PCR testing





# Benefits and Opportunities of PMTCT

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- Revised 2009 recommendations – new norms and standards for highly effective interventions to:
  - Improve health of the mother
  - Decrease mother-child HIV transmission
  - Improve HIV-free survival
- Reduce transmission to <5% in breastfeeding populations and <2% in non-breastfeeding populations
- Make significant progress towards virtual elimination of paediatric HIV



# MOH National PMTCT Recommendations

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- All pregnant women should be encouraged to start attending ANC as soon as they know they are pregnant; preferably in the first trimester
- All pregnant women should be counselled and tested for HIV during their first visit and retesting should be done in the 3<sup>rd</sup> trimester for HIV negative women
- All HIV +ve pregnant women should be evaluated for eligibility for HAART during the first ANC visit using WHO staging and /or CD4 testing where available



# 1. Initiation of ART among pregnant women

- Mothers in need of ART for their own health should get lifelong treatment
- Initiate HAART in pregnant women with CD4  $\leq$  350 regardless of clinical stage
- Initiate HAART in clinical stage 3 and 4 irrespective of CD4 count as soon as possible irrespective of gestational age
- Those already on HAART before pregnancy should continue with their ART
- **CD4 count is Importance and critical for decision-making on ART eligibility**



# Antiretroviral therapy (ART)

CD4 cell count available		WHO clinical stage	
CD4 $\leq$ 350 cell/mm <sup>3</sup>	CD4 > 350 cell/mm <sup>3</sup>	Stage 1	ARV prophylaxis
<b>ART</b> Regardless of clinical stage	<b>ART</b> If symptomatic (stage 3 or 4)	Stage 2	ARV prophylaxis
		Stage 3	<b>ART</b>
		Stage 4	<b>ART</b>

- Start ART as soon as feasible regardless of gestational age



## MOH guidelines for ARV prophylaxis in HIV +ve women in WHO stage 1 or 2, or CD4 count over 350

- Start Zidovudine (AZT) at 14 weeks of pregnancy or first contact thereafter and continue in labour
- Give single dose Nevirapine (sdNVP) at onset of labour
- Start Lamivudine (3TC) in labour
- Continue AZT and 3TC for 1 week after delivery
- HIV +ve women presenting for the first time at 38 weeks and not eligible for HAART should be offered ARV prophylaxis during labour and up to 1 week post partum



## Benefit and impact of providing ART to eligible pregnant women

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Pregnant women with  $CD4 \leq 350$ :

- Comprise about 40% of HIV+ pregnant women
- Account for > 75% of MTCT risk
- Account for >80% of postpartum transmission
- Account for 85% of maternal deaths within 2 years of delivery
- Would have a strong benefit from initiating ART for maternal health and PMTCT during pregnancy, labour and delivery and breastfeeding





# Options for Prophylaxis

Option A: AZT	Option B: Triple ARV
<p><b>Mother</b></p> <ul style="list-style-type: none"><li>• Antepartum AZT (from 14 weeks)</li><li>• sd-NVP at onset of labour*</li><li>• AZT + 3TC during labour &amp; delivery*</li><li>• AZT + 3TC for 7 days postpartum*</li></ul> <p><b>Infant</b></p> <p><b>Breastfeeding population</b></p> <ul style="list-style-type: none"><li>• Daily NVP (from birth until one wk after all exposure to breast milk had ended)</li></ul> <p><b>Non-breastfeeding population</b></p> <ul style="list-style-type: none"><li>• AZT for 6 weeks OR</li><li>• NVP for 6 weeks</li></ul>	<p><b>Mother</b></p> <ul style="list-style-type: none"><li>• Triple ARV (from 14 wks until one wk after all exposure to breast milk has ended)</li><li>• AZT + 3TC + LPV-r</li><li>• AZT + 3TC + ABC</li><li>• AZT + 3TC + EFV</li><li>• TDF + XTC + EFV</li></ul> <p><b>Infant</b></p> <p><b>Breastfeeding population</b></p> <ul style="list-style-type: none"><li>• Daily NVP from birth to 6 weeks</li></ul> <p><b>Non-breastfeeding population</b></p> <ul style="list-style-type: none"><li>• AZT for 6 weeks OR</li><li>• NVP for 6 weeks</li></ul>

\*sd-NVP and AZT+3TC can be omitted if mother receives > 4 wks AZT antepartum



# Feeding for children exposed to HIV

- Breastfeeding with appropriate use of ARVs is the best option for overall wellbeing and survival for HIV exposed children
- Abrupt cessation of breastfeeding should be discouraged to avoid trauma for both the mother and the baby





# Risk of HIV Transmission From Breastfeeding Is Increased When ...

## **The mother**

- Has cracked nipples, abscesses or other breast problems
- Has symptoms for HIV-related disease
- Or if the baby has sores in his/her mouth or has inflamed gut



# Feeding for children exposed to HIV

- At 6 months, milk alone is not adequate to meet the baby's nutritional requirements
- Complementary foods should be introduced with continued breastfeeding or with replacement feeding until a nutritionally adequate diet can be sustained without milk
- Milk should continue as an important component of the diet
- Complementary foods should be selected from locally available family foods



# Mothers who chose not to breast feed

- A mother who chooses not to breast feed and meets AFASS criteria should be counseled and supported to do exclusive replacement feeding for the first 6 months and appropriate complimentary feeding thereafter

\*Use the A.F.A.S.S. method (5 essential criteria): Is replacement feeding Acceptable? Feasible? Affordable? Sustainable? Safe? If all of these answers are YES, HIV-infected mothers should avoid all breastfeeding. If any of the answers are NO, she should breastfeed exclusively during the first months of life and then discontinue when possible and based on the PMTCT guidelines.



# Babies of HIV positive mothers

- Are more at risk of illness and malnutrition than those born to HIV negative mothers, even though most of these babies are HIV negative themselves
- Pay special attention to infant feeding and growth Monitoring
- Provide routine immunizations
- All symptomatic HIV-infected infants with AIDS-related complex (ARC) or AIDS should receive **inactivated vaccines**



# Early Infant Diagnosis

- Perform routine Dry Blood Spot(DBS) for DNA PCR for all infant known to be HIV exposed at 6 weeks
- Perform routine antibody testing for all sick infants at outpatient & paediatric wards to establish HIV infection status
- Perform DBS for all HIV exposed sick infants under 12 months



# Postpartum care for HIV positive women and their babies

- FP methods that can be offered include: LAM, Hormonal, IUCD, Sterilization
- Educate the community on PMTCT risks and prevention
- Birth assistants should understand risks of transmission and how to protect themselves
- Encourage the community to refer ALL babies born at home to the hospital including their mothers
- Male involvement to be encouraged in PMTCT

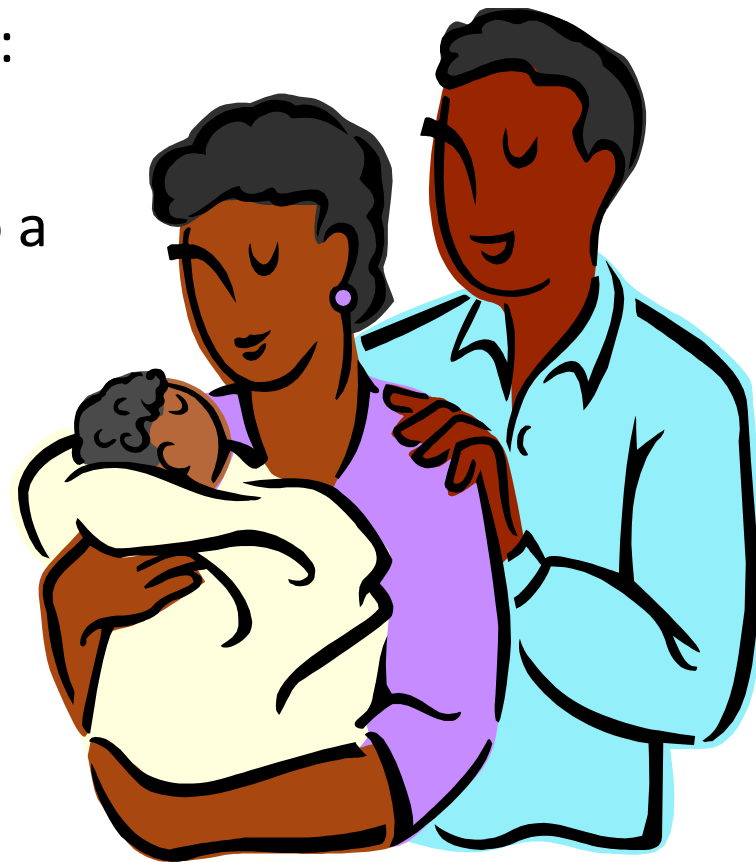




# DUAL PROTECTION

This should be encouraged because:

- The “viral load” adds a burden to a client’s already stressed immune system
- Condoms help to prevent re-infection





# Remaining faithful is more important now than ever! Protect your family

- A mother who first acquires HIV during breastfeeding is more likely to transmit the virus to the baby (the viral load is high when first infected)
- Fathers: Get tested, remain faithful and use condoms consistently and correctly, if indicated
- Protecting the woman from increasing her viral load is **especially important if the woman is breastfeeding**
- **Protect your family!**





# Practicum/ skills review

- Site visit to the maternity unit: Observe delivery and care of the newborn; discuss interventions to reduce MTCT
- Practice CT for HIV
- Examine Mother's Breast for conditions that preclude breastfeeding. Counsel mother on Exclusive breastfeeding



# Complications and Danger Signs in Puerperium





# Introduction

- The most common causes of maternal mortality in Kenya are:
  - Post Partum Haemorrhage (PPH)
  - Sepsis
  - Hypertensive disorders in pregnancy
  - Obstructed labour
  - Unsafe abortion



# Post Partum Hemorrhage (PPH)

- Worldwide, haemorrhage is the most important cause of maternal mortality
- In Kenya PPH contributes to 34% of maternal deaths and it is the most common cause of maternal deaths
- Majority of these deaths (88%) occur within 4 hours of delivery
- The first hours post partum are especially critical in the diagnosis and management of abnormal bleeding
- Those that survive PPH will suffer residual severe anaemia and other major health problems



# Definition of PPH

- PPH is defined as Blood loss in excess of 500mls following vaginal delivery or 1000mls following caesarean section
  - Estimates of blood loss are notoriously low, often half of the actual loss; this is because:
    - Blood is mixed with amniotic fluid and sometimes with urine
    - Blood is also dispersed on sponges, towels, linen, buckets and on the floor
- The importance of a given volume of blood loss varies with the woman's Hb level and other pre-existing disorders
  - A woman with a normal Hb will tolerate blood loss but this can be fatal for a woman with low Hb



## 3 Delays

- Basic determinants of maternal death are due to the 3 delays;
  - Delay in making decision to seek care
  - Delay reaching care
  - Delay in receiving care





The greatest challenge in managing PPH is at the KEPH levels 1-3, where systems are weak

*Weak Referral systems between: community and nearest health facility and between health facilities delay timely management of PPH*





# Prevention of PPH by Active Management of Third Stage of Labour (AMTSL)

- AMTSL by skilled attendant prevents PPH
- All women should **be considered at risk of PPH and** prevention must be a part of every intervention



# Causes of PPH

- 4Ts
  - Tone 70%
  - Trauma 20%
  - Tissue 10%
  - Thrombin 1%





# Uterine Atony

- This is the commonest cause of PPH
- It occurs when the uterus fails to contract adequately after delivery causing excessive blood loss
- Any condition that interferes with uterine contractions will predispose to atonic uterus.



# Predisposing factors for uterine atony

- Retained placenta, placental fragments, tissue/membranes
- Over distension of the uterus due to multiple gestation, excess amniotic fluid or a large baby
- Full bladder
- Nulliparity
- Previous PPH
- Prolonged labour
- Induction or augmentation of labour
- Precipitous labour (labour lasting less than 3 hours)



# Management of Atony

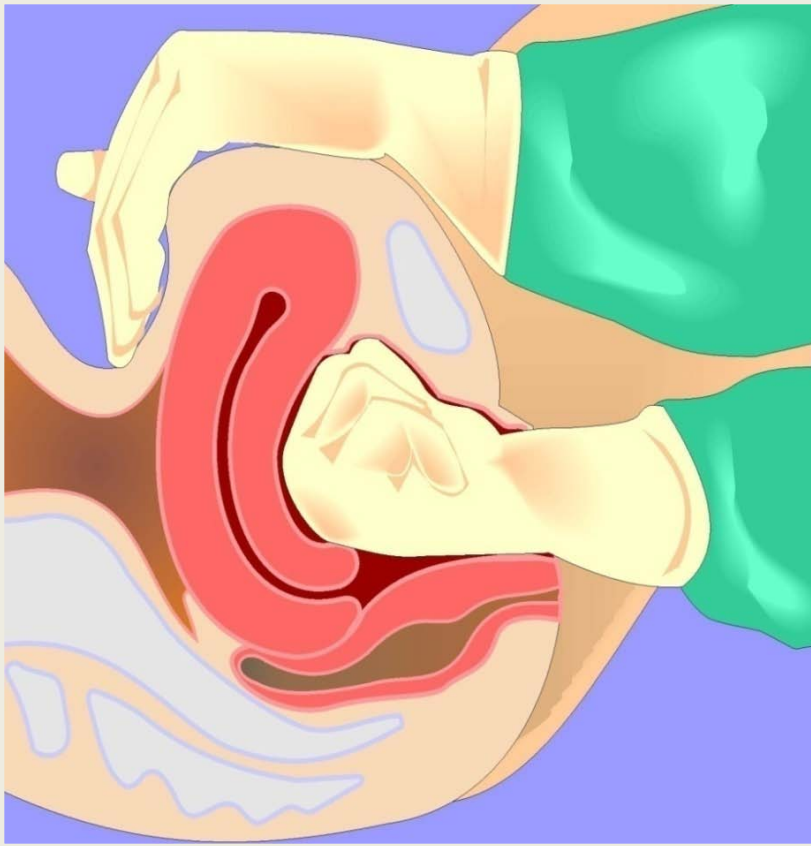
- Insert 2 large bore IV cannulas
  - Empty the bladder
  - Uterine massage
  - Expel clots
  - Bimanual uterine compression and massage
  - Repeat oxytocin 10IU IM
- If the uterus is still atonic:
- Administer IM ergometrine 0.5mg
  - Start IV oxytocin infusion 20-40IU at 60 drops per minute
  - Prostaglandin F<sub>2</sub> $\alpha$  0.25mg IM
  - May need Aortic compression



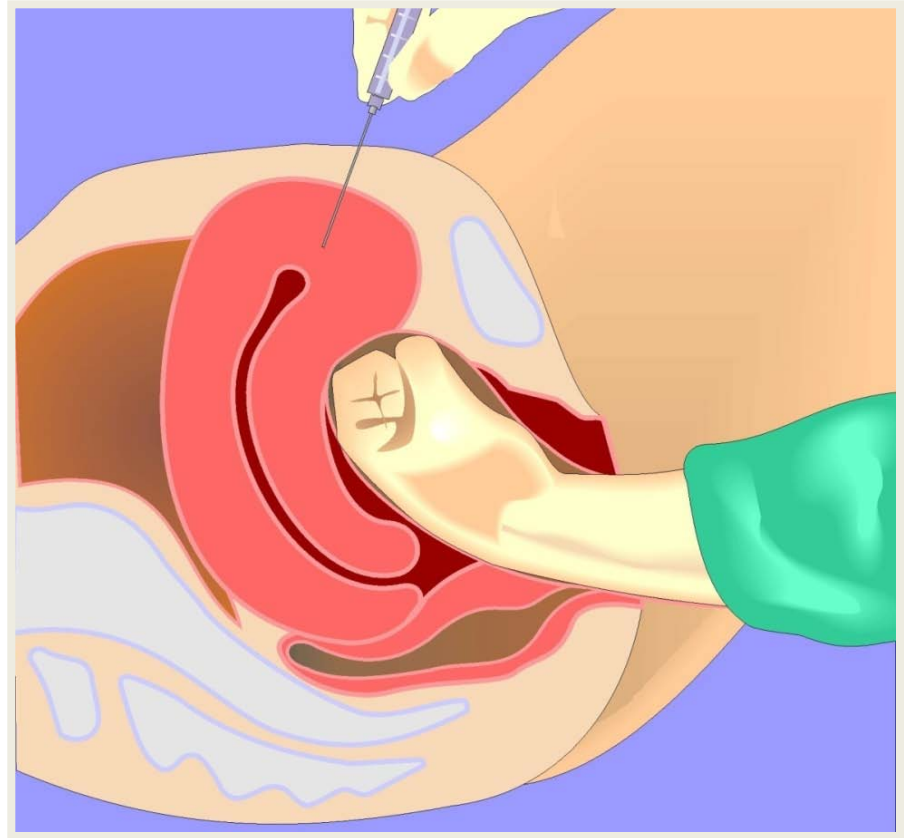


# Management of Uterine atony

**Bimanual uterine compression  
and massage**



**Intramyometrial PG**





# Surgical Interventions

- Examination under anesthesia



- Examine for retained POCs, uterine rupture, lacerations and tears and repair
- May need to perform Ligation of uterine and internal iliac arteries
- May need to perform Subtotal hysterectomy





# Trauma

This includes:

- Trauma to the perineum, vagina, cervix or uterus
- Tears of the birth canal are the second most frequent causes of PPH
- Tears may co-exist with atonic uterus  
Postpartum bleeding with a contracted uterus is usually due to a cervical or a vaginal tear
- Episiotomies that are not repaired or poorly repaired can be a cause of severe bleeding



# Management

- Examine the cervix, vagina, perineum

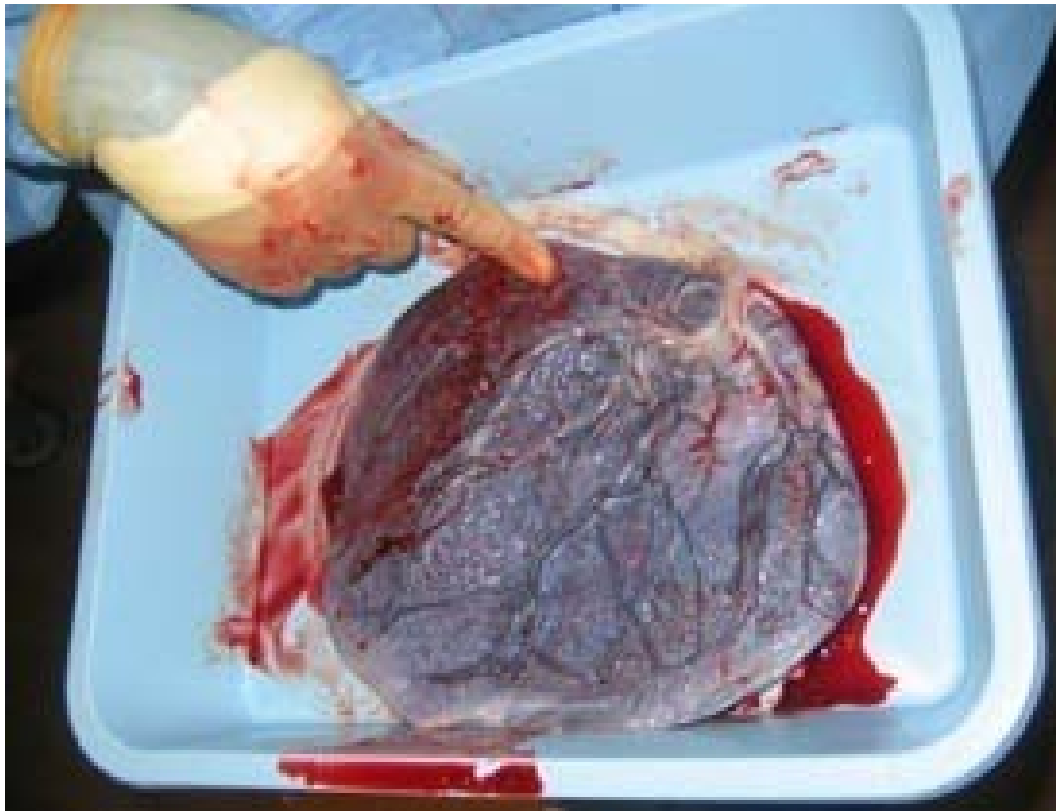


- Repair lacerations and tears
- If unskilled, clamp bleeding vessel and refer
- Uterine rupture requires laparotomy



# Tissue

- *Retained Placenta*: failure to deliver the placenta within 30 minutes of childbirth





# Predisposing factors:

- Previous C/S
- Previous history of retained placenta
- Previous dilatation and curettage
- Previous placenta praevia



# Management of Retained Placenta

- Insert large bore IV cannulas
- Manual removal of placenta
  - Cease uterine massage
  - Identify cleavage plane
  - Detach placenta from uterine surface
  - Cup cotyledons in palm and remove
  - Explore uterine cavity
- Give oxytocin
- Examine placenta for completeness

**DON'T PANIC**  
MAY 8 2005



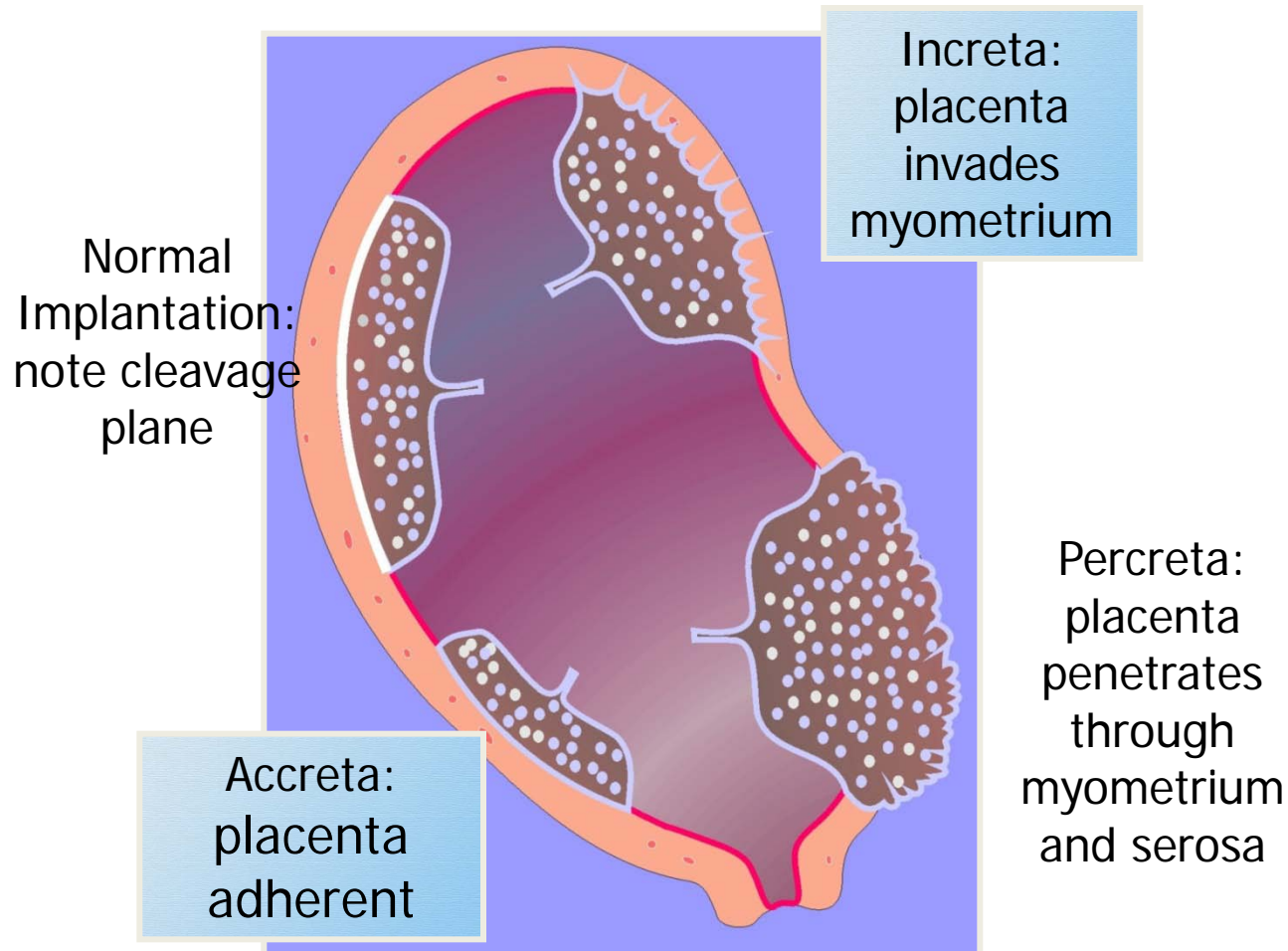


# Morbidly Adherent Placenta

- Failure of manual removal of placenta may be due to morbidly adherent placenta
- Refer to level 4 and above for surgical intervention for morbidly adherent placenta
  - Placenta accreta
  - Placenta increta
  - Placenta percreta



# Abnormal placental Implantation





# Practicum/ skills review

- Practice
  - AMTSL
  - Manual removal of placenta
  - Repair of episiotomy
  - Repair of cervical tear
  - Bimanual compression of uterus
  - Aortic compression







# Puerperal Sepsis

- This is defined as: Infection of the genital tract occurring at any time between rupture of membranes or onset of labour and 6 weeks postpartum
- Diagnosis depends on presence of two or more of the following S/S
  - Pelvic pain
  - Fever
  - Foul smelling vaginal discharge
  - Sub – involution of the uterus





# Epidemiology

- Sepsis is the second most common cause of maternal deaths
- It contributes to about 15% of MMR in developing countries
- The commonest site of infection is the placental bed. ***Postpartum infection of the uterus*** accounts for more deaths than any other postpartum infection.
- Other sites include cervix, vagina and perineum



## Possible causes

- Metritis
- Peritonitis
- Wound  
Cellulitis
- Wound  
Haematoma
- Pelvic Abscess
- Breast  
engorgement
- Mastitis
- Breast abscess
- Cystitis
- Pyelonephritis



## Predisposing Factors- Medical/Obstetric

- Anaemia
- Malnutrition
- Chronic diseases:
  - Diabetes mellitus
  - HIV
  - TB
- Prolonged labour
- Obstetric operations
  - Caesarean section especially emergency
  - Vacuum/forceps
- Prolonged rupture of the membranes
- Retained products of conception
- Frequent vaginal examinations
- Post Partum haemorrhage
- Twins delivery especially manipulation of the second twin



# Health System and Social Factors

- Poor infection prevention and control practices
- Delivery by traditional birth attendants
- Poor personal hygiene
- Poorly equipped health facility
- Understaffed health facility
- Low status of women, which contributes to their poor general health and deprives them of adequate medical care and resources
- Delay in care seeking
  - Lack/inadequate knowledge about signs and symptoms of puerperal sepsis



# Symptoms and Signs

- Fever ( $\geq 38^{\circ}\text{C}$ )
- Chills and general malaise
- Lower abdominal pain and tenderness
- Vomiting
- Headache
- Perineal pain
- PPH
- Purulent, foul-smelling lochia
- Sub-involution of the uterus
- Infected perineal or C/S wound
- May present with signs of shock;
  - Low BP, tachycardia, cold clammy skin





# Management

- IV Pencillin G 2MU every 6 hours
- Plus Gentamicin 5 mg/kg body weight IV every 24 hours
- Plus Metronidazole 500mg IV every 8 hours
- Refer to level 4 or above if peritonitis or pelvic abscess suspected









# Postpartum Eclampsia

- It is defined as: Convulsions in the absence of other medical conditions predisposing to convulsions in a woman with pre- eclampsia
- Eclampsia can present for the first time in the puerperium
- Onset can be very sudden and without warning



# Preeclampsia

Pre eclampsia is diagnosed when there is:

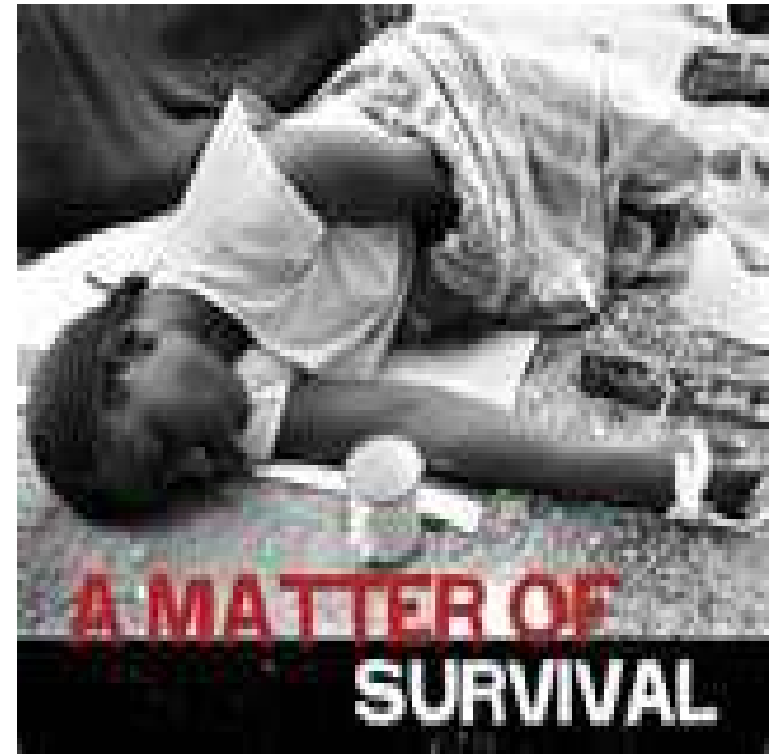
- BP  $\geq$  140/90mm Hg on  $\geq$  2 occasions at least 6h apart or a single diastolic BP  $\geq$  110mmHg
- Proteinuria  $\geq$  trace on dipstick or  $\geq$  0.3 g/l in at least two random urine specimens collected 6 hours apart
- $\pm$  oedema





# Impending Eclampsia

- Severe pre- eclampsia (diastolic BP  $>110$  mm Hg) is the major underlying cause for Eclamptic fits
- Signs and symptoms of impending eclampsia include:
  - Sharp rise in BP
  - Severe headache
  - Drowsiness;
  - Mental confusion
  - Severe epigastric pain





# S/S of Impending Eclampsia

- Nausea
- Vomiting
- Visual disturbance e.g. blurred vision, flashes of light
- Hyper-reflexia
- Decreased urinary output
- Increased proteinuria





# Management of Severe Pre-eclampsia

- Retain in labour ward in a quiet room
- Monitor vital signs every 15-30 min
- Start  $\text{MgSO}_4$  as per the regimen
- Closely monitor fluid intake and urine output





# BP management in Severe Eclampsia

- If diastolic BP  $\geq$  110mmHg;
  - Administer anti-hypertensives e.g. hydralazine 5 mg IV slowly over 5 minutes until DBP is below 100mmHg
- Upon control of BP, repeat IV hydralazine 5mg hourly or IM 12.5mg every 2 hours as needed
  - If hydralazine is not available, give sublingual Nifedipine 5mg or IV labetolol 10mg



# Management of Severe Pre-eclampsia

- Continue monitoring BP every 15 minutes as necessary



- If no improvement, refer to comprehensive centre accompanied by trained nurse
- If possible, perform laboratory tests for liver enzymes and creatinine
- For control of fits use magnesium sulphate





# Management of eclampsia

- Call for help
- Maintain open airway
- Control fits
- Control BP and monitor every 15 minutes
- Start IV line but restrict fluid intake to maximum 30 drops/minute
  - This reduces risk of pulmonary and cerebral oedema
- Catheterize and keep fluid intake/output chart





# MgSO<sub>4</sub> for severe pre-eclampsia and eclampsia

- ***Loading Dose***

- Magnesium sulphate 20% Solution, 4g IV slowly over 5 minutes
- Follow promptly with 10g of 50% magnesium sulphate solution, 5g in each buttock as deep IM injection with 1mL of 2% lignocaine in the same syringe
- Ensure that aseptic technique is practiced when giving magnesium sulphated deep IM injection. Warn the woman that a feeling of warmth will be felt when magnesium sulphate is given.

- **If convulsions occur after 15 minutes**, give 2g magnesium sulphate (50% solution) IV over 5 minutes





# Maintenance Dose

- Give 5g magnesium sulphate (50% solution) + 1 ml lignocaine 2% IM every 4 hours into alternate buttocks. Continue treatment with magnesium sulphate for 24 hours after delivery or the last convulsion, whichever occurs last.
- If 50% solution is not available, give 1g of 20% magnesium sulphate solution iv every hour by continuous infusion





# Monitoring

- Before repeat administration, ensure that:
  - Respiratory rate is at least 16 per minute
  - Patellar reflexes are present
  - Urinary output  $\geq 30$  ml/hour over preceding 4 hours
- Withhold or delay drug if:
  - Respiratory rate falls below 16/minute
  - Patellar reflexes are absent
  - Urinary output falls below 30ml/hour over preceding 4 hours



# Management of Toxicity

- In case of respiratory arrest:
  - Assist ventilation (mask and bag, anaesthesia apparatus, intubation)
  - Give Calcium Gluconate 1g (10mL of 10% solution) IV slowly until respiratory rate improves





# Practicum / skills review

- Humanistic training:
  - ABC of resuscitation
  - Care of unconscious patient
  - Site visit to maternity ward: Taking and interpretation of BP, Urinalysis and interpretation of results





# Obstetric fistula(OF)





# Definition

- OF is an abnormal opening between a woman's vaginal and bladder and/or rectum through which urine and/or faeces continually leaks
- May result in pain, recurrent infections, infertility, dyspareunia and paralysis of muscles of the lower limbs.
- It may result in isolation and ostracization from the community
- Can be repaired by simple surgery.

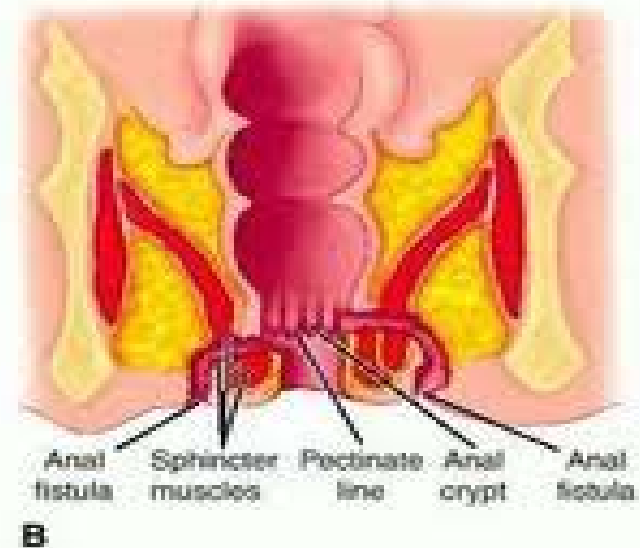
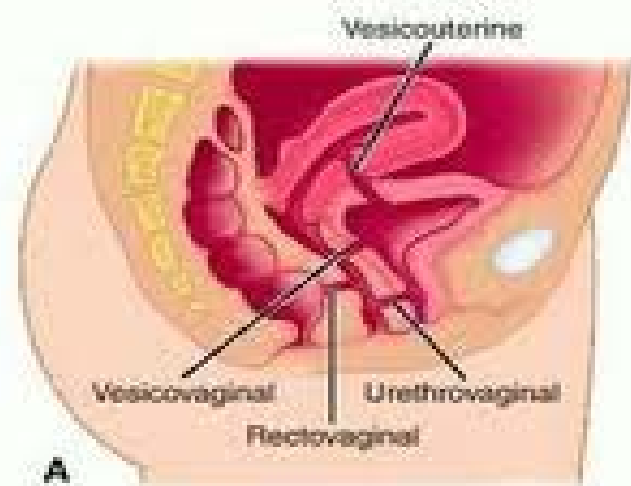


# OF types

Main types

Include:

- Vesico-vaginal
- Recto-vaginal
- Urethro-vaginal
- Vesico-uterine



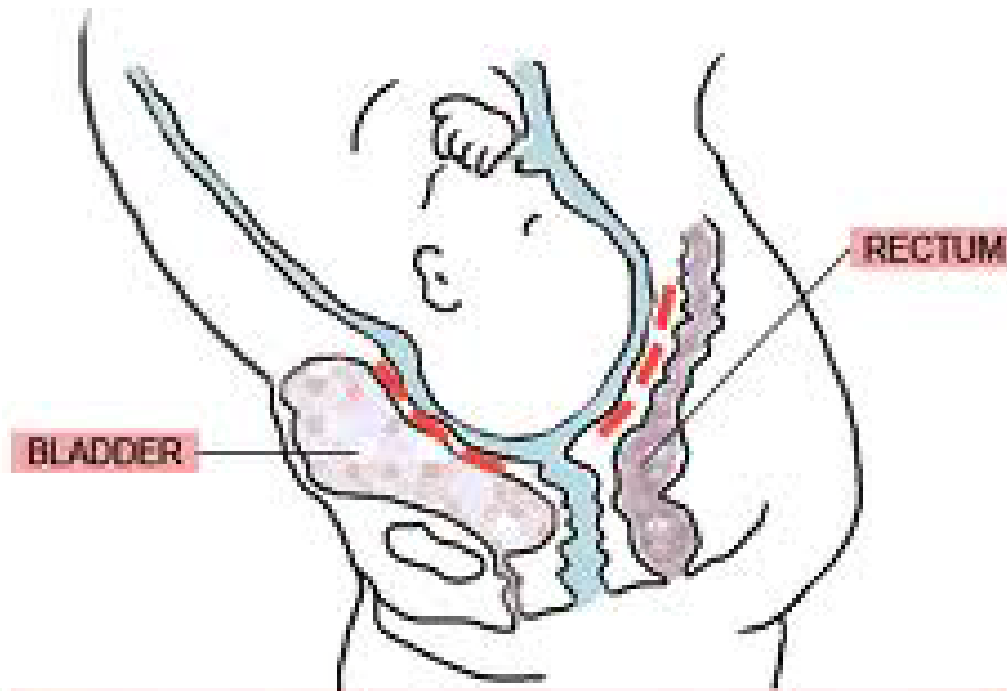


# Contributing factors

- Early child bearing(less than 18 years)
- Prolonged or obstructed labour
- Instrumental delivery: C/S vacuum/forceps delivery
- Sexual abuse and rape.
- Complications of unsafe abortion
- Gynaecological cancers and/or related radiotherapy treatment.
- Harmful traditional practices



# Pathophysiology



During prolonged labour, the compression of soft tissues (as indicated by the red lines) between the baby's head and the woman's pelvis cuts off blood flow to the bladder or rectum. As a result, tissue dies, leaving a hole, or fistula.



# Clinical Presentation

- Uncontrolled Leakage of urine and/or stool following delivery
- + Weakness of lower limbs (usually one)
- Pain in vulval region



# Prevention of Obstetric Fistula

## STRENGTHEN THE HEALTH SYSTEM.

- Health promotion and awareness creation on skilled attendance during pregnancy and child birth.
- High quality basic and comprehensive maternal health services.
- Improve Referral systems.
- Encourage education for girl child.
- Delay marriage and childbearing



# Prevention of Obstetric Fistula

In the health facility: -

- Monitoring labour using a partograph
- Early identification of obstructed labour and referral for assisted or caesarean delivery
  - NB: Obstructed labor > 2 hrs –can dev. O.F
- Encourage woman to take large amounts of fluids (4 - 5L per day)
- Nutrition- High protein diet, high fibre diet
- Psychological support



## Prevention of OF in health facility 2

- Insert indwelling bladder catheter to ensure free drainage of urine where labour obstructed or prolonged (for 4-5 weeks)
- Regular perineal Sitz baths 2-3 times daily
- Surgical debridement 2 – 3 days following delivery
- Treatment of intercurrent infections using antibiotics





# Intervention

- Surgical repair preferably within 4 - 6 weeks of an obstructed labour if fistula has not yet closed
- This reduces fibrosis and scar tissue formation
- Repair can be done through vaginal or abdominal routes depending on the location and size of the fistula
- Post- operative care involves physiotherapy and nutritional support



## Early intervention Conti....

All these interventions should be instituted as early as possible – preferably within 4 weeks delivery

- Early intervention results in a 20% cure rate
- If fistula not closed 4-6 weeks latter , repair is advised –to avoid fibrosis & scar tissue formation
  - early repair has a success rate of 95%



## Prevention 2

- Community Involvement is important to address the first 2 delays and to address cultural practices that predispose to OF e.g. FGC
- Facility Preparedness- to address the 3<sup>rd</sup> delay
- Skilled birth attendance along the continuum of pregnancy, childbirth and postpartum period ensures that effective interventions are instituted on time to prevent fistula formation





# Skills /practicum

- Practice completing and interpreting the revised partograph



# Psychosis associated with Pregnancy and Child Birth





# INTRODUCTION

- Postpartum emotional distress is common after pregnancy and ranges from mild postpartum blues (affecting about 80% of women) to postpartum depression (34%) or psychosis.
- Postpartum psychosis can pose a threat to the life of the mother or baby.
- The postpartum period should therefore be considered as a vulnerable time for the development of emotional and psychological disorders.



# Types of postpartum psychological disorders

## **Postpartum blues**

- This is characterised by mild mood disturbances marked by emotional instability (crying spells apparently without cause, insomnia, exaggerated cheerfulness, anxiety, tension, headache, irritability, among others).
- Usually the complaints develop within the first week postpartum, continue for several hours to a maximum of ten days and then disappear spontaneously.





# Types of postpartum psychological disorders Cont'd

## **Post partum/postnatal depression**

- Postpartum Depression affects up to 34% of women and typically occurs in the early postpartum weeks or months although it may persist for a year or more.
- Depression occurring later is more protracted and more serious than in the early postpartum period.





## Signs and symptoms

- She may be gloomy, depressed, irritable, and sad.
- She may present with the following: insomnia, lack of appetite, disturbance of concentration, loss of libido, exhaustion, low energy and motivational levels, feelings of helplessness, headache, backache, vaginal discharge and abdominal pain may be reported.
- She may also exhibit obsession thinking, fear of harming the baby or self, suicidal thoughts and depersonalisation.



# Causes

- Pre existing mental health problems such as schizophrenia are predisposed.
- Quality of psychosocial support.
- Antenatal depression.
- Stressful life events.
- Stress related to child care.
- Antenatal anxiety.
- Quality of relationship with the partner.





# Management

- Be vigilant in assessing the relationship between the mother and the baby.
- Give non directive counselling.
- Give low doses of antidepressants as necessary.





# Prevention of post partum depression:

- Provision of a conducive labour environment e.g. (providing a companion during labour) has also been shown to reduce postpartum depression (Wolman et al 1993).
- Health care workers could promote self-care activities among new mothers to assist in alleviating depressive symptoms during the postpartum period
- Local support groups of women who have had similar experiences is also valuable



# Prevention of post partum depression:

- Efforts should be made to educate family members in the early detection of the signs and symptoms of depression in a pregnant woman. (RHL no.11 2008) The husband and family members should be involved in caring for postpartum mothers experiencing depressive symptoms.
- Financial difficulty is a risk factor commonly associated with perinatal depression. Women in low resource setting need empowerment to ensure financial security during pregnancy and childbirth (RHL no.11 2008)



# Psychosis Associated with pregnancy and child birth

## Definition

- This is a much more serious disturbance, affecting less than 1% of postpartum women. The cause is unknown, although about half of the women experiencing psychosis also have a history of mental illness.
- Women who have bipolar disorder or schizoaffective disorder have a higher risk for developing postpartum psychosis.
- These symptoms usually start at the end of the first week postpartum



# Signs and Symptoms

- Abrupt onset of delusions or hallucinations,
- Insomnia, paranoia,
- Neglect of basic needs.
- Confusion and perplexity.
- Mania,
- Abnormal preoccupation with the baby,
- Profound depressive mood.
- Suicidal or infanticidal impulses
- Major behavioural disturbance.







# Management

- Admission to a psychiatric department or clinic is necessary; preferably with her baby.
- If the mother shows signs of infanticidal then separate the mother and the baby.
- Give antipsychotics (neuroleptics) to control major psychotic features like delusions and hallucinations.
- In cases of major depression then give antidepressants.



# Management cont'd

- ECT may also be administered in psychiatric setting in severe cases.
- Watch out for suicidal tendencies. If present then manage appropriately.
- Mothers with symptoms **of postpartum psychosis should be promptly referred for hospital care.**



# Psychological support

- Give psychological support to the family members.



- The patient should be provided with psychological support and practical help (with the baby as well as with home care)



## Management cont'd

- To avoid tragic outcomes, actively listen to the woman and provide necessary encouragement.
- Lessen stress and avoid dealing with emotional issues when the mother is still unstable.
- If antipsychotic drugs are used, be aware that medication can be passed through breast milk and that infant feeding options should be reassessed.





# Prognosis

- Prognosis for recovery is excellent although about 50% of women will suffer a relapse during subsequent deliveries.





# Summary

Sign/symptom	Anatomic/ Physiologic basis	Prevention and relief measures – provide reassurance and:	Alert signs that may indicate a problem
Dreams (vivid) or Nightmares	Hormonal changes	Counsel the woman and her companion as follows: <ul style="list-style-type: none"><li>• To avoid eating just before bedtime</li><li>• To return for hospital if Signs/symptoms worsen; or if Danger signs arise</li></ul>	



# Summary Cont'd

Fatigue/somnolence  
Commonly occurs during the first trimester and week 1 postpartum  
May persist if woman is not getting enough sleep

Emotional stress  
Normal reaction to the hard work of labour and birth  
Enormous amount of energy expended in labour and birth  
Emotional and physical stress of having to care for the baby in addition to her previous responsibilities  
Interrupted sleep to feed and care for the baby  
Experiences from the previous pregnancy

Counsel the woman and her companion as follows:

- Eat a balanced diet.
- Take micronutrient supplements as directed
- Exercise daily
- Try and get adequate rest and sleep (e.g. taking a nap when the baby sleeps)

The woman should avoid:

- Over-exertion
- Smoking and alcohol

worsen or Danger signs arise



# Summary Cont'd

The woman's partner/family should:

- Ensure that the woman has time for rest and sleep
- Avoid making unnecessary demands on her
- Share some of the responsibilities of newborn care.
- Ensure that the woman returns to the hospital if Signs/symptoms





# Summary Cont'd

Feelings of inadequacy, worry, or fear  
Most commonly occur during weeks 1 – 2 postpartum  
Especially common among adolescents and primipara

The woman is suddenly confronted with:  
The reality of a new and very dependent life in her care  
The challenge of learning about child care when she is feeling physically vulnerable

- Provide support and reassurance
- Assuring her that she is of inestimable worth
  - Commending her for what she does right
  - Give clear and careful advice/counsel on newborn care and self-care.
  - Allow her to ask questions and discuss her anxieties.

Crying, feelings of sadness or of being overwhelmed, irritability between 3 and 6 days after birth (PP Blues)  
Insomnia, excessive or inappropriate sadness or guilt, feelings of worthlessness and/or anxiousness lasting for more than 1 week (PP depression)  
Hallucinations, delusions, morbid or suicidal thoughts (puerperal psychosis)



# Summary Cont'd

Advise the mother and her companion as follows:

- Eat a balanced diet and get daily exercise.
- Take time for herself
- Resume social contacts as soon as feasible.
- Avoid unrealistic expectations for herself.
- Take a nap when the baby sleeps.

Advise that the woman's partner/family to:

- Ensure that the woman has time for rest and sleep.
- Avoid making unreasonable demands on her.
- Allow her time alone with her partner
- Be sensitive to the woman's needs.
- Care for the woman in an attentive and compassionate way.
- Share some of the responsibilities of newborn care.
- Ensure that the woman returns for care if Signs/symptoms worsen or Danger signs arise



# Role play

- Counsel a mother with postnatal blues





# Nutrition in the Postpartum period



# Introduction

- This is a crucial stage for both the mother and the baby.
- Adequate nutrition for the mother should be maintained to ensure the mother remains healthy and to enhance lactation performance and rapid recovery after delivery.
- Lactation is a physiological condition that places extra demand on the mother hence the need for nutrition support and care.





# Nutritional requirements after delivery

- Following a normal delivery a woman may be hungry and should have access to food.
- Maternity units should ensure some food is available for women who deliver at night.
  - On discharge, Mothers should be counselled on taking an extra meal and snacks rich in energy protein and micronutrients,
  - Families should be encouraged to use locally available and affordable foods and explained to about the need of extra food portions.





# Energy and protein requirements during lactation

	Energy requirements	Protein requirements
First 6mths then decrease gradually	+500kcal/day	+17.5g/day for the first 6mths of lactation +13g/day for next six months and 11g/day thereafter
Underweight women	+650kcal/day	+21g/day





# MICRONUTRIENT REQUIREMENTS FOR PREGNANT AND LACTATING MOTHERS

- The pregnant and lactating mothers needs extra folate and vitamin B<sub>12</sub> due to the great increase in blood volume and the rapid growth of the foetus.
- Minerals involved in building the skeleton- calcium, magnesium and phosphorus are in great demand.
- Sources of calcium are mainly milk and milk products. Others are whole enriched cereal grains and green leafy vegetables
- The richest sources of folic acid are spinach, kidney beans, groundnuts, kidney and liver.





# Nutritional needs during lactation

The mother should do the following:

- Eat at least 2 additional servings of staple foods per day to supply the extra 300 – 600 calories needed
- Eat at least 3 additional servings of calcium rich foods (milk and milk products, fish, salmons and sardines(Omena) to supply the extra 1200 mg of calcium needed
- Include a variety of fluids such as milk, water and fruit juices
- Eat smaller frequent meals if unable to consume larger amounts in fewer meals
- Avoid alcohol and tobacco, which decrease milk production





# To increase breast milk

There are no specific foods to eat that will stimulate production of breast milk,

More important than what you eat is how your baby eats. The longer a baby nurses at your breast the more milk will be produced.

The best prescription for maximum milk production is effective and frequent breastfeeding or milk expression, plenty of fluids, adequate calories and rest



# Dietary and nutritional advise for breast feeding mothers

- Drink more liquids:
- Do not go on restricted diets in an attempt to lose weight while nursing this will lead to reduced milk production
- Do not drink beer or smoke (babies do not like the taste)
- Avoid stress and rest more
- Minimise caffeine intake in tea or coffee
- Avoid supplements in babies < 6 months (including solid food, water, juice, and formula).
- Snack often on foods high in protein and calcium



# Foods that may increase breast milk

Popular herbal supplements have been used for many years to increase milk production, include Fenugreek, Blessed Thistle, and Red Raspberry.

Brewers Yeast (containing B vitamins) is another commonly recommended treatment for low milk supply.

Drugs e.g. Domperidone and metochlopramide also tend to increase breast milk production



# To relieve the discomfort of constipation advise women to:

- Increase fibre intake by eating more whole grain breads and cereals; vegetables; and fruit and legumes such as beans, split peas and lentils.
- Drink between 8 and 12 cups of fluid every day in the form of water, milk and juice. Warm or hot fluids may be particularly helpful.
- Maintain an active lifestyle, for example, by walking or swimming regularly.
- Avoid all laxatives unless one is recommended by a physician.





# In case of loss of appetite, advise the mother to:

- Eat small frequent meals spaced throughout the day (5-6 meals per day)
- Schedule regular eating time
- Eat protein from animal or plant source with snacks and meals whenever possible
- Drink plenty of liquids, preferable between meals
- Take walks before meals to stimulate appetite
- Choose and prepare food that look and smell good for them
- Use spices such as onions, garlic, cinnamon, and ginger to stimulate appetite, improve flavour and digestion
- Eat with others as this makes food more enjoyable





# Iron deficiency anaemia

- Anaemic women are more likely to suffer from
  - PPH
  - Puerperal sepsis
- Iron requirements also increase after delivery
- Anaemic women or those who have suffered excessive blood loss during delivery need iron and folate supplementation post partum.
- They should consume a daily dose of 120 mg iron plus at least 400 µg folic acid for 3 months along with orange, pineapple, or citrus juice.
- They also need to restrict consumption of tea, coffee, and cocoa.







# Nutritional advice for anaemic mothers

- Encourage consumption of foods rich in iron, folate, proteins and other nutrients needed for blood production.
  - Animal sources – Red meat, Liver, Kidneys, fish, poultry, eggs
  - Plant source – legumes(cow peas, kidney beans, Soya beans) fortified cereals, dark green leafy vegetables such as black night shade(managu), amaranth(Terere), spinach, stinging nettle(Thabai) and kales
- Provide foods rich in Vitamin B<sub>12</sub>, Folic acid, Vitamin E and C
- Reduce intake of beverages that contain phenolic compounds and tannin such as tea leaves, wheat bran





# Factors affecting bioavailability of iron

- Cooking methods: Soaking before cooking of cereals and legumes reduces the phytic effect. Cooking eggs softly avails more iron for use.
- Enhancers: Mixing of foods with Vitamin C rich foods (oranges, lemon, tangerines, Guavas, pineapples, Berries). Enhances absorption of iron.
- Fermentation, sprouting/germinating, malting of cereals enhances availability of iron and should be encouraged.
- Inhibitors: The practice of taking tea, coffee, chocolates with or immediately after food should be discouraged. They have polyphenols such as tannins that bind iron
- Iron from plant sources is not readily bioavailable as they contain phytates, oxalates and malic acid which inhibit iron absorption. These should therefore be taken together with enhancers.

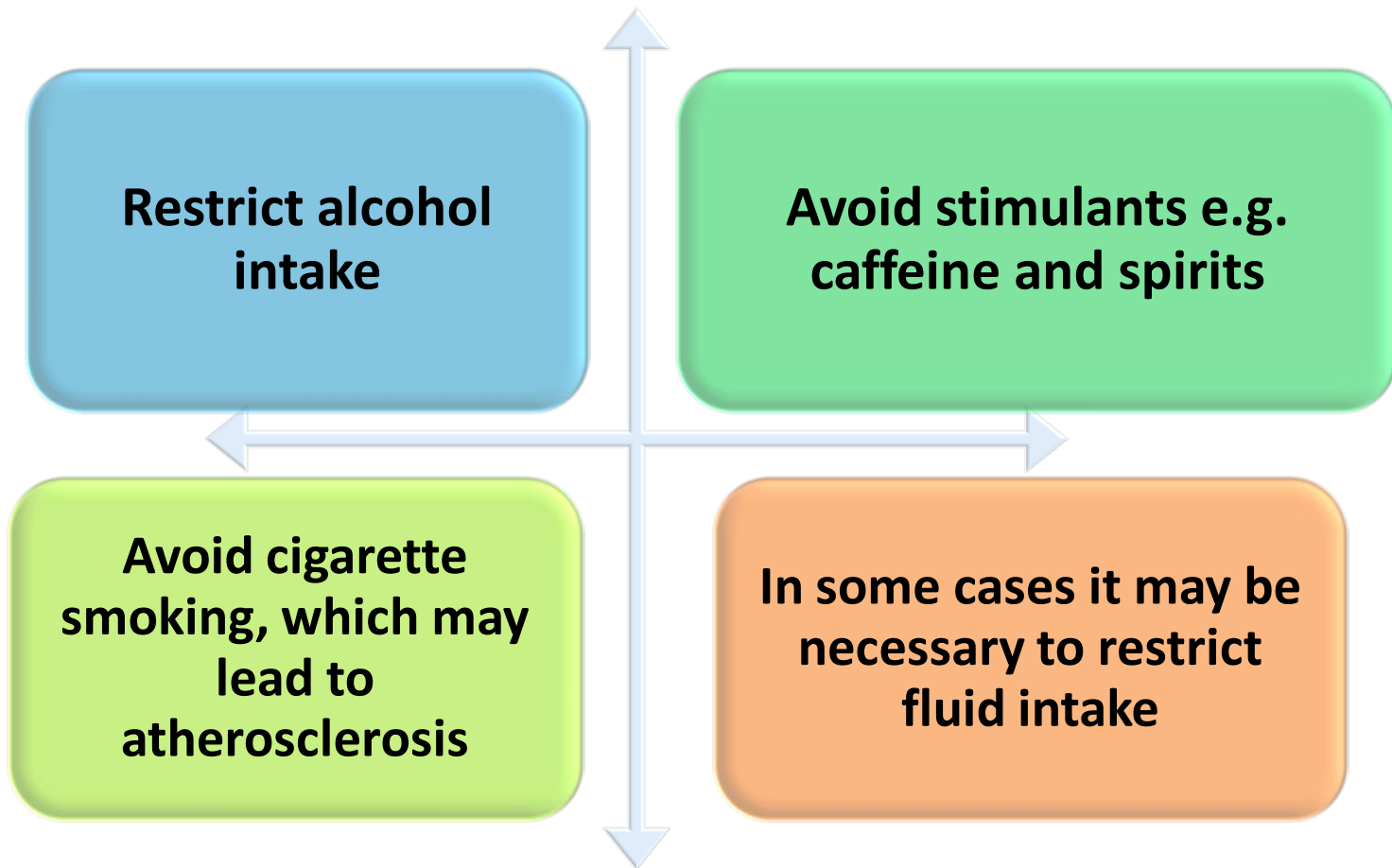


# Nutritional management in Toxaemia (HDP)

- Manage the calorie content in the diet if the patient is overweight in an effort to reduce excessive weight gain
- Regulate fat intake. Encourage intake of unsaturated fats (oils). . Fats should be 20% of total kilo calories
- Restrict sodium by encouraging choice of foods low in sodium , limit the amount of salt added to food, restrict the use of processed foods and use of sodium containing spices



# Nutrition in case of Toxaemia (PET)





# Nutrition for PLHIV

- Nutrition and HIV/AIDS are strongly interdependent.
- Malnutrition can both contribute to and result from the progression of HIV.
- HIV weakens the immune system, which in turn leads to more infections.
- Infections increase energy needs and at the same time cause anorexia.
- Heightened infections (in number and severity) lead to loss of appetite, resulting in inadequate food intake, and eventually malnutrition.
- Malnourished persons are at greater risk of infections, creating more vulnerability to HIV.



# Nutrient requirements for PLHIV

- The recommended amount of energy increments in HIV positive pregnant/lactating women is 10% for the asymptomatic mother and 20-30% for the symptomatic mothers.
- This is in addition to extra energy, proteins and micronutrients required by pregnant or lactating mothers. In case of fever and multiple infections, consider addition of 10% on the calorie requirement.
- The protein and fat needs for the HIV infected pregnant mother are the same as those recommended for a healthy non-HIV infected mother.



# Skills/ practicum

- Design a diet plan for a postnatal, HIV positive breastfeeding mother living in Homabay whose husband earns Ksh 150/ per day
- How will the plan differ if she lives in Kiambu District and is HIV negative but anaemic?
- Visit the postnatal ward- provide nutrition counselling to a postnatal mother



# Postnatal Family Planning

**Family Planning is the Responsibility  
of both Men and Women**

Use a modern method to delay  
pregnancy or space births.







# Objectives

- Define postnatal care FP
- Overview of PNC-FP
- Discuss timing, method & principles of PNC-FP
- Discuss PNC-FP in the context of HIV & AIDS



# Definitions

- **Post partum family planning** - is the initiation and use of family planning methods during the first year after delivery. The timing may be as follows:
  - Post-placental – within 10 minutes after placenta delivery
  - Immediate postpartum – delivery to 1 week
  - Postpartum – 1 week up to 6 weeks
  - Extended postpartum – 6 weeks to one year after delivery



# Introduction

- Family planning unmet need is high among women during the first year after childbirth.
- Postpartum contraceptive programmes are convenient, cost-effective and meet the needs of women.(Vernon 2008)
- It is advised to wait for two years after the last birth before trying to conceive
  - This reduces risks of adverse maternal, perinatal and infant outcomes (WHO 2005, Conde-Agudelo et al 2006).



# Introduction

- On resumption of sexual relations women can conceive as early as one month after delivery, unless on a FP method
- Immediate postpartum FP is more cost-effective than after six-weeks post-delivery
- Postpartum FP results in increased CPR (Vernon 2008)



# Factors affecting timing and choice of FP

- Timing and choice of family planning method depends on;
  - Breastfeeding status
  - Method of choice
  - Reproductive health goal/fertility desires
  - Medical Eligibility Criteria (MEC)
- Women not breastfeeding may use any method of FP but need to conform to the MEC for that method.



# FP Services in the Postnatal Period

- The foundation for postpartum FP should be established during the antenatal period
- Between four and six months women should be counselled on transition to another FP method if they have been practicing LAM
- Service provider should counsel clients on return to sexual activity and fertility, and introduced to the concept of Healthy Timing and Spacing of Pregnancies (HTSP).



Timing of visit	FP services for the mother
Antenatal	Counseling on all methods
Intrapartum	Advise on LAM Counseling on intrapartum female sterilization (FS) and IUCD insertion during caesarean section
Within 48 hours after birth	Focused physical exam Counseling on LAM; postpartum FS and IUCD
Within one or two weeks (preferably within one week) after birth	Focused physical exam Counseling on: LAM and HTSP, return to sexual activity, return to fertility and condoms, when to initiate FP methods based on breastfeeding status





Timing of visit	FP services for the mother
At four to six weeks after birth	<p>Focused physical exam</p> <p>For LAM users: supportive counseling on transition to other FP methods, HTSP messages, return to fertility, and sexual activity</p> <p>Counseling and provision of, or referral for, all other FP methods as appropriate (based on breastfeeding status, other eligibility criteria, and woman's choice); counseling on dual method use</p>
Between four and six months	<p>Reassess fertility desires</p> <p>For LAM users: supportive counseling on transition to other FP methods (preferably initiated before LAM expires)</p> <p>Counseling and provision of, or referral for, all other FP methods based on breastfeeding status</p>





# Methods of Postpartum Family Planning



## Method

Lactational Amenorrhoea (LAM)

## Principle

- The woman must be exclusively breastfeeding on demand
- The infant should be less than six months old
- Menstrual Periods should not have resumed




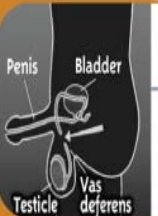
Intra uterine Contraceptive Device (IUCDs)

Can be inserted immediately after birth or delayed for later insertion

- Immediate post placental insertion - within 10 minutes after a vaginal delivery or during a C/Section
- Post partum within 48 hours of delivery
- Interval insertion at 4-6 weeks postpartum



# Permanent Methods

	Method	Principle
 <p><b>Tubal Ligation</b> (Female Sterilization)</p> <p>Population Council FRONTIERS USAID Balanced Counseling Strategy</p>	Voluntary surgical contraception (tubal ligation and vasectomy)	<ul style="list-style-type: none"><li>•Offers permanent protection against pregnancy in a single procedure</li><li>•Tubal ligation can be performed immediately following delivery (Ideally within 48 hours of delivery) or during C/Section</li><li>•Can be performed within 7 days or delayed until after 6 weeks.</li></ul>
 <p><b>Vasectomy</b> (Male Sterilization)</p> <p>Population Council FRONTIERS USAID Balanced Counseling Strategy</p>		<ul style="list-style-type: none"><li>•Vasectomy or male sterilization, is the surgical process performed under local anesthesia of cutting and tying the vas deferens in order to prevent spermatozoa from mixing with semen.</li></ul>



# Methods of Postpartum Family Planning



Method	Principle
Barrier Methods	<ul style="list-style-type: none"><li>• Prevent sperm gaining access to the upper reproductive tract to make contact with the egg. Effectiveness depends on consistent and correct use</li><li>• Condoms should be used with ALL methods to protect against STIs including HIV/AIDS. (Dual protection)</li></ul>
Hormonal contraceptives	<ul style="list-style-type: none"><li>• Contains synthetic hormones i.e. combination of oestrogen and progestin (COCs), or progestin alone</li><li>• Works primarily by preventing ovulation; makes cervical mucus too thick for sperm to penetrate</li><li>• Breastfeeding women can use Progestin-only contraceptives (POPs) 4 weeks post partum</li><li>• <i>Note: COCs - can reduce the woman's milk supply</i></li></ul>



# FP Services for People Living with HIV & AIDS (PLWHA)

- In Kenya the unmet need for contraception among PLWHA is >60% (KAIS 2007)
- PLWHA have as much need for FP services as the non-infected persons
- FP is the second prong for prevention of PMTCT
- Service providers must ensure that safe and effective contraception is accessible to PLWHA
- The service provider should refer to MEC for use of different FP methods



# Special Cases for Consideration

- Fertility awareness-based methods may be unreliable for PLWHA or taking ARVs due to changes in the menstrual cycle and higher body temperature
- Women with HIV should not use **spermicides** or **diaphragms with spermicides**



## FP in PLWHA

- Women with HIV and TB, using Rifampin for TB treatment, or on Ritonavir should **NOT** use COCs
- Those with completed desired family size should be counsel on use of permanent methods
- PLWHA should be encouraged to use **dual protection**



# Practicum/ skills review

- Humanistic training:
  - Counselling for PFP
  - Practice techniques of PPIUCD
  - Practice insertion and removal of implants
- Practice filling the FP register
- If possible- clinical demonstration of PPIUCD insertion in the labour ward



# Monitoring and Evaluation of Post partum care

DRH/ MOPHS





# What is monitoring?

- Monitoring is the regular observation and recording of activities taking place in a project or programme.
- It is a process of routinely gathering information on all aspects of the project.
- To monitor is to check on how project activities are progressing. It is observation; — systematic and purposeful observation.
- Monitoring also involves reporting and giving feedback about the progress of the project to the donors, implementors and beneficiaries of the project.
- Monitoring provides project management and project stakeholders the information needed to assess progress, identify trends, keep project schedules and measure progress towards expected goals



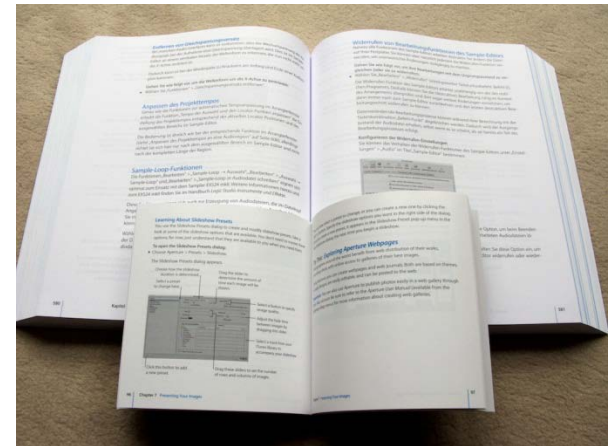
# What is Evaluation?

- Evaluation is a process of judging value on what a project or programme has achieved particularly in relation to activities planned and overall objectives.
- Evaluation is important to identify the constraints or bottlenecks that hinder the achievement of project objectives. Solutions to the constraints can then be identified and implemented.
- Evaluation also enables the project planners and implementers to assess the benefits and costs that accrue to the intended direct and indirect beneficiaries of the project.
- It provides opportunities for mid-course corrections to project implementation, as necessary.



# Key M&E tools for PPC

- Mother Child booklet
- CHW register
- Birth notification forms
- Delivery register
- PNC register
- FP register
- Summary tools
- MDR notification form





# Other sources of data

- DHS: -Demographic and Health Survey
- MICS: - Multiple Indicator Cluster Surveys
- HMIS: - Health Management Information System
- Facility data and summary tools
- Community Service Log Book





# Key indicators as required by MOH

- Percentage of women receiving postpartum care within 48 hours, at 7 days, and at 6 weeks after childbirth
- Proportion of women who receive three postnatal checks
- Maternal deaths within 48hrs and 6 wks after delivery
- Proportion of women using FP at 6 months postpartum
- Number of postpartum women and infants sleeping under mosquito nets



## Key indicators as required by MOH 2

- Neonatal deaths within 48hrs and 6 wks after delivery
- Proportion of newborn infants put to the breast within 1 hour of birth
- Proportion of infants exclusively breastfed at 6 months
- Number of HIV exposed newborns tested for HIV at 6 weeks and at 3 months
- Number of HIV positive mothers on ART
- Cases of Ophthalmia Neonatorum
- Immunization



# M&E at Community level

- Every Community Unit (CU) shall maintain and update its CHIS that shall be shared regularly with household members in a forum as stated in the health sector community strategy.
- The community health workers shall maintain registers recording daily activities and reporting regularly to supervising health facility through the CHEW.



# Role of the Health facility

- Maintain and update its HIS which shall include records, filing system(s) and registry for primary data collection tools (such as Registers, cards, file folders), summary forms (such as reporting forms, CDs, electronic backups)
- Safeguard HIS from any risks e.g. fire, floods, access by unauthorized person, etc.
- Summarize health and health related data from the community and health facility,
- Analyze, disseminate and use the information for decision-making, provide feedback,
- Transmit summaries to the next level.





# Role of the District level

- Manage all health and health related data from all service providers within their area of jurisdiction.
- Collate, analyze, disseminate, use health and health related data from all health facilities/providers
- Provide feedback to all health care providers.
- Transmit the summaries to the next level
- Submit reports to MOH and stakeholders in the district
- Share and disseminate reports as appropriate



# Practicum/ skills review

- Review of registers and summary sheets
- Practice completion of registers, mother child booklet, MDR notification form



**Division of Reproductive Health  
Ministry of Public Health & Sanitation**

Old Mbagathi Road.  
P. O. Box 43319, Nairobi.  
Tel: 725105/6/7/8  
E-mail: [drh-head@africaonline.go.ke](mailto:drh-head@africaonline.go.ke)  
Website: [www.drh.go.ke](http://www.drh.go.ke)