

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

HADITH of today

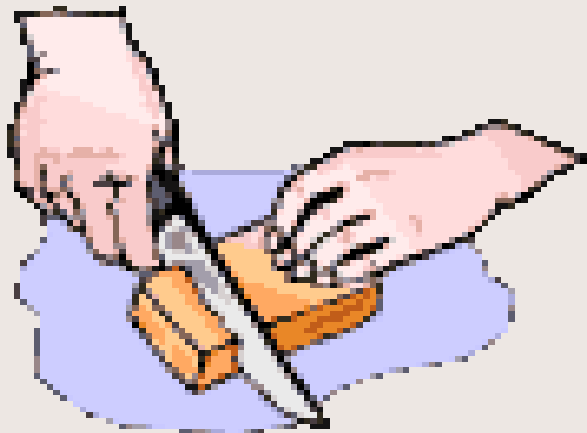
- **HELL HAS BEEN SURROUNDED BY EASE AND LUXURY AND HEAVEN BY TOIL AND SUFFERING (TIRMIDHI)**

MATERNAL MORTALITY

PROF.DR ABIDA SULTANA

MBBS. MCPS. FCPS.

HEAD OF DEPARTMENT





SESSION OBJECTIVES

- **At the end of this session, students will be able to;**
 - 1. Define maternal mortality**
 - 2. Enlist the causes of maternal mortality in term of high risk pregnancies.**
 - 3. Describe the strategies to reduce maternal mortality**
 - 4. Decide about health of a pregnant lady**
 - 5. Advice about different issues related to health**

MATERNAL MORTALITY (GENDERCIDE)

- The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.
- (INTERNATIONAL CLASSIFICATION OF DISEASES, 10TH REVISION. WORLD HEALTH ORGANIZATION, GENEVA, 1992.)

MATERNAL MORTALITY RATE (RATIO)

- Total no. of female deaths due to complications of pregnancy, childbirth or within 42 days of delivery from “puerperal causes” in an **area** during a given **year**
- $$= \frac{\text{Total no. of female deaths due to complications of pregnancy, childbirth or within 42 days of delivery from “puerperal causes” in an area during a given year}}{\text{Total no. of live births in the same area and year}} * 1000$$

Difference between MM Rate & MM Ratio

- Total no. of female deaths due to complications of pregnancy, childbirth or within 42 days of delivery from “puerperal causes” in an area during a given year
- $$= \frac{\text{Total no. of female deaths due to complications of pregnancy, childbirth or within 42 days of delivery from “puerperal causes” in an area during a given year}}{\text{Total no. of WORAG in the same area and year}} * 1000$$

What determines about expected death during pregnancy?

- **DETERMINANTS OF MATERNAL MORTALITY**

DETERMINANTS OF MATERNAL MORTALITY

- 1. Age at child birth (Too Early, Too Late)**
- 2. Parity (Too Many)**
- 3. Too close pregnancies (Too Close)**
- 4. Family size**
- 5. Malnutrition**
- 6. Poverty**
- 7. Illiteracy**
- 8. Ignorance and prejudices**

DETERMINANTS (cont)

- 9. Lack of maternity services**
- 10. Shortage of health manpower**
- 11. Delivery by untrained dais**
- 12. Poor environmental sanitation**
- 13. Poor communication and transport facilities**
- 14. Social customs**

MEDICAL CAUSES OF MATERNAL MORTALITY

- **OBSTETRIC CAUSES**

1. **Toxemia of pregnancy**
2. **Hemorrhages**
3. **Infections**
4. **Obstructed labor**
5. **Unsafe abortion**

- **NON-OBSTETRIC CAUSES**

1. **Anemia**
2. **Associated diseases, e.g., cardiac, renal, hepatic, metabolic and infections**
3. **Malignancy**
4. **accidents**



**But WHY Do
These
Women Die
during
Labour?**

THREE DELAYS MODEL

- **Delay in decision to seek care**
 - Lack of understanding of complications
 - Acceptance of maternal death
 - Low status of women
 - Socio-cultural barriers to seeking care
- **Delay in reaching care**
 - Mountains, islands, rivers — poor organization
- **Delay in receiving care**
 - Supplies, personnel
 - Poorly trained personnel with punitive attitude
 - Finances



TO REDUCE MATERNAL MORTALITY

HISTORICAL REVIEW

- **Traditional birth attendants**
- **Antenatal care**
- **Risk screening**

HISTORICAL REVIEW

The flawed assumption:

“Most life-threatening obstetric complications can be predicted or prevented”

CURRENT APPROACH

- **Current Approach for Reduction of Maternal Mortality is.....**

“Every Pregnancy Is at Risk:”

“Skilled attendant at time of delivery”

INTERVENTIONS

traditional birth attendants

ADVANTAGES

- Community-based
- Sought out by women
- Low cost
- Teaches clean delivery

DISADVANTAGES

- Technical skills limited
- May keep women away from life-saving interventions due to false reassurance

Interventions:

Traditional Birth Attendants

CONCLUSION: TBAs are useful in the maternal health network, but there will not be a substantial reduction in maternal mortality by **only TBAs delivering clinical services**

TO REDUCE MATERNAL MORTALITY.....

- PROVIDE
SAFE MOTHERHOOD**

WHAT IS SAFE MOTHERHOOD?

- A Woman's ability to have a **SAFE** and **HEALTHY PREGNANCY** and **CHILD BIRTH**"

- **How to provide SAFE MOTHERHOOD??????**
- **Or how to reduce MATERNAL MORTALITY??????**

ANTENATAL CARE

- **It is the routine Well-Woman Care during pregnancy.**
- **Primary aim of antenatal care is to achieve at the end of the pregnancy a healthy mother and a healthy baby.**
- **Ideal starting time should be soon after conception and continue throughout pregnancy.**

OBJECTIVES OF ANTENATAL CARE

- 1. To promote, protect and maintain the health of the mother during pregnancy.**
- 2. To detect “high risk” cases and give them special attention.**
- 3. To foresee complications and prevent them.**
- 4. To remove anxiety and dread associated with delivery.**

OBJECTIVES OF ANTENATAL CARE (cont)

- 5. To reduce maternal and infant mortality and morbidity.**
- 6. To teach the mother elements of child care, nutrition, personal hygiene and environmental sanitation.**
- 7. To sensitize the mother to the need for family planning including advice to cases seeking medical termination of pregnancy.**
- 8. To attend the under-five children accompanying the mother.**

ANTENATAL VISITS

1. **Once a month during first seven months.**
2. **Twice a month during next month.**
3. **Once a week thereafter.**

if not possible than minimum three visits;

1. **1st visit at 20th week or as soon as the pregnancy is known**
2. **2nd visit at 32nd week**
3. **3rd visit at 36th week**

ANTENATAL SERVICES

- **FIRST VISIT**
 1. **Confirmation of pregnancy**
 2. **History**
 3. **Physical examination**
 4. **Laboratory examinations**
- **Urine RE**
- **Stool examination**
- **Blood CP / Hb / Grouping/ Rh factor**
- **Optional tests like chest X-ray, Pap test, G.C.culture (gonorrhoea test)**

ANTENATAL SERVICES

(cont)

- **SUBSEQUENT VISITS**
 1. **Physical examination (weight, BP etc)**
 2. **Laboratory tests**
 - **Urine RE**
 - **Hb estimation**

ANTENATAL SERVICES (cont)

- **CONTINUOUS MONITORING OF FOETAL DEVELOPMENT**
 1. **Fundal height**
 2. **Foetal heart**
 3. **Foetal movement**
 4. **Foetal parts** **BY;**
- **Sonography**
- **Any other examination**

ANTENATAL SERVICES

(cont)

- **OTHER MEASURES**
 1. **Iron and folic acid preparations**
 2. **Immunization against tetanus**
 3. **Advises for diet, personal hygiene,, drugs, radiation, warning signs, delivery and parenthood**
 4. **Record keeping**
 5. **Home visits**
 6. **High risk approach**

ANTI- TETANUS MEASURE

- **If not immunized at all;
2 doses, first at 16-20 weeks and second at 20-24 weeks of pregnancy
Minimum interval of 4 weeks
2nd dose 4 weeks before EDD
But no woman should be denied even single dose if she comes late in pregnancy.**
- **If immunized earlier, one booster dose is enough for next 5 year.**

DIET

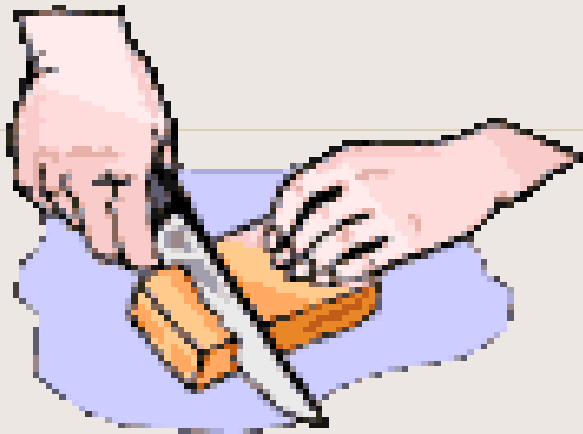
- A balanced and adequate diet to prevent ‘nutritional stress’.
- Total 60,000 kcal **TOTAL** extra in pregnancy.
- 550 kcal extra **DAILY** during lactation.
- Treat malaria.

PERSONAL HYGIENE

- 1. Personal cleanliness**
- 2. Rest**
- 3. Bowels**
- 4. Exercise**
- 5. Avoid smoking**
- 6. Avoid alcohol**
- 7. Dental care**

WARNING SIGNS

- 1. Swelling of feet**
- 2. Headache**
- 3. Blurring of vision**
- 4. Fits**
- 5. Bleeding or discharge per vagina**
- 6. Any other unusual symptoms**



THANK YOU





HADITH

- ON THE DAY OF RECKONING, THE WEIGHTIEST ITEM IN THE SCALES OF DEEDS WILL BE GOOD MANNER (TIRMIDHI/ABU DAWOOD)

LECTURE 3

REPRODUCTIVE

HEALTH by

Professor Dr. Abida Sultana

Head of Com. Medicine Department



OBJECTIVES OF TODAY

- **At the end of this session, students will be able to;**
- **Understand High risk approach**
- **Explain WHO scoring system for high risk pregnancies**
- **Describe about skilled birth attendant**
- **Know some part of Natal Care**

- **What is high risk approach?**

HIGH RISK APPROACH

- 1. Elderly primi (> 30 yrs)**
- 2. Short stature primi (<140 cm)**
- 3. Mal-presentations**
- 4. Ante partum hemorrhage**
- 5. Pre eclampsia and eclampsia**
- 6. Anemia**
- 7. Twin, hydramnios (cont)**

HIGH RISK APPROACH

(cont)

- 8. H/O still birth, intra-uterine death, retained placenta or manual removal of placenta.**
- 9. Elderly grandmultipara.**
- 10. Prolonged pregnancy (+14 days after expected date of delivery).**

(cont)

HIGH RISK APPROACH

(cont)

11.H/O caesarean or instrumental delivery.

12.Other associated general diseases e.g., CVS problems, kidney problems, diabetes, tuberculosis, liver disease.

RISK SCREENING

DISADVANTAGES

- **Very-poorly predictive**
- **Costly: Removes woman to maternity waiting homes**
- **If risk-negative, gives false security**

CONCLUSION: Cannot identify those at risk of maternal mortality —

EVERY PREGNANCY IS AT RISK



- **WHAT IS WHO SCORING SYSTEM?**

WHO SCORING SYSTEM

	MATERNAL	CATEGORY	POINTS
1.	AGE	<ul style="list-style-type: none"><19>4030-3920-29	<ul style="list-style-type: none">420
2.	NO. OF CHILDREN	<ul style="list-style-type: none">>50-12-5	<ul style="list-style-type: none">420
3.	TIME SINCE FIRST DELIVERY	<ul style="list-style-type: none"><24 MONTHS>24 MONTHS	<ul style="list-style-type: none">10

WHO SCORING SYSTEM (Cont)

4. Medical history	<ul style="list-style-type: none">• Poor obstetric history in past	3
	<ul style="list-style-type: none">• General diseases	5
5. Maternal education	<ul style="list-style-type: none">• Illiterate	1
	<ul style="list-style-type: none">• Literate	0

WHO SCORING SYSTEM (cont)

Maternal risk status	Action	Total score
Very high	Referral obligatory	>5
High	Referral recommended	3-4
Usual	Local care	0-2

- **WHAT IS SKILLED ATTENDANT?**

Interventions: Skilled Attendant at Childbirth

- **Proper training, range of skills**
- **Assesses risk factors**
- **Recognizes onset of complications**
- **Observes woman, monitor fetus/infant**
- **Performs essential basic interventions**
- **Refers mother/baby to higher level of care if complications arise requiring interventions outside realm of competence**
- **Have patience and sympathy**

SKILLED BIRTH ATTENDANT

- 1. Professionally trained health workers with the skills necessary to manage a normal delivery and diagnose or refer obstetric complications.**
- 2. A doctor, midwife or nurse.**
- 3. Must be able to manage a normal labour and delivery, recognize complications early on and perform any essential interventions, start treatment, and supervise the referral of mother and baby to the next level of care if necessary. These professionals may practice in a health-care facility or at home.**

SKILLED BIRTH ATTENDANT (CONT)

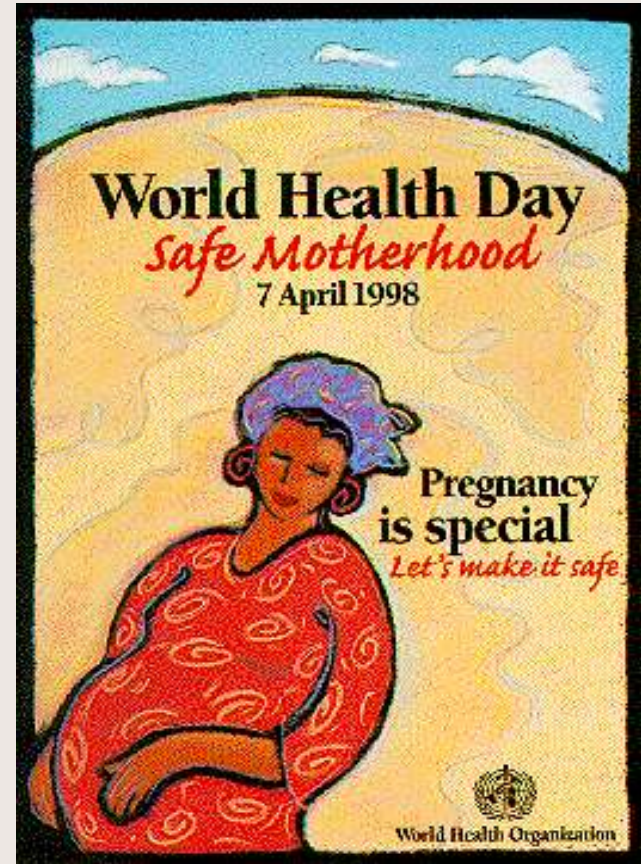
4. Their classification as skilled attendants refers to their training more than to the site of practice.
5. Trained and untrained traditional birth attendants (TBAs) are not included in this category.
- (WHO/UNFPA/UNICEF/WORLD BANK. *JOINT STATEMENT FOR REDUCING MATERNAL MORTALITY, 1999.*)

UNFPA

- **UNITED NATION FUND FOR POPULATION ASSISTANCE**

SUMMARY

Skilled attendant at childbirth is the most effective intervention





- **INTRANATAL/
NATAL CARE**

AIMS OF GOOD INTRANATAL CARE

- 1. Thorough asepsis.**
- 2. Delivery with minimum injury to the mother and baby.**
- 3. Readiness to deal with complications such as prolonged labour, ante partum hemorrhage, convulsions, malpresentations, prolapse of cord etc.**
- 4. Care of the baby at delivery.**

INTRANATAL CARE

- **4% deliveries difficult**
- **1% deliveries abnormal**

TYPES OF NATAL SERVICES

- 1. Domiciliary care**
- 2. Institutional care**

1. DOMICILIARY CARE

DOMICILIARY CARE

- **ADVANTAGES**

1. **Familiar surrounding**
2. **No cross infection**
3. **Mother can keep an eye on domestic affairs**
4. **Less load on hospitals**

- **DISADVANTAGES**

1. **Less medical and nursing care**
2. **Less rest**
3. **Diet neglected**
4. **Resumes her duties soon**

THREE CLEANS

- **OBSERVE THREE CLEANS DURING DOMICILIARY CARE**
 - 1. Clean hands and fingernails**
 - 2. Clean cutting (instruments)**
 - 3. Clean surface for delivery**

INDICATIONS FOR INSTITUTIONALIZATION

- **During domiciliary care, one must be trained enough to recognize the ‘danger signals’ during labour and seek immediate help in transferring the mother to the nearest Primary Health Centre or a hospital.**

- **WHAT ARE DANGER SIGNALS DURING LABOUR?**

DANGER SIGNALS

- 1. Sluggish or no pains after rupture of membranes**
- 2. Good pains but no progress after rupture of membranes**
- 3. Cord or hand presentation**
- 4. Prolapsed cord or hand**
- 5. Meconium-stained liquor or slow irregular or excessively fast fetal heart**

THREE DELAYS

- **AVOID 3 Ds or 3 DELAYS**
 1. **Delay in decision making**
 2. **Delay in transportation**
 3. **Delay in receiving care**

- 
- **WHAT ARE MATERNITY WAITING HOMES ?**

MATERNITY WAITING HOMES

- residential facilities where women defined as “high risk” can await their delivery and be transferred to a nearby medical service shortly before delivery—or sooner, if complications arise.
- **THE GOAL**
- To minimize the delay in receiving care for an obstetric emergency by dramatically reducing the transit time.

EMERGENCY OBSTETRIC CARE (EmOC)

- **Access to facilities, that can perform emergency interventions such as Caesarean sections, manual removal of placenta, blood transfusions, and administration of antibiotics, is essential.**

EMERGENCY OBSTETRIC CARE (EmOC)

- **TYPES**

- 1. Basic EmOC**

- 2. Comprehensive EmOC**

Basic EmOC Functions

- **Performed in a health center without the need for an operating theatre**
 - IV/IM antibiotics
 - IV/IM oxytoxics
 - IV/IM anticonvulsants
 - Manual removal of placenta
 - Assisted vaginal delivery
 - Removal of retained products

Comprehensive EmOC Functions

- Requires an operating theatre and is usually performed in district hospitals
- All six basic EmOC functions plus:
 - Caesarean section
 - Safe blood transfusion



2. INSTITUTIONAL CARE

INSTITUTIONAL CARE

- **INDICATIONS**

1. **1% abnormal cases.**
2. **High risk mothers.**
3. **Present saying is that every pregnancy is at risk.**

- **ROUTINE AFTER A NORMAL DELIVERY**

1. **Rest in bed on the first day.**
2. **Allowed to be up and about on next day.**
3. **Discharged after five days lying-in period.**





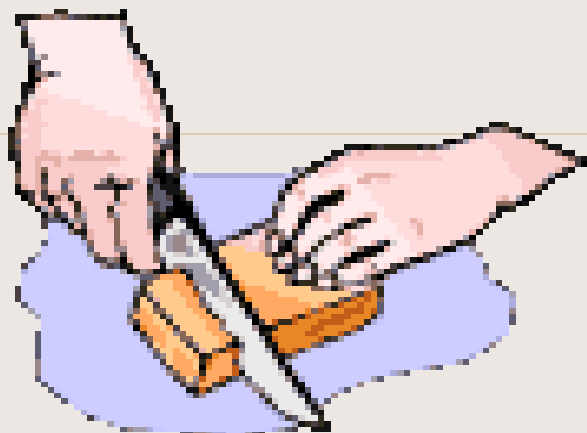
- **WHAT IS ROOMING-IN?**

ROOMING-IN

- **Keeping the baby's crib by the side of the mother's bed.**
- **ADVANTAGES**
 1. **Mother knows her baby.**
 2. **Good opportunity for Breast feeding.**
 3. **Removes the fear for the baby to be misplaced.**
 4. **Builds self-confidence in mother.**
 5. **Prevents cross-infections (nosocomial) .**

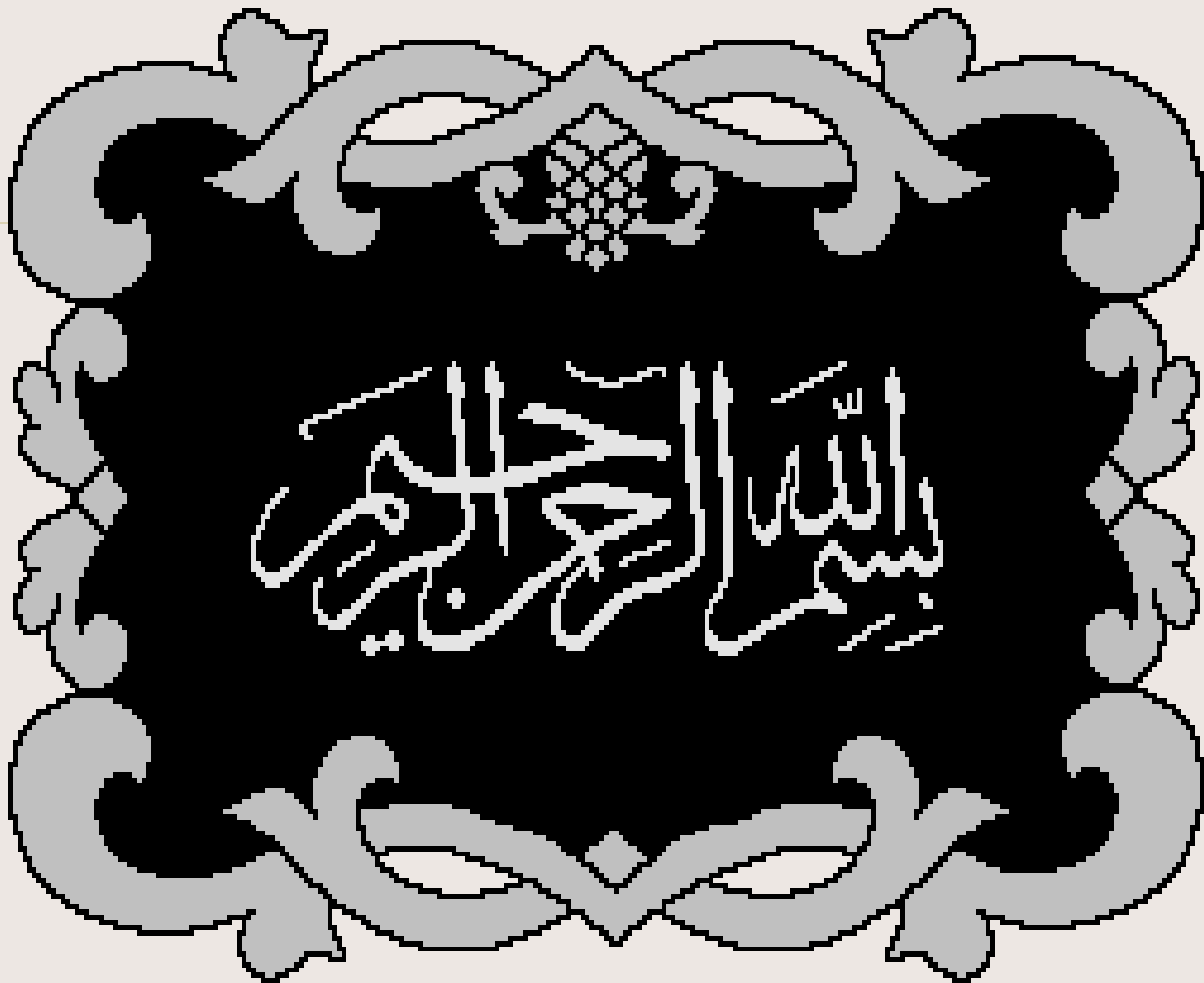






THANK YOU





- **Hadith: ACTIONS ARE JUDGED BY INTENTIONS. EVERYONE WILL BE JUDGED ACCORDING TO HIS INTENTIONS (BUKHARI/MUSLIM)**

• **LECTURE 4**
REPRODUCTIVE
HEALTH by

Prof Dr. Abida Sultana

Head of Com. Medicine Department



OBJECTIVES OF TODAY

- **At the end of session, students will be able to**
- **Understand complications of postnatal period**
- **Diagnose postnatal complications**
- **Manage the postnatal complications**
- **Know the minimal module of Maternal health unit**
- **Know the requirements of MCH Centre**

POSTNATAL CARE/ POST-PARTAL CARE

- **TWO AREAS**
 1. **Care of mother; responsibility of the obstetrician.**
 2. **Care of newborn; responsibility of obstetrician and pediatrician.**
- **PERINATOLOGY**

POSTNATAL CARE OF MOTHER

- **OBJECTIVES**

- 1. To prevent complications of the postpartum period.**
- 2. To provide care for the rapid restoration of the mother to optimum health.**
- 3. To check adequacy of breast feeding.**
- 4. To provide family planning services.**

POSTNATAL CARE OF MOTHER (cont)

- 5. To provide basic health education to mother and family.**
- 6. Immunization for future (Rh-factor).**
- 7. Diagnosis and treatment for minor problems.**
- 8. Immunization, feeding, weighing of baby.**
- 9. To monitor the period of puerperium (42 days) by TBA.**

COMPLICATIONS OF POSTPARTAL PERIOD

- 1. Puerperal sepsis (within 3 weeks)**
- 2. Thrombo-phlebitis**
- 3. Secondary hemorrhage (6 hours to 6 weeks)**
- 4. Other complications**
 - Urinary tract infection**
 - Mastitis etc**

RESTORATION OF MOTHER HEALTH

A. PHYSICAL.

- 1. Postnatal examination.**
- 2. Anemia.**
- 3. Nutrition.**
- 4. Postnatal exercise.**

B. PSYCHOLOGICAL.

- Postpartum psychosis.**

C. SOCIAL.

BASIC HEALTH EDUCATION

- **Hygiene; personal and environmental.**
- **Feeding of mother and infant.**
- **Family planning.**
- **Importance of health check-up.**
- **Birth registration.**

MINIMAL MODULE OF MATERNAL HEALTH UNIT

- 1. Community based services.**
- 2. First referral center for essential obstetric care.**
- 3. Effective communication and transportation between the community based services and the first referral center.**
- 4. The modules should be related to family planning services and to specialist obstetric services at the tertiary level.**

REQUIREMENTS FOR MCH CENTER

- 1. Site**
- 2. Building**
- 3. Staff**
- 4. Budget**
- 5. Work load**
- 6. MCH organization**

SITE OF MCH CENTER

- **Centrally located in a community.**
- **Easily accessible to all.**
- **Approach roads.**
- **Transportation.**

BUILDING OF MCH CENTER

- **Reception.**
- **Weighing room.**
- **examination room.**
- **Laboratory test.**
- **Immunization room.**
- **Room for medical officers.**
- **Conference room. (cont)**

BUILDING OF MCH CENTER

(cont)

- **Store.**
- **Dispensary.**
- **Family planning room.**
- **Well baby clinic.**
- **Under 5 clinic.**

STAFF OF MCH CENTER

- **Doctor**
- **Lady health visitor**
- **Mid wives**
- **Dias / Trained birth attendants (TBA)**
- **Motivators (for counseling)**
- **Clerk**
- **Peon**
- **Sweeper**
- **Driver**
- **Watchman**

BUDGET OF MCH CENTER

- **Pays**
- **Utility bills**
- **Transport**
- **Medicines and LAB chemicals**
- **Contingency / repairs**
- **Maintenance**
- **Other unavoidable requirements**

DATA

- 1. Fertility (per woman)**
 - 2. Awareness about contraception**
 - 3. Contraceptive prevalence rate**
 - 4. MMR per 100,000 births**
 - 5. IMR per 1000 births**
 - 6. Child MR per 1000 births**
- Source Pakistan Economic
Survey 2011**

PRACTICAL WORK

- Calculate Total MM for a population of 50,000 in a year....If MMR is 5/1000 live births And Birth rate of Pakistan is 28/1000

- Calculate Denominator (live births)
- For 50,000 = $28/1000 * 50,000 = 1400$ births
- $MM = 5/1000$
- $MM \text{ in } 1400 = 5/1000 * 1400 = 7$





THANK YOU

