Children are our future, and their mothers are its guardians. Yet, this year alone, more than half a million women will die in pregnancy or childbirth. Almost 11 million children will die before they reach the age of five—4 million of them in the first month of life. Almost all these deaths will happen in developing countries. A large number of them could be prevented.

~Kofi Annan
UN 7th Secretary General

The emotional, sexual, and psychological stereotyping of females begins when the doctor says, "It's a girl."

~ US Congresswoman Shirley Chisholm

Learning Objectives

- Distinguish between sex and gender differences
- Describe the determinants of women’s health
- Identify examples of violence against women
- Define key women’s health terms and identify major causes of maternal mortality
- Discuss the burden of disease for women worldwide
- Describe challenges and success stories in improving women’s health

Importance of Women’s Health

- Women face specific health problems
- Differences in health of men and women in a large number of countries
- Poor health of women has especially negative consequences on families and children
- Appropriate investments could result in a substantial number of deaths averted at low cost
- Yet, in some areas very insufficient progress

Status of Women: Inequality = Poor Health

- Poor health of a population related to LOW status of women
  - Lack of education, illiteracy, limited economic opportunity
- Not able to make their own health care decisions
- Not able to make reproductive decisions & results in adverse outcomes:
  - Sexually transmitted infections
  - More children than desired
  - Infertility
  - Increased risk of maternal or infant morbilities

Determinants of Women’s Health

- Related to Sex and/or Gender
  - Sex is biological
  - Gender is cultural
- Biological determinants
  - Unique risks due to menstruation and pregnancy
  - Increased susceptibility to STDs
- Social determinants
  - Gender norms that put females at a disadvantage
  - Inferior status leading to social, health, and economic problems

Meaning of Sex vs. Gender

**Sex: biological & physiological characteristics that define men/women**

- Women menstruate
- Men have testicles
- Women have developed breasts that are usually capable of lactating
- Men have more massive bones than women

**Gender: social roles, behaviors etc that society considers appropriate for men/women**

- Women earn significantly less money than men for similar work (United States & most countries)
- More men than women smoke, as female smoking is not traditionally considered appropriate (Viet Nam)
- Men are allowed to drive cars while women are not (Saudi Arabia)
- Worldwide, women do more housework than men

Source: WHO
Gender and Health Outcomes

Global Burden of Disease due to Reproductive Ill-health

<table>
<thead>
<tr>
<th>Disease</th>
<th>Female (%)</th>
<th>Male (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV/AIDS</td>
<td>5.8</td>
<td>5.5</td>
</tr>
<tr>
<td>STIs</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Maternal</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>1.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Perinatal</td>
<td>6.2</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Differences Between Health of Men & Women

- Women have higher life expectancy
- 19 conditions disproportionately affect females
  - Some specific to women
    - Maternal conditions
    - Cancers that affect females
  - Some related to females living longer
    - Alzheimer's disease
    - Osteoarthritis
    - Cardiovascular disease
    - Age-related vision disorders

Costs and Consequences

- Social isolation, as with violence
- Social impacts of maternal mortality during birth
  - Impact on health of children sometimes resulting in their death
- Economic costs
  - Direct costs of care
  - Indirect costs of lost productivity and contribution to family

Violence Against Women

- Sexual, physical, or emotional abuse by intimate partner, family member, or others
- Sexual harassment and abuse by authority figures
- Trafficking for forced labor or sex
- Traditional practices as forced or child marriages
- Dowry-related violence
- Honor killings
- Systematic sexual abuse in conflict situations

Disturbing Statistics

- A 10-country study on women’s health and domestic violence conducted by WHO in 2005 found:
  - Between 15% to 71% of women reported physical or sexual violence by a husband or partner
  - First sexual experience not consensual (24% in rural Peru, 28% in Tanzania, 30% in rural Bangladesh, 40% in South Africa)
  - Between 4% to 12% of women reported physical abuse during pregnancy

Child Marriage Consequences

- Denial of education: Once married, girls tend not to go to school
- Health problems: Premature pregnancies result in higher rates of maternal and infant mortality. Teenage girls more vulnerable to sexually-transmitted infections (HIV/AIDS)
- Abuse: Domestic abuse common. Children who refuse or marry against wishes of their parents often punished or even killed by their families in “honor killings”

Rekha, 11, stands with her groom Bheeram Singh, 16, after their wedding. Ignoring laws that ban child marriages, hundreds of children, some as young as seven years old, are married in a centuries-old custom across central and western India.
Adolescent Pregnancy

- **14 million girls** (15-19 years old) give birth each year
  - More than 10% of all births worldwide
- 90% of births to adolescents occur in marriage in developing world
- Risk of maternal death 2x higher for adolescent mother than other pregnant women

Human Trafficking

- **Forced labor** raises profits of $32 billion annually (UN International Labour Organization)
  - ⅔ earned in industrialized countries, 1/3 in Asia
- Estimated 12.3 million victims of forced labor
  - Most are women & children
  - 700,000 to 2 million trafficked across international borders annually (UN Population Fund)
- Vulnerability of women and children:
  - Of the world’s illiterate, 66% are women
  - Of 121 million children out of school, majority are girls
  - Lack of birth registration makes children more vulnerable

TVPA 2000

- Why type of work do you do?
- Are you being paid?
- Can you leave your job if you want to?
- Can you come and go?
- Have you or your family been threatened?
- What are your working and living conditions like?
- Where do you sleep and eat?
- Do you have to ask permission to eat/sleep/go to the bathroom?
- Are there locks on your doors so you cannot get out?
- Has your identification or documentation been taken from you?

Honor Killing

- 5,000 women murdered in name of honor annually
- **Perceived** dishonor often about:
  - Dress codes unacceptable to the family
  - Wanting out of arranged marriage or choosing to marry by own choice
  - Engaging in certain sexual acts or seen with other men
- Defense of honor justifies killing a person whose behavior dishonors family
Maternal Mortality Rate (MMR)

- Number of maternal deaths (related to childbearing) divided by number of live births (or number of live births + fetal deaths) in a year

\[ \frac{\text{# maternal deaths}}{\text{# live births + # fetal deaths}} \times 1000 = \text{MMR} \]

- Maternal deaths: disease of woman while pregnant (or within 42 days of termination of pregnancy) from any cause related to or aggravated by pregnancy or its management
  - Not accidental or incidental causes

---

Maternal Mortality Risk

Risk of mother dying due to childbirth related complications

<table>
<thead>
<tr>
<th>WORLD REGIONS</th>
<th>RISK OF MATERNAL DEATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>All developing countries</td>
<td>1 in 48</td>
</tr>
<tr>
<td>Africa</td>
<td>1 in 16 (1 in 13)</td>
</tr>
<tr>
<td>Asia</td>
<td>1 in 65</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>1 in 130</td>
</tr>
<tr>
<td>All developed countries</td>
<td>1 in 1800</td>
</tr>
<tr>
<td>Europe</td>
<td>1 in 1,400</td>
</tr>
<tr>
<td>North America</td>
<td>1 in 3700</td>
</tr>
</tbody>
</table>


Developed vs. Developing Countries

Maternal mortality ratio, by country, 2005

- Maternal deaths per 100,000 live births

      < 10  10-199  200-699  700-1,999  ≥ 2,000  not available


5 Major Direct Causes of Maternal Death

- Severe bleeding (haemorrhage) 25%
- Infections 15%
- Eclampsia 12%
- Obstructed labour 8%
- Unsafe abortion 13%
- Other direct causes 9%
- Indirect causes 20%


Regional Differences

- HIV/AIDS in Africa
- Anemia & obstructed labor in Asia more prevalent
**Access to Adequate Health Services**

- Recommended at least 4 antenatal care visits
- According to MDGs – 90% of births should be assisted by skilled attendants in 2015
- **Skilled attendant**: accredited healthcare professional such as nurse, midwife or physician

**Progress to MDG 5**

**Births attended by skilled personnel**

<table>
<thead>
<tr>
<th>Region</th>
<th>2015 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia &amp; Pacific</td>
<td>87</td>
</tr>
<tr>
<td>Europe &amp; Central Asia</td>
<td>45</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>81</td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>77</td>
</tr>
<tr>
<td>South Asia</td>
<td>41</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>85</td>
</tr>
</tbody>
</table>

*Source: World Development Indicators*

**Interventions for Maternal Deaths**

- **Magnesium Sulfate**
- **Oxytocics and Manual Compression**
- **Family Planning and Reproductive Care**
- **Adequate Abortion**: 12%
- **Anemia**: 12%
- **Severe Bleeding**: 34%
- **Infection**: 13%
- **Indirect Causes**: 30%
- **Other Direct Causes**: 80%
- Intrauterine growth retardation
- Other traumatic causes
- Pre-eclampsia
- Early pregnancy loss
- Subsequent pregnancy
- Perinatal trauma

**Interventions for Maternal Deaths**

**Maternal Morbidity**

- **300 million women** in developing world currently experience short or long-term illness related to pregnancy and childbirth
- Long-term complications include:
  - Incontinence
  - Pelvic Inflammatory Disease
  - Uterine Prolapse
  - Obstetric Fistula
  - Nerve damage
  - Infertility
  - Pain

**High rates of maternal death are associated with limited access to health-care services for expectant mothers**

**Health-care services for expectant mothers, 1997–2005**

<table>
<thead>
<tr>
<th>Region</th>
<th>Skilled attendants at delivery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia and Pacific</td>
<td>20</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>25</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>40</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>40</td>
</tr>
<tr>
<td>South Asia</td>
<td>20</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>25</td>
</tr>
</tbody>
</table>

**TABLE 9-5 Basic Care Packages for Pregnancy at the Primary Level**

- **Routine Prenatal Care**
  - Clinical examination
  - Obstetric and gynecological examination
  - Urine test
  - Laboratory tests: hemoglobin, blood type and Rh status, and other tests for sexually transmitted disease
  - Advice on emergency, delivery, lactation, and contraception

- **Maternal Morbidity**
  - Delivery:
    - Clean delivery technique, clean cord cutting, clean delivery of baby and placenta
    - Active management of the third stage of labor
    - Epi-injections in appropriate cases
    - Recognition and first-line management of delivery complications
    - Intravenous fluids
    - Intravenous antibiotics, if bleeding occurs
    - Essential newborn care
    - Intravenous antibiotics

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  - Uterine Prolapse
  - Obstetric Fistula
  - Nerve damage
  - Infertility
  - Pain
Pelvic Inflammatory Disease

- Infection of the uterus, fallopian tubes and other reproductive organs
- **Common and serious complication** of some sexually transmitted diseases, especially chlamydia & gonorrhea
- May lead to severe disease (infertility, ectopic pregnancy, abscess formation, chronic pelvic pain)

**THE FACTS**
- Pelvic inflammatory disease (PID) is a serious complication of some sexually transmitted diseases (STDs)
- PID is a general term for infections of the uterus, ovaries, and fallopian tubes
- PID is common. Women can get PID if they have an STD like chlamydia (or HIV) or gonorrhea [gonisos are one of the most common], PID can be treated, and being treated promptly may reduce your chance of having complications from PID

Chlamydia trachomatis

- **Most common** sexually transmitted bacterial disease (most reported in US)
- Bacteria may damage a woman’s reproductive organs
- **Symptoms usually mild or absent**
  - Abnormal vaginal discharge
  - Burning sensation when urinating
  - Pain during intercourse
  - Lower abdominal pain
  - Low back pain
  - Nausea
  - Fever
  - Bleeding between menstrual periods
- Serious complications may cause irreversible damage, including infertility, before woman recognizes a problem


<table>
<thead>
<tr>
<th>Age</th>
<th>Male Rate (per 100,000 population)</th>
<th>Female Rate (per 100,000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>11.64</td>
<td>12.89</td>
</tr>
<tr>
<td>15-19</td>
<td>10.66</td>
<td>12.75</td>
</tr>
<tr>
<td>20-24</td>
<td>9.89</td>
<td>10.08</td>
</tr>
<tr>
<td>25-29</td>
<td>9.37</td>
<td>9.46</td>
</tr>
<tr>
<td>30-34</td>
<td>8.10</td>
<td>8.46</td>
</tr>
<tr>
<td>35-39</td>
<td>6.56</td>
<td>6.98</td>
</tr>
<tr>
<td>40-44</td>
<td>5.68</td>
<td>5.85</td>
</tr>
<tr>
<td>45-49</td>
<td>4.54</td>
<td>4.64</td>
</tr>
<tr>
<td>50-54</td>
<td>4.41</td>
<td>4.64</td>
</tr>
<tr>
<td>55-64</td>
<td>3.22</td>
<td>3.41</td>
</tr>
<tr>
<td>Total</td>
<td>29.17</td>
<td>30.65</td>
</tr>
</tbody>
</table>

STI Stats

- Every day nearly 1 million people acquire a new STI
- Worldwide, >340 million new cases of curable STIs & more new viral (non-curable) infections occur each year
- Up to 80% of curable STIs occur in developing world
  - Highest rates in adolescents and young adults
- Untreated maternal STIs lead to 4000 newborn babies blinded every year despite available preventions (topical infant eye medication)

STI Prevention & Control

- Reduce new infections
- Reduce complications of infection
- Reduce transmission to newborns

Family Planning

- Knowledge and access to reproductive health services
  - Enables women and families to plan their growth, leads to lower fertility rates and reduced poverty
- **Pregnancies that are planned and well-spaced** often result in better maternal and infant outcomes
- Family planning services often also include:
  - Access to contraception
  - Education about STIs and methods of prevention
  - Treatment or referral for health concerns (malaria, STIs), safe abortions, prenatal care, labor/delivery, and infant care
  - Nutrition programs (supplements such as folic acid)
**Importance of Contraceptive Use**

**Family Planning: Unmet Needs**

- WHO estimates:
  - 123 million women (mostly developing countries) do not use contraception even though they want to limit or space their births
  - 38% of pregnancies in the world are unintended
    - 6 out of 10 end in abortion

**Contraceptive Use**

**Unintended Pregnancy: Contraceptive Use**

**Morning After Pill**

- Emergency contraception
- Birth control to prevent pregnancy up to five days after unprotected sex
- Safe and effective
- Available at health centers and drugstores
- Costs vary from $10 to $70

**Abortion**

- Abortions obtained for a variety of reasons
  - Failure of contraceptive
  - Inability to support child
  - End unwanted pregnancy
  - Birth defects
  - Pregnancy from rape/incest
- Obtaining an abortion in the developing world is relatively same as in the developed world
- BUT, ability to obtain legal and safe services often differ greatly
Unsafe Abortion Worldwide

- Worldwide, 20 million women have unsafe abortion each year
  - 18.5 million occur in developing countries
  - 67,000 – 70,000 women die from complications - all in developing countries
- Nearly 60% of all unsafe abortions in Africa are among young women aged 15-24 years

Unsafe Abortion Facts & Methods

- Drinking tobacco, bleach or tea made with livestock manure
- Inserting herbal preparations into the vagina or cervix
- Placing foreign bodies, such as a stick, coal hanger or chicken bone, into the uterus
- Jumping from the top of stairs or a roof

MCH Continuum of Care

- Ultimately, continuum of care should underlie maternal, newborn and child health programs
- Variety of services needed within lifecycle from adolescence and before pregnancy, during pregnancy, during birth, newborn and childhood
- Skilled care prevents health complications for mother and newborn

Future Challenges

- Improve nutritional status of females
- Enhance access to education
- Encourage communities to put greater value on women’s health
- Put greater emphasis on females as people rather than as childbearers

Key Interventions

- Family planning
- Behavior change to promote safer sexual practices
- Measures to reduce intimate partner violence
- Reduce 3 delays to cut maternal death
- Enhance ability to deal with unsafe abortion

Practice Questions

- How is health impacted by low status of women?
- What is the difference between sex & gender? Name 3 examples of sex vs gender characteristics.
- Name 3 examples of violence against women.
- Define family planning, obstetric fistula, sepsis.
- Identify regions where maternal mortality is highest, lowest. Describe major causes of maternal mortality.
- Identify maternal health interventions. Name 3 items of basic prenatal care. Name 3 items of basic delivery care.
- Identify 3 long-term complications of maternal morbidity & STIs.
- Who is most affected (infected) by chlamydia?
- Name 3 services also provided in family planning programs.
- Describe differences between access and safety of abortions.
- Name 3 future challenges to women’s health.

In Summary...

- “Being born female is dangerous to your health”
- Some conditions are biologically determined
- Other are socially determined
- Women often have inferior social status
- Women are disproportionately affected by certain conditions
- Several key health issues are especially important for women:
  - Nutrition
  - Sex-selective and unsafe abortion
  - Discriminatory health care practices toward young girls
  - Sexually transmitted diseases
  - Female genital cutting
  - Violence