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The Development of a Reproductive Health Curriculum for Female Bhutanese Refugees in Atlanta, Georgia: A Special Studies Project

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The Development of a Reproductive Health Curriculum

for Female Bhutanese Refugees in Atlanta, Georgia:

A Special Studies Project

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An abstract of a thesis submitted to the Faculty of the Rollins School of Public Health
of Emory University in partial fulfillment of the requirements for the degree of
Master of Public Health in Global Health 2012.

Abstract

The Development of a Reproductive Health Curriculum
for Female Bhutanese Refugees in Atlanta, Georgia:
A Special Studies Project

By: Erica Avidano

Background: Resettled refugees are at high risk for poor health literacy and subsequent health outcomes. This is particularly true in regards to reproductive health, an area which is often taboo and given low priority in the lives of female refugees. Reproductive health is essential to a woman's overall health and livelihood and has a significant impact on her family, community, and society as a whole. Unfortunately, many refugees have limited access to reproductive information, services, and rights. This has been the case for the thousands of Bhutanese refugees who have been resettled from Nepali refugee camps to their new homes in Atlanta, Georgia.

Purpose: The purpose of this project was to develop a reproductive health curriculum specifically targeted towards female Bhutanese refugees. The reproductive health curriculum will be incorporated into a broader refugee health literacy curriculum currently being developed by Georgia Refugee Health and Mental Health (GRHMH). It will provide a usable, comprehensive, medically accurate, and culturally sensitive tool for refugee organizations working in the Atlanta area.

Methods: The reproductive health curriculum was developed with input from refugee aid organizations, leaders in the Bhutanese community, and members of the target audience and was informed by a variety of reliable medical resources. The curriculum, consisting of five modules, was pilot tested in two local settings and was evaluated through the use of pre/post tests, feedback surveys, and verbal input.

Results: The reproductive health classes were attended by an average of 12 women per class, ranging in age from their late teens to early sixties. Pre/post test results showed a statistically significant improvement of knowledge during six out of eight class sessions, and the refugees reported positive feedback for both the curriculum content and classes. The curriculum was revised, and a final product was created based on input from the refugees, pre/post test results, classroom observations, and suggestions from GRHMH staff, as well as nursing and public health faculty.

Discussion: Further efforts should be made to expand the curriculum and address the needs of other target refugee populations. This should be accomplished through continued collaboration with the Bhutanese community and local refugee aid organizations.

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Acknowledgements

There are several people I'd like to thank for their support and encouragement in this project and beyond. Firstly, I'd like to thank Dr. Roger Rochat, my thesis advisor, for his kind encouragement, support, and advice throughout this process. I'd also like to thank my MSN program advisor, Dr. Sarah Freeman, for her assistance in reviewing my curriculum and for supporting me throughout my program. Roger and Sarah, both of you have been amazing advisors and professors. The enthusiasm, knowledge, and wisdom you've shared with me have strengthened not only my abilities, but also my passion for women's health and reproductive rights. I'm extremely grateful to both of you and to all of my teachers who've guided me throughout my academic career.

Next, I'd like to thank the director of Georgia Refugee Health and Mental Health, Dr. Kathleen Connors. This project would not have been possible without you. Your passion and dedication to the refugee community is truly inspirational. Thank you to all of the GRHMH volunteers and Bhutanese community members, especially to our translators and co-teachers: Bishnu Chhetri, Puspa Alay, Srijana Rajbhandary, and Birkha Guragai. I've learned so much and have truly enjoyed working with each and every one of you.

Last but not least, I'd like to thank my friends and my loving family for their patience, encouragement, support, and kindness during this process, throughout the past two years, and beyond.

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Chapter 1: Introduction and Background

Introduction and Significance

The United States of America is the top refugee re-settler in the world, with more than 56,000 refugees admitted in the year 2011 alone (UNHCR, 2012; COR 2011). Refugees from across the globe are often resettled in metropolitan areas such as Atlanta, a city which serves as a new home for thousands of people from nations such as Iraq, Burma, and Somalia. Refugees from Bhutan, a small South Asian country, make up one of the largest groups of refugees in Atlanta.

These refugees face many hardships both on their journey as refugees and in their resettlement countries. One of these hardships is access to health, and for women in particular, access to reproductive services and information. This chapter will begin by discussing the journey of the Bhutanese refugees and how their reproductive health has been impacted along the way.

Life in Bhutan. Bhutanese refugees began arriving in Atlanta in 2008 (CDC, 2009). Prior to their arrival in the United States, these refugees faced harsh realities both in their homeland of Bhutan and in the Nepali refugee camps which served as their home for more than 17 years. Most Bhutanese refugees are Lhotshampas, or "people living in the south," an ethnic group originally from Nepal. The Lhotshampas settled in Bhutan in the 19th century and were granted full citizenship in 1958. The Nepali speaking Lhotshampas lived and worked peacefully in Bhutan until the 1980s when the ethnic majority began to see them as a political and cultural threat (AHURA Bhutan).

In the 1980s, the government of Bhutan began a "One Nation, One People" campaign, passing several repressive acts of legislation. New laws redefined and restricted citizenship and made discriminatory cultural restrictions such as forcing traditional western Bhutanese clothing and customs on the Lhotshampa, prohibiting Nepali from being taught in school, and restricting travel outside of the

country (AHURA Bhutan; HRH 2007). After protesting by the southern Bhutanese, the Lhotshampas were denied the "No Objection Certificates" which were necessary for them to work or attend school (AHURA Bhutan). Those who defied these new laws were fined or imprisoned (Hutt, 2010).

In 1990, peaceful protests and demonstrations led to gross human rights violations by the Bhutanese government including: imprisonment without trial, torture, rape, destruction of homes and closure of schools, restricted access to health services and essential goods, denial of the right to work, and retraction of citizenship. Ultimately, the Lhotshampa were forced to sign forms which stated they "voluntarily" chose to leave Bhutan. In reality they were forcibly evicted, with 130,000 southern Bhutanese losing their homes by 1993 (AHURA Bhutan).

Life in Refugee Camps. UNHCR became involved in the crisis in 1992, and 105,000 Bhutanese refugees were housed in seven Nepali refugee camps until resettlement began in 2008 (Hutt, 2010). Although conditions in these camps were said to be better than others, Bhutanese refugees still faced hardships during their years in Nepal.

Housing consisted of cramped quarters and huts made of bamboo, and safety was a concern, particularly for women and girls (Hutt, 2010). A compulsory education system spanning from primary school to 10th grade was established, but due to high teacher turnover in recent years, pass rates have steadily declined. Furthermore, students often did not get the chance to pursue higher education, and employment opportunities were limited due to the Nepali law prohibiting Bhutanese refugees from working outside of the camps. Although some still did illegally, most Bhutanese were restricted to very low or no-income generating jobs making commodities like blankets or roofing materials (World Refugee Survey, 2009).

Women and Girls in Refugee Camps. Approximately 80% of refugees worldwide are women and children – a population which is particularly vulnerable to the hardships of life in refugee camps (RHR,

2001). Along with children, women are the most at-risk groups in situations of war, forced migration, and displacement (UNFPA, 2005). This is due, in part, to cultural gender norms. Instead of making joint decisions with their husbands like they had in Bhutan, women were subjected to a strongly patriarchal society within the refugee camps. Women could only register themselves and their children at the camp through their husbands; thus the husband gained control of food rations, shelter, supplies, and essentially, the family. This made it near impossible for a woman to leave her husband, even in abusive or unfavorable circumstances (HRW, 2003).

Adolescent girls were also put in dangerous circumstances. Since the Bhutanese law prohibiting marriage under age 18 was not enforceable in camps, teens would oftentimes elope at very young ages. These marriages were not registered and therefore not legally recognized, putting young females in highly vulnerable situations (Brennan, 2005). Furthermore, for girls who became pregnant, school was, until recently, prohibited. Although this law changed in 2002, refugees' attitudes did not. Unmarried pregnant girls were stigmatized and discriminated against by society, including at school. Therefore, many girls were forced to leave school early and sacrifice their education (Brennan, 2005). Girls and women were also expected to take on more of the household work, and did not enjoy equal representation in family or community units or decision-making (COR, 2007).

Reproductive Health in Refugee Camps. Health services and information were also often poorly accessible to Bhutanese women and girls. Although services were available in camps, health centers were not evenly distributed within the population, healthcare workers saw over 100 patients a day, and privacy violations were rampant. At primary health centers over 70% of staff were male, making women even less likely to seek healthcare (Brennan, 2005).

A major contributor to a woman's health and well-being is her reproductive health. Worldwide, women of reproductive age suffer greatest morbidity and mortality in the area of reproductive health,

but for refugees, women's health care and personal needs are often ignored and replaced by the needs of the men and children in their families.

Prior to 1994, reproductive health was not seen as a priority for refugees in emergency situations. In fact, it was not seen as a priority in the refugees' homeland of Bhutan at this point either. Although the Bhutanese government first introduced family planning and maternal-child health into its health services in 1967, it was widely unavailable for quite some time. Methods of family planning such as Depo Provera, non-scalpel vasectomy, and IUDs, for example, were only introduced in the early 1990s (Bhutanese MOH, 2010). Perhaps for this reason the Total Fertility Rate in 1994 was still greater than 5 (Hutt, 2010). Furthermore, the Maternal Mortality Ratio for Bhutan in 1990 was 560 per 100,000 live births with only 15% of births attended by a skilled provider (UNDP, 2012). Thus the Bhutanese faced rudimentary reproductive health services which only got worse as they entered the refugee camps.

After the International Conference on Population and Development in Cairo and the release of the 1994 report *Refugee Women and Reproductive Health Care: Reassessing Priorities*, aid organizations and governments began to recognize that reproductive health is "not a luxury, but a necessity that saves lives and reduces illness" (RHR, 2001). Unfortunately, this was after most Bhutanese fled their country, so emergency reproductive services may not have been initially provided for them. However, reproductive health services were eventually offered to Bhutanese refugees living in Nepali camps. Unfortunately though, as the report *Refugee Health in Nepal* shows, the Sexual and Reproductive Health program "in the camps [was] lagging behind and [did] not conform to minimum standards" (Brennan, 2005).

The report found that although antenatal care uptake was high within the camps, with an average of 10 antenatal care visits per pregnancy, only about 30% of women gave birth in a healthcare facility. For women wishing to prevent pregnancy, although modern contraceptives were technically

available in camps, supply shortages, cultural constraints, and lack of knowledge contributed to a low contraceptive prevalence rate of 30%. A large disparity also existed between desired family size (2-3 children) and actual family size (6.8). Furthermore, although abortion was legal in Nepal, women were unaware that these services were available and instead commonly resorted to "taking medicines" or performing unsafe abortions (Brennan, 2005).

The 7 refugee camps in Nepal, like others around the world, also saw a high rate of STIs and HIV/AIDS. Because refugees and displaced persons are often relocated to areas of high population density, are exposed to new host country populations, and are vulnerable to sexual abuse or forced prostitution, rates of STIs and HIV/AIDS are typically high (RHR, 2001). Unfortunately, refugee knowledge in this area was limited at best. In focus group interviews done at the camps, none of the women knew what STIs were, and men who knew about them believed that they could only be contracted from people living outside of the camp. Thus, treatment seeking behavior, and assumingly prevention behavior, was low. Perhaps as a result of decreased knowledge and the subsequent under treatment of STIs, Bhutanese refugees also reported high rates of infertility (Brennan, 2005). Although adolescents and school aged children tended to be more aware of STIs and HIV/AIDS, this knowledge came from radio programs, and not from school or community outreach.

Lastly, this report found that sexual and gender-based violence was also a huge threat to the health and well-being of Bhutanese women. Rape, sexual assault, and trafficking were reported in the camps, and limited work was done to raise awareness of this issue. Domestic violence and polygamy were also prevalent mechanisms of abuse, but were not as fervently addressed. This despite the fact that these were a main cause of discrimination against women and contributed to high rates of depression among Bhutanese refugees. Because of privacy and taboo, awareness campaigns

infrequently addressed these issues. Cultural perceptions and stigma persisted against women who have experienced or reported these types of abuse (Brennan, 2005).

By examining the results of this report, we can see that a major barrier in reproductive wellness is a lack of information, education, and empowerment in this area of health. Women carried a heavy burden in refugee camps where they were taught little about sexuality, reproduction, and fertility control. Within the camps, sexual and reproductive health was only taught in the 9th and 10th grade. Unfortunately, because of elopement and early marriage, sexual violence, and forced prostitution, many adolescent females were exposed to sex at an earlier age, before they received this information. Adults, those who dropped out of school, and those who were forced to leave due to pregnancy also lacked the ability to receive this information. Girls who were afforded the benefit of attending these reproductive health classes reported that they were too shy to ask questions in front of their male classmates, and teachers reported being undertrained and uncomfortable teaching these topics (Brennan, 2005).

Resettlement and Health. Despite ongoing negotiations, the Bhutanese government has continued to refuse the re-admittance of the Lhotshampa people back into their country. With no other options, a large majority of Bhutanese refugees have chosen to be resettled in third party countries. The United States has promised to resettle 60,000 Bhutanese refugees, with Atlanta being “one of their main destination points” (CDC, 2009). Although resettled refugees have the opportunity for a better future, they still face obstacles in their new homes.

As was the case in the camps, refugees face major difficulties in obtaining needed healthcare services and information in their resettlement countries. Although refugees are screened when they arrive in the United States, healthcare often becomes less of a priority as their families adjust to a new life. As previously discussed, this is especially true for women. Furthermore, in addition to financial barriers and loss of government issued insurance after 8 months, refugees face other social barriers to

care. Transportation and language can be significant barriers, as can a lack of cultural understanding on the part of healthcare providers (Pennsylvania Medical Society, 2012). Health literacy, or lack thereof, is another significant obstacle in a refugee's health attainment.

As we've seen, refugee women face a significant burden of disease, particularly in the area of reproductive health, but often lack the education or health literacy to seek appropriate care. This is true both in refugee camps, and in resettlement countries. Educating women about reproductive health empowers them to effectively plan families, request recommended screenings and care, and make their health a priority (IRC, 2012).

Georgia Refugee Health and Mental Health (GRHMH) is just one of several organizations seeking to do just that. Focusing mainly on the Bhutanese population living in Clarkston, Georgia, GRHMH's volunteers help refugees obtain needed health services and teach them to navigate the US healthcare system. Recently, a new health literacy project by GRHMH has sought to empower refugees even further in their journey towards health, with women's and reproductive health being one of its main priorities. Plans for this project include the creation, implementation, and evaluation of a comprehensive and culturally competent reproductive health curriculum for Bhutanese women.

Problem Statement

For Bhutanese women, the problem of inaccessible reproductive health services and information has traveled with them from Bhutan, to the refugee camps of Nepal, and now into their new lives in the United States. The implications of these problems are vast and impact both an individual's health and well-being, as well as the health of the public.

The need for a refugee-targeted curriculum focusing specifically on reproductive and women's health issues was identified through various avenues. First, health navigators and translators

volunteering with Georgia Refugee Health and Mental Health (GRHMH) reported observing a general lack of health literacy among refugees while accompanying them to clinic appointments. This included difficulties with navigating the US healthcare system and communicating with providers, as well as a lack of familiarity with human anatomy and disease processes. This problem was particularly noticeable in several key health areas including sexual and reproductive health, a topic which is generally taboo within the Bhutanese culture.

Two local refugee groups also recognized reproductive health education as a priority and requested help from GRHMH in conducting informational sessions for their adolescents and women. Lastly, interviews with several key informants, including Bhutanese community leaders, local refugee aid organizations, and Bhutanese women from the target audience also identified reproductive and women's health as an area of needed education.

Purpose Statement

The purpose of this special studies project is to create, implement, and evaluate a reproductive health curriculum for female Bhutanese refugees living in the Atlanta area. This curriculum will be part of the larger health literacy curriculum which Georgia Refugee Health and Mental Health is currently developing. The content of the reproductive health curriculum is informed by key informant interviews as well as through informal discussions with Bhutanese women who identified the following topics as priorities:

- Female and male anatomy
- Menstruation
- Women's health exams
- Sexually transmitted infections
- Birth control
- Fertility and Infertility
- Healthy pregnancy
- Domestic violence

In developing this curriculum several key objectives should be met:

Objective 1: Identify gaps in reproductive health knowledge, possible cultural constraints, and key areas of interest within the Bhutanese population.

Objective 2: Use these findings to inform a comprehensive and effective reproductive health curriculum for Bhutanese women of reproductive age.

Objective 3: Implement the curriculum's lesson plans in the Bhutanese community.

Objective 4: Evaluate the effectiveness of the curriculum through the use of pre/post tests and feedback surveys.

The stated priority topics and key objectives should serve to improve the knowledge base of Bhutanese females in the area of reproductive health. This in turn should empower them to adopt appropriate health seeking and preventive behavior, have greater agency in their reproductive choices, possess the ability to effectively plan families, and identify their health and well-being as a life priority.

Definition of Terms

Refugee: a person who "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country" (UNHCR, 1951)

Curriculum: "a set of courses constituting an area of specialization" to be used by educators to teach students (Merriam Webster Dictionary, 2012)

Health Literacy: "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Healthy People, 2010)

Women of Reproductive Age: women aged 15-49 (USAID, 2012)

Total Fertility Rate (TFR): the total number of children a woman would bear if she were to experience at each age the observed age specific fertility rates and survive to the end of her reproductive years (CIA World Factbook, 2012)

Contraceptive Prevalence Rate (CPR): the percent of women of reproductive age who are using (or their partner is using) a contraceptive method (WHO, 2012)

Maternal Mortality Ratio (MMR): the number of maternal deaths per 100,000 live births (WHO, 2012)

Abbreviations

GRHMH: Georgia Refugee Health and Mental Health

LHL: Low Health Literacy

Chapter 2: Review of Literature

In creating this curriculum, two key concepts were explored: the importance of improving health literacy and the impact of reproductive health education on women.

Health Literacy

This special studies project seeks to address the issue of health literacy, or lack thereof, among Bhutanese women, particularly in the area of reproductive health. The concept of "health literacy" was first addressed in a 1974 paper aimed at improving health education for school-aged children (Singleton, 2002). In 1993, health literacy began to receive higher priority in the healthcare field after the National Adult Literacy Survey revealed a pressing need for the American public to be more informed about issues of health (Diehl, 2004). Health literacy is now seen as one of the IOM's highest priorities, was included in the US government's *Healthy People* initiative, and is recognized as a key component in health promotion, quality improvement efforts, and better health outcomes (Fergeson, 2011).

Definitions of Health Literacy. Throughout the years, the definition of "health literacy" has greatly expanded. The idea of what actually constitutes health literacy has been addressed by many governmental and international bodies, as well as by many of the leading health journals. Early on, the definition of health literacy focused solely on a person's ability to read and understand health materials and fill out medical forms (Ingram, 2011). With increased attention placed on health literacy however, many have realized that health literacy encompasses much more than this. Although the "ability to use English to solve health-related problems" (Singleton, 2002) is still a key component of health literacy, other social and cognitive abilities have been added to the definition.

Health literacy is now seen to include the ability to access health and prevention services, understand mechanisms of health and illness, receive and comprehend health information, and act on

that information to improve one's health (Fergeson, 2011). Other definitions cite the ability to interact with health professionals and participate in one's own healthcare, the ability to effectively seek out appropriate care and prevention, and the ability to make informed choices and reduce health risks as essential factors in health literacy (Hill, 2004). Although definitions vary, it is commonly accepted that health literacy is "more than reading comprehension and understanding figures" (Martensson, 2012).

Some experts in the field have broken health literacy down into three core competencies in order to better understand what constitutes a health literate individual. Basic or functional health literacy is derived from health literacy's earliest definition and includes reading and writing abilities (Nutbeam, 2000). Functional health literacy would, for example, enable an individual to read and understand prescription labels, appointment cards, or discharge instructions.

The next type of health literacy is communicative or interactive health literacy. According to Nutbeam, this type of health literacy incorporates the "more advanced cognitive and literacy skills which, together with social skills, can be used to actively participate in everyday activities, to extract information and derive meaning from different forms of communication, and to apply new information to changing circumstances" (2000). Interactive health literacy enables an individual to communicate clearly with healthcare professionals and to effectively participate in their healthcare decisions using the information obtained from these interactions. This type of literacy should increase a person's confidence in medical scenarios and enable them to act more independently and knowledgably (Nutbeam, 2000).

Lastly, critical literacy includes the ability to gather information and analyze it in order for an individual to "exert more control over their lives" (Hill, 2004). Critical literacy increases an individual's and community's ability to participate in political and social activities to address the social determinants necessary for improved health (Nutbeam, 2000). According to Nutbeam and other scholars, as an

individual moves deeper through the progression of health literacy, she or he gains "greater autonomy and personal empowerment" (2000).

***Health Literacy in the United States of America*.** In 2003, the National Center for Education Statistics conducted a survey of more than 19,000 adults to determine the status of literacy, including health literacy, in the United States. Data from this National Assessment of Adult Literacy revealed that unfortunately, only a very small percentage of Americans possess a level of health literacy sufficient enough to grant them "autonomy and empowerment." Only 12% of adults were deemed proficiently health literate, meaning that almost 90% of adults have trouble comprehending basic health information (USDHHS, 2008). Furthermore, studies have shown that about 77 million people in the United States struggle with basic health tasks such as following immunization schedules or understanding prescription instructions (Pagan, 2011).

A person's level of health literacy varies depending on certain risk factors. For this reason, Donald Nutbeam, one of the leading researchers of health literacy, concludes that health literacy should be explored from a social determinants of health framework (2000). This framework offers a "more comprehensive approach…which explicitly acknowledges social and environmental influences" (Nutbeam, 2000). Myriad studies have determined that those at highest risk of having poor health literacy include the unemployed (Lindau, 2002), those with a low socioeconomic status (Shaw, 2008; Ferguson, 2011; Lindau, 2002), racial and ethnic minorities (USDHHS, 2008; Ingram, 2011; Shaw, 2008), and the elderly (USDHHS, 2008; Ferguson, 2011; Bohlman, 2004) just to name a few. In addition, those with poor literacy or low educational attainment are also prone to low health literacy (Bohlman, 2004; DHHS, 2008; Ingram 2011).

Refugees are particularly vulnerable to poor health literacy due to the interplay of all of the aforementioned social and environmental factors (Dewitt, 2007). According to Tollefson, a 1982 study

on refugees “found that more than half of what took place during visits to clinics was incomprehensible to refugees and that 40% had no understanding of the diagnoses of their illness” (1985). Refugees are even more at risk for LHL because they oftentimes become uninsured once their refugee Medicaid expires eight months after they arrive. Studies have found that 53% of uninsured adults have basic or low health literacy as compared to only 24% of insured adults (Pagan, 2011). Furthermore, because many refugees have limited to no English proficiency and have limited access to health programs, obtaining, analyzing, and using health information is particularly challenging for this group (Harris, 2011; Singleton, 2002). As previously discussed, refugees often lack basic health care throughout their journey, and many have a poor understanding of body and disease processes, preventive medicine, and the overall system of healthcare in the United States (Singleton, 2002). Even for refugees with higher levels of knowledge or language proficiency, there is oftentimes a disconnect “with the culture of health materials” or a lack of cultural competence on the part of providers (Singleton, 2002).

Female refugees are even more vulnerable to low health literacy because in addition to the risk factors already discussed, their vulnerability is compounded by cultural and gender norms. Refugee women tend to have less access to education and poorer literacy both in their native language and in English, impacting their ability to gain health knowledge (Benson, 2010). According to Dr. Jill Benson, female refugees may also experience poor health literacy due to traumatic experiences prior to their resettlement and difficulties adjusting to their new lives in the United States. Women may find themselves in new roles and may not have adequate social support when family members and friends are left behind in refugee camps. However, because of gender roles, women will be expected to serve as the family caretakers and for this reason, may have more contact with health providers than men do. Therefore, it is important to focus particularly on women when implementing health literacy programs (Benson, 2010).

The Implications of Poor Health Literacy. Myriad studies have determined that low health literacy poorly affects an individual's health (Ingram, 2001; Berkman, 2011; Ferguson, 2011; Lindau, 2002; etc). Patients with low health literacy (LHL) are less likely to effectively communicate with healthcare providers and are more likely to have difficulty filling out health forms, comprehending medical instructions, and properly following a treatment regimen (Hill, 2004). Those with LHL are also less likely to remember their diagnoses or any treatments they may have had even just immediately after their appointments (2004). This may lead to "patient non-compliance" or, at its worst, to potentially deadly healthcare mistakes (Ingram, 2011).

In addition to a general difficulty in participating in their healthcare, individuals with low health literacy are at an increased risk for disease specific morbidities. Bohlman found that those with poor health literacy had a "decreased ability to share in decision making about prostate cancer treatment, lower adherence to anticoagulation therapy, and less glycemic control" (2004). Furthermore, those with LHL are more likely to experience symptoms of depression (Berkman, 2011) and more likely to report a poor health status than those with adequate health literacy (Lee, 2004). Shame, stress, and poor self-efficacy were also reported by LHL individuals (Ferguson, 2011).

Poor disease outcomes may be related, in part, to the fact that those with low health literacy are less likely to utilize preventive health services (Lee, 2004; Andrulis, 2007; Harris, 2011). Pagan found that health literacy impacts a person's ability to understand the concept and benefits of preventive screening, and that those without adequate health literacy are more skeptical of these services (Pagan, 2011; Lee, 2004). This translates to a lower uptake of dental and vision screenings, cancer and osteoporosis screenings, and influenza vaccinations among low health literacy (LHL) individuals (Lee, 2011).

Despite, or perhaps because of their limited ability to navigate the healthcare system, lower uptake of preventive services, and misunderstandings of treatment and health promoting regimens, those with low health literacy tend to have higher rates of hospital use (Berkman, 2011). LHL often manifests itself in unnecessary emergency or hospital care (Lee, 2004; Bohlman, 2004; Berkman, 2011) and costs the United States anywhere from $106 to $238 billion each year (Vernon et al, 2007).

The Implications of Poor Health Literacy on Reproductive Health. Similar outcomes can be seen when exploring the relationship between LHL and reproductive health. A study of Latina women in New York City found that women with poor functional health literacy in Spanish were 16.7 times less likely to have ever had a pap smear (Lindau, 2002). Furthermore, LHL women were less likely to have had a follow-up of an abnormal pap smear and a higher percentage of LHL women (30%) than adequate HL women (19%) said they didn't think follow-up was necessary in such a case (Lindau, 2002).

Similar results were seen with breast cancer screenings, with LHL women having lower rates of mammography. Researchers found that LHL women were "more likely to have negative attitudes about" mammography and that they oftentimes lacked the knowledge to be able to "assess the risks and benefits of mammography screening" (Pagan, 2011; Berkman, 2011). Another study found that low health literacy individuals being treated for HIV/AIDS were more likely to believe such falsities as "anti-HIV drugs could substitute for safe sex" (Lee, 2004). As we recall, similar life-threatening misperceptions were seen among Bhutanese men living in the Nepali refugee camps.

Further review of the literature reveals that pregnant women with LHL are less likely to be aware of the effects of smoking during pregnancy (Arnold, 2001), were more likely to initiate antenatal care after the first trimester and have poor subsequent follow-up (Bennet, 2006), and were less likely to adequately understand the purpose and procedures of prenatal screening tests (Cho, 2007). Furthermore, pregnant women with pre-gestational diabetes and LHL were at higher risk of having a

large for gestational age (LGA) baby and were less likely to have planned their pregnancy than women with pre-gestational diabetes and adequate health literacy (Endres, 2004). This could be related to the fact that high health literacy women are 4.5 times more likely to be aware of their fecundability in relation to their menstrual cycle and know about various birth control methods than LHL women (Gazmarian, 1999).

The Importance of Improving Health Literacy. Low health literacy has vast implications for the healthcare system, for communities and populations, and for individual health outcomes, particularly in the area of reproductive health. The need for addressing low health literacy has gained increasing importance as more has been revealed in recent years about its negative impact on morbidity and mortality (Ferguson, 2011). The need for successful interventions has also become more apparent as "advancing medical developments demand that patients become more proactive and self-advocating than ever before" (Singleton, 2002) and as individuals are exposed to conflicting sources of health information through media outlets, the Internet, commercials, etc (Bohlman, 2004).

Improved health literacy can better help individuals navigate through complex health systems, analyze and understand important health messages, and effectively participate in their healthcare (Hill, 2004). For females, health literacy not only impacts the woman's health, but also impacts her children's and family's healthcare and practices (Lindau, 2002). Thus, health promotion activities for women should focus significantly on improving health literacy as well (Lee, 2011).

Addressing Low Health Literacy. Improving health literacy essentially improves a person's self-efficacy and empowers them to more knowledgably participate in their own healthcare (Martensson, 2012). Efforts to improve health literacy vary from the creation of reading level appropriate print materials (Andrulis, 2007) to the assessment of every patient's health literacy level (Speros, 2011) to the

strengthening of community support networks (Lee, 2004), but across all interventions, culturally relevant education is vital (Ingram, 2011).

Culture is defined as "the integrated pattern of human behavior that includes thought, speech, action, and artifacts and depends upon the human capacity for learning and transmitting knowledge to succeeding generations" (Merriam Webster Dictionary, 2012). A person's culture "affects how [he or she] views the world, including how they seek and value healthcare" (Ingram, 2011). For refugees who were persecuted for their ethnicity and culture, forcibly evicted from their homes, made to live in refugee camps, and then leave family and friends behind during the resettlement process, culture may be one of the only things they have left which tie them to their roots. Therefore, successful health literacy interventions respect and incorporate healthy and non-harmful cultural beliefs and traditions.

Studies have shown that health literacy interventions which fail to address diversity in cultural beliefs "are unlikely to fully address the needs of those populations suffering from the highest levels of LHL" (Shaw, 2008). Therefore, just as health literacy doesn't only pertain to reading and writing ability, health literacy interventions should not only address "simple…translation from English to another language" (Shaw, 2008). Interventions aimed at improving low health literacy should go further in providing culturally appropriate methods which address all aspects of a person's or community's circumstances.

Some examples of culturally sensitive interventions can be seen in health promotion literature. Andrulis' review of health literacy interventions revealed that "health literacy, cultural competence, and linguistic competence" should all be considered in effective health literacy interventions (2007). Common strategies for promoting health literacy included employing patient navigators and health educators and providing patient education with clear communication, simple language, and

audiovisuals. This coupled with cultural considerations in health promotion activities and input of the community helped address low health literacy in at risk communities (Andrulis, 2007).

Much of the health literacy literature has focused on interventions within primary care settings. This includes the implementation of Single Item Health Literacy and other types of screenings during office visits (Speros, 2011), the use of informational videos in waiting rooms, and the creation of reading level appropriate health brochures (USDHHS, 2008). However, increasingly, research is being done on health promotion efforts outside of primary healthcare settings.

Ratzan found that in order to promote health literacy, " health education needs to go beyond school and health care settings" (2001), thus, health education in community settings is often suggested to be an effective strategy to improving low health literacy (Martensson, 2012). In particular, interventions involving nurses and health educators at the community level were among the most successful in improving health literacy according to a review done by Harris (2011).

These types of health education programs should include participatory approaches, such as mock dialogues about how to communicate with healthcare providers (Singleton, 2002) the relay of information without relying heavily on written material (Garbers, 2004), and culture specific concerns and community input. Teaching strategies include: utilizing or creating a safe, familiar, and comfortable environment, arranging classrooms in U shapes to encourage discussion, identifying what's already known about the topic, using clear and culturally appropriate language, and using different modes of instruction (i.e. lecture, discussion, video, role play, etc.) (Freedman, 2012).

Health literacy interventions for refugee women in particular were found to be more successful when the women were involved in group learning as opposed to participating in one-on-one health education sessions. This "provide[d] an important venue for learning and collecting information about their health" and offered women the chance to learn from each other (Dewitt, 2007). Lee found that community-based group education also benefited women in that it provided a means of social support

(2004). This social support is especially valuable for refugee women who may have lost their previous support systems during migration. This type of support may help alleviate the negative impact of low health literacy for these women. Community based group learning also gave women a sense of belonging and encouraged them to adopt health behaviors and norms valued by the group. Furthermore, the transmission of information in a group setting gave women the sense of "personal control, self-esteem, and confidence" while reducing "uncertainty" (Lee, 2004).

Different health literacy promotion efforts have gone about this in different ways. One effective way to address issues of low health literacy is to use peer health educators to provide important and culturally competent health information. This model proved effective for Fernandez et al., when applied to the problem of low rates of breast and cervical cancer screenings among Hispanic women (2009), and also for Drummond, et al., in addressing poor sexual health literacy among West African refugees in Australia (2011). Training community members to conduct educational classes for their peers allows for cultural sensitivity, individual and community empowerment, and lead to an increase in knowledge and self-efficacy in both studies.

A qualitative study of resettled refugee youth aged 16-25 echoed some of the aforementioned results. McMichael et al., found that young refugees were eager to learn about sexual and reproductive health, but that "contextual and structural challenges" oftentimes stood in their way (2009). Participants expressed a desire to improve their sexual health literacy through group teachings as opposed to written materials because these methods would provide the opportunity for discussion and the ability to ask questions. They desired these groups to be gender specific and taught by healthcare professionals or teachers. Although they wanted educators to be sensitive to their cultural practices and beliefs, "nobody stated that educators should be the same ethnicity or that groups should be ethno-specific" (McMichael, 2009).

Ultimately, although the aforementioned programs were successful, even more success can be found in programs implementing "complex interventions" which combine several different modalities to target health literacy (Clement, 2009). This is good news for Georgia Refugee Health and Mental Health who aims to do just that. The reproductive health curriculum which was designed for this project will be part of a broader health literacy curriculum which, with the collaboration of the Bhutanese community will be taught in a community based setting. Furthermore, this curriculum will be used in conjunction with Georgia Refugee Health and Mental Health's already existing health navigator program and one-on-one home education sessions in order to address multiple levels of health literacy. With these combined interventions, it is hoped that Bhutanese refugees will gain more independence, self-efficacy, knowledge, and ability to manage their health in the United States.

Reproductive Health and its Implications for Women

The curriculum designed for this project focused specifically on women's reproductive health with the aim of improving reproductive health literacy among Bhutanese women. The hope is that improving reproductive health literacy would subsequently increase the appropriate and effective use of reproductive health services and improve health outcomes for Bhutanese refugees and communities. The importance of reproductive health to women, communities, and society as a whole has been the topic of discussion for many of the medical and development communities worldwide.

The Definition of Reproductive Health. Reproductive health was defined by the International Conference on Population and Development, Cairo as "a state of complete physical, mental, and social well-being (not merely the absence of disease or infirmity) in all matters related to the reproductive system and to its functions and processes" (1994). Components of reproductive health care include "family planning, prenatal care, delivery and post-natal care," abortion and post-abortion care, maternal-child health care, "and prevention and treatment of infertility and STDs among others" (ICPD,

1994). This includes both tangible services as well as accurate and accessible information surrounding these topics.

The Importance of Reproductive Health for Refugee Women. It is generally well accepted that reproductive health has a major impact on every woman's overall health and well-being; it also impacts families, communities, and society as a whole. So much so in fact that reproductive health and access to related services and information has been deemed a human right. Such prominent documents as the United Nations Declaration of Human Rights, the Convention on the Rights of the Child, and the Committee on Elimination of Discrimination Against Women have all made it clear that in order "to realize their full potential, women must be guaranteed the exercises of their reproductive rights and must be able to manage their reproductive roles" (ICDP Cairo, 1994). This right includes the right to a satisfying sex life, and services, information, counseling, and treatment to ensure that women and men have the ability to choose their own reproductive life plans (Panda, 2009). As we will soon see, the right to reproductive health is fundamentally tied to a woman's ability to realize other human rights such as the right to equality, to education, and to participate socially, economically, and politically, as well as to the principles of human dignity and social justice (Bosmans, 2012).

Reproductive health has a major impact on a woman's overall health and well-being. In fact, 20% of the burden of disease on women is due to sexual and reproductive health problems (Black, 2011). As previously discussed, this burden is even greater for female refugees who often endure rape and sexual violence as mechanisms of war, high rates of HIV/AIDS,STIs, maternal morbidity and mortality, unplanned pregnancies, and poor sexual and reproductive health (SRH) education (RHR, 2001). Unfortunately, for refugees living in camps, as well as for those who have already been resettled, reproductive health services and education are not given high priority in comparison to other basic needs (Westhoff, 2008). These compounding factors lead to adverse health outcomes for female refugees and families.

Worldwide, inadequate services and knowledge in the area of reproductive health can lead to dangerous health problems for women. For example, a woman's inability to both access family planning and to have the knowledge and agency needed to effectively implement it can lead to unplanned or poorly timed pregnancies. This, in turn, can potentially lead to poorer pregnancy and birth outcomes for both the mother and fetus. Especially for young women and adolescents, unplanned or poorly timed pregnancies can lead to complications such as obstructed labor, fistulas, hemorrhage, or maternal mortality. Poor uptake of antenatal care can also lead to pregnancy related complications, even for women who were able to plan their families effectively (UNFPA, 2003). For women who wish to terminate a pregnancy, lack of access to or poor knowledge of available abortion services can lead to unsafe and clandestine procedures resulting in damage to the reproductive tract, infection, hemorrhage, infertility, and even death (Grimes, 2006).

Lack of knowledge or negotiating ability surrounding safe sex can also lead to vast health implications including the spread of STIs and HIV/AIDS. Untreated STIs, resulting from poor health literacy or access to services, can lead to serious pelvic infections, infertility, spread of infections to partners, mother to child transmission, cervical cancer, or even death. Furthermore, poor understanding of normal and abnormal body processes, or restricted access to reproductive health screenings, can delay the recognition of potentially serious problems including menstrual irregularities, STIs, and breast or cervical cancer (UNFPA, 2003).

Reproductive Health and Women's Empowerment. Aside from obvious impacts on a woman's overall health and well-being, reproductive health has an impact on families, communities, and societies as well. As women are the primary caregivers throughout most of the world, a woman's health can directly impact the health and well-being of her children and family (UNFPA, 2003). What's more, a woman's reproductive knowledge, rights, and health vastly impacts a woman's community and nation. This is because reproductive health is inextricably tied to women's empowerment (Steenbeek, 2004).

Throughout the literature, several definitions of "empowerment" exist in relation to reproductive health. Ancheta states that "women's empowerment is the process by which unequal power relations are transformed and women gain greater equality with men" (2005), while Kabeer defines empowerment as "the development of abilities that enable individuals to make basic life choices," and Lee-Rife says it's a woman's "ability and freedom to make basic life choices and …formulate opportunities, gain control over resources, and make decisions that influence their life outcomes" (Kohan, 2012). Whatever its definition, there is a consensus in the literature that women's empowerment has a direct impact on her reproductive health and that a woman's reproductive health has a direct impact on her empowerment status.

Women with a higher level of education, autonomy, decision making power, and socioeconomic resources have better health outcomes and greater ability to access needed health services. Empowered women are significantly more likely to use maternal health services and use a modern method of contraception (Ahmed, 2010). Furthermore, they are "aware of their value, seek equal access to health services, insist on asserting their rights, marry later, delay childbirth, bear fewer and more appropriately spaced children, and have access to health services at the appropriate time" (Kohan, 2012). Women who are empowered possess the knowledge, resources, and agency needed to understand and act on health information in order to make better reproductive choices (Usman, 2009).This, in turn, leads to better reproductive health outcomes.

On the other side of the same coin, women with good reproductive health practices and outcomes are more empowered to access education, improve their socioeconomic status, participate in their communities, and essentially benefit society as a whole. For example, an adolescent girl who uses contraception to prevent STIs and pregnancy is more likely to finish school, obtain a job, and appropriately plan her family later on in life if and when she is ready to do so. Because she is able to plan her family after she pursues her education and obtains resources, she has greater ability to raise

healthy children, ensuring them health, education, and a good life (The Girl Effect, 2012). Thus, empowering girls and women and ensuring them their right to reproductive health are intrinsically linked and are both essential to the development of health women, families, and communities.

Knowledge and Reproductive Health. One of the ways to ensure this is through education and development of health literacy skills. Kohan, et al.'s qualitative study of Iranian women showed that women viewed themselves as "empowered" when they were given knowledge on family planning and were able to make decisions and control their own fertility based on that knowledge (2012). Just as seen with health literacy, educational interventions are some of the key ways to ensure women their right to reproductive health.

Although most of the literature on sexual and reproductive education is focused on the adolescent, its implications can also be seen for refugee women who most likely have not previously received such information. Health literacy and education in the area of reproductive health aims to dispense knowledge, dispel myths, and give refugees the ability to make informed choices (Westhoff, 2008). According to Westhoff, even if services and supplies (such as contraception) are easily accessible, these "measures may be inadequate unless accompanied by concurrent education and development of adequate negotiation skills" (2008). It is essential for women to understand reproductive health information so they are better able to plan their reproductive life and improve birth outcomes (Malnory, 2011).

According to SIECUS, sex education reduces the risk of HIV/AIDS, STIs, and unintended pregnancy (2009). It also increases the knowledge and use of birth control at first intercourse, current contraceptive use, and contraceptive ever-use (Ancheta, 2005). Counseling and education given during antenatal care increases the rates of breastfeeding, positively impacts birth spacing and subsequent family planning, and decreases postpartum cigarette use (Teitler, 2012). Furthermore, education promoting awareness of one's reproductive health and body processes gives women an idea of what is

normal, helps to relieve anxiety related to one's sexuality and reproduction, and encourages discussion of often taboo topics (Pyper, 1997).

Just as there were several ways to address health literacy, the literature also presents several ways to address reproductive health education. Although sex education may be taught in school settings, information may be inconsistent and is unreachable for adult-aged resettled refugees. Thus, school programs need to coexist and be used in supplement with community based interventions (Pilsbury, 2000). Community based education has been shown to be better able to adapt to "evolving conditions" and to better address the culturally sensitive needs of the target population (Cachan, 1997 and Morrison, 2012).

Examples of this can be seen in Breiger, et al.'s study of a peer-based community education program in West Africa which lead to improved sexual and reproductive health knowledge and a reported increase of contraceptive use from 47% to 55.6% (2001). Bosmans et al.'s community based reproductive health art and theater programs "created an open space" where taboo topics could be discussed and increased feelings of dignity and self-worth among internally displaced people in Colombia (2012). A comprehensive intervention implemented by Santhya et al. also showed great improvements in the reproductive health measures of young married women in India. By creating support and educational groups for young married women, providing home visits and counseling sessions in clinics, and organizing community health fairs, while simultaneously addressing the concerns of husbands and mother-in-laws, these interventions helped improve reproductive health knowledge, feelings of autonomy and social support, partner communication, early uptake of comprehensive antenatal care, and contraceptive use (Santhya, 2008).

Summary

This review of the literature focused on two important aspects of the Reproductive Health Curriculum I designed for this special studies program: health literacy and reproductive health. Both

topics greatly impact the health and well-being of resettled refugee women, but are unfortunately often neglected in this population. Interventions to improve both health literacy and reproductive health knowledge have shown great improvements in not only health outcomes, but also in uptake of care, knowledge and appropriate use of services and supplies, and a better sense of agency, independence, and empowerment in women worldwide.

Chapter 3: Methods

Needs Assessment

The need for the development of a Reproductive Health Curriculum specifically targeted to female Bhutanese refugees was identified through various avenues. Although no formal needs assessment was conducted, the need for a women's health class was readily identified by key community informants including health navigators and translators working for Georgia Refugee Health and Mental Health (GRHMH), leaders of other local refugee organizations, and from Bhutanese refugees themselves.

As previously mentioned, health navigators and translators volunteering with GRHMH were among the first to report observing a general lack of health literacy among refugees while accompanying them to clinic appointments. Health navigators also reported several instances of female patients being unaware of normal versus abnormal menstrual cycles and fertility, family planning options, and preventive women's health screenings. They felt it was especially important that women were educated about pap smears and pelvic exams after they witnessed several instances where refugees went to the clinic for a different problem, but were told that they needed a pap smear. None of these women had ever had a pap smear before and most did not know what a pelvic exam entailed. Heath navigators and translators felt it was extremely important that these women be educated on the components of gynecological examinations so that health workers do not spring these invasive and embarrassing procedures on them without their proper understanding of what these exams entailed and why they were important.

In addition to the reports by health navigators and translators, two local refugee groups also recognized reproductive health education as a priority and requested help from GRHMH in conducting informational sessions for their adolescents and women. Informal discussions were conducted with

leaders of these groups, one an educational program for young refugee women and the other a craft group for refugees. Another informal meeting was held with the directors of a refugee organization which conducts prenatal classes for pregnant refugees in Clarkston, Georgia. The leaders of the educational program and the prenatal care organization both identified knowledge of normal female anatomy, reproductive processes, and family planning as top priorities for topics in a reproductive health curriculum. The educational program also stressed the need to educate its girls about sexually transmitted infections and the importance of healthy relationships, while the refugee craft group identified preventive reproductive health screenings as an educational need.

Lastly, and most importantly, one-on-one informal key informant interviews were conducted with several members of the Bhutanese refugee community, including two healthcare professionals and one male community member. Topics for these discussions included:

- Do you think there is a need for reproductive health education in your community?
- What kinds of reproductive health problems did your community face in Bhutan?
    - In the Nepali refugee camps?
    - Currently in America?
- What topics should be included in a reproductive health curriculum for Bhutanese women?
- How should we conduct the reproductive health classes?
    - Which methods of teaching and learning would work best for your community?

Those interviewed did see reproductive health education as a need for women in their community especially because the topic is so taboo within their culture. They identified fertility and family planning as priorities, along with the need to increase understanding of reproductive anatomy and body processes. Some women also stated that refugees should be educated about healthy relationships because intimate partner violence was a big problem in their community. The male refugee stated that

reproductive health classes should be offered for men in the community as well. Similar sentiments were echoed by some of the female refugees who stated that men may be a large part of a woman's inability to make reproductive and family planning decisions. Most stated that visual and interactive methods of teaching would be the best ways to facilitate refugee learning.

After serving as a health navigator and health educator with GRHMH since October 2011, I was asked to assist in developing modules for GRHMH's health literacy curriculum. Because of my background in women's health nursing I was asked to create and implement the reproductive health curriculum in response to the aforementioned community needs.

Curriculum Development

I developed the reproductive health curriculum for Bhutanese women with the help of several public health professors and one nursing professor who had strong backgrounds in curriculum development. The process of curriculum development was completed with the guidance of Teach for America's "Teaching as Leadership" framework. The format of the curriculum was loosely modeled after the format of the Family Life and Sexual Health (FLASH) curriculum developed by the Seattle and King County Health Department (Public Health, Seattle and King County, 2012).

The original target audience for this curriculum was Bhutanese women of reproductive age (15-49 years old), and activities included were deemed most appropriate for an average class size of 10-20 people. The curriculum consisted of five modules to be taught in 1 to 1.5 hour weekly sessions. Each module also included a pre/post test and feedback survey to be used for curriculum evaluation during the pilot testing phase.

The content of the curriculum was obtained through various sources including nursing textbooks, reliable online resources such as Planned Parenthood, and government health guidelines.

Curriculum modules took approximately 10 hours each to develop and were reviewed by a nursing professor and a public health professor- both with backgrounds in women's health- for medical accuracy, and by the director of GRHMH for cultural appropriateness.

IRB Approval

I submitted a proposal to the IRB early in the development of this project. The IRB determined that no review was required for this project because it was a special studies project that did not involve research of human subjects or clinical investigation.

Pilot Testing

After the five modules were developed and reviewed, the curriculum was pilot tested to two separate audiences. Each module was taught in weekly sessions, with pre/post tests being administered at every class.

***Refugee Educational Program*.** The first phase of implementation and evaluation of the curriculum occurred at an educational program for young refugee women living in the Atlanta area. This educational program was one of the organizations who originally contacted GRHMH requesting help in conducting reproductive health classes for its students.

Classes were held in a classroom setting every Friday afternoon for 5 weeks in April and May of 2012. All of the young adults who participated in the educational program were required to attend one of three reproductive health courses being offered. The determination of which course they were to attend was based on their age and English proficiency, with my curriculum being used to educate the women in their late teens to late twenties who were fluent and literate in English.

Classes were conducted in English, with the group consisting of young refugee women from Iraq, Afghanistan, Burundi, and Burma. The typical class size was 9-10 women. At each class, the young

women were asked to complete pre/post tests and give a written or verbal evaluation of that day's class including their favorite and least favorite topics, their thoughts on the timeframe of the class, and what other topics they wanted to discuss.

Bhutanese Community. After pilot testing at the educational program, the curriculum was implemented and evaluated with our original target audience of Bhutanese women. Classes were held at a local apartment complex which is home to a large population of Bhutanese refugees.

Recruitment for these classes occurred through various avenues. First, a list of approximately 75 female Bhutanese refugees of reproductive age was generated from Georgia Refugee Health and Mental Health's overall client database. These women were contacted by phone by a group of both English and Nepali speaking GRHMH volunteers. They were told about the class and were asked to invite other female friends and relatives. After the first class, we realized that only women who lived in the apartment complex where the classes were being held actually attended and therefore lessened our contact list to a group of about 30 women. Women were contacted by phone or home visits as a reminder one or two days before the classes were held each week. With each encounter they were encouraged to invite other female friends and relatives. Fliers advertising the class were also printed in Nepali and distributed to the women at the end of each class to serve as a reminder. These fliers were also distributed by GRHMH volunteers during home visits or other client interactions.

As previously stated, the classes were held at an apartment complex which is home to a large population of Bhutanese refugees, and thus is easily accessible to many of the women. Specifically, the class was conducted in an apartment which had been converted into a classroom for afterschool activities by a Somali refugee organization. Through collaboration with this organization, GRHMH was granted permission to use this classroom every Saturday morning for five weeks in June and July 2012.

English proficiency among this population ranged from fluency in writing, reading, and speaking, to no understanding of the English language at all. Many of the older Bhutanese women were also illiterate in their native tongue of Nepali. Therefore, classes were translated into Nepali as I taught in English. Three female translators were used over the course of the five weeks. All were medically trained and qualified to provide such translations. Most of the classes were translated and co-taught by a Bhutanese refugee who'd had over 30 years experience as a midwife in Bhutan and Nepal.

Pre/post tests were translated into Nepali and women were provided written copies to complete in four of the five classes. At one of the classes, the pre/post test had to be administered orally, due to the fact that the material had not been translated that week. Evaluations of the class were conducted orally as well, except during the last class when women were asked to complete a written evaluation of the course as a whole.

Curriculum Revisions

Revisions to the curriculum modules were made based on feedback from professors, the director of GRHMH, and the women who attended our classes. Revisions ranged from simple changes of medical inaccuracies to more complex reformatting of planned activities in order for refugees to be better able to successfully complete and comprehend these activities. The revised curriculum is included in the appendix of this thesis.

Chapter 4: Results

Curriculum

The final content of the curriculum included five modules to be taught in a series of weekly classes ranging from 60-90 minutes in length. The following is an overview of each module:

- **Module 1: Reproductive Anatomy and the Menstrual Cycle** – This is a 70 minute module which introduces the key components of the male and female reproductive system and serves as a starting point for our multi-session conversation surrounding reproductive health. Class objectives are accomplished through a reproductive anatomy "fill in the blank" activity, facilitated discussion, and a didactic and interactive component on the menstrual cycle.
- **Module 2: The Women's Health Exam and Preventive Screenings**- This is a 60 minute module which continues the previous discussion of the reproductive system by delving into the components of a typical women's health exam. This module mainly consists of didactic and discussion-based learning, with the option to pass around speculums and examine anatomical models of the breasts and pelvis if these resources are available.
- **Module 3: Sexually Transmitted Infections** – This is a 60 minute module which gives an overview of sexually transmitted infections including prevention, screening, and treatment. It also discusses non-sexually transmitted vaginal infections. Key points are emphasized through the use of didactic lecture interspersed with open discussion and an interactive and dynamic game.
- **Module 4: Family Planning, Birth Control, and Abortion** – This 90 minute module continues the discussion of reproductive health by introducing methods of family planning including birth control, sterilization, and abortion. This module centers on an interactive lecture and

dynamic discussion to convey key messages. If resources are available, samples of birth control should be shown to the class to allow for hands-on learning.

- **Module 5**: **Fertility and Pregnancy –** This 90 minute module gives a broad overview of fertility, infertility, pregnancy, and delivery. Key messages surrounding infertility, pregnancy, and delivery are emphasized through didactic lectures and interactive discussion. Students also learn how to keep track of their fertility using a "cycle bead" activity.

Although I had originally planned to create a sixth module focusing on intimate partner violence and healthy relationships, a better opportunity presented itself. Georgia Refugee Health and Mental Health was fortunate to form a partnership with two Nepali women who have strong backgrounds in domestic violence prevention and education. These women will conduct our last women's health session in the Bhutanese community and their class will ultimately be added as the sixth module in our curriculum.

Pilot Testing

As previously touched upon, pilot testing was conducted in two settings: at an educational program for young refugee women and at a Bhutanese community setting. A more detailed description of the pilot classes follows.

Refugee Educational Program. The pilot testing for this group of young refugee women was conducted on Friday afternoons for five weeks in April and May of 2012. Classes were an hour in length and were taught in a classroom setting. Chairs were arranged in a "U" shape to facilitate discussion, but during several of the sessions, they chose rather to sit in a circle on the floor, making the classes more intimate and interactive. The young women were encouraged to ask questions and participate as much as possible, which they did.

The group of women ranged in age from late teens to late twenties. All were single and were never married or had children. The women had lived in America for 11 months to 4 years. Although they were from several different countries (Iraq, Afghanistan, Burma, and Burundi) they were able to fluently speak, read, and write in English. I therefore conducted classes in English without the use of a translator. For all of these reasons, the materials and the ways in which they were presented varied slightly from the way they were presented in the Bhutanese community. For example, because these women were all single and culturally expected to abstain from premarital sex, abstinence and negotiating sex was discussed more than it was in the Bhutanese classes (although both abstinence and methods of family planning were discussed in both settings). Furthermore, because the young women at the educational program were fluent in English, they were able to complete activities like the fill-in-the-blank reproductive anatomy worksheet, while the Bhutanese women were only able to do it verbally.

As a teaching aid, I used the PowerPoint slides included in the appendix of this thesis at each class. Unfortunately, a projector was not available, so the women had to view the slides on a laptop. Fortunately, the classes were small enough so that each woman was able to see the screen clearly. The laptop was also passed around if they wanted a better view of a certain slide. This setback did not seem to hinder the learning process.

At the request of the educational program director, I presented Module 1: Reproductive Anatomy and the Menstrual Cycle, followed by Module 3: Sexually Transmitted Infections, and Module 4: Family Planning, Birth Control, and Abortion. Module 2: The Women's Health Exam and Preventive Screenings was combined with a brief overview of GRHMH's module on navigating the US healthcare system. This included role play activities where the women practiced scheduling appointments and having discussions with their healthcare provider. Although Module 2 was slated to be our last session,

throughout the weeks it became evident that there was a strong interest in learning more about pregnancy. Therefore, another session was added so that I could present Module 5: Pregnancy and Fertility.

The Bhutanese Community. A few weeks after the sessions at the educational program, I began to implement my curriculum to our original target audience- female Bhutanese refugees- at the apartment-turned-classroom location. Georgia Refugee Health and Mental Health was able to hold classes here every Saturday morning for six weeks in June and July 2012.

Despite the convenient location, many women were not able to attend the classes. In fact, only refugees living in that apartment complex did attend, leaving many others who lived in neighboring apartments unable to receive the information. This will be discussed further in the recommendations section of this thesis. Classes were administered on Saturday mornings in order to facilitate most women's work schedule, but due to overtime and previous commitments like ESL classes, some women living in this apartment complex were not able to attend either.

Still, a consistent number came to class every week, with an average of 12.2 women per class session. Although the original target audience was women of reproductive age, the women who attended class ranged in age from 18- 62 years old with an average age of 37.8. The women in attendance had been living in America from as little one month to as many as 4 years. Most of the women were married with children, with only one or two stating they were not married.

The classroom was arranged in rows of folding chairs due to space constraints. I was able to borrow a PowerPoint projector to project each module's slides on a white board in the front of the classroom. Due to the variation in levels of English comprehension, the lessons I taught in English were translated into Nepali by one of our volunteer translators. All three translators were women who had been medically trained and were qualified to provide such translations. Three of the classes were

translated and co-taught by a Bhutanese midwife with vast knowledge of women's health issues and the cultural implications surrounding these topics. The remaining two classes were translated by a Bhutanese woman who was trained as a medical interpreter and by a Nepali dentist and MPH student. Pre/ post test and feedback survey materials were also translated into Nepali to facilitate easier use.

The modules were taught in the original sequence and with very little variation from what was laid out in our original curriculum. Ground rules were set at the beginning of each class, and women were encouraged to participate and ask questions, which they did. During the first week, I presented Module 1: Reproductive Anatomy and the Menstrual Cycle, and 17 women attended class. The following week, 11 women attended our class on the Women's Health Examination and Preventive Screenings. Much of the information presented in this module was new to the women, and all but one reported that they'd never had a Pap smear before. Perhaps for this reason, the women did not engage as actively in discussion during this class as they did during the others. The third week, I presented Module 3: Sexually Transmitted Infections, and the 12 women attending reported having no knowledge of STIs aside from HIV/AIDS. The fourth week was by far the most interactive, even though only 10 women attended this class. The discussion of Family Planning, Birth Control, and Abortion gave women the opportunity to learn about, discuss, and see actual samples of birth control methods. The refugee women were very vocal about their concerns, desires, and past experiences with family planning and asked many pertinent questions about each method. The Fertility and Pregnancy Module was presented in the last week of class, and was attended by 11 women. Once again, the women were very actively engaged in this class and provided excellent discussion.

Throughout the last two or three sessions, we saw a consistent group of women attending class. Although these women may have missed a class throughout the series, there was definitely a self-selecting group which attended most of the classes and was obviously interested in the materials being

presented. We were also privileged to have a consistency in co-teachers/translators during our last three classes, as the Bhutanese midwife was able to attend all of these sessions. Perhaps because they got to know me, each other, and the midwife over the course of the pilot testing, or perhaps because the last few sessions were their favorite topics, the classes became progressively more dynamic and engaging as the weeks passed.

Evaluation results

Evaluation of the curriculum was done through classroom observations by GRHMH volunteers as well as through pre/post tests and feedback surveys completed by the female refugee students.

Educational Program Pre/Post Tests. Unfortunately, due to time constraints, it was only possible to administer pre/post tests during three of the five class sessions at the refugee educational program setting. The young women were asked to work independently to complete the pre/post tests in written English. Table 1 presents these results:

Table 1: Educational Program Pre/Post Test Results

Module	n	Pre test average (%)	Post test average (%)	Improvement (%)	P value
Reproductive Anatomy and the Menstrual Cycle	9	55.6%	88.9%	33.3%	<0.05*
Family Planning, Birth Control, and Abortion	6	54.2%	83.3%	29.2%	0.0581
Sexually Transmitted Infections	10	40%	67.5%	27.5%	<0.05*

*Significant p value

Due to students either arriving late to class or having to leave early, not every student in attendance completed a pre/post test at each class. Furthermore, if identifying information was not available to use in pairing pre/post test results, these results were discarded. For example, although 13 students completed the pre/post tests in our Sexually Transmitted Infections module, 3 of them did not provide identifying information, and we were thus unable to accurately match their pre/post test results. The same problem occurred in the Family Planning, Birth Control, and Abortion module, making our sample size smaller than usual, and perhaps skewing the results away from statistical significance. Nonetheless, improvement was seen in pre/post test results in all class sessions, with a statistically significant improvement in two of the three class sessions.

Educational Program Feedback Survey Results. Although we had originally planned to administer a feedback survey after each class session, this too was not possible due to time constraints. Therefore the young women were verbally asked their opinions of the class instead. The students repeatedly gave positive verbal feedback after class sessions. Many made it clear on several occasions that they wanted to know more about pregnancy, which was why we decided to add another session. In the one written evaluation they completed, all but one woman said the class length was "just the right amount of time." One student said the class was "too short." Answers to the question "what else would you like to discuss?" ranged from "breasts" to " what will happen during [my] period and sex" to "how to be pregnant."

Bhutanese Community Pre/Post Test Results. Pre/post tests were administered at the beginning and end of every class session in the Bhutanese community setting. With the exception of one week, the pre/post tests were administered in written Nepali. Due to our inability to translate the materials in a timely fashion that week, the Sexually Transmitted Infections pre/post test was administered verbally in Nepali. Women were asked to follow along on a written English pre/post test

and mark their answers based on a color-coded system. For example, women were asked the question in Nepali and then asked to "mark the pink line if you think the answer is HPV, mark the green answer if you think the answer is HIV/AIDS", etc. Although method took longer to complete, it did not seem to skew results in either direction. Table 2 presents these results:

Table 2: Bhutanese Community Pre/Post Test Results

Module	n	Pre test average (%)	Post test average (%)	Improvement (%)	p value
Reproductive Anatomy and the Menstrual Cycle	4	56.3%	81.3%	25%	0.091
Women's Health Exam and Preventive Screenings	7	50%	92.9%	42.9%	<0.05*
Sexually Transmitted Infections	9	47.2%	80.6%	33.3%	<0.05*
Family Planning, Birth Control, and Abortion	8	21.9%	87.5%	65.6%	<0.05*
Fertility and Pregnancy	8	59.4%	100%	40.6%	<0.05*

*Significant p value

Again, because some women arrived late or had to leave class early, they were not able to complete pre/post tests. Similar problems were also seen with women not filling out identifying information. Just as was the case with the educational program, these results were discarded. Administering the pre/post tests in written Nepali also presented a barrier for some of the students. Since some of the older Bhutanese women were illiterate in Nepali, the younger women usually assisted them in filling out their pre/post tests. It is uncertain whether the younger helpers only translated for the older women or whether they actually gave them the answers. This therefore may have skewed the

results in favor of statistical significance. The pre/post tests revealed an improvement in knowledge at the end of each class session. Four out of five classes showed a statistically significant improvement. It is possible that insignificant results were primarily related to a small sample size.

Bhutanese Community Feedback Survey Results. The Bhutanese women were verbally asked for feedback at the end of each class session and were given a final written feedback survey at the end of the series of classes. Family planning and delivery care were the women's overwhelmingly favorite topics which were covered. In addition to these topics, one woman stated that she enjoyed learning about sexually transmitted infections, and two others stated that "female health" and "how to stay healthy" were their favorite. None of the women stated that they had a "least favorite" topic, and all said that they would recommend the class to other Bhutanese women. All of the women agreed that the class timeframe, which usually ran from 1 hour to 1.5 hours, was appropriate.

At the end of our last class, one student enthusiastically asked what we'd be learning about next week. Unfortunately, although we'd originally planned to have our Nepali colleagues teach about healthy relationships and intimate partner violence the following week, they had to reschedule. When I informed the women of this, they all asked to be contacted when we did hold that class, and stated that they'd also like to attend other health literacy classes. On their feedback survey, the women stated overwhelmingly that they'd like to learn about "other diseases." One woman also wanted to learn about hygiene and communicable disease and another wanted to learn about child development.

Chapter 5: Discussion

Bhutanese refugees are often at a disadvantage when it comes to having accurate and accessible health information. Because of language barriers, gender inequalities, low socioeconomic status, and other sociocultural factors, female refugees are at a great risk for having poor health literacy, making them vulnerable to poor health behaviors and outcomes (Dewitt, 2007). By creating, implementing, and evaluating a reproductive health curriculum for female Bhutanese refugees, I sought to address just one of the many important topics essential to a refugee's health and well-being. By improving refugee women's health knowledge and literacy, we will hopefully empower them to be active participants in their healthcare, adopt healthy behaviors, achieve greater self-worth, and ultimately obtain greater health and well-being.

Strengths and Limitations.

Strengths. There were several strengths to this project. Firstly, the collaboration of Georgia Refugee Health and Mental Health with other local refugee organizations and with refugees themselves in the creation and evaluation of this curriculum was key to producing a culturally appropriate and overall relevant final product. Topics for curriculum modules were informed by all of these sources, and most importantly, by the female refugees themselves. Input from professors with a background in women's health also allowed for this curriculum to be medically accurate.

In addition, because the curriculum will be used by GRHMH, those benefitting from it will have access to a wide variety of refugee health services. Not only will they receive medically accurate and culturally appropriate *reproductive health* information, they will also receive quality information from the comprehensive health literacy curriculum GRHMH is in the process of developing. Other GRHMH services, such as assistance in obtaining health care and tailored one-on-one health education will also be available for those attending our health literacy classes. All of these interventions combined help to

address some of the major issues refugees have achieving overall good health and well-being. For the reproductive health classes specifically, although those initially recruited were already GRHMH clients, the women were told to notify friends and relatives. As a result, several women who were not already GRHMH clients were identified and were offered other GRHMH services. The classes which result from the implementation of this curriculum will therefore provide not only access to health information, but also to health services and referrals.

Limitations. Despite these positive aspects of the project, there are also some limitations. Firstly, the pilot audience at the educational program consisted of women from diverse refugee groups, and the curriculum was not tailored purposely for these specific cultures. Although there were positive pre/post test and feedback results, the curriculum was created specifically focusing on the culture and experience of Bhutanese refugees. Therefore, at this point, without further evaluation and editing, this curriculum cannot be generalized to other refugee groups as their experiences and health beliefs may be vastly different from those of the Bhutanese.

In regard to the evaluation of this curriculum, there were some inconsistencies in the process of administering pre/post tests and feedback surveys. Incomplete pre/post tests and the subsequent inability to match results lead to the omission of some students' answers and input when evaluating the curriculum. This unfortunately leads the exclusion of valuable insight. Another problem with the administration of pre/post tests and feedback surveys was the issue of literacy and the question as to whether or not literate classmates provided the answers to their illiterate classmates' pre/post tests. This too may have skewed the results of the pre/post tests and may have lead to the inadvertent exclusion of input from some of the most vulnerable members of the class.

Lastly, there were also some limitations during the implementation stage. Although most of the classes in the Bhutanese community were translated and co-taught by a Bhutanese midwife, she was

unable to attend all five sessions. This inconsistency may have caused the students some discomfort in discussing and asking questions. Having a consistent translator and co-teacher representing the Bhutanese community present at each class may have helped form a bond between the class and its teachers, allowing for freer discussion. In fact, by the last two or three sessions when the women had gotten to know each other, the midwife, and myself, we all found that the women were more comfortable and that conversation flowed much more readily.

The same can be said for the women themselves. Although by the end of our sessions, there was a self-selecting group of women who attended most, if not all of our sessions, some students had only attended one or two sessions. These students may not have had the background information (knowledge of anatomy, body processes, etc.) needed to fully comprehend those class sessions they did attend. Furthermore, they may not have been as comfortable with their fellow classmates and their teachers to ask questions or actively engage in discussion. Therefore, consistency in teachers, translators, and the group of students attending the class may be vital to the proper implementation of this curriculum.

Recommendations

The following recommendations are aimed at improving upon the aforementioned limitations and expanding the reach of reproductive health and other health literacy information.

Curriculum Development Process. As this reproductive health curriculum is just a part of a broader health literacy curriculum being developed by Georgia Refugee Health and Mental Health, this project has generated several suggestions on further need in the curriculum development. A major suggestion that has been echoed by the Bhutanese women is to develop a curriculum similar to the women's reproductive health curriculum, but aimed specifically for men. In particular, the women believe that the men should be educated about sexually transmitted infections and family planning so

that both members of a couple would have the knowledge and tools needed to make informed decisions *together*.

This opinion has been validated by many research studies, as well as by international reproductive health consortiums. In 1994, the International Conference on Population and Development (ICPD, Cairo) in 1994 maintained that "the empowerment of couples is essential to fulfillment of family planning objectives," while the Beijing Conference in 1995 asserted that male participation is imperative to improving contraceptive and reproductive health efforts (Kohan, 2012). Men play a vital role in all aspects of reproductive health, especially in traditionally patriarchal cultures like the one experienced by Bhutanese refugees. In some families, men may have the final say in the use of birth control and health care service utilization. Furthermore, they are more likely to speak English and may control transportation or family finances, impacting a woman's ability to access healthcare. Their behaviors may impact their family directly (through the spread of STIs, for example) or indirectly (by not allowing birth control use, thus leading to unwanted pregnancy) (Shaikh, 2008). Reproductive health interventions targeted specifically at men have been successful in increasing contraceptive use, improving reproductive knowledge, and changing gendered attitudes, just to name a few (WHO, 2001).

Another key target group which revealed itself during our pilot testing phase is post-menopausal refugee women. These women regularly attended our classes and were interested in the information presented to them, despite the fact that it mainly pertained to women of reproductive age. Although we briefly reviewed menopause during our "Reproductive Anatomy and the Menstrual Cycle" module, more information should be made available for peri and post-menopausal women on how they specifically can stay healthy as they age. I therefore recommend the creation of a curriculum module specifically for this purpose.

Ultimately, just as this reproductive health curriculum was, all subsequent curriculum modules should be developed with the input of key informants. Refugee leaders and target audience members should be active participants in the processes of curriculum development, evaluation, and implementation and should have a large say in the topics covered and in the manner in which they are covered. Furthermore, Georgia Refugee Health and Mental Health should continue to form collaborations and partnerships with other local refugee organizations. This could allow for a sharing of resources and ideas, and could lead to more and more refugees having knowledge of and access to these health classes and others like them. One specific example of a possible collaboration would be for GRHMH to partner with the local refugee prenatal care organization in the implementation of the reproductive health curriculum. This collaboration would allow for their clients to access our classes and for our pregnant clients to access their classes, exposing more women to both sources of education without overlapping information.

Curriculum Implementation Process. As was discussed in the "limitations" section, one of the problems during the class sessions in the Bhutanese community was that there was a changing group of students and translators/co-teachers. Because some students only attended one or two sessions, they may not have had the background needed to fully comprehend the material presented in the classes they did attend and may not have felt comfortable enough to participate in class discussions as a result. Therefore, efforts should be made to improve upon consistent class attendance. During our pilot testing phase, women were not offered any incentives to attend class other than their wish to expand their knowledge. Although it is understandable that every woman may not be able to attend or may not be interested in the information presented at every class session, GRHMH may wish to consider offering incentives for those who attend all (or a majority) of the classes. Such incentives could include a small gift at the end of the last class, a certificate of completion, or an opportunity to help teach future classes.

Identifying those women most engaged in class and allowing them the opportunity to spread their knowledge to others would not only help in the sustainability of this program, but would also improve upon women's feelings of self-esteem and would allow for peer-taught class sessions.

Peer based health education is a method which has been used around the world by such prominent organizations as UNICEF, CARE, and WHO, and is the process of "placing students in the role of educator" (UNICEF, 2003; CARE, 2012). Several learning theories support the basis of peer –to-peer education. According to Bandura's Social Learning Theory, "people serve as models of human behavior" (UNODC). Rogers expands this idea in his Diffusion of Innovation Theory, stating that when certain individuals and leaders spread information they can influence group norms and behavior (UNODC, 2006). Friere's Theory of Participatory Education posits that powerlessness within communities leads to poor health outcomes and that by allowing members of these communities to fully participate in addressing their problems (including problems relating to health), these community members will become empowered (UNODC, 2006).

Women may be more likely to attend class, engage in discussion, and value the information presented to them if one of their Bhutanese peers has an active role in conducting culturally appropriate class sessions. According to Drummond, et al., "peer education empowers recipients by involving them as educators as well as learners," and "if community members become empowered with health knowledge and disseminate this information in a culturally acceptable manner, this knowledge is likely to enter the belief structure of the community and change behavior" (2011). Thus, involving peer educators in the implementation of GRHMH's reproductive health curriculum will empower the Bhutanese community not only by improving health knowledge and ability to effectively navigate the healthcare system, but also by directly involving them addressing the problem at hand. Peer education using "members of a given group to effect change among members of the same group" can help

influence communities' knowledge, beliefs, and attitudes, but can also impact communities' behaviors and modify norms at the community level (UNODC, 2006).

Peer educators could be identified in pilot phases of future curriculum development or even during future reproductive health class sessions. The opportunity to serve as a peer educator may serve as an incentive for women to attend and actively engage in class. The identified women could then work one-on-one with GRHMH volunteers to receive more information on the topic at hand and additional capacity strengthening in how to conduct classes. Peer educators could start as co-teachers and then if they wish, could begin to conduct classes themselves. Incorporating a peer educator model into the implementation of GRHMH's health literacy curricula could thus not only act as an incentive for class attendance and participation, but also serve as a mechanism of empowerment within the community with the hope of improving health literacy and knowledge and eventually even impact behavior change. This model would also address the problem we had with inconsistent translators/co-teachers and would help in making this project more sustainable.

Curriculum Evaluation Process. As discussed, issues with administering pre/post tests and feedback surveys may have led to skewed results. It is therefore important for Georgia Refugee Health and Mental Health to consider utilizing different methods of evaluation in its pilot testing of future curriculum modules. Although we were fortunate enough to have our pre/post tests and feedback surveys translated into Nepali, completing these tasks were still difficult considering the number of Bhutanese women in our class who were illiterate. Creative solutions will be needed to address this issue.

One such solution is to read questions aloud in sequence and have students follow along (Preidis, 2010). This method was used with successful results by Geoffrey Preidis and his colleagues during the implementation of a HIV/AIDS program in a low literacy area of rural Haiti. Preidis, et al

implemented this creative solution using true and false questions in their pre/post testing (2010). I also utilized this method during our Sexually Transmitted Infections class in the Bhutanese community. However, instead of using true/false questions, I used four multiple choice questions which were color coded to make the process easier. Although this method took a longer amount of time than usual, all of the women were able to successfully follow along and complete the pre/post test. In fact, more women successfully completed the pre/post tests in this class than did in any other class. Therefore, this method or other similar ones should be strongly considered to make curriculum and class evaluations more accurate and more doable for illiterate students.

Furthermore, although our pre/post tests and feedback surveys addressed knowledge acquisition, there was no evaluation as to whether or not this increase in knowledge impacted behavior change. Further study is needed to determine the long-term impact of the reproductive health curriculum on health literacy, knowledge acquisition, and behavior change. One possible way to do this is to contact the women several months after the class is over and ask them questions specifically relating to reproductive health related behaviors (condom use, STI testing, birth control use, etc.), their uptake of health services (pap smears, checkups, etc.) and their ability to effectively participate in their care. Administering another post test using questions from the pilot pre/post tests may also be an effective way to measure whether or not the knowledge presented to them in the reproductive health classes was retained.

Conclusion

The process of developing, implementing, and evaluating a reproductive health curriculum for female Bhutanese refugees was lengthy and at times difficult, but in the end it was definitely worthwhile. Pre/post tests and feedback from the refugee women show that the curriculum met its goals, addressed issues relevant to the women, and effectively improved reproductive health

knowledge. It is my hope that this curriculum, and the broader health literacy curriculum into which it is embedded will help increase refugee health knowledge and literacy, empower refugees to become active and effective participants in their healthcare, and improve the overall health and well-being of Atlanta's Bhutanese refugee community.

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Appendix:

An Introduction to Reproductive Health for Female Bhutanese Refugees:

A Health Literacy Curriculum Created By Erica Avidano

for Georgia Refugee Health and Mental Health

An Introduction to Reproductive Health for Female Bhutanese Refugees

A health literacy curriculum created by: Erica Avidano, RN
For: Georgia Refugee Health and Mental Health

Introduction and Aim	This curriculum is intended to provide an overview of reproductive health for female Bhutanese refugees in the Atlanta, Georgia area. It includes several different teaching methods (didactic lectures, classroom discussion, interactive games, etc.) to facilitate varying styles of learning. This curriculum aims to improve the knowledge base of female Bhutanese refugees in several key areas of reproductive health. In doing so we hope to improve refugees' reproductive health literacy, ability to apply their knowledge in everyday and medical settings, and capacity to make more informed and healthier reproductive decisions.
Modules	This curriculum consists of the following five modules: 1) Reproductive Anatomy and the Menstrual Cycle 2) The Women's Health Exam and Preventive Screenings 3) Sexually Transmitted Infections 4) Family Planning, Birth Control, and Abortion 5) Fertility and Pregnancy
Target Audience	The intended audience for this curriculum is female Bhutanese refugees of reproductive age (15-49 years old). The recommended class size ranges from 10-20 students, although a larger class size is also feasible.
Setting	The ideal location for this curriculum would be a classroom setting. The room should be large enough to accommodate all students in a manner which facilitates discussion (i.e. arranged in a "U" shape). A laptop and PowerPoint projector should also be available for use.
Time Frame	Modules range in length from 60-90 minutes. They should be taught in the sequence laid out in this curriculum. Weekly sessions are recommended, although daily sessions would also be possible.

Reproductive Health – Module 1: Reproductive Anatomy and the Menstrual Cycle

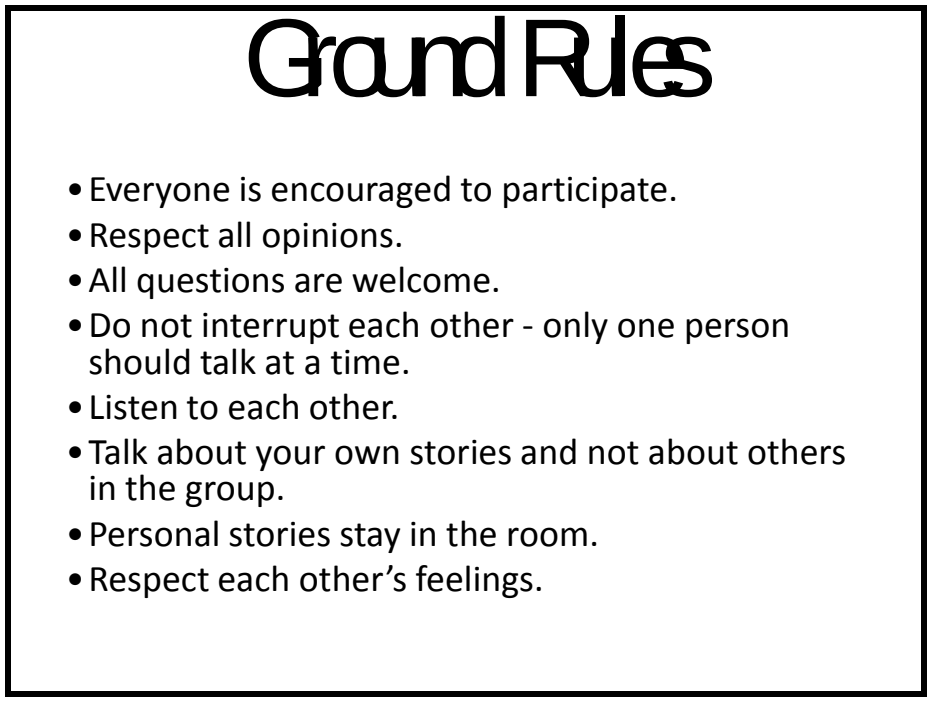
Time	70 minutes
Materials	1) Laptop, projector, and "Reproductive Anatomy and the Menstrual Cycle" PowerPoint slides 2) Pre/Post test handouts 3) Reproductive Anatomy handouts 4) Pens, pencils 5) Menstrual hygiene samples (optional)
Module Summary	This module will introduce the key components of the male and female reproductive system and will serve as a starting point for multi-session conversation surrounding reproductive health. This will be accomplished through the administration of a pre/post test, a reproductive anatomy "fill in the blank" activity, facilitated discussion, and a didactic and interactive component on the menstrual cycle.
Goal **Objectives**	To educate participants on the male and female reproductive system and explain the basics of the female menstrual cycle. By the end of this session, participants will be able to: 1) Identify at least 4 parts of the female reproductive anatomy 2) Identify at least 3 parts of the male reproductive anatomy 3) Explain the characteristics of a normal menstrual cycle

Part 1: Introduction:

Time	5 minutes
Materials	None

- The facilitator will introduce her or himself and lay out the schedule for this module and the subsequent modules in the Reproductive Health workshop.
- ***Ask: What is reproductive health? Why is it important in our daily lives?***
    - Reproductive health concerns both men and women's reproductive systems and organs. It includes how the reproductive system works, its health as well as its diseases, and people's ability to control their reproduction and make healthy reproductive decisions. *(Answers as to why it is important will vary).*
- Explain to the students that this first topic will include the basics of how the female and male reproductive system work and will focus specifically on reproductive organs, the function and purpose of these organs, and an overview of the menstrual cycle.

- Set forth ground rules for discussion and class participation at the beginning of this session and remind students of these rules again at the start of each subsequent session. An example of basic ground rules include:



- Ask students if they have any other rules they would like to include in this list or any concerns in discussing the topic of reproductive health.

Part 2: Pre-test

Time	5 minutes
Materials	Pre/post test, pencils

- Explain to the students that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the students, and the exact same test will be given at the end of the class.
- ***NOTE: If literacy is an issue this (and all other activities) can be done verbally.***

Part 3: Reproductive Anatomy:

Time	25 minutes
Materials	- Reproductive Anatomy handouts - Pencils - "Reproductive Anatomy and the Menstrual Cycle PowerPoint, laptop, and projector - "Different is Normal" Planned Parenthood YouTube video (optional) http://www.youtube.com/watch?v=t9tFk835vjo

Part 3A – Reproductive System Fill in the Blanks Worksheet

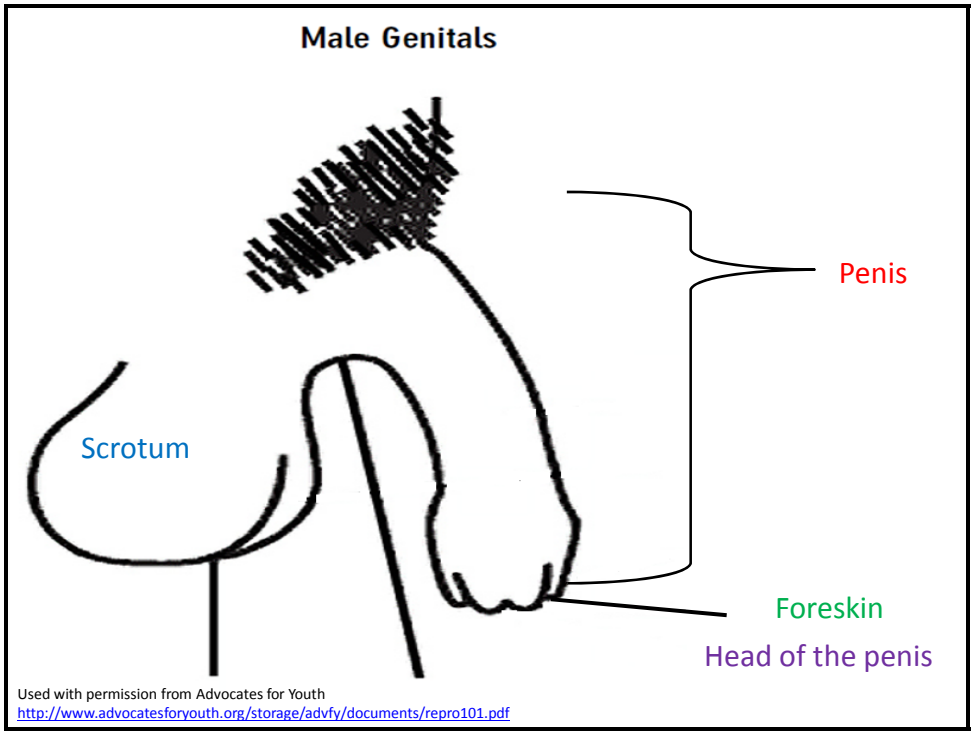
- Hand out the 2 female and 2 male reproductive system diagram worksheets.

- Have the students break into groups of 3 or 4 and try to fill in as many blanks as they can. Explain that they do not need to know the correct spelling or even the correct name. If they do not know the name of the structure, they can try to describe its function.

- After 10 minutes, bring the group back together and go over the answers, discussing both the name and function of each body part. This can be done with or without the PowerPoint slides, depending on materials available.

- ***NOTE: Not all anatomical structures are included on the worksheet, but a description of them may be given verbally if desired. ***

Reproductive Anatomy Answer Sheet



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http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf

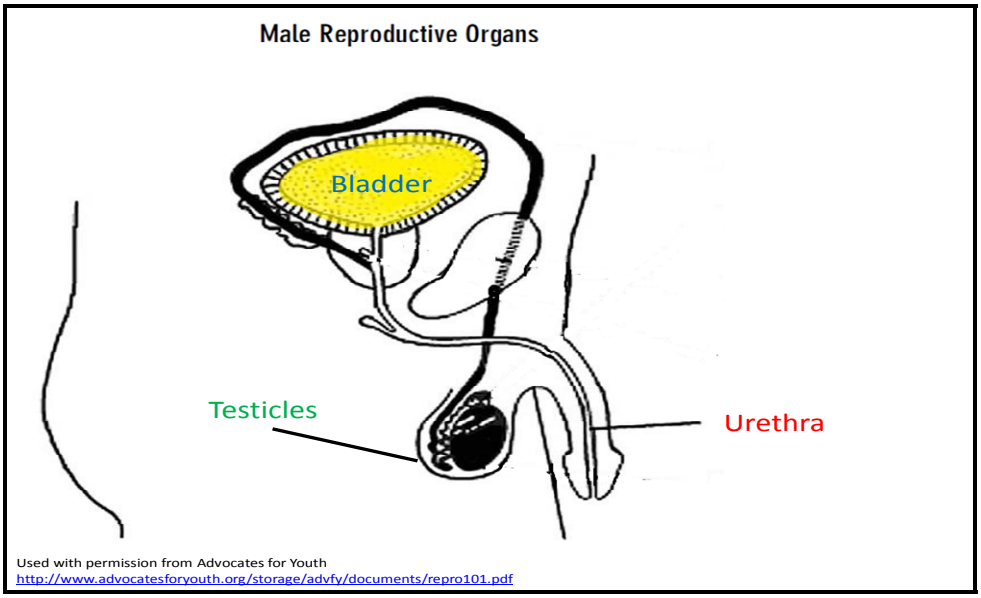
1. **Penis** – The penis is a man's reproductive organ. It contains tissue that fills with blood when a man is sexually aroused, causing the penis to become harder and longer. This is called an "erection." The penis is what a man inserts into a woman's vagina when they are having vaginal intercourse. The penis also has a tube in it which releases semen and urine.
2. **Foreskin** – The foreskin is a fold of skin which covers the head of the penis. Men who are circumcised have their foreskin removed.
3. **Head of the penis/ Glans** – The glans is also known as the head of the penis. It is located at the tip of the penis and is very sensitive.
4. **Scrotum** – The scrotum is a saclike structure of skin and muscles which holds the testicles.

Other Structures

Shaft – The shaft is the part of the penis which contains the erectile tissue and which expands when the man is sexually excited.

Urethral opening – The urethra is a tube that opens at the head of the penis. Urine and semen leave the man's body from the urethra.

Reproductive Anatomy Answer Sheet



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http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf

1. **Urethra** - The urethra is a tube that opens at the head of the penis. It is where urine and semen leave the male's body from.
2. **Testicles** – The testicles are ball-shaped glands and are found in the scrotum. They produce sperm and male **hormones**.
    a. **Hormones** are chemicals produced by the body. Both men and women make hormones. (***Ask: What do hormones do?)*** Hormones control many of the things the body does.
        i. They help in body growth and development, affect your mood and affect how your body gets energy from food, just to name a few.
        ii. They help control the reproductive system in both men and women.
            1. For example, the hormones made in the man's testicles control his sexual development and desire and also affects how sperm is made. These hormones also make a man "look like a man" (body hair, deep voice, more muscle) after he goes through puberty.
3. **Bladder –** The bladder is where urine is stored.

Other structures

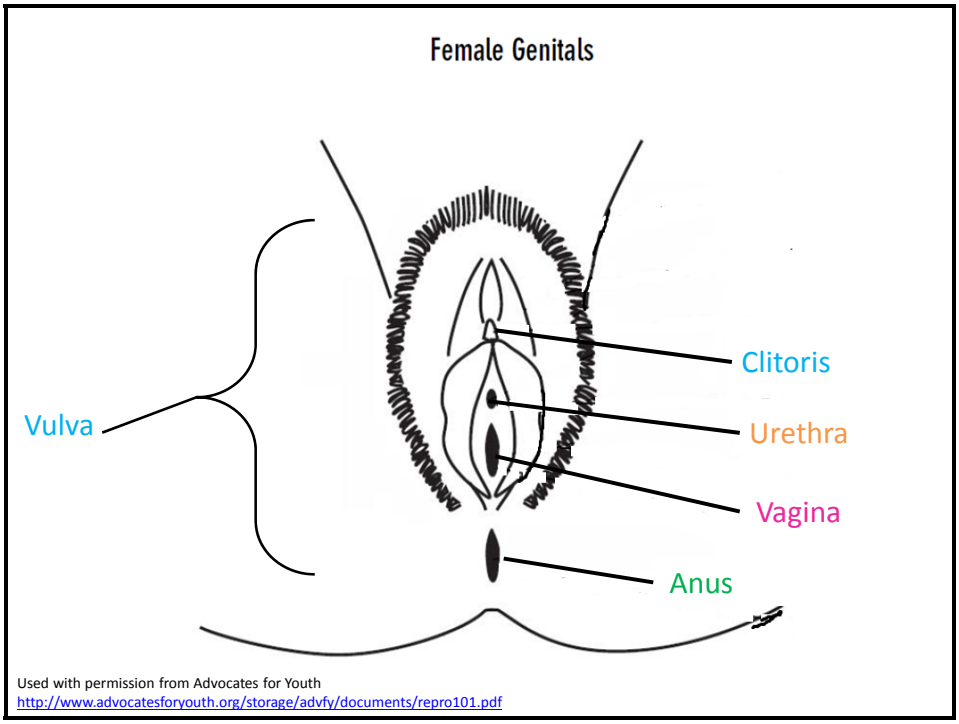
Epididymis – The epididymis is located above the testicles. It is where the sperm grows and is stored until ejaculation.

Vas Deferens – The vas deferens are 2 tubes that connect to each epididymis. They bring sperm to the seminal vesicles when a man ejaculates (releases semen).

Prostate – The prostate is a walnut sized gland which makes the fluid in which sperm moves.

Seminal Vesicle – The seminal vesicle are glands which make a fluid that nourishes the sperm.

Reproductive Anatomy Answer Sheet



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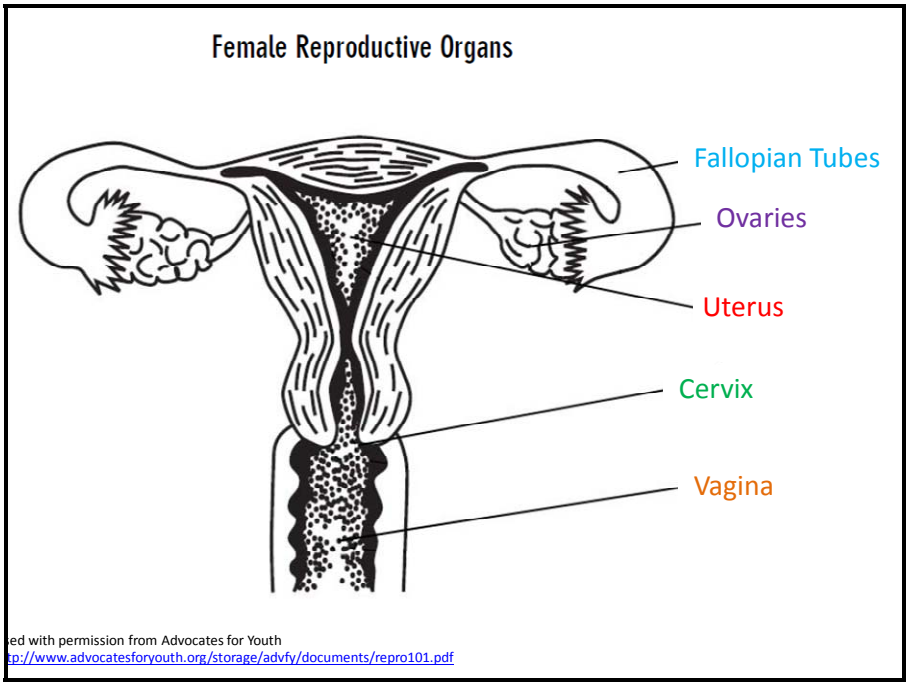
1. **Vulva** – The vulva is another name for a woman's external reproductive anatomy.
2. **Clitoris** – The clitoris is a small area of tissue at the top of the vulva. It is filled with nerves. It swells with blood and is very sensitive during sexual activity, helping with sexual pleasure. It is covered by a small piece of skin called the clitoral hood.
3. **Urethra** – The urethra is a tube that connects to the bladder. Urine is released from this tube.
4. **Vaginal opening** – The vaginal opening is the opening to the vagina. It is where a man's penis is inserted during vaginal intercourse, where blood comes out of during menstruation, and where a baby comes out of during birth.
5. **Anus**- The anus is the opening from the digestive system. Feces come out of this opening.

Other Structures

Mons Pubis – The mons pubis is a soft mound of fatty tissue that protects the pubic bone during intercourse. After a girl reaches puberty, it is covered with pubic hair.
Labia –The labia are also known as the "lips." The labia majora are the outer lips and are also covered with pubic hair. The labia majora can be seen when pulling apart the outer lips. These structures protect the vaginal opening and urethra.

Reproductive Anatomy Answer Sheet



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1. **Fallopian Tubes** – The fallopian tubes are on each side of the uterus. They carry the egg from the ovary to the uterus and are also where a man's sperm travels to fertilize a woman's egg.
2. **Ovaries** – There are 2 ovaries, one on each side of the fallopian tube. The ovaries produce **hormones**. They also release an egg each month from when a woman starts her period until she stops during menopause.
    a. Some of the things the **hormones** made in the woman's ovaries do is help control her menstrual cycle, her ability to get pregnant, and her ability to give birth. They also make a woman "look like a woman" (breast development, fat distribution, etc) after she goes through puberty.
3. **Uterus** – The uterus is also known as the "womb." It is an organ which is about the size of a fist, but grows much larger during pregnancy. The uterus is where a woman bleeds from during her menstrual cycle. It is also where a fetus grows and develops during pregnancy.
4. **Cervix** – The cervix is the opening that connects the vagina and uterus. It allows blood to leave during a woman's period, allows sperm to enter the uterus and fallopian tubes to fertilize an egg, and allows the baby to leave the uterus and enter the vagina during birth.
5. **Vagina** – The vagina is a muscular tube which is usually 2-4 inches long. When a woman is sexually aroused it becomes 4-8 inches long. The vagina is where a penis or other objects penetrate during sexual intercourse. It is also where the blood leaves from during menstruation and is known as the "birth canal" because it is where a baby leaves the woman's body during birth.

Part 3B – "Different is Normal" Video

- Show the short video "Different is Normal" if time and resources allow. http://www.youtube.com/watch?v=t9tFk835vjo
- Open up the class for discussion.
    - Ask if anybody has any questions or if anything was unclear about this video or about the male and female anatomy. This anatomy will be important to understand in all of our classes.
    - Discuss the video "Different is Normal." What does this mean?

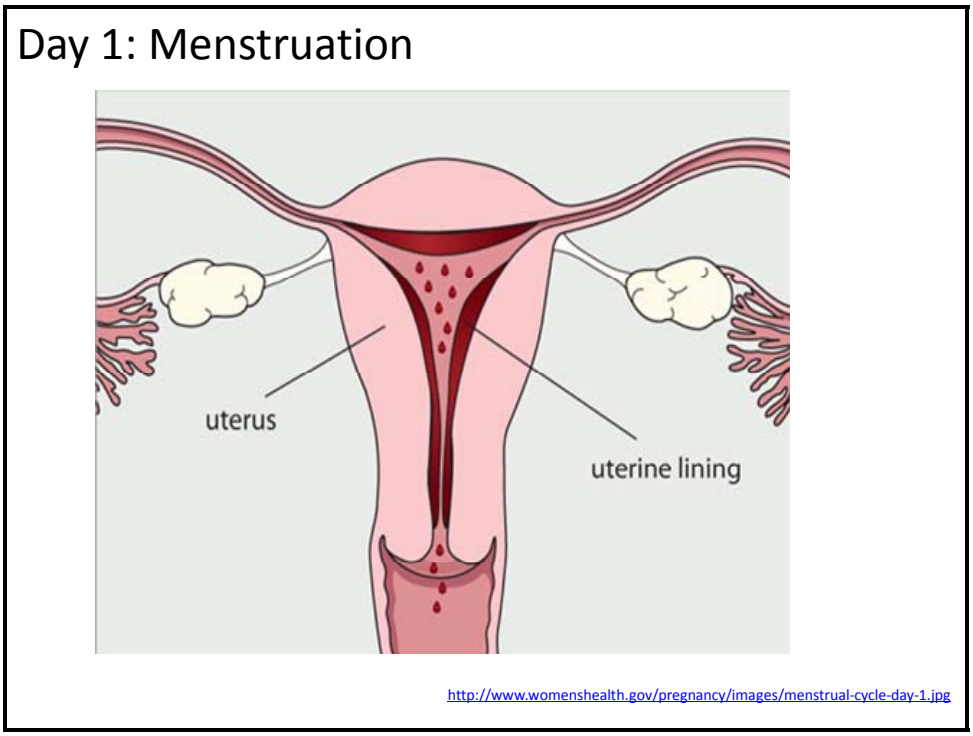
Part 4: The Menstrual Cycle

Time	25 minutes
Materials	- "Reproductive Anatomy and the Menstrual Cycle PowerPoint, laptop, and projector - Menstrual hygiene samples, if available.

- Tell students that we will now begin to discuss the menstrual cycle. The menstrual cycle is a very important part of the female body and processes.
- Initiate a facilitated discussion by asking:
    - Have you been taught about the menstrual cycle? If yes, what have you been told? What else would you like to know?
    - What is the purpose of the menstrual cycle?
    - What happens during the menstrual cycle? (Encourage the use of anatomical words the students just learned)
    - What are the characteristics of a normal menstrual cycle?

- After 5 minutes of discussion, answer these questions. Show PowerPoint slides if available in order to represent this visually**.**

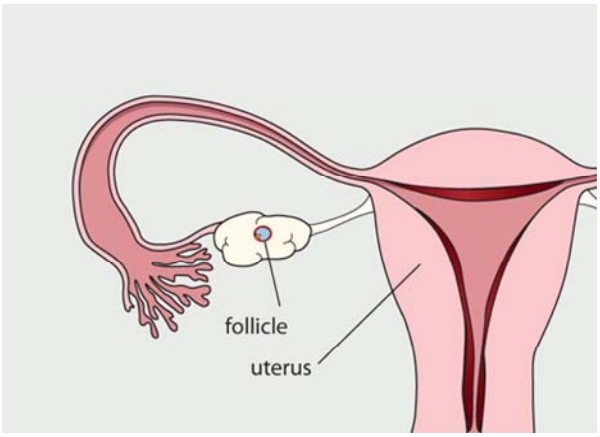
Part 4A- The Menstrual Cycle:



The menstrual cycle is a process involving a woman's reproductive system. Natural chemicals called hormones cause changes in the reproductive system throughout the month. The menstrual cycle normally occurs every month, usually lasting 25-30 days. It can be normal for the menstrual cycle to last anywhere from 21- 35 days however.

There are 4 phases of the menstrual cycle. The menstrual cycle starts with menstruation which is also known as "having a period." A woman usually starts getting her period when she is anywhere from 9-16 years old (during puberty) and keeps having it until she is around 45-55 years old (menopause).

Menstruation occurs when the lining of the uterus is shed and blood is released out of the vagina. Periods usually last 3-7 days, but can last a little bit longer or shorter and still are considered "normal." During a woman's monthly period a woman bleeds about 4 teaspoons.

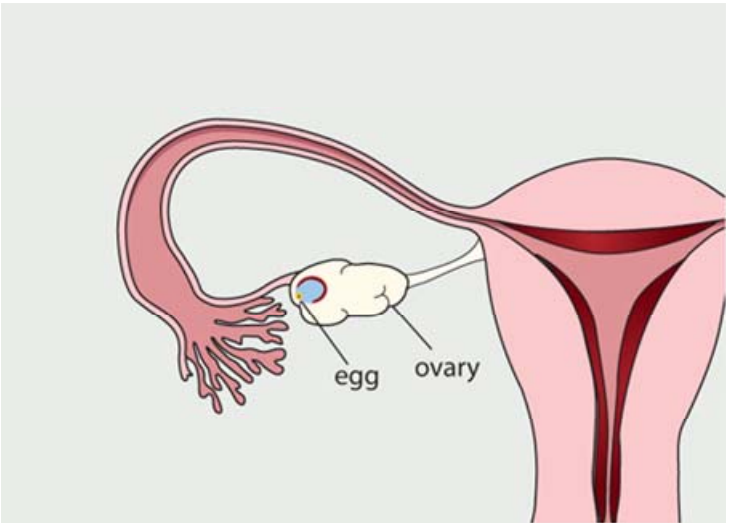


http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-7-14.jpg

After the menstrual period is over, the uterus will start to re-grow some of its lining.

The egg in the ovary will also begin to grow and mature.

Day 14: Ovulation

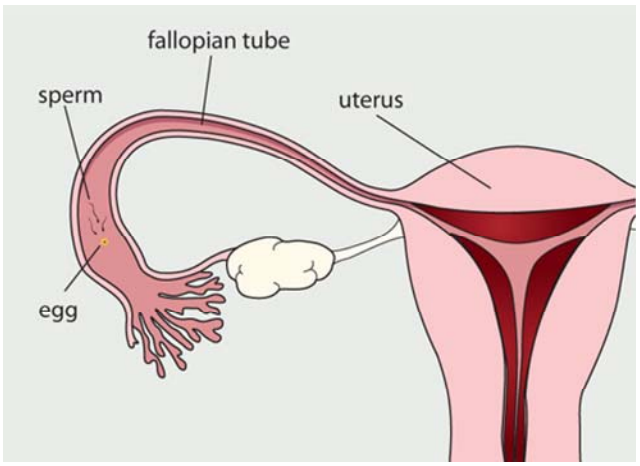


http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-14.jpg

Around day 14 of the menstrual cycle, the mature egg is released from the ovary and begins to travel into the fallopian tube.

It is around this time when a woman is most fertile (can get pregnant the easiest).

The uterine lining still continues to thicken. (***Ask: Does anybody know why it is thickening?***)



http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-14-25.jpg

The egg continues to travel in the fallopian tube and the uterus continues to thicken.

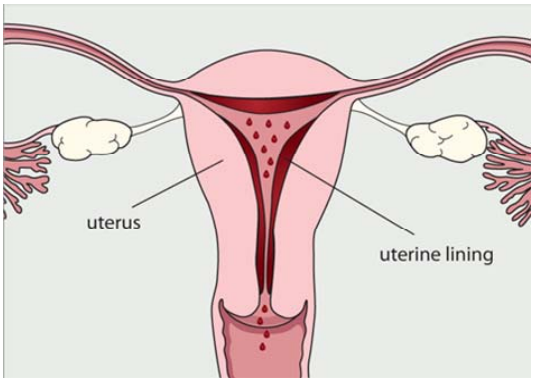
Ask: What happens if a sperm fertilizes the egg?

- The fertilized egg will travel into the thickened uterus and implant. The fetus will begin to grow in the uterus for about 9 months, until it is born.

Ask: What happens if the egg is NOT fertilized?

(21-35 days after last period began)

Day 1: Menstruation begins again



http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-1.jpg

If the egg is not fertilized, the woman will start her period again. The egg and the uterine lining will shed and the woman will bleed for about 3-7 days, starting the whole cycle over again.

Part 4B – Menstrual Hygiene:

- After reviewing the phases of the menstrual cycle, see if anybody has any questions.
- Ask
    - In your culture how do women feel about menstruation? How do men feel about it?
    - Are there certain things women can and cannot do during their period?
- Next present options for menstrual hygiene. Pass around samples if available.

Image 1: http://upload.wikimedia.org/wikipedia/commons/thumb/0/0c/Sanitary_towel_1.jpg/189px-Sanitary_towel_1.jpg
Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/c/ca/Instead_cup.jpg/156px-Instead_cup.jpg
Image 3: http://upload.wikimedia.org/wikipedia/commons/thumb/0/08/Clothpad.jpg/222px-Clothpad.jpg
Image 4: http://commons.wikimedia.org/wiki/File:Tampon_with_applicator.jpg
Image 5: http://upload.wikimedia.org/wikipedia/commons/thumb/f/ff/Coupe-menstruelle.jpg/497px-Coupe-menstruelle.jpg

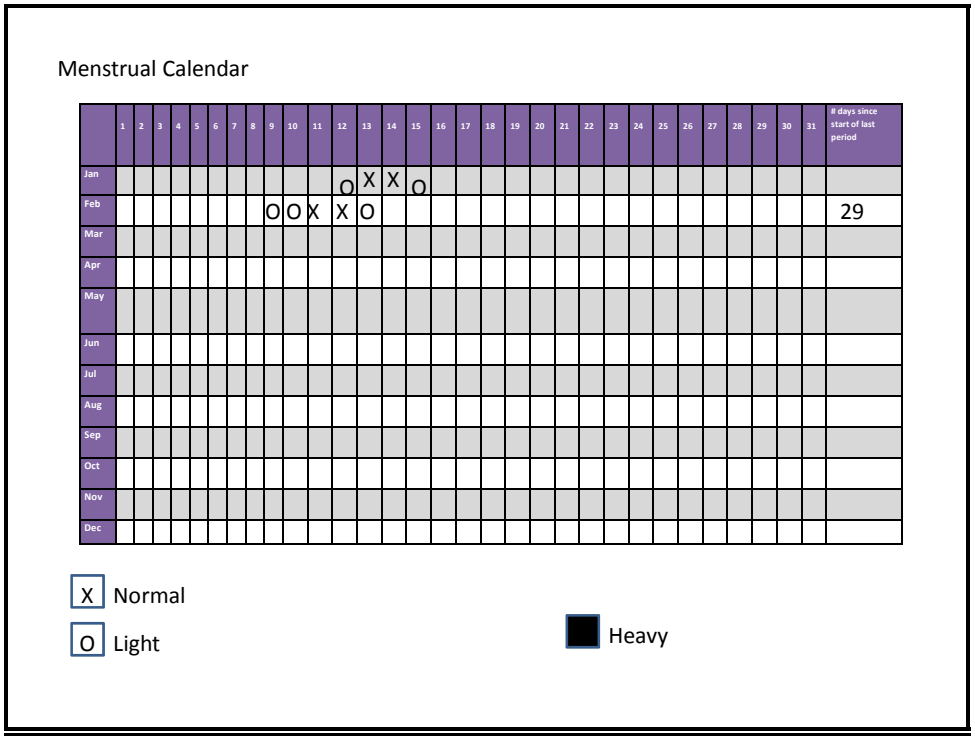
- Discuss the different options for menstrual hygiene. What are the disadvantages and benefits of each? What do women prefer to use? Are there any other options women know about?

Part 4C – PMS:

- **Ask: What are some things that bother you during your period and how do you make these symptoms better?**
    - Cramps are common before and during menstruation. The cramps are caused when the uterus contracts to help shed the lining. Very severe cramps are not normal and women should see a health care provider if they are experiencing these.
        - **Discuss: How do you relieve cramps?**
            - Possible answers include: exercise, resting, warm compresses, pain medication, etc.
    - Women may also experience other physical and emotional symptoms before their periods. These include breast tenderness, headaches, feeling tired, feeling sad or crying easily, etc. These symptoms are called Premenstrual Syndrome.

- Tell women that these things occur because of the changes in a woman's hormones which regulate the menstrual cycle. However, symptoms which are very severe should be treated by a healthcare provider.
- **Discuss: What do you do to relieve these symptoms?**
    - Possible answers: pain relievers, birth control, resting, etc.

Part 4D – Keeping Track of Your Menstrual Cycle



- A woman's period normally occur every 21-25 days and last for about 3-7 days. Women should keep track of their periods on a calendar. This will help them see if their period is regular or not. Healthcare providers will often ask women about their periods at their annual women's health exam, so having it marked on a calendar would be helpful.
- ***Instructor should now hand out menstrual cycle calendar and explain how to use it.***
    - Show example on PowerPoint: Fatima started light bleeding on January 12. On the 13th and 14th she had normal bleeding and on the 15th she had light bleeding again. Her next period started on February 9th.
    - Explain that women can also use a regular calendar or an app on their phone to keep track of their periods.

Part 4E- Normal vs. Abnormal Menstrual Cycles

- ***If time allows, present the following scenarios*** and have students determine whether the woman in the story is experiencing a normal menstrual cycle or an abnormal one which should be evaluated by a healthcare provider.

    - **Tara is a 26 year old woman who gets her period every 27 days. Bleeding usually lasts 3 days. Is this normal or abnormal?**
        - Answer: Normal. Normal menstrual cycles range from 21-35 days and bleeding typically lasts for 3-7 days.

    - **Sarita is a 32 year old woman who usually gets her period every month, but has not gotten it for the past 3 months. Is this normal or abnormal?**
        - Answer: Abnormal. Women may skip their periods for several reasons. One of the main reasons in women of reproductive age is pregnancy. Sarita should take a pregnancy test if she is concerned that she may be pregnant. ***Ask: What are some other reasons why women can have irregular periods?***
            - Women may have irregular cycles because of hormonal changes, stress, poor eating habits, sudden changes in weight, other illnesses, etc.
            - If a woman frequently has irregular cycles she should consult a healthcare provider.

    - **Rhea is a 60 year old woman who stopped having menstrual cycles when she was 53 years old. Is this normal or abnormal?**
        - Answer: Normal. Women usually stop having their periods around age 45-55. This is called menopause. ***Ask: What are some other physical changes women have during menopause?***
            - Women may experience hot flashes, night sweats, vaginal dryness, trouble sleeping, etc. If these symptoms are bothersome, they may be treated by a healthcare provider.
            - A woman is said to have reached menopause when she has not had a menstrual cycle for 12 months straight. Since she no longer has menstrual cycles, she no longer releases an egg, and therefore can no longer get pregnant.
    - **Erin is a 21 year old woman who has extremely painful cramps during her period. She also experiences heavy bleeding and has to change her pads every hour. She often has to miss work when she is on her period. Is this normal or abnormal?**
        - Answer: Abnormal. Although women may experience cramps, Erin's cramps are so painful that she has to miss work. She also bleeds much heavier than normal. Women with these symptoms should seek help from a healthcare provider to determine what is causing these problems.

Part 5: Post-Test and Feedback

Time	10 minutes
Materials	- Post-test - Pencils

- Ask for any last questions about the material covered in class.
- Administer post-test again explaining that they will not be graded.
- Ask for feedback of today's class either through a written survey or verbally.
- Explain to class that at the next session we will be talking about how to take care of your reproductive anatomy and what happens during a women's health exam.

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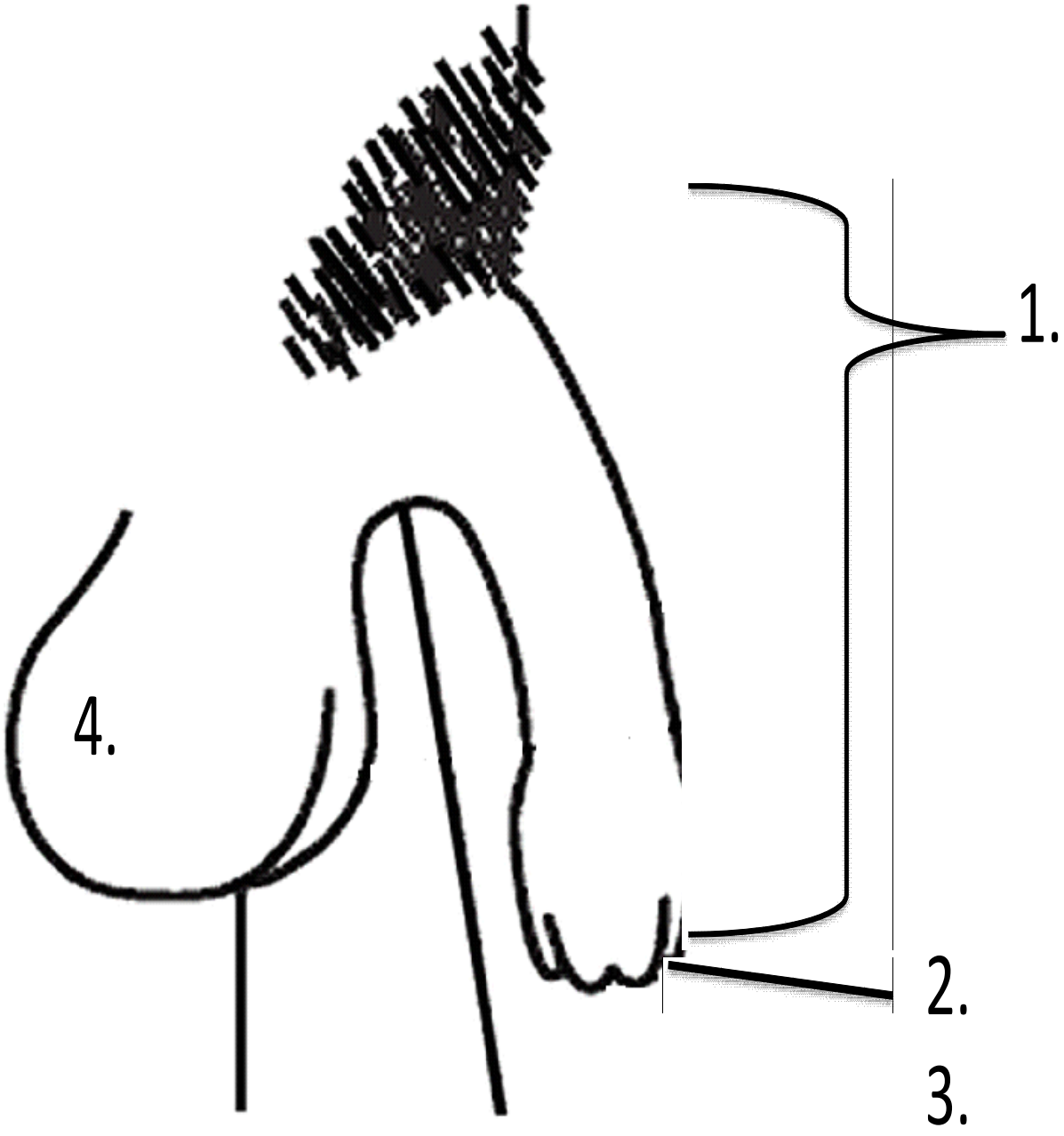
PowerPoint Slide References

- Slide 1: Ground Rules
- Slide 2: Male Genitals
  - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf
- Slide 3: Male Reproductive Organs
  - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf
- Slide 4: Female Genitals
  - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf
- Slide 5: Female Reproductive Organs:
  - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf

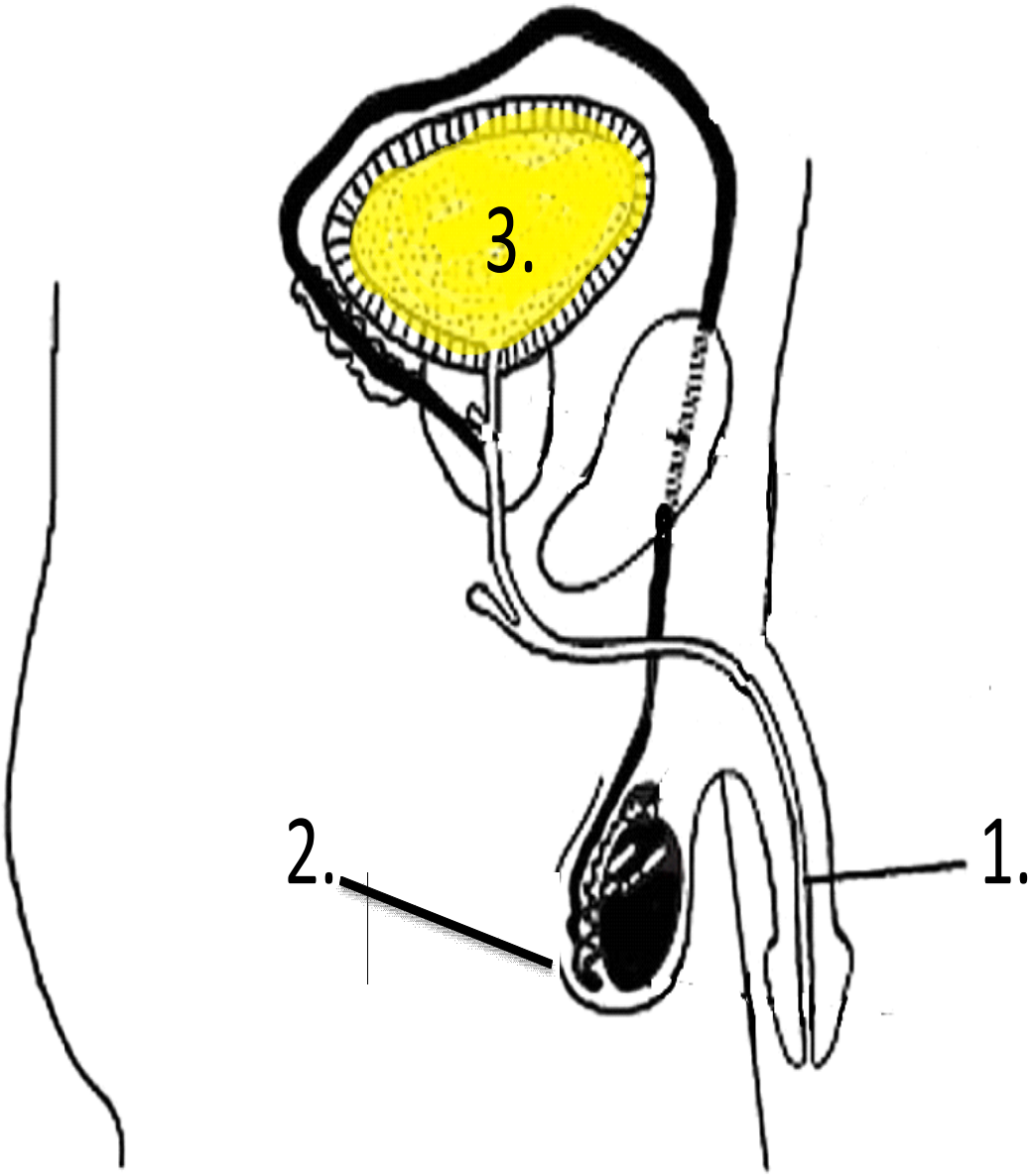
- Slide 6: Day 1: Menstruation
  - http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-1.jpg
- Slide 7: Uterus re-growing lining; follicle growing
  - http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-7-14.jpg
- Slide 8: Ovulation
  - http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-14.jpg
- Slide 9: Egg travels in fallopian tube; uterus continues to thicken
  - http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-14-25.jpg
- Slide 10: (21-35 days after last period began); Day 1: Menstruation begins again
  - http://www.womenshealth.gov/pregnancy/images/menstrual-cycle-day-1.jpg
- Slide 11: Menstrual Hygiene
  - Image 1: http://upload.wikimedia.org/wikipedia/commons/thumb/0/0c/Sanitary_towel_1.jpg/189px-Sanitary_towel_1.jpg
  - Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/c/ca/Instead_cup.jpg/156px-Instead_cup.jpg
  - Image 3: http://upload.wikimedia.org/wikipedia/commons/thumb/0/08/Clothpad.jpg/222px-Clothpad.jpg
  - Image 4: http://commons.wikimedia.org/wiki/File:Tampon_with_applicator.jpg
  - Image 5: http://upload.wikimedia.org/wikipedia/commons/thumb/f/ff/Coupe-menstruelle.jpg/497px-Coupe-menstruelle.jpg
- Slide 12: Menstrual Calendar

Handouts for Module 1: Reproductive Anatomy and the Menstrual Cycle

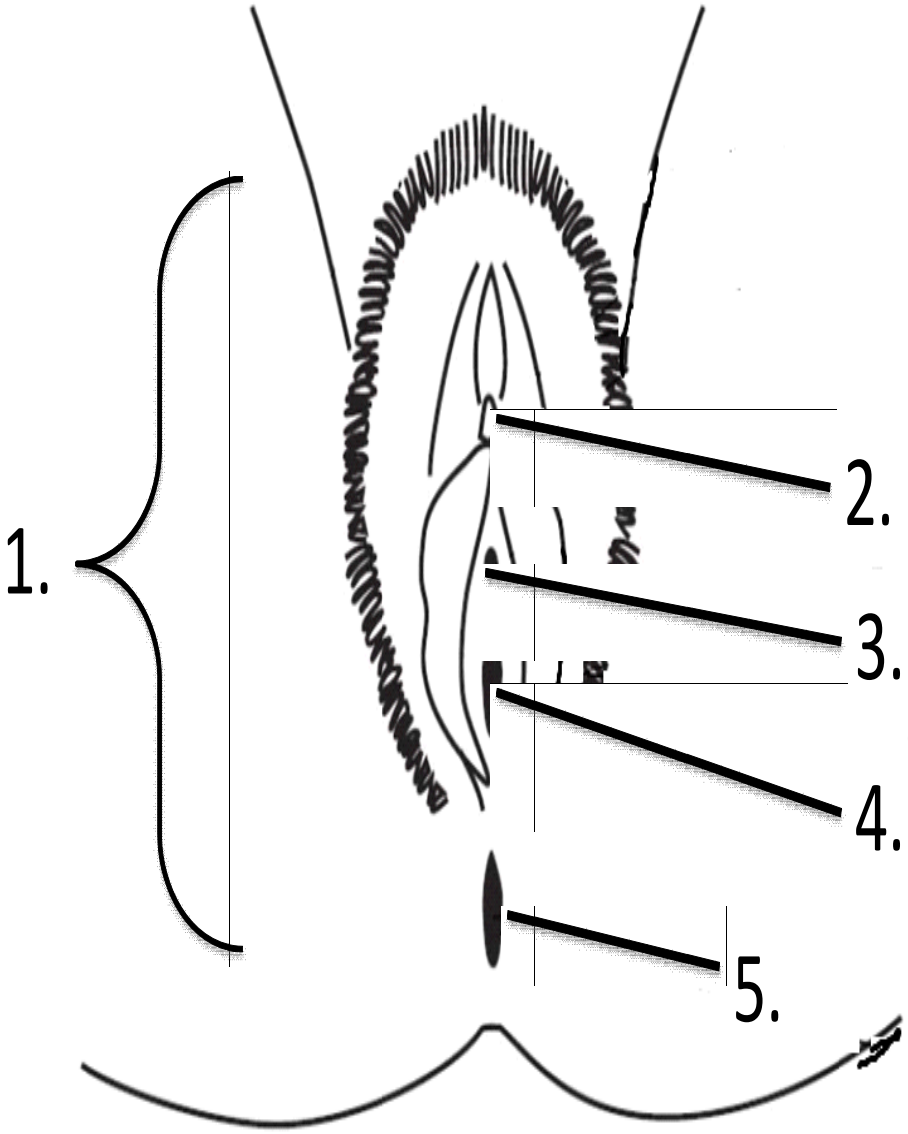
Male Genitals



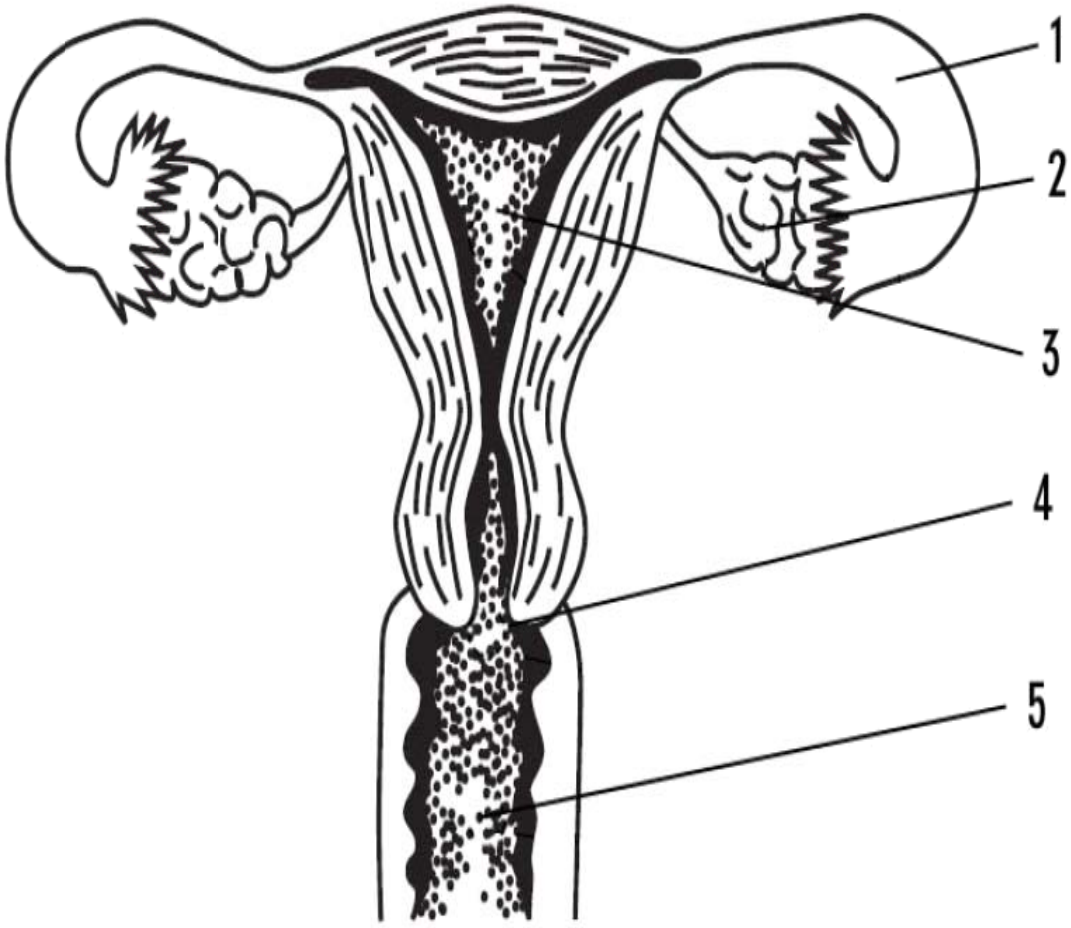
Male Reproductive Organs



Female Genitals



Female Reproductive Organs



Menstrual Calendar

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	# days since start of last period
Jan																																
Feb																																
Mar																																
Apr																																
May																																
Jun																																
Jul																																
Aug																																
Sep																																
Oct																																
Nov																																
Dec																																

X Normal flow

O Light flow

Heavy flow

Reproductive Anatomy and the Menstrual Cycle Pre/Post Test

Age _____

# of Years in America _____

1. One of the female organs (also known as the "womb") is a pear-shaped organ where the baby grows during pregnancy. It is called the _____.
    a. Vagina
    b. Uterus
    c. Cervix

2. The ball-shaped glands that produce sperm and hormones in the male body are called _____.
    a. Testicles
    b. Vas deferens
    c. Penis

3. Menstruation (a woman's period) usually lasts _____.
    a. 2 weeks
    b. 3 to 7 days
    c. 1 day

4. Lauren gets her period two times a month. She also gets severe cramps which force her to stay home from work during her period. Is this a normal or abnormal menstrual cycle?
    a. Normal
    b. Abnormal

Reproductive Anatomy and the Menstrual Cycle Pre/Post Test

ANSWER GUIDE

Age _____

# of Years in America _____

1. One of the female organs (also known as the "womb") is a pear-shaped organ where the baby grows during pregnancy. It is called the _____.
   a. Vagina
   b. Uterus
   c. Cervix

2. The ball-shaped glands that produce sperm and hormones in the male body are called _____.
   a. Testicles
   b. Vas deferens
   c. Penis

3. Menstruation (a woman's period) usually lasts _____.
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4. Lauren gets her period two times a month. She also gets severe cramps which force her to stay home from work during her period. Is this a normal or abnormal menstrual cycle?
   a. Normal
   b. Abnormal

Reproductive Anatomy and the Menstrual Cycle Feedback Survey

Age _____

# of Years in America _____

1. What did you like best about today's class?

2. What did you like least about today's class?

3. What else would you have liked to discuss?

4. Today's class was:
    a. Too long
    b. Too short
    c. Just the right amount of time

5. Would you recommend this class to your friends or other Bhutanese women?
    a. Yes
    b. No

Reproductive Health – Module 2: The Women's Health Exam and Preventive Screenings

Time	60 minutes
Materials	1) Laptop, projector, and "The Women's Health Exam" PowerPoint slides 2) Pre/Post test handouts 3) Pens, pencils 4) Plastic anatomical models (optional)
Module Summary	This module will continue the previous discussion of the reproductive system by delving into the components of a typical women's health exam. This module will mainly consist of didactic and discussion-based learning, with the option to pass around speculums and examine anatomical models of the breasts and pelvis if these resources are available.
Goal	To facilitate discussion of the components of a typical women's health exam and to educate participants on important preventive women's health screenings.
Objectives	By the end of this session, participants will be able to: 1) Explain 3 key components of a women's health exam 2) State the frequency and timing of pap smears 3) Demonstrate how to do a self-breast exam

Part 1: Introduction and Pre-Test:

Time	5 minutes
Materials	None

- Introduce the topic of today's class and reiterate the ground rules set forth in the first session. Ask participants if they have thought of any other rules they'd like to add.

- Administer pre-test. Again, explain to the students that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the students, and the exact same test will be given at the end of the class.
- ***NOTE: If literacy is an issue this (and all other activities) can be done verbally.***

Part 2: The Women's Health Exam Facilitated Discussion:

Time	10 minutes
Materials	"The Women's Health Exam" PowerPoint, laptop, and projector

- Show the participants a picture of a woman receiving a women's health exam.

Women's Health Exam

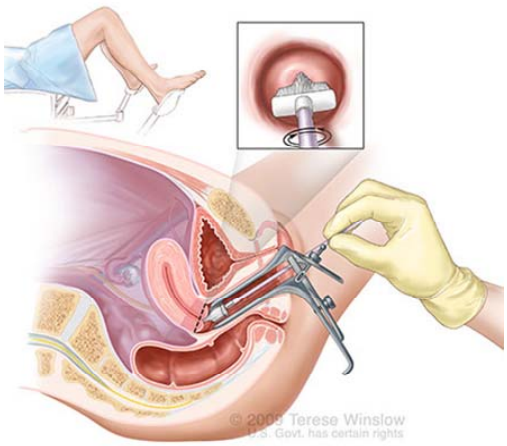


Image 1: used with permission from: Terese Winslow: http://www.teresewinslow.com/portshow.asp?portfolioid={4B56C61F-9C24-47C6-9F4D-9444E1D75BA2}

Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/5/5c/Speculum_en_m%C3%A9tal.jpg/478px-Speculum_en_m%C3%A9tal.jpg

- Explain to women that today we are going to discuss what a woman experiences when she goes to the clinic for a "women's health exam." In the United States, many women have a women's health exam every year, so these exams are also sometimes called "annual exams." These exams allow women to have a check-up of their reproductive organs and are a type of *preventive healthcare.* ***(Ask: What does prevention mean? What do you think preventive healthcare is?)***
    - To prevent something means to stop something from happening. Preventive medicine prevents (or stops) diseases from happening or getting worse. During the women's health exam several preventive screenings or tests will be done to make sure the woman is healthy. We will talk more about this later in today's class.
- Women's health exams are usually done by a gynecologist or by a nurse practitioner at a clinic or private office (***Ask: Does anybody know what a gynecologist is?)*** The women's health exam will include parts of a regular physical exam (like listening to your heart and lungs, etc.) but will mainly focus on the parts of the body related to a woman's reproductive system. (***Ask: Can you name some of these body parts?)***

- Initiate a discussion on the women's health exam by asking participants:
    - Have any of you received a women's health exam?
    - Do you know anybody that has?
    - If you're comfortable with sharing, what were your experiences having a women's health exam?
    - What have you heard about women's health exams?
    - What are your fears or concerns about women's health exams?

Part 3: Key Components of the Women's Health Exam:

Time	25 minutes
Materials	- Plastic anatomical models – vagina and breasts (optional) - Speculums (optional) - "The Women's Health Exam" PowerPoint, laptop, and projector

- *Note: the instructor should make this section as interactive as possible by encouraging conversation, asking students questions, and allowing students to ask questions.*

- (***Ask: How do you think a woman should prepare for her women's health exam?)*** Before going to a Women's Health Exam, patients should not douche, use any vaginal medications, creams, or sprays for 24 hours. For vaginal hygiene, the best thing to do is to use a mild or unscented soap on the outside genitals (vulva). She should also not have sex or insert anything into the vagina 24 hours before the exam and should try to schedule the exam when she is not on her period.

Not following this advice may cause abnormal results on some of the tests the provider may perform.

- When a woman goes in for a women's health exam, the healthcare provider will ask her questions about her health, reproduction, and sexual health. These questions are very personal and may be embarrassing, but the woman should answer them honestly so the provider will be best be able to identify any problems and help the woman with these problems. The provider may ask:
    - Information about her menstrual cycle (this is why it is important to keep track of).
    - If she has any vaginal problems like discharge, odor, itching, or rashes, etc.
    - Any health problems that she or her immediate family members has.
    - If she take any medication or has any allergies to medication
    - Information about her sexual history:
        - If she has sex with men, women, or both
        - If she's had any new sex partners recently
        - If she uses condoms
        - If she has any pain, bleeding, or other problems during sex
    - Information about her reproductive history
        - How many pregnancies, miscarriages, and abortions she's had
        - How many children she has
        - If she's had trouble getting or staying pregnant
    - If she uses any type of birth control or if she's trying to get pregnant
    - Etc.
- The woman should also ask the healthcare provider questions, tell her about any concerns she may have, and tell her if she wants to be tested for STIs or get birth control before the exam begins. (***Ask: What kinds of questions do you think a woman would want to ask the provider?)***

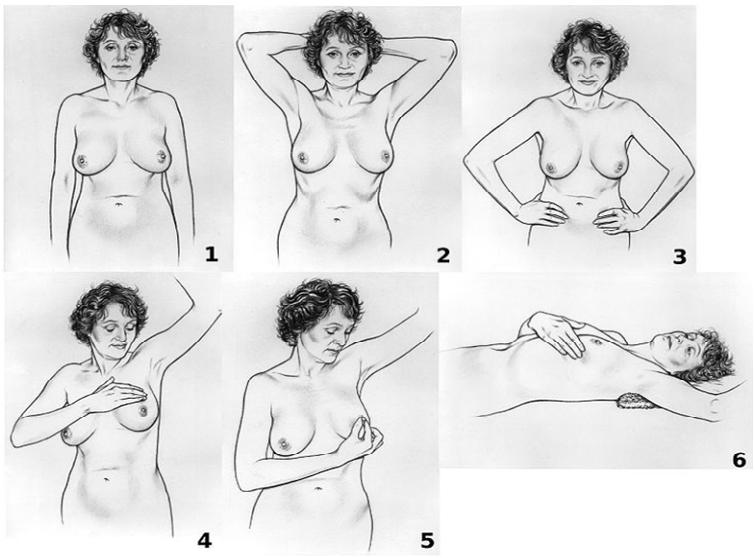
- After this, the woman will be asked to get fully undressed and put on a hospital gown. Some women may feel uncomfortable with having this type of exam performed by a male healthcare provider. If you would rather have a female provider do this exam, be sure to ask when you are scheduling your appointment.
- The healthcare provider may perform a full physical exam on the woman. This means that the provider may look in her eyes and ears, listen to her heart and lungs, feel her belly, do blood work, take her height and weight, or do other things that are normally done in a physical exam.

- However, there are 3 additional exams that are unique to a women's health visit. (***Ask: Does anybody know what they are?)***

Part 3A: The Breast Exam

- Starting when a woman is 20 years old, she should get a clinical breast exam (a breast exam performed by a healthcare provider) every 3 years (ACS).
- When a woman is 40 and older, she should get a clinical breast exam every year. She should also get a mammogram every year starting at age 40 (ACS). We will talk about mammograms a little later in today's class.
- During the clinical breast exam, the healthcare provider will examine the woman's breasts while she is sitting and lying down. She may also ask the woman to change positions (i.e., put her hands above her head, put her hands on her hips) so that she can see if there are any changes in the breast as the woman moves.
- Then the healthcare provider will ask the woman to lie on her back and put her arm over her head. She will then gently press on each breast. ***(Ask: What kinds of problems should she be looking for?)***
    - Lumps in the breast or underarm area
    - Swelling, warmth, or redness
    - A rash or changes in the skin
    - Discharge from the nipple
    - Pain
    - Unusual shape of the breast such as dimpling of the breast or pulling in of the nipple
- Women should also let their healthcare provider about any changes or concerns that they have had with their breasts. ***(Ask: What can these symptoms mean? What kind of problems can they indicate?)***
    - These symptoms or changes in your breasts could be caused by an infection, hormone problems, or most importantly, breast cancer.
        - Cancer occurs when the body's cells do not work correctly and grow more quickly than they should. When this happens in the cells of the breast, it is called breast cancer. Breast cancer is common in the United States with 1 in 8 US women developing it at some point in their lives. This is why it is important to have your breasts checked regularly by a healthcare provider.

Breast Exam



http://upload.wikimedia.org/wikipedia/commons/thumb/8/80/Breast_self-exam_NCI_visuals_online.jpg/741px-Breast_self-exam_NCI_visuals_online.jpg

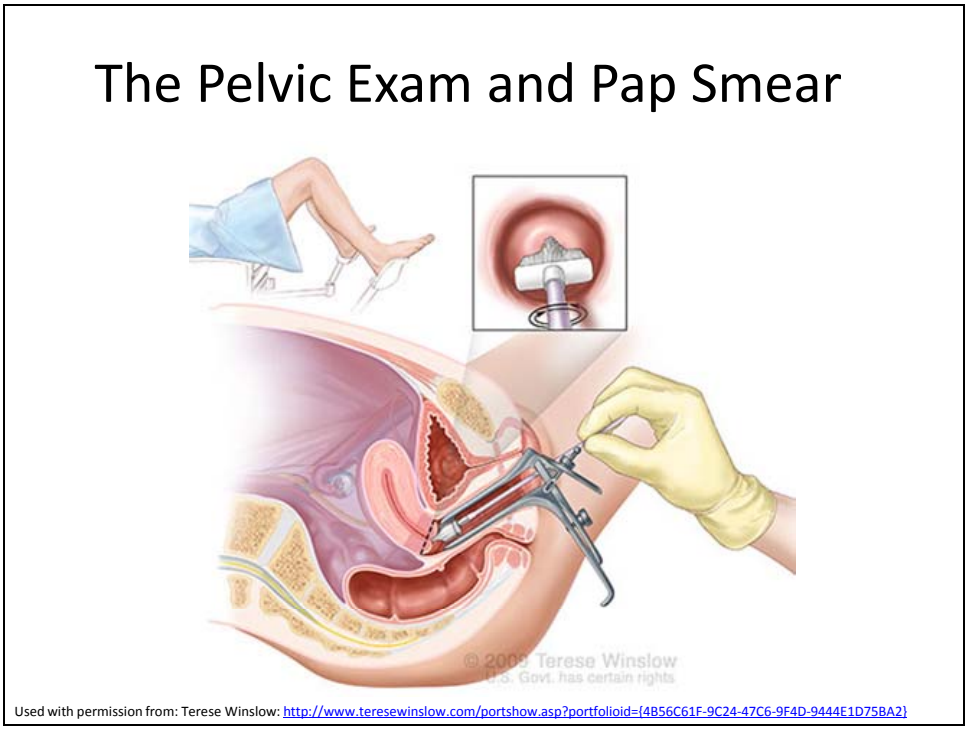
- You can also check your breasts at home. This will allow you to feel and see what is normal in your breasts and be able to tell more easily if there have been any changes you should tell the healthcare provider about.
- One simple way to look for changes in your breasts is to get dressed in front of a mirror. This way you will be able to see if there are any changes on the skin, shape, or size of the breasts.
- You can also feel your breasts by using the pads of your 3 middle fingers and pressing them in small little circles up and down your breasts. You should also do this under your arms because breast tissue is there as well. ***(Ask: What kinds of problems should you be looking for?)***
    - Lumps in the breast or underarm area
    - Swelling, warmth, or redness
    - A rash or changes in the skin
    - Discharge from the nipple
    - Pain

- ***(The instructor should now pass around the breast models and let the women practice on them).***

- Women may want to do this every month just to get a feel for what is normal for them. ***(Ask: When is the best time of the month to check your breasts?)***
    - Because of the hormonal changes from the menstrual cycle, the best time to check your breasts is a week after your period. During this time a woman's breasts are usually less tender and less lumpy.
- If you notice any changes or problems during your self breast exams, tell your healthcare provider.

Part 3B: The Pelvic/Speculum Exam and Pap Smear

- Another exam which is specific to a women's health visit is the pelvic exam. The woman will be asked to lie on her back, put her feet on footrests, and widen her legs so that the provider can examine the woman's reproductive anatomy.



Used with permission from: Terese Winslow: http://www.teresewinslow.com/portshow.asp?portfolioid={4B56C61F-9C24-47C6-9F4D-9444E1D75BA2}

- The healthcare provider will first examine the external female anatomy (the vulva) for any rashes, lumps, or other problems.

- ***(The instructor should now pass around the speculum so students can see what it looks like. If a model of the female pelvis is available the instructor can demonstrate a pelvic exam on the model).***

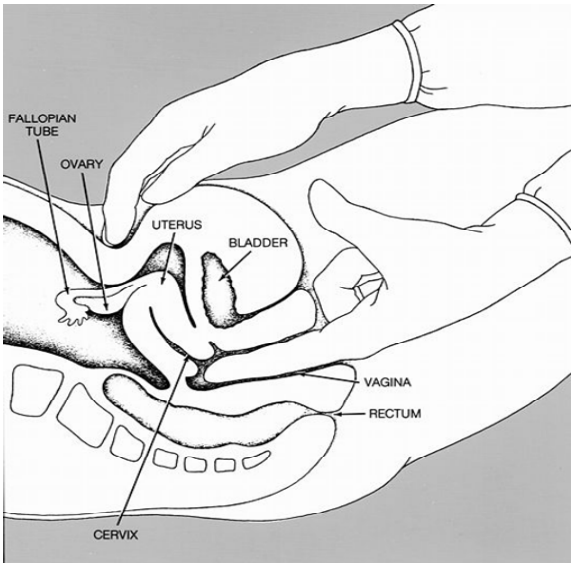
- She will then use a special instrument called a speculum. The speculum is an instrument that is made from either metal or plastic and is inserted into the woman's vagina. Before inserting the speculum, the provider will warm it and put lubrication on it so that it will feel more comfortable for the patient. (This exam should not cause pain. If it does, the woman should let the healthcare provider know). The healthcare provider will insert the speculum and then open it so that she will be able to examine the woman's vagina and cervix.

- She will be able to see if there is any unusual discharge, lumps, or irritation of the vagina and cervix. If the woman wants to be tested for STIs the healthcare provider can test for some of them during this exam by using a small q-tip to take a sample of the woman's discharge.

- The healthcare provider will also perform a special test called a pap smear during this exam. (***Ask: Does anybody know what a pap smear is?)***
    - A pap smear is a special test which examines the cells on the cervix. The provider will use a small brush and spatula to scrape cells from the cervix (this should not hurt). She will then send the sample to a laboratory which will make sure the cells are normal. Abnormal cells may be a sign of pre-cancer or cancer on the cervix and a woman may need additional examinations and tests if her cells are not normal.
    - (***Ask: At what ages should a woman start and stop getting pap smears? How often should she get a pap smear?)*** A woman should start getting pap smears when she is 21 years old. If she has had normal pap smears in the past she should get a pap smear every 3 years while she is aged 21-65. If a woman's Pap smear comes back abnormal, she may need to have pap smears more often. Her healthcare provider will let her know what to do in this case. When a woman reaches age 65-70, if she has had normal Pap smears for the past 10 years, she can stop receiving them (ACOG).

Part 3C: The Bimanual Exam

The Bimanual Exam



http://upload.wikimedia.org/wikipedia/commons/thumb/3/38/Pelvic_exam_nci-vol-1786-300.jpg/535px-Pelvic_exam_nci-vol-1786-300.jpg

- After the Pap smear, the provider will close the speculum and take it out. She will then do a bimanual exam. "Bimanual" means "two hands." During a bimanual exam, the healthcare provider will insert two gloved and lubricated fingers into the woman's vagina with one hand

and will press on the woman's belly with the other hand. (***Ask: What do you think she is trying to examine?)***

- By doing this, the provider will be able to feel the woman's cervix, uterus, and ovaries. She will feel for any abnormal lumps, shapes or sizes, or areas of pain on these internal reproductive organs. The woman should let the provider know if she is feeling any pain during this exam.

- ***Before moving to the next section, encourage questions and discussion. You may wish to repeat the discussion questions presented at the beginning of this module.***

Part 4: Other Common Reasons for Women's Health Exams:

Time	5 minutes
Materials	None

- Tell students that the annual women's health check-up is only one reason for going to a woman's healthcare provider. It is a way for women to monitor their health and prevent diseases from occurring or getting worse (preventive healthcare).
- (***Ask: What are some other reasons to go for a women's exam?***)
    - STI testing
    - Problems with your menstrual cycle
    - Other vaginal problems – we will discuss this next week
        - Discharge
        - Odor
        - Rash
        - Pain with intercourse or urination
    - Pelvic pain
    - Pregnancy
    - Family Planning/ birth control/ abortion
    - Etc.

Part 5: Other Preventive Health Measures:

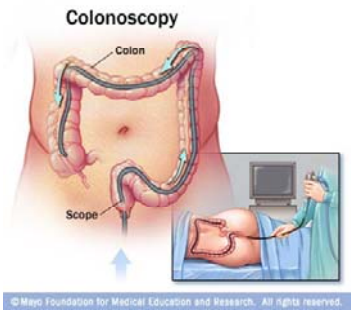
Time	10 minutes
Materials	"The Women's Health Exam" PowerPoint, laptop, and projector (optional)

-Reiterate to the class that preventive medicine stops diseases from happening or getting worse. For example, the breast exam and Pap smear are used to detect cancer or pre-cancer in women. If cancer is detected early, then things can be done to *prevent* the cancer from growing. (***Ask: What are some other things that women and their healthcare providers can do to prevent disease from happening or getting worse?)***

- Getting vaccinations, eating healthy, exercising, quitting smoking, using condoms, etc.

During your women's health exam, your healthcare provider may advise you on other preventive health services you may need depending on your age.

HPV Vaccine



Colonoscopy

Preventive Health

Mammogram

Image 1: http://upload.wikimedia.org/wikipedia/commons/3/3e/VaccineBySandraRugio.jpg
Image 2: used with permission from Mayo Clinic: http://www.mayoclinic.com/images/image_popup/hdg7_colonoscopy.jpg
Image 3: http://upload.wikimedia.org/wikipedia/commons/d/dd/Mammogram.jpg

Part 5A: The HPV Vaccine

- HPV is an STI that we will learn more about next class. This STI may cause genital warts or changes in your cervix that can lead to cancer. (***Ask: What test will help detect these changes on your cervix?*** – Pap smear)

- Girls and women ages 9-26 may be advised to get a vaccination which will help *prevent* HPV and decrease her chances of getting cervical cancer. Boys this age should also get the HPV vaccine.

Part 5B: Mammogram

- Starting at age 40, a woman should receive a special test called a mammogram every year. This test is an X-ray of the breast which helps find cancer in a woman's breasts. Although a clinical or self-breast exam may be able to detect breast problems, a mammogram can detect problems that may be too small to feel during a breast exam. This means that a mammogram can detect cancer earlier and *prevent* it from growing.
- The mammogram machine will press down on each breast, and although this may feel uncomfortable, it only lasts for a few seconds.
- Women who have an abnormal breast exam or have a strong family history of breast cancer may have to get a mammogram at a younger age, but most women get them starting at age 40 (ACS).

Part 5C: Colonoscopy

- Although it is not part of a woman's reproductive system, the healthcare provider will recommend that a woman age 50 and older get a special test of her colon (large intestine). This test is called a colonoscopy and should be done every 10 years in most women and men (USPSTF).
- During this procedure, the patient will be sedated and will have a flexible tube inserted into the rectum. The doctors will use this tube to look in the large intestines for any signs of colon cancer.

- There are many other types of preventive health and other tests that your healthcare provider may want to do depending on your personal health status. The ones we talked about today are the most commonly discussed at a women's health exam.

- ***The instructor should again encourage discussion and questions surrounding these topics.***

Part 6: Post-Test and Feedback

Time	5 minutes
Materials	- Post-test - Pencils

- Ask for any last questions about the material covered in class.
- Administer post-test again explaining that they will not be graded.
- Ask for feedback of today's class either through a written survey or verbally.
- Explain to class that at the next session we will be talking about common Sexually Transmitted Infections- how to *prevent* them, how to get tested for them, and what symptoms and complications they might have.

References

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"Women's Preventive Services: Required Health Plan Coverage Guidelines." (2012). HRSA. Retrieved April 7, 2012 from http://www.hrsa.gov/womensguidelines/

Yates, J. (2012). *New Cervical Ca screening guidelines recommend less frequent assessment.* OBG Management: 24(4).

PowerPoint Slide References

- Slide 1: Women's Health Exam
  - Image 1: used with permission from: Terese Winslow: http://www.teresewinslow.com/portshow.asp?portfolioid={4B56C61F-9C24-47C6-9F4D-9444E1D75BA2
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- Slide 2 : Breast Exam
  - http://upload.wikimedia.org/wikipedia/commons/thumb/8/80/Breast_self-exam_NCI_visuals_online.jpg/741px-Breast_self-exam_NCI_visuals_online.jpg
- Slide 3: The Pelvic Exam and Pap Smear
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- Slide 4: The Bimanual Exam
  - http://upload.wikimedia.org/wikipedia/commons/thumb/3/38/Pelvic_exam_nci-vol-1786-300.jpg/535px-Pelvic_exam_nci-vol-1786-300.jpg
- Slide 5: Preventive Health
  - Image 1: http://upload.wikimedia.org/wikipedia/commons/3/3e/VaccineBySandraRugio.jpg
  - Image 2: used with permission from Mayo Clinic: http://www.mayoclinic.com/images/image_popup/hdg7_colonoscopy.jpg
  - Image 3: http://upload.wikimedia.org/wikipedia/commons/d/dd/Mammogram.jpg

Handouts for Module 2:

The Women's Health Exam and Preventive Screenings

The Women's Health Exam and Preventive Screenings Pre/Post Test

Age _____

# of Years in America _____

1. A pap smear examines the cells of the _____.
    a. Ovaries
    b. Vagina
    c. Cervix

2. A woman should get a pap smear starting when she is _____ years old.
    a. 15
    b. 21
    c. 40

3. The best time of the month to do a self-breast exam is _____.
    a. A week after your period
    b. A week before your period
    c. During your period

4. A _____ exam is when a healthcare provider feels the woman's uterus, cervix, and ovaries by using one hand to insert 2 fingers into the vagina and the other hand to press on the belly.
    a. Bimanual
    b. Speculum
    c. Breast

The Women's Health Exam and Preventive Screenings Pre/Post Test

ANSWER KEY

Age _____

# of Years in America _____

1. A pap smear examines the cells of the _____.
   a. Ovaries
   b. Vagina
   c. Cervix

2. A woman should get a pap smear starting when she is _____ years old.
   a. 15
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   a. Bimanual
   b. Speculum
   c. Breast

The Women's Health Exam & Preventive Screenings Feedback Survey

Age _____

# of Years in America _____

1. What did you like best about today's class?

2. What did you like least about today's class?

3. What else would you have liked to discuss?

4. Today's class was:
    a. Too long
    b. Too short
    c. Just the right amount of time

5. Would you recommend this class to your friends or other Bhutanese women?
    a. Yes
    b. No

Reproductive Health – Module 3: Sexually Transmitted Infections

Time	60 minutes
Materials	5) Laptop, projector, and "Sexually Transmitted Infections" PowerPoint slides 6) Pre/Post test handouts 7) Pens, pencils 8) Index cards
Module Summary	This module will continue the discussion of reproductive health by giving an overview of sexually transmitted infections including prevention, screening, and treatment. It will also discuss non-sexually transmitted vaginal infections. Key points will be emphasized through the use of didactic lecture interspersed with open discussion and an interactive and dynamic game.
Goal	To educate women on the prevention, screening, and treatment of STIs.
Objectives	By the end of this session, participants will be able to: 4) Explain how to prevent STIs 5) Identify symptoms for which they should seek medical care 6) Differentiate curable vs. non-curable STIs

Part 1: Introduction and Pre-Test:

Time	5 minutes
Materials	None

- Introduce the topic of today's class and reiterate the ground rules set forth in the first session. Ask participants if they have thought of any other rules they'd like to add.

- Administer pre-test. Again, explain to the students that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the students, and the exact same test will be given at the end of the class.
- ***NOTE: If literacy is an issue this (and all other activities) can be done verbally.***

Part 2: STI Game

*This game is adapted from the Alberta Health Services' "STI Autograph Game"

Time	10 minutes
Materials	- Pencils - Index cards o One per student – Writ e the letter "D" on one card, the letter "C" on 20% of the cards, the letter "A" on 10% of the cards, and nothing on the remainder of the cards

- Sexually Transmitted Infections are infections which are spread through oral, anal, or vaginal sex. They are also known as STIs. If a person has an STI, he or she can spread that STI to his or her partner during unprotected sex. STIs are common in the United States, but women and men can protect themselves against STIs by using condoms.

- We are now going to play a game which will show us how easily STIs are spread when people don't use condoms.

STI GAME INSTRUCTIONS:

- Give each student an index card (some will have letters written on the back, some will not).

- Tell students to find a partner and tell the partner one STI that they have heard of. Then tell them to sign each other's cards.

- Tell students to find a different partner, sign her card, and talk about how people can protect themselves against STIs.

- Tell students to find one last partner, sign her card, and talk about a possible symptom of an STI.

- Have students sit back down with their cards. They should each have 3 different names on their card.

- Have the person with the "D" on the back stand up. This student has an STI. She should now read out the names of the people on her card.

- These students should now stand and read the names written on their cards. (This process should be continued until everyone's whose name has been read is standing.

- The standing students should now look at the back of their cards.

- Those with "C" on the back of their cards can sit down because although they had sexual contact with person "D" or a partner or person "D", they used a condom and were most likely protected against STIs.

- Those with "A" on the back of their cards can sit down too because although they were in a relationship, they were abstinent and were protected against STIs.

- The remaining students had unprotected sex and all are at risk for having an STI.

- Open up the room for discussion:

- Ask:

- Did you know person "D" had an STI?

- How did it feel to be told you have an STI?

- How did it feel for the people who were protected against the STI?

- What else would you like to say about this game?

- ***Explain that this game shows us that STIs can spread very easily by having unprotected sex. Being abstinent (not having sex) is the best way to avoid getting an STI, but if a person decides to have sex, the best way to prevent STIs is by using condoms every time he or she has sex.***

Part 3: Overview of STIs

Time	30 minutes
Materials	Laptop, projector, and "Sexually Transmitted Infections" PowerPoint slides

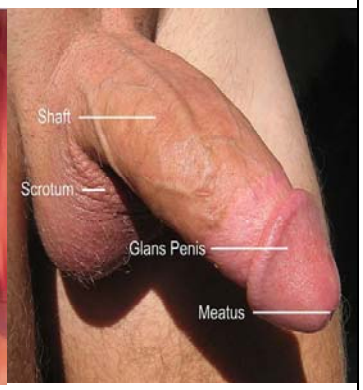
- We have seen how easily diseases can spread from unprotected sex. We will now look at the types of infections people can get to sex, how to prevent them, how to discover them, and how to get rid of them.

- ***Ask: What are some STIs that you have heard of? What are some symptoms that a woman or man might have that may make them suspect they have an STI?***
    - There are several different infections a woman or man can get from having sex. We will talk about these next.
    - Some STIs will cause symptoms such as:
        - Discharge
        - Odor
        - Itching
        - Rashes or skin changes
        - Pain with sex or urination
    - However, many STIs will not have any symptoms but can still cause damage. This is why it is important to get tested for STIs when you or your partner have a health exam.

Normal Genitalia

Female vulva

Female cervix



Male penis

Image 1: http://commons.wikimedia.org/wiki/File:Vagina,anus,perineum_(detail).jpg
Image 2: http://en.wikipedia.org/wiki/File:Cervix.jpg
Image 3: http://commons.wikimedia.org/wiki/File:Penis_labeled_eng.jpg

- These pictures are examples of "normal" male and female genitalia. However, many people with STIs will not have any symptoms and their genitals may look "normal." Just by looking, we may not know whether or not our partner has an STI. This is why it is important to get tested for STIs when you or your partner has a health exam.

- ***Now present an overview of each STI. Before each STI ask if and what they've heard about this STI. Also STRESS that condom use is the most effective way they can prevent STIs if they are sexually active.***

- ***(Ask: What is the most common STI in the United States?***)

Chlamydia

Female

Male

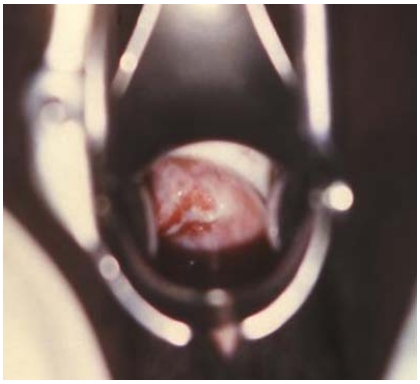
Image 1: http://upload.wikimedia.org/wikipedia/commons/3/3a/SOA-Chlamydia-trachomatis-female.jpg

Image 2: http://upload.wikimedia.org/wikipedia/commons/0/0e/SOA-Chlamydia-trachomatis-male.jpg

- Cause: Chlamydia is the most common STI in the United States. It is especially common in women under the age of 25 and is caused by bacteria that are passed during oral, anal, or vaginal sex.
- Symptoms:
    - Women:
        - Pelvic pain
        - Yellow discharge with a strong smell
        - Pain with sex or urination
        - Abnormal bleeding
        - 75% have NO SYMPTOMS
    - Men:
        - Discharge from the penis
        - Pain during urination or in the testicles
        - 50% have NO SYMPTOMS
- Testing: A healthcare provider can test for chlamydia by taking a sample of the discharge she sees during the pelvic exam. A urine sample can also be used to test for chlamydia.
- Treatment: To treat chlamydia, the man or woman will be given a medicine called an antibiotic. This medicine will kill the chlamydia bacteria. It is very important that the patient tells his or her sex partner to also get tested and treated for chlamydia so that they don't keep giving each other the infection.
- Complications: If chlamydia is not treated with medicine, it can cause health problems for men and women. If it is not treated in women, it can spread to the rest of the reproductive anatomy and can cause Pelvic Inflammatory Disease. This disease causes problems in the uterus, ovaries,

and fallopian tubes and may make a woman infertile (unable to have babies). If it is not treated in men, it can infect the testicles and possibly make the man infertile too.

Gonorrhea



Female

Male

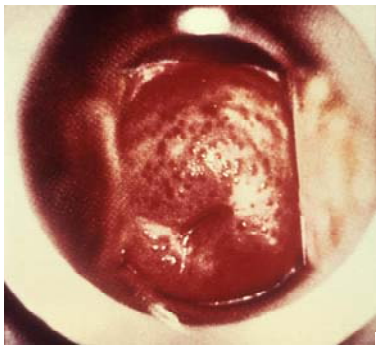
Image 1:CDC : http://phil.cdc.gov/phil_images/20030702/7/PHIL_4087_lores.jpg
Image 2:CDC, Renelle Woodall: http://phil.cdc.gov/phil_images/20030506/21/PHIL_3725_lores.jpg

- Cause: Gonorrhea is a common STI which is caused by bacteria that is passed during oral, anal, or vaginal sex.
- Symptoms:
    - Women:
        - Pelvic pain
        - Pain with sex or urination
        - Bleeding
        - Yellow/green discharge
        - HOWEVER, 80% of women will have NO SYMPTOMS!!!
    - Men:
        - Discharge from the penis
        - Pain with urination or urinating more than normal
        - 10% have NO SYMPTOMS
- Testing: A healthcare provider can test for gonorrhea by taking a sample of the discharge she sees during the pelvic exam. A urine sample can also be used to test for gonorrhea.
- Treatment: To treat gonorrhea, the man or woman will be given a medicine called an antibiotic. This medicine will kill the gonorrhea bacteria. It is very important that the patient tells his or her sex partner to also get tested and treated for gonorrhea so that they don't keep giving each other the infection.
- Complications:
    - If gonorrhea is not treated with medicine, it can cause health problems for men and women. If it is not treated in women, it can spread to the rest of the reproductive

anatomy and can cause Pelvic Inflammatory Disease. This disease causes problems in the uterus, ovaries, and fallopian tubes and may make a woman infertile (unable to have babies). If it is not treated in men, it can infect the testicles and possibly make the man infertile too.

- If a pregnant women has untreated gonorrhea, this can cause problems with her pregnancy and problems when her baby is born. The baby has a higher chance of being born too early or dying before it is born. If the baby is born, it may have serious infections in the eyes, joints, or blood.

Trichomoniasis



Female

Female

Image 1: CDC: http://phil.cdc.gov/PHIL_Images/20031204/e3bbdcd247f74ceea2cc6defc769c4e6/5240_lores.jpg
Image 2: http://upload.wikimedia.org/wikipedia/commons/b/b9/Trichomonas_Giemsa_DPDx.JPG
Image 3: CDC, http://phil.cdc.gov/PHIL_Images/20031204/609cc9ac7879457b85a90a942906e29b/5241_lores.jpg

- Cause: Trich is caused by a microscopic animal called a protozoan that irritates the vagina, penis, or anus.
- Symptoms: Almost 70% of people have NO SYMPTOMS!!
  - Women:
    - Frothy discharge with possible blood and a strong odor
    - Itching and swelling in the vaginal area
    - Painful and more frequent urination
    - MOST women have NO SYMPTOMS
  - Men:
    - Discharge
    - Painful and more frequent urination
    - MOST men have NO SYMPTOMS
- Testing: A healthcare provider can test for trich by taking a sample of the discharge she sees during a pelvic exam.

- Treatment: To treat trich, a woman or man will be given an antibiotic. This medicine will kill the trichomoniasis protozoan. It is very important that the patient tells his or her sex partner to also get tested and treated for trich so that they don't keep giving each other the infection.
- Complications:
    - Being infected with trichomoniasis can increase the risk of getting other STIs like HIV. This is true for other STIs as well because inflammation or sores from other STIs make it easier to get infected with HIV.
    - If a pregnant woman has trich, her baby might be born too early and/or too small.

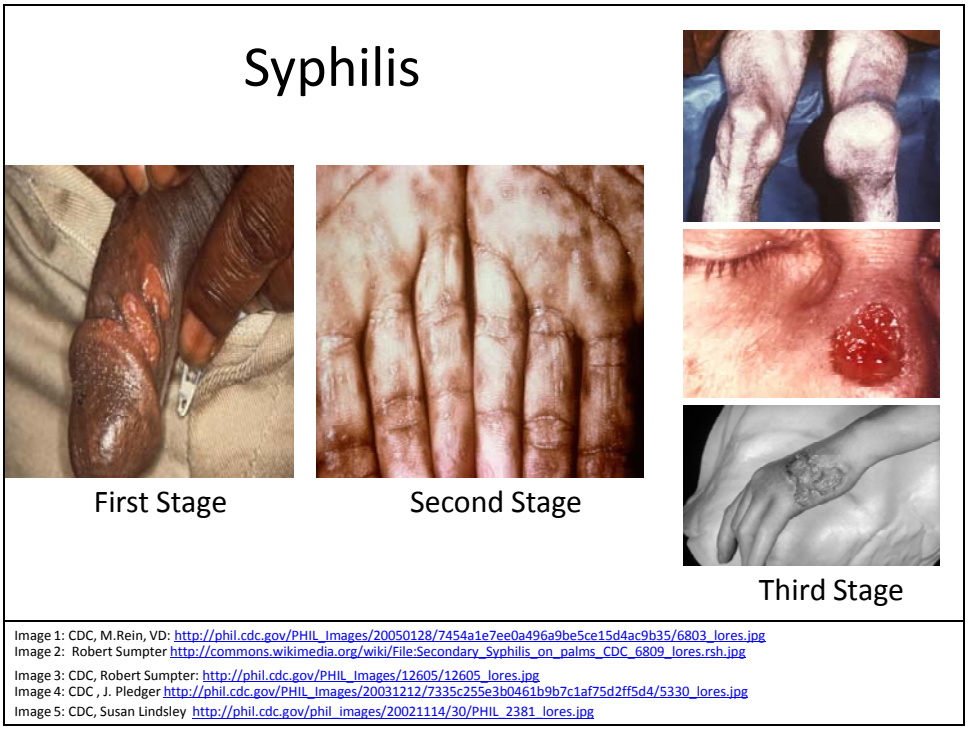


Image 1: CDC, M.Rein, VD: http://phil.cdc.gov/PHIL_Images/20050128/7454a1e7ee0a496a9be5ce15d4ac9b35/6803_lores.jpg
Image 2: Robert Sumpter http://commons.wikimedia.org/wiki/File:Secondary_Syphilis_on_palms_CDC_6809_lores.rsh.jpg
Image 3: CDC, Robert Sumpter: http://phil.cdc.gov/PHIL_Images/12605/12605_lores.jpg
Image 4: CDC , J. Pledger http://phil.cdc.gov/PHIL_Images/20031212/7335c255e3b0461b9b7c1af75d2ff5d4/5330_lores.jpg
Image 5: CDC, Susan Lindsley http://phil.cdc.gov/phil_images/20021114/30/PHIL_2381_lores.jpg

- Cause: Syphilis is caused by bacteria that are passed during oral, vaginal, or anal sex. Although in the United States it is not as common as the STIs we have already discussed, it can lead to some very serious problems if it is not treated.
- Symptoms: There are 3 stages of syphilis. Each stage has different problems that a woman or man will experience:
    - Stage 1: A sore called a chancre forms usually in the genital area of men or women. This sore does not hurt so it might be difficult to detect, especially for women if it is inside the vagina. There may be one or more sores and they can last 3-6 weeks if they are not treated
    - Stage 2: A rash develops which lasts 2-6 weeks and can come and go for 2 years if it is not treated. The rash is usually found on the palms of the hands and soles of the feet. The man or woman may also have symptoms that feel like they have the flu. These symptoms include fever, sore throat, weight loss, and headache. They may also have body aches and swollen glands.

  - Stage 3: The stage can start 1-20 years later if the syphilis still has not been treated. Very serious problems like damage to the brain, heart, and nervous system can occur in this stage. If syphilis is still not treated, people may even die from it.
- Testing: The healthcare provider can test for syphilis by taking a sample of fluid from the sores or by doing a blood test.
- Treatment: Syphilis can be treated very easily with an antibiotic if it is caught in the early stages.
- Complications:
  - If syphilis is not caught until the later stages, it can still be treated, but the damage which was already done cannot be undone.
  - If a woman has syphilis during pregnancy it can be spread to the baby. The baby might die or can have serious birth defects like heart and brain problems or blindness.

Herpes

Female

Male

Image 1: http://upload.wikimedia.org/wikipedia/commons/thumb/c/c1/SOA-Herpes-genitalis-female.jpg/230px-SOA-Herpes-genitalis-female.jpg

Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/8/88/SOA-Herpes-genitalis-male.jpg/220px-SOA-Herpes-genitalis-male.jpg

- Cause: Herpes is caused by a virus. Unlike the other infections we've already talked about, herpes stays in a person's body for their whole life. "Outbreaks" happen when the rash actually comes on the body. This can happen very rarely or very frequently depending on the person.
  - Herpes can happen on the mouth. The sores from oral herpes are called "cold sores" or "fever blisters" and are very common. They can be spread by sharing drinks, kissing, or oral sex.
  - Herpes can also happen on the man or woman's genitals. These are spread by vaginal, oral, or anal sex.
- Symptoms:
  - Many people with herpes may have no symptoms at all. Others may have "episodes" or "outbreaks" of herpes where a rash of small blisters may appear. People with herpes outbreaks may feel pain or itching on the sores. The first time this happens may be

more severe and painful than the next times. The first outbreak may also cause people to feel flu-like or have swollen glands.

- The first herpes sores may happen from 2 days to several years after the getting the infection. These first herpes sores may last from 2 weeks to a month. After that, herpes sores may last 10-14 days when outbreaks occur.

- Testing: Healthcare providers test for herpes by taking a sample of the liquid from the herpes blisters. Herpes can also be tested for by doing a blood test.
- Treatment: Herpes cannot be cured. This means that the virus will always be in the person's body. However, people can take medicine to prevent the sores or help them health quickly.
- Complications:
  - Being infected with Herpes, like any STI, increases the risk of getting infected with HIV.
  - If a woman gets infected with herpes during pregnancy she is at risk for passing it to her baby during delivery. This may cause a dangerous infection in the baby. If a woman has an outbreak when she is about to have her baby, the doctor will recommend a cesarean section to prevent the baby from coming in contact with the sores.

HPV

Female

Image 1: CDC, Joe Millar http://phil.cdc.gov/phil_images/20030714/4/PHIL_4097_lores.jpg
Image 2: CDC, Judy Schmidt http://phil.cdc.gov/PHIL_Images/9355/9355_lores.jpg
Image 3: CDC, James Gathany http://phil.cdc.gov/PHIL_Images/9300/9300_lores.jpg

- Cause: HPV is a virus called Human Papillomavirus which is spread during oral, anal, or vaginal sex. There are over 100 kinds of HPV and most people in their lives will have HPV. Most HPV infections create no problems at all. Others can cause warts on the genitals from sex (the warts on your hands and feet are also a kind of HPV but are not spread by sex). Other kinds of HPV cause microscopic changes in the cells of the cervix, penis, anus, or throat which may lead to cancer.

- Symptoms:
    - Some type of HPV will cause genital warts. They do not cause pain, but may itch.
    - Other types of HPV will not cause any symptoms that a person can feel. They may cause changes in the cells which can lead to cancer though.
- Testing:
    - A healthcare provider can test a woman for HPV when she finds an abnormal pap smear. This is why it is important for women to get pap smears – if she has abnormal cells and does not know about it, this may lead to cancer.
- Treatment: Treatment depends on what kind of HPV a person has.
    - Most HPV infections go away on their own and do not cause people any problems
    - HPV that causes changes in the cells of the cervix, anus, or penis can also go away on its own. If it doesn't these abnormal cells must be removed. In women this can be done by special procedures which freeze or cut the abnormal cells out so cancer does not form.
    - Genital warts caused by HPV do not cause cancer. They may bother a man or woman who has them though so they can be removed with medicines or surgeries.
- Complications:
    - HPV that causes changes in the cells may lead to cancer. This is why women should have a pap test and follow up with any abnormal results.
    - Genital warts may grow faster in people with HIV or who have other diseases that weaken their immune system. It may also grow faster during pregnancy.
    - If a woman has genital warts when she is going to deliver her baby, the doctor will recommend a cesarean section so the baby doesn't come in contact with the warts. If the baby is infected by the warts during delivery it can cause problems with breathing and very dangerous disabilities.
- VACCINATION
    - (***Ask: who has heard of the HPV vaccine?***)
        - The HPV vaccine protects against the most common types of HPV that cause genital warts and cervical cancer.
        - Girls and women ages 9-26 should get this vaccination which will help prevent HPV and thus decrease her chances of getting cervical cancer. Boys this age should also get the HPV vaccine.
        - The vaccination is 3 doses and can be given by a healthcare provider.

(***Ask: who has heard of HIV/AIDS? What have you heard?***)

Image 1: Sokwanele –Zimbabwe
http://www.flickr.com/photos/sokwanele/1933950763/sizes/m/in/photostream/

Image 2: James Heilman, MD
http://en.wikipedia.org/wiki/File:Thrush.JPG

Image 3: United Nations Photos
http://www.flickr.com/photos/un_photo/4821484394/sizes/m/in/photostream/

Image 4: John Gevers:
http://www.flickr.com/photos/newmediabrew/34035740/

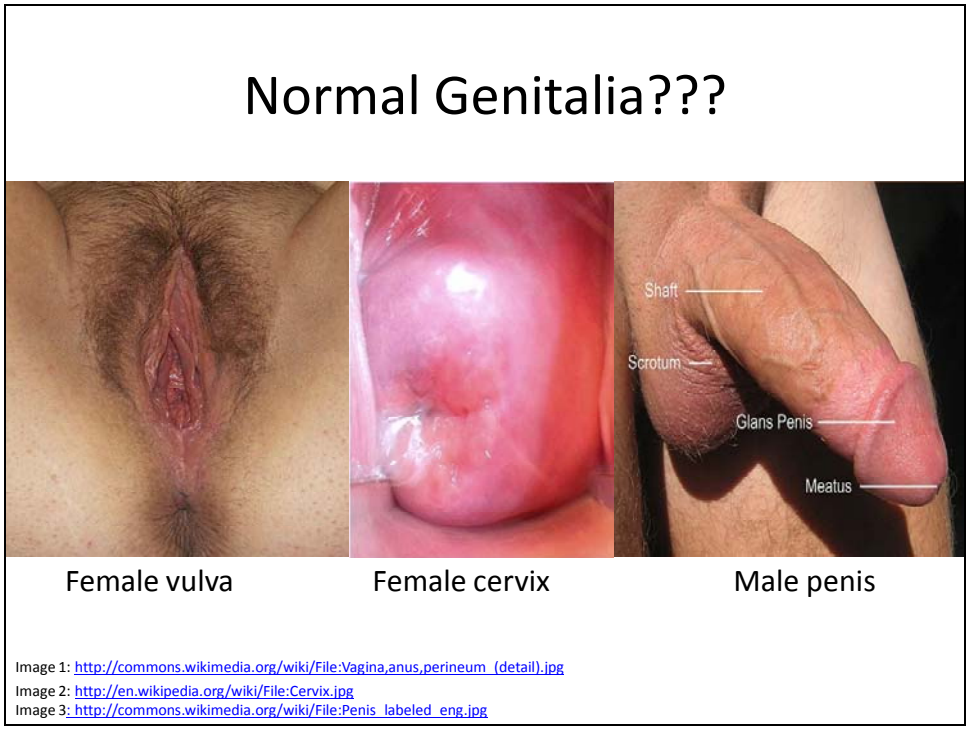
Image 5: National Cancer Institute:
http://commons.wikimedia.org/wiki/File:Kaposi%27s_sarcoma_after.jpg

Image 6: John Gevers
http://www.flickr.com/photos/newmediabrew/34036734/sizes/m/in/photostream/

- <u>Cause:</u> HIV is also caused by a virus called the Human Immunodeficiency Virus. The immune system is what protects us against getting sick. When people are infected with HIV they cannot fight off infections that they normally can. A person is said to have AIDS (Acquired Immune Deficiency Syndrome) when HIV is in its late stages.
- (***Ask: How is HIV/AIDS spread? How is it NOT spread?)***
    - HIV/AIDS is spread by:
        - Vaginal or anal sex
        - Sharing needles or getting HIV+ blood into open wounds
        - HIV+ mothers passing HIV to their babies during birth or breastfeeding
    - HIV/AIDS is NOT spread by:
        - Kissing
        - Sharing drinks
        - Getting blood from a hospital
        - Etc.
- <u>Symptoms:</u>
    - Depending on the person infected, it usually takes more than 10 years for symptoms to start. This means that a person may go for a very long time without knowing they have HIV or that they may not look sick at all.
    - When symptoms start to develop they are usually swollen glands, fever, headaches, muscle aches and fatigue. These symptoms may last only for a few weeks and are also common in many other kinds of diseases, so a person may not think these symptoms are HIV.

- Symptoms may go away for years before they start again.
- AIDS happens when the person's body is very badly damaged by the HIV virus. Some symptoms may be yeast infections in the mouth and vagina, feeling extremely tired, losing weight for no reason, frequent diarrhea and fevers, very strong infections, spots on the skin or mouth, loss of strength, and mental changes just to name a few.

- Testing:
  - A healthcare provider can test a person for HIV/AIDS by taking a sample of blood or saliva.
- Treatment:
  - There is no cure for HIV/AIDS, but people with this disease can take special medicines to help them feel healthier and live for a longer period of time. These medicines work to make the immune system stronger to stop HIV from becoming AIDS or to make a person's symptoms feel better.
- Complications:
  - The medicines for HIV/AIDS are expensive and can have bad side effects. They also only work for a limited period of time. People who have HIV/AIDS will eventually die from problems caused by HIV/AIDS since there is no cure.
  - If a pregnant mother is HIV+ she has a 25% chance of passing HIV to her baby. However, if she is taking medicine to treat her HIV/AIDS this can greatly lower the chance of passing HIV to her baby.



- The pictures of the STIs we saw showed people with *symptoms* of STIs. However, as we learned, MOST people do not have symptoms when they have STIs. Therefore, we cannot really know for

sure whether or not these genitalia are “normal” or whether or not they have an STI just by looking at them. It is important to go to a healthcare provider when you have symptoms, but it is also important to get tested for STIs when you or your partner has a health exam even if you don’t have any symptoms.

- ***In order to reinforce key messages, ask the students: what is the best way to protect against STIs?***

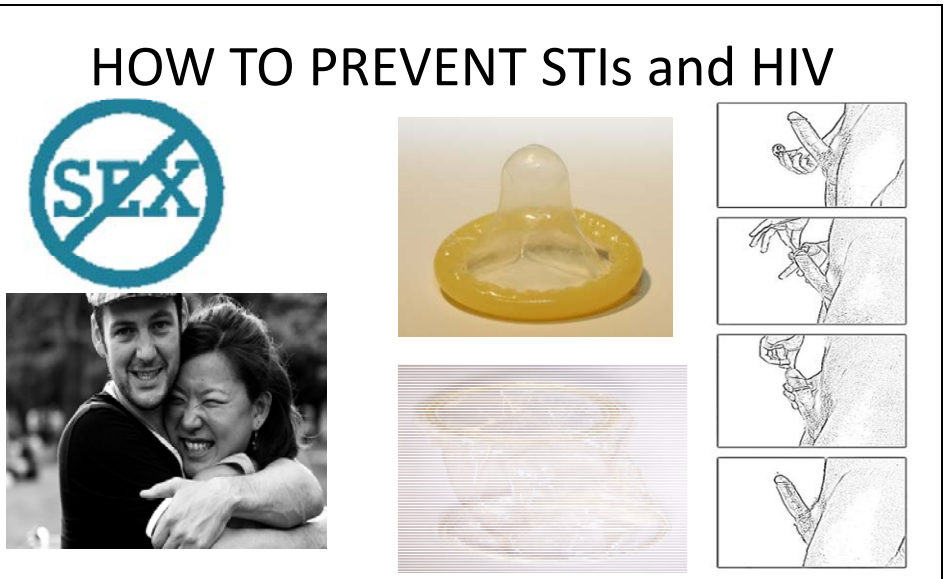


Image 1: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
Image 2: Photo credit: iMorpheus http://www.flickr.com/photos/sfj/3545063912/sizes/m/in/photostream/
Image 3: http://upload.wikimedia.org/wikipedia/commons/0/04/Kondom.jpg
Image 4: http://upload.wikimedia.org/wikipedia/commons/thumb/c/cf/Pr%C3%A9servatif_f%C3%A9minin.jpg/800px-Pr%C3%A9servatif_f%C3%A9minin.jpg
Image 5: http://upload.wikimedia.org/wikipedia/commons/thumb/f/fe/CondomUse2_alternative.jpg/219px-CondomUse2_alternative.jpg

- Abstinence (not having sex) is the best way a person can protect themselves from STIs. However, if a person decides to have sex, there are still things he or she can do to protect themselves from STIs.
- Condoms are the best way a person can prevent themselves from getting an STI. Even if a woman is on hormonal birth control to prevent pregnancy, she should use condoms to protect herself from getting an STI.
- A woman can also greatly decrease her chances of getting an STI by having only one sexual partner in a relationship where both partners remain faithful to each other.

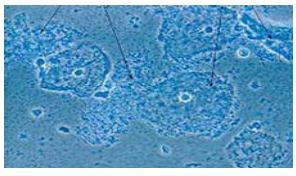
Part 4: Non-Sexually Transmitted Vaginal Infections

Time	10 minutes
Materials	Laptop, projector, and "Sexually Transmitted Infections" PowerPoint slides

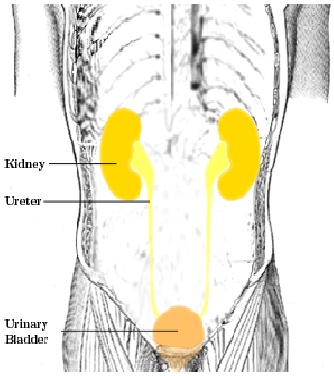
- The infections we just spoke about are all spread by sex, but there are infections a woman can get in her genital area which are not spread by sex. These infections might have similar symptoms but are not STIs. (***Ask: what are some of the symptoms of vaginal infections?)***
    - Discharge
    - Odor
    - Itching
    - Rashes or skin changes
    - Pain with sex or urination
- Women should go to the health clinic if they have any of these symptoms. The only way to tell if a woman has an STI or other vaginal infection is to get tested by a healthcare provider.
- Some types of infections a woman might have which are not spread by sex are:
    - Yeast infections
    - Bacterial infections
    - Urinary tract infections

Non-sexually transmitted vaginal infections

Yeast Infection



Bacterial Vaginosis



Urinary Tract Infection

Image 1: CDC http://phil.cdc.gov/PHIL_Images/20041028/a2da94d94d3542e1aca935f9b30ade09/6381_lores.jpg

Image 2: http://en.wikipedia.org/wiki/File:Vaginose-G15.jpg

Image 3 Lennert B: http://commons.wikimedia.org/wiki/File:Urinary_tract_en.png

- **Yeast Infections:**
  - Cause:
    - Vaginal yeast infections are caused by an overgrowth of a type of fungus in the vagina. Fungus is always found in the vagina, but sometimes it grows too much and causes an infection.
    - (***Ask: What are some reasons yeast might grow too much?)***
      - Stress or lack of sleep
      - Changes in hormones
        - Having your period
        - Being pregnant
      - Being sick
      - Certain kinds of medicines, etc.
  - Symptoms:
    - Thick, white (cottage cheese-like) discharge
    - Itching or burning in the vagina and vulva
    - Pain when urinating or having sex
    - A rash or redness on the vulva
  - Testing:
    - The healthcare provider can test for a yeast infection by examining the discharge she sees during a pelvic exam.
  - Treatment:
    - Yeast infections are easily treated by anti-fungal medications prescribed by a healthcare provider. There are also creams and pills available at the pharmacy without a prescription, but a woman should go to the clinic for her first yeast infection to make sure it's not a different type of infection.
  - (***Ask: How can women avoid yeast infections?***)
    - Don't douche or use strongly scented soaps in the vaginal area
    - Wear cotton underwear that is not tight
    - Don't wear wet bathing suits or clothes for a long time
    - Use unscented pads and tampons and change them often
    - Etc.

- **Bacterial Infections**
  - *NOTE: the photograph on the PowerPoint slide shows the cells from a woman's vagina when she has bacterial vaginosis.*
  - Cause:
    - Vaginal bacterial infections which are not passed by sex are also known as Bacterial Vaginosis (BV). Bacteria are always found in the vagina, but when they grow too much a woman can get BV.
  - Symptoms:

        - Whitish or gray discharge
        - Odor, especially after sex
        - Irritation of the vulva and vagina
    - Testing:
        - The healthcare provider can test for BV by examining the discharge she sees during a pelvic exam.
    - Treatment:
        - BV is easily treated and cured by antibiotics prescribed by a healthcare provider.
    - (***Ask: How can women avoid bacterial vaginosis?***)
        - Don't douche or use strongly scented soaps in the vaginal area
        - Wear cotton underwear that is not tight
        - Use unscented pads and tampons and change them often
        - Etc.

- **Urinary Tract Infections**
    - Cause: Urinary tract infections (UTIs) are caused by bacteria getting into the urethra (tube that urine comes out of) and infecting the urethra, the bladder, or the tubes that connect the urethra and bladder. (***Ask: How do bacteria get into the urethra?***)
        - Women get UTIs more easily than men do because the urethra, vagina, and anus are pretty close to each other. Bacteria may get into the urethra from improper hygiene (for example, if a woman wipes herself from back to front and gets feces into the urethra) or from an STI in the vagina. However, since it's so easy for bacteria to get into the urethra many women may not know how they got a UTI. Even if a woman doesn't know the cause of her UTI, it can still be treated and cured with medicine.
    - Symptoms:
        - Symptoms of UTIs are:
            - Pain during urination
            - Urinating or feeling like you have to urinate more than normal
            - Feeling like you have to urinate when you just finished urinating
            - Fever
            - Pain in your belly or back
            - Blood and/or pus in your urine
    - Testing:
        - Since these symptoms are also symptoms of some STIs, it is important to see a healthcare provider if you have these symptoms. The healthcare provider can test you for a UTI by having you urinate in a cup and then testing your urine.
    - Treatment:
        - UTIs are easily cured with medicine called antibiotics. You need to get a prescription from your healthcare provider to get this medicine.
    - Complications:

- If UTIs aren't treated, the infection can spread to the kidneys.

o (***Ask: How can women help prevent UTIs?)***

- Drink a lot of water
- Don't hold your urine in. Urinate when you feel you need to.
- Proper hygiene.
- Urinating before and after sex.
- Etc.

Part 5: Post-Test and Feedback

Time	5 minutes
Materials	- Post-test - Pencils

- Ask for any last questions about the material covered in class.
- Administer post-test again explaining that they will not be graded.
- Ask for feedback of today's class either through a written survey or verbally.
- Explain to class that at the next session we will be talking about birth control and how a woman and her partner can prevent pregnancy.

References

"Bacterial Vaginosis Fact Sheet." (2008). USDHHS Office of Women's Health." Retrieved April 23, 2012 from http://www.womenshealth.gov/publications/our-publications/fact-sheet/bacterial-vaginosis.cfm#a

Schuling, K., and Likis, F. (2006). *Women's Gynecological Health*. Sudbury, Massachusetts: Jones and Bartlett.

"Sexually Transmitted Diseases." (2012). Planned Parenthood. Retrieved April 16, 2012 from http://www.plannedparenthood.org/health-topics/stds-hiv-safer-sex-101.htm

Yeast Infection Fact Sheet." (2008). USDHHS Office of Women's Health." Retrieved April 23, 2012 from http://www.womenshealth.gov/publications/our-publications/fact-sheet/vaginal-yeast-infections.cfm#a

PowerPoint Slide References

- Slide 1: Normal Genitalia

Image 1: http://commons.wikimedia.org/wiki/File:Vagina,anus,perineum_(detail).jpg
Image 2: http://en.wikipedia.org/wiki/File:Cervix.jpg
Image 3: http://commons.wikimedia.org/wiki/File:Penis_labeled_eng.jpg

- Slide 2: Chlamydia

  Image 1: http://upload.wikimedia.org/wikipedia/commons/3/3a/SOA-Chlamydia-trachomatis-female.jpg

  Image 2: http://upload.wikimedia.org/wikipedia/commons/0/0e/SOA-Chlamydia-trachomatis-male.jpg

- Slide 3: Gonorrhea

  Image 1:CDC : http://phil.cdc.gov/phil_images/20030702/7/PHIL_4087_lores.jpg

  Image 2:CDC, Renelle Wcodall: http://phil.cdc.gov/phil_images/20030506/21/PHIL_3725_lores.jpg

- Slide 4: Trichomoniasis

  Image 1: CDC: http://phil.cdc.gov/PHIL_Images/20031204/e3bbdcd247f74ceea2cc6defc769c4e6/5240_lores.jpg

  Image 2: http://upload.wikimedia.org/wikipedia/commons/b/b9/Trichomonas_Giemsa_DPDx.JPG
  Image 3: CDC, http://phil.cdc.gov/PHIL_Images/20031204/609cc9ac7879457b85a90a942906e29b/5241_lores.jpg

- Slide 5: Syphilis

  Image 1: CDC, M.Rein, VD http://phil.cdc.gov/PHIL_Images/20050128/7454a1e7ee0a496a9be5ce15c4ac9b35/6803_lores.jpg

  Image 2: Robert Sumpter http://commons.wikimedia.org/wiki/File:Secondary_Syphilis_on_palms_CDC_6809_lores.rsh.jpg

  Image 3: CDC, Robert Sumpter: http://phil.cdc.gov/PHIL_Images/12605/12605_lores.jpg

  Image 4: CDC , J. Pledger http://phil.cdc.gov/PHIL_Images/20031212/7335c255e3b0461b9b7c1af75d2ff5d4/5330_lores.jpg
  Image 5: CDC, Susan Lindsey http://phil.cdc.gov/phil_images/20021114/30/PHIL_2381_lores.jpg

- Slide 6: Herpes

  Image 1: http://upload.wikimedia.org/wikipedia/commons/thumb/c/c1/SOA-Herpes-genitalis-female.jpg/230px-SOA-Herpes-genitalis-female.jpg

  Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/8/88/SOA-Herpes-genitalis-male.jpg/220px-SOA-Herpes-genitalis-male.jpg

- Slide 7: HPV

  Image 1: CDC, Joe Millar http://phil.cdc.gov/phil_images/20030714/4/PHIL_4097_lores.jpg
  Image 2: CDC, Judy Schmidt http://phil.cdc.gov/PHIL_Images/9355/9355_lores.jpg
  Image 3: CDC, James Gathany http://phil.cdc.gov/PHIL_Images/9300/9300_lores.jpg

- Slide 8: HIV/AIDS
  - Image 1: Sokwanele –Zimbabwe http://www.flickr.com/photos/sokwanele/1933950763/sizes/m/in/photostream
  - Image 2: James Heilman, MD http://en.wikipedia.org/wiki/File:Thrush.JPG
  - Image 3: United Nations Photos http://www.flickr.com/photos/un_photo/4821484394/sizes/m/in/photostream
  - Image 4: John Gevers: http://www.flickr.com/photos/newmediabrew/34035740/
  - Image 5: National Cancer Institute: http://commons.wikimedia.org/wiki/File:Kaposi%27s_sarcoma_after.jpg
  - Image 6: John Gevers http://www.flickr.com/photos/newmediabrew/34036734/sizes/m/in/photostream/

- Slide 9: Normal Genitalia???

  Image 1: http://commons.wikimedia.org/wiki/File:Vagina,anus,perineum_(detail).jpg

  Image 2: http://en.wikipedia.org/wiki/File:Cervix.jpg
  Image 3: http://commons.wikimedia.org/wiki/File:Penis_labeled_eng.jpg

- Slide 10: How to Prevent STIs and HIV

Image 1: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
Image 2: Photo credit: iMorpheus http://www.flickr.com/photos/sfj/3545063912/sizes/m/in/photostream/
Image 3: http://upload.wikimedia.org/wikipedia/commons/0/04/Kondom.jpg
Image 4: http://upload.wikimedia.org/wikipedia/commons/thumb/c/cf/Pr%C3%A9servatif_f%C3%A9minin.jpg/800px-Pr%C3%A9servatif_f%C3%A9minin.jpg
Image 5: http://upload.wikimedia.org/wikipedia/commons/thumb/f/fe/CondomUse2_alternative.jpg/219px-CondomUse2_alternative.jpg

- Slide 11: Non-Sexually transmitted vaginal infections

Image 1: CDC http://phil.cdc.gov/PHIL_Images/20041028/a2da94d94d3542e1aca935f9b30ade09/6381_lores.jpg
Image 2: http://en.wikipedia.org/wiki/File:Vaginose-G15.jpg
Image 3 Lennert B: http://commons.wikimedia.org/wiki/File:Urinary_tract_en.png

Handouts for Module 3: Sexually Transmitted Infections

Sexually Transmitted Infections Pre/Post Test

Age _____

# of Years in America _____

1. The method of birth control which prevents pregnancy AND sexually transmitted infections is:
    d. Birth control patch
    e. IUD
    f. Condoms

2. Which Sexually Transmitted Infection can be cured (completely goes away) with medicine?
    a. HIV/AIDS
    b. Chlamydia
    c. Herpes

3. There is a vaccine to protect girls and boys against this STI:
    a. HPV
    b. Syphilis
    c. Gonorrhea

4. Which of the following is NOT passed by sex?
    a. HPV
    b. Yeast infection
    c. Trich

Sexually Transmitted Infections Pre/Post Test: Answer Key

Age _____

# of Years in America _____

1. The method of birth control which prevents pregnancy AND sexually transmitted infections is:
    a. Birth control patch
    b. IUD
    c. Condoms

2. Which STI can be cured (completely goes away) with medicine?
    a. HIV/AIDS
    b. Chlamydia
    c. Herpes

3. There is a vaccine to protect girls and boys against this STI:
    a. HPV
    b. Syphilis
    c. Gonorrhea

4. Which of the following is NOT passed by sex?
    a. HPV
    b. Yeast infection
    c. Trich

STI Feedback Survey

Age _____

# of Years in America _____

1. What did you like best about today's class?

2. What did you like least about today's class?

3. What else would you have liked to discuss?

4. Today's class was:
    a. Too long
    b. Too short
    c. Just the right amount of time

5. Would you recommend this class to your friends or other Bhutanese women?
    a. Yes
    b. No

Reproductive Health – Module 4: Family Planning, Birth Control, and Abortion

Time	90 minutes
Materials	9) Laptop, projector, and "Family Planning, Birth Control, and Abortion" PowerPoint slides 10) Pre/Post test handouts 11) Pens, pencils 12) Sample birth control methods/ educational displays (optional)
Module Summary	This module will continue the discussion of reproductive health by introducing methods of family planning including birth control, sterilization, and abortion. This module can be split into two 1 hour sessions or can be completed in one 2 hour long session. This module will center on an interactive lecture and dynamic discussion to convey key messages.
Goal **Objectives**	To raise awareness and discussion around family planning options including hormonal and non-hormonal contraception, sterilization, and abortion. By the end of this session, participants will be able to: 7) Identify which birth control methods protect against both pregnancy and STIs 8) Identify the most effective forms of reversible birth control

Part 1: Introduction and Pre-Test:

Time	5 minutes
Materials	None

- Introduce the topic of today's class and reiterate the ground rules set forth in the first session. Ask participants if they have thought of any other rules they'd like to add.

- Administer pre-test. Again, explain to the students that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the students, and the exact same test will be given at the end of the class.
- ***NOTE: If literacy is an issue this (and all other activities) can be done verbally.***

Part 2: Family Planning Facilitated Discussion:

Time	10 minutes
Materials	None

- Tell the class that today we will talk about family planning. ***(Ask: what does the phrase "family planning" means to you?)***
    - Family planning allows a woman and her partner to decide if or when she wants to have babies. Family planning includes when she wants to start having babies, the amount of time she wants to wait between babies, and when she wants to not have babies.
- We will discuss pregnancy in a later class, but today we will talk about what a woman and her partner should do if they do not want babies right now. Three ways a woman can avoid having a baby when she does not want to are birth control, emergency contraception, and abortion. ***(Ask: What are some reasons why a woman would not want to have a baby? How can these methods help her plan her family?)***
    - Reasons for not wanting a baby: too young, not healthy, already has the number of children she wants (if any), wants to focus on school/work, doesn't have enough money, isn't mature enough/isn't ready, etc
    - Examples of how methods can help:
        - Birth control – a woman can use birth control to avoid getting pregnant
        - Emergency contraception- a woman can take emergency contraception if she has unprotected sex or her birth control method fails
        - Abortion – a woman can get an abortion if she has an unplanned pregnancy but does not want to have a baby right now
- We will talk more about these methods of family planning now.

Part 3: Birth Control Methods:

Time	80 minutes Timing for specific sections can be divided as needed based on interest and discussion. - Abstinence - Natural Methods - Barrier Methods - Hormonal Methods & IUDs - Emergency Contraception - Sterilization
Materials	1) Laptop, projector, and "Family Planning, Birth Control, and Abortion" PowerPoint slides 2) Sample birth control methods/ educational displays (optional)

- ***********Note: The prices listed for the various methods are average prices. Students should be advised to talk to their healthcare provider about cheaper alternatives, discount programs, or clinics which would be able to provide services for a lower cost. A local resource guide will be provided in the appendix of this module. *************

- Birth control is a method of family planning which allows women to prevent pregnancy. Some, but not all, methods may also protect against infections passed during sex called sexually transmitted infections (STIs). This section will give a brief overview of birth control methods. *Note: The slides which have a yellow star on the top of them represent the MOST effective forms of birth control.
- ***If resources are available, pass around a sample of each method so participants are able to see and feel each method. To facilitate discussion, after each method is introduced ask the students:***
    - ***Have you heard of this method before? Do you know somebody who uses it?***
    - ***What do you think of this method?***
    - ***What do you think are the good things and bad things about this method?***

- There are many different kinds of birth control that a woman may use to prevent pregnancy. Today we will talk about the different methods, how they work, and where women can get them. ***(Ask: What are some birth control methods you know about?)***

Part 3A: Abstinence

- ***(Ask: What is the most effective way to prevent pregnancy and STIs?)***

- ***Ask: What does it mean to abstain from something?***
- If somebody abstains from something, it means they choose not to do it. Some people choose to abstain from sex. If a woman chooses not to have vaginal intercourse, for example, she is abstaining. If a woman does not have vaginal intercourse this means that the man's penis does not enter her vagina, and therefore, sperm will not be able to fertilize the woman's egg.
    - Some couples may choose to abstain from vaginal sex, but may still have oral or anal sex. Oral sex is when a person's mouth is used on his or her partner's genitals. Anal sex is when a man's penis is inserted into his partner's anus. Although some may consider this a kind of abstinence (because they are not having vaginal sex, and thus cannot get pregnant), they can still get STIs from this kind of sexual activity.
    - If a woman does not engage in <u>any</u> type of sexual activity, a woman cannot get pregnant or get STIs.
- ***Ask: What are some reasons why a woman may want to have sex? What are some reasons she may not want to have sex?***
- Abstinence should be an option for a woman at any time in her life. Women have the choice whether or not they want to have sex. However, it may be difficult for a woman to abstain if her partner does not want to. Let's practice ways to tell your partner that you don't want to have sex.
    - ***Have the students pair up and role play as a couple where one partner wants to have sex and the other doesn't. After a few minutes have the groups re-convene and share their ideas on how to communicate their desire to abstain from sex to their partner. Is this difficult to do? Is it easier or more difficult to communicate this in a marriage relationship?***
- If a woman decides to have sex she should know how to protect herself from pregnancy and sexually transmitted infections. We will now talk about methods she can use to do this – these methods are called "birth control" and work in different ways to prevent pregnancy, and in some cases, STIs.

Part 3B: Natural Methods

Natural Methods

- First we will talk about natural methods of birth control. Natural methods of birth control are methods that rely on a woman's or man's body to prevent pregnancy. They are usually free and couples don't need to buy any extra supplies. It is important that the man and woman know their bodies very well for these methods to work.

Natural Methods: Fertility Awareness

http://bedsider.org/methods/fertility_awareness#alternatives_tab

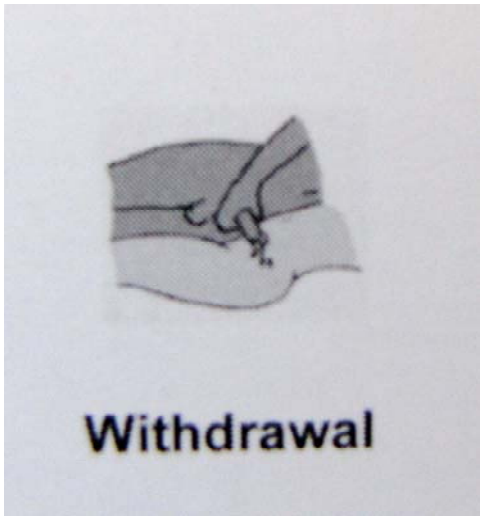
- How does it work? If a woman wants to use Fertility Awareness Methods, she must have normal menstrual cycles and keep very good records of it and changes in her body. This will let her

figure out when she is most *fertile* (most likely to become pregnant). If she does not want to get pregnant she and her partner should not have unprotected sex on her fertile days, but if she does want to get pregnant, she and her partner should have unprotected sex on these days. There are a few ways women can use the Fertility Awareness Methods:

  - Monitoring her menstrual cycle on a calendar or using "cycle beads" and using special calculations to figure out when she is most fertile.
  - Keeping track of changes in the mucus that her cervix produces throughout the month. Cervical mucus changes throughout a woman's cycle (for example, there will be a lot of slippery mucus when a woman is ovulating (releasing an egg) and is most fertile).
  - Measuring her temperature when she first wakes up in the morning (usually she also tracks her cervical mucus too to make this method more effective). This helps a woman figure out when she is most fertile because when she releases an egg, her temperature will get a little bit higher.

- <u>How well does it work?</u>
  - ***(Explain to the class that most couples don't use methods of birth control perfectly – they may not always use it, it may fail, etc. This type of use is called typical use).***
  - Out of couples who always use it perfectly, 0.4-5% will get pregnant within a year.
  - Out of couples with typical use, 12-24% will get pregnant within a year.
- <u>Where can I get it?</u> This method does not need any expensive supplies. If a woman wants to measure her temperature, she can buy a thermometer at a pharmacy. If she wants to use cycle beads, she can make them herself or buy them online.
- <u>How much does it cost?</u> Since there aren't any expensive supplies, this method can be free or very cheap to use.
- <u>Other information:</u>
  - For this method to be most effective, it is very important that a woman have normal menstrual cycles. She also must do a very good job of keeping track of these changes in her body and must have a partner who agrees to have no sex or have protected sex during her most fertile days.
  - This method does not protect against STIs, so couples should use condoms if they are concerned about getting an STI.
  - We will talk more about how couples use these methods to get pregnant during our "Pregnancy and Fertility" class.

Natural Methods: Withdrawal



Credit: Hatcher, RA, Trussell, J, Nelson A, Cates W, Kowal D, Policar M. Contraceptive Technology. 20 Edition. Atlanta, GA: Ardent Media, Inc., 2011.

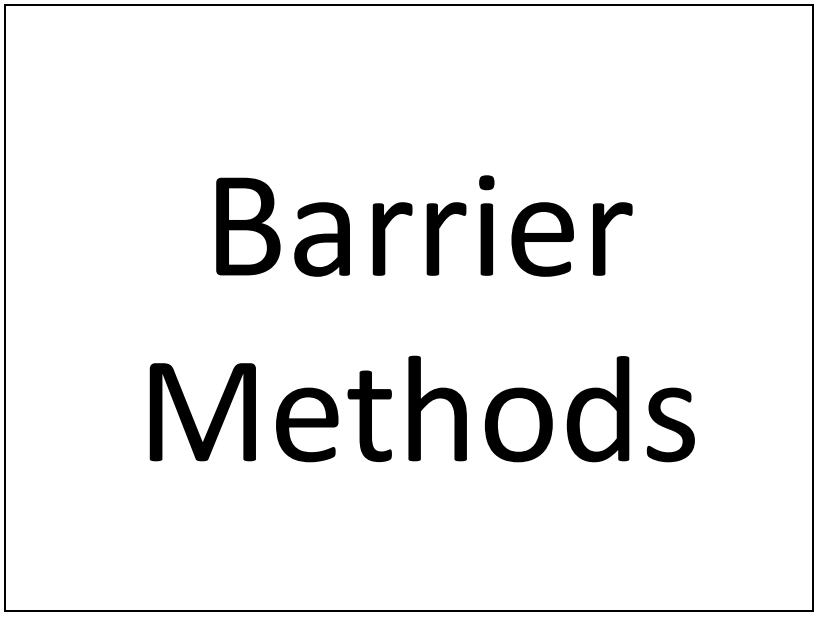
- How does it work? The withdrawal method is when a man "pulls out" his penis from the woman's vagina before he ejaculates (releases sperm). Since he does not release sperm inside the woman's vagina, his sperm cannot reach the woman's egg so pregnancy is prevented.
- How well does it work?
    - Out of couples who always use it perfectly, 4% will get pregnant within a year.
    - Out of couples with typical use, 22% will get pregnant within a year.
- Other information:
    - One of the benefits of this method is that it is free and the couple does not need any special supplies. It can also be used in combination with another method.
    - It is important that the man has control of his body, will be able to recognize when he is going to ejaculate, and can stop himself and withdraw before he does. Not all men and their partners will feel comfortable with this.
    - This method also does not prevent STIs, so couples should use condoms if they are concerned about STIs.

Natural Methods: Lactational Amennorhea

http://en.wikipedia.org/wiki/File:Breastfeeding_infant.jpg

- How does it work? Lactational Amennorhea (LAM) can be used after a woman gives birth and is breastfeeding. In order for this to work, a woman must breastfeed her baby for all or most of its feedings. This method works because breastfeeding causes changes in a woman's hormones and prevents a woman from getting pregnant.
- How well does it work?
    - Out of couples who always use it perfectly, 0.5-1.5% will get pregnant within a year.
- Other information
    - This method is the most effective only for a short amount of time (until the baby is 6 months old) and only if the baby is fully or mostly breastfed on the mother's breast. This method is free and gives the baby great nutrition, but the woman must make the time to breastfeed a lot.

Part 3C: Barrier Methods



- We will now talk about another kind of birth control. The next few methods we'll talk about are all "barrier methods."***(Ask: What does barrier mean? What do you think barrier methods do?)***
    - Barriers block something from passing through. Barrier methods of birth control create a barrier that stops the man's sperm from passing into the woman's vagina and reaching the woman's egg.
    - Barrier methods must be used EVERY time you have sex to prevent pregnancy.

Barrier Methods – Male Condom




Image 1: http://upload.wikimedia.org/wikipedia/commons/thumb/f/fe/CondomUse2_alternative.jpg/219px-CondomUse2_alternative.jpg
Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/1/15/Condom_unrolled_durex.jpg/375px-Condom_unrolled_durex.jpg
Image 3: http://bedsider.org/methods/male_condom#alternatives_tab
Image 4: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx

- A common barrier method is the male condom.
- How does it work? The male condom is a thin sheath that is worn by the man on his penis when it is erect. The condom traps the sperm inside of it, so the sperm will not enter the woman's vagina. Because the sperm does not enter the woman's vagina, she will be protected from pregnancy and also from sexually transmitted infections.
- How well does it work?
    - Out of couples who always use it perfectly, only 2% will get pregnant within a year.
    - Out of couples with typical use, 18% will get pregnant within a year.
- Where can I get it? Condoms are available at a lot of different places. Pharmacies and grocery stores sell condoms. You can also get condoms from health clinics.
- How much does it cost? If you buy condoms, they may cost $2-$6 for a pack of 3 condoms or less than $1 each in packs of 12 or more. A lot of health clinics give condoms out for free, so be sure to ask next time you're at the clinic.

- Other information:
    - Just like some men may not want to abstain, some men may not want to wear condoms. However, it is very important for a man to wear condoms to prevent STIs and pregnancy, so a woman must be able to insist that her partner wear them.

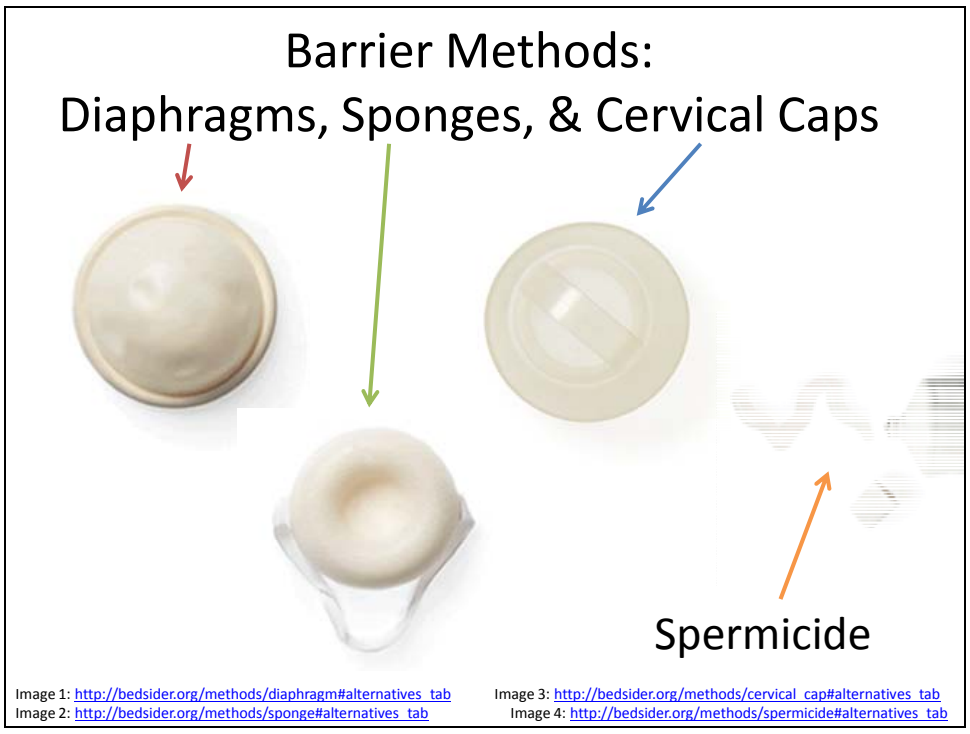
        - ***Have the students pair up and role play as a couple where the man refuses to wear a condom. Have the students come up with some excuses the man might use and some comebacks a woman might use in response in order to get him to use a condom. After a few minutes have the group re-convene and share their ideas. You may also wish to demonstrate how to put on a male condom.***

Barrier Methods - Female Condoms

http://upload.wikimedia.org/wikipedia/commons/thumb/c/cf/Pr%C3%A9servatif_f%C3%A9minin.jpg/800px-Pr%C3%A9servatif_f%C3%A9minin.jpg

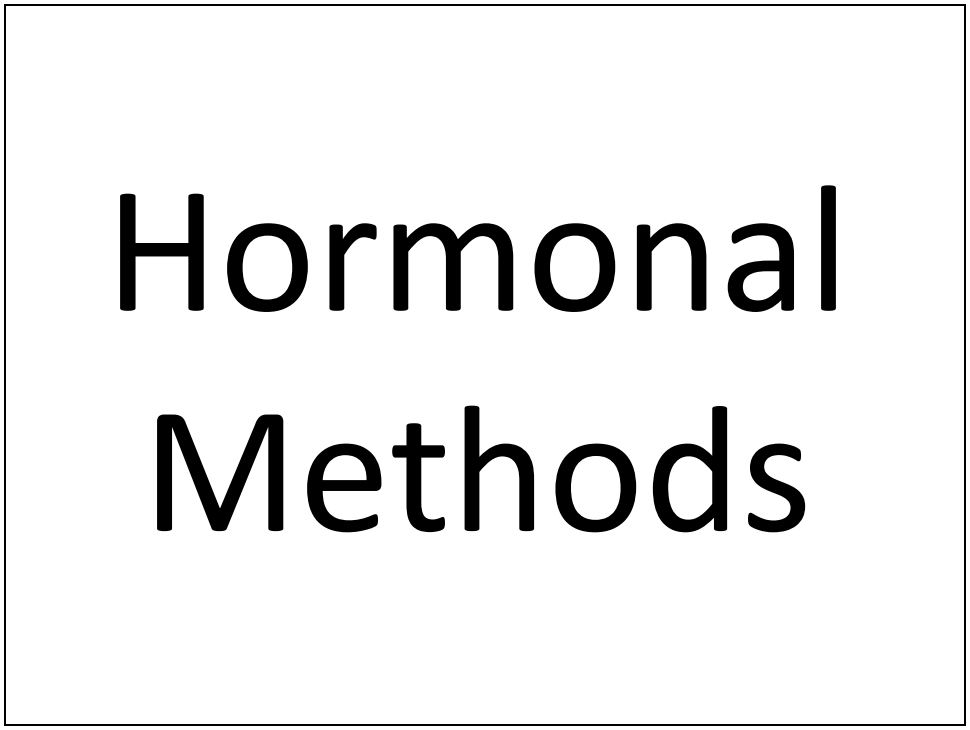
http://farm4.staticflickr.com/3196/2884454067_a4890ef822_o.jpg

- There is also a condom worn by women. It is called the female condom.
- How does it work? The female condom is a plastic pouch which a woman pushes into her vagina before she has sex. When the man inserts his penis during sex, he inserts it into the female condom. The female condom covers the inside of the vagina so the sperm cannot enter. This protects against pregnancy and sexually transmitted infections. It also covers the outside of a woman's vagina (vulva) so it protects this area of the woman's body against sexually transmitted infections too.
- How well does it work?
    - Out of couples who always use it perfectly, 5% will get pregnant within a year.
    - However, out of couples with typical use, 21% will get pregnant within a year.
- Where can I get it? You can buy female condoms at some drugstores and grocery stores. They are also available at health clinics.
- How much does it cost? It costs $2-$4 for one female condom. Health clinics may also give them out for free.



- These methods are also barrier methods. They are not very commonly used however, and are not as effective as other methods.
- How does it work? Caps and Diaphragms are rubber, dome-shaped cups that are worn by the woman inside of her vagina. They block the sperm from getting through the cervix, uterus, and fallopians tubes, but the sperm still enters the woman's vagina. To make these methods work better they must be filled with **spermicide** , a special chemical gel or foam which kills sperm. Sponges contain spermicide too. All of these are placed over the woman's cervix, for a certain amount of time before and after having sex.
- How well does it work? With typical use, 10%-30% will get pregnant within a year.
- Where can I get it? You can buy sponges and spermicide at the pharmacy. In order to get a diaphragm or cervical cap, you must go to the clinic. A healthcare provider will have to do a pelvic exam to measure you for the correct size diaphragm or cervical cap.
- How much does it cost?
    - Sponges cost $9-$15 for a pack of 3.
    - Spermicide costs $8-$17
    - For cervical caps and diaphragms, you will have to pay for a health clinic visit plus $60-$75 for cervical caps or $15-$75 for a diaphragm
- Other information:
    - Since the man's sperm enters the woman's vagina with these methods, they do NOT protect against STIs.

Part 3D: Hormonal Methods



- We will now talk about another kind of birth control, hormonal methods. Hormonal types of birth control use hormones to prevent pregnancy. ***(Ask: Who remembers what hormones are?)***
    - As we learned in our first class, hormones are chemicals made by the body. They are found in both men and women and control a lot of what the body does. We learned in our first class that hormones control the woman's menstrual cycle.
- Some types of birth control are made of synthetic (man-made, not natural) hormones that are similar to two types of hormones found naturally in a woman's body. These hormones are called estrogen and progestin.
    - Estrogen and progestin combined methods contain both hormones. They mainly work by stopping a woman from releasing an egg like she usually does during her menstrual cycle. Therefore, if a woman does not release an egg, sperm does not have anything to fertilize and the woman cannot get pregnant.
    - Progestin only methods only contains one hormone, progestin. They mainly work by making the mucus in the woman's cervix thick so the sperm cannot get through.
- The methods we will now discuss must be prescribed by a healthcare provider; a woman cannot buy them without a prescription.

– There are some kinds of medical problems where women should not take hormones. A woman's healthcare provider will help her figure out whether it is better for her to use a method with both hormones, with progestin only, or with no hormones.

– Women may experience irregular bleeding when they first start using these methods because their bodies have to get used to the different hormones. After a few months the irregular bleeding should stop. Some methods may make a woman's period lighter or may make it so she doesn't have periods at all.

– These methods prevent pregnancy, but NOT sexually transmitted infections. If a woman uses these methods, she and her partner should also ALWAYS use a condom to protect against STIs!

Hormonal Methods: Birth Control Pills

Image 1& 4 http://bedsider.org/methods/the_pill#alternatives_tab

Image 2: http://farm4.staticflickr.com/3019/2713580189_f5e2f57ecc_o.jpg

Image 3: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx

- How does it work? Birth control pills can contain either estrogen AND progestin OR progestin only. A woman must take one pill every day to prevent pregnancy. Most pills come in a pack that has 3 weeks of pills with hormones and 1 week of pills without hormones. During the week without hormones, the woman will bleed like a period. Some pills allow a woman to have her period only a few times a year.
- How well does it work?
    - Out of couples who always use it perfectly, <1% will get pregnant within a year.
    - However, out of couples with typical use, 9% will get pregnant within a year.
- Where can I get it? Since this method has hormones in it, it must be prescribed by a healthcare provider.
- How much does it cost? There are many different kinds of pills and they usually cost $10- $50 a month.

- Other information:
    - It is very important that women remember to take this pill every day. If a woman doesn't think she'll be able to remember, she shouldn't use this method because if she forgets she could get pregnant.
    - This method does not protect against STIs, so couples must use condoms too if they are concerned about getting an STI.

Hormonal Methods: Birth Control Patch

Image 1: http://bedsider.org/methods/the_patch#alternatives_tab

Image 2: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx

- How does it work? The birth control patch is a small square band-aid like patch that has estrogen and progestin which protect against pregnancy. Women change the patch each week, for 3 weeks, and then leave it off for 1 week during each month. During this patch-less week, you will bleed like a period. Then you repeat the cycle each month.
- How well does it work?
    - Out of couples who always use it perfectly, <1% will get pregnant within a year.
    - However, out of couples with typical use, 9% will get pregnant within a year.
- Where can I get it? Since this method has hormones in it, it must be prescribed by a healthcare provider.
- How much does it cost? The patch can cost anywhere from $15-80 a month.
- Other information:
    - The patch can be worn on upper arm, upper body, belly, and buttocks, but NOT on the breasts and it will not come off if it gets wet.
    - This method does not protect against STIs, so a couple must use condoms too if they are concerned about getting an STI.

Hormonal Methods: Vaginal Ring

Image 2: http://upload.wikimedia.org/wikipedia/commons/b/bd/NuvaRing_compressed.jpg
Image 1: http://upload.wikimedia.org/wikipedia/commons/e/e0/NuvaRing_in_hand.jpg

- How does it work? The vaginal ring is a small 2" flexible ring that contains estrogen and progestin. It is inserted into the vagina for 3 weeks and then taken out for 1 week each month. During the week that it is out, you will bleed like your period. A new ring should then be put in and this cycle should be repeated each month.
- How well does it work?
    - Out of couples who always use it perfectly, <1% will get pregnant within a year.
    - However, out of couples with typical use, 9% will get pregnant within a year.
- Where can I get it? Since this method has hormones in it, it must be prescribed by a healthcare provider.
- How much does it cost? The vaginal ring can cost anywhere from $15-80 a month.
- Other information:
    - To use this method, women must feel comfortable inserting it themselves. This means that they must be comfortable touching their vaginas.
    - Once the ring is inserted, women do not feel the ring inside them, and their partners usually aren't bothered by it during sex.
    - This method does not protect against STIs, so condoms must also be used if a couple is concerned about contracting an STI.

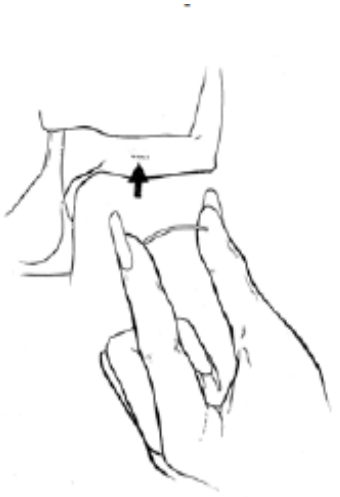
Hormonal Methods: Depo Provera Injections

Image 1: http://bedsider.org/methods/the_shot#alternatives_tab

Image 2: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx

- How does it work? This method is also known as "depo." It is an injection of progestin hormones that a woman gets every 3 months to prevent pregnancy. It is injected into the muscle of her upper arm or buttocks.
- How well does it work?
    - Out of couples who always use it perfectly, <1% will get pregnant within a year.
    - Out of couples with typical use, 6% will get pregnant within a year.
- Where can I get it? A woman must go to the clinic every 3 months to get this injection from a healthcare provider.
- How much does it cost? Depo Provera can cost $35- $75 and you may also have to pay for a clinic visit every 3 months.
- Other information:
    - Women may have irregular bleeding during the first few months of depo, but then may stop their periods altogether.
    - This method does not protect against STIs, so a woman must use condoms too if she is concerned about getting an STI.

Hormonal Methods: Implant



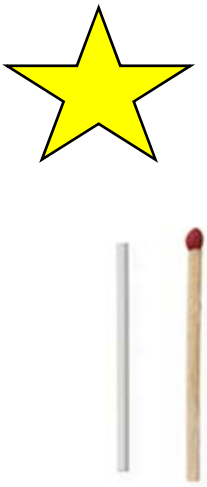
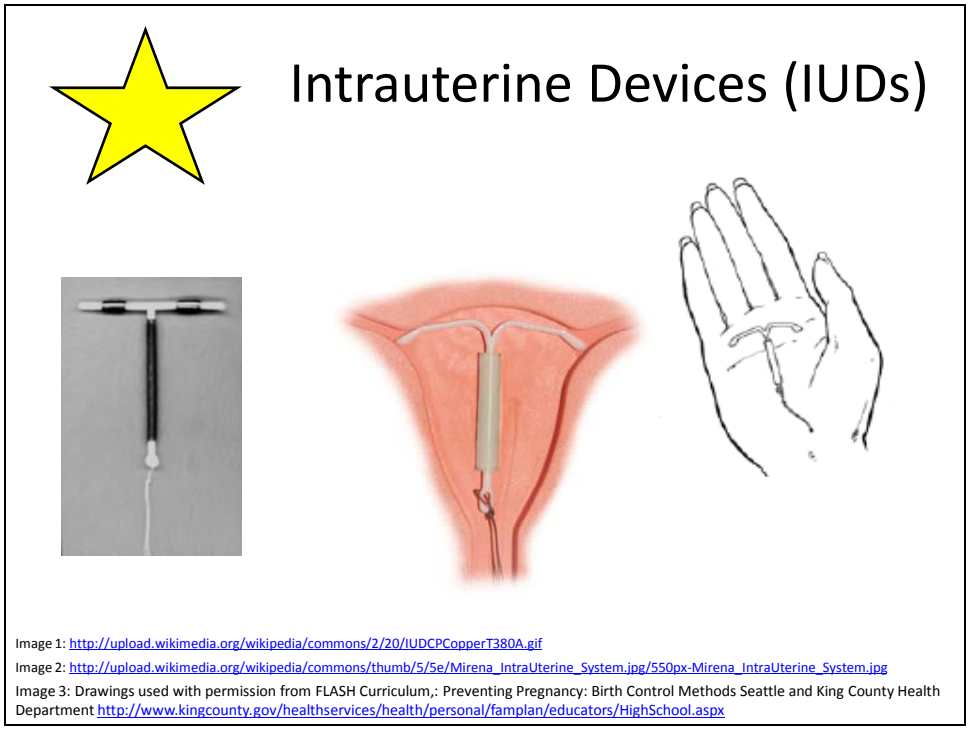


Image 1: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx

Image 2: http://bedsider.org/methods/implant#alternatives_tab

- How does it work? The birth control implant is a small plastic rod that is inserted under the skin in your upper-inner arm. It slowly releases progestin to prevent pregnancy and can stay in for up to 3 years.
- How well does it work? The implant is one of the most effective forms of birth control there is.
    - <1% of women will get pregnant within a year.
    - Where can I get it? The implant must be inserted by a healthcare provider. Although it looks like the implant would hurt when it's inserted, the healthcare provider will numb the area so it does not hurt.
- How much does it cost? This method can cost from $400-$800.
- Other information:
    - If a woman wants to have a baby or wants to take it out for any other reason before 3 years time, she can.
    - Women may have irregular bleeding during the first few months, but then some may have lighter periods or stop their periods altogether.
    - This method does not protect against STIs, so a couple must use condoms too if they are concerned about getting an STI.

Part 3E: Intrauterine Devices (IUDs)



- How does it work? Intrauterine devices are the most effective and most common form of reversible birth control in the world! They are small, flexible T-shaped devices that are inserted into the uterus (above the vagina, through the cervix).
- There are 2 types of IUDs
    - Mirena is an IUD that contains the hormone progestin and can stay in for 5 years.
    - Paragard is an IUD that doesn't contain hormones. Instead, a small copper wire wrapped around the IUD prevents pregnancy. Paragard can stay in for 10 years.
        - ***Note: the Bhutanese women may also know this method as "Copper T."***
- How well does it work? IUDs are one of the most effective forms of birth control there is.
    - <1% of women will get pregnant within a year.
- Where can I get it? The IUD must be inserted by a healthcare provider. You may feel cramps when it is being inserted, but as soon as it's in you will no longer be able to feel it.
- How much does it cost? IUDs can cost $500- $1000 EMPHASIZE LOW COST OPTIONS
- Other information:
    - If a woman decides she no longer wants the IUD, she can have it removed at any time. She does not have to wait 5 or 10 years.
    - With both IUDs, just like any other hormonal birth control, a woman may have abnormal bleeding in the first few months. However, with Mirena, a woman's period will become lighter and may even stop. With Paragard, a woman's period may become slightly heavier and she may feel more cramps.
    - The strings of the IUD be a few centimeters long and will come out of the cervix. This is so that when the woman wants, it can be removed easily by a healthcare provider. A

woman can also feel these strings with her fingers to make sure the IUD is in place. She will not be able to feel the IUD inside of her and her partner will not be able to feel it during sex.

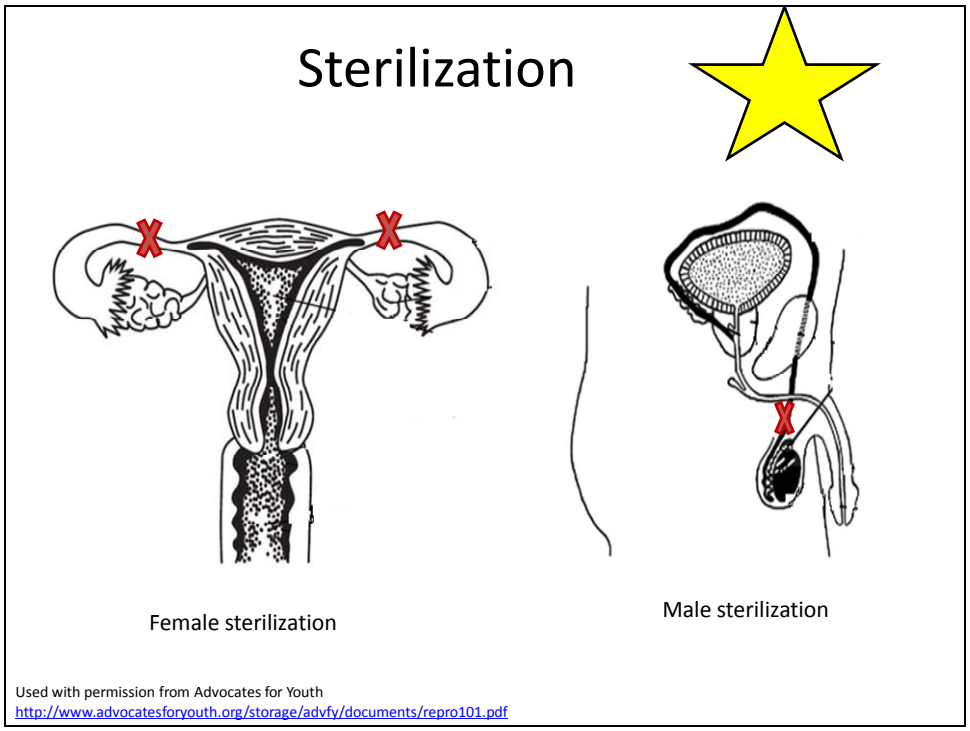
- This method does not protect against STIs, so a couple must use condoms too if they are concerned about getting an STI.

Part 3F: Emergency Contraception

- If a woman has unprotected sex or her birth control method doesn't work, she is at risk for getting pregnant. (***Ask: what are some ways that birth control might "fail"?)***
  - Condom breaks
  - Forgot to take the pill
  - Etc.
- How does it work? Emergency contraception is also known as "the morning after pill" or "Plan B." It is either one or two pills that can be taken up to 5 days after unprotected sex or birth control mishaps. It contains the hormone progestin, just like some forms of birth control, and this hormone is used to prevent pregnancy from occurring.
- How well does it work?
  - EC can reduce the risk of pregnancy by 89% if it is taken within 3 days of unprotected sex. It is still effective up to 5 days, but it's more effective if you take it sooner.
- Where can I get it? If you are 17 or older, you can get EC from the pharmacist without a prescription. However, if you are under 17, you must get a prescription from a healthcare provider.
- How much does it cost?

- Other information:
    - Some people are concerned that EC is an abortion pill. This is not true. EC will not cause an abortion if you are already pregnant.
    - If you use birth control pills, your healthcare provider may allow you to take a certain regimen of your pills as another method of emergency contraception. You must consult with your healthcare provider to make sure you are taking the correct number and kinds of pills; therefore, it is usually easier for a woman to just buy "the morning after pill" instead.
    - A Paragard IUD can also be inserted for emergency contraception. It is more than 99% effective as emergency contraception and should be inserted up to 5 days after unprotected sex. The woman must have it inserted by a healthcare provider, but the IUD can then remain in the woman's uterus as a long-term method of birth control.

Part 3G: Sterilization

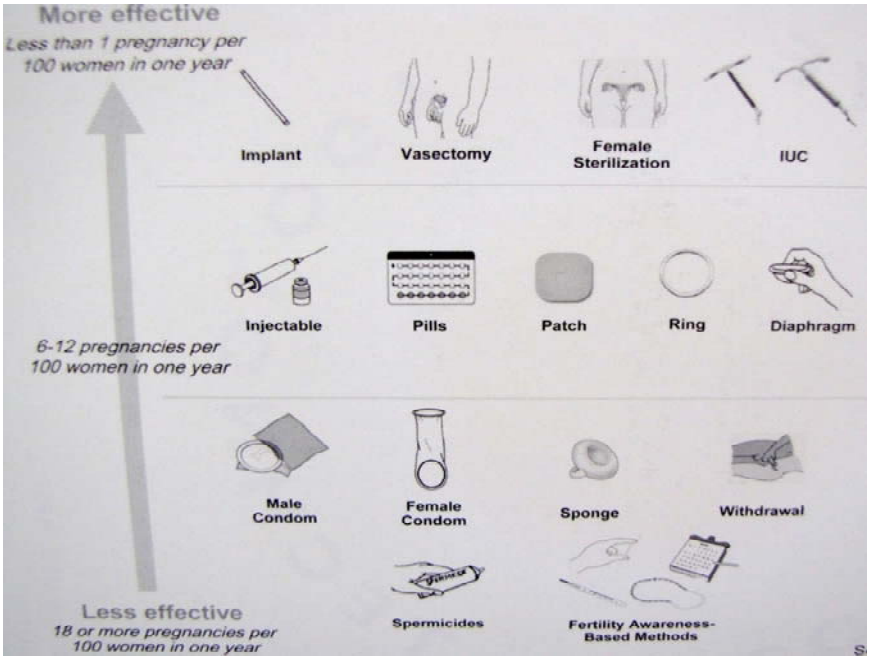


- When a couple is certain that they do not want to have any more children, they can choose to be "sterilized." These are procedures which can be done for either the man or the woman and are permanent. This means that once the procedure is done, it cannot be taken back.
- How does it work?
    - Female sterilization – In female sterilization, a procedure is done which blocks the fallopian tube. This can be done by cutting the tubes, tying the tubes, or putting a material inside the tubes to block them. This prevents pregnancy because it blocks the path of the egg and sperm so they cannot meet.

- Male sterilization – In male sterilization, a procedure is done to block the vas deferens. The vas deferens are the tubes that carry sperm from the man's testicles. The man's tubes can be blocked by tying them, cutting them, or blocking them. After a man is sterilized, when he ejaculates he will not release sperm. If there is no sperm, a woman's egg cannot be fertilized and she cannot get pregnant.

- How well does it work?
  - Female sterilization: 0.5% of women will get pregnant within a year.
  - Male sterilization: 0.15% of women will get pregnant within a year.
- Where can I get it? This procedure needs to be done by a healthcare provider. Depending on the type of sterilization, the person being sterilized might need to have surgery in the hospital. Other types of sterilization are quick and easy and can be done at a doctor's office.
- How much does it cost?
  - Female sterilization:$1,500 – $6,000
  - Male sterilization: $350 - $1,0000
- Other information:
  - This method is for couples who are certain they don't want to have children anymore.
  - This method does not protect against STIs, so a couple must use condoms too if they are concerned about getting an STI.

Part 3H: Discussion of Birth Control Methods



Credit: Hatcher, RA, Trussell, J, Nelson A, Cates W, Kowal D, Policar M. Contraceptive Technology. 20 Edition. Atlanta, GA: Ardent Media, Inc., 2011.

- This slide shows the most effective methods (methods that work the best) and the least effective (methods that don't work as well) birth control methods.

- ***Facilitate discussion by asking: Why do you think some methods work better than others? Which method interests you the most? Etc.***

Part 4: Abortion:

Time	10 minutes -
Materials	1) Laptop, projector, and "Family Planning, Birth Control, and Abortion" PowerPoint slides

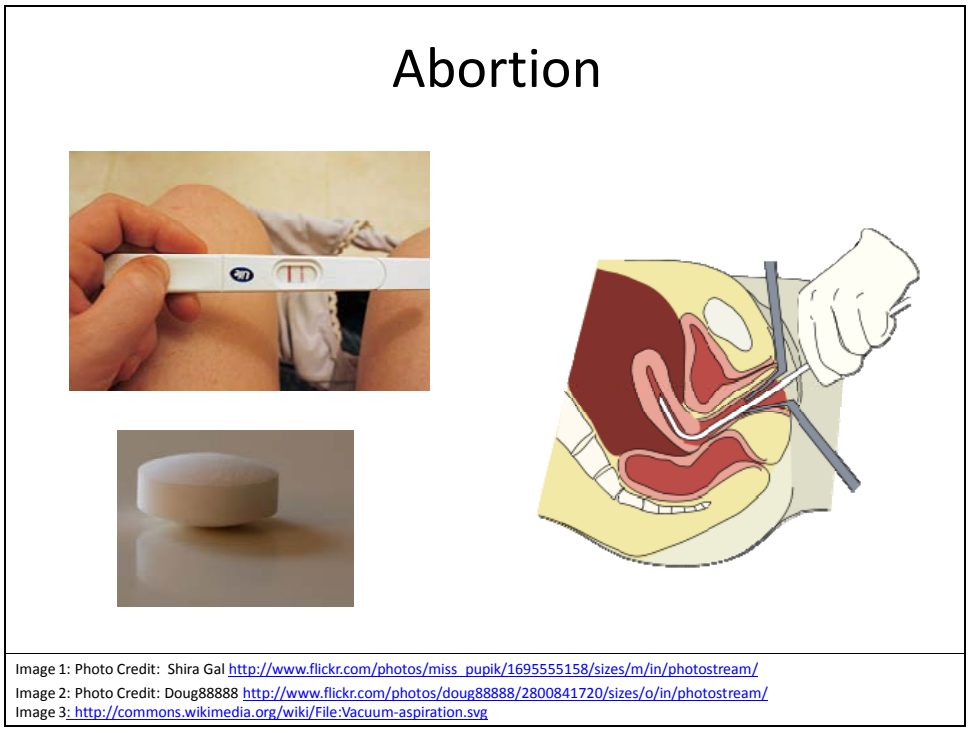


Image 1: Photo Credit: Shira Gal http://www.flickr.com/photos/miss_pupik/1695555158/sizes/m/in/photostream/
Image 2: Photo Credit: Doug88888 http://www.flickr.com/photos/doug88888/2800841720/sizes/o/in/photostream/
Image 3: http://commons.wikimedia.org/wiki/File:Vacuum-aspiration.svg

- Many women experience an unintended or unplanned pregnancy at some point in their lives. This is a pregnancy that she didn't plan for, wasn't expecting, or didn't want. Some women have an unintended pregnancy because they had sex without using birth control, while some get pregnant by accident even while using birth control. When this happens, a woman has 3 options: she can decide to continue the pregnancy and keep the baby, she can continue the pregnancy and give the baby up for adoption, or she can end the pregnancy by having an abortion.

- Although it may be a very difficult decision, there are many reasons why a woman may decide she cannot keep the baby and decide to have an abortion.
- ***Facilitate discussion by asking: what are some reasons you can think of? What does your culture or religion say about abortion? Was abortion legal in Nepal or Bhutan?***
- In the United States, it is legal for a woman to get an abortion. In Georgia, a woman can have an abortion up until she is 20 weeks pregnant, and 90% of abortions are done within the first 12 weeks.
- <u>How does it work?</u>
    - Abortions end a pregnancy that has already started. This can be done in different ways:
        - If a woman is less than 9 weeks pregnant, she can take abortion pills which will end her pregnancy.
            - Usually the woman will take the first pill to end the pregnancy. This pill causes changes in the woman's hormones that make the lining of the uterus thin so the pregnancy cannot continue.
            - She will then take a second pill that causes the woman to bleed and the uterus to empty.
        - If a woman is more than 9 weeks pregnant, she will need to have a surgical abortion procedure.
            - If a woman is less than 16 weeks pregnant, she will probably have an aspiration or vacuum procedure. During this procedure, a woman is given pain medicine and a tube is inserted into the uterus. The doctor will then connect the tube to a suction machine which empties the uterus and ends the pregnancy. The provider may also have to use a special instrument called a curette to remove some tissue from the uterus. This procedure is called dilatation and curettage (D&C).
            - Later abortions are similar but the provider will use different instruments to empty the uterus.
- <u>How well does it work?</u>
    - Both medical and surgical abortion is very effective. Women can also have an appointment with their healthcare provider a few weeks after their abortion to make sure everything went well.
- <u>Where can I get it?</u> Abortions must be done by a doctor in the state of Georgia. Not all doctors do abortions though, so it is important to know where to find one that does.
- <u>How much does it cost?</u> $ 300-$950 in the first trimester
- <u>Other information:</u>
    - Just like there are programs to get discounted birth control, there are also programs that can help women get abortions for a cheaper cost. Ask your healthcare provider about these programs if you cannot afford it.

Part 5: Post-Test and Feedback

Time	10 minutes
Materials	- Post-test - Pencils

- Ask for any last questions about the material covered in class.
- Administer post-test again explaining that they will not be graded.
- Ask for feedback of today's class either through a written survey or verbally.
- Explain to class that at the next session we will be talking about family planning in regards to planning for a pregnancy and how to have a healthy pregnancy.

References

"Abortion." (2012). Planned Parenthood. Retrieved April 23, 2012 from http://www.plannedparenthood.org/health-topics/abortion-4260.asp

"Birth Control." (2012). Planned Parenthood. Retrieved April 23, 2012 from http://www.plannedparenthood.org/health-topics/birth-control-4211.htm

Hatcher, R., et al. (2011). *Contraceptive Technology (20th ed.)*. New York, NY: Ardent Media Inc.

Schuling, K., and Likis, F. (2006). *Women's Gynecological Health*. Sudbury, Massachusetts: Jones and Bartlett.

PowerPoint Slide References

- Slide 1: Birth Control Options
  - (All photos are included in other slides – references will be listed in these slides)
- Slide 2: Abstinence
  - Image 1: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
  - Image 2: Photo credit: iMorpheus http://www.flickr.com/photos/sfj/3545063912/sizes/m/in/photostream
- Slide 3: Natural Methods
- Slide 4: Natural Methods: Fertility Awareness

- http://bedsider.org/methods/fertility_awareness#alternatives_tab
- Slide 5: Natural Methods: Withdrawal
  - Credit: Hatcher, RA, Trussell, J, Nelson A, Cates W, Kowal D, Policar M. Contraceptive Technology. 20 Edition. Atlanta, GA: Ardent Media, Inc., 2011.
- Slide 6: Lactational Amennorhea
  - http://en.wikipedia.org/wiki/File:Breastfeeding_infant.jpg
- Slide 7: Barrier Methods
- Slide 8: Barrier Methods: Male Condom
  - Image 1: http://upload.wikimedia.org/wikipedia/commons/thumb/f/fe/CondomUse2_alternative.jpg/219px-CondomUse2_alternative.jpg
  - Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/1/15/Condom_unrolled_durex.jpg/375px-Condom_unrolled_durex.jpg
  - Image 3: http://bedsider.org/methods/male_condom#alternatives_tab
  - Image 4: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
- Slide 9: Barrier Methods: Female Condom
  - http://upload.wikimedia.org/wikipedia/commons/thumb/c/cf/Pr%C3%A9servatif_f%C3%A9minin.jpg/800px-Pr%C3%A9servatif_f%C3%A9minin.jpg
  - http://farm4.staticflickr.com/3196/2884454067_a4890ef822_o.jpg
- Slide 10: Barrier Methods: Diaphragms, Sponges, and Cervical Caps
  - Image 1: http://bedsider.org/methods/diaphragm#alternatives_tab
  - Image 2: http://bedsider.org/methods/sponge#alternatives_tab
  - Image 3: http://bedsider.org/methods/cervical_cap#alternatives_tab
  - Image 4: http://bedsider.org/methods/spermicide#alternatives_tab
- Slide 11 : Hormonal Methods
- Slide 12 : Hormonal Methods : Birth Control Pills
  - Image 1& 4 http://bedsider.org/methods/the_pill#alternatives_tab
  - Image 2: http://farm4.staticflickr.com/3019/2713580189_f5e2f57ecc_o.jpg
  - Image 3: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
- Slide 13: Hormonal Methods: Birth Control Patch
  - Image 1: http://bedsider.org/methods/the_patch#alternatives_tab
  - Image 2: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx

- Slide 14: Hormonal Methods: Vaginal Ring
    - Image 2: http://upload.wikimedia.org/wikipedia/commons/b/bd/NuvaRing_compressed.jpg
    - Image 1: http://upload.wikimedia.org/wikipedia/commons/e/e0/NuvaRing_in_hand.jpg
- Slide 15 : Hormonal Methods : Depo Provera Injection
    - Image 1: http://bedsider.org/methods/the_shot#alternatives_tab
    - Image 2: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
- Slide 16: Hormonal Methods: Implant
    - Image 1: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
    - Image 2: http://bedsider.org/methods/implant#alternatives_tab
- Slide 17 : Intrauterine Devices (IUDs)
    - Image 1: http://upload.wikimedia.org/wikipedia/commons/2/20/IUDCPCopperT380A.gif
    - Image 2: http://upload.wikimedia.org/wikipedia/commons/thumb/5/5e/Mirena_IntraUterine_System.jpg/550px-Mirena_IntraUterine_System.jpg
    - Image 3: Drawings used with permission from FLASH Curriculum,: Preventing Pregnancy: Birth Control Methods Seattle and King County Health Department http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/HighSchool.aspx
- Slide 18 : Emergency Contraception
    - Image 1: http://upload.wikimedia.org/wikipedia/commons/2/20/IUDCPCopperT380A.gif
    - Image 2&3: http://bedsider.org/methods/emergency_contraception#alternatives_tab
- Slide 19 : Sterilization
    - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf
- Slide 20: Effectiveness of Methods
    - Credit: Hatcher, RA, Trussell, J, Nelson A, Cates W, Kowal D, Policar M. Contraceptive Technology. 20 Edition. Atlanta, GA: Ardent Media, Inc., 2011.
- Slide 21: Abortion
    - Image 1: Photo Credit: Shira Gal http://www.flickr.com/photos/miss_pupik/1695555158/sizes/m/in/photostream/
    - Image 2: Photo Credit: Doug88888 http://www.flickr.com/photos/doug88888/2800841720/sizes/o/in/photostream/
    - Image 3: http://commons.wikimedia.org/wiki/File:Vacuum-aspiration.svg

Handouts for Module 4:

Family Planning, Birth Control, and Abortion

Family Planning, Birth Control, and Abortion Pre/Post Test

Age _____

# of Years in America _____

1) Birth control pills protect against sexually transmitted infections. True or false?

   a. True
   b. False

2) If a woman has unprotected sex or her birth control fails, she can take a pill called emergency contraception to help prevent pregnancy. She can take it _____.
   a. Up to 2 days after unprotected sex
   b. Up to 5 days after unprotected sex
   c. Up to a month after unprotected sex

3) A method of birth control which is placed inside a woman's uterus is called a(n)_____:
   a. Intrauterine Device (IUD)
   b. Birth control patch
   c. Vaginal ring

4) If a woman gets pregnant and does not want to continue the pregnancy, she may have a legal abortion up until 20 weeks in Georgia. True or False?
   a. True
   b. False

Family Planning, Birth Control, and Abortion Pre/Post Test

Age _____

# of Years in America _____

1. Birth control pills protect against sexually transmitted infections. True or false?
    a. True
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2. If a woman has unprotected sex or her birth control fails, she can take a pill called emergency contraception to help prevent pregnancy. She can take it _____.
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    b. Birth control patch
    c. Vaginal ring

4. If a woman gets pregnant and does not want to continue the pregnancy, she may have a legal abortion up until 20 weeks in Georgia. True or False?
    a. True
    b. False

Family Planning, Birth Control, and Abortion Feedback Survey

Age _____

# of Years in America _____

1. What did you like best about today's class?

2. What did you like least about today's class?

3. What else would you have liked to discuss?

4. Today's class was:
    1. Too long
    2. Too short
    3. Just the right amount of time

5. Would you recommend this class to your friends or other Bhutanese women?
    1. Yes
    2. No

Low-Cost Family Planning Clinics in Atlanta

Feminist Women's Health Center *
1924 Cliff Valley Way, Atlanta, GA 30329
(404) 728-7900

Planned Parenthood

Downtown Center - 75 Piedmont Ave. NE, Suite 800
Atlanta, GA 30303
(404) 688-9300

Cobb Center * – 220 N. Cobb Pkwy, #500
Marietta, GA 30062
(404) 688-9300

Grady

Family Planning Wellness Clinic - 80 Jesse Hill Jr. Drive SE
Atlanta, GA 30303
(404) 616-3867

North Dekalb Health Center - 3807 Clairmont Rd NE
Chamblee, GA 30341
(404) 616-0700

Fulton County Health Department
Several offices throughout Atlanta
Call for more information – (404) 612-1211

Community Advanced Practice Nurses
173 Boulevard NE
Atlanta, GA 30312
(404) 658-1500

***Provides abortions

Reproductive Health – Module 5: Fertility and Pregnancy

Time	90 minutes
Materials	13) Laptop, projector, and "Fertility and Pregnancy" PowerPoint slides 14) Pre/Post test handouts 15) Pens, pencils 16) Beads and string to make cycle beads
Module Summary	This module will give a broad overview of fertility, infertility, pregnancy, and delivery. Key messages surrounding infertility, pregnancy, and delivery will be emphasized through didactic lectures and interactive discussion. Students will also learn how to keep track of their fertility using a "cycle bead" activity.
Goal **Objectives**	To educate participants on fertility and infertility in males and females, healthy pregnancy, and labor and delivery. By the end of this session, participants will be able to: 9) Explain the concepts of fertilization, implantation, and pregnancy 10) Use cycle beads to track fertility 11) Describe 3 ways to have a healthy pregnancy

Part 1: Introduction and Pre-Test:

Time	5 minutes
Materials	None

- Introduce the topic of today's class and reiterate the ground rules set forth in the first session. Ask participants if they have thought of any other rules they'd like to add.

- Administer pre-test. Again, explain to the students that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the students, and the exact same test will be given at the end of the class.
- ***NOTE: If literacy is an issue this (and all other activities) can be done verbally.***

Part 2: Preconception Discussion

Time	5 minutes
Materials	None

- Last time we talked about what a woman should do if she doesn't want to get pregnant. Today we will talk about what she should do if she does want to get pregnant.

- Before a man and a woman decide to get pregnant, they should prepare themselves for a new baby. ***(Ask: How should they prepare?)***
    - Talk about it with each other
        - Both the woman and the man should want the pregnancy
        - They should make sure they are both ready emotionally and that they have enough money and resources to have a(nother) baby.
    - Space their pregnancies correctly
        - "Spacing pregnancies" means making sure there is enough time between your last pregnancy and your new pregnancy. (***Ask: How much time should you wait between your last pregnancy and your new pregnancy? Why?)***
            - Before trying to get pregnant, a couple should wait at least 24 months (2 years) from the birth of their last child. This will let the woman have a healthier pregnancy and delivery because it will give her body time to get stronger after her last pregnancy. It will also help the new baby be healthier, and will give the woman enough time to breastfeed her last baby.
    - See a healthcare provider *before* they get pregnant

- A healthcare provider will make sure that the woman is healthy before she starts her pregnancy by:
    - Helping her have a healthy lifestyle (not smoking or drinking, being a good weight, eating properly)
    - Giving her immunizations she might need
    - Giving her vitamins to take. These are called "pre-natal vitamins" and contain special vitamins and minerals a woman needs to have a healthy pregnancy and baby.
        - Women should also take folic acid for at least 3 months before they get pregnant to help prevent birth defects. In fact, all women who are able to have babies should take folic acid every day.
    - Making sure she isn't taking any medicines that could be dangerous for the baby. The woman shouldn't decide this herself - the healthcare provider will tell the woman if she needs to change her medicines or if it's okay to keep taking them.
    - Making sure her work and home are safe from dangerous chemicals or substances.
    - Testing her for STIs and HIV/AIDS
    - Helping her control any diseases she might have, like diabetes or high blood pressure, so that she and her baby are healthier during pregnancy.

- Stop taking birth control
    - A woman can get pregnant right away or very soon after she stops most kinds of birth control. Some healthcare providers will tell a woman to wait until she has 2 or 3 periods before she tries to get pregnant, but others do not think this is important.
    - If a woman uses the birth control shot, she might not be able to get pregnant for about 9 months after she stops though. So if she knows she wants to get pregnant soon, the shot may not be the best choice for her.
- Etcetera

Part 3: Tracking Fertility

Time	20 minutes
Materials	- Laptop, projector, and "Fertility and Pregnancy" PowerPoint slides (optional) - Materials for cycle beads (per student) o String o 1 red bead o 18 brown beads o 1 dark brown bead

	o 12 white beads o 1 rubber ring

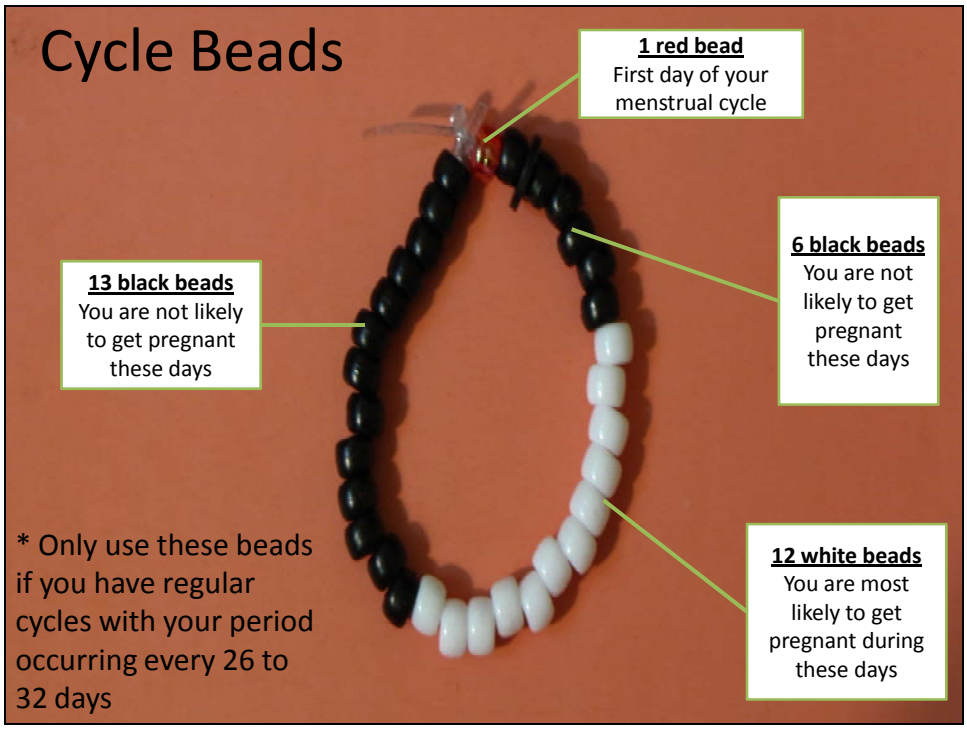
- A woman can get pregnant easier if she knows when she is most *fertile* (most able to have children). As we learned during our menstrual cycle module, a woman is more fertile during certain times of the month, especially 5 days before and during *ovulation* (releasing an egg).

Part 3A: Fertility Awareness

- Women can keep track of their fertility using different ways we learned about in our birth control module. She must have a normal menstrual cycle and keep very good records of it and changes in her body. This will let her figure out when she is most *fertile* (most likely to become pregnant). If she does not want to get pregnant she and her partner should not have unprotected sex on her fertile days, but if she does want to get pregnant, she and her partner should have unprotected sex on these days. There are a few ways women can use the Fertility Awareness Methods:
    - Monitoring her menstrual cycle on a calendar or using "cycle beads" and using special calculations to figure out when she is most fertile.
    - Keeping track of changes in the mucus that her cervix produces throughout the month. Cervical mucus changes throughout a woman's cycle (for example, there will be a lot of slippery mucus when a woman is ovulating (releasing an egg) and is most fertile).
    - Measuring her temperature when she first wakes up in the morning (usually she also tracks her cervical mucus too to make this method

more effective). This helps a woman figure out when she is most fertile because when she releases an egg, her temperature will get a little bit higher.

Part 3B: Cycle Beads



- One simple way to keep track of a woman's cycle and fertility is through cycle beads. We will now make cycle beads for you to use.
  - Cycle beads work best when your period occurs every 26-32 days. You shouldn't use them if your cycle is longer or shorter.
  - To make the cycle beads:
    - Knot the end of your string
    - Put one red bead on the string
      - The red bead is the first day of your period. The day you start bleeding you should move the ring to the red bead. Move the ring one bead each day.
    - Put 6 brown beads on the string.
      - Brown beads are days when you are not likely to get pregnant
    - Put 12 white beads on the string
      - The white beads are when you are most likely to get pregnant. If you want to get pregnant, have unprotected sex on these days. If you don't want to get pregnant, use condoms on these days.
    - Put 7 brown beads on the string

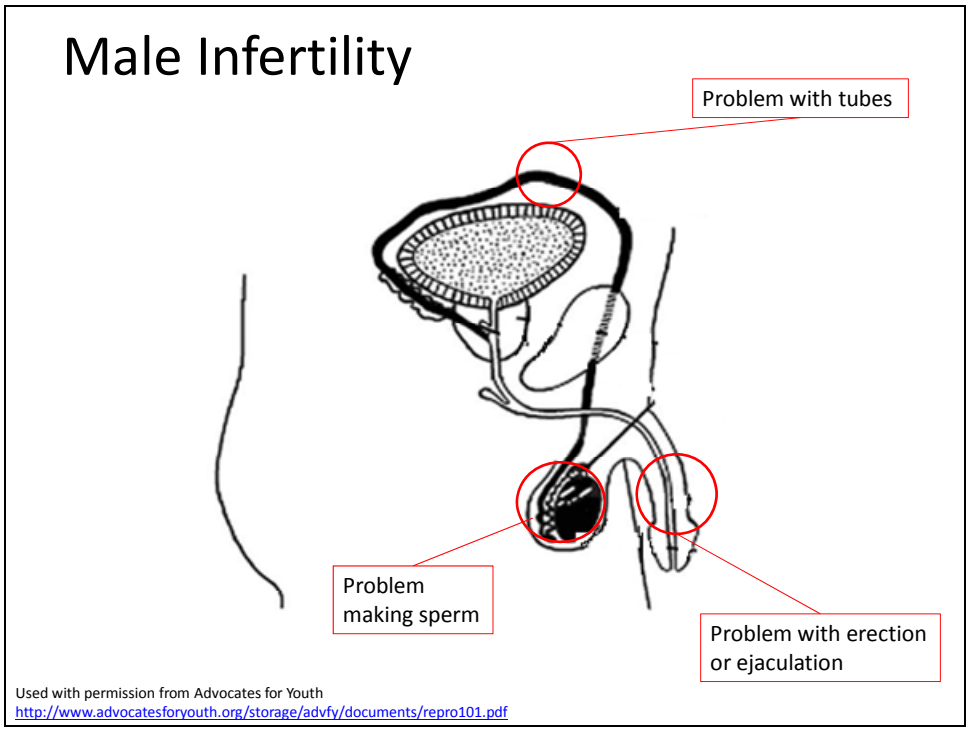
- Put 1 dark brown bead on the string
    - This bead will let you know if your period is too short (less than 26 days) to use this method. If your period starts before the ring reaches this bead, it is too short.
- Put 5 more brown beads on the string
    - If your period doesn't start by the last brown bead it is too long (more than 32 days) to use this method.

o This method and others like it will help a woman figure out when she is most likely to get pregnant each month.

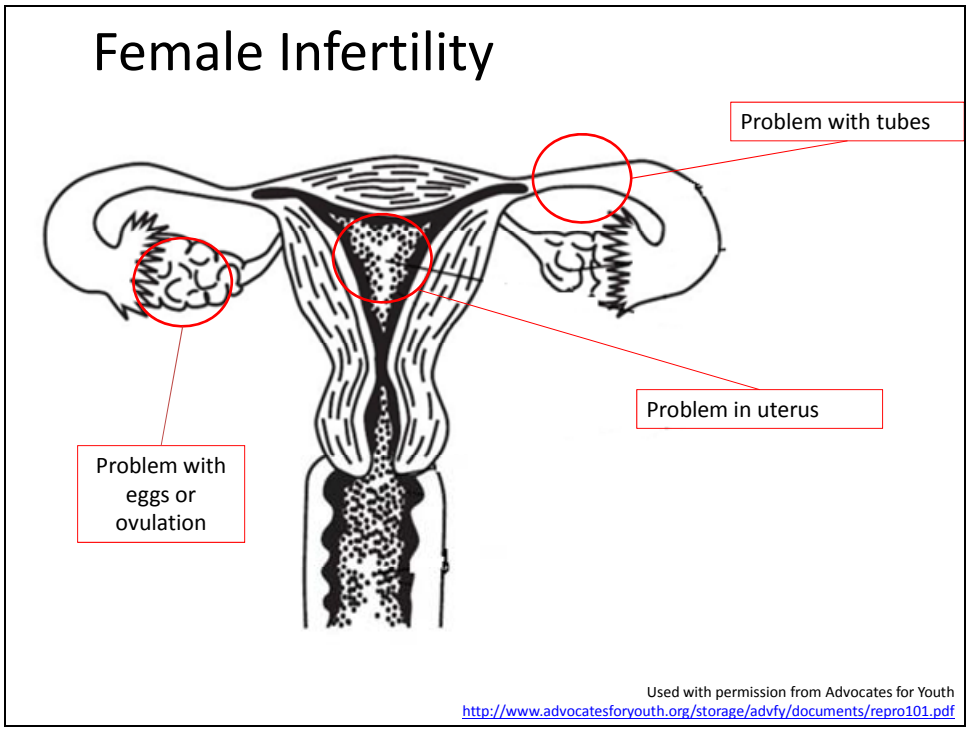
Part 4: Infertility

Time	10 minutes
Materials	- Laptop, projector, and "Fertility and Pregnancy" PowerPoint slides

- On average, if a couple has unprotected sex they should get pregnant within 5 months.
- However, some people can have trouble getting pregnant. If a couple has unprotected sex for 1 year and does not get pregnant or if they get pregnant but keep losing (or *miscarrying)* the pregnancy, they are said to be *infertile*. They should see a healthcare provider if they experience this.



- Whether or not a couple can get pregnant depends on both the man and the woman. (***Ask: What are some problems – for a man or a woman – that may make it difficult for a couple to get pregnant?***)
    - In 40% of the cases, infertility is caused by health problems in the man. These include:
        - Problems with erection (penis getting hard) or ejaculation (releasing sperm)
        - STIs or other infections which damaged the man's reproductive organs
        - Abnormal sperm or too little sperm
        - Lifestyle factors
            - Smoking, using drugs, or too much alcohol
            - Injuries of the male organs
            - Wearing clothes that are too tight or bathing in hot water



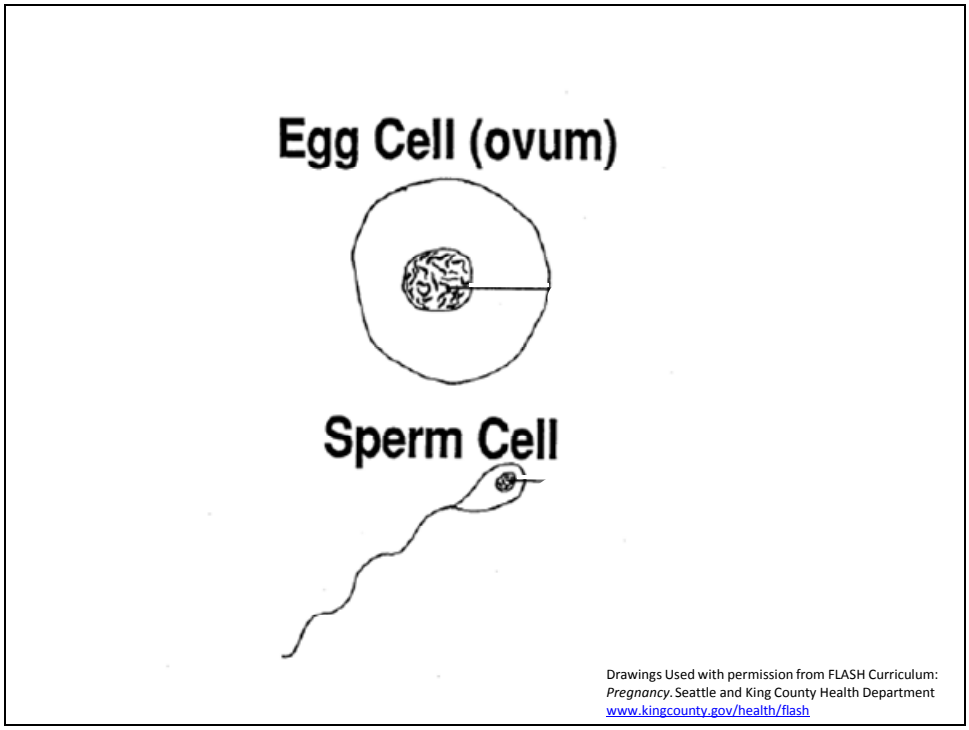
    - In 40 % of the cases, infertility is caused by health problems in the woman. These include:
        - STIs or other infections which damaged the woman's reproductive organs
            - Her tubes may be blocked so the egg can't meet with the sperm
        - Hormone problems which can affect ovulation
            - Eggs might not be released or they may be poor quality
        - Problems with the uterus which makes it hard for the fertilized egg to implant
        - Lifestyle factors
            - Being an older age – 35+
            - Weighing too much or too little
            - Smoking, using drugs, or too much alcohol

    - In 20% of the cases, infertility is caused by problems in both the man and woman.
- If a couple cannot get pregnant they should see a healthcare provider. The provider can give the couple advice and can offer tests to help determine what is causing the infertility.
- How a healthcare provider treats infertility depends on what is causing the infertility. Some of the treatments include:
    - Medication to make the woman ovulate or to regulate her hormone levels
    - Hormone treatment for men
    - Intrauterine Insemination
        - In this procedure, the man's semen is collected and put into the woman's uterus so it doesn't have to travel very far. This can be used if there are problems with some of the man's sperm.
    - Invitro Fertilization
        - In this procedure, a woman will take medicine to produce eggs. The eggs will be removed and will be joined with sperm collected from the man. When some of the eggs are fertilized, one or more will be placed in the uterus in hopes that they will implant and start a pregnancy.
    - Donor sperm or eggs
        - If the man or woman in the couple cannot use their own cells, they can get sperm or eggs from a "donor." This is somebody who gave their sperm or eggs. These sperm and eggs are tested to make sure they are healthy and are used in the procedures if using the man or woman's own cells is not possible.
- Unfortunately these treatments are usually very expensive, but if a couple is not able to get pregnant, they should talk to a healthcare provider anyway to discuss their options.

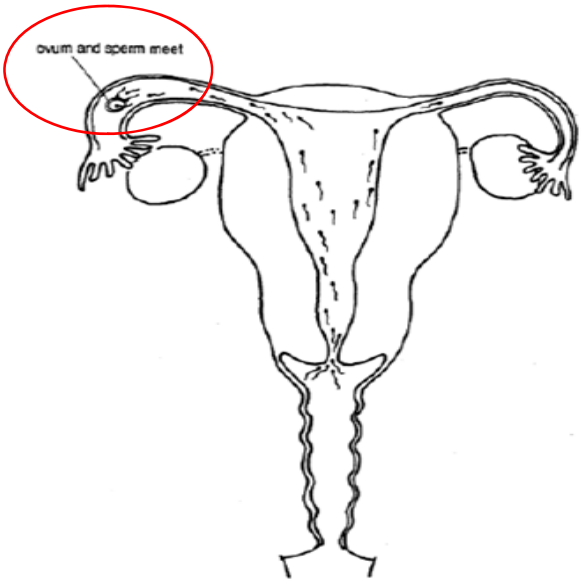
Part 5: How Pregnancy Occurs

Time	10 minutes
Materials	Laptop, projector, and "Fertility and Pregnancy" PowerPoint slides

- If a couple is able to get pregnant, this is how pregnancy occurs:



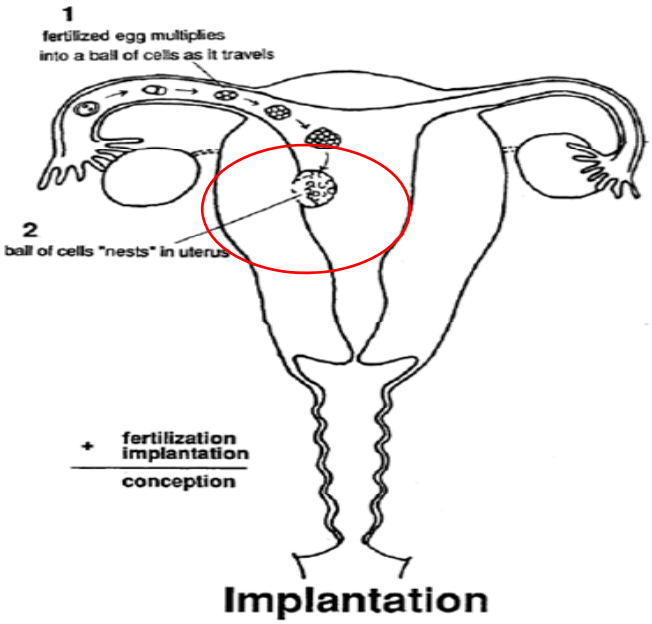
- As we remember from our menstruation module, a woman releases an egg every month starting when she gets her first period. When a man and woman have unprotected vaginal sex, the man ejaculates and releases millions of sperm into the woman's vagina.



Fertilization

Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash

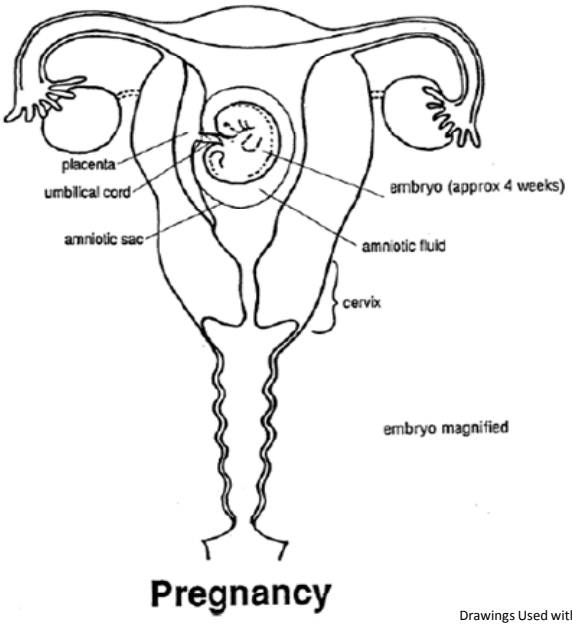
- The sperm travels up through the cervix, into the uterus, and to the fallopian tubes. If an egg has been released and is in the tube, usually one sperm will meet with the egg and fertilize it. If two sperm fertilize the egg this leads to fraternal (not identical) twins.



Implantation

Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash

- The fertilized egg moves into the uterus and attaches to the walls of the uterus, usually about 6 days after fertilization. This is when most people say pregnancy begins. All this time the fertilized egg divides into more and more cells.



Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash

- The cells continue to divide and then grow into an embryo and then a fetus during early pregnancy. Identical twins can develop during this time.

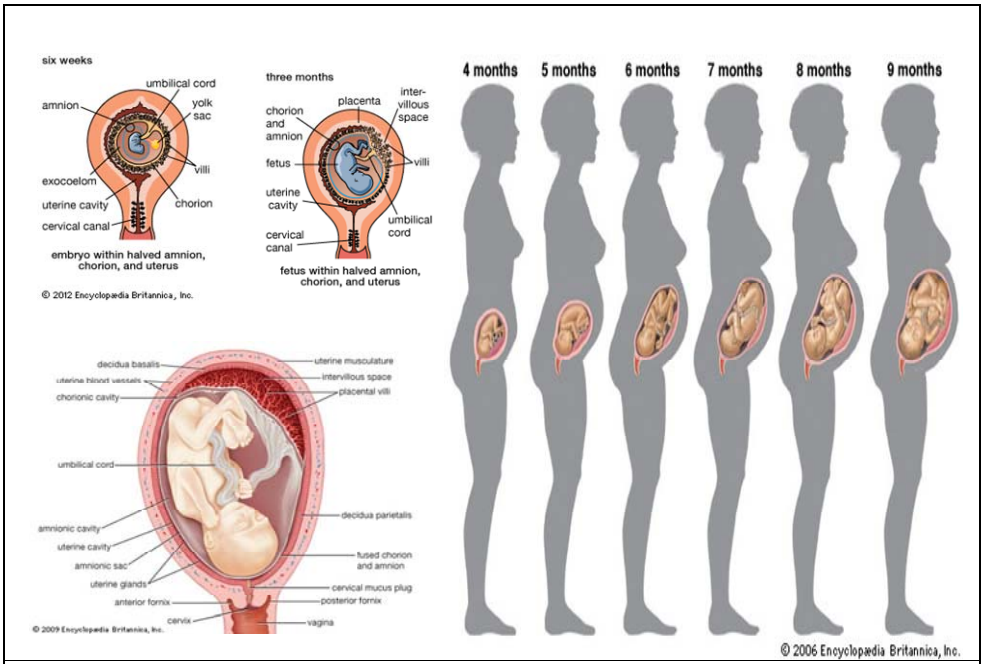


Image 1: http://www.britannica.com/EBchecked/topic/232124/gestation Image 3: http://www.britannica.com/EBchecked/topic/205520/fetus
Image 2: http://www.britannica.com/EBchecked/media/121639/Growth-of-the-human-fetus-from-the-fourth-month-to

- The fetus will continue to grow and develop inside the woman's uterus inside something called the *placenta*. The placenta is attached to the uterus and makes hormones, absorbs nutrients from the mother, and does other things to keep the pregnancy healthy.
- A special cord called the *umbilical cord* will attach the fetus to the placenta. The cord carries oxygen and nutrients to the fetus and carries waste away from the fetus.
- The fetus will also be surrounded by a special fluid called *amniotic fluid* which will protect the fetus.
- Some important things that will happen to the fetus during pregnancy are:
    - At 2 months, the heart and brain start to form
    - At 3 months, the umbilical cord connects the fetus to the placenta. Bones get hard and skin and fingernails also start to grow.
    - At 4 months, the organs in the fetus mature and grow
    - At 5 months, hair and eyelashes start to develop
    - At 6 months, blood cells start to form.
    - At 7 months, the fetus can swallow and breathe
    - At 8 months, fat deposits grow under the fetus' skin
    - At 9 months or around 40 weeks, the fetus is ready to be born
- Some important things that will happen to the woman during pregnancy are:
    - At 10-12 weeks, the healthcare provider can use a machine to hear the fetus' heart beat
    - At 18-20 weeks, she will be able to feel the fetus moving.
    - At 20 weeks, she may have an ultrasound and may be able to find out the sex of her fetus.
    - At around 20 weeks, she will begin "showing" (her belly will look pregnant).

Part 6: Having a Healthy Pregnancy

Time	15 minutes
Materials	- Laptop, projector, and "Fertility and Pregnancy" PowerPoint slides (optional)

- Once a woman gets pregnant, she must continue to prepare and stay healthy for the baby. (***Ask: What are some ways she can stay healthy during pregnancy?***)

Image 1: http://phil.cdc.gov/PHIL_Images/06031999/00007/41G0007_lores.jpg
Image 2: Photo credit: armufm http://www.flickr.com/photos/amrufm/2785628991/sizes/m/in/photostream/
Image 3: http://phil.cdc.gov/PHIL_Images/13541/13541_lores.jpg
Image 4: http://phil.cdc.gov/phil_images/20030605/1/PHIL_1086_lores.jpg
Image 5: http://phil.cdc.gov/PHIL_Images/13677/13677_lores.jpg

Part 6A: Prenatal care

- (***Ask: What have been your experiences with prenatal care in Nepal? In Bhutan? In the United States?)***
- In America, women go to the healthcare provider often while they are pregnant to make sure both the mother and baby are healthy. This is called "prenatal care" – pre means before and natal means birth. These visits usually start when the woman is about 8 weeks pregnant.
- If a woman and her baby are at low risk for health problems, their schedule of prenatal care is usually:
    - Once a month until she is 7 months pregnant
    - Twice a month until she is 36 weeks pregnant
    - Every week until the baby is born
- If the woman has health problems or is older than 35 years old, she may have to go for check-ups more often.

- (***Ask: What does a healthcare provider do during a prenatal care visit?)***
    - The first prenatal care visit will be longer than the others. The healthcare provider will:
        - Figure out when your baby is due
        - Ask about you and your partner's medical history including:
            - Diseases like diabetes or high blood pressure
            - If you had to stay in the hospital or have surgery before
            - Past pregnancies
        - Ask about your families' medical history, especially if there are any genetic diseases (diseases that are passed from parents to children through DNA)
        - Do a women's health exam and breast exam
        - Do a pap smear and test for STIs and HIV/AIDS
        - Take blood work
        - Measure your blood pressure, height, and weight
        - Answer your questions and teach you about how to have a healthy pregnancy
    - During other prenatal care visits the healthcare provider may:
        - Measure your blood pressure and weight
        - Measure your belly to see how the baby is growing
        - Listen to the baby's heart beat
    - Many healthcare providers will also do an ultrasound when the woman is around 20 weeks pregnant so that they can see the baby. Other types of tests might be done throughout the pregnancy to look for any problems and make sure the pregnancy and the baby are healthy.
    - The healthcare provider will also talk to the woman and her husband about what to expect during delivery and after the baby is born, discuss birth control choices for after the baby is born, and encourage them in breastfeeding.

<u>Part 6B: Other Ways to Stay Healthy During Pregnancy</u>

- (***Ask: Aside from going to the clinic, what else can a woman do to make sure she has a healthy pregnancy?)***
    - Stop smoking, drinking, or using drugs
        - These things can cause problems for the mother and the baby before and after it is born.
    - Eat healthy
        - Just because a woman has to eat for her baby now too, this does NOT mean that she needs to eat double what she normally does. (***Ask: How much weight should a woman gain when she is pregnant?)***
            - Most women should gain 25-35 lbs when they are pregnant.
        - Pregnant women should drink 7-11 cups of water a day
        - Pregnant women should eat a lot of fruits, vegetables, and whole grains. They should also have protein like lean meat and beans and dairy like milk and cheese too.

- Pregnant women should eat 3 meals and 3 healthy snacks a day.
- Pregnant women should take prenatal vitamins every day. Some pregnant women may also have to take other vitamins or supplements if the healthcare provider tells them to.
- (***Ask: What kinds of food should women NOT eat while they are pregnant?)***
    - Raw or undercooked meat, fish, or eggs
    - Juice, cheese, or milk that is unpasteurized
    - Fish with a lot of mercury (swordfish, king mackerel, shark, tilefish). Only eat 8-12 oz of fish that are low in mercury (salmon, tuna, trout) per week.
    - Limit the amount of sugary, fatty, salty, or unhealthy snacks. Instead eat healthy snacks.

- Exercise (***Ask: Should pregnant women exercise?)***
    - Women should still exercise while they are pregnant, but should do exercise that will not harm the baby.
    - Exercise can help prevent aches related to pregnancy, help women during labor and delivery, lower the chances of high blood pressure or diabetes during pregnancy, and help women get back to a healthy weight after they have their baby.
    - Women should exercise at least 2 ½ hours a week by doing activities like:
        - Walking
        - Swimming
        - Dancing
        - Aerobics
    - Pregnant women should NOT do sports or activities where they might get hit (football, soccer) or where they might fall (skiing, gymnastics).
- Avoid dangerous chemicals or activities at work or home
    - These chemicals may cause problems during pregnancy or once the baby is born. A pregnant woman should tell a healthcare provider if she is around chemicals at work or home.
- Have healthy teeth and mouths
    - Going to the dentist before or in early pregnancy is a good idea. Having an unhealthy mouth may cause problems with the pregnancy.
- Tell somebody if they are experiencing violence from their partner or anybody else.
    - Many women experience more violence against them while they are pregnant. This can be very dangerous for the woman and her baby, so she should ask somebody she trusts for help or tell her healthcare provider.
- (***Ask: Is it okay for a pregnant woman to have sex?)***
    - Yes, unless the healthcare provider says it's not okay, a woman can have sex while she is pregnant. She should tell the healthcare provider if she notices pain, bleeding, or fluid leaking from her vagina.

Part 6C: Problems During Pregnancy

- We have just talked about what to do to stay healthy during pregnancy, but some women may experience problems while they are pregnant. (***Ask: What are some normal body changes/symptoms during pregnancy? What changes and symptoms are NOT normal?)***

- Normal
  - Weight gain
  - Changes in hair and skin
  - Nausea and vomiting
  - Heartburn
  - Constipation
  - Aches in the belly and back
  - Breast growth and tenderness
  - Feeling tired
  - Feeling nervous or uncertain about the pregnancy
- NOT normal – women with these symptoms should talk to their healthcare providers
  - Very bad nausea and vomiting
  - Severe swelling in feet, legs, ankles, or face
  - Very bad and frequent headaches
  - Spots before your eyes or blurred vision
  - Pain when urinating or having sex
  - Abnormal discharge from the vagina
  - Bleeding from the vagina
  - Early severe contractions, cramping, pelvic pressure
  - Dizziness or fainting
  - The baby moving a lot less than it has (after 6 months)
  - Feeling very depressed or sad
- (***Ask: What are some other problems? Does anybody have any ideas or experience with how to help some of the common problems during pregnancy?***)
  - Eat small frequent meals - helps with nausea and vomiting
  - Exercise – helps with nausea and vomiting, aches, feeling tired, etc.
  - Do not lie down right after eating – helps with nausea and vomiting
  - Drink a lot of water – helps with headaches, constipation, etc.
  - Etc.

Part 7: Child Birth

Time	15 minutes
Materials	- Laptop, projector, and "Fertility and Pregnancy" PowerPoint slides

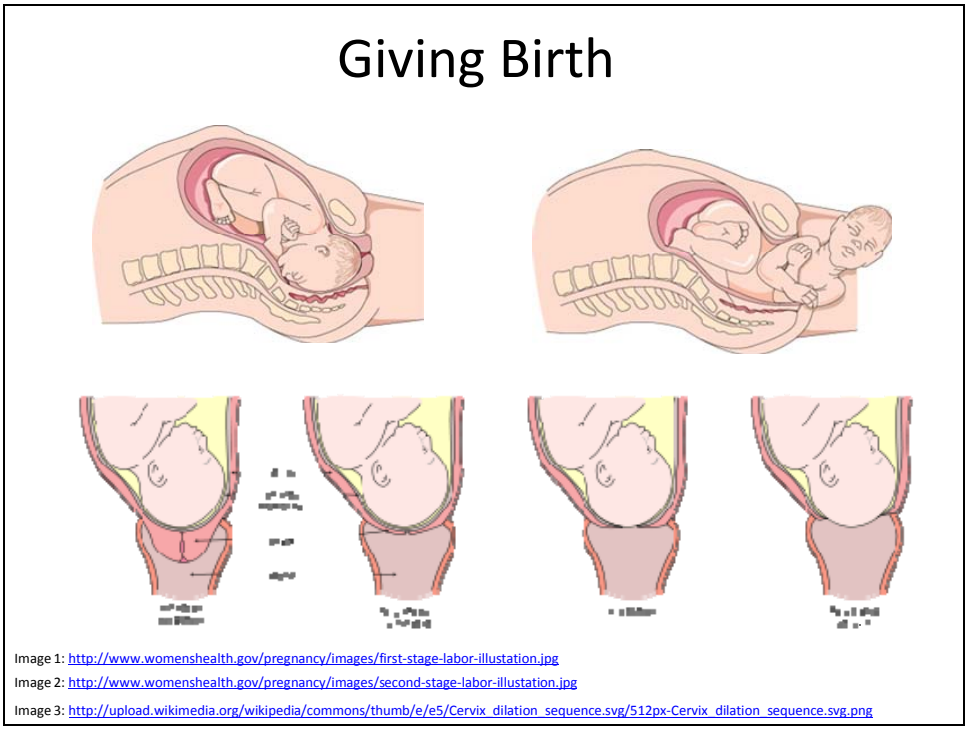


Image 1: http://www.womenshealth.gov/pregnancy/images/first-stage-labor-illustation.jpg
Image 2: http://www.womenshealth.gov/pregnancy/images/second-stage-labor-illustation.jpg
Image 3: http://upload.wikimedia.org/wikipedia/commons/thumb/e/e5/Cervix_dilation_sequence.svg/512px-Cervix_dilation_sequence.svg.png

- When a woman is getting ready to begin labor (delivering the baby), her body will go through important changes
    - The woman may feel strong cramps in her belly. These are called contractions and happen when the uterus' muscles squeeze and relax. When a woman starts labor her contractions happen every 10 minutes and come more often when she gets closer to giving birth.
    - She may also have a bloody mucousy discharge from her vagina and/or her "water" might "break." This means that the amniotic fluid that protected the fetus in the uterus comes out of the woman's vagina.
- There are 3 stages of labor
    - Stage 1
        - In the beginning of this stage, a woman will have contractions every 5-20 minutes and her cervix will begin to dilate (open) 3-4 cm and efface (thin).
        - Next, a woman's contractions will come closer together and become stronger. Her cervix will open 4-7 cm and will continue to thin.

        - Finally, her cervix will thin and open all the way to 10 cm. Her contractions will be very strong and will happen very quickly.
    - Stage 2
        - The woman will give birth to her baby by pushing it out of the uterus, past the cervix, and out of the vagina.
        - This stage is shorter than the first stage and may last 30 minutes to 2 hours during a woman's first pregnancy.
    - Stage 3
        - The woman must deliver the placenta that the baby was living in and being nourished by while it was in the mother's uterus. She must push this out of the uterus, past the cervix, and out of the vagina. This usually only takes a few minutes.

-
- ***This next section of this module will center on a facilitated discussion of labor and delivery care in the United States. In order to compare and contrast birth experiences in Nepal, Bhutan, and the United States, women should be encouraged to share their experiences and concerns.***

Image 1: http://www.womenshealth.gov/pregnancy/images/pregnant-woman-hospital-monitor.jpg
Image 2: Photo credit: Chris Schuring
http://commons.wikimedia.org/wiki/File:Normal_Childbirth.jpg
Image 3: http://upload.wikimedia.org/wikipedia/commons/thumb/a/af/LaVergerrayCherie-birth.jpg/509px-LaVergerrayCherie-birth.jpg
Image 4: http://www.womenshealth.gov/pregnancy/images/infant-breastfeeding.jpg
Image 5: Photo source: Gilberto Santa Rosa
http://commons.wikimedia.org/wiki/File:ChildBirth.jpg

- Explain to the participants that in the United States, most women give birth in a hospital. Doctors or midwives are the ones who deliver the baby, but nurses and other healthcare workers may be in the room helping.
- A pregnant woman should discuss her "birth plan" with her healthcare provider before she goes to the hospital. (***Ask: What are some things you should talk about with your healthcare provider before you go to the hospital to deliver?)***
    - Who she wants in the room with her

- What position she'd like to give birth in
  - Most women in the US give birth lying on their backs, but other positions, like squatting, make birth easier and a woman may want to choose these positions instead.
- If she wants pain medications during birth or if she wants to give birth naturally without medication.
  - About 50% of women in the US choose to have an epidural (pain medicine which is injected into the spine and blocks the pain in a woman's lower body). However, unless there is a problem, women have the choice whether or not they want this type of medicine or any medicine, and they should discuss this with their healthcare providers before they go to the hospital.
- What type of birth she wants to have.
  - Although most women give birth vaginally, 34% of women in Georgia give birth by having a type of surgery called a cesarean "C" section. This is usually because of a complication or problem that makes it dangerous for her to have a vaginal birth. Still women should discuss this with their healthcare providers before they go to the hospital. If a doctor or midwife knows a woman does not want a C section, they will try to help her deliver vaginally if possible.
  - Some health clinics and hospitals may also allow women to give birth in the water, at birthing centers, etc. Women should discuss what they want to do with their healthcare provider to see if it is an option.
- What she wants to happen once the baby is born
  - Breastfeeding immediately after the baby is born is very healthy for the baby and the mother. The woman should let the hospital know whether she wants to breastfeed her baby so the healthcare workers will know whether or not they should feed the baby formula.
  - Depending on the hospital, the baby may be able to sleep in the room with the mother or may have to stay in a nursery. Discuss these options with your healthcare provider.

- ***(Ask: What are some concerns you have about giving birth in the United States? In a hospital? Does anybody want to share any birthing experiences?)***

Part 8: Post-Test and Feedback

Time	10 minutes
Materials	- Post-test and feedback survey - Pencils

- Ask for any last questions about the material covered in class.
- Administer post-test again explaining that they will not be graded.
- Ask for feedback of today's class either through a written survey or verbally.

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PowerPoint Slide References

- Slide 1: Fertility Awareness
  - http://bedsider.org/methods/fertility_awareness#alternatives_tab
- Slide 2: Cycle Beads
  - Own photo
- Slide 3: Male Infertility

    - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf
- Slide 4: Female Infertility
    - Used with permission from Advocates for Youth http://www.advocatesforyouth.org/storage/advfy/documents/repro101.pdf
- Slide 5: Egg and Sperm
    - Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash
- Slide 6: Fertilization
    - Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash
- Slide 7: Implantation
    - Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash
- Slide 8: Pregnancy
    - Drawings Used with permission from FLASH Curriculum: *Pregnancy*. Seattle and King County Health Department www.kingcounty.gov/health/flash
- Slide 9: Fetal and Maternal Growth
    - Image 1: http://www.britannica.com/EBchecked/topic/232124/gestation
    - Image 2: http://www.britannica.com/EBchecked/media/121639/Growth-of-the-human-fetus-from-the-fourth-month-to
    - Image 3: http://www.britannica.com/EBchecked/topic/205520/fetus
- Slide 10 : Healthy Pregnancy
    - Image 1: http://phil.cdc.gov/PHIL_Images/06031999/00007/41G0007_lores.jpg
    - Image 2: Photo credit: armufm http://www.flickr.com/photos/amrufm/2785628991/sizes/m/in/photostream/
    - Image 3: http://phil.cdc.gov/PHIL_Images/13541/13541_lores.jpg
    - Image 4: http://phil.cdc.gov/phil_images/20030605/1/PHIL_1086_lores.jpg
    - Image 5: http://phil.cdc.gov/PHIL_Images/13677/13677_lores.jpg
- Slide 11 : Giving Birth
    - Image 1: http://www.womenshealth.gov/pregnancy/images/first-stage-labor-illustation.jpg
    - Image 2: http://www.womenshealth.gov/pregnancy/images/second-stage-labor-illustation.jpg
    - Image 3: http://upload.wikimedia.org/wikipedia/commons/thumb/e/e5/Cervix_dilation_sequence.svg/512px-Cervix_dilation_sequence.svg.png
- Slide 12 : Giving Birth (photos)
    - Image 1: http://www.womenshealth.gov/pregnancy/images/pregnant-woman-hospital-monitor.jpg
    - Image 2: Photo credit: Chris Schuring http://commons.wikimedia.org/wiki/File:Normal_Childbirth.jpg

- Image 3: http://upload.wikimedia.org/wikipedia/commons/thumb/a/af/LaVergerrayCherie-birth.jpg/509px-LaVergerrayCherie-birth.jpg
- Image 4: http://www.womenshealth.gov/pregnancy/images/infant-breastfeeding.jpg
- Image 5: Photo source: Gilberto Santa Rosa http://commons.wikimedia.org/wiki/File:ChildBirth.jpg

Handouts for Module 6:

Fertility and Pregnancy

Fertility and Pregnancy Pre/Post Test

Age _____

# of Years in America _____

1. A woman can get pregnant the easiest around the time that she ovulates (releases an egg). True or False?
    a. True
    b. False

2. If a couple has had unprotected sex for one year without getting pregnant, they are infertile. Infertility can be caused by a woman's health problems and/or a man's health problems. True or False?
    a. True
    b. False

3. A pregnant woman should gain _____.
    a. 5-10 pounds
    b. 15- 25 pounds
    c. 25-35 pounds
    d. 40-50 pounds

4. A pregnant woman has very bad swelling in her feet and many strong headaches. What should she do?
    a. Nothing. This is normal.
    b. Go see a healthcare provider right away. This can be dangerous for her and her baby.

Fertility and Pregnancy Pre/Post Test Answer Key

Age _____

# of Years in America _____

1. A woman can get pregnant the easiest around the time that she ovulates (releases an egg). True or False?
    a. True
    b. False

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    a. Nothing. This is normal.
    b. Go see a healthcare provider right away. This can be dangerous for her and her baby.

Fertility and Pregnancy Feedback Survey

Age _____

# of Years in America _____

1. What did you like best about today's class?

2. What did you like least about today's class?

3. What else would you have liked to discuss?

4. Today's class was:
    a. Too long
    b. Too short
    c. Just the right amount of time

5. Would you recommend this class to your friends or other Bhutanese women?
    a. Yes
    b. No