

12-20-2012

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Botswana's Adult Identity Mentoring Program (AIM) Public Health Evaluation: The
Importance of Counseling and Education to Reduce the Psychosocial Impact on
Asymptomatic Youth Diagnosed with Herpes Simplex Virus Type 2

By

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B.A. International Affairs
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A Capstone Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment
of the
Requirements for the Degree

MASTER OF PUBLIC HEALTH

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ACKNOWLEDGEMENTS

I would like to thank my Chair, Dr. Kimberle Sterling, for her support and guidance in developing this capstone project. I would also like to thank Dr. Kim Miller and Sarah Lasswell at the Centers for Disease Control and Prevention (CDC) for their mentorship and for allowing me to work together with them so I could develop this capstone project. Finally, I want to thank my husband for his patience and personal support throughout these years in the Public Health Masters' program, and all my colleagues at CDC, my professors in the program, my family and friends for their encouragement and believing in me and my goals.

Note: the content of this paper is solely the responsibility of the author and does not represent the views of CDC.

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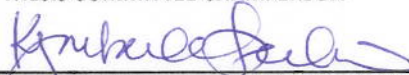

Botswana's Adult Identity Mentoring Program (AIM) Public Health Evaluation: The Importance of Counseling and Education to Reduce the Psychosocial Impact on Asymptomatic Youth Diagnosed with Herpes Simplex Virus Type

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ABSTRACT

Background: The Division of Global HIV/AIDS at the Centers for Disease Control and Prevention (CDC) is working on a public health evaluation (PHE) in the eastern districts of Botswana. This PHE aims to evaluate the effectiveness of Project AIM, a group-level intervention designed to reduce HIV risk behaviors in youth ages 11 to 14, when combined with the regular Botswana Skills for Life Curriculum, a standard HIV prevention education curriculum in Botswana schools. In order to evaluate Project AIM, a self-report survey and a biological testing for herpes simplex virus type 2 (HSV-2) will be conducted.

Methodology: Based on studies done on the psychosocial impact of HSV-2 diagnosis on asymptomatic individuals in the USA, the literature recommends providing pre and post counseling and education to individuals testing for genital herpes to help cope and diminish the psychosocial impact of the diagnosis. In order to prepare Botswana's clinics and schools participating in the PHE to provide the support for newly diagnosed adolescents with HSV-2, guidance materials were developed for health care practitioners and school guidance teachers. Materials were created using Information Mapping technique to analyze, organize, and present the information, and the Microsoft Office Flesch Kinkade Grade Level (FK) tool to assess the readability levels of the materials.


Results: Guidance materials were prepared using the 7 ± 2 theoretical limit of human short-term memory information mapping rule, and the FK grade levels of 6.0 to 8.0 recommended readability scores. Guidance materials included information regarding HSV-2 symptoms, treatment, and prevention. They also included information on the PHE study, youth friendly health services, counseling and education, clinic referrals and contact information.

Conclusions: The development of guidance materials for schools and clinic participants of the CDC PHE in Botswana will provide health practitioners and school guidance teachers with accurate HSV-2 information to counsel and educate student participants in this research study. The guidance materials should help students cope with potential psychosocial disorders associated with pre and post diagnosis of HSV-2.

Index Words: Herpes Simplex Virus Type 2 (HSV2), Genital Herpes, Social Support, Counseling, Education, Psychosocial morbidity/impact, youth friendly clinics, reproductive health, sexually transmitted diseases (STIs).

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CHAPTER I

INTRODUCTION

1.1 Background

The Division of Global HIV/AIDS (DGHA) at the Centers for Disease Control and Prevention (CDC) works together with the President's Emergency Plan for AIDS Relief (PEPFAR), the U.S. Government world initiative to help save the lives of those suffering from HIV/AIDS. CDC through PEPFAR is committed to implementing evidence-based biomedical and behavioral programs to achieve the goal of an AIDS-free generation set by the Obama Administration in 2011 (Miller, 2012; Office of the Spokesperson, 2012). In order to reach this goal, the DGHA is involved in adapting, implementing, and evaluating evidence-based interventions for youth. One of the youth prevention programs the DGHA Prevention Branch has adapted and is preparing to implement and evaluate is the Adult Identity Mentoring program (AIM). AIM is a group-level intervention for youth. It is designed to reduce HIV risk behaviors in youth ages 11 to 14 without focusing on changing sexual behavior. AIM is based on the theory of positive selves, which states that behavior change is motivated by what you hope to become and by what you wish to avoid becoming; it encourages youth to imagine a bright and successful future, and helps them understand how risky behaviors such as early initiation of sexual activity can be a barrier to achieving success (Miller, 2012).

Currently, the DGHA is working on a public health evaluation (PHE) in the eastern districts of Botswana. This PHE aims to evaluate the impact on adolescents' sexual delay when combining Project AIM with the standard Botswana Skills for Life Curriculum. The Botswana Skills for Life Curriculum is a standard HIV prevention education curriculum taught to all

Botswana's students at all levels about HIV prevention, values, decision making, communication, and healthy living (Miller, 2012).

The PHE will be conducted in 50 schools randomized to two study arms, in which 15,000 youth ages 12-18 in Eastern-Botswana will participate. 7,500 of the students with an average age of 13 years old will be randomized to one of two study arms. Those enrolled in the control arm will only receive the standard Botswana Skills for Life Curriculum. Those enrolled in the intervention arm will receive the standard Botswana curriculum plus the AIM curriculum. These 7,500 students enrolled in the two study arms will receive the survey four times and the biomedical HSV-2 assessment twice during the 33 months. The other half of the students, 7,500, with an average age of 16 years old, will be enrolled only at base line for the cross sectional HSV-2 prevalence estimates component. Due to the nature of some of the questions in the study, the survey will be completed in a self-administered way to increase data validity (Miller, 2012).

In order to evaluate Project AIM, a self-report survey and a biological testing for herpes simplex virus type 2 (HSV-2), more recognized as genital herpes, will be conducted multiple times during a 33-month prospective study. The study will evaluate the impact of AIM on the sexual behaviors that make youth vulnerable to HIV. To show the biological impact of AIM, an HSV-2 test will also be provided as a biological correlate of the self-reported data from the survey. It has been shown that testing for HSV-2 offers a reliable biomarker of sexual activity (Miller, 2012). In fact, the limited data available on Botswana shows that HSV-2 is very common among sexually active people in Botswana. The results from the HSV-2 testing will also provide important information as having HSV-2 is considered a major risk factor for HIV (Miller, 2012).

The final results of the study will help guide school based interventions to prevent HIV in Botswana and other sub-Saharan countries. The HSV-2 test results will also inform, for the first time, Botswana public health officials on prevalence and incidence estimates of genital herpes in youth ages 12-18. In general, the outcomes of this study will guide future public health policy and pre-risk prevention interventions targeting adolescents who are considered a key population to reverse the HIV epidemic in Botswana and achieve an HIV-free generation (Miller, 2012).

CHAPTER II

REVIEW OF THE LITERATURE

2.1 HIV world and Botswana prevalence

According to UNAIDS, there were 34.2 million adults and children living with HIV in 2011 (UNAIDS, 2011). Sub-Saharan Africa is the most affected region of the world with 11.3 million people living with HIV as of 2009. Botswana, located in Southern Africa, North of South Africa, has the second highest prevalence in the world after Swaziland with a 24.8% rate (CIA - The World Fact Book, 2009; World Health Organization, 2009).

In Botswana, the prevalence of HIV among young adults ages 15 to 24 is 5% among men and 11% among women. Given that 39% of the population in Botswana is between the ages of 10 to 24, these rates are extremely high (Miller, 2012). In addition, the incidence of HIV among patients seeking treatment for STIs is very high; 56% among women and 67% among men (Government of Botswana - Ministry of Health, 2005). Major risk factors associated with HIV in Botswana are unprotected sex, multiple partners, early initiation of sex, engaging in sex with older partners, and sexually transmitted infections such as genital herpes (Miller, 2012). As a result, The Botswana Ministry of Health has advised voluntary routine HIV testing for anyone seeking STI treatment along with routine HIV counseling and testing (Government of Botswana - Ministry of Health, 2005).

2.2 Epidemiology of HSV-2

2.2.1 HSV-2 world prevalence

Genital herpes is a very common STI around the world, and is commonly caused by Herpes Simplex Virus-2 (HSV-2). According to the literature, prevalence is increasing around the world (Looker, Garnett, & Schmid, 2008). In 2003, it was estimated that about 536 million

people age 15-49 were living with HSV-2 in the world (Looker, et al., 2008). More women than men were infected. 315 million women were infected compared to 221 million men, and the number of infected people increased at ages 35 to 39, but declined afterwards (Looker, et al., 2008). It is important to note that the world prevalence figures in the literature are inconsistent due to the diagnosis approach and the nature of the disease. Many countries in the world show prevalence according to clinical diagnosis. Clinical diagnosis of herpes has poor sensitivity resulting in misdiagnosis (Cusini & Ghislanzoni, 2001). In addition, due to its asymptomatic nature, many people that have it do not know.

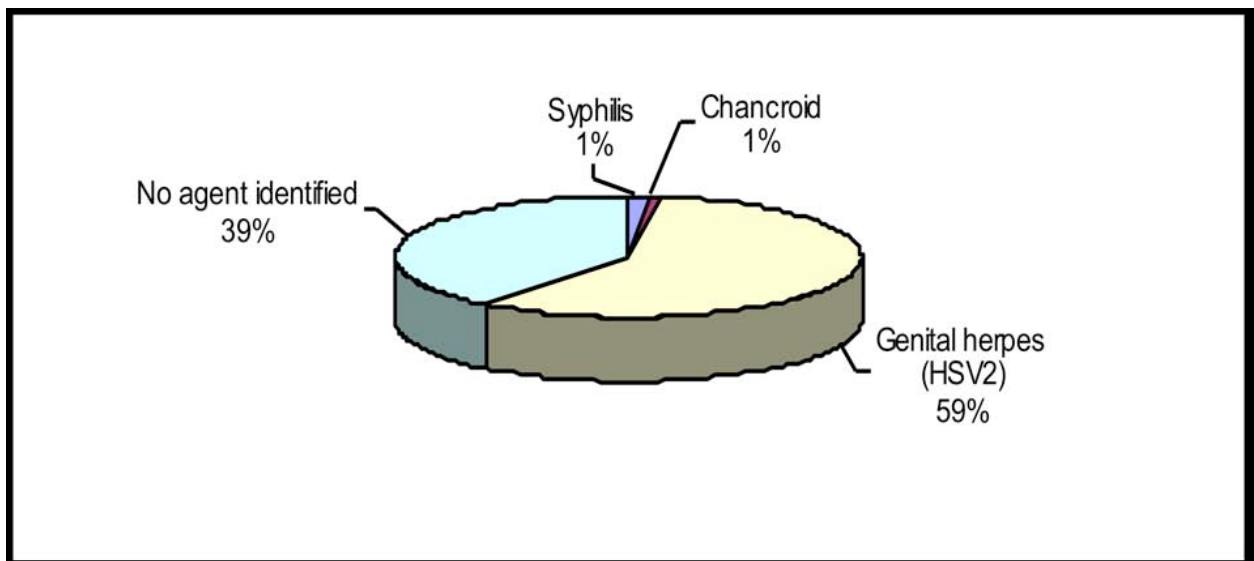
Reducing the number of HSV-2 infections is important because having HSV-2 increases the chance of becoming infected with HIV by two or three threshold (Centers for Disease Control and Prevention, 2010; Cusini & Ghislanzoni, 2001; Looker, et al., 2008). Prevalence varies across regions of the world. HSV-2 is higher in developing countries where the risk of HIV infection is also more than 5 times greater for those with HSV-2 than those without (Government of Botswana - Ministry of Health, 2005). Western Europe has the lowest prevalence; 18% among women and 13% among men. Sub-Saharan Africa has the highest prevalence; 70% among women and 55% among men. Finally, world areas with high HSV-2 prevalence usually have a high prevalence of other sexually transmitted infections, such as chlamydia and gonorrhea. Thus, it is important to increase the prevention efforts to reduce HSV-2, in order to reduce disease and morbidity related to other STIs (Looker, et al., 2008).

2.2.2 HSV-2 Botswana prevalence

Data on HSV-2 prevalence in Botswana is limited and inconsistent. According to the Ministry of Health and CDC-Botswana, HSV-2 has become the greatest cause of genital ulcer diseases (GUD) in Botswana with a 59% prevalence (See Figure 1) (Government of Botswana -

Ministry of Health, 2005). On the other hand, baseline data from a Botswana randomized controlled trial of 18-39 years-old HIV negative men and women, indicated an HSV-2 prevalence of approximately 35% (Thigpen, et al., 2012).

Figure 1 - MOH and BOTUSA-CDC, 2002



2.2.3 HSV-2 facts

Genital herpes is often the first chronic disease of young adults ages 18 to 40. It is a sexually transmitted disease caused by herpes simplex virus type 2. It stays in the body for a lifetime, more specifically in the neural tissue, typically in the dorsal root ganglia. The incubation period of HSV-2 is usually two to ten days for initial herpes and sometimes up to three weeks (Government of Botswana - Ministry of Health, 2005). It is a common disease among men and women that have or have had sex. Most people that have genital herpes have never been diagnosed and do not recognize genital symptoms related to HSV-2 (Ross, Johnston, & Wald, 2011).

Genital herpes is very unique compared to other STIs. Genital herpes is the only incurable but treatable genital ulcer disease. It is not life threatening, but puts people at a higher

risk for HIV. HSV-2 can be symptomatic or asymptomatic. Even when asymptotically present, it can be transmitted. If symptomatic, the person may experience recurrent outbreaks of painful blisters and sores around the genitals or anus. Sexually active people can reduce the risk of HSV-2 transmission using condoms. However, using condoms does not eliminate the risk, as condoms only protect the area they cover. Areas not covered by a condom may become infected (Centers for Disease Control and Prevention, 2008; Chenitz & Swanson, 1989).

Genital herpes can be classified into three categories: primary, initial or non-primary, and recurrent. The very first time a person is infected with herpes simplex type 1, commonly known as cold sores or fever blisters, or herpes simplex type 2, commonly known as genital herpes, it is called primary herpes. In other words, primary herpes occurs on those people that have never had herpes simplex type 1 or 2. Primary herpes is usually the most severe of the outbreaks and blisters and sores last for a longer time than subsequent possible outbreaks. The lesions in men may be found on the glans penis and the inner surface of the foreskin. In women, they may be found on the labia, clitoris, fourchette, vulva, vagina, and the cervix. In both sexes, anal and perianal lesions may be found as well (Government of Botswana - Ministry of Health, 2005). Non-primary or initial herpes occurs when a person has already been infected with the herpes simplex virus, type 1 or 2, in the past. People previously infected with herpes simplex virus type 1 or 2 have already developed antibodies. Thus, the symptoms are less severe and last for less time than in the case of a primary herpes infection. Symptomatic people infected with HSV-2 usually developed recurrences in the same places where lesions first appeared. Recurrences are, in general, less painful and severe than a first outbreak (Government of Botswana - Ministry of Health, 2005).

Even though most herpes cases are asymptomatic, if they are symptomatic, it is important to treat those individuals as quickly and effectively as possible to avoid infections to partners or serious complications such as getting or transmitting HIV. Treatment includes antiviral drugs that help with the length and severity of blisters and ulcers, and reduce the viral shedding, but does not eliminate it (Government of Botswana - Ministry of Health, 2005).

2.2.4 Symptomatic –VS- Asymptomatic HSV-2

Genital herpes can be symptomatic or asymptomatic. Genital herpes is symptomatic when it includes primary, initial or recurrent infection. Asymptomatic herpes is defined as the absence of herpes symptoms and presence of viral shedding or intermittent viral reactivation without clinical symptoms. As a result, even when asymptomatic, HSV-2 can be transmitted (Cusini & Ghislanzoni, 2001; Glass, Nelson, & Huffman, n.d.).

It is important to distinguish between symptomatic and asymptomatic individuals. The literature shows that the severity and length of psychosocial and psychosexual effects of primary or recurrent genital herpes may be different from the impact of a diagnosis on patients with no history of genital herpes. The distress that can result from a diagnosis on symptomatic patients is much more severe than the diagnosis on asymptomatic patients (Ross, et al., 2011; Silver, Auerbach, Vishniavsky, & Kaplowitz, 1986). In fact, due to the adverse consequences a diagnosis may have on a patient, the Centers for Disease Control and Prevention and the USA Preventive Services Task force do not recommend herpes testing among the general public. Nevertheless, the literature suggests that potential psychosocial harm should not cause the avoidance of serological testing on asymptomatic individuals (Provenzale, Evans, Russell, Hoory, & Mark, 2011; Rosenthal et al., 2006).

2.2.5 HSV-2 serological –VS- clinical diagnosis

As stated by the U.S. Preventive Services Task Force, serological tests are used to detect previous infection with HSV-2 in asymptomatic patients, or to diagnose infection in a symptomatic patient when HSV viral culture is not available or the clinical symptoms are unclear (Glass, et al., n.d.). Up until 1999, HSV-2 was diagnosed only for symptomatic patients as serological testing was not available before then (Provenzale, et al., 2011). A diagnosis based only on clinical diagnosis is not recommended as it has poor sensitivity. Serological testing is then recommended since many patients with genital herpes are usually misdiagnosed or not diagnosed at all. (Cusini & Ghislanzoni, 2001).

According to the literature, the psychosocial impact of a positive HSV-2 diagnosis through serological testing on individuals without history of herpes does not result in persistent psychosocial problems (Glass, et al., n.d.; Ross, et al., 2011). However, the literature emphasizes the importance of providing suppressive therapy for symptomatic patients and pre and post counseling and education on genital herpes for all individuals undergoing diagnosis (Gilbert & Omisore, 2009; Miyai, Turner, Kent, & Klausner, 2004). Furthermore, the literature indicates that most asymptomatic people are interested in getting tested and do not regret being tested. It also shows that people tend to perceive herpes as severe before testing, but after receiving a positive diagnosis, people view the diagnosis as less severe (Ross, et al., 2011).

2.2.6 Risk factors associated with HSV-2

HSV-2 is the main cause of recurrent genital herpes. It also increases the chance for HIV transmission by two threefold as the presence of genital ulcers facilitates the transmission of HIV (Government of Botswana - Ministry of Health, 2005; Ross, et al., 2011). HSV-2 infections are

more frequent among women than men, its prevalence increases with age, and the strongest association with HSV-2 appears to be related to the amount of sexual partners an individual may have during its lifetime (Cusini & Ghislanzoni, 2001).

2.3 Psychosocial impact of diagnosed individuals with HSV-2

Negative psychosocial effects refer to problems related with psychological problems such as depression, mania, personality disorders, and hypochondriasis. It also refers to emotional and social difficulties such as low self-esteem, fear, shame, guilt, stigma, and adaptation difficulties. The psychosocial difficulties related to genital herpes are depression, agony, distress, anger, fear, diminution of self-esteem, and anger toward the person believed to be the source of infection (Mindel & Marks, 2005).

The literature shows that symptomatic individuals diagnosed with genital herpes through symptoms or signs associated with HSV-2, rather than laboratory tests, commonly known as syndromic diagnosis, have a higher psychosocial morbidity than asymptomatic individuals diagnosed through serological testing (Mark, Gilbert, & Nanda, 2009; Rosenthal, et al., 2006). This difference on morbidity between asymptomatic and symptomatic people may be due to the physical presence of symptoms, the uncertainty of recurrence, and the social consequences such as transmission and impact on sex life (Fraleay, 2002; Gilbert & Omisore, 2009; Rosenthal, et al., 2006; Ross, et al., 2011). As a result, persons infected with HSV-2 that do not have typical herpes symptoms, might not experience long-term psychosocial morbidity associated with the virus (Miyai, et al., 2004). However, even though HSV-2 screening may not produce long lasting depression or anxiety in asymptomatic individuals, it may have quality of life effects such as worries about transmission or stigmatization (Provenzale, et al., 2011; Rosenthal, et al., 2006).

Syndromic diagnosis of herpes may not be accurate, leading to misdiagnosis and potential spread of the disease (Cusini & Ghislanzoni, 2001). In Botswana, sophisticated diagnostic tools for HSV-2 and other STIs are rather limited (Government of Botswana - Ministry of Health, 2005). The PHE will offer, for the first time, free HSV-2 serological testing to all students participating in the research study. This will be a unique opportunity to evaluate the prevalence of the disease among individuals ages 12 to 18, and the risk behaviors associated with it in this country. The statistical figures will guide school based prevention efforts in Botswana and other countries in Sub-Saharan Africa (Miller, 2012).

2.4 HSV-2 management

It is important to incorporate care and treatment for HSV2 and other STIs in the health care facilities to reduce the stigma and severity of a diagnosis (Mark, et al., 2009). Providing a patient centered approach to care and treatment is fundamental for the successful management of HSV-2. Trust should be established between the health care provider and the patient by listening and providing feedback without being judgmental. The visit to the health facility by an HSV-2 patient should not only include an assessment of the patient's symptoms and signs, but also an assessment of the knowledge, attitude, and feelings towards self and others (Chenitz & Swanson, 1989; Government of Botswana - Ministry of Health, 2005). A health-centered approach to managing HSV-2 is especially important on adolescents, who may experience stronger emotions of fear, vulnerability, isolation, frustration, helplessness, and depression (Chenitz & Swanson, 1989; Government of Botswana - Ministry of Health, 2005).

Another important part of managing genital herpes is to help patients cope with stress. The literature mentions that psychological stressors can trigger herpes recurrences (Mindel & Marks, 2005). The only fallacy in the literature is that even though there is an association

between stress and recurrences, there is not enough evidence to assure if stress triggers herpes recurrences, or if outbreaks trigger stress, or if both happen at the same time (Mindel & Marks, 2005). Nevertheless, managing stress and receiving social support to reduce HSV-2 recurrence is important because herpes recurrence is a predictor of psychosocial morbidity (Fraley, 2002; Silver, et al., 1986).

2.4.1 Antiviral treatment

Antiviral drugs are essential to manage symptomatic genital herpes. There are three drugs available for treating genital herpes symptoms: Acyclovir, Prodrug Valaciclovir, and Famciclovir. These drugs can be used continuously or discontinuously to reduce recurrences as well as the length and severity of them (Centers for Disease Control and Prevention, 2010). Studies have shown that antiviral treatment can have medical and psychological benefit, reducing in this way psychosocial morbidity in persons with recurring symptoms (Mark, et al., 2009; Mindel & Marks, 2005).

The WHO recommends the use of Acyclovir for treatment of GUD including HSV-2. Acyclovir is the first-line syndromic treatment for GUD in Botswana, and it is distributed free to health facilities as per request to the Botswana Ministry of Health (Corbell et al., 2010).

2.4.2 Pre and post counseling and education

The goal of educating and counseling HSV-2 positive individuals is to reduce the psychosocial impact and transmission (Chenitz & Swanson, 1989). The literature shows that pre and post-test counseling and post-test education ameliorate a patient's adverse response to a positive HSV-2 diagnosis (Miyai, et al., 2004).

When educating patients on HSV-2, it is important to assess their knowledge of the disease. It is also important for positive individuals to understand the nature of the disease, its

unique characteristics, and how transmission can be prevented. When counseling, counselors should assess the individual's attitude towards self, personal relationships, and sexual functioning as having HSV-2 causes feelings of anger, fear, depression, frustration, isolation, vulnerability, and disbelief (Chenitz & Swanson, 1989).

When counseling and educating, it is necessary to take into consideration that lengthy psychosocial effects are more prevalent on primary and recurrent individuals. Primary and recurrent individuals may experience painful and severe outbreaks that, together with stigma associated with STIs, can have negative psychosocial ramifications (Mindel & Marks, 2005). As a result, education and counseling are key elements for helping individuals with genital herpes to cope and manage the disease. In fact, according to a study by Manne and Sandler in 1984 on coping with genital herpes, higher levels of support are correlated with less symptomatology, better self-esteem, better adjustment, and less sexual problems. On the other hand, they found that those with genital herpes that perceived their family, teachers, friends, and care providers' attitude as negative, reported more depression, sexual problems, self-esteem issues, and poor adjustment (Chenitz & Swanson, 1989). Then, educating and counseling individuals with genital herpes as any other patient has a positive impact on psychosocial morbidity.

Counseling and education for HSV-2 creates an opportunity for health care providers, as well as for counselors, to help prevent its transmission, stigmatization, and negative psychosocial effects (Gilbert & Omisore, 2009). Individual with herpes should be counseled and educated on how to use condoms consistently and correctly. They should also be encouraged to talk to their current partners as they are likely to be at risk, and to talk to their future partners before engaging in sexual activity (Chenitz & Swanson, 1989; Miller, 2012). HSV-2 seropositive individuals should be advised not to have sex during symptomatic periods and to get treatment if having

symptoms (Miller, 2012). Most importantly, the main message for positive HSV-2 diagnosed individuals is that having herpes is very common for men and women, it is not life threatening, and many people that have it do not know. As a result, it can be transmitted even when symptoms are not present (American Social Health Association, 2012; Association., 2012; Chenitz & Swanson, 1989).

Even though there are no studies on the effectiveness of strategies to provide counseling and education, the literature shows that the way diagnosis is given as well as the material and resources handled during patients' visits can have a psychosocial impact on HSV2 patients and their visits' experience (Barnack-Tavlaris, Reddy, & Ports, 2011; Green, 2004; Mark, et al., 2009). Thus, health care providers should be careful not to stereotype or stigmatize patients with STIs. When a health care provider is perceived to have a negative, indifferent, or judgmental attitude towards a patient diagnosed with herpes, the patient is more likely to experience negative self-worth and distress. If health care providers are more empathic, understanding, and educational, patients are more likely to find their health care the support and validation they need to adjust to the disease (Fraley, 2002). As a result, a patient centered approach that provides patients with relevant information and social support in a non-judgmental and empathic way can help increase patient satisfaction, treatment compliance, avoid stigma, and reduce psychosocial morbidity (Barnack-Tavlaris, et al., 2011; Government of Botswana - Ministry of Health, 2005).

2.4.3 Youth friendly health services

One-fifth of the world's population consists of adolescents' ages 10 to 19. 85% of adolescents live in developing countries where there is a lack of quality services and information targeted towards youth (Braeken, Otoo-Oyortey, & Serour, 2007; McIntyre, 2002). Adolescents face many challenges as they are in a period of transition from childhood to adulthood. They are

at high risk for unwanted pregnancy, tobacco, alcohol, and drug use. They are also at high risk for STIs, including HIV/AIDS (Mcintyre, 2002). Many of them experience violence and fear on a continuous basis, and, due to these risks, many face an uncertain and tragic future for themselves, their families, and their countries (Mcintyre, 2002).

Even though adolescents may look mature and act as adults, they need adult support. The health care sector plays a major role on the sexual and reproductive health of adolescents. Delivering appropriate and timely health services without discrimination to young people safeguards their health today and ensures the health of future generations (Mcintyre, 2002). Health providers may not be the primary source of information for adolescents, but they play an essential role counseling and educating patients with HSV-2 to reduce their vulnerability and risks (Ashton, Dickson, & Pleaner, 2009).

When providing health services to the youth, it is important to take into account what matters to them when visiting a health facility. According to the literature, adolescents value confidentiality, privacy, short waiting times, low costs, and staff friendliness (Shaw, 2009). Confidentiality and privacy is very important for adolescents. Young patients should be assured that information shared during their visit is private. This information should remain confidential after the visit, unless they decide to share it with their parents or others. Adolescents also value accessibility and short waiting time. They want to be able to access services when they are not at school or at work. Health facilities should make services available during evenings or weekends. Short waiting time is also important for youth as they would rather not to be seen by others while waiting for their consultation. Furthermore, low cost for services is essential as they often can't afford health services on their own. Finally, having competent, empathetic, and motivated staff is very welcoming and trustworthy for adolescents. Young people like to feel welcomed and

understood as they often lack the confidence to talk about their real concerns of their symptoms (Braeken, et al., 2007; McIntyre, 2002; Vega, 2005).

Testing adolescents for HSV-2 may have an increased risk of negative psychosocial impacts due to their vulnerability and interpersonal sensitivity (Ross, et al., 2011). As a result, providing youth friendly services that include counseling and education is essential when providing HSV-2 diagnosis. Quality of youth services will influence the time and severity of adverse psychosocial effects caused by a positive diagnosis.

2.5 Conceptual Model for the Capstone: the Health Belief Model

This capstone project was informed by the Health Belief Model constructs, a psychological model that attempts to explain and predict health behavior.

Table 3 explains how the health belief model constructs were applied to the clinic and school guidance materials.

Table 1: The Health Belief Model applied to the Capstone Project

Concept	School and Clinic Guidance Materials
Perceived susceptibility to the chances of getting the condition	School and clinic guidance materials will allow students to be aware of how common this infection is and how it can make them more susceptible to HIV.
Perceived severity of the condition and its consequences	School and clinic guidance materials will allow students, who most likely are not aware of HSV-2, to recognize common STI symptoms, and seek clinical help to prevent future complications such as HIV.
Perceived benefits to performing the recommended response	School and clinic guidance materials will empower health workers and teachers to counsel and educate PHE student participants to alleviate the adverse psychosocial effects of a positive diagnosis, to avoid HSV-2 related stigma, to prevent STIs and HIV, and to treat and help those with HSV-2 to cope with the infection and have a normal life.

<p>Perceived barriers of performing the recommended response</p>	<p>A barrier to receiving testing is that individuals may experience negative psychosocial effects from being tested. School and clinic guidance materials will help to overcome the barrier of negative psychosocial effects. They will help teachers and health care workers to provide counseling and education to help PHE student participants to avoid or ameliorate the psychosocial impact of a positive HSV-2 diagnosis.</p> <p>In addition to providing counseling and education tools, this guidance was also developed taking into account the challenges for which adolescents go through. The counseling handouts and the youth friendly services for clinics handout address how to improve youth services in order to eliminate the barriers to talk openly and honestly about youth needs and concerns.</p>
<p>Cues to action or incentives to perform the recommended response</p>	<p>School and clinic guidance materials were developed to provide general knowledge and awareness on HSV-2 and other STI symptoms as well as to provide cues to health workers and teachers to effectively counsel and educate PHE student participants.</p>
<p>Self-efficacy or confidence in one's ability to take action</p>	<p>School and clinic guidance materials include contact information from the Botswana MOH, Botswana MOE counseling toll free number, Botswana CDC, and Study Coordinator for any questions or concerns. They also have important messages in the counseling handouts to take into account when counseling and educating young individuals. Finally, they provide the necessary general knowledge on HSV-2.</p>

2.6 Rationality and purpose of the capstone project

Most studies done on the psychosocial impact on individuals diagnosed with genital herpes indicate the importance of providing pre and post counseling and education to mitigate the psychosocial long term effects of this chronic disease (Ross, et al., 2011). The psychosocial effects experienced by seropositive individuals are associated with the STI stigma (Stutterheim et al., 2011). Nevertheless, according to formative work done by the CDC, there is limited data on the prevalence of HSV-2 in Botswana. HSV-2 is often unrecognized and/or misunderstood as

premenstrual syndrome or HIV. Thus, there is no known stigma associated with genital herpes in this country. (Miller, 2012).

Due to the sensitive nature of the study, and based on previous research studies done on the psychosocial impact of a positive HSV-2 diagnosis and the role of counseling to alleviate negative effects, this PHE will count with pre and post counseling and education for the youth participants. The intention of education and counseling is to address the interpersonal level of the ecological framework. It also presents accurate information about the disease and appropriate and timely advice in order to reduce psychosocial morbidity, and to avoid stigma (Government of Botswana - Ministry of Health, 2005; Mark, et al., 2009; Miller, 2012).

In preparing local clinics and participant schools as part of the sources of support for education and counseling in the study, guidance materials for clinic staff and Guidance and Counseling teachers at schools were developed under this capstone project. The purpose of the guidance materials is to provide a quick and accurate friendly user toolkit on HSV-2 to help clinics and schools provide counseling and education to adolescents participating in this PHE.

CHAPTER III

METHODS AND PROCEDURES

3.1 Health communication

According to the “Plain Writing Act of 2010” signed by U.S. President Barack Obama, all U.S. federal government agencies are to write “new publications, forms, and publicly distributed documents in a clear, concise, and organized manner” (PlainLanguage.gov, 2011). In other words, all documents made available to the public should be written in plain language to be easily understood and used by the intended audience. In addition, according to healthy people.gov, effective health communication can improve health care quality, safety, and efficiency. It also facilitates education, skills building, and communication between patients and health care providers (HealthyPeople.gov - U.S. Department of Health and Human Services, 2012).

In order to provide effective health communications that take into account the Writing Act of 2010, it is important to write documents based on the health communication principles of accuracy, evidence based, balance, consistency, cultural competence, reach, reliability, timeliness, and understandability. Accuracy ensures the content of the information provided does not have errors of fact, interpretation, or judgment. Accuracy is complimented by evidence based, which ensures the legitimacy of the recommendations given in the communications. Balance ensures that communications address the potential risks and benefits of an issue, or describe issues from many perspectives. Consistency assures that the information provided remains stable over time and is consistent with other sources. Cultural competence ensures that the information is developed taking into account the characteristics of the targeted population. Reach addresses the availability of the information to the targeted population. Reliability ensures

the information is trustworthy and up to date. Timeliness ensures the information is available when the targeted population is most interested or in need of it. Lastly, understandability ensures the reading level is appropriate for the targeted population (European Center for Disease Prevention and Control, 2012).

In order to ensure compliance and consistency with the Writing Act of 2010 and the health communication principles, two tools were used for the development of the clinic and school guidance materials: Information Mapping technique and Microsoft Office - Flesh-Kincaid Grade Level Tool.

3.1.1 Information Mapping technique

Information mapping is a methodology that helps writers to analyze, organize, and present information in a clear and concise way to targeted audiences for targeted purposes (Information Mapping Foundation TM, 2010). Information mapping is designed to avoid pitfalls of poorly designed documents such as length, content, relevance, and organization. Poorly designed documents confuse and discourage users from reading and using the information provided. Using information mapping improves document quality by presenting information efficiently to promote readers' access and understanding (Information Mapping Foundation TM, 2010).

Information mapping has a three-step process to help writers create documents (Steven, 2008). The first step is analysis. The purpose of analyzing information is to create task oriented, reader focused content. The key to analyzing information is to determine its type. The second step in the process is to organize the information. The results of organizing information are a consistent and anticipated document structure. In order to organize the information on a document, Information Mapping groups information into small and manageable units, also

known as chunking. It also uses labeling to name each unit of information. In order to chunk and label information, Information Mapping uses blocks and maps. Blocks are relevant chunks of information with a label. Maps are a collection of blocks on a single topic using the seven plus or minus (7 ± 2) rule. The 7 ± 2 is the theoretical limit of human short-term memory. If readers are given more information than this, it may be difficult for them to understand and use the information. The third and final step is presentation. The purpose of presentation is to maximize clarity and accessibility. In order to do this, Information Mapping offers recommendations in presenting information according to the type of information the writer is intending to present (Information Mapping Foundation TM, 2010; Steven., 2008).

The clinic and school guidance materials for this project were developed using the Information Mapping technique and its principles. Attendance to a paid workshop for training on the method was required in order to obtain the license number to install the “Formatting Solutions” software. This software enables the development of Information Mapping documents at the writer’s discretion. Eight maps were developed for the clinic guidance materials, and five maps were developed for the school guidance materials.

3.1.2 Microsoft Office - Flesh-Kincaid Grade Level tool

The Microsoft Office Flesh – Kincaid readability tool was used to assess the readability of the clinic and school guidance materials. The Flesch-Kincaid (FK) grade formula is commonly used to assess the readability of written materials in terms of the academic grade (Albright et al., 1996). A higher FK grade level of a document indicates a high level of difficulty to read and understand the material, and a lower FK grade level indicates a document is easier to read and understand (Sabharwal, Badarudeen, & Unes Kunju, 2008). Organizations like the National Institutes of Health, the National Work Group on Cancer and Health, and the American

Medical Association have recommended the readability of patient education materials to be no higher than the sixth-grade level as the average readability of the U.S. population is at an eighth-grade level (Sabharwal, et al., 2008; U.S. Department of Health and Human Services - CDC, 2012). Thus, a FK score of 8.0 means that a person with readability skills of an eighth-grade student can understand the material. For most documents, a FK grade score of 7.0 to 8.0 is considered acceptable (U.S. Department of Health and Human Services - CDC, 2012). Similar to the U.S., Botswana's education system is committed to free education for primary and junior secondary school, and their primary goal is for children to be literate in Setswana and then in English. Consequently, most students have at least seven years of primary education (StateUniversity.com, 2012).

The FK grade level of readability of clinic and school guidance materials was assessed using the Microsoft® Office Word® software 2007. The built-in tool to measure readability was disabled by default. The tool was enable by opening a word document and selecting the commands “File,” “Options,” “Proofing,” and then checking the option “Show readability statistics” and “OK” (Microsoft Corporation, 2012).

The underlying formula for determining the FK grade level is: $(.39 \times \text{Average Sentence Length}) + (11.8 \times \text{Average number of syllables per word}) - 15.59$

- **Average Sentence Length** = number of words divided by the number of sentences
- **Average Number of Syllables** = number of syllables divided by the number of words

The FK grade scores that fall under the 4^h, 5th, and 6th grade are considered as easy sentences and words. A material “average difficulty” will fall under the 7th and 8th grade. A 9th grade document is considered as average or difficult depending on the reader's skills and knowledge on the subject. A document with a 10th or higher grade is considered “difficult” (U.S.

Department of Health and Human Services - CDC, 2012). It is important to remember that readability tests only assess the text in terms of individual words and sentences. The audience feedback on the materials is very effective as the goal to create written material is for an audience to understand and use what has been written for them (U.S. Department of Health and Human Services - CDC, 2012).

Based on the FK Grade Level Tool, the CDC DGHA Prevention Branch conducting this study requested the readability levels of the clinic and school guidance materials not to be beyond the 8.0 grade level. The intention to attain a 8.0 readability level is for the materials to be easily understood by health practitioners and counseling and guidance teachers using the materials.

CHAPTER IV

RESULTS

Based on the psychosocial impact that a positive HSV-2 diagnosis may have on a patient, experts recommend antiviral therapy, counseling and education, written material, and referral resources (Mark, et al., 2009). As a result, the Botswana PHE integrated counseling and education as an element to support the research participants and to ameliorate the possible effects that a new HSV-2 diagnosis may have on them.

In preparing local clinics and participant schools as part of the sources of support for education and counseling in the study, guidance materials were developed under this capstone project. The materials were for clinic staff and Guidance and Counseling teachers in order to provide education, counseling, and referral information to the young participants concerned about STIs' symptoms or HSV-2 test results.

4.1 Resource Packet for Clinics (See Appendix A)

The Botswana MOH recommends that primary care settings implement a patient centered approach to assess the patients' physical and emotional symptoms resulting from STIs' diagnosis (Government of Botswana - Ministry of Health, 2005).

Even though there is not enough evidence on how to deliver evidence based interventions for managing people with HSV-2, the literature shows there are key elements for managing HSV-2 and its possible psychosocial effects and transmission. These key elements are providing clear explanations about the nature of the infection, offering advice about disclosure to current and new partners, providing antiviral drugs for symptomatic individuals, and finding out in a non-judgmental way what patients are concerned about. The literature also emphasizes that when counseling and educating individuals diagnosed with genital herpes, it is important to take into

account the type of information people receive, the way people receive it, and the ongoing support provided to ensure that the psychosocial impact of diagnosis is minimal (Green, 2004). Health care providers should be careful on stereotyping or stigmatizing patients with herpes. The tendency to react in a judgmental way to STIs is often due to the lack of knowledge on the infections (Fraley, 2002).

Taking into account this information was important in creating HSV-2 information and counseling handouts, to ensure the accuracy, the consistency, and the relevance of the information provided to clinics for the PHE. The clinic guideline materials should help to alleviate the potential psychosocial impacts associated with the diagnosis during the PHE, and also should avoid the stigmatization of herpes in Botswana.

Table 1 outlines the content and description of the materials. Overall the school guidance materials had a total FK reading score of 8.0 as requested per study subject experts. Nevertheless, some of the individual handouts have FK grade levels above 8.0 due to the complexity of words needed in order to meet the purpose of the handout.

Table 2. Resource Packet for Clinics

Document	Description
Study Information Sheet	Provides clinics with general information on the Botswana PHE.
Sexually Transmitted Infections (STIs) Fact Sheet	Describes general STIs symptoms for which a youth study participant may seek care at a clinic.
Genital Herpes and Herpes Test Information Fact Sheet	Provides basic information, knowledge, and awareness on HSV-2.
Genital Herpes Treatment: Acyclovir Drug	Describes antiviral drug for symptomatic treatment of HSV-2 and makes clinics aware of <i>Botswana's MOH Acyclovir drug usage guidelines</i> as well as ways to access the drug.

Diagnosis of HIV Infection in Adolescents	Outlines a statement from the <i>"Botswana National HIV & AIDS Treatment Guidelines"</i> on exception to parental consent to provide services to adolescents that have been provided with adequate counseling and have been deemed mature to fully understand the consequences of their behavior.
STI Syndromic Management Flowcharts	Provides clinics with a user friendly option to quickly reference diagrams on STIs syndrome management from the Botswana's MOH <i>"Management of Sexually Transmitted Infections Reference Manual for Health Workers."</i>
Clinics' Counseling and Education Messages for Adolescents on Genital Herpes	Provides STIs and HSV-2 messages that can help health workers to address counseling and education of young patients.
Youth Friendly Services Information Sheet	Guidance on how to provide quality services to adolescents based on their needs and concerns in order to improve young patients' retention and their sexual and reproductive health.
Contact Information	Provides contact information to Botswana's CDC, Botswana's MOH, and Study Coordinator.

4.2 Resource Packet for Schools (See Appendix B)

Teachers are part of the social support needed for the research participants of this PHE to help alleviate the potential psychosocial impacts associated with an HSV-2 diagnosis and to avoid the stigmatization of herpes in Botswana.

The literature emphasizes the importance of social support for diagnosed HSV-2 individuals (Fraley, 2002). Individuals diagnosed with HSV-2 may fear to disclose their disease to anyone including their partners or parents. Thus, teachers can encourage kids through counseling to find support. In order for diagnosed adolescents to find support from their parents, teachers could provide counseling and education on genital herpes anytime there is an opportunity to talk to parents. Creating this social support will help adolescents diagnosed with herpes to cope with the disease.

The teacher guideline materials will also prepare counseling and guidance teachers to talk to student participants about their concerns, and to refer them in a timely manner to clinical services if presenting HSV-2 or any other STI symptoms.

Table 2 outlines the content and description of the materials. Overall the school guidance materials had a total FK reading score of 7.5 as requested per study subject experts.

Nevertheless, some of the individual handouts have FK grade levels above 8.0 due to the complexity of words needed in order to meet the purpose of the handout.

Table 3. Resource Packet for Schools

Document	Description
Study Information Sheet	Provides schools with general information on the Botswana PHE.
Sexually Transmitted Infections (STIs) Fact Sheet	Provides basic information, knowledge, and awareness on STI symptoms. (same as clinics handout)
Genital Herpes and Herpes Test Information Fact Sheet	Provides basic information, knowledge, and awareness on HSV-2. (same as clinics handout)
Teachers' Counseling and Education Messages for Adolescents on Genital Herpes	Provides STIs and HSV-2 messages that can help Guidance and Counseling teachers to counsel and educate students participating in the study. Teachers are recommended to refer study participants to the Ministry of Education's (MOE) toll free counseling number and to clinics if participants report any STI symptoms.
Contact Information	Provides contact information to Botswana's CDC, Botswana's MOH, Study Coordinator, and the MOE free youth counseling phone line.

CHAPTER V

DISCUSSION AND CONCLUSION

5.1 Conclusion

HSV-2 is a very common disease that most people don't know they have it due to its asymptomatic nature. The literature is consistent to show the potential psychosocial effects of a positive HSV-2 diagnosis on an individual. It also shows that counseling and education are essential elements to alleviate the severity of these effects. Nevertheless, besides taking into consideration the possible psychosocial effects serological testing for HSV-2 may have in individuals participating in the Botswana PHE, it is important to take into account the positive impact of a large scale testing for HSV-2. Testing for genital herpes will allow individuals to receive appropriate treatment, and also allow HSV-2 seronegative and seropositive individuals to receive counseling and education on herpes. This may prevent risky behaviors, reduce transmission of HSV-2, and decrease the risk for HIV (Ross, et al., 2011).

In order to support counseling and education efforts for this PHE, the clinic and school guidance materials were developed taking into account the literature review and the recommendations from the Subject Matter Experts at CDC/DGHA/ Prevention Branch. They are not to replace current MOH Botswana Guidelines on STIs' treatment, but they are to be reference friendly-user material on HSV-2 to support counseling and education efforts of health practitioners and teachers involved in this PHE.

5.2 Recommendations for future research

Further research on adolescents

None of the studies found in my literature review were exclusively done on adolescents ages 12 to 16. An evaluation on the psychosocial effects of a positive HSV-2 diagnosis on

adolescents can be relevant for the psychology field, as adolescents may experience stronger emotions of fear vulnerability, isolation, frustration, helplessness and depression (Chenitz & Swanson, 1989; Government of Botswana - Ministry of Health, 2005).

Further research on counseling and delivery strategies for HSV-2 positive individuals

There are limitations to the literature on evidence based counseling delivery strategies to ameliorate the psychosocial impact of genital herpes in newly diagnosed patients. Little has been documented on how clinicians can effectively deliver counseling, even though it has been demonstrated that education and counseling have a positive effect on psychosocial morbidity (Green, 2004; Mark, et al., 2009). Based on the fact that asymptomatic individuals are less psychosocially and psychosexually impacted overtime than symptomatic individuals, an area of study needing further research within the delivery of counseling and education limitations is the content of the material and training to be delivered for symptomatic and asymptomatic individuals (Mindel & Marks, 2005).

Further research on the association between stress and HSV-2 recurrence

The literature has mixed messages about stress triggering reoccurrence of herpes or vice versa. Nevertheless, the literature indicates that either way, stress is a risk factor for psychosocial morbidity. Thus, stress management interventions could possibly benefit patients with HSV-2 (Fraleay, 2002; Miyai, et al., 2004; Pereira et al., 2003). A clear understanding of the association between stress and herpes symptoms could help clinicians to better counsel patients on stress management (Provenzale, et al., 2011).

Further research on psychosocial prevalence prior to conducting psychosocial studies of HSV-2

The literature identified that few studies have been done on the psychosocial prevalence and incidence of genital herpes. In fact, most of the studies there are on psychosocial effects of HSV-2 rely on patients already infected with subgroups who self-identify as having psychological problems. However, it is difficult to know if those individuals had psychosocial issues prior to the diagnosis (Mindel & Marks, 2005). In addition, studies done in the Africa region on psychosocial impact of HSV-2 diagnosis are very limited maybe due to the lack of knowledge on the disease, and also the appropriate testing tools.

Further research on the psychosocial prevalence related to HSV-2 in a non-stigmatized setting

According to Chenitz and Swanson, genital herpes brings as much public attention as AIDS (1989). This creates the stigmatization of the disease, thereby increasing the negative psychosocial effects (Fraley, 2002). While other parts of the world stigmatize having genital herpes, formative assessment done for the PHE in Botswana indicates there is no stigma associated with genital herpes. In Botswana, genital herpes is rather unknown and confused with premenstrual syndrome or HIV (Miller, 2012). Thus, evaluating the psychosocial impacts of newly HSV-2 diagnosed individuals in places where herpes stigma is unknown can provide information on the weight stigma has on the adverse effects of a diagnosis as well as to evaluate if large scale serological testing can create or avoid stigma if adequate counseling and education is provided.

Further research on the impact of a large scale serological testing on asymptomatic HSV-2 individuals

Due to the adverse psychosocial and psychosexual consequences a diagnosis may have on a patient, the Centers for Disease Control and Prevention and the USA Preventive Services

Task force do not recommend routine herpes testing among the general public (Centers for Disease Control and Prevention, 2010). However, the literature makes a clear distinction on the severity of a diagnosis in symptomatic and asymptomatic individuals. Severity of a positive diagnosis on symptomatic individuals is well documented, and recent studies show that the psychosocial consequences in asymptomatic individuals are not adverse or long lasting if receiving counseling and education. As a result, potential risks for psychological harm should not be a valid reason to avoid testing asymptomatic individuals (Ross, et al., 2011). Nevertheless, there is no evidence that screening asymptomatic individuals will improve health outcomes or reduce transmission (Provenzale, et al., 2011). Thus, future research on the association between improved health outcomes, reduced transmission, and HSV-2 serological testing in asymptomatic individuals should be done to better understand the health impact of wide-scale testing.

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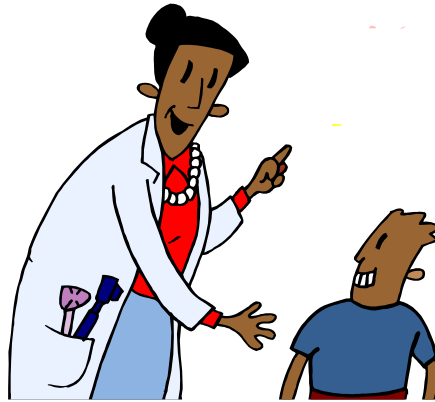
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APPENDIX A

RESOURCE PACKET FOR CLINICS

[Reading Level 8.0]



Content

- Study Information Sheet Pages 2-4
- Sexually Transmitted Infections (STIs) Fact Sheet Pages 4-5
- Genital Herpes and Herpes Test Information Fact Sheet Pages 6-8
- Genital Herpes Treatment: Acyclovir Drug..... Page 9
- Diagnosis of HIV Infection in Adolescents Page 10
- STI Syndromic Management Flowcharts Pages 11-20
- Clinics' Counseling and Education Messages
for Adolescents on Genital Herpes Pages 21-24
- Youth Friendly Services Information Sheet Pages 25-27
- Contact Information Page 28

In support of Public Health Evaluation "An Assessment of Life Skills Education and Project AIM on Youth Sexual Intentions, Sexual Behaviors, and HSV-2 Incidence in Junior Secondary Schools in Eastern Botswana"

Study Information Sheet [Reading Level 9.5]

Introduction

- The Botswana Ministry of Education (MOE) and the US Centers for Disease Control and Prevention (CDC) are doing this study.
 - About 15,000 learners from 50 Junior Secondary Schools in Botswana will take part in this study.
 - 7,500 Form 1 learners will participate in the study for 33 months.
 - 7,500 Form 3 learners will participate for the starting point of the study.
 - All junior schools will give learners the LIVING curriculum and sexually transmitted infections (STI) information.
 - Some schools will also give additional sessions on setting goals and thinking about the future.
 - The study is called “An Assessment of Life Skills Education and Project AIM on Youth Sexual Intentions, Sexual Behaviors, and HSV-2 Incidence in Junior Secondary Schools in Eastern Botswana.”
-

Purpose of the Study

- To learn how life skills education may affect behaviors that put learners at risk for STIs.
 - To help school programs learn how to keep learners healthy.
-

Procedures

- The study will find out about learners’ behaviors in two ways: a survey, and a blood test for the virus that causes genital herpes called herpes simplex virus 2 (HSV-2).

Survey:

- All learners participating in the study will write answers to questions related to their life, health, goals, and sexual life and alcohol use.

Blood Test:

- Trained study staff will collect a small amount of the learners’ blood by finger-prick.
- The blood samples will be sent to a laboratory for testing for the HSV-2 virus. Samples will not be tested for HIV.
- A blood sample will be collected from Form 1 and Form 3 learners at the start of the study. Another blood sample will be collected from Form 1 learners in two years when they are in Form 3.
- Learners will be able to get the HSV-2 results and counseling privately from a toll-free phone line 3-6 months after the sample is collected.
- Getting the results is optional and up to the learner. A blood test is not the only way to get tested for HSV-2. Patients with symptoms can be diagnosed and treated without waiting on test results.
- Learners concerned about symptoms of HSV-2 or any STI, will be referred

to their local clinic for follow up.

The Role of Clinics in the Study

- There is no need to provide a special service because of this study. Clinics should provide standard service to adolescent patients as they would to any other patient.
- To receive any learner concerned with current STI symptoms. Test and treat them if necessary.
- To receive learners who learn that their HSV-2 blood test was positive, and are concerned about herpes or other STI symptoms.
- Youth friendly services help adolescents cope with emotions related to having an STI. Providing STI services to adolescent patients can be sensitive. Please see the “Youth Friendly Services” handout.

The Botswana Ministry of Health (MOH) “Management of Sexually Transmitted Infections” STI Management flowcharts are included in this packet if needed.

Clinic-School Linkage

Junior secondary schools in Botswana should have an agreement has a local agreement with a local government health clinic at which learners may seek care without waiting in line or paying fees.

The clinic _____ has been identified as able to provide services at _____ School.

Questions and Contacts

If ...	Then ...
Having questions about the study at anytime	<p><u>Contact</u></p> <p>NAME: Prisca Tembo</p> <p>ADDRESS: Plot 14818 Lebatlane Road, G/West Phase 1, Gaborone</p> <p>EMAIL: tembop@bw.cdc.gov</p> <p>PHONE: 267 367-2400 or free STUDY INFORMATION LINE: XXXXXXXXXXXX</p>

Having questions about rights as a research participant, or concerns or complaints, or feelings of been harmed by taking part in this study	<u>Contact</u> NAME: Mr. Pilot Khulumani EMAIL: pkhulumani@gov.bw PHONE: 267 391 4467
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Sexually Transmitted Infections (STIs) Fact Sheet [Reading Level 6.0]

STIs are

- An infection or disease passed from person to person by any kind of sex (oral, vaginal, anal). They often don't cause symptoms and many people have one and never know it. If left untreated, some STIs may cause infertility.
 - Also transmitted nonsexually, such as from mother to child during pregnancy or childbirth or through shared needles or blood transfusions.
 - Very common.
-

Common STIs

- Gonorrhea
 - Crab Lice
 - Chlamydia
 - Genital warts
 - Genital herpes
 - Syphilis
 - Trichomoniasis
-

Common Symptoms

- Burning during urination.
- Discharge from the penis or vagina.
- Itching, small bumps or blisters on or near the genitals.
- Vaginal bleeding after sex or between periods.
- Pain with vaginal sex.
- Pain in the lower abdomen.
- Pain in the testicles.

If ...	Then ...
Having these symptoms	Go to a health clinic for evaluation and treatment
Been sexually active and believing to have been exposed to an STI	

Treatment

- Some STIs can be cured with drugs. It is important to take all medication given to be cured.
 - Other STIs caused by viruses (warts, herpes) can be treated with drugs, but can't be cured as the virus stays in the body after treatment and the warts often come back.
-

Diagnosis

If ...	Then ...
Diagnosed with an STI	Keep calm and remember all STIs are treatable and many are curable
	Take all your medication as prescribed
	Tell your partner(s) to get checked and treated
	Don't have sex until you and your partner(s) have both finished treatment
	Request an HIV test (STIs, especially those with open sores, can make it easier for HIV to infect your body)

Prevention

- Abstinence (not having sex) is the only sure way of not getting an STI. **BUT...**

If ...	Then ...
Having sex	Use condoms every time you have sex
	Limit the number of sex partners

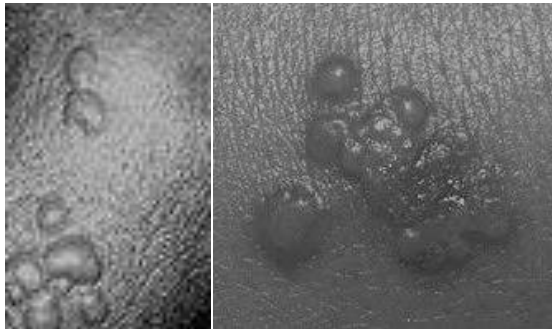
Genital Herpes and Herpes Test Information Fact Sheet [Reading Level 7.0]

Genital Herpes is

- A sexually transmitted infection (STI) that is a virus.
 - Not a virus that kills or makes a person very sick.
 - A common infection among men and women who have had sex (anal, oral or vaginal sex).
 - A risk factor for HIV. Having HSV-2 puts a person at a higher risk for HIV.
-

Symptoms

- Most people with genital herpes never have any symptoms
- People that have symptoms may experience small and painful genital blisters that become sores.
- Sores and blisters last for about a week, and then heal and disappear. They may come back again. When sores appear it is called an outbreak or recurrence.
- Outbreaks tend to be shorter and less painful



When to Seek a Doctor

Having herpes or another STI can put you at risk for getting other STIs, like HIV.

If ...	Then ...
You or your partner have herpes symptoms OR other STI symptoms (like pain or genital discharge)	Seek medical evaluation and find out if you have herpes, other STI, or another illness

Is Herpes Curable?

- Once a person is infected, herpes is a virus that stays in the body for lifetime.
 - Treatment is available for symptoms. Treatment is not a cure.
-

Treatment

Acyclovir Drug:

- Acyclovir is a drug that can be taken when a person has genital sores or feels they may be starting.
- Treatment helps with the pain, healing, and duration of the blisters or sores.
- Treatment helps if taken as directed.

Other:

- Keep herpes sores clean and dry.
- Wear loose clothing to prevent irritation of the lesions.

Preventing Infection or Spread of Herpes

- The only sure way of not getting infected or spreading herpes is not to have sex, **BUT...**

If ...	Then ...
You have sex	Use condoms every time you have sex. Remember the condom only protects the area of the body it covers.
	Use condoms correctly – “Instructions for Use of a Male Condom” are available on Chapter 3, Figure 3.1, Page 46 and “Instructions for Use of a Female Condom” are available on Figure 3.2 pages 47 and- 48 , of the Botswana Ministry of Health “Management of Sexually Transmitted Infections” guidance.
	Limit the number of sex partners.
	Do not have any form of sex when sores are present. Alternatives to sex are holding hands, massaging, or cuddling.
	Talk openly and honestly with your partner about genital herpes and other STIs.
	Get yourself tested for STIs and make sure your partner gets tested (before having sex).
	Inform any current and future partners about having herpes, so they also can seek medical evaluation.
	Know that it is easy to spread herpes, especially when sores are present.

Pregnant Women

- A pregnant woman should tell her doctor if she or her partner has genital herpes.
 - A pregnant woman who is not known to be infected with genital herpes should avoid having sex (anal, oral or vaginal sex) with an infected partner during the third trimester of pregnancy.
 - There is a small chance for a baby to be exposed to herpes by the mother during pregnancy or birth. This is rare.
 - A doctor may do a cesarean delivery or C-section if a pregnant woman has sores or blisters into labor.
-

A Positive Blood Test for Herpes

- Means that a person has been infected sometime in the past.
 - Does not mean a person will become sick now or in the future.
 - Does not tell us when the person was infected or who infected the person.
 - Does not mean that a person will get the blisters or sores. Some people never see symptoms; however, they can still pass herpes to their sexual partners.
 - Means a person may experience emotions of depression, anxiety, guilt, isolation, or embarrassment after finding out of the results. These emotions are normal. These emotions tend to go away over time.
 - Means it is important to remember that herpes is common infection among anyone that has had sex. It is common among people who have had sex and is not serious. A person can manage the infection and have a normal life.
-

Contact Information

CDC Botswana Study Office:
+267...
Ministry of Education Toll-Free Youth Counseling Phone Line:
Local clinic referral:

Genital Herpes Treatment: Acyclovir Drug [Reading Level 6.8]

- What is Acyclovir**
- It is an antiviral drug
 - It can be taken when a person has genital sores or feels they may be starting.
 - It helps with the pain, healing, and duration of the blisters or sores.
 - It does not cure herpes.
 - It is not necessary when symptoms are not present.
 - It is effective when taken as directed.
 - It does not reduce the risk for acquiring HIV.
-

- Where to get Acyclovir**
- It is available from The Botswana Ministry of Health (MOH) Central Medical Stores.
 - The MOH purchases and distributes it to health facilities by request.
 - Health facilities should order Acyclovir from the Central Medical Stores and have it in stock for their patients.
-

- Botswana MOH Guidelines for Genital Herpes Treatment**
- Acyclovir 400mg TID for 7 days.
 - Counsel for risk reduction and educate.
 - Supply condoms and issue contact slip(s).
 - Ask patient to return in 7 days.
-

- How much is Acyclovir**
- Free of charge.
-

- Pregnant Women**
- Should tell the doctor if pregnant or breastfeeding before taking Acyclovir.
 - Acyclovir is not likely to cause harm to unborn babies.
 - Should tell the doctor if having genital herpes or other sexually transmitted infections (STIs) symptoms, especially close to due time of birth.
-



“Diagnosis of HIV Infection in Adolescents”

Chapter 3, Section 2.3, Pages 23-24: 2012 Botswana National HIV & AIDS Treatment Guidelines

“The attorney General advises that the *Botswana Family Planning General Policy Guidelines and Service Standards* guide the testing of minors. This policy states that: “...teenagers are to be provided with appropriate family planning methods on request after adequate counseling.” In other words, **if the counselor is satisfied that a young person is mature enough to fully understand his or her behavior and the consequences of that behavior, parental consent is not necessary in order to receive services.**

Pregnant adolescents do not need the consent of their parents to be tested for HIV or to join the PMTCT programme, and parents do not have to be present during counseling. Adolescents may choose to have a parent or another adult with them to provide the necessary support. This option should be discussed with the client and encouraged. It is also important for family members who will be assisting with the baby to be involved.

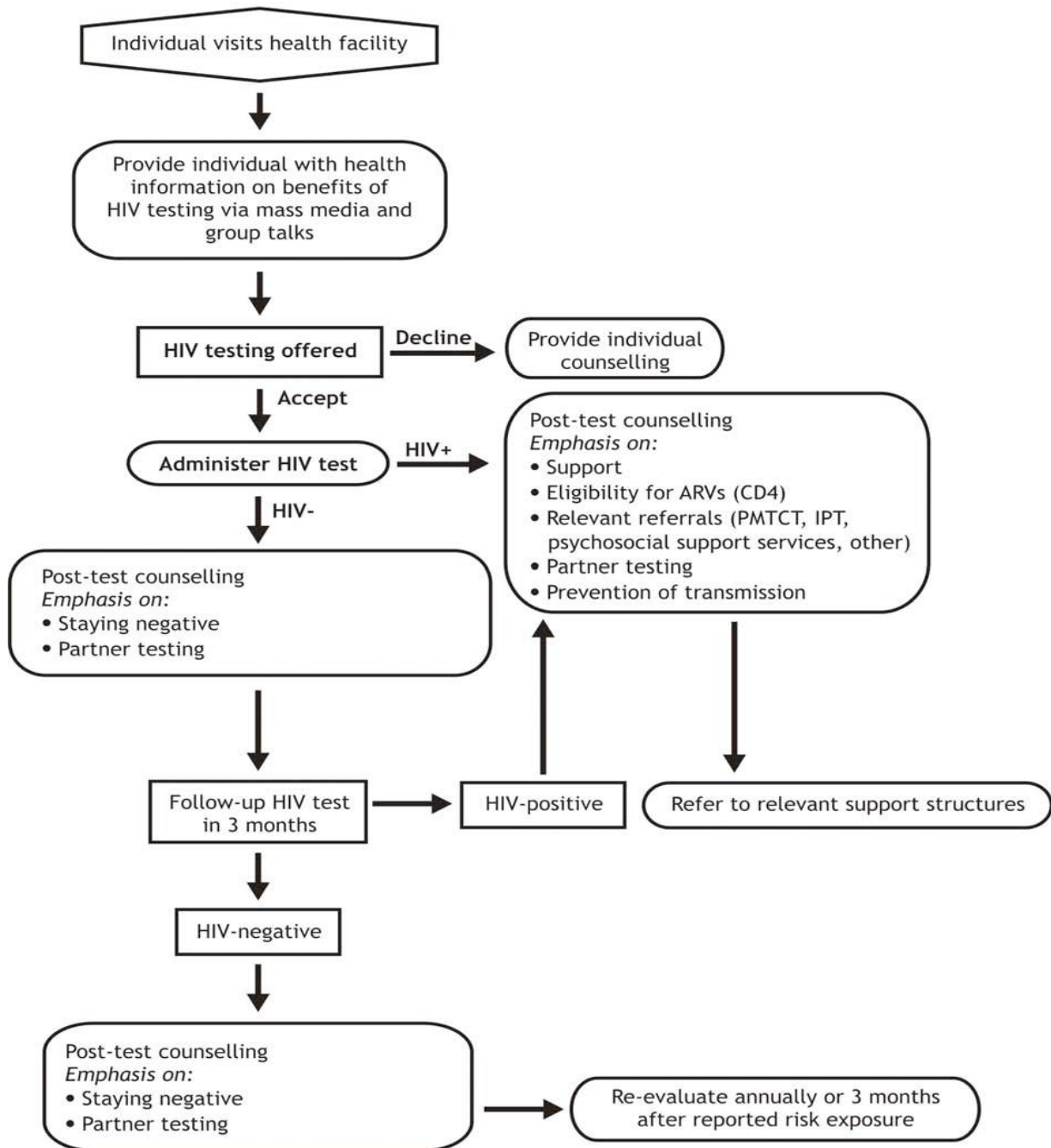
Disclosure of positive results to adolescents must be done in a supportive environment. *(See Chapter 8, Section 8.2)*”

STI Syndromic Management Flowcharts

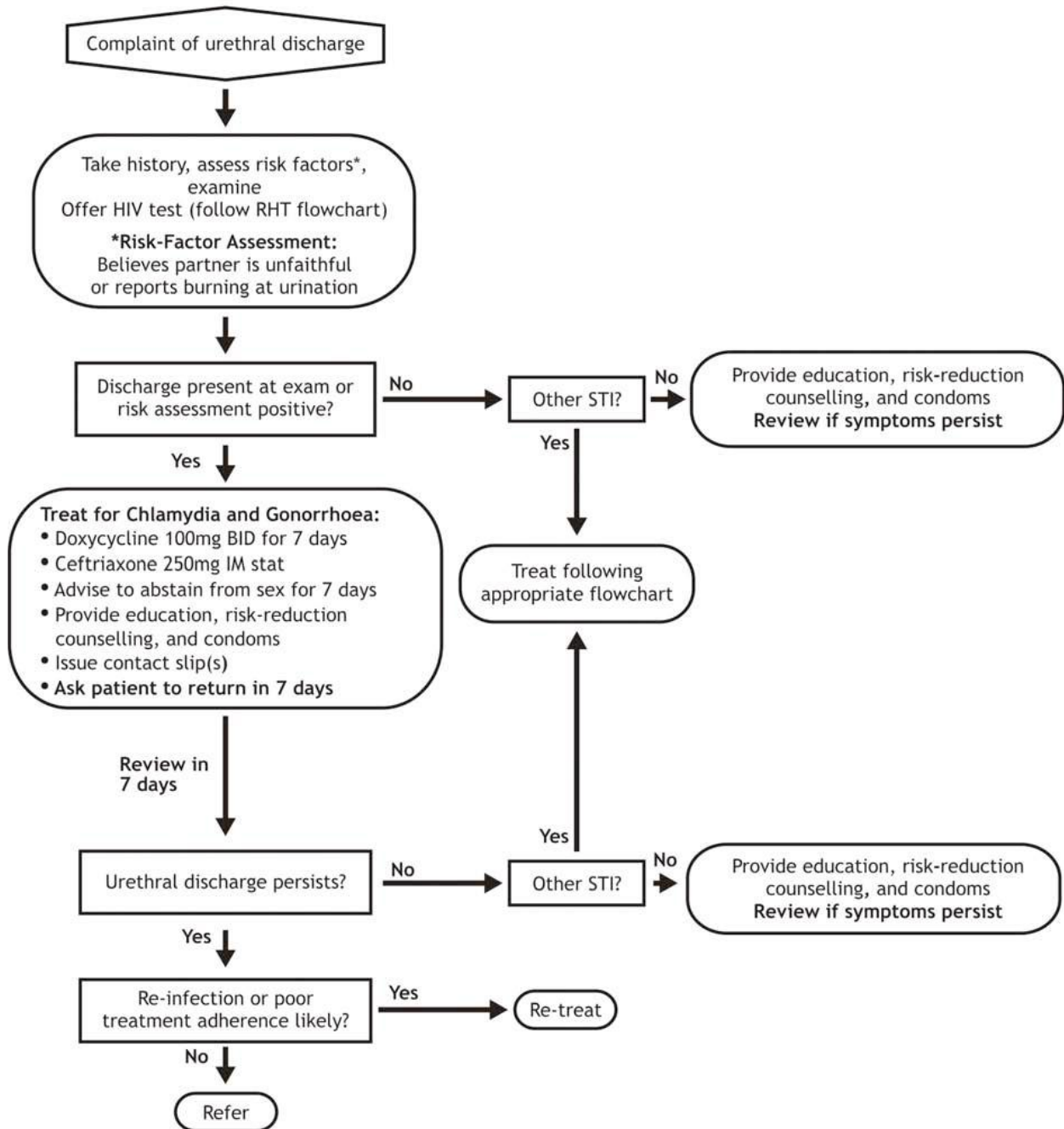


**Taken From:
Botswana Ministry of Health
Management of Sexually Transmitted Infections
Reference Manual for Health Workers
Pages 179 – 188**

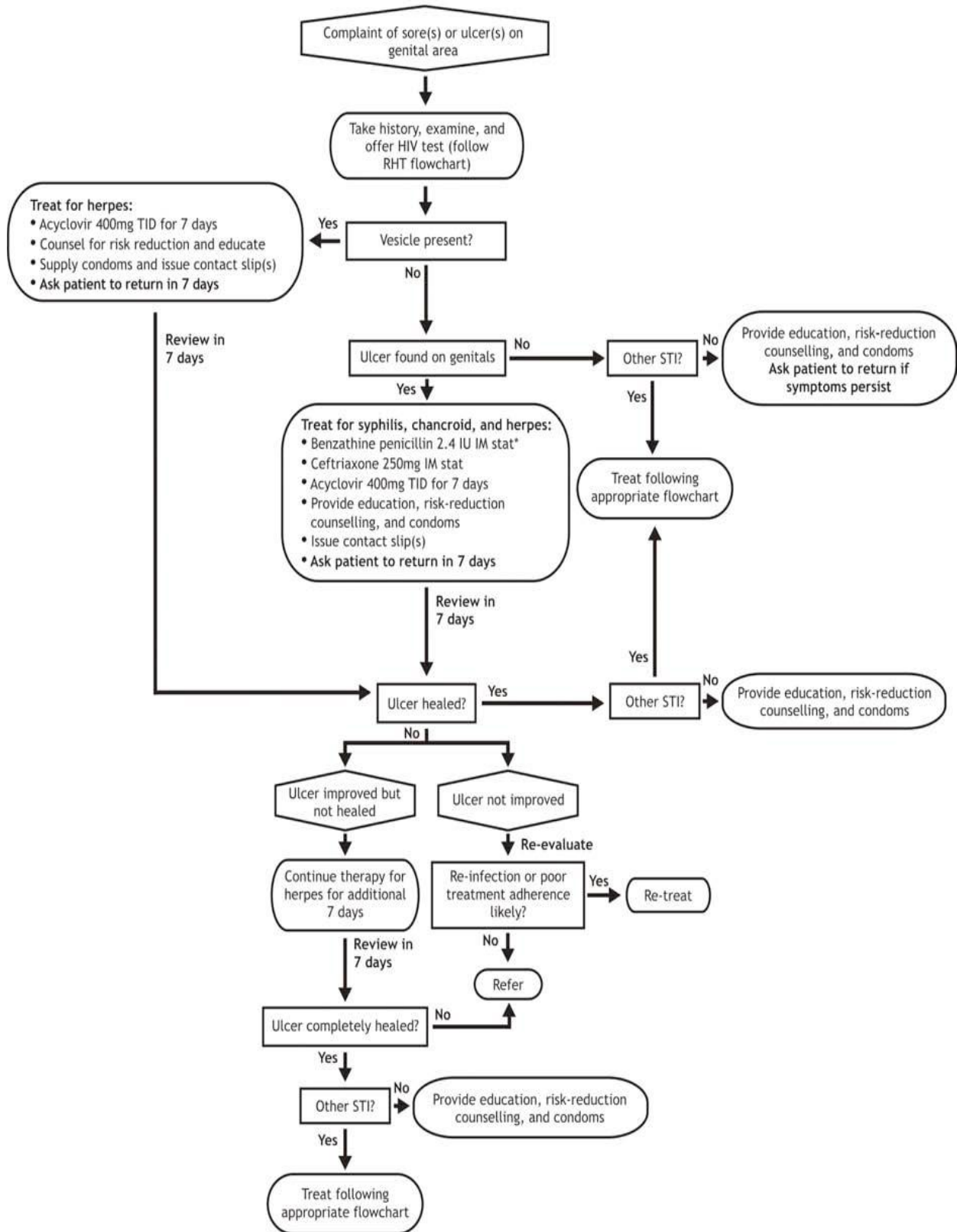
Routine HIV Testing Flowchart



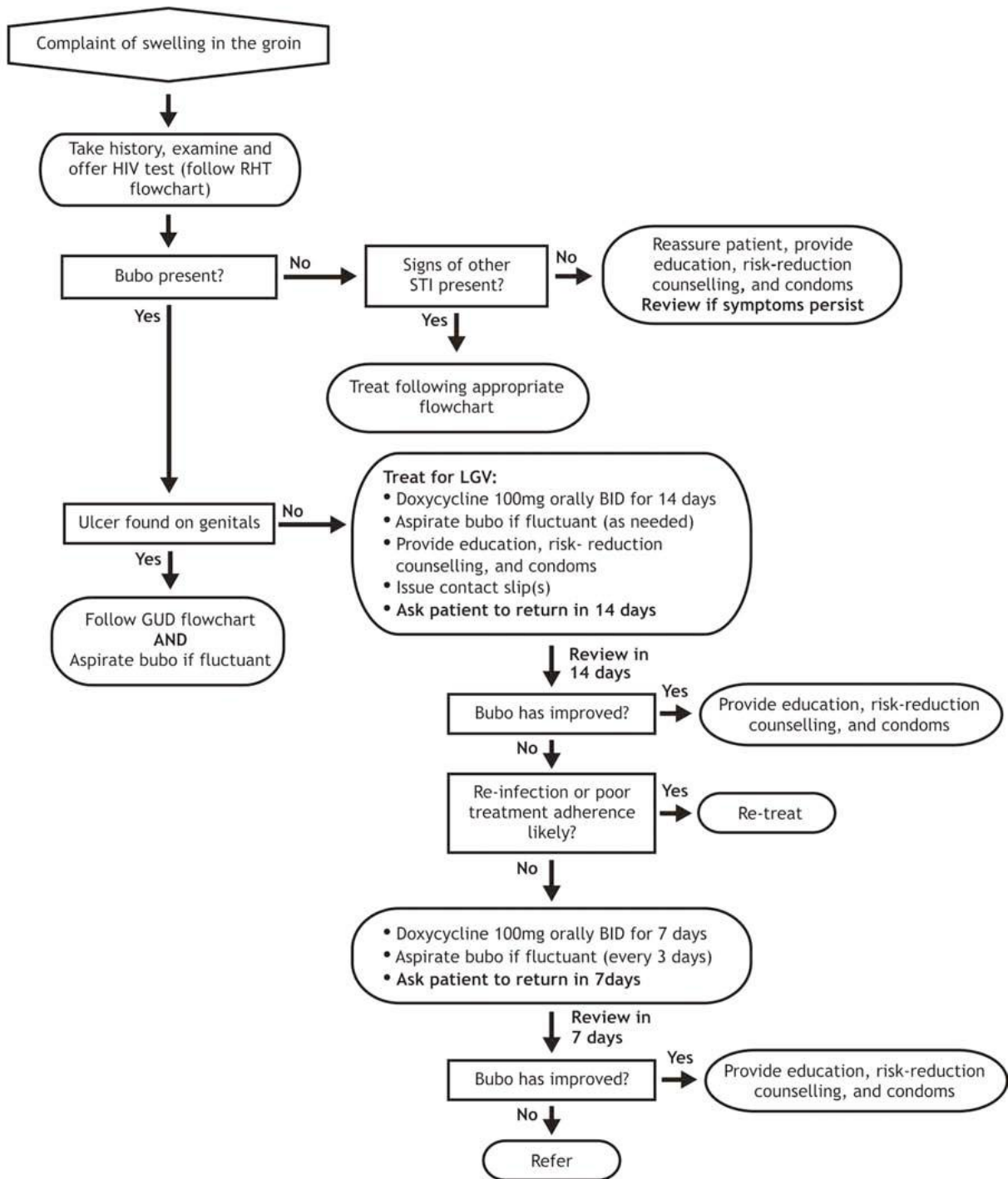
Urethral Discharge Flowchart



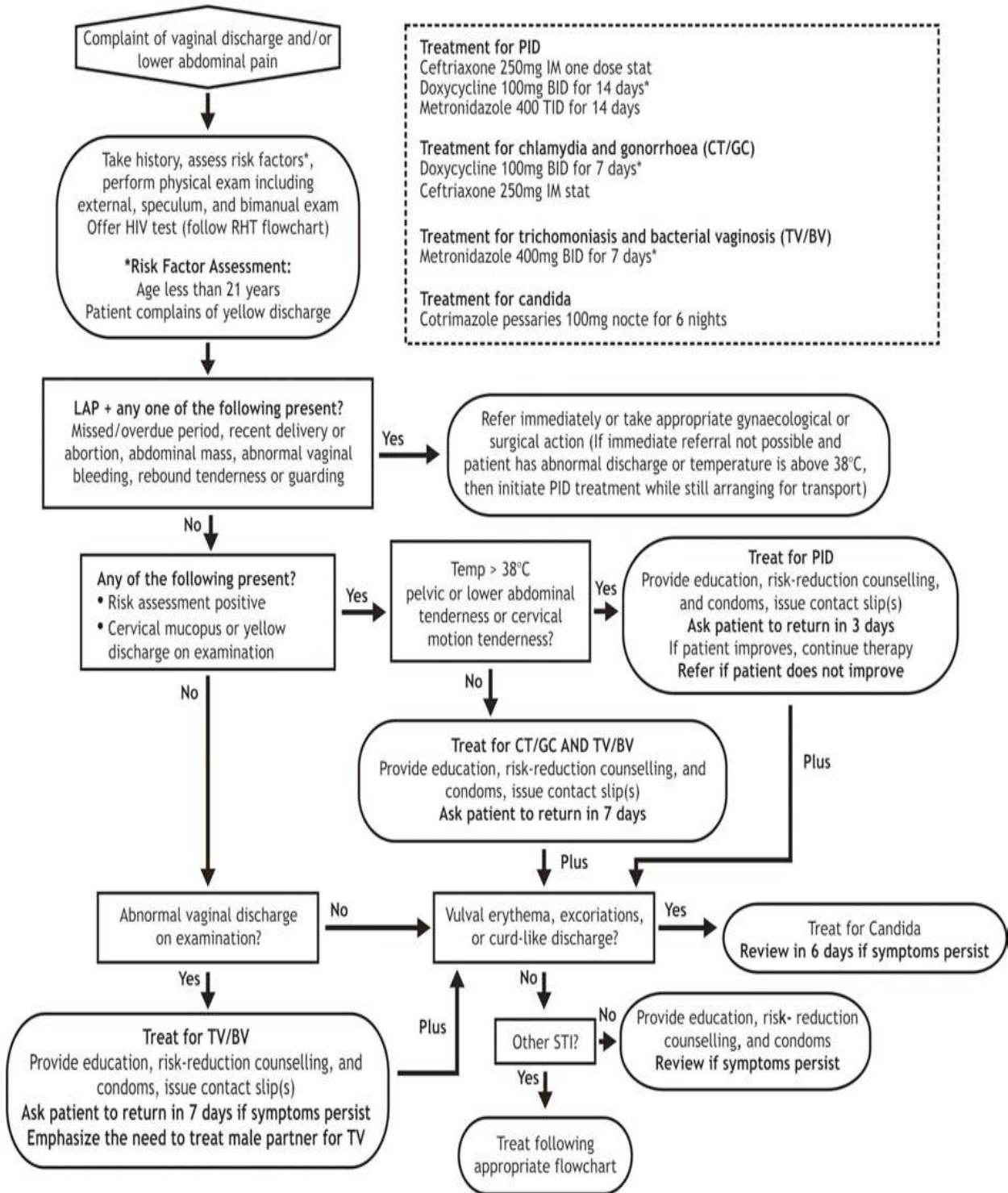
Genital Ulcer Disease Flowchart



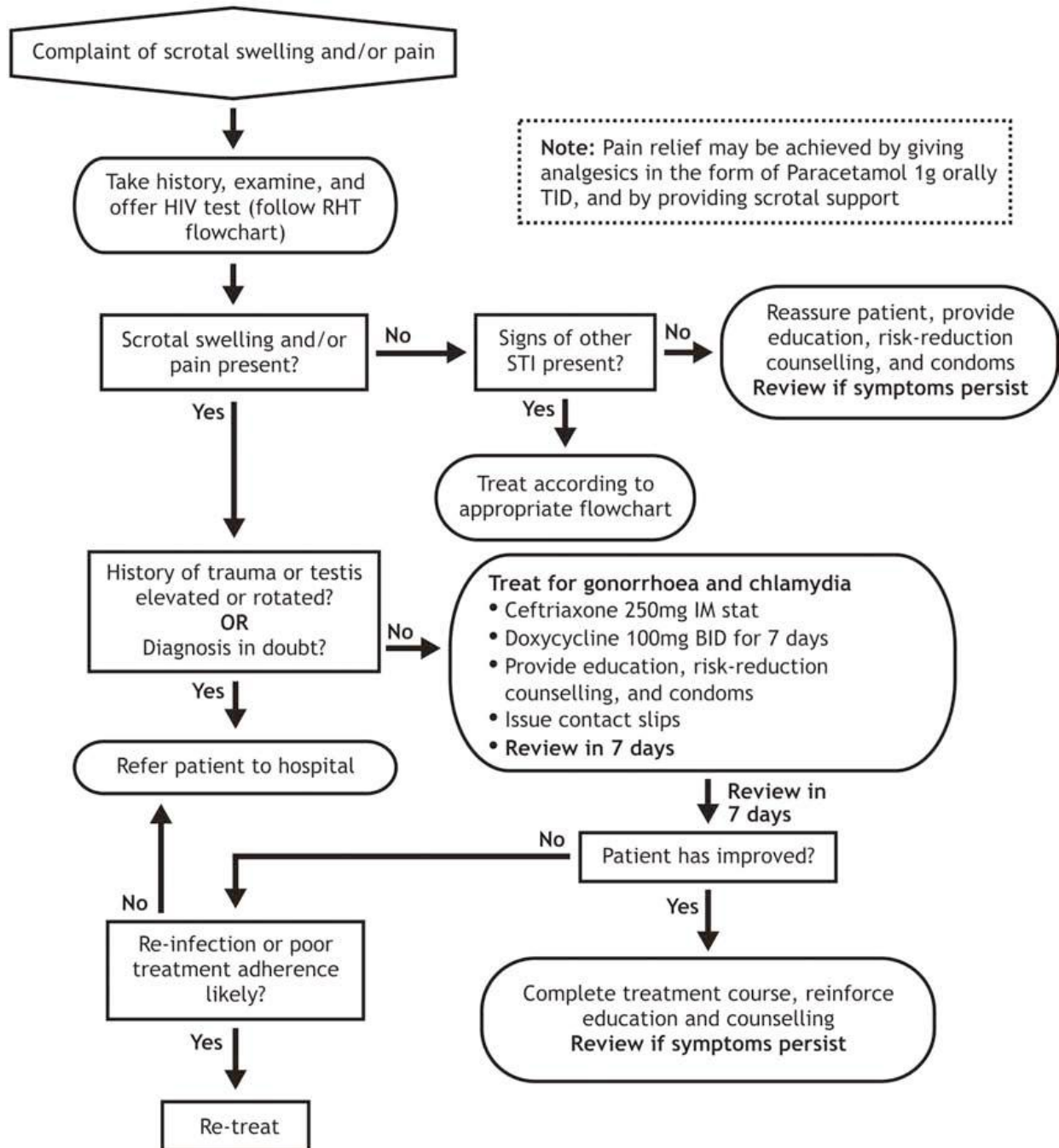
Inguinal Bubo Flowchart



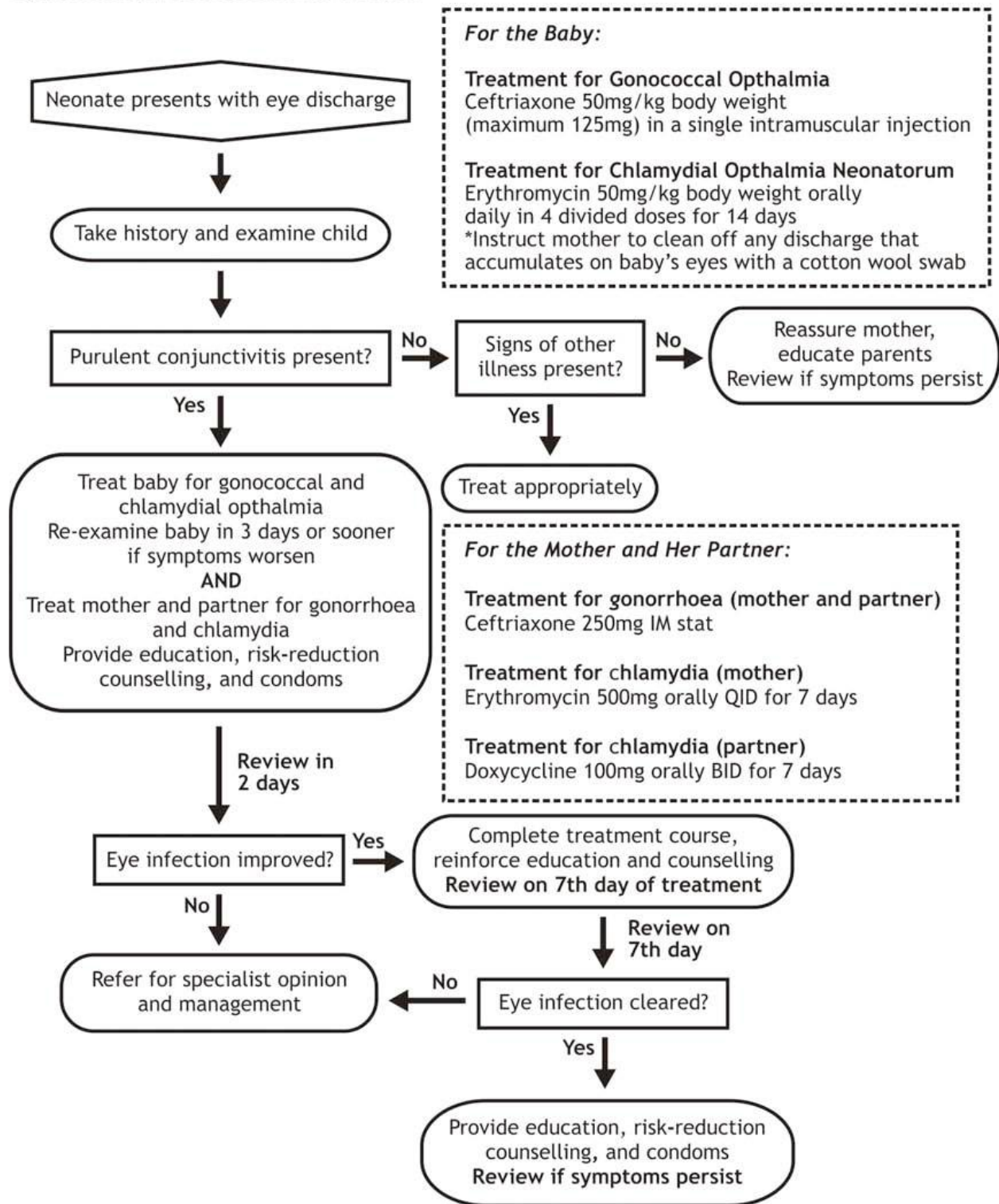
Vaginal Discharge and Lower Abdominal Pain - Cervical or Vaginal Infection



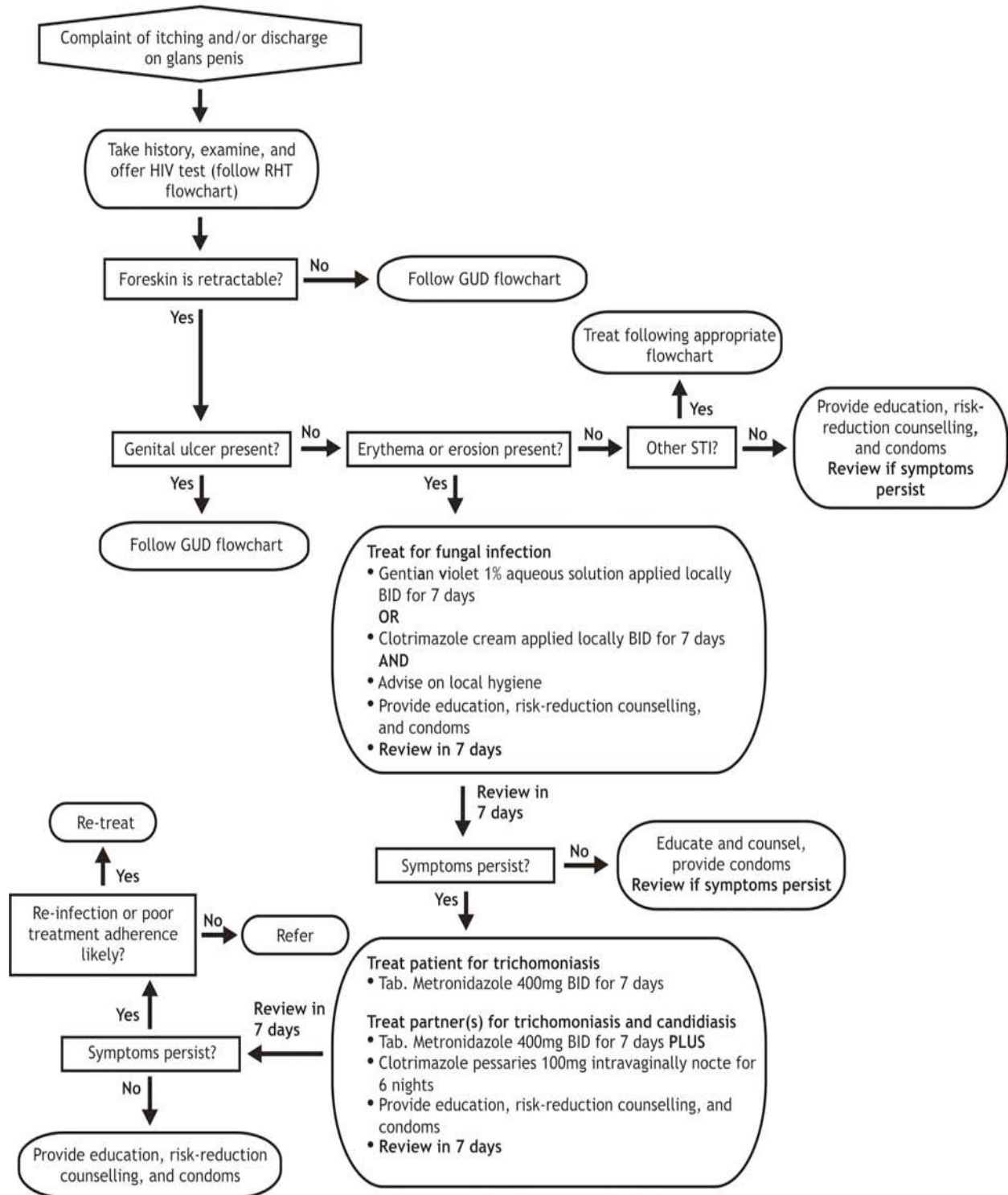
Acute Scrotal Swelling Flowchart



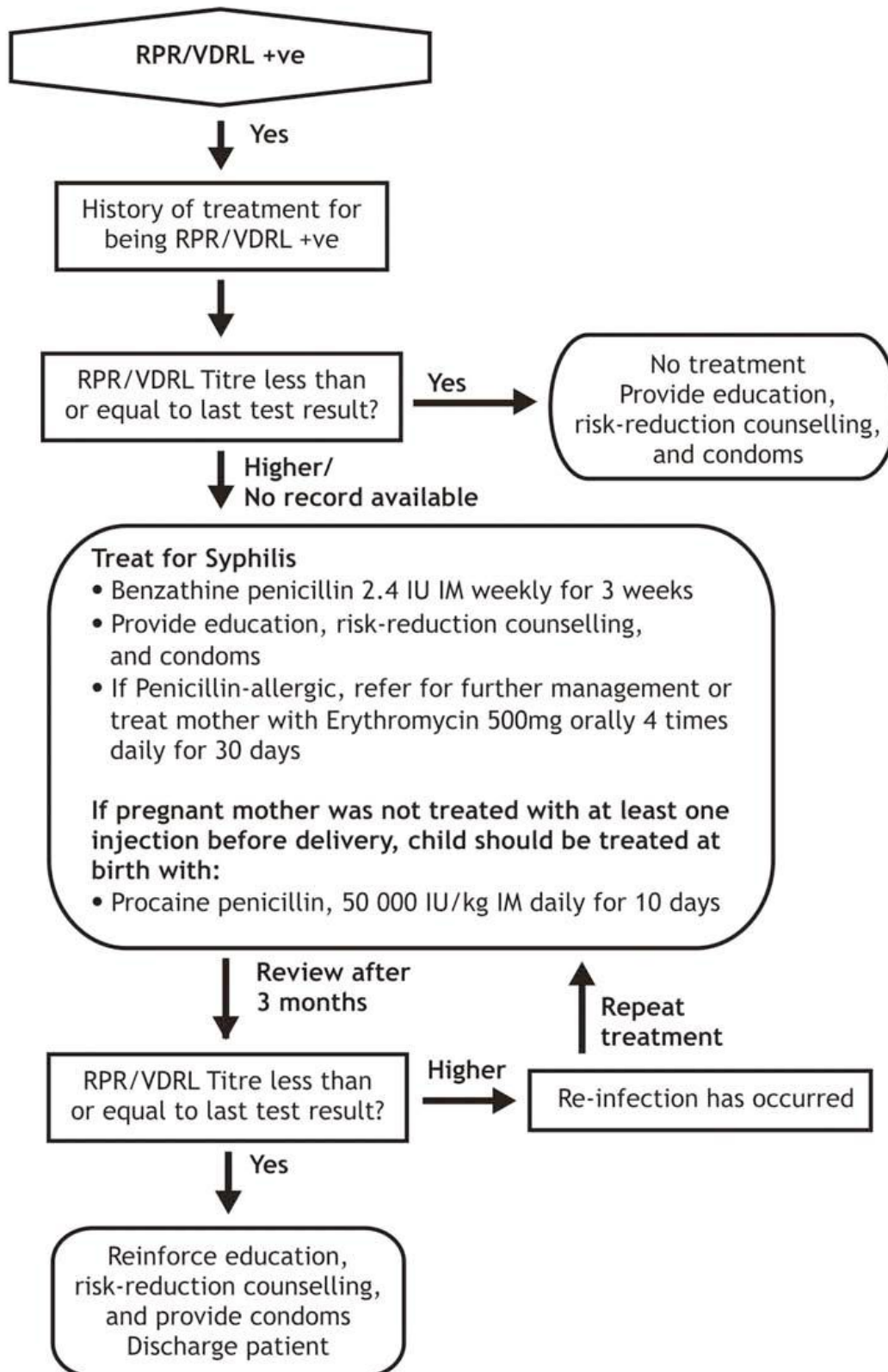
Ophthalmia Neonatorum Flowchart



Balanitis Flowchart



Management of RPR/VDRL Positive Cases



Clinics' Counseling and Education Messages for Adolescents on Genital Herpes [Reading Level 8.2]

Important Messages for Health Practitioners

- You can have a great impact on patients diagnosed with herpes and other STIs. You can provide diagnosis and treatment. You can also educate and counsel patients.
 - It is important to provide counseling and education to patients diagnosed with STIs. Counseling and education can help relieve the emotional impact and promote prevention.
 - Always take the time to attend to the patient's feelings. To some patients, especially adolescents, having an STI can be very upsetting news. Check in with the patient as you provide services and information.
 - Do not underestimate the emotional effects of an HSV-2 positive diagnosis. Patients newly diagnosed with HSV-2 may become very upset and fearful.
 - It is possible people might confuse genital herpes with HIV. You should correct this misunderstanding. Teaching patients that genital herpes is very common and does not cause great harm is important.
 - Built trust between you and your adolescent patient. Listening, understanding, caring, and providing advice without being judgmental is important for counseling adolescents. Negative messages, including your facial and body gestures, may have adverse effects on newly diagnosed patients.
 - Adolescents often lack the confidence to talk about their real concerns on their symptoms. They are also often confused and/or frightened. By focusing on the person rather than the disease, you may discover the real concerns of adolescent patients.
 - Showing a good attitude and being nice is very important for adolescent patients.
 - Tell your adolescent patients that information shared during consultation is confidential and private. These considerations are very valuable for attending the needs of the youth.
 - ***If a youth patient shows signs of neglect, abuse, or serious emotional problems; then, refer the patient to the local social worker.***
 - The information in this packet is specifically about herpes. Use the Botswana Ministry of Health (MOH) "Management of Sexually Transmitted Infections" guidance to complement this information.
- The MOH guidance has information related to HSV-2 as follows:
- ✓ "Behavior-Change Counseling and Health Education" (Chapter 3, pages 30-56)
 - ✓ "Genital Herpes Overview" (Chapter 7, Section 7.2, pages 85-89)
 - ✓ "Counseling Patients with Genital herpes" (Chapter 7, Section 7.10, pages 104-105)

Emotional Support Messages

Patients may feel better if they understand that:

- Genital herpes is a very common infection among men and women that have had sex.
- Genital herpes is not life threatening.
- Genital herpes' symptoms are treatable.
- Not everyone who has the virus will experience symptoms. A positive test result does not mean that a person will have symptoms.
- Finding out about herpes may cause an emotional reaction. Patients may feel depression, anxiety, guilt, isolation, or embarrassment after finding out the results. These emotions are normal. These emotions tend to go away over time.
- There are ways to reduce transmission.
- Herpes infection is manageable and people can live a normal life.

Symptoms Messages

- Some people with the genital herpes virus may experience symptoms. But, many people infected with the genital herpes virus have few or no symptoms at all.
- When a person has symptoms, the virus causes genital blisters that become sores.
- When symptoms are present, they usually last for a few days to two weeks. They tend to be shorter and less painful with time.
- Symptoms may occur once, or may come and go during the patient's lifetime.

If ...	Then ...	
Having the genital herpes virus with symptoms	When ... sores are present on	Then ... sores may appear on
	Women	The skin around vagina, urethra, rectum, inner thighs, buttocks, and on vagina and cervix, or lower back.
	Men	The skin around penis, inner thighs, rectum, buttocks, and on penis, or lower back.

<p>Having the genital herpes virus <u>without</u> symptoms</p>	<ul style="list-style-type: none"> • There is no way of knowing if someone will ever get symptoms or how long the person has been infected.
---	--

Virus Messages

- The virus that causes genital herpes is a very common virus among men and women that have had sex.
- Many people in Botswana and all over the world have the genital herpes virus.
- There is no cure for Herpes; once infected, you are infected for life. But, it is important to know that:
 - *It is not life threatening*
 - *It will not damage your reproductive system*
 - *It will not leave any permanent scars*

Treatment Messages

- It is important to know that there is no cure for herpes, but there is treatment to shorten or prevent symptoms.
- There is an antiviral drug called Acyclovir. The drug can be taken when a person has genital sores or feels sores are starting. The drug helps sores heal faster.
- It is important the person takes the drug as directed.
- Treatment is free.

Transmission Messages

- Herpes is transmitted by direct skin-to-skin contact, usually through sexual activities (anal, oral or vaginal sex). Unlike a flu virus that you can get through the air, herpes spreads by direct contact when the infected skin of a person touches the skin of an uninfected person.
- Most people that have genital herpes do not know they have the infection. It is difficult to know how long a person has had herpes or who may have infected the person.
- Even without the presence of symptoms, the genital herpes virus can be transmitted. It is not known how often this happens.

Prevention Messages

- Abstinence (not having sex) is the only sure way of not getting infected or spreading herpes.

If ...	Then ...
Having sex	Use condoms every time and remember the condom only protects the area of the body it covers.
	Limit the number of sex partners.
	Remember the virus can be transmitted whether or not symptoms are present.
	Do not have any form of sex when sores are present. Alternatives to sex are holding hands, massaging, or cuddling.
Having sex	If possible, talk openly and honestly with your partner about genital herpes and other STIs.

Youth Friendly Services Information Sheet for Health Practitioners [Reading Level 7.8]

Why is it Important to Pay Attention to Adolescents' Sexual and Reproductive Health?

- The health of adolescents is important. Helping them to have a healthy life will help reduce deaths and disease today and in the future.
 - When you protect the health of young people you also protect the health of their future children.
 - Many youth are sexually active people. In order to protect their sexual and reproductive health, they need your support and services. You can help them stay healthy today and in the future.
-

What are Youth Friendly Services?

Adolescents are in a period of their life where they are no longer kids, but they are not yet adults. They face many challenges and need extra support. As a result, seeking help is very difficult. Friendly services can help young people to take care of their sexual and reproductive health. Health services are youth friendly when:

- Adolescents can access the services in the place and in the time they need
 - Services are given to the youth according to their needs and concerns.
 - Health providers treat young people with the same respect and professionalism as any other patient.
-

What Matters for Youth when Visiting a Clinic?

Privacy and Confidentiality

- Privacy is a person's right to be isolated from the presence of others. For example, you should not ask young patients to take their clothes off or be examined where other people can see them. Confidentiality is part of your duty as a health practitioner. You may not release any personal or medical information revealed by your patient during their visit to others unless the patient has told you to do so.
- Confidentiality and privacy are a very important for adolescents. They help build the trust between you and them so they can tell you their real issues and concerns.
- Your clinic can enforce privacy and confidentiality by:
 - Telling and assuring young patients that the information shared during the visits to the clinic is private and will not be shared with anyone unless they decide to do so.
 - Telling young patients that the only time confidentiality can be broken is if a patient has signs of abuse, neglect, or potential harm to themselves or others.

- Explaining to the patient’s relatives the importance of privacy when a young patient shows up to the clinic with its relatives. Young patients will most likely tell you their real worries if they are alone and not with a relative during their visit. In the end, it will be the patient and relatives’ decision to enter or not with the patient to the visit.
- Not requiring parental consent to visit a clinic. According to Botswana national guidelines, if you think that a patient is mature to know the consequences of his/her behavior; then, the young patient does not need parental consent.

Accessibility and Short Waiting Time

- A clinic is accessible when its patients are able get a good service at the time they need it. Waiting time refers to the time a patient has to wait in order to get the service they need.
- These concepts are important because they will help your clinic to keep youth coming for follow-ups and future needs.
- Your clinic can be accessible and have short waiting times by:
 - Trying to be flexible with youth appointments. Youth are regularly at school or at work. They may need some flexibility to be able to make it to the appointment.
 - Trying not to keep your patients waiting for long periods of time. Youth patients do not like to be seen by others while waiting for their consultation. They like not having to wait too long for their visit.
 - Creating a warm and inviting clinic. Youth like to wait in areas that are inviting. If possible and available, you may decorate your clinic with paintwork and posters on the walls. Keep the place clean and with chairs for waiting.

Friendliness and Non-judgmental Attitude

- A clinic is friendly when its staff is helpful, kind, and motivated. Clinic staff has a non-judgmental attitude when they listen and understand their patients concerns and give advice without involving their own judgment or beliefs.
- Friendliness and non-judgmental attitude is important because adolescents like to feel respected and understood. These two attitudes also build trust, have a positive effect on youth’s health, and keep youth coming back for follow-ups. Having a bad attitude can have negative consequences on the patient’s health.
- Your clinic can be friendly and non-judgmental by:
 - Listening, understanding, and caring for the concerns of young patients.
 - Using simple words and providing advice without been judgmental.
 - Keeping eye contact with patients and showing empathy with your face and body movements.
 - Focusing on the person rather than the disease. Adolescents often lack the confidence to talk about their real concerns on their symptoms. They are

also often confused and/or frightened. Focusing on the person will help you discover the real concerns and needs of young patients.

- Asking young patients what is important for them, and listening to what they have to say. Doing this, will help you to understand and meet the needs of youth patients. It will also help adolescents to trust you.
 - Referring youth patients to other services, such as social services, when you think is needed.
-

Contact Information [Reading Level 0.0]

**CDC
Botswana
Contact**

NAME: Prisca Tembo

ADDRESS: Plot 14818 Lebatlane
Road, G/West Phase 1,
Gaborone

EMAIL: tembop@bw.cdc.gov

PHONE: 267 367-2400 or free study information line: xxxxxxxxxxxx

**Ministry of
Health
Contact**

NAME:

ADDRESS:

EMAIL:

PHONE:

**Study
Coordinator
Contact**

NAME:

ADDRESS:

EMAIL:

PHONE:

APPENDIX B

RESOURCE PACKET FOR SCHOOLS

[Reading Level 7.5]



Content

- Study Information Sheet Pages 1-3
- Sexually Transmitted Infections (STIs) Fact Sheet Pages 4-5
- Genital Herpes and Herpes Test Information Fact Sheet Pages 6-8
- Teachers' Counseling and Education Messages for
Adolescents on Genital Herpes Pages 9-10
- Contact Information Page 11

In support of Public Health Evaluation "An Assessment of Life Skills Education and Project AIM on Youth Sexual Intentions, Sexual Behaviors, and HSV-2 Incidence in Junior Secondary Schools in Eastern Botswana"

Study Information Sheet [Reading Level 7.2]

Study General Information

- This school has been selected to be part of a research study. This study is being done by the Ministry of Education and the US Centers for Disease Control. The goal of the study is to understand which school programs best help Junior Secondary School learners to delay sexual activity, and protect themselves from getting HIV and sexually transmitted infections as they get older.
 - The study is called “An Assessment of Life Skills Education and Project AIM on Youth Sexual Intentions, Sexual Behaviors, and HSV-2 Incidence in Junior Secondary Schools in Eastern Botswana.”
-

Study School Programs

All school participating in the study will use the regular Botswana Life Skills curriculum “Living: Skills for Life Botswana Windows of Hope.” These materials include lessons that teach learners about health, HIV prevention, relationships and decisions making. The Life Skills lessons are delivered by teachers according to the Ministry of Education. During the study, Form 1 learners will also receive a program called Project AIM. Project AIM helps learners think about their futures and set goals for success. Project AIM is delivered by non-teacher facilitators from outside the school. It lasts about eight weeks and will take place during guidance and counseling and study periods twice a week.

Why is this Study Being Done?

The government of Botswana wants to do everything it can to prevent youth from getting HIV. There are many programs that are designed to help youth make healthy behavior choices. But it is not known which programs work the best for children in Botswana. This study will help us understand which program works better to help Botswana youth reduce behaviors that put them at risk for HIV.

Who will be in the Study?

This is a very big study. 50 junior secondary schools will be part of it. All Form 1 and Form 3 learners at each school are invited to be part of the study. This is a total of 15,000 learners.

What will Happen During the Study?

There are two parts to the study:

1. **Survey:** This part asks learners to answer a set of written questions called a survey. Some survey questions are about school and thoughts about the future. Others are about behaviors that put youth at risk for HIV. These survey questions will be asked before and after the school programs are taught. The survey answers will help the researchers

understand if there are any changes in the way that learners think or behave after receiving the program.

2. **Blood Test:** Sometimes surveys cannot tell us everything we need to know. In order to know if the different programs really help young people have less sexual behavior and less HIV risk, there will also be a blood test for a virus called herpes simplex virus 2, or genital herpes. This is not HIV. However, it is spread by having sex, just like HIV. This test will help the researchers better understand the sexual behavior of children who receive the different school programs, and know whether the programs are working.

- Having both the survey and the herpes test makes the study very strong, and the results will be very important for school children in Botswana and maybe other countries too. The next information sheet explains more about herpes and the herpes test.
- Form 1 learners who participate in the study will answer the survey four times and have the herpes test twice. The first survey and herpes test will happen at the start of the study. Follow up survey will take place at the end of Form 1 and the end of Form 2. The last survey and herpes test will be done at the end of Form 3. This will tell researchers how things change as children get older.
- Form 3 learners will participate at the start of the study only. They will take one survey and one herpes test.

Who will see the Information that the Study Collects?

Only the study staff will see the answers to the survey and the herpes test results. Each child in the study will have a special number, and only this number will be on surveys and test papers. A child's name will never be on survey or test papers for anyone to see. All answers will be kept private. Teachers or schools staff will not see survey or test results. After each survey and test session, results from all children in the study will be mixed together and analyzed by study staff. Results of the study will be shared with anyone interested, including the community, stakeholders, and schools.

Are there any Risks for the Children Participating in the Study?

There are only small risks to a child in the study. One is that some of the questions in the survey may be embarrassing or make a child uncomfortable. A child doesn't have to answer any question that he/she doesn't want to. Any question can just be skipped. Another risk is that a child may worry about the privacy of his/her survey answers or test results. Study staff will work hard so that each child understands how his/her answers are kept private. Children may experience minor pain or discomfort from the finger-prick that is done for the herpes blood test. The medical staff that does the test will explain the procedure each time, and make sure that the test is quick and safe.

What will a Child get for Being in the Study?

A child will not receive any money for being in the study. He/she will receive free counseling about sexually transmitted diseases and free testing for herpes. Each time a child participates in a session of testing (survey and herpes test), he/she will receive a small gift in exchange for his/her time and effort. This may be a pen, pencil or other small school item. In a larger sense, a child will also know that he/she has made an important contribution to helping young people in Botswana to avoid getting sexually transmitted diseases, like HIV.

What does Parent Permission Mean?

- Children under 18 can only be in the study if a parent or guardian says it is ok. After reading through all the materials about the study, parents will be asked if they give permission to their child to be part of the study. Being part of the study means answering the survey questions and having the blood test for herpes. These activities will be spread out during the 3 years the child is in Junior Secondary School.
 - If parents give permission at the beginning of the study but then change their mind, they can remove their child from the study. This can be done any time by letting the school or the study staff know. Parents will be told each time that a study test is going to happen so that they can think about it again.
 - Children 18 or older can give their own consent for participation in the study.
-

What does Child Assent Mean?

Child Assent means that a child will also be asked whether he or she wants to be part of the study. If a child does not want to be part of the study that is fine. He/she will not get in trouble. If he/she starts the study but then changes his/her mind, he/she can stop being in the study any time.

What if I have More Questions?

An information session for the parents will be held on __ (day/date) ____ at __ (meeting place) ____ at __ (time) __. Teachers are also welcome to participate. Study staff will present information about the study and you and the parents may ask any questions about it. You can also call the study office to ask questions. See contact information handout.

When must Parents Return the Permission Form to the School?

The permission form should be returned with the child to the school no later than __ (date) __. This is about two weeks from now. Parents can also return the permission form at the information session described in the paragraph above. Please feel free to talk about any questions or concerns you have with the study staff, either by phone or at the information session. It is important to the Ministry of Education and study team that teachers are well informed.

Sexually Transmitted Infections (STIs) Fact Sheet [Reading Level 6.0]

STIs are

- An infection or disease passed from person to person by any kind of sex (oral, vaginal, anal). They often don't cause symptoms and many people have one and never know it. If left untreated, some STIs may cause infertility.
 - Also transmitted nonsexually, such as from mother to child during pregnancy or childbirth or through shared needles or blood transfusions.
 - Very common.
-

Common STIs

- Gonorrhea
 - Crab Lice
 - Chlamydia
 - Genital warts
 - Genital herpes
 - Syphilis
 - Trichomoniasis
-

Common Symptoms

- Burning during urination.
- Discharge from the penis or vagina.
- Itching, small bumps or blisters on or near the genitals.
- Vaginal bleeding after sex or between periods.
- Pain with vaginal sex.
- Pain in the lower abdomen.
- Pain in the testicles.

If ...	Then ...
Having these symptoms	Go to a health clinic for evaluation and treatment
Been sexually active and believing to have been exposed to an STI	

Treatment

- Some STIs can be cured with drugs. It is important to take all medication given to be cured.
 - Other STIs caused by viruses (warts, herpes) can be treated with drugs, but can't be cured as the virus stays in the body after treatment and the warts often come back.
-

Diagnosis

If ...	Then ...
Diagnosed with an STI	Keep calm and remember all STIs are treatable and many are curable
	Take all your medication as prescribed
	Tell your partner(s) to get checked and treated
	Don't have sex until you and your partner(s) have both finished treatment
	Request an HIV test (STIs, especially those with open sores, can make it easier for HIV to infect your body)

Prevention

- Abstinence (not having sex) is the only sure way of not getting an STI.
BUT...

If ...	Then ...
Having sex	Use condoms every time you have sex
	Limit the number of sex partners

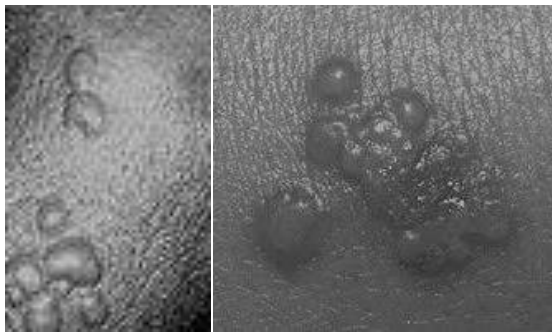
Genital Herpes and Herpes Test Information Fact Sheet [Reading Level 7.0]

Genital Herpes is

- A sexually transmitted infection (STI) that is a virus.
 - Not a virus that kills or makes a person very sick.
 - A common infection among men and women who have had sex (anal, oral or vaginal sex).
 - A risk factor for HIV. Having HSV-2 puts a person at a higher risk for HIV.
-

Symptoms

- Most people with genital herpes never have any symptoms
- People that have symptoms may experience small and painful genital blisters that become sores.
- Sores and blisters last for about a week, and then heal and disappear. They may come back again. When sores appear it is called an outbreak or recurrence.
- Outbreaks tend to be shorter and less painful



When to Seek a Doctor

Having herpes or another STI can put you at risk for getting other STIs, like HIV.

If ...	Then ...
You or your partner have herpes symptoms OR other STI symptoms (like pain or genital discharge)	Seek medical evaluation and find out if you have herpes, other STI, or another illness

Is Herpes Curable?

- Once a person is infected, herpes is a virus that stays in the body for lifetime.
 - Treatment is available for symptoms. Treatment is not a cure.
-

Treatment

Acyclovir Drug:

- Acyclovir is a drug that can be taken when a person has genital sores or feels they may be starting.
- Treatment helps with the pain, healing, and duration of the blisters or sores.
- Treatment helps if taken as directed.

Other:

- Keep herpes sores clean and dry.
- Wear loose clothing to prevent irritation of the lesions.

Preventing Infection or Spread of Herpes

- The only sure way of not getting infected or spreading herpes is not to have sex, **BUT...**

If ...	Then ...
You have sex	Use condoms every time you have sex. Remember the condom only protects the area of the body it covers.
	Use condoms correctly – “Instructions for Use of a Male Condom” are available on Chapter 3, Figure 3.1, Page 46 and “Instructions for Use of a Female Condom” are available on Figure 3.2 pages 47 and- 48 , of the Botswana Ministry of Health “Management of Sexually Transmitted Infections” guidance.
	Limit the number of sex partners.
	Do not have any form of sex when sores are present. Alternatives to sex are holding hands, massaging, or cuddling.
	Talk openly and honestly with your partner about genital herpes and other STIs.
	Get yourself tested for STIs and make sure your partner gets tested (before having sex).
	Inform any current and future partners about having herpes, so they also can seek medical evaluation.
	Know that it is easy to spread herpes, especially when sores are present.

Pregnant Women

- A pregnant woman should tell her doctor if she or her partner has genital herpes.
 - A pregnant woman who is not known to be infected with genital herpes should avoid having sex (anal, oral or vaginal sex) with an infected partner during the third trimester of pregnancy.
 - There is a small chance for a baby to be exposed to herpes by the mother during pregnancy or birth. This is rare.
 - A doctor may do a cesarean delivery or C-section if a pregnant woman has sores or blisters into labor.
-

A Positive Blood Test for Herpes

- Means that a person has been infected sometime in the past.
 - Does not mean a person will become sick now or in the future.
 - Does not tell us when the person was infected or who infected the person.
 - Does not mean that a person will get the blisters or sores. Some people never see symptoms; however, they can still pass herpes to their sexual partners.
 - Means a person may experience emotions of depression, anxiety, guilt, isolation, or embarrassment after finding out of the results. These emotions are normal. These emotions tend to go away over time.
 - Means it is important to remember that herpes is common infection among anyone that has had sex. It is common among people who have had sex and is not serious. A person can manage the infection and have a normal life.
-

Contact Information

CDC Botswana Study Office:
+267... TBD
Ministry of Education Toll-Free Youth Counseling Phone Line:
Local clinic referral:

Teachers' Counseling and Education Messages for Adolescents on Genital Herpes [Reading Level 8.9]

Importance of Educating and Counseling Adolescents on Genital Herpes (HSV-2) at Schools

- Adolescents are in a period of their life where they are no longer kids, but they are not yet adults. They face many challenges. As a result, seeking help is very difficult. . Extra support is very important especially for those that are vulnerable or hard to reach.
- You have an important role to play in the lives of adolescents. Adolescents value when you listen, care, recognize, support and educate them.
- Adolescents often lack the confidence to talk about their real concerns on their symptoms. They are also often confused and/or frightened. By listening and respecting them without being judgmental, you may discover their real concerns.
- Education provides knowledge to adolescents on how genital herpes works, and how normal it is to have it. If having questions on HSV-2, use the “Genital Herpes and Herpes Test Information” handout. If having questions on STIs, use the “Sexually Transmitted Infections (STIs) Fact Sheet” handout. Always refer the learner to a clinic if having symptoms.
- Counseling provides adolescents with the emotional support they need. It helps them to practice healthy behaviors. It also helps them to handle the disease.
- It is possible people might confuse genital herpes with HIV. You should correct this misunderstanding. Teaching adolescents that genital herpes is very common and does not cause great harm is important.
- Counseling and education help to normalize and alleviate possible emotional reactions of depression, anxiety, guilt, isolation, or embarrassment after a positive genital herpes diagnosis.

HSV-2 Education and Counseling Messages

- Having genital herpes does not mean that a person has done something wrong or bad. Genital herpes is a very common infection among men and women that have had sex.
- Most people that have genital herpes do not know they have the infection. It is difficult to know how long a person has had herpes or who may have infected the person.
- Genital herpes is not curable, but its symptoms are treatable.
- Genital herpes is not life threatening.
- Genital herpes is manageable and people can live a normal life.
- Not everyone who has the virus will experience symptoms. A positive test result does not mean that a person will have symptoms.
- Even without the presence of symptoms, the genital herpes virus can be passed to others. It is unknown how often this happens.
- Herpes is transmitted by direct skin-to-skin contact, usually through sexual

activities (anal, oral or vaginal sex). Unlike a flu virus that you can get through the air, herpes spreads by direct contact when the infected skin of a person touches the skin of an uninfected person.

- There are ways to reduce transmission.
 - Looking for medical care, counseling and education when having genital herpes or any STI symptoms is important. Having the genital herpes virus puts people at a higher risk for HIV.
 - Medical care and treatment is free.
 - If having genital herpes, emotions of depression, anxiety, guilt, isolation, or embarrassment are normal. These emotions tend to go away over time.
 - People with herpes are encouraged to tell their current and future partners, and to talk openly and honestly about herpes and other STIs.
-

**Other
Important
Messages for
Teachers**

- When giving counseling and education, be careful with your facial and body gestures, the words you use, and your tone of voice. Gestures and words may send negative or positive messages to the person you are talking with.
 - Confidentiality and privacy are a very important for adolescents. They help build the trust between you and them so they can tell you their real issues and concerns.
 - Parents' support is also very important for adolescents. Whenever possible you should educate and ask parents to support their kids without been judgmental.
 - Identify and encourage youth that need further counseling to call the Youth Counseling on Air (YOCA) toll free number 1800_____TBD_____.
 - Any time a learner tells you about his/her symptoms, refer them to the clinic listed below.
-

**School –
Clinic
Linkage**

Each Junior secondary School in Botswana has a local agreement with a local government health clinic through which learners may seek care without waiting in line or paying fees.

The clinic _____ has been identified as able to provide services at _____ School.

Contact Information [Reading Level 0.0]

**CDC
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Contact**

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**Ministry of
Health
Contact**

NAME:
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PHONE:

**Study
Coordinator
Contact**

NAME:
ADDRESS:
EMAIL:
PHONE:

**Youth
Counseling on
AIR (YOCA)**

TOLL FREE NUMBER:
