

Sexually Transmitted and Blood-Borne Infections

Lesson Plan

Resource: H&PE Elementary Resources

Unit: Human Development and Sexual Health

Grade(s): 7

Lesson: 3 of 5

H&PE Curriculum Expectations

2019 H&PE Curriculum Expectations: A1.2, A1.4, A1.5, D1.4, D1.5

Materials

- Student Resource: Common Sexually Transmitted and Blood-Borne Infections (STBBIs) (*included at the end of the lesson*)
- **Teacher Resource: Checklist**

Learning Goals

We are learning about sexually transmitted and blood-borne infections (STBBIs) and their symptoms. We are using our coping, relationship and self-awareness skills to identify ways of preventing STBBIs and/or unplanned pregnancy.

Overall Assessment

Use the Teacher Resource: Checklist to observe and provide written and verbal feedback about students' ability to identify symptoms of STBBIs and ways of preventing STBBIs and unplanned pregnancies.

Minds-On

Share the learning goals with the class and co-construct success criteria with students. Consider posting the success criteria in the learning space for reference throughout the lesson.

Remind students of general group rules, including the importance of showing respect for others' ideas and opinions.

Divide students in groups of 4. Have students work with their group to formulate their answers to the following questions.

1. What does the acronym STBBI stand for?
2. What are some examples of STBBIs? (e.g., Human Papilloma Virus (HPV), Genital Herpes, Chlamydia, HIV, Gonorrhea, and Hepatitis)
3. Decide which of these statements are true and which ones are false:
 - You can get a STBBI from a drinking fountain or toilet seats. (False)
 - The symptoms of a STBBI are sometimes not noticed. (True)
 - If your symptoms go away, you no longer need to see a doctor. (False)
 - The first time you have sex, you cannot get a STBBI. (False)
 - You can be infected with HPV from intimate skin-to-skin contact. (True)
 - Vaccinations can prevent some viral infections including Hepatitis A, B, and HPV. (True)
 - Untreated STBBIs can cause someone to not be able to reproduce (become sterile). (True)
 - STBBIs can be passed on through sharing needles. (True)
 - The most common viral STBBI in Ontario is HIV. (False; correct answer is HPV)
 - STBBIs cannot be passed through oral sex. (False)
 - If a person has a STBBI but has no symptoms, they can't pass the infection to a sexual partner. (False)

Inform groups that it is ok to guess the answer. Have groups share their answers after each question is posed, providing students with the correct responses after each group has had an opportunity to share their responses.

Action

Explain to students that they may hear the term Sexually Transmitted Infections (STIs) or Sexually Transmitted and Blood-Borne Infections (STBBIs). Sexually transmitted infections are infections that can be passed from one person to another through sexual contact (e.g., oral sex, vaginal sex, anal sex, skin-to-skin genital contact). This usually happens through the exchange of body fluids, like semen and vaginal fluids. Blood-borne infections are passed from one person to another through contact with infected blood and other body fluids. STBBIs can also be passed during pregnancy, childbirth or breastfeeding from the parent to the child or if a needle is shared with someone who has a STBBI. The risk of getting or passing on a STBBI depends on the sexual behaviour. Some pose a low risk while others pose a higher risk. Knowing about STBBIs and their symptoms is an important part of taking care of one's sexual health. Highlight that some STBBIs are caused by viruses and others are caused by bacteria. (*Adapted from: Public Health Agency of Canada. (2020). [Sexually Transmitted Infections](#).*)

Write the words "viral" and "bacterial" on the board and have students generate ideas about what each word means.

Share the following definitions after students have completed generating their ideas to build a shared understanding of the difference between viral and bacterial infections.

Viral infections: Viral STBBIs are caused by viruses being passed from person to person during sexual activity. Viruses can be treated and managed but not cured. Herpes, Hepatitis A, B, C, HPV and HIV are all viral infections. Vaccinations against viruses are available and can prevent some viral infections including Hepatitis A, B, and HPV.

Bacterial infections: Bacterial STBBIs are caused by bacteria passed from person to person during sexual activity. Bacterial infections can be cured using medications. If they are not treated and cured, they may lead to long-term complications. Chlamydia, Gonorrhoea, and Syphilis are all bacterial infections.

(*The definitions were extracted from: Ottawa Public Health (2020). [What are STIs and STBBIs? The Link Ottawa](#).*)

Create new groups of 6-7 students. List the following STBBIs for groups to reference: Chlamydia, Hepatitis (A, B and C), Herpes (Oral and Genital), Gonorrhoea, Syphilis, HPV, HIV.

Instruct groups to work collaboratively to decide who will become an expert about one of the STBBIs to then share their expertise with the group. Once group members have selected their STBBI, have them assemble with students who have selected the same STBBI (e.g., all students who have selected Gonorrhea meet together).

Provide groups with access to a shared document and the appropriate section of Student Resource: Common Sexually Transmitted and Blood-Borne Infections (STBBIs). Instruct groups to create an infographic to educate their peers about the STBBI assigned using the information from the Student Resource. Have groups post their completed infographic for other groups to view. Have students return to their original groups to present their infographic using a [Gallery Walk](#) strategy.

Use the following teacher prompts to lead a large group discussion to consolidate student learning about STBBIs and ways of preventing STBBIs and/or unplanned pregnancies.

- **Teacher prompt:** “We have learned that, in some cases, when a person has a STBBI, there are visible symptoms, but in many cases, the person has no visible symptoms, so it’s hard to tell if they or someone else has a STBBI. All STBBIs can have a significant impact on a person’s health if they are not treated. If a STBBI has no symptoms, how can you find out if you have it?”

Student response: “If you are sexually active, you should be regularly tested by a healthcare provider, even if you don’t see or experience any symptoms of a STBBI. Depending on the STBBI, tests can be done by taking swabs from the cervix, vagina, urethra, or other body parts, or by taking urine or blood samples.”

- **Teacher prompt:** “We have learned that engaging in sexual activities like oral sex, vaginal intercourse, and anal intercourse means that an individual can contract a STBBI. The most reliable way to avoid sexually transmitted infections is to not have sex. If a person is thinking of having sex, what can they do to protect themselves?”

Student responses:

- ○ “They should go to a health clinic or see a nurse or doctor who can provide important information about protection and the HPV vaccination.”
- “People who think they will be engaging in sexual activity soon should keep a condom, dental dam or other effective and suitable form of protection with them so they will have it when they

need it.”

- “They should also talk with their partner about being emotionally ready to have sex and about using protection before they have sex, so both partners will know that protection will be used.”
- “If a partner says they do not want to use a condom, dental dam or other form of protection, then they should say, ‘I will not have sex without protection’. If you do have sex, it is important that you use protection every time to help prevent getting a STBBI or becoming a parent before you are ready.”

- **Teacher prompt:** “We have learned that HIV [Human Immunodeficiency Virus] is a serious viral infection that can be controlled with treatments. HIV attacks the cells in the body that help to fight infections until they are no longer able to do their job. With treatment, the damage that HIV does to the body’s immune system can be slowed or prevented. The only way to know if you have HIV is to get a HIV test. Today, with antiviral and other medicines, people with HIV are living longer, with a better quality of life. HIV can lead to AIDS [Acquired Immune Deficiency Syndrome], a state of health in which a person’s immune system has been weakened by HIV and the person can no longer fight other infections. It is common for a person with AIDS to develop other infections, such as pneumonia or some kinds of cancer. HIV can be passed on whether or not someone has symptoms of the infection. However, HIV treatment can reduce the amount of HIV in someone’s body to the point where it cannot be passed on. HIV transmission results from specific activities and does not occur through everyday contact with someone living with HIV or AIDS. What can be done to prevent the transmission of HIV?” (*Extracted from: Ontario Ministry of Education. (2019). [The Ontario Curriculum, Grades 1–8: Health and Physical Education.](#)*)

Student responses:

- - “It is very important that you use protection, such as a condom or dental dam, if you do have sex.”
 - “Avoid sharing drug-use equipment or using needles that have not been sterilized for any purpose, including piercing, tattooing, or injecting steroids.”
 - “You can talk to a healthcare provider about the kinds of medications that are available that might help prevent getting HIV if you do have sex.”

- “One of the best things you can do to stop HIV is to stop the stigma that is associated with having the infection. Gossiping about someone with HIV, shaming them, or avoiding everyday contact with them makes it more challenging for them to tell others that they have HIV.”

Have students return to their groups to complete their infographic by adding information about ways individuals can protect themselves from STBBIs when deciding to engage in sexual activity.

Consolidation

Use an **Exit Card** strategy for students to list three new things they have learned about STBBIs and ways of preventing STBBIs and/or unplanned pregnancy. Have students write one question they still have about STBBIs and caring for their sexual health.

Notes to Teachers

For additional information about sexually transmitted and blood-borne infections, visit these websites:

- [Action Canada for Sexual Health & Rights: Sexually Transmitted Infections](#)
- [Government of Canada: Sexually Transmitted Infections \(STIs\), Sexual Health Fact and Information for the Public](#)
- [Public Health Agency of Canada: Sexually Transmitted Infections](#)
- [Sexual Health Ontario: What's an STI?](#)
- [Teaching Sexual Health: Sexually Transmitted Infections \(STIs\) Information Sheets](#)

Student Resource: Common Sexually Transmitted and Blood-Borne Infections (STBBIs)

Chart 1: STBBIs

Infection	Bacterial or Viral	Curable, vaccine preventable, or treatable?	Transmission Method	Symptoms
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Chlamydia	Bacterial	Curable	Unprotected vaginal, anal, or oral sex with an infected person	<ul style="list-style-type: none"> • Often no symptoms • Penis: <ul style="list-style-type: none"> ○ Urethral discharge/itch ○ Painful urination ○ Painful or swollen testicles • Vagina: <ul style="list-style-type: none"> ○ Vaginal discharge ○ Painful or burning with urination ○ Lower abdominal pain ○ Abnormal vaginal bleeding ○ Painful vaginal intercourse
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Hepatitis B	Viral	<p>Vaccine preventable</p> <p>Some people may clear the virus (heal from the infection) on their own</p> <p>Chronic Hepatitis B is treatable</p>	<ul style="list-style-type: none"> • Through contact with infected blood, semen, or other bodily fluids – could be sexual contact, sharing of drug paraphernalia, tattooing, or body piercing • Can also be passed by sharing personal items such as razors and toothbrushes 	<ul style="list-style-type: none"> • Infants and children rarely have symptoms • 30-50% of adults have symptoms • Fatigue • Malaise • Fever • Nausea • Vomiting • Loss of appetite • Rash • Jaundice • Dark urine • Abdominal discomfort
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Hepatitis C	Viral	<p>Not vaccine preventable</p> <p>Some people may clear the virus (heal from the infection) on their own.</p> <p>Chronic Hepatitis C is treatable</p>	<ul style="list-style-type: none"> • Through contact with infected blood – could be sharing of drug paraphernalia, tattooing, or body piercing or sexual contact. Note: Sexual transmission is less common but there is a chance that infected blood is present (such as during menstruation) • Can be passed on to a baby during pregnancy or childbirth 	<ul style="list-style-type: none"> • Fatigue • Abdominal discomfort • Dark urine/pale stools • Loss of appetite • Nausea • Jaundice
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Hepatitis A	Viral	<p>Vaccine preventable</p> <p>No treatment available</p>	<ul style="list-style-type: none"> • Through fecal-oral contact, which can occur if there is direct oral-anal contact or contact with fingers/objects in or near the anus of an infected person • Can be passed on if a person ingests food or water that has been contaminated with the feces 	<ul style="list-style-type: none"> • Loss of appetite • Nausea • Abdominal pain • Fatigue • Fever • Dark urine/pale stools • Jaundice
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<p>Herpes – HSV1 – Oral HSV2 – Genital</p>	<p>Viral</p>	<p>Treatable - a chronic infection, remaining in the body for life.</p> <p>Symptoms are not usually visible.</p> <p>When symptoms arise, they can be managed with medications and reduction of stress levels.</p>	<ul style="list-style-type: none"> • Skin-to-skin contact (vaginal, anal, or oral) with someone who has the virus • Oral herpes (HSV1) can be transmitted via kissing or passed to the genitals via oral sex • Fluids found in a herpes sore carry the virus and contact with those fluids can cause infection • Most infectious when lesion is present, but transmission of the virus is possible even when the person does not have any symptoms • Young people can be exposed when kissing someone with a cold sore • It can be passed to other parts of the body including eyes (ocular herpes), by the hands during or 	<ul style="list-style-type: none"> • Most people who have genital herpes have no or very mild symptoms • Herpes sores appear as one or more blisters on or around the genitals, rectum, or mouth • Could appear as blister or small cut • Lymph glands in groin may be swollen • With first outbreak, there may be systemic feeling of fever or feeling generally unwell
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Gonorrhea	Bacterial	Curable	Unprotected vaginal, anal, or oral sex with an infected person	<ul style="list-style-type: none"> • There may be no symptoms • Painful urination • Penis: <ul style="list-style-type: none"> ○ Urethral discharge/itch ○ Testicular pain ○ Rectal pain • Vagina: <ul style="list-style-type: none"> ○ Vaginal discharge ○ Abnormal bleeding (between periods or after sex) ○ Lower abdominal pain ○ Painful vaginal intercourse
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<p>Syphilis</p>	<p>Bacterial</p>	<p>Curable</p>	<p>Transmitted through oral, genital, or anal sex with an infected person</p>	<ul style="list-style-type: none"> • Primary: painless open sore at site of contact (genitals, throat, or anus); person may or may not be aware of the sore • Secondary: rash on body, palms of the hands, soles of the feet, malaise, swollen glands are most frequent • Tertiary: can affect the brain, blood vessels, heart, and bones
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<p>Human Papilloma Virus (HPV)</p>	<p>Viral</p>	<p>Vaccine preventable</p> <p>Treatable for symptoms (not for the virus)</p>	<p>Skin-to-skin contact (vaginal, anal, or oral) with someone who has the virus</p>	<ul style="list-style-type: none"> • Most people with HPV do not know they are infected and never develop symptoms or health problems • Wart-like lesions in genital area (includes pubic/genital area, penis/cervix, anus) • Could also cause changes in the cells of the cervix (found during a Pap test) • Could also appear at back of throat
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HIV	Viral	Treatable	<ul style="list-style-type: none"> • Bodily fluids (blood, semen, pre-ejaculate, vaginal fluids, anal fluids and breast milk) of a person with the virus • Engaging in high-risk activities such as unprotected sex, sharing sex toys, sharing needles or drug equipment with someone who has HIV • Through pregnancy, vaginal childbirth and breast feeding 	<ul style="list-style-type: none"> • Asymptomatic early in the disease • Acute infection: fever over 39.4°C (102.9°F), joint pain, sore throat, fatigue, nausea or vomiting, weight loss • Chronic asymptomatic stage: no symptoms • Chronic symptomatic stage: similar to acute infection, cervical cell changes, recurrent yeast infections, red/purple lesion (Kaposi sarcoma)
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(The information in the STBBIs chart was extracted from:

- CATIE. (2016). [Hepatitis A](#).
- Health Canada. (2006). [Sexually transmitted infections \(STI\)](#).

- *Public Health Agency of Canada. (2020). Sexual health and sexually transmitted infections.*)