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Development of Health Education Materials to Prevent Sexually Transmitted Infections among

University of Southern Maine Students

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Development of Health Education Materials to Prevent Sexually Transmitted Infections among
University Of Southern Maine Students

The Centers for Disease Control and Prevention (CDC) has shown that Maine has relatively low infection rates for both chlamydia and gonorrhea, however there is still cause for concern (CDC, 2016a). Infection rates in many states, including Maine, are rapidly increasing (CDC, 2016a; Maine CDC, 2016, 2016a). There is also a growing prevalence of gonorrhea that is resistant to standard antimicrobial treatment. Providers that are not prescribing the updated treatment regimen may be contributing to the growing resistance (CDC, 2016a). Those infected with the resistant strain of gonorrhea may falsely believe they are no longer infected after completing treatment, and unknowingly infect future sexual partners, which may contribute to the already increasing rates of infection.

In Maine, there was a 13% increase in chlamydia infection from 2014 to 2015. Females had almost double the rate of infection as males, and 41% of the overall increase was found in individuals aged 20 to 24. In the same time period, there was a 78% increase in gonorrhea infections in the state of Maine. More than half of these infections were found in individuals aged 20 to 29. Just below three quarters of the infections were from two health districts, Cumberland and Western Maine (Maine CDC, 2016). When looking at monthly updates for 2016, the trend of increasing infection rates has continued. For every month in 2016 the current number of infections is greater than the median for the same period between 2011 and 2016. In some months, the number for 2016 alone is nearly double the median from the previous years (Maine CDC, 2016).

College students are a group with a particularly high risk of chlamydia and gonorrhea infection. Around 70% of college students are sexually active and nearly half of college students

will become infected with a sexually transmitted disease (STD) before age 25 (Anderson, Eastman-Mueller, Henderson, & Even, 2016). The age group that represented the largest portion of new infections for both chlamydia and gonorrhea in Maine included the ages of typical college students (Maine CDC, 2016). Paasche-Orlow & Wolf (2007) provide a framework for a causal pathway linking health literacy and health behaviors. Health literacy and STD knowledge have also been shown to be associated; those with higher levels of health literacy also tend to have higher STD knowledge. Following the causal pathway, higher literacy and STD knowledge could lead to increased healthy behaviors and decreased STD infections (Saint Cyrus, 2007).

Given the rapid increase in chlamydia and gonorrhea infections in Maine in recent months, especially among college-aged individuals, there is reason for concern. There is limited information about college students and health literacy, and there are no validated tools for measuring the health literacy of this population (Harper, 2014). It is frequently assumed that college students have high levels of health literacy, as education is one of the factors affecting health literacy level; however, this is not necessarily true (Ickes & Cotrell, 2010). In the few studies available, this population has been shown to have some difficulty with health numeracy, and specific topic area literacy questions (Harper, 2014; Ickes & Cotrell, 2010). College students are well positioned to improve their level of health literacy, as there are a number of resources available to them (Harper, 2014).

Purpose of the Study

The purpose of this project was to develop health education materials that can be used to educate college students about the risks, symptoms, and prevention measures associated with chlamydia and gonorrhea infections, as well as provide information about current disease information in the state of Maine. Materials were designed for a variety of dissemination

methods using health literacy best practices. A user group discussion was convened to critique the materials and gather insight about preferred sources of health information. Information from the user group discussion informed the material revisions and dissemination strategy. The education materials will be disseminated on the University of Southern Maine campus to increase health literacy and STD knowledge, and in turn, decrease rates of chlamydia and gonorrhea among this target population. Findings will be summarized and shared in this paper as well as in a final oral presentation.

Research Questions and Objectives

There were two primary research questions and objectives associated with this study:

Research Questions:

1. Where do University of Southern Maine (USM) students prefer to get their information about chlamydia and gonorrhea?
2. What design and media of health education materials are preferred by USM students?

Research Objectives:

1. To determine where, and in what form, USM students would prefer to get information about chlamydia and gonorrhea.
2. To prepare health education materials to distribute to USM students that will provide information meant to increase chlamydia and gonorrhea health literacy.

Method

Institutional Review Board Exemption and Project Overview

In order to conduct this project, approval or exemption from the USM Institutional Review Board (IRB) was required. Prior to beginning, materials were submitted to the USM

Office of Research Integrity and Outreach (ORIO) Human Research Protection Program for review. The USM ORIO classified this project as non-research, and therefore it is exempt from a full IRB review. Following exemption, chlamydia and gonorrhea health education materials for USM students were developed based on findings from a literature review of health literacy best practices. Developed materials were then critiqued in a user group discussion comprised of USM students, and feedback was used to revise materials and create a plan for material dissemination.

Literature Search

A literature search included current statistics about chlamydia and gonorrhea in the state of Maine, as well as at the national level. The search also included gathering information about college students and health literacy levels. Finally, national and state-level information about chlamydia and gonorrhea infection rates, symptoms, prevention, and consequences was compiled to use in the education materials. The primary databases used for this literature review were CINAHL, MEDLINE, and Google Scholar. These databases were chosen because they include a large number of resources from a variety of source types. Numerous searches were performed using combinations of the keywords: health literacy, health numeracy, college student, university student, health education, health education materials, chlamydia, gonorrhea, sexually transmitted disease, sexually transmitted infection, sexual health, and Maine. Searches were limited to literature published in the United States of America during the past 10 years. Limiting the search to resources from the U.S. was done to keep the information relevant to students at USM; studies of college students in other regions may not be translatable to work done here. Additionally, searches only included the past 10 years because health literacy is a quickly growing area; the most relevant and up-to-date information has likely been published in that timeframe. Searches

for disease statistics focused primarily on government reports and statistics from the past five years to ensure that statistics were as current as possible.

Health Education Material Development

Health literacy is defined as “the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions” (CDC, 2016). Given the causal link between health literacy, health behaviors, and health outcomes, attention to health literacy is especially important (Paasche-Orlow & Wolf, 2007; Saint Cyrus, 2007). Increasing health literacy through use of health education materials has the potential to influence health behaviors of USM students, and in turn impact their health outcomes. The National Action Plan to Improve Health Literacy contains a number of goals aimed at increasing health literacy levels through our society. The number one goal is to “develop and disseminate health and safety information that is accurate, accessible, and actionable,” (U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2010). In line with this goal, health education materials should be developed in a way that uses health literacy best practices to assure that they are accessible and actionable for their intended audience. The health education materials for this project were developed with the using the following best practices, identified during a review of literature.

Writing. Text written using a sans serif font is easier for many readers to read than a serif font, especially on printed materials. All text should be at least 12 point, although size 14 or larger is ideal so that it is large enough for those with varying vision levels. Left justification for all headers and body text give readers a better reference point for starting each line, and give the text a more organized appearance. For emphasis, bolded text should be used in place of italics, as it is easier to read. Black, or dark colored font used on a light background, or a white

font was used on a dark colored background creates contrast between words and the background, making it easier to read writing (Abrams et al., 2014; CDC, 2016; CDC 2015; Osborne, 2013).

Material must use plain language and clear, short sentences written in active voice. Use of plain language is necessary so that the information is easy to understand for those with varying vocabularies and with little to no knowledge of medical terminology. A suggested reference point is to write all materials at or below an eighth grade reading level, to account for varying literacy levels. Sentences should all be in active voice, which makes it clear what action the reader should take after. Information should be organized into sections labeled with headers and sub-headers, which will help readers identify what each section will be about. These sections also allow readers to select which topic areas are most relevant to them, and to skip those that are not relevant. Similarly, information should be presented in a logical order, with the most important information written first, or highlighted with special colors or a unique heading. This ensures that those who only read a portion of the material still take away the main message, and provides an overview for the rest of the text. Short, bulleted lists help to break up blocks of text and allow readers to quickly scan the information (Abrams et al., 2014; CDC, 2015; CDC, 2009; Osborne, 2013).

Design. Good use of white space is important so that text is not crowded on the page. Too much text crowded onto a page can be overwhelming and unappealing to look at and difficult to read (CDC, 2016; CDC, 2015; Osborne, 2013). All color schemes should be checked to ensure that they are color-blind friendly, as well as compatible with printer and copier use. These practices will guide color choices so that materials will have consistent color contrast regardless of the printer or copier used. Color schemes appropriate for those with varying degrees of color-blindness will still have sufficient color contrast, even when viewed or printed

in grayscale (Brewer, C., Harrower, M., Sheesley, B., Woodruff, A., & Heyman, D., 2013; CDC, 2015; Osborne, 2013).

Any images included should be relevant to the information they represent, and should not include unrecognizable symbols or body parts. Not all symbols commonly used in the United States represent the same thing in other regions. Additionally, the use of unrecognizable or detached body parts can be confusing for those without significant knowledge of the human body, and may be disturbing to others (Osborne, 2013). Organizing information into clear, well-labeled sections allows readers to pick and choose the sections that interest them most. The use of color can also draw attention to certain words or sections of the materials, and attract the reader to that area of text. If a reader can easily avoid information that is not relevant to them, they may be more likely to read the parts that are of interest. Another method to draw in readers is to make the materials interactive. For example, the use of checklists, asking questions, and fill-in-the-blanks can cause readers to spend more time connecting with the materials (CDC, 2015; Osborne, 2013).

Numeracy. Health numeracy is the part of health literacy that involves the “ability to access, use, interpret, and communicate mathematical information and ideas,” specifically as those relate to health and health decisions (CDC, 2016). Numeracy is often an area that many people are challenged by, so using best practices is especially important for the materials that include numbers and statistics (Harper, 2014; Ickes & Cotrell, 2010). Whole numbers rounded to multiples of five or ten are easier to read, remember, and compare. In cases where exact numbers are not necessary, presenting rounded numbers is recommended. Numbers written in numerals rather than in word format are more recognizable and quicker for many people to read. Visual cues provided along with written numbers are a good way to provide context for people

who are not comfortable with numbers. For example, using bar charts can help show the relative difference between different numerical values, and pie charts can be easier to understand than fractions or percentages. Finally, in places where they are not necessary or beneficial, numbers should not be included (CDC, 2015; Osborne, 2013).

Development. Using information from the literature review of health literacy best practices, three different health education materials were developed. The first was in a fact sheet format, and the other two were in an infographic format. What will be referred to as the first infographic has a green and gray color scheme, and includes graphs. The second infographic has a purple and blue color scheme and includes several images and less text. The materials include the information about chlamydia and gonorrhea infection statistics, risk levels, symptoms, long-term consequences, and prevention methods. This information is presented in a way that takes into account health literacy and numeracy best practices. The final versions of each material can be found in the Appendix.

Data Collection

Data were collected from one user group discussion, which was conducted following development of the health education materials. The user group was used to critique the readability and appeal of the first draft of the materials to allow for improvements before dissemination. Participants were asked about preferred sources and format of health information pertaining to chlamydia and gonorrhea. User group participants were recruited from undergraduate USM students, aged 18 or older, taking courses in the Department of Exercise, Health, and Sport Sciences; Introduction to Public Health; or participating on the varsity softball team. Chlamydia and gonorrhea are topics that many students are uncomfortable discussing, so students were recruited from courses with health-related topics, as they may be more open to,

and comfortable with, the topic area. Members the softball team were recruited as an additional pool of participants as a way to increase the number of female participants. Women had roughly twice the number of chlamydia infections as men in recent years, and women are more likely to suffer from lasting consequences from both chlamydia and gonorrhea (CDC, 2016b; Maine CDC, 2016). User group questions were based on health literacy best practices (Abrams, Kurtz-Rossi, Riffenburgh, & Savage, 2014). Students were asked to discuss the readability, appeal, and acceptability of the materials. To assess comprehension, students identified the top two or three takeaway points from each of the three materials. They also provided feedback about where they would prefer to find the materials around campus, and which of the three materials they favored. Following the user group discussion, data were analyzed to look for common themes in the feedback. These themes informed revisions for the health education materials, as well as the dissemination strategy.

Health Education Material Revisions

Responses from the user group discussion were used to make revisions to the health education materials. Students in the user groups were part of the final target audience for these materials, so their feedback was valuable for ensuring that the materials are useful and appealing to this population.

Dissemination

The final health education materials will be disseminated to USM students using methods determined from the user group discussion. The fact sheet is designed for use at the USM Health Services office, for students who are actively seeking information about chlamydia and gonorrhea. The two infographics are designed to be displayed around campus, and are meant to attract students who may not actively be seeking this information. If any other potential

audiences are interested in the final health education products they may also be disseminated to those audiences as well.

Results

User Group Discussions

One user group discussion was held with six undergraduate student participants. All participants were members of the USM varsity softball team. Overall the students reacted positively to all three materials, and showed interest in the information. Students shared that they were likely to read or skim the materials if they saw them around campus, although they felt that the fact sheet was less appealing in that setting. The fact sheet had more plain-text than the infographics, so it would take longer to read, which students felt would be better suited for someone actively seeking information on the topic. For the best reach, many students suggested that the Health Services office would be a good place to display the fact sheet. Both infographics were easier to read quickly, and students were likely to read them if they were hanging around campus. However, students mentioned that they would feel more comfortable reading about chlamydia and gonorrhea in a secluded or private area where others were unlikely to see them reading the materials. Bathrooms, locker rooms, and elevators were all proposed locations to hang the materials. Students were unlikely to seek out or read these materials in an online format, such as on the USM website or a social media page.

User group participants stated that they would be likely to share the materials with a friend or roommate, if they were looking for information on the topic. In this case, many of the students felt that the fact sheet would be the preferred format to give to the friend or roommate.

Students largely felt that the materials were easy to read and understand, although different formats appealed to different students. When asked to rank the three formats, all students ranked the facts sheet as their third choice, but there was a split between which of the two infographics students ranked first and second. Some students liked the graphs on the first (green and grey) infographic and were more drawn to that one, while others preferred the simplicity of the second (purple and blue) infographic. In all formats the students appreciated the organization and section headers. The sections and labels made it easy to quickly pick out the desired information.

Material Revisions

Each of the three materials were revised following the user group discussion. Feedback from the students informed the changes made. All three materials had at least one sentence reworded so that it was clearer and more understandable. The color scheme for the infographic was changed from blue to green, as blue was seen as blending in with everything else that was USM school colors. On the first (green) infographic, circles were added to the graphs, to bring attention to the jump in cases between 2014 and 2015. This circle will help viewers quickly see the increase that the text is referring to, especially for those that may not be as comfortable gathering information in graph form. The second (purple) infographic was originally lacking a section providing sources of more information, but it was added to the final version. Students requested that this section be added, as it would be helpful in situation where they did not have time to read the whole infographic, but still wanted to learn more. There was also a change to some of the text of the third infographic, so that certain words were bolded or made larger to attract more attention to that area. The final version of all three materials can be found in the Appendix.

Dissemination Strategy

Students in the user group discussion indicated that the fact sheet would be best suited for use at the USM Health Services location on the Gorham campus. The fact sheet had a lot of information on it, which students felt would be better for an audience that was actively seeking health information, such as someone using Health Services. The large amount of information also would not be easily read and understood in a short period of time somewhere around campus where others could see a student reading it. Health Services will be contacted to see if they will agree to have copies of the fact sheet available for visiting students.

The infographics were both determined to be well suited for use around campus, however the user group participants indicated that they would be more likely to read the infographics if they were in an area with some privacy. Areas such as campus bathrooms, elevators, and locker rooms would provide a more secluded area for students to read the infographics without other students noticing them. Before the infographics can be displayed around campus, they must be approved and stamped by the Student Life office. Following approval infographics will be hung in bathrooms, elevators, locker rooms, or other secluded areas around campus.

Discussion

Limitations

This project had a couple of limitations. The largest limitation is that there was only one user group discussion held, which did not have a diverse group of participants. The only successful recruitment of participants came from the USM varsity softball team, so all discussion participants were women, and may be more similar to each other than other women at USM. Having a group of only women may have allowed the participants to speak more freely than if

there had been men in the same group. The women were also all very close with each other, and had trusting relationships. With a sensitive topic like chlamydia and gonorrhea, students may be more comfortable speaking around peers of the same sex, or peers with whom they have a trusting relationship. A second limitation was that there is no way to ensure that the materials will reach the entire target population, even following the dissemination strategy developed as a result of the user group discussion. For example, a student may not use a certain bathroom or locker room, or visit the Health Services, where the materials are located.

Lessons Learned

This project provided a number of important lessons that can be useful in future work. The first is that recruiting undergraduate students to participate in user group discussions can be incredibly difficult. The materials for this project dealt with a sensitive topic, and students may have been unwilling to discuss anything related to this topics with people they did not know. The softball team members were all very comfortable around one another, and openly discussed and joked about chlamydia and gonorrhea. Having that level of comfort with other participants in the user group discussion may be especially important when the materials deal with a sensitive topic like chlamydia and gonorrhea. Creating a comfortable and safe environment for the user group discussions will ensure that participants share feedback openly and honestly.

As discussed in the user group, students were willing to look at the materials as long as others did not see them. It is possible that students felt similarly about participating in the user group discussion. If they could participate without the knowledge of their professor or classmates, students may have been more inclined to participate. It is also possible that undergraduate students would me more willing to participate if there was a clear benefit to them as a result of participation. Providing incentives for participation may be a potential solution.

Use of in person recruitment also may have worked better for classroom recruitment. As this is a sensitive and uncomfortable topic for many students, having someone available to answer questions and reassure students may have been more encouraging for students unsure about participating. Due to scheduling conflicts and weather cancellations this was not possible for this project, but should be tried in future work.

Another lesson was that students did seem to have a genuine interest in the information and materials, even if it was information they may not normally seek on their own. While different participants preferred different formats, nearly all participants were drawn to at least one set of materials. The preferred format was also influenced by where the student would be viewing the material. In a more open area participants stated that they would rather glance at something with less information, and clear directions for where to learn more. In a more private area students would be more likely to take the time to read the entire page.

Finally, many of the factors that appealed to students and attracted them to the materials were related to personal preference. For example, some participants indicated that they preferred certain colors, and therefore picked a favorite material based on color palette. Others liked getting information visually, and were drawn to the infographics that displayed information using a combination of words and figures. To account for this, it may be important to develop several different formats or versions of health education materials, so that they can appeal to a wide audience. This is especially important in instances where materials are not distributed to each member of the target audience, but are instead reliant on the audience to seek them out.

References

- Abrams M. A., Kurtz-Rossi S., Riffenburgh A., & Savage B.A. (2014) *Building Health Literate Organizations: A Guidebook to Achieving Organizational Change*. Available at: <http://www.HealthLiterateOrganization.org>.
- Anderson, E. A., Eastman-Mueller, H. P., Henderson, S., & Even, S. (2016). Man Up Monday: An integrated public health approach to increase sexually transmitted infection awareness and testing among male students at a midwest university. *Journal of American College Health*, 64:2, 147-151
- Brewer, C., Harrower, M., Sheesley, B., Woodruff, A., & Heyman, D. (2013). *Colorbrewer 2.0*. Retrieved from <http://colorbrewer2.org>
- CDC. (2016). *Health Literacy*. Retrieved from <https://www.cdc.gov/healthliteracy/learn/>
- CDC. (2016). *Sexually transmitted diseases (STDs)*. Retrieved from <https://www.cdc.gov/std/>
- CDC. (2016). Sexually Transmitted Diseases (STDs): CDC Fact Sheets. Retrieved from https://www.cdc.gov/std/healthcomm/fact_sheets.htm.
- CDC. (2015). *Everyday Words for Public Health Communication*. Retrieved from https://www.cdc.gov/other/pdf/everydaywordsforpublichealthcommunication_final_11-5-15.pdf
- CDC. (2009). *Simply Put*. Retrieved from https://www.cdc.gov/healthliteracy/pdf/simply_put.pdf
- Harper, R. (2014). Development of a Health Literacy Assessment for Young Adult College Students: A Pilot Study. *Journal of American College Health*, 62:2, 125-134.
- Ickes, M. J. & Cotrell, R. (2010). Health Literacy in College Students. *Journal of American College Health*. 58:5, 491-498.

Maine CDC. (2016). *Maine STD Diagnoses, January 1 to December 31, 2015*. [Data File].

Retrieved from <http://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/data/documents/2015/Maine-STD-Table-2015.pdf>

Maine CDC. (2016). HIV, STD, and Viral Hepatitis Program, Monthly HIV/STD Data Update.

[Data Files]. Retrieved from <http://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/data/hiv.shtml>

Osborne, H. (2013). *Health literacy from A to Z: Practical ways to communicate your health message*. Burlington, MA: Jones & Bartlett Learning.

Paasche-Orlow, M. K. & Wolf, M. S. (2007). The causal pathways linking health literacy to health outcomes. *American Journal of Health Behavior*. 31 Suppl 1:S19-26.

Saint Cyrus, N. (2011). *Health Literacy, Sexually Transmitted Infection (STI) Knowledge and Protective Sexual Behavior*. Retrieved from UMI Dissertation Publishing, ProQuest LLC. (UMI 3484365)

U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2010). *National Action Plan to Improve Health Literacy*. Washington, DC. Retrieved from https://health.gov/communication/hlactionplan/pdf/Health_Literacy_Action_Plan.pdf

Appendix

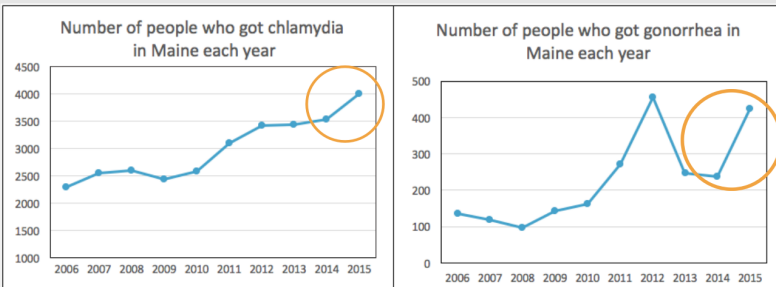
Did you know...

the number of people getting chlamydia and gonorrhea in Maine is quickly growing?

The Maine Facts

The number of people that get chlamydia and gonorrhea is growing across all of Maine.

The numbers have been growing for about 10 years, but the difference between 2014 and 2015 was surprisingly big.



Anyone who has sex can get chlamydia or gonorrhea, and college students are a high risk group.

Most college students (about 70%) have sex, and about half will get a sexually transmitted disease (STD), like chlamydia or gonorrhea, before they turn 25.

In 2015, the largest group of Mainers with chlamydia and gonorrhea was college-aged young adults.



About 40% of people who got chlamydia were in their early 20s. About 50% of the people who got gonorrhea were in their 20s.

How to Protect Yourself



Prevent It

The 3 best ways to prevent chlamydia and gonorrhea are:

1. Do not have sex.
2. Use a condom every time you have sex.
3. Only have sex with 1 person, who only has sex with you, and who does not have chlamydia or gonorrhea.



Get Tested

A doctor can do a quick and painless urine test to see if you have chlamydia or gonorrhea.

Get tested now if:

- you are pregnant
- your partner has chlamydia or gonorrhea, or symptoms that might be chlamydia or gonorrhea

Get tested once a year if:

- you are a man and you have sex with other men
- you are a woman under age 25
- you are a woman and have sex with a new partner or multiple partners



Get Treated

If you get chlamydia or gonorrhea it can be treated and cured.

1. Take all the medicine your doctor gives you.
2. Ask your partner to get tested.
3. Do not have sex until you and your partner have taken all your medicine.



What can happen to me?

You might not know if you have chlamydia or gonorrhea because most people do not have symptoms.

If you do have symptoms, you might notice:

- Unusual discharge from your penis or vagina
- Pain or burning when you urinate or have sex
- Itching or pain around your genitals
- Vaginal bleeding between your periods

Even if you have no symptoms, chlamydia and gonorrhea can harm your body.

Untreated chlamydia and gonorrhea can:

- cause a serious infection called pelvic inflammatory disease (in women)
- cause lasting pain in your pelvic area
- lead to ectopic pregnancy (pregnancy outside your uterus)
- make you unable to have children

Want to learn more?

Talk with:

Your Doctor
USM Health Services (in Gorham)
Planned Parenthood

Visit:

www.cdc.gov/std/
<http://www.ashasexualhealth.org/stdsstis/>
www.plannedparenthood.org/learn/stds-hiv-safer-sex



Sources

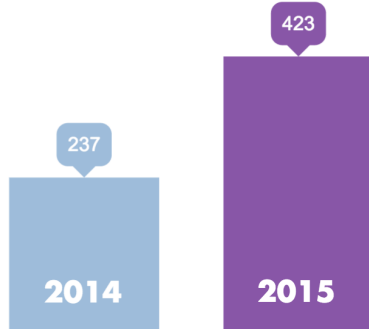
-Anderson, E. A., Eastman-Mueller, H. P., Henderson, S., and Even, S. (2016). Man Up Monday: An integrated public health approach to increase sexually transmitted infection awareness and testing among male students at a midwest university. *Journal of American College Health*, 64(2), 147-151.
-CDC. (2016). Sexually Transmitted Diseases (STDs): CDC Fact Sheets. Retrieved from https://www.cdc.gov/std/healthcomm/fact_sheets.htm.
-Maine CDC. (2016). HIV, STD, and Viral Hepatitis Program, Monthly HIV/STD Data Update. (Data Files). Retrieved from <http://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/data/hiv.shtml>
-Planned Parenthood. (2017). STDs. Retrieved from <https://www.plannedparenthood.org/learn/stds-hiv-safer-sex>.

What to Know about Chlamydia and Gonorrhea in Maine

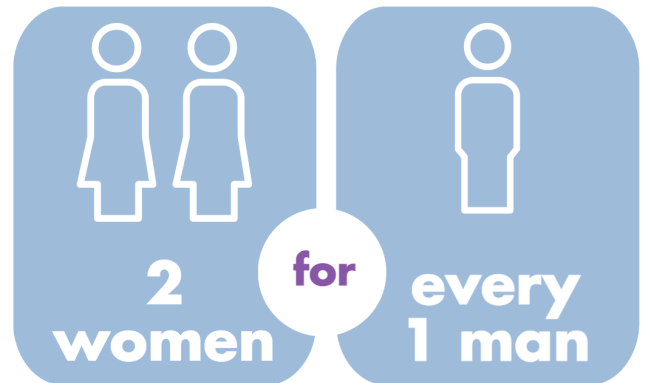


The number of people in Maine getting chlamydia and gonorrhea has grown quickly.

Number of people in Maine who got gonorrhea



In 2015, women were twice as likely to get chlamydia as men.



Anyone that has sex can get chlamydia and gonorrhea.

70% of college students have sex.

And approximately

50% will get an STD before they turn 25.

The largest age group of people with chlamydia and gonorrhea in Maine in 2015 was people in their 20s.



4 of every 10 people who got chlamydia and 5 of every 10 people who got gonorrhea were college-age young adults.

What can you do to protect yourself?

Get More Information!

Talk with:

1. your doctor
2. USM health services
3. Planned Parenthood

Visit:

1. www.cdc.gov/std/
2. <http://www.ashasexualhealth.org/stdsstis/>
3. www.plannedparenthood.org/learn/stds-hiv-safer-sex

Prevent chlamydia and gonorrhea by:

1. not having sex
2. using a condom every time you have sex
3. only having sex with 1 person

Get tested!

Most people have no symptoms of chlamydia or gonorrhea.

Get treated!

You can treat and cure chlamydia and gonorrhea if you get it.

Sources:

Anderson, E. A., Eastman-Mueller, H. P., Henderson, S., and Even, S. (2016). Man Up Monday: An integrated public health approach to increase sexually transmitted infection awareness and testing among male students at a midwest university. *Journal of American College Health*, 64(2), 147-151.
CDC. (2016). Sexually Transmitted Diseases (STDs): CDC Fact Sheets. Retrieved from https://www.cdc.gov/std/healthcomm/fact_sheets.htm.
Maine CDC. (2016). HIV, STD, and Viral Hepatitis Program, Monthly HIV/STD Data Update. (Data Files). Retrieved from <http://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/data/hiv.shtml>
Planned Parenthood. (2017). STDs. Retrieved from <https://www.plannedparenthood.org/learn/stds-hiv-safer-sex>.

Chlamydia & Gonorrhea in Maine:

What to know and how to protect yourself

What to Know

What's happening in Maine

The number of people that get chlamydia and gonorrhea is growing across all of Maine. Between 2014 and 2015 there was a large increase in the number of people with chlamydia, and the number of people who got gonorrhea almost doubled.

Chlamydia and gonorrhea are both types of sexually transmitted disease (STD) caused by an infection.

Anyone that has sex can get chlamydia or gonorrhea, and college students are a group with high risk.

About 70% of college students have sex, and about half will get an STD before they turn 25.

In Maine in 2015, about half of all people that got chlamydia and gonorrhea were in their 20s, the same age as most college students.

What to look for

You may not know if you have chlamydia or gonorrhea because most people have no symptoms.

If you do have symptoms, you might notice:

Women:

- Vaginal discharge with an unusual smell or color
- Burning or pain when you urinate or have sex
- Itching or pain around your genitals
- Vaginal bleeding between your periods

Men:

- Discharge from your penis
- Burning or pain when you urinate
- Painful or swollen testicles
- Itching or burning around the opening of your penis

What can happen to your body

Untreated chlamydia and gonorrhea can still harm your body, even if you have no symptoms.

Women:

Untreated chlamydia and gonorrhea can cause an infection called pelvic inflammatory disease (PID).

PID can:

- Make you unable to get pregnant.
- Lead to ectopic pregnancy (pregnancy outside your uterus).
- Cause lasting pain in your pelvic area.

Men:

- Most men do not have long-term problems from chlamydia.
- You may have lasting pain in your testicles.
- Chlamydia or gonorrhea may make you unable to have children.

How to Protect Yourself

Prevent infection

The 3 best ways to protect yourself from chlamydia and gonorrhea are:

1. Do not have sex.
2. Have safe sex.
3. Get tested for chlamydia and gonorrhea.

How to have safe sex:

1. Correctly use a condom each time you have sex.
2. Talk to your partner about practicing safe sex and getting tested. For help starting the conversation, visit: www.plannedparenthood.org/learn/stds-hiv-safer-sex
3. Only have sex with 1 person, who agrees to only have sex with you, and who does not have an STD.

Get tested

A doctor can give you a quick and painless test to see if you have chlamydia or gonorrhea. The test uses your urine.

Women:

- Get tested now if you are pregnant or if your partner has an STD or symptoms that might be an STD.
- Get tested every year if you are under 25, or if you are having sex with a new or multiple partners.

Men:

- Get tested if your partner has an STD or has symptoms that might be an STD.
- Get tested every year if you have sex with other men.

Get treated

If you get chlamydia or gonorrhea it can be treated and cured.

- Take all the medicine your doctor gives you.
- Talk to your partner so they can get tested and treated.
- Do not have sex until you and your partner are each done with treatment.

You can get chlamydia or gonorrhea again after being cured. Get tested again 3 months after you finish your medicine.

Where to get more information

Websites to visit:

www.cdc.gov/std/
<http://www.ashasexualhealth.org/stdsstis/>
www.plannedparenthood.org/learn/stds-hiv-safer-sex

Who to talk to:

Your Doctor
USM Health Services (Gorham campus)
Planned Parenthood

-Anderson, E. A., Eastman-Mueller, H. P., Henderson, S., and Even, S. (2016). Man Up Monday: An integrated public health approach to increase sexually transmitted infection awareness and testing among male students at a midwest university. *Journal of American College Health*, 64(2), 147-151.
-CDC. (2016). Sexually Transmitted Diseases (STDs): CDC Fact Sheets. Retrieved from https://www.cdc.gov/std/healthcomm/fact_sheets.htm.
-Maine CDC. (2016). HIV, STD, and Viral Hepatitis Program, Monthly HIV/STD Data Update. (Data Files). Retrieved from <http://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/data/hiv.shtml>
-Planned Parenthood. (2017). STDs. Retrieved from <https://www.plannedparenthood.org/learn/stds-hiv-safer-sex>.