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### Increasing Chlamydia Retesting Rates in STD Clinics

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Increasing Chlamydia Retesting Rates in STD Clinics

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### Abstract

**Background:** Chlamydia is the most common STD in the United States (Mishori, McClaskey, & WinklerPrins, 2012). Due to the high reinfection rate of Chlamydia, the CDC recommends retesting three months after initial treatment (Park, Amey, Creegan, Barandas, & Bauer, 2010).

**Objective:** The purpose of this study is to investigate strategies that might improve STD follow-up rates in a clinic setting.

**Methods:** Public Health - Dayton and Montgomery County STD clinic patients 18 years and older who tested positive for NonGonococcal Urethritis (NGU) or Mucopurulent Cervicitis (MPC) and who agreed to participate were given an opinion survey.

**Results:** Of the 31 participants, 24 were female and seven were male. Twenty-two participants were Black; eight were White; one participant was other. When asked what caused most people to get tested for STDs, 22 said that signs/symptoms (71.0%). Almost half (48.4%) of participants believed a money incentive would most likely stimulate patients to retest for Chlamydia (48.4%). Participants believed that the two ways most people would prefer to be reminded for retesting were by phone call and text message. Nineteen of the 31 participants believed fear is the highest barrier to STD testing.

**Recommendations:** Staff should send retest reminders using text messaging and phone calls, advise patients to retest after every positive Chlamydia test, and consider providing incentives for retesting. STD clinics need to educate the public on testing/retesting suggestions.

*Keywords:* barriers, reminders, NonGonococcal Urethritis (NGU), Mucopurulent Cervicitis (MPC)

### **Increasing Chlamydia Retesting Rates in STD Clinics**

Sexually transmitted diseases, also known as STDs, are a global health concern. When not properly or promptly treating an STD numerous reproductive problems can occur, including infertility. It is recommended that all sexually active women 25 and under be screened annually for STDs, but on average only 40% opt to (Friedman & Bloodgood, 2010).

Chlamydia trachomatis is the most common STD in the United States and is responsible for over one million infections every year and often goes untreated as it usually does not present any signs or symptoms (Mishori, McClaskey, & WinklerPrins, 2012; Centers for Disease Control and Prevention [CDC], 2014). Chlamydia is known to cause cervicitis in women and proctitis in men, as well as urethritis in both men and women (CDC, 2014). Mucopurulent Cervicitis (MPC), a type of cervicitis, is commonly connected to Chlamydia (Alberta Health Services, n.d.). Nongonococcal Urethritis (NGU) is a urethritis that is caused by Chlamydia trachomatis in 15-40% of the cases (CDC, 2011a). When Chlamydia goes untreated in women, it can cause pelvic inflammatory disease (PID), ectopic pregnancy (pregnancy outside the uterus), and chronic pelvic pain (CDC, 2014). Due to the commonality and high reinfection rate of Chlamydia, the Centers for Disease Control recommends retesting for Chlamydia three months after an initial treatment (Park, Amey, Creegan, Barandas, & Bauer, 2010). Chlamydia is easily treated with azithromycin but often goes untreated because it tends to have no signs or symptoms (CDC, 2011b). About 75% of women who are infected are asymptomatic (Friedman & Bloodgood, 2010). An Australian study conducted between 2008 and 2009 in family planning clinics tracked retest rates in 16-29 year olds. Of the 83 women who were still eligible by the end of the study, 34 retested. That is only 40.1% (Bowring et al., 2013). These retesting rates are far too low.

### **Statement of Purpose**

This study investigated the strategies that might improve STD follow-up rates in a clinic setting. The study explored the most common barriers and incentives to retesting, in addition to patient opinions. This study will inform which strategies are most likely to increase retesting rates based off of the perspective of patients.

### **Literature Review**

#### **Barriers to Test/Retest**

Numerous barriers exist when it comes to testing for STDs. The internet has become an important information source for many people, but how much and how helpful is the information addressing their concerns (with STDs and testing) are covered? A study was conducted looking at numerous websites containing information on STD testing and very few sites addressed confidentiality of testing, partner testing, or primary prevention (Meyer, Ahlers-Schmidt, Harris, & Seiler, 2011). This is important because another possible barrier to test/retest for Chlamydia is lack of knowledge. Male testing was only discussed in seven of the 18 websites and only four sites included information on nucleic acid amplification tests (NAAT) screening which is important because urethral swabs are often deterrents for many young males due to embarrassment and discomfort (Meyer et al., 2011). The NAAT enables STDs to be discovered via a urine sample for men (Meyer et al., 2011). Since much of the sexual health education is targeted at teens, numerous studies have been directed at them. When it comes to screening for STDs, teens usually worry about the confidentiality of their results and they lack knowledge on alternative sample collection (Meyer et al., 2011). Adults share these and other concerns as well. Other barriers to testing/retesting that all ages experience include long waiting times, cost, inconvenient clinic hours, fear, stigmas associated with STDs, and judgmental or discriminatory

behavior by staff and providers (Tilson et al., 2004). Other barriers related to health care appointments include difficulty with transportation and forgetting scheduled appointments (Person, Blain, Jiang, Rasmussen, & Stout, 2011). A study focused on text message reminders for those infected/testing for HIV, syphilis, and tuberculosis reported that 61% of those that missed their appointments claimed it was because they “forgot” about the appointment (Person et al., 2011). Although many people indicate cost as a major barrier, many testing sites, especially non-profit and other government run facilities, offer free testing or testing on a sliding fee scale (Tilson et al., 2004). However, costs may also be related to other factors such as losing a day’s work in order to go to the clinic, childcare, and transportation to the clinic.

Fear of judgment by staff is another barrier to test/retest. A North Carolina study conducted focus groups involving fifty-three 14 to 24 year olds and those who admitted they were embarrassed to be seen in an STD clinic (Tilson et al., 2004). They claimed that if they had symptoms present they would not care about being judged, but most were asymptomatic (Tilson et al., 2004).

### **Improving Rates**

Many strategies exist when it comes to improving Chlamydia retest rates. These strategies include using technology and other reminders, incentives, at-home sample collection, and alternative site testing. Studies that have been conducted on each of these strategies are described below.

### **Technology and Other Reminders**

Chlamydia retest rates are globally low and many studies have looked for ways of improving retesting especially via technology. Texting, tweeting, e-mail, phone calls, and postal

letters are the most common ways to notify or remind someone of their need to be retested (Hopkins et al., 2010).

### **Text messaging.**

Text messaging (texting) has become a convenient way for medical providers to communicate with patients, since the majority of the population is using cell phones (Person et al., 2011). As of 2011, 82% of Americans have cell phones with a majority of them participating in text messaging (Person et al., 2011). A study on parent reminders for their children's immunizations found parents very open to receiving text messages but many were not capable or willing to respond back via text message (Kharnanda, Stockwell, Fox, & Rickert, 2009).

An Australian sexual health clinic was able to increase their Chlamydia retest rate among heterosexuals from 21% (71/338) to 30% (42/141) by sending text message reminders (Guy et al., 2013). The text messages only cost \$0.05 each to send and since they were done on a large automated system, they kept labor costs down (Guy et al., 2013).

### **Phone calls.**

A phone call is another way to remind someone to come for retesting. A Canadian study was conducted trying to improve compliance for the second dose of the hepatitis B vaccine in high risk adults. The patients were split into two groups; those that were attempted to be reached via numerous phone calls and then if unreachable sent a reminder letter and those who just received a reminder letter (Sellors et al., 1997). Thirty-two of the 67 (47.8%) participants that received the phone call and letter complied compared to the 17 of the 69 (24.6%) that just received the reminder letter (Sellors et al., 1997).



**Postcards.**

What about more traditional reminders to retesting such as a postcard? A study conducted in New York City, aiming to increase retesting rates for Chlamydia and Gonorrhea examined the use of postcards. Upon receiving initial treatment, patients were shown a postcard with a picture of an elephant that read “It’s time to come back”. They were told that this postcard would be sent around two and a half months after their positive test. Of the patients who received a postcard, 14.1% (179/1267) returned to retest whereas only 7.7% (382/4953) of the comparison group did (Paneth-Pollak, Klingler, Blank, & Schillinger, 2010).

**Incentives**

An incentive is anything that can motivate an individual to do something. The most obvious incentive is money. Studies have attempted to use incentives to increase retest rates, but overall they have shown little or no increase in rate (Downing et al., 2013). An Australian study divided participants recommended to retest for Chlamydia from a sexual health facility into three groups; Group 1: no reminder, Group 2: text reminder, Group 3: text reminder and \$10 incentive (Downing et al., 2013). Group 1 had a much lower retest rate (6.3%) than Groups 2 (28.1%) and 3 (26.7%) (Downing et al., 2013). Another study conducted in Maryland and California enrolled recent patients from STD clinics that had just received treatment for either Chlamydia or Gonorrhea. The individuals were randomly placed in three separate intervention groups in order to determine which method produced the highest three month retesting rate. The first intervention group received an appointment card to remind them to retest. Intervention two was the same as the first but with the addition of a \$20 incentive. Intervention three consisted of counseling and a reminder phone call or a letter three days before the appointment. Out of the 141 participants in group one, 16 retested. That is only 11.4%. Of the 144 participants in group

2, only 19 retested. That is 13.2%. Group three had 136 participants and approximately 33 retested (23.9%). It is an approximation because during the course of the study there were errors and a few participants were not followed up completely, but their participation was still included in the intervention group. These findings show a money incentive being slightly more successful than an appointment card and having a much lower affect than a reminder and counseling (Malotte et al., 2004). These findings support the viewpoint that incentives have little to no effect on retesting rates while reminders promote a significant increase.

### **At-Home Sample Collection**

Another strategy to increase Chlamydia retesting rates is to offer a mail-in, self-administered sample collection at home. Many studies have compared at home self-sample retest collections in clinic retesting. One such study was done in the Netherlands in 2011, where 46% (50 out of 109) of the home test kit group opted to participate and retest but only 23% (25/107) of the clinic based group retested (Götz, Wolfers, Luijendijk, & van den Broek, 2013). Both groups used self-sample test kits (Götz et al., 2013). These results may be biased because those home testers who did not send their kit back when they were requested received a second reminder, influencing retest rates (Götz et al., 2013).

Home test kits were also used in Australia. When asymptomatic women came to pharmacies to purchase emergency contraceptives, they were offered an at home Chlamydia test (Gudka, Marshall, Creagh, & Clifford, 2013). It was determined that these women were at a high risk for contracting Chlamydia, although none that participated tested positive for the infection (Gudka et al., 2013). Since no participants tested positive for Chlamydia, further research on treatment and partner notification was not pursued, leaving much unknown (Gudka et al., 2013).

**Alternative Site Testing**

A Netherlands study by Spauwen, Hoebe1, Brouwers, and Dukers-Muijers (2011) took another approach by testing for Chlamydia at large vocational schools. The study intended to increase sexual health counseling and education and improve testing rates in those young adults. This location was ideal because many studies have concluded that the Chlamydia rate is high in students attending intermediate and low education schools (vocational). Many students reported they did not feel they are at risk. This is likely due to the infection often not causing any signs or symptoms. The samples used for testing were self-taken (collected by the patients themselves); vaginal swabs for women and urine samples for men. This allowed for a less evasive method of specimen collection therefore increasing retesting participation. The study increased testing participation from 27% (58 out of 216 participants) to 65% (141 out of 216 participants) but its cost effectiveness is unknown and so is the participants' willingness to test elsewhere.

**Methods****Study Population**

Public Health - Dayton and Montgomery County STD clinic patients 18 years and older who tested positive for NonGonococcal Urethritis (NGU) or Mucopurulent Cervicitis (MPC) and who agreed to participate were eligible for this study. The survey was conducted between May and June 2014.

**Procedure**

Each eligible participant was given a copy of the informed consent by either the nurse practitioner or the doctor running Public Health - Dayton and Montgomery County STD Clinic. After the patient agreed to participate, the survey was conducted by the principal investigator. The survey only had four questions, including two questions that used rank ordering. Rank

ordering is when participants are given items, in this case note cards, and are asked to put them in some order (Rank Order Scale, 2013). The demographic data collected was sex, age, marital status, and race. The first question inquired what the patient believed was the main reason for people getting tested for STDs. It was multiple-choice and the participant was asked to select only one answer. The second multiple choice question asked the participant how they feel others would like to be reminded about getting retested. The participant was asked to select two choices. The choices included text message, phone call, postcard/ postal letter, e-mail, and other. After that was completed, the rank ordering portion of the survey began. With the question placed in front of them, patients were handed laminated note cards with the possible answers and were asked to rank them from the most likely to the least likely. There were two questions like this. The first question asked what was more likely to get people to retest for Chlamydia. The participant was asked to rank the four answers. The second question asked participants what they believed was keeping people from testing/retesting. They were asked to rank the seven answers. If the participant made any comments on the answers/questions, the principal investigator documented their comment.

### **Descriptive Analysis**

Variables in this study include the participants' age, sex, marital status, race, and the responses to the survey questions. Each patient's information and answers were number coded and entered into a Microsoft Excel spreadsheet.

Prior to beginning the survey portion of this study, the study received approval from the Wright State University's Institutional Review Board and Public Health - Dayton and Montgomery County's (PHDMC) Research Review Board.

## **Results**

### **Sample Characteristics**

A total of 31 individuals participated in this study. Participants ranged in age from 19 to 45 years, with the average being 28.7 years with a standard deviation of 6.8. Twenty-two participants were Black (71.0%); eight were White (25.8%); one participant was classified as other because he selected Black and Hispanic for his race (3.2%). 24 of the participants were female (77.4%); only seven were male (22.6%). All but two participants were single (93.5%); one was married and one was divorced. According to PHDMC STD Clinic's reports, there were 155 confirmed NGU cases and 121 MPC cases in June 2014. According to the PHDMC STD Clinic nurse practitioner, Sarah Kramer, the clinic sees approximately 60% men and 40% women monthly (personal communication).

### **Survey Results**

The survey consisted of four questions; two were multiple choice questions and two asked for a ranking order. The first question asked participants what was the main reason for most people getting tested for STDs. They were asked to select one of the following choices: signs/symptoms, partner infection, routine testing, or other. Table 1 shows the breakdown of who answered which option as the top reason to retest. Of the 31 participants, 22 said that signs/symptoms were the top answer (71.0%). Of the 22, 18 were female; only 4 were male. Seventeen of the 22 were Black and the other 5 were White.

**Table 1. *Reasons to Test***

	<b>Signs/ Symptoms</b>	<b>Partner Infection</b>	<b>Routine Testing</b>	<b>Other</b>
Male	4	2	1	0
Female	18	3	3	0
Black	17	4	1	0
White	5	1	2	0
Other	0	0	1	0
Total (n=31)	22	5	4	0
Total %	71.0	16.1	12.9	0.0

The second question asked participants what they believed was most likely to stimulate patients to retest for Chlamydia. The question asked participants to rank the following options from highest to least likelihood; money incentive to retest, a one-time reminder, getting two or more reminders, and home test kits. Fifteen participants (48.4%) ranked a money incentive at the number one answer. Of those fifteen, eleven were Black and only four were White. Eleven of the 15 were female and four were male. While completing the survey, one participant said, “People in this situation always need money. Even ten dollars and they’d show up in flocks.” This suggests that offering something, as little as \$10 may be enough to encourage patients to retest. Another participant compared the money incentive to donating blood for money. She said, “It’s compared to blood donating for money. People are in there all the time!” The second highest selected choice for retesting was home test kits. Nine individuals selected that as their top choice (29.0%). Of the nine, eight were female; only one was male. Six were Black; three were White. These results are shown on Table 2.

**Table 2. Retesting Motivators**

	<b>Money Incentive</b>	<b>Getting 1 Reminder</b>	<b>Getting 2+ Reminders</b>	<b>Home Test Kit</b>
Male	4	1	1	1
Female	11	3	2	8
Black	11	3	2	3
White	4	1	0	6
Other	0	0	1	0
Total n=31	15	4	3	9
Total %	48.4	12.9	9.7	29.0

The third question asked participants what methods they believed people would prefer to be reminded for retesting. The options were: text message, phone call, postal letter/postcard, e-mail, or other. Participants were asked to select two answers. Out of the 31 people, 22 selected a phone call and 21 selected a text message. Almost half of the participants (fourteen) selected a phone call and a text message. Of the fourteen, eleven were female, and three were male. Five were White and nine were Black.

The fourth question was another that asked participants to use rank order. Participants were asked what they believed kept people from being tested/ retested. They were asked to rank the following answers from the highest to least likelihood: fear, lack of knowledge, cost, long waiting times, inconvenient clinic hours, judgment by clinic staff, and stigmas associated with STDs. Nineteen of the 31 participants selected fear as the highest barrier to STD testing (61.3%). A chi square test was conducted in order to compare race and sex differences. The p-values comparing male to female and Black to White were all greater than 0.05, so the findings are insignificant. This may be due to a small sample size. Table 3 describes the frequency for barriers in the top half ranked answers (1-3). Twenty-four participants had fear in their top three answers; all seven males and 17 of the 24 females; five White, 18 Black, and one other. Lack of

knowledge and stigmas associated with STDs were the second and third most frequent answers in the top three ranking. Thirteen of the participants had ranked all three of the top barriers (fear, lack of knowledge, and stigmas associated STDs) as their top three barriers to retest. Ten of these individuals were female and only 3 were male. Three were White and ten were Black.

**Table 3. Top Three Barriers**

	<b>Fear</b>	<b>Lack of Knowledge</b>	<b>Cost</b>	<b>Long Waiting Lines</b>	<b>Inconvenient Clinic Hours</b>	<b>Judgment by Clinic Staff</b>	<b>Stigmas Associated with STDs</b>
Male	7	6	2	0	0	2	4
Female	17	13	8	7	3	6	18
White	5	4	4	2	2	2	5
Black	18	14	6	4	2	5	17
Other	1	1	0	0	0	1	0
Frequency n=31	24	19	10	7	3	8	22

### Discussion

The purpose of this study was to investigate the best strategies to improve STD retest rates according to the perspective of patients. This involved conducting patients' opinion surveys in an STD clinic.

### Reason for Testing

Based on the principal investigator's patient interaction at the PHDMC STD Clinic, it is not common knowledge that patients who test positive for Chlamydia should return in three months for a retest because of the re-infection rate. It may be possible that individuals are not aware that this is recommended by the CDC. It is also not common practice to have staff suggest a retest in three months, but if they were to begin, it may lead to an improved retesting rate. Staff could also remind at-risk, sexually active individuals to get tested each year, and not just when they present signs or symptoms. The majority of patients felt that most people get tested



for STDs due to having signs or symptoms. This is important because Chlamydia usually does not commonly present with any signs or symptoms (CDC, 2014). It is possible that those who get tested due to common STD symptoms may have another STD as well as Chlamydia. These results, although from a small sample are startling. Based off of participants' opinions, people, at least those being tested in their public health departments, are not being tested for STDs yearly as the CDC recommends.

### **Retesting Motivators**

When participants were asked what they believed would get others to be retested for Chlamydia, almost half of them (15) answered a money incentive. Eleven (73.3%) of those that answered money incentives were Black. The majority of those that answered that way were also female. Previous studies have shown that money incentives do not show any difference in retesting rates (Downing et al., 2013; Malotte et al., 2004). The reason for this may be the location of the study and the population surveyed.

The most commonly selected second answer for retesting motivators was the home test kits. Many participants believed that more people would comply with the retest recommendation if they collected their own sample from home via a kit and mailed it in. Likely issues with using this strategy would be having patients collecting samples incorrectly or forgetting about the kit. These issues could be addressed two ways: First, by having the staff demonstrate the sample collection procedure prior to patients leaving after their initial exam; Second, by waiting to mail kits only during the week prior to the expected date for sample collection.

### **Ways to Remind**

According to this study's findings text message and phone call reminders are most preferred by patients. Other healthcare providers send reminders a week to a few days before an appointment, so maybe an STD clinic could also consider that. When participants were asked

how they believed others prefer to be reminded to retest, most of them responded a phone call or text message. All participants were asked to select two options. Phone call was selected 22 times and text message 21 times out of the 62 possibilities. Of the 31 individuals surveyed, 14 selected both the phone call and text message. That is 45.2% of the sample population. As of 2011, 82% of Americans have cell phones with a majority of them participating in text messaging, so it is realistic to think that patients will likely have a cell phone available to them (Person et al., 2011). Text messaging is very convenient and quick, while a phone call is a common way to remind people other healthcare appointments/ procedures. Why not use text messaging and phone calls to remind people about STD testing as well?

### **Barriers to Retest**

Observing what patients believed were the biggest barriers for people being tested/retested, fear, lack of knowledge, and stigmas associated with STDs were ranked the highest. These three choices outranked other barriers such as cost, waiting times, clinic hours, and staff judgment. Over half (61.3%) of participants listed fear as the highest barrier to being tested and approximately 77% had fear listed among their top three barriers, including all seven men and 17 of the 24 women. Fear is obviously prevalent in both sexes. In the PI's opinion that fear could be due to a number of reasons; the testing procedure itself, of finding out they have an STD, whether the STD they have is curable or not, or others finding out. Lack of knowledge and stigmas associated with STDs were ranked the second and third most frequent possible barriers. Thirteen of the 31 participants had fear, lack of knowledge, and stigmas associated STDs as their three highest choices to prevent retesting. Lack of knowledge and stigmas associated with STDs both stemmed back to fear. If an individual does not understand the risks or treatment options associated to STDs, they are likely going to believe that others do not either. It is natural to fear what we do not understand. What is the solution? Education!

**Limitations**

The sample size of this study was very small at only 31 participants. The small sample size did not allow for variation in relation to demographic data such as sex, race and marital status. For instance, most participants were single. If more surveys had been conducted, many more tests could have been done in order to look for major differences in sex and race.

According to the PHDMC STD Clinic nurse practitioner, Sarah Kramer, and the clinic's monthly reports, the clinic sees on average more males than females (personal communication).

According to this, more men than women were eligible for this study; however, the percentage of male to female participants was 22.6% (7) and 77.4% (24) respectively. This could be due to men feeling less comfortable discussing sexual health with a female student than women were.

If this study had been conducted by a man, would the numbers switch? Would men be more likely to discuss sexual health with another man? Would the female numbers decrease? Another limitation of the study was not knowing each patient's diagnosis. This would have allowed for further examination of patients' answers to the first survey question since Chlamydia typically does not present with any signs or symptoms.

**Recommendations**

Based on findings from this study, the principal investigator suggests the following:

1. Staff should advise patients to retest after every positive Chlamydia test
2. Staff should send retest reminders

Text messages/ phone calls

- An automated system could be programmed to do this

3. Provide incentives for retesting
4. Health education

Social media

- Facebook advertisements on importance of testing/retesting

Phone applications

- Create a link on PHDMC's website that would allow patient to:
  1. Download a specialized calendar to set reminders for their sexual health appointments.
  2. Sign up for text message notifications for when STD rates are especially high for their

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**Appendix A – Wright State University IRB Approval**

**Office of Research and Sponsored Programs**  
201J University Hall  
3640 Col. Glenn Hwy.  
Dayton, OH 45435-0001  
(937) 775-2425  
(937) 775-3781 (FAX)  
e-mail: [rsp@wright.edu](mailto:rsp@wright.edu)

**DATE:** May 8, 2014

**TO:** Michelle Bellando, PI, Graduate Student  
Community Health  
Cristina Redko, Ph.D., Faculty Advisor

**FROM:** B. Laurel Elder, PhD   
Chair, WSU-IRB

**SUBJECT:** SC# 5493

*'Increasing Chlamydia Retesting Rates in STD Clinics'*

This memo is to verify the receipt and acceptance of your response to the conditions placed on the above referenced human subjects protocol/amendment.

These conditions were lifted on: May 27, 2014.

This study/amendment now has full approval and you are free to begin the research project. If this is a VA proposal, you must still receive a letter of approval from the Research and Development Committee prior to beginning the research project. If this is a MVH proposal, you must still receive a letter of approval from the Human Investigation and Research Committee (HIRC) prior to beginning the research project. This implies the following:

1. That this approval is for one year from the approval date shown on the Action Form and if it extends beyond this period a request for an extension is required. (Also see expiration date on the Action Form)
2. That a progress report must be submitted before an extension of the approved one-year period can be granted.
3. That any change in the protocol must be approved by the IRB; otherwise approval is terminated.

If you have any questions concerning the condition(s), please contact Jodi Blacklidge at 775-3974.

Thank you!  
Enclosure

## RESEARCH INVOLVING HUMAN SUBJECTS

SC# 5493

ACTION OF THE WRIGHT STATE  
UNIVERSITY  
EXPEDITED REVIEW  
Assurance Number: FWA00002427

Title: *'Increasing Chlamydia Retesting Rates in STD Clinics'*

Principal Investigator: Michelle Bellando, PI, Graduate Student  
Cristina Redko, Ph.D., Faculty Advisor  
Department: Community Health

Expedited Category: 7

The Institutional Review Board has approved the use of human subjects on this proposed project with conditions previously noted. The conditions have now been removed.

REMINDER: FDA regulations require prompt reporting to the IRB of any changes in research activity, changes in approved research during the approval period may not be initiated without IRB review (submission of an amendment), and prompt reporting of any unanticipated problems (adverse events).

B. Laurel Elder, Ph.D.

Signed Chair, WSU-IRB

Expedited Review Date: April 11, 2014

IRB Meeting Date: May 19, 2014

**This approval is effective only through: April 11, 2015**

To continue the activities approved under this protocol you should receive the appropriate form(s) from Research and Sponsored Programs (RSP) two to three months prior to the required due date. If you do not receive this notification, please contact RSP at 775-2425.



**Master of Public Health Program**  
Boonshoft School of Medicine  
Center for Global Health  
3123 Research Blvd., Suite 200  
Kettering, OH 45420-4006  
(937) 258-5555  
FAX (937) 258-5544  
med.wright.edu/mpH

## **Increasing Chlamydia Retesting Rates in STD Clinics**

### **Research Purpose and Background**

You are invited to participate in a research study being conducted by Michelle Bellando, a graduate student in the Wright State University Master of Public Health program, under direction of Cristina Redko, PhD. The purpose of this study is to better understand ways to improve the number of individuals who choose to retest after being diagnosed with chlamydia.

Michelle Bellando, Principal Investigator, will be interviewing and collecting surveys in order to determine patients' opinions on why other individuals choose to or not to be retested after being diagnosed with chlamydia.

### **Statement of Research**

The purpose of this cover letter is to provide you with the information you need in order to decide whether you wish to participate in this research study. It is also to inform you of the purpose and risks associated with this study.

You are invited to participate in this research study that takes approximately 15 minutes to complete.

If you have any questions about this study, you may ask the investigator, Michelle Bellando, prior to beginning the interview. You may keep this letter for your records.

### **Information on Research**

This study intends to better understand ways to improve the number of individuals who choose to retest after being diagnosed with chlamydia. The study includes patients' opinions as well as the reasoning behind those opinions.

### **Risks**

There are no foreseeable risks other than possible discomfort in answering some of the questions.

WSU-IRB  
APPROVED 5.8.14  
GOOD THRU 4.11.15

**Increasing Chlamydia Retesting Rates in STD Clinics****Page 2****Benefits**

By participating in this study, you may help the community and specifically Dayton and Montgomery Public Health STD clinic have the potential to improve their chlamydia retesting rates based off of the outcomes of the interviews.

**Voluntary Participation and Early Withdrawal**

Taking part in this study is voluntary. You may choose not to take part at all. If you decide to be in this study you may stop taking part at any time.

Your completion of the survey and interview implies your consent to participate.

If you decide not to be in this study or if you stop taking part at any time, it will not affect your care or further treatment at Dayton and Montgomery County Public Health.

**Confidentiality**

Participants' names and other identifying information will not be collected. All research materials will be kept on a password protected storage device. All hard copies of information from interviews will be destroyed upon completion of the study.

**Contact Information**

If you have any questions or concerns regarding the study, you may contact the Principal Investigator or her advisor Dr. Cristina Redko.

Michelle Bellando  
[WSUStudentResearcher@yahoo.com](mailto:WSUStudentResearcher@yahoo.com)

Dr. Cristina Redko, PhD  
(937) 258-5543  
[cristina.redko@wright.edu](mailto:cristina.redko@wright.edu)

If you have any general questions about your rights as a research participant in this study, you can call the Wright State University Institutional Review Board Coordinator at (937) 775-4462.

WSU-IRB  
APPROVED 5.8.14  
GOOD THRU 4.11.15

Age: \_\_\_\_\_ Race: White Black Hispanic Other \_\_\_\_\_

Marital Status: Single Married Divorced Widowed Sex: M / F

1. What do you feel is the main reason for most people getting tested for STDs? (Circle one)

Signs/Symptoms

Partner Infection

Routine Testing

Other (please explain) \_\_\_\_\_

2. What is most likely to get people to retest for chlamydia? Please rank the following options. (The interviewee will receive cards for each of the following options and then be asked to rank them from the highest to the lowest likelihood.)

Money incentive to retest

One time reminder (text message, e-mail, postcard/ postal letter, phone call)

Getting two or more reminders (text message, e-mail, postcard/postal letter, phone call)

Home test kit (mail- in sample)

3. What are the top two ways you feel people would like to be reminded about getting retested? (Circle two)

Text message

Phone call

Postcard/postal letter

E-mail

Other \_\_\_\_\_

WCU-IRB  
APPROVED 5-8-14  
GOOD THRU 4-11-15

4. What do you feel keeps people from being tested/retested? (The interviewee will receive cards for each of the following options and then be asked to rank them from the highest to the lowest likelihood.)

Fear

Lack of knowledge

Cost

Long waiting times

Inconvenient clinic hours




Judgment by clinic staff

Stigmas associated with STDs

WSU-IRB

APPROVED 6.8.14  
COMPLETED 4.11.15

## Appendix B – Public Health – Dayton &amp; Montgomery County IRB Approval

 <b>Public Health</b> <small>Prevent. Promote. Protect.</small>	<b>Dayton &amp; Montgomery County</b>
<b>Reibold Building</b> 117 South Main Street Dayton, Ohio 45422 937-225-4395 Voice 937-496-3070 Fax	May 8, 2014
<b>Health Commissioner</b> James W. Gross, M.P.H.	Michelle Bellando 3748 E. Patterson Rd., Apt F Beavercreek, OH 45430
<b>Assistant to the Health Commissioner</b> Jeffrey A. Cooper, M.S.	Dear Ms. Bellando
<b>Medical Director</b> Thomas Herchline, M.D.	IRB #: 2014.05.08
<b>Board of Health</b> <i>President</i> Patricia S. Meadows, MSSW <i>President Elect</i> Emmett Orr, M.P.A.  Lloyd L. Laubach, Ph.D. Jan Lepore-Jentleson Gary L. LeRoy, M.D. David Page, M.D. John E. Rhodes, D.D.S. J. Michael Sims Ken Spires	Title of Proposal: Increasing Chlamydia Retesting Rates in STD Clinics
<b>Equal Opportunity Employer/Service Provider</b>	<p>The Public Health-Dayton &amp; Montgomery County (PHDMC) Research Review Panel has reviewed and accepted your research project. You have been approved to conduct this study for one calendar year beginning May 8, 2014. Projects must be conducted in full accordance with the guidelines of Public Health-Dayton &amp; Montgomery County (PHDMC).</p> <p>Annually, <b>OR</b> when the project is completed, a project report must be submitted. For any research activity which continues beyond one year after the approval start date, project status reports will be requested by the PHDMC Research Review Panel. Any significant change in procedure, research participants or plans to publish not addressed in the original project application must be reviewed and approved prior to implementation.</p> <p>A confidentiality agreement must be signed by all research participants prior to the execution of any research activities. This agreement and any other signed documents will be kept by the PHDMC Research Review Panel for at least three years past completion of the research project.</p> <p>Thank you for considering Public Health-Dayton &amp; Montgomery County as an agency to assist you in your pursuit of scientific exploration. We look forward to working with you.</p>
	<p>Sincerely,</p>  James W. Gross, MPH Health Commissioner

## Appendix C – List of Competencies Met in CE

### Tier 1 Core Public Health Competencies

Domain #1: Analytic/Assessment
Use variables that measure public health conditions
Use methods and instruments for collecting valid and reliable quantitative and qualitative data
Adhere to ethical principles in the collection, maintenance, use, and dissemination of data and information
Collect quantitative and qualitative community data (e.g., risks and benefits to the community, health and resource needs)
Use information technology to collect, store, and retrieve data
Domain #2: Policy Development and Program Planning
N/A
Domain #3: Communication
Identify the health literacy of populations served
Communicate in writing and orally, in person, and through electronic means, with linguistic and cultural proficiency
Apply communication and group dynamic strategies (e.g., principled negotiation, conflict resolution, active listening, risk communication) in interactions with individuals and groups
Domain #4: Cultural Competency
Incorporate strategies for interacting with persons from diverse backgrounds (e.g., cultural, socioeconomic, educational, racial, gender, age, ethnic, sexual orientation, professional, religious affiliation, mental and physical capabilities)
Recognize the role of cultural, social, and behavioral factors in the accessibility, availability, acceptability and delivery of public health services
Domain #5: Community Dimensions of Practice
Collaborate with community partners to promote the health of the population
Domain #6: Public Health Sciences
Describe the scientific evidence related to a public health issue, concern, or, intervention
Retrieve scientific evidence from a variety of text and electronic sources
Discuss the limitations of research findings (e.g., limitations of data sources, importance of observations and interrelationships)
Domain #7: Financial Planning and Management
N/A
Domain #8: Leadership and Systems Thinking
Use individual, team and organizational learning opportunities for personal and professional development

### Public Health Management Concentration Competencies

Be capable of applying communication and group dynamic strategies to individual and group interaction
Know effective communication strategies used by health service organizations
Be capable of applying decision-making processes
Know strategies for promoting teamwork for enhanced efficiency
Have an understanding of effective mentoring methods
A knowledge of ethical principles relative to data collection, usage, and reporting results
An awareness of ethical standards related to management
A knowledge of ethical standards for program development