Screening for Chlamydia, Gonorrhea, and High-Risk Sexual Behaviors in Utah's Juvenile Justice Population: Results and Implications for Practice

Jennifer M. Clifton, DNP, FNP-BC, CNE, CCHP

ABSTRACT

Compared with adults, sexually active adolescents are at higher risk of acquiring chlamydia and gonorrhea (CT/GC). Additionally, sex trafficking and sexual violence are serious public health problems. Before this project, no data on the sexual behaviors of adolescents within Utah's Juvenile Justice System had been gathered in a systematic manner that provided a population-based perspective.

From July 1, 2015, through December 30, 2016, nurses and staff in 18 Utah Juvenile Justice facilities screened all youth admitted to their facilities. For youth who met Centers for Disease Control and Prevention high risk criteria, urine screening for CT/GC was performed. We have screened 1,968 youth and detected 229 asymptomatic infections, with a treatment rate of 90%. Furthermore, we are able to map the location, sex, and age of youth in Utah participating in high-risk behaviors. We are connecting with experts to bring targeted interventions to these youth based on our findings.

J Pediatr Health Care. (2018) ■■, ■■-■■.

KEY WORDS

Adolescent, chlamydia, gonorrhea, juvenile justice, high-risk behaviors

INTRODUCTION

Participating in high-risk sexual behaviors can result in unintended health outcomes for many youth (Centers for Disease Control and Prevention [CDC], 2017a). Compared with older adults, sexually active adolescents aged 15 through 19 years and young adults aged 20 through 24 years are at higher risk of acquiring sexually transmitted diseases for a combination of behavioral, biological, and cultural reasons (CDC, 2017b). Chlamydia (CT) is the most commonly reported notifiable sexually transmitted disease in the United States (CDC, 2015a). In Utah, over 60% of reported CT cases are among persons 15 through 24 years of age (Utah Department of Health, 2017a). Gonorrhea (GC), though much less common, is also of particular concern because of its rising prevalence in the state, the severity of its sequelae, and its increasing drug resistance (Utah Department of Health, 2017b). Left untreated, both infections may cause pelvic inflammatory disease, potentially leading to infertility. Additionally, susceptibility to more serious infections such as HIV increases when an individual is infected with CT or GC. Finally, pregnant women can pass both infections to their infants during birth, resulting in neonatal pneumonia (CT) and neonatal ophthalmia (Alger, Lovchik, Heel, Blackmon, & Crenshaw, 1988; Andrews et al., 2000).

Jennifer M. Clifton, Assistant Professor, University of Utah College of Nursing, Salt Lake City, UT.

Conflicts of interest: None to report.

Correspondence: Jennifer M. Clifton, DNP, FNP-BC, CNE, CCHP; e-mail: jennifer.clifton@nurs.utah.edu

0891-5245/$36.00

https://doi.org/10.1016/j.pedhc.2017.12.008

Youth in the correctional system are a high-risk population with many unmet physical and mental health needs (American Academy of Pediatrics [AAP], 2011). Admission to a correctional facility offers a prime opportunity to screen for medical concerns, including the largely asymptomatic sexually transmitted infections CT and GC. According to the CDC, "Prevalence rates for chlamydia and gonorrhea in the correctional setting are consistently among the highest observed in any venue" (CDC, 2011, para. 1).

Admission to a correctional facility offers a prime opportunity to screen for medical concerns, including the largely asymptomatic sexually transmitted infections CT and GC.

Additionally, domestic minor sex trafficking (DMST) and sexual violence are serious public health problems, placing a toll on the well-being of individuals, families, and communities (CDC, 2017c). Justice-involved youth are at high risk for sex trafficking (Office on Trafficking in Persons, 2017). The National Center for Missing and Exploited Children estimates that 1 in 6 runaways are likely sex-trafficking victims (National Center for Missing and Exploited Children, 2017a). Youth are still arrested for prostitution in some areas, although this is beginning to change (Mitchell, Finkelhor, & Wolak, 2010). One study in Ohio found that 21% of DMST victims had spent time in juvenile detention (Williamson, Perdue, Belton, & Burns, 2012). Consequences of DMST include chronic physical and psychological trauma, disease, and potentially death (National Center for Missing and Exploited Children, 2017b). National estimates on the frequency of DMST vary widely. Furthermore, these youth experience sexual violence at a higher rate than their peers in the community at large (AAP, 2011). Nationally, 6.7% of youth report ever having been physically forced to have sexual intercourse (CDC, 2016). Similar to DMST, sexual violence can lead to a host of physical, psychological, and social problems, including engaging in other high-risk behaviors such as drug use and criminal behavior (CDC, 2017c). Before the project described here, to my knowledge no data on the risky sexual behaviors of adolescents within Utah's Juvenile Justice System (UJJS) had been gathered in a systematic manner that provided a population-based perspective. The goals of this project were to do the following:

- educate youth by creating one-on-one time with a nurse who had been specifically trained to discuss sexual health;
- create an efficient system of data collection to learn the prevalence of CT/GC and other high-risk behaviors among UJJS youth;
- confidentially treat youth infected with either CT, GC, or both;
- minimize the impact of CT/GC by diagnosing and treating the infection in an asymptomatic state;
- decrease the prevalence of CT/GC in this population and the local communities; and
- learn the frequency and distribution of high-risk behaviors among the youth in the UJJS.

METHODS

This program encompassed 18 residential UJJS facilities throughout Utah. It included only residential programs with a nurse on site, and location or age were not barriers. Ages ranged from 12 through 21 years. Inclusion criteria were every youth admitted to a UJJS facility. Excluded were boys who reported no sexual activity. These youth were deemed to be at lowest risk and were excluded because of the financial limitations of the project. Further demographics are presented in Table 1. Each facility received supplies for screening, supplies for shipping the urine specimen, and medication for treatment. The project coordinator created a verbal screening tool using CDC- and UJJS-specific criteria. Urine screening would be offered to

- all females and transgender youth admitted to JJS, unless there was a record of previous screening within the prior 3 months and
- all males who were sexually active with two or more people or had sex with one person but who answered *yes* to the high-risk behavior Questions 2, 3, and 4 (again, unless they were tested within the prior 3 months).

The 3-month time frame was chosen based on the CDC recommendation for screening high-risk individuals (CDC, 2017d). Information obtained beyond the number of sexual encounters was behavior oriented, using questions about topics such as condom use, sex with someone not well known, forced sexual activity, and DMST.

All urine specimens were mailed to the state laboratory. The individual facility nurse and the project coordinator both received the results. The project coordinator entered results into the database for analysis. A nurse practitioner ordered treatment based on CDC guidelines and allergy limitations, and the medication was administered by the facility nurse. If a youth had been discharged from a facility before positive results being known, the health department was notified. Youth participating in risky behaviors were counseled on healthy behaviors by the facility nurses, who were trained in interviewing techniques and STI facts by the project manager. The project manager pro-

TABLE 1. Demographics

Demographic	*n* (%)
STI test result	
Chlamydia positive	203 (10.3)
Gonorrhea positive	14 (0.7)
Both positive	12 (0.6)
Negative	1,743 (88.5)
Sex	
Male	1,161 (58.9)
Female	805 (40.1)
Transgender	2 (0.1)
Race	
White	1,022 (51.9)
African American/Black	163 (8.3)
American Indian	111 (5.6)
Asian	25 (1.3)
Native American/Pacific Islander	44 (2.2)
Unknown/did not answer	603 (30.6)
Ethnicity	
Hispanic or Latino	520 (26.4)
Not Hispanic or Latino	627 (31.9)
Did not answer	821 (41.7)

Note. *N = 1,968. STI, sexually transmitted infection.*

vided counseling to all nurses based on CDC and state health department educational guidelines (CDC, 2015b). Youth who reported exchanging sex for something needed and those who were forced to have sex were reported to Child Protective Services.

Six research questions were identified and hypotheses were generated. The first four questions were focused on demographic data, and the last two were focused on high-risk behaviors.

1. Will UJJS rates of CT and GC mirror the rates of the overall population of Utah?

Hypothesis 1 The rates of CT and GC among UJJS youth will be roughly proportionate to the rate of CT and GC in Utah relative to the national averages.

2. Will age positively correlate with increasing infection rates?

Hypothesis 2 Reflecting national trends (CDC, 2017a), youth 15 to 19 years old will have a higher infection rate than those aged 14 years or younger but a lower infection rate than those aged 20 years or older.

3. Will the rates of CT and GC infection be different between rural and urban youth?

Hypothesis 3 Urban youth will have a higher rate of infection than rural youth.

4. Will females have a higher rate of STIs than males?

Hypothesis 4 Reflecting national trends (CDC, 2017a), female adolescents will have a higher rate of both CT and GC than male adolescents.

5. Will self-reported condom use correlate with a decrease in infection?

Hypothesis 5 Youth who use condoms *always* or *sometimes* will have a lower infection rate than those who never use condoms.

6. Does engaging in a high-risk behavior affect the rate of CT/GC among the UJJS population?

Hypothesis 6 Youth who participate in a high-risk behavior will have a higher-than-average rate of CT/GC.

RESULTS

This study covered 18 months of data from this project. Within this period, college of nursing and UJJS nurses and staff administered urine screening to 1,956 youth, with 162 positive results for CT, GC, or both. This represents an overall positivity rate of 8.29%. The UJJS and local health department collaboration resulted in a 90% treatment rate.

The reasoning for the less-than-100% treatment rate is discussed in the Barriers section, below. Data gathered on high-risk sexual behaviors are presented in Table 2. Analysis of the six hypotheses resulted in the following:

1. For all categories, rates for females were well above expected rates, whereas rates for males were well below.

Hypothesis 1 Not supported (Table 3)

2. Youth 14 years old or younger had a CT/GC infection rate of 3.92%, youth 15 through 19 years

TABLE 2. Sexual risk behavior statistics

Behavior	*n* (%)
Condom use	
Yes	1,072 (54.5)
Always	582 (54.3)
Sometimes	490 (45.7)
No	421 (21.4)
Did not answer	475 (24.1)
Intercourse with partner not well known	
Yes	432 (22.0)
No	1,318 (67.0)
Intercourse that was forced	
Yes	128 (6.5)
No	1,593 (80.9)
Intercourse for drugs, money, or other	
Yes	67 (3.4)
No	1,613 (82.0)

Note. *N = 1,968.*

TABLE 3. Hypothesis 1: A comparison of Utah rates with national rates of CT and GC among youth ages 12 through 18 years in the general public and in the correctional system

Hypothesis	Sex	National	Utah
Chlamydia Hypothesis 1: Males in Utah's correctional system will have a CT positivity rate roughly 75% of the national average, and females in Utah's correctional system will have a CT positivity rate roughly 55% of the national average, reflecting Utah's overall CT burden (general public) compared with the national average	Males	Among males entering 118 juvenile corrections facilities in 2011, the overall CT positivity rate was 7.4%.	Among males entering Utah's JJS facilities in FY 2016, the overall CT positivity was 3.2% (43.2% of the national average).
	Females	Among females entering 63 juvenile corrections facilities, the overall CT positivity rate was 15.7%.	Among females entering Utah's JJS facilities, the overall CT positivity rate was 13.4% (85.4% of the national average).
Gonorrhea Hypothesis 1: Males in Utah's correctional system will have a GC positivity rate roughly 31% of the national average, and females in Utah's correctional system will have a GC positivity rate roughly 18% of the national average, reflecting Utah's overall GC burden (general public) compared with the national average.	Males	Among males entering 115 juvenile corrections facilities in 2011, the overall GC positivity rate was 1.2%.	Among males entering Utah's JJS facilities in FY 2016, the overall GC positivity rate was 0.2% (16.7% of the national average).
	Females	Among females entering 57 juvenile corrections facilities in 2011 the overall gonorrhea positivity rate was 4.4%.	Among females entering Utah's JJS facilities in FY 2016, the overall gonorrhea positivity rate was 2.5% (56.8% of the national average).
Analysis	Hypothesis 1 was not supported by males or females in Utah's JJS. The rates of CT and GC among males were far less than expected and the rates of CT and GC among females were far greater than expected.		

Note. *These results may be slightly different from the Utah JJS overall results. Data from the Utah JJS project for Hypothesis 1 analysis were taken only from youth within the same age parameters as the CDC data, 12 through 18 years of age. Source: CDC, 2011, 2015. CT, chlamydia; FY, fiscal year; JJS, Juvenile Justice System; GC, gonorrhea.*

old had a CT/GC positivity rate of 8.35%, and youth aged 19 years or older had a rate of 22.22%.

Hypothesis 2 Supported

3. A total of 1,477 urban youth were screened; 133 had positive results, for a rate of 9.02%. A total of 478 rural youth were screened; 29 had positive results, for a rate of 6.03%.

Hypothesis 3 Supported

4. For CT, the infection rate among females was 10.89%, and the rate among males was 2.26%. For GC, the infection rate among females was 1.63%, and the rate among males was 0.09%.

Hypothesis 4 Supported

5. Youth who reported using condoms *always* or *sometimes* had a CT/GC infection rate of 5.99%. Youth who reported *never* using condoms had a CT/GC infection rate of 13.08%.

Hypothesis 5 Supported

6. Youth who reported one or more risk factors had a CT/GC rate of 9.92%. Youth who reported having had "sex with someone not well known" had a positivity rate of 6.63%. Youth who reported having had "forced sex" had a positivity rate of 18.49%. Youth who reported trafficking behaviors had a positivity rate of 16.67%.

Hypothesis 6 Supported

DISCUSSION

Five out of the six hypotheses were supported by this project. The speculated rates of infection for both males and females were flawed; our estimates for the rate of CT and GC among males were too high and our estimates for the rate of CT and GC among females was too low. Rates for both male and female youth in Utah were well below the national averages; however, given the recent increase in CT throughout the United States, most significantly in the West (CDC, 2017b), aggressive screening of this population remains imperative. Although adolescent females consistently have a higher rate of CT and GC, the gap was wider than anticipated when compared with the Utah population as a whole. We speculate that this incongruence may be explained by any or all of three factors: small sample size, age of partners, and high-risk behavior. Boys are overrepresented in the UJJS population, making up 67% of the sample (937 males vs. 452 females). Also, given that in Utah, those in the 20- through 24-year age range make up the group with the highest rate of CT/GC infection, it is postulated that UJJS-involved females are more often having sex with older partners than with their peers in the community. Since these data were

captured, we have begun collecting more specific data on the ages of sexual partners. Finally, the highest rates of STIs are found among those who report forced-sex and sexual-trafficking behaviors. Females are overwhelmingly more likely to report these behaviors (forced sex reported by 19 males and 109 females; sex trafficking reported by 23 males and 44 females). It is postulated that UJJS-involved females encounter forced sex or trafficking more frequently than their community peers. Because increased age was correlated with increased infection, we initially postulated that perhaps the females admitted to UJJS facilities were older than the males; however, data provided by UJJS showed the mean age of females to be the same as or lower than that of their male peers, varying by setting (DeWitt, personal communication, August 2017).

Reflecting on the goals of this project, Goals 1 and 2 (to educate youth by creating one-on-one time with a nurse who had been specifically trained to discuss sexual health and to create an efficient system of data collection to learn the prevalence of CT/GC and other high-risk behaviors among UJJS youth) were unequivocally met; however, any lasting benefit to one-on-one nurse-to-youth education time has not been evaluated. Goal 3 (to confidentially treat youth infected with CT, GC, or both) was met for most of the youth served. Maintaining solutions of the barriers to treatment is essential. Although it is too early to measure Goal 4 (to minimize the impact of CT/GC by diagnosing and treating the infection in an asymptomatic state), untreated CT and GC have been shown to be major causes of pelvic inflammatory disease and infertility (Alger et al., 1988; Andrews et al., 2000). There is no reason to believe that this population is any different from the population at large in this respect. With regard to Goal 5 (to decrease the prevalence of CT/GC in this population and the local communities), it is too early to assess the overall impact of this screening and treatment program among the youth of JJS and the local communities. Finally, in connection with Goal 6, data showing the locales and other demographics of individual high-risk behaviors has been generated.

Limitations and Barriers

One limitation to this project is the limited screening parameters on the males entering a UJJS facility. It was decided to create this limitation because of a finite amount of financing for this project and a calculation of the number of tests that could be performed compared with the number of youth admitted annually. In retrospect, all males, regardless of reported sexual activity status, could have been screened with the provided funding; therefore, the screening parameters were changed at the 18-month mark (beyond the scope of this study) so that female and male screenings were equivalent.

A second limitation of this study was the data collection method. Initially, two different methods of data collection were used: self-reporting and inquiry by nurses. We postulated that the nurses querying the youth would create time for discussion and education; however, in some settings, the nurse had very limited hours available and was not always present when a youth was admitted. In these cases, a youth self-survey was created, written at the fifth-grade reading level. In this 18-month portion of the project, approximately two thirds of the youth were screened verbally by a nurse, and one third took the self-survey. Using two different data collection methods was identified as a limitation because of inconsistencies for two reasons. First, despite preproject education, facility nurses showed differing abilities for providing youth with STI-related education and had differing skill levels related to interviewing. Second, past studies have shown that adolescents have a high level of honesty in self-administered questionnaires (Siegel, Aten, & Roghmann, 1998); the same has not been shown for nurse-administered questionnaires. At the 2-year mark of this project, data collection became uniform throughout all facilities. All surveys became self-administered, and one-on-one education was postponed until a nurse had an opportunity to review the survey.

A third limitation was the method of sample collection. Only urine samples were collected; no oral or anal swabs were part of this study. Swabbing both the mouth and the anus is necessary to detect infections in these locations; however, UJJS administration would not allow this mode of screening. Additionally, funding was a concern. After consultation with the state epidemiologist, it was decided that rather than argue for this screening, funds would be best used by expanding urine screening to justice-involved youth residing in their homes (as opposed to a residing in a facility). Nurses were educated on STIs beyond those screened for in this project, and reference posters and handouts were available for youth who wanted further screening. Additionally, these tests could be ordered on an individual basis if deemed medically necessary.

Nurses were educated on STIs beyond those screened for in this project, and reference posters and handouts were available for youth who wanted further screening.

An early barrier to treatment was the rapid release of youth from UJJS facilities compared with screening turnaround time. Program coordinators managed this in three ways.

- Nurses were encouraged to mail specimens as quickly as possible, even if the shipping container contained only one specimen. Initially, many nurses wanted to save postage and delayed mailing samples.
- If the youth would permit phone notification, he or she was asked to provide a confidential phone number at the time of screening.
- A watchlist of youth who were released before treatment was e-mailed to UJJS facility nurses biweekly. If a youth on the list was admitted to any facility in the UJJS system, the nurse was able to contact the program coordinator for a diagnosis, and treatment was provided without retesting.

As a result of these actions, treatment rates rose from approximately 70% in the first quarter to over 95% by the end of the fourth quarter.

Barriers to accurately collecting self-identified race data were noted early in the program. Efforts to educate nurses were moderately successful; however, in many cases, the youth filled out the form without a nurse's guidance, so this intervention had limited results. Anecdotally, the biggest barrier seemed to be that Hispanic youth perceived their ethnicity to be their race and rejected the options provided for race (i.e., did not consider themselves White).

CONCLUSION

Given that youth in corrections are more likely than the general population to have inadequate and inconsistent health care (AAP, 2011), screening for and treating STIs and addressing other medical issues must be a priority of the medical staff within JJS facilities. Screening on intake for CT and GC offers an opportunity to identify infections, prevent complications, and reduce transmission to the broader community. Furthermore, screening provides a time for data collection on high-risk behaviors that can be addressed through intervention and education.

Screening provides a time for data collection on high-risk behaviors that can be addressed through intervention and education.

Implications for Next Steps and Future Study

This program will continue to screen for and treat CT/GC among youth entering a JJS facility in Utah for the foreseeable future. A next step will be to move this screening beyond incarcerated youth to those involved in the JJS residing in the community. Another next step is to work with local and national experts and resources to create evidenced-based, youth-centric interventions. Movement toward both of these goals has begun. Nurses are holding clinic time for CT/GC screening in the offices of caseworkers throughout the state. Additionally, the author is working closely with the Utah Trafficking in Persons Juvenile Subcommittee, which has the mission of coordinating and standardizing care for trafficked youth throughout the state. Another next step that has recently been initiated is the addition of further questions to more precisely identify behaviors, particularly those behaviors that relate to sexual violence against these youth. Targeted educational programs on the topics of STI prevention and sexual violence are also goals for the program. A longitudinal study to assess effects of the education on risky sexual behavior is also warranted.

I would like to acknowledge the nurses and staff of the Utah Juvenile Justice Services group, particularly LouAnn Hill, LPN, as well as University of Utah/College of Nursing statistician Andrew Wilson, PhD, MStat.

REFERENCES

Alger, L. S., Lovchik, J. C., Heel, J. R., Blackmon, L. R., & Crenshaw, M. C. (1988). The association of *Chlamydia trachomatis, Neisseria gonorrhoeae,* and group B streptococci with preterm rupture of the membranes and pregnancy outcome. *American Journal of Obstetrics and Gynecology*, *159*, 397–404.

American Academy of Pediatrics. (2011). Health care for children and adolescents in the juvenile correctional care system. *Pediatrics*, *7*, 799–803.

Andrews, W. W., Goldenberg, R. L., Mercer, B., Iams, J., Meis, P., Moawad, A., … McNellis, D. (2000). The Preterm Prediction Study: Association of second-trimester genitourinary Chlamydia infection with subsequent spontaneous preterm birth. *American Journal of Obstetrics and Gynecology*, *183*, 662–668.

Centers for Disease Control and Prevention. (2011). *2011 sexually transmitted diseases surveillance: STDs in persons entering corrections facilities*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/std/stats11/corrections.htm

Centers for Disease Control and Prevention. (2015a). *2015 sexually transmitted diseases surveillance*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/std/stats15/

Centers for Disease Control and Prevention. (2015b). *Taking a sexual history: STD treatment guide*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/std/treatment/sexualhistory.pdf

Centers for Disease Control and Prevention. (2016). *High school YRBS: United States 2015 results*. Atlanta, GA: Author. Retrieved from https://nccd.cdc.gov/youthonline/app/Results.aspx?LID=XX

Centers for Disease Control and Prevention. (2017a). *Adolescent and school health: Sexual risk behaviors: HIV, STD and teen pregnancy*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/healthyyouth/sexualbehaviors/index.htm

Centers for Disease Control and Prevention. (2017b). *2016 sexually transmitted diseases surveillance: Chlamydia*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/std/stats16/chlamydia.htm

Centers for Disease Control and Prevention. (2017c). *Sexual violence: Consequences*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html

Centers for Disease Control and Prevention (2017d). *Sexually transmitted disease: STD & HIV screening recommendations*. Atlanta, GA: Author. Retrieved from https://www.cdc.gov/std/prevention/screeningreccs.htm

Mitchell, K. J., Finkelhor, D., & Wolak, J. (2010). Conceptualizing juvenile prostitution as child maltreatment: Findings from the National Juvenile Prostitution Study. *Child Maltreatment*, *15*, 18–35.

National Center for Missing and Exploited Children. (2017a). *Child sex trafficking*. Alexandria, VA: Author. Retrieved from www.missingkids.org/1in6

National Center for Missing and Exploited Children. (2017b). *Child sex trafficking*. Alexandria, VA: Author. Retrieved from www.missingkids.com/CSTT

Office on Trafficking in Persons. (2017). *What is human trafficking?* Washington, DC: U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/otip/about/what-is-human-trafficking

Siegel, D. M., Aten, M. J., & Roghmann, K. J. (1998). Self-reported honesty among middle and high school students responding to a sexual behavior questionnaire. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, *23*, 20–28.

Utah Department of Health. (2017a). *Public health indicator based information system: Health indicator report of Chlamydia cases*. Salt Lake City, UT: Author. Retrieved from https://ibis.health.utah.gov/indicator/view/ChlamCas.AgeSex.html

Utah Department of Health. (2017b). *Public health indicator based information system: Health indicator report of Gonorrhea cases*. Salt Lake City, UT: Author. Retrieved from https://ibis.health.utah.gov/indicator/view/GonCas.AgeSex.html

Williamson, C., Perdue, T., Belton, L., & Burns, O. (2012). *Domestic sex trafficking in Ohio: Research and Analysis Sub-Committee, Ohio Human Trafficking Commission*. Retrieved from www.ohioattorneygeneral.gov/getattachment/1bc0e815-71b6-43f5-ba45-c667840d4a93/2012-Domestic-Sex-Trafficking-in-Ohio-Report.aspx