Decreasing Unintended Adolescent Pregnancy in Oswego County:
Emergency Contraception in High Schools

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Unintended pregnancies are a reproductive health issue not only in the United State, but worldwide (Harper, Cheong, Darney, Ranie, 2005; Saikia, Lama, 2011). When compared to other industrialized countries, the United States has the highest rate of unintended pregnancies, as well as a higher teen pregnancy rate (Harper et al., 2005; Kavanaugh, Shwartz, 2008; Ahern, Frattarelli, Delto, Kaneshiro, 2010). Each year, about half of all pregnancies in the US are unintended (guttmacher.org, Dalby, Hayon Paddock, Schrager, 2012). It is thought that, on average, an American woman will spend more than 30 years of her life trying to avoid an unintended pregnancy (Dalby et al., 2012; guttmacher.org). During those 30 years, a woman is at highest risk for an unintended pregnancy before she is 25, if she has less than a high school education and a low-income (guttmacher.org, Kavanaugh et al., 2008). Sexually active teens have an unintended pregnancy rate that is twice as high as all other women in the US (Guttmacher.org). Most adolescent pregnancies are unintended (Harper et al., 2005).

Serious consequences are associated with adolescent pregnancy. Teens that have children are less likely to finish high school, have a lower income potential and a higher likelihood to depend on public welfare assistance. These circumstances are linked to having larger families and thus an increased financial burden on the mother and society at large (Johnson, Nshom, Nye &Cohall, 2010; Ahern et al., 2010). The cost of adolescent pregnancy in the U.S. is estimated to be $9.1 billion every year (Ahern et al., 2010). It is also well known that adolescent pregnancy can be psychologically distressing (Saiki et al., 2011). These consequences can affect the mother’s and the child’s life.

Two-thirds of U.S. women at risk for unintended pregnancy use a form of contraception consistently and correctly and account for about 5% of all unintended pregnancies. The 19% who use contraception inconsistently or incorrectly account for 43% of all unintended
pregnancies. Women who do not use contraception at all for a month or more during a year account for 52% of all unintended pregnancies (Guttmacher.org). Of the more than 800,000 adolescent pregnancies each year, more than three-fourths of them are unintended (McCarthy, Telljohann, Coventry, Price, 2005; Trussell, Stewart, Guest, Hatcher, 1992; Sidebottom, Harrison, Amidon, Finnegan, 2008). It has been reported that high school students’ failure to use any method of contraception accounts for 46% of their pregnancy risk and contraceptive failure accounts for 54% (Sidebottom et al., 2008).

Although adolescent pregnancy rates have declined in the U.S. over the last decade, the same cannot be said for New York State or Oswego County (Harper et al., 2005; Oswego County Health Assessment, 2013). In 2008, New York was ranked the sixth highest among all other states for unintended pregnancies and 18th for teen pregnancies (guttmacher.org, hhs.gov). In 2011, New York had 13,898 births to females under the age of 20 (hhs.gov). Oswego County has close to 200 teenage pregnancies in 2006 and the rate has been on the rise since then (Oswego County Health Assessment, 2013). Because of adolescent female’s high risk for unintended pregnancy, they are ideal candidates for emergency contraception (EC) (McCarthy et al., 2005). With use of EC, most unintended pregnancies could be prevented (Dalby et al., 2012; Johnson et al., 2010; Saikia et al., 2011; Trussell et al., 1992). Accessibility to EC is critical to reducing adolescent unintended pregnancy rates (Sidebottom et al., 2008).

Emergency Contraceptives are pregnancy prevention methods that can be used after unprotected sex (McCarthy et al., 2005). Plan B One-Step tablets are pills containing levonorgestrel (0.75 mg), a female hormone that prevents ovulation. Plan B was approved by the Food and Drug Administration more than a decade ago. It was given non-prescription status for people 18 years of age and older in 2007 and then in 2009, was made available to anyone 17
years of age (Ahern et al., 2010). In 2013, all age restrictions were lifted. Plan B One Step is a safe and effective emergency contraceptive pill. It works for up to five days after unprotected sex but is most effective up to two days after (Dalby et al., 2012).

There are many barriers and misconceptions preventing the use of EC, making it described as America’s best kept secret (Ahern et al., 2010). Awareness of EC is lacking among those most at risk for unintended pregnancies (Johnson et al., 2010). There is a lower rate of EC awareness in adolescents than had been report in adults (Ahern et al., 2010). Coupled with this lack of awareness is the lack of knowledge about EC and its mechanisms (Johnson et al., 2010). Even if people are aware that EC exists, they are unsure how it works and how to get it. Due to a lack of knowledge about EC, some think it is an abortifacient (Ahern et al., 2010; Dalby et al., 2012; Johnson et al., 2010). EC works by preventing ovulation, stopping contraception. It also does not harm an existing pregnancy. There are little to no side effects when taken properly (Saikia et al., 2011).

Age, confidentiality and location have been noted to be barriers to the use of EC (Harper et al., 2005; Johnson et al., 2010). Age as a restriction has been eliminated. Confidentiality has become less of an issue due to the availability without a prescription over the counter, meaning parents will not be notified of the purchase. Location can be critical in the use of EC due to the time limitations of the method. Getting EC close to those at high-risk for unintended pregnancy is important. Use of EC has been compared to the use of a fire extinguisher. It may be most useful if stored when the need may arise (Saikia et al., 2011).

Lack of insurance was once a barrier to the use of EC, but now that EC is available over-the-counter, that restriction has been eliminated. Another barrier to the use of EC is the monetary cost (Johnson et al., 2010). Although it is available over-the-counter, it can cost up to $60. This
is an amount of money that not all adolescents have at their disposal. Due to the legislation passed by congress, Plan B One Step is the only form that is available over-the-counter without age restrictions. This has been described as a monopoly of the market. It is a goal of EC advocates to have less expensive, generic forms available without restrictions (Weiss, 2013).

It is of concern that increased availability of EC will increase sexually risky behaviors, tempting adolescents to have more unprotected sex (Harper et al., 2005, Sidebottom et al., 2008). A recent study of 2,117 young women in the U.S. reported that sexual behavior did not become more risky with increased access to EC. This was true whether it was from direct pharmacy access or advanced provision of three packets (Harper et al., 2005). Because sexual intercourse among adolescents is often unanticipated and unprotected, making EC easily available to this high-risk population is important. EC is particularly suited to adolescents because of their patterns of sexual behavior and contraceptive use. Sexual intercourse among teens is characterized as unplanned and infrequent. Due to these characteristics, teens are unprepared to use any contraceptive method (Saikia et al., 2011). Consider this situation: A female has a monogamous partner and she may use oral contraceptive effectively during the relationship but discontinue when the relationship ends. When she starts a new relationship she may be unprepared and use no method (Saikia et al., 2011).

Sidebottom et al. (2008) reported that condom use and hormonal methods were both problematic for the high school population they studied. When asked the reasons why students needed EC the answers were; unprotected sex, condom failure, and hormonal misuse (Sidebottom et al., 2008). Because of these results, the authors suggested that it may be that hormonal methods seem “overly burdensome or unnecessary when sexual activity is infrequent or sporadic” (Sidebottom et al., 2008 p263). They go on to state that “Whatever the reasons, EC
appears to fill a critical need for some adolescents” (Sidebottom et al., 2008 p263). An analysis of the research done by Weaver et al (2009) found that most of the studies they looked at provided evidence that increasing access to EC encourages both more frequent and more prompt use of EC after unprotected sex. Unwanted teen pregnancy rates could be significantly decreased among high-risk populations with widespread awareness and use of hormonal birth control options, coupled with access to EC (Johnson et al., 2010).

The evaluation of a pregnancy prevention program at a high school-based clinic reiterated the importance of individualized risk assessment and counseling as an essential part of a pregnancy prevention program. When considering the counseling aspect of a visit to get EC and the decision making process, a noteworthy insight regarding the evolution of students contraception use over time developed. Two-thirds of the females that received EC after unprotected sex eventually adopted a hormonal form of birth control. The visit to get EC can therefore impart benefits beyond immediate risk reduction (Sidebottom et al., 2008). The conversation had at this appointment may be the bridge to regular use of an appropriate contraceptive method (Trussell et al., 1992). Due to the anxiety over a possible pregnancy after unprotected sex, adolescent females may be more open to hearing about options that suit her sexual habits. This may be an optimal time to educate her about options regarding the initiation or reinstatement of hormonal methods of birth control (Sidebottom et al., 2008).

Oswego County Opportunities is a private, nonprofit human service agency in the Oswego County community that has existed since 1966. The agency’s mission statement reads, “OCO, Inc. builds partnerships that improve the quality of life and create successful communities.” Through the 50 or more programs implemented to accomplish this, it currently serves 30,000 people annually, assisting the homeless, disabled, youth, elderly and abused.
Crisis and Development Services is part of the Community Services department. The mission statement reads: "It is the mission of the Crisis and Development Services to create, sustain, provide, and advocate for programs that meet identified needs and help those we serve to be successful." The department is broken down into three branches: Prevention Services, Intervention Services and Comprehensive Care Management (oco.org).

Prevention Services specifically focuses mostly on the reproductive health of people in Oswego County. It consists of 4 programs: Health Education, SAF (Services to Aid Families) Education and Training, B-MEN (Men’s Batterer Accountability) and Outreach. This branch offers free condoms, sexual health education in schools and to the community, family planning services, parent workshops, sexual health counseling, free STI/HIV testing at clinics, and free pregnancy testing among others. Services can be reached and distributed through drop-in centers, OCO main offices, health educator cell phones, presentations at schools, community YMCA’s, posters, and tabling. Free transportation to clinics and health centers is offered as well.

Many of the programs through Prevention Services are targeted specifically at teens and sexual health. It provides a service in which teens can contact a Health Educator and set up an appointment to set up hormonal birth control (pill, patch, ring, long-acting reversible contraceptive) confidentially and without a cost. The Health Educator will then pick up that teen at a specified location if necessary and transport her to a clinic. They will also pick up and transport a teen to a store at which they can purchase emergency contraception.

Because EC is extremely time-sensitive it is critical to make access to it as easy and quick as possible. Although it is useful to have the Health Educators available to transport a teen, it is still a process that requires time. A Health Educator cannot take a teen out of school for this
purpose; therefore the teen must wait until after-school hours. Another consideration is that cell phones are not to be used in school, making it hard to find time to make this call. It may be that teens break this rule in school, but it should not be supported or encouraged. Also, a teen may not have a cell phone to use to make this call and perhaps would be too embarrassed to ask a friend to use theirs. This process is a barrier that has the potential of preventing a teen from receiving EC within the time frame that it is most effective (24-48 hours after unprotected sexual intercourse).

Emergency contraception is being offered at school-based clinics all over the country as part of pregnancy prevention strategies in cities including Denver, Colorado; Baltimore, Maryland; Multnomah County Oregon; Chicago, Illinois; Oakland, California; St. Paul, Minnesota; and New York. Specifically in Oswego County, EC is offered through school-based health clinics at Sandy Creek, Altmar-Parish-Williamstown and Pulaski school districts. This should be applied at all other Oswego County schools. To decrease unintended adolescent pregnancies in Oswego County, EC should be available in all Oswego County high schools.

Because Plan B One-Step is now available over-the-counter and without age restrictions, it seems as though it could be dispensed similarly to the way Tylenol or Aspirin is in schools. Although parental permission is still required for any form of medicine to be dispensed, schools in New York City are bypassing this regulation by using a waiver form. An “opt-out” form is sent home to parents to sign, stating that EC not to be dispensed to their child (Hartocollis, Bond, 2013).

In Oswego County high schools, Plan B One-Step will be available during regular school hours in the nurse’s office. The nurse will be trained by an OCO Health Educator about EC,
specifically Plan B One-Step. It will be available to females whose parents did not sign the Opt-Out form. The nurse will be trained by a Health Educator on sexual health, EC in general, Plan B One-Step specifically, hormonal birth control options and services that OCO offers. This information will be compiled into an information packet. The process will be as follows:

Proceeding EC being requested, a one-on-one counseling session about EC, hormonal birth control methods, OCO services and how to contact OCO will take place prior to dispensing the pill. The information packet will be given to the student. A survey (see Appendix B) will then be given to the student to take. This survey will be used to monitor the use of the program, collect general demographic data, knowledge of OCO services and satisfaction. After finishing the survey, Plan B One-Step will be dispensed. The student will be required to take the pill before leaving the nurse’s office.
## Methodology

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<thead>
<tr>
<th>Goal</th>
<th>Objective</th>
<th>Measure</th>
<th>Method</th>
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<tbody>
<tr>
<td>Implementation Goals:</td>
<td></td>
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<tr>
<td>Obtain permission from schools in Oswego County</td>
<td>Permission from the high schools in Oswego County</td>
<td>Signed contract to supply emergency contraception (EC) in nurse’s office</td>
<td>Check</td>
</tr>
<tr>
<td>Create and supply Information Package</td>
<td>Supply each school with the file containing the information package</td>
<td>Sent document via email</td>
<td>Check</td>
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<td>Print 50 for each school</td>
<td># printed</td>
<td>Count</td>
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<tr>
<td>Obtain Oswego County Opportunities’ (OCO) information (Posters, brochures, and information cards) to post in the office</td>
<td>In nurse’s office, have at least 2 posters, 4 different brochures pertaining to sexual health, and the appropriate information card to contact Health Education</td>
<td>Display in office</td>
<td>Check</td>
</tr>
<tr>
<td>Train school nurse to dispense EC and information package</td>
<td>OCO Health Educator will train each nurse</td>
<td>Health Educator’s records of completion</td>
<td>Check</td>
</tr>
<tr>
<td>Provide schools with EC</td>
<td>10 Plan-B One Step packets in the nurse’s office of each school every month</td>
<td>Monthly inventory</td>
<td>Count</td>
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<td>Let students know of service</td>
<td>Put up a flyer in the nurse’s office, the health educators office if one in the school, and any other support staff’s office. School counselors and health teachers are to make an announcement to students in classrooms and yearly meetings.</td>
<td>Displays in offices, curriculum and agenda of teachers and support staff</td>
<td>Check</td>
</tr>
<tr>
<td>Send home Opt-Out Form</td>
<td>Send to every high school female student’s address for parents to sign with return request (return envelope and stamp will be provided)</td>
<td>Checklist from school database</td>
<td>Check</td>
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<tr>
<td>Long Term:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Create awareness of OCO services</td>
<td>5 new students in each school contact OCO for services in a school year</td>
<td># from OCO online database (OSCAR)</td>
<td>Count</td>
</tr>
<tr>
<td>Recognize 8 of the 11 services provided by OCO in the questionnaire</td>
<td>Score on questionnaire</td>
<td>Post-Test</td>
<td></td>
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<tr>
<td><strong>Decrease unintended pregnancies among adolescent students in Oswego County</strong></td>
<td><strong>Get 20 pieces of information about OCO services directly to students each school year</strong></td>
<td><strong># of information packages, brochures, or information cards given to students each school year</strong></td>
<td>Count</td>
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<tr>
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<tr>
<td><strong>Short Term:</strong></td>
<td><strong>Decrease the adolescent pregnancy rate in Oswego County by 10% in 3 years</strong></td>
<td><strong>Data from Oswego County</strong></td>
<td>Pre-Post count</td>
</tr>
<tr>
<td><strong>Increase use of EC among adolescent students in Oswego County</strong></td>
<td><strong>Dispense EC 10 times each school year in each school</strong></td>
<td><strong># of times EC is dispensed (Nurse’s records)</strong></td>
<td>Count</td>
</tr>
<tr>
<td><strong>Students will be satisfied with information session</strong></td>
<td><strong>80% of students will indicate satisfaction</strong></td>
<td><strong>Score on questionnaire</strong></td>
<td>Post-Test</td>
</tr>
</tbody>
</table>
References


Appendix A

Impact Model

Brief Description and Purpose
Purpose Statement: To decrease unintended adolescent pregnancies through providing Emergency Contraceptive (EC) Plan B One-Step in Oswego County high schools.

Implementation Goals
- Obtain permission from all schools in Oswego County
- Create information package (EC, birth control in general, free services through OCO)
- Obtain OCO information posters, brochures and information cards to post in office
- Train school nurses to distribute EC and information package
- Provide schools with EC
- Let students know of service
- Send home Opt-Out form to parents

Intermediate Goals
- The school nurse will be available to provide EC during regular school hours
- EC will be available to female students whose parents did not sign the opt-out form
- Student and nurse will have a one-on-one counseling session about EC, birth control options, and services provided by OCO
- This information will also be given to the student in an information package by the nurse in the office before dispensing EC after the counseling session
- Survey will be taken before EC is dispensed that will be used as a monitor for the program, general demographics of population being served, as well as knowledge of OCO services (e.g., free birth control, free STI/HIV testing) and satisfaction
- EC will be taken in the nurse's office at the time it was dispensed to student
- Brochures, information cards, and information posters will be posted and available for students in the nurse's office on a table

Outcome Goals
Short Term:
- Increase use of emergency contraception among adolescents in Oswego County
- Student satisfaction with information session

Long Term:
- Decrease unintended pregnancies among adolescent students in Oswego County
- Create awareness about services provided by OCO in adolescent students
Appendix B

Oswego County Opportunities, Inc.
High School Nurse and Reproductive Health Education Program

Oswego County Opportunities would like your feedback about the services you received today and your knowledge regarding the services we offer to you regarding reproductive health. Your responses will help evaluate the program and make improvements. Your answers will be kept confidential and will be used by Oswego County Opportunities only.

Thank you for taking the time to fill out this questionnaire.

Please circle a response to each statement based on the experience you had at the nurse's office today.
1=Strongly Agree
2=Agree
3=Neutral
4=Disagree
5=Strongly Disagree

1. The nurse was available to request Emergency Contraception when I needed it.
   
   |   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |

2. The nurse answered all of my questions today.

   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |

3. I learned a lot of new information from the educational package I was given today.

   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |

4. I learned a lot of new information from the session I had with the nurse today.

   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |

5. I was comfortable in the nurse's office today.

   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |

6. I would like to speak with a Health Educator for more reproductive health information.

   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |

7. The services provided to me at the nurse's office today will be kept confidential.

   |   |   |   |
   | 1 | 2 | 3 | 4 | 5 |
Please indicate if the statements below are services provided by Oswego County Opportunities by circling a response.

OCO will...
7. Bring me to a clinic without my parents knowing to get birth control (pills, patch, ring).

Yes  Don't Know  No

8. Bring me to a clinic without my parents knowing to get a long-acting reversible contraceptive inserted.

Yes  Don't Know  No

9. Bring me to a clinic without my parents knowing to be tested for STI/HIV.

Yes  Don't Know  No

10. Help set me up with Family Planning Benefit Program.

Yes  Don't Know  No

11. Supply me with free condoms.

Yes  Don't Know  No

12. Get me a pregnancy test for free.

Yes  Don't Know  No

13. Get me set up with WIC.

Yes  Don't Know  No

14. Help with family planning.

Yes  Don't Know  No

15. Meet with me to answer any questions regarding sex and reproductive health.

Yes  Don't Know  No

16. Answer questions via text message.

Yes  Don't Know  No

17. Schedule a pick-up for health services via text message.

Yes  Don't Know  No
Please circle the correct answer about yourself.

19. Age
   - 12
   - 13
   - 14
   - 15
   - 16
   - 17
   - 18
   - 19
   - 20

20. Race
   - Asian
   - Black or African American
   - Native American
   - Native Hawaiian or Other Pacific Islander
   - White
   - Hispanic or Latino
   - Other

21. Ethnicity
   - Hispanic or Latino
   - Not Hispanic or Latino

Please write your answer to the next question.

22. How did you find out that you could get Emergency Contraception at the nurse’s office?

Thank you for your time. Your answers are valuable to us.