Emergency Contraception in New York State

FEWER UNINTENDED PREGNANCIES AND LOWER HEALTH CARE COSTS

N O V E M B E R 2 0 0 3

New York State
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Nationally, 49 percent of all pregnancies (excluding miscarriages) are estimated to be unintended. In New York, the proportion of unintended pregnancies (for 2000) is estimated to be much higher, nearly 58 percent. The Office of the State Comptroller (OSC) estimates that about 244,321 pregnancies in the State were unintended in that year.

The causes of unintended pregnancy are diverse. Although today's medical technology has given women the ability to plan their pregnancies, that technology is not infallible and women using contraception do, in fact, become pregnant. Some women become pregnant unintentionally because they do not have access to contraception, while others do not consider the possibility that a pregnancy will result from sexual activity and neglect to use contraception. In addition, some women become pregnant as the result of a sexual assault.

In New York, two-thirds (164,630) of the unintended pregnancies in 2000 ended in abortion. The overall number of abortions per 1,000 women in New York for 2000 was 39.1. The remaining one-third (79,691) of these unintended pregnancies resulted in birth. The women experiencing these unintended pregnancies and the children born from them face a number of negative physical, emotional and financial impacts, such as depression, neglect, abuse and low birth weight, often leading to life-long challenges.

Emergency contraception, if available and accessible, could play a substantial role in addressing the problem of unintended pregnancy and its consequences in New York State.

In addition to the considerable impact on women and their families, unintended pregnancies – whether they result in abortion or birth – drive significant costs in both publicly and privately financed health systems. OSC estimates, based on 2000 data, the healthcare cost for the abortions, as well as the births associated with unintended pregnancies, in New York State would be $913.3 million in 2003. With this cost in mind, OSC has undertaken a preliminary analysis of the fiscal implications of making emergency contraception more readily accessible.

For many women, there are seemingly only two choices when faced with an unintended pregnancy, to terminate or continue the pregnancy. However, increased access to emergency contraception would give women potentially facing this difficult situation an important alternative. Emergency contraception pills (ECPs) are a concentrated treatment of the hormones contained in birth control pills. ECPs are used to prevent pregnancy after unprotected intercourse as a method of backup birth control in an emergency situation. ECPs are not intended for use as a regular method of contraception.

The effectiveness of this treatment ranges from almost 75 to 85 percent when taken up to 120 hours following intercourse (depending on which treatment regimen is used), with the greatest efficacy rate for ECPs taken within 24 hours of intercourse. ECPs prevent pregnancy and act prior to the implantation of a fertilized egg. Implantation of a fertilized egg is recognized by the medical community and the federal government as the beginning of pregnancy. Furthermore, the Food and Drug Administration (FDA) has determined that the treatment is safe

and will neither affect nor disrupt an established pregnancy. ECP use has been supported by many medical organizations, including the American College of Obstetricians and Gynecologists (ACOG) and the American Medical Association (AMA).

The FDA first approved the use of ECPs as a dedicated product through prescription in 1998, although physicians were able to prescribe the treatment "off-label" prior to that time. A second dedicated ECP product was approved by the FDA in 1999. Even though dedicated ECP products have been available for five years, information about the products is still not readily supplied to women by their physicians and access to emergency contraception remains limited.

Use of ECPs is considered to have the potential to reduce unintended pregnancy by half. Therefore, not only would greater accessibility to information about ECPs and the treatment itself ease the social, economic and emotional distress of the woman facing unintended pregnancy, but it would also have a far-reaching, economic impact on public and private healthcare systems in the State.

OSC estimates that nearly one-half of the cost associated with unintended pregnancies could be avoided, offset by the minimal costs of ECP treatments. Preliminary findings by OSC indicate that widely available and easily accessible emergency contraception could result in $254.1 million in savings for the State's Medicaid system, which is funded jointly by the federal, State and local governments.

The cost currently associated with unintended pregnancies among women enrolled in Medicaid, based on data for 2000 and adjusted for inflation to June 2003, is $510.7 million. This cost is based on the 46,036 unintended Medicaid births and 58,740 Medicaid abortions in 2000. The projected $254.1 million in savings would be the net result of reducing the 104,776 unintended pregnancies associated with Medicaid-eligible women in 2000 by half. This reduction in unintended Medicaid pregnancies (to 52,388) would result in 23,018 fewer births, with a savings of $232.1 million, and 29,370 fewer abortions, with a savings of $22 million.

System-wide savings will be even greater when potential savings in the health care sector not funded through Medicaid are considered. OSC determined that, after adjusting for inflation to June 2003, unintended non-Medicaid pregnancies in the year 2000 cost $402.5 million. A total of 33,655 births and 105,890 abortions accounted for this cost. For the purposes of this report, this category, "Other New York Healthcare Systems" consists of those who have private insurance, self-pay, are enrolled in public non-Medicaid healthcare programs or are uninsured. Reducing the number of unintended non-Medicaid pregnancies by half (to 69,772) would result in 16,828 fewer births, with a savings of $161.1 million, and 52,945 fewer abortions, with a savings of $37.1 million. A total savings of $198.2 million would be realized for unintended non-Medicaid pregnancies, which includes offsetting costs of the ECPs.

When considering both Medicaid and non-Medicaid unintended pregnancies, ECP products that are widely available and easily accessible would create a meaningful net savings by reducing the total number of unintended pregnancies. In fiscal terms, that benefit would be $452.3 million; the benefit to society would be 39,846 fewer unintended births and 82,315 fewer abortions.

In a survey to determine current availability of ECPs within New York State, OSC found that 54 percent of 59 pharmacies surveyed had at least one of the two dedicated emergency contraception products in stock that could be made available to patients with a prescription. While 90 percent of the pharmacies surveyed in New York City had the pills in stock, only 27 percent of pharmacies surveyed in Buffalo and 38 percent of the pharmacies surveyed in Syracuse had the pills in stock. However, of the pharmacies surveyed, only 32 percent had both of the emergency contraception pill products in stock, leaving women with little choice over which product to use. In addition, OSC also found discrepancies between chain and non-chain pharmacies, with chain stores upstate more likely to stock emergency contraceptives. Currently, across New York State, ECPs are most consistently available through non-profit family planning clinics.

Publicly funded family planning efforts are already credited with preventing more than 95,000 unintended pregnancies every year in New York. With increased accessibility to ECPs, a substantial number of the more than 240,000 unintended pregnancies that do occur each year in New York could also be avoided. More specifically, OSC projects that 122,161 unintended pregnancies could be avoided if emergency contraception is readily available to women. Steps, however, must be taken to ensure that ECP products are available to women in a timely manner so that unintended pregnancy may be avoided. OSC has identified several factors that hinder availability and offers several recommendations to reduce the number of unintended pregnancies:

- **Provide ECP access through advance prescriptions and requests for telephone prescription.** During routine healthcare visits, including visits to college campus health centers, licensed prescribers, such as physicians, nurse practitioners and midwives, should provide women with counseling and advance prescriptions for ECPs. In addition, since a physical exam and pregnancy test are not necessary prior to using ECPs, licensed prescribers should allow access to ECPs through telephone prescription. This would ensure women the opportunity to obtain emergency contraception when needed.

- **State policymakers should support legislation for ECP non-patient specific prescriptions.** This legislation would allow pharmacists and nurses to directly dispense ECPs pursuant to a prescription and order of a non-patient specific prescription by a prescriber. Access to ECPs for women seeking to prevent unintended pregnancy after unprotected intercourse or sexual assault would be significantly improved through this type of direct access. Direct provision of ECPs has been successfully implemented in other states. This would also serve as a meaningful measure while awaiting FDA approval of over-the-counter status for ECPs and, even if one dedicated product attains over-the-counter status, continue to offer women a choice of product.

- **State policymakers should support the establishment of a statewide ECP public health education program.** Such a program would target not only women of childbearing age, but also the healthcare community to focus awareness on all those in a position to provide women with reproductive information and access to ECPs. The cost of such a program would be negligible in the context of considerable savings associated with the decrease in unintended pregnancy that would result.

- **FDA approval of over-the-counter status for ECPs should be achieved.** Earlier this year, Women's Capital Corporation, manufacturer of Plan B, submitted necessary materials to the FDA to achieve over-the-counter status. This move has been widely supported by ACOG, the AMA and Physicians for Reproductive Choice and Health, as well as many other organizations that support women's reproductive health care. This move, perhaps more than any other, would help women in preventing unintended pregnancies.

- **State and federal policymakers should support approval of the proposed Slaughter/Murray federal legislation.** The federal "Emergency Contraception Act" was introduced in March 2002. This bill would provide $10 million a year for five years to establish a public education and awareness program that would provide women with information on the availability of safe and effective emergency contraceptives. Its passage would result in more women knowing about emergency contraception and understanding how to access it when needed.

Unintended Pregnancies

The United States is considered to have among the highest levels of both unintended pregnancy and teenage pregnancy of all industrialized nations.[1] To address this problem, a national Healthy People 2010 goal was set by the U.S. Department of Health and Human Services in 2001 in an effort to decrease the number of unintended pregnancies. Reflecting a broad consensus among advocates for women's reproductive rights, physicians and others in women's health care, the 2010 goal is to increase the proportion of pregnancies that are intended from the current level of 51 percent up to 70 percent.[2]

Changes in family structure and career patterns have driven the medical technology that now allows women to plan their pregnancies. According to Kaiser Family Foundation's interpretation of Alan Guttmacher Institute (AGI) data, nationally, 70 percent of women of childbearing age are sexually active, but do not wish to become pregnant.[3] Yet, the available technology is not infallible, and women using contraception do become pregnant. Others who unintentionally become pregnant simply may not have access to contraception. Still others are so young they do not fully understand the consequences of sexual activity. Teenagers often cannot conceptualize the possibility of pregnancy and sometimes neither seek out nor use contraception. Consequently, a substantial number of women confront unintended pregnancy.

The vast majority of sexually active women wanting to avoid pregnancy, 90 percent, use a contraceptive method.[4] Despite the widespread use of contraception, however, as of 1994 (most current data available), 49 percent of pregnancies (excluding miscarriages) are estimated to be unintended. Fifty-four percent of these unplanned pregnancies end in abortion.[5]

Whether the woman facing a potential pregnancy is young, single or married, there may be a variety of reasons why that woman wishes to avoid pregnancy. Regardless of whether these reasons are emotional, social or economic, the conditions molding her desire to avoid pregnancy are exacerbated once she becomes pregnant. According to a study by the Institute of Medicine in 1995, there are a number of negative impacts associated with unintended pregnancies, including:

- The mother is less likely to seek early prenatal care;
- A child of an unwanted conception is at greater risk of low birth weight,[6] abuse and death in the first year of life;
- A child of an unwanted conception is less likely to be provided with the resources that ensure healthy development;
- The mother may be more likely to harm herself or suffer from depression; and
- Both parents may suffer from economic hardship and may be unable to attain educational or occupational goals.[7]

Unintended pregnancies are more common for mothers who are young, single or over 40 years old. More than half (56 percent) of women in the United States who had an abortion in

2000 were in their twenties; 25 percent were 30 years of age or older; and 19 percent were adolescents (the majority of these women were 18-19 years of age).[8] These factors suggest other potentially difficult socioeconomic and medical consequences.

In addition, women facing unplanned pregnancies, along with their children, are sometimes victims of neglect, abuse and violence. These consequences point to the critical need for family planning, as well as access to the medical technology that will prevent unwanted pregnancies. Fortunately, many women in New York access publicly funded family planning services, and this access is considered to help women avoid 95,200 unintended pregnancies each year.[9]

Based on 1996 and 1997 birth and abortion data, AGI estimated that in New York, 497,240 of the 4,079,000 women of childbearing age became pregnant. Of these pregnancies, AGI estimated that 263,537 (53 percent) resulted in live births, 164,089 (33 percent) in abortions and the remainder in miscarriages.[10] It is generally accepted that all abortions represent unintended pregnancies, although a small number may have resulted from pregnancies that were initially intended. According to Henshaw, based on a study by Torres and Darroch-Forrest, the abortion may have occurred due to health problems experienced by the mother or fetus, or because the woman experienced a change in circumstances, "resulting from the loss of her partner or lack of support."[11] The 1994 national estimate (most current data available) is that 30.8 percent of births are unintended (excluding miscarriages).[12] Using this information, OSC estimates that for 2000, 57.7 percent of all pregnancies (excluding miscarriages), or about 244,321 pregnancies, in New York were unintended.[13]

NYS Estimated Unintended Pregnancies by Outcome in 2000

Category	Total	Percent Unintended	Number Unintended
Abortions	164,630 [14]	100.0%	164,630
Births	258,737 [15]	30.8%	79,691
Total Pregnancies	423,367	57.7%	244,321

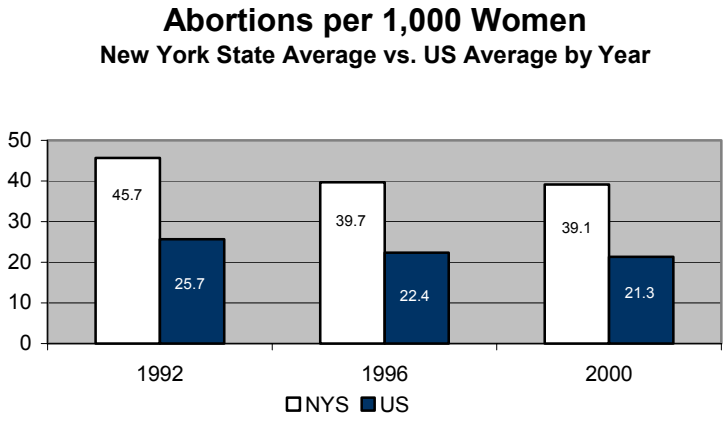
According to Kaiser Family Foundation's interpretation of AGI data, the rate of unintended pregnancy is surprisingly high, since nationally, nine out of 10 women of childbearing age who are sexually active and do not want to become pregnant do use contraception.[16] The fact that birth control methods are not 100 percent effective, and that the people using them are not infallible, explains why about half of unintended pregnancies occur in situations where contraceptives were not effectively used. The remaining half of unintended pregnancies is attributable to the small percentage of women, less than 10 percent, who do not use contraception.[17]

According to a national study of women having an abortion who used a contraceptive method, the male condom was the most commonly reported method among all women, followed by the pill.[18] Forty-two percent of the women whose partner used a condom cited condom breakage or slippage as a reason for pregnancy. Seventy-six percent of women who used pills and 49 percent of women whose partner used a condom, however, cited inconsistent method use as the main cause of pregnancy.[19] In the study, 46 percent of women having an abortion in 2000

had not used a contraceptive method in the month they conceived, mainly because of perceived low risk of pregnancy and concerns about contraception.[20]

While contraception sometimes does fail due to inconsistent use, such as forgetting to take birth control pills or failing to use a condom for every sexual encounter, obtaining contraception can also pose a difficulty that leads to unprotected sex. Poor and low-income women having abortions who were not using contraception when they became pregnant are more likely to report problems accessing contraception or face difficulty affording it.[21] Sometimes, however, unprotected sex is the result of an unexpected or unwanted encounter, putting victims of sexual assault at high risk of unintended pregnancy. The Centers for Disease Control (CDC) estimate that the proportion of adult pregnancies due to rape is 4.7 percent. Accordingly, CDC states that annually, there may be 32,101 rape-related pregnancies of women over 18 years of age in the United States.[22]

It is difficult to know the total number of women in New York who are sexual assault victims, since many women do not seek treatment and standard information is not collected by all facilities treating these women. However, in 2000, rape crisis centers in the State identified 12,594 new rape cases. Of these, 4,604 people actually received medical services from a rape crisis center.[23] In 2003, information on sexual assault victims in New York will improve as hospital emergency rooms, for the first time, start collecting data about the number of rape forensic exams performed.[24] In addition, legislation signed into law on October 1, 2003 will help assure rape victims access to emergency contraception in all hospital emergency rooms in New York. This will undoubtedly be one more step toward reducing the number of unintended pregnancies.



Even though the rate of unintended pregnancy is high, between 1992 and 2000, the number of abortions per 1,000 women (known as the abortion rate) declined significantly in the United States from 25.7 abortions per 1,000 women to 21.3. Similarly, New York also experienced a significant decline for this period, with the abortion rate decreasing from 45.7 abortions per 1,000 women to 39.1. However, even with this decline, New York had the highest abortion rate of any state in the nation in 2000.[25]

Despite access to family planning services and contraception use in New York, it is clear that too many pregnancies are still unintended. Emergency contraception is an effective method of backup birth control that can be used to prevent pregnancy after unprotected sexual intercourse. It addresses both the socioeconomic and human issues, and studies have reported that emergency contraception is an important treatment that can significantly decrease the number of unintended pregnancies.

New York Costs Associated with Unintended Pregnancies

According to the Centers for Medicare and Medicaid Services, total public and private spending on healthcare in New York State in 1998 (most current annual data available) was $85.5 billion, representing a 5 percent increase from 1997.[26] While more recent total expenditure data is not yet available, it is well known that healthcare systems are experiencing year-to-year percentage increases that are near to, or at, double digits. For example, in the New York State Medicaid program (funded by the federal, State and local governments), claim payment expenditures increased 15.3 percent to $33.6 billion from State fiscal year 2001-02 to 2002-03.[27]

The tremendous increases in healthcare costs experienced in New York State and around the nation are the focus of much research, as the public and private sectors work to identify the causes in order to develop and implement actions to reduce costs without compromising quality. Medical costs associated with the 164,630 abortions and 79,691 births resulting from unintended pregnancies in New York for 2000 are an important component of these costs to the State's healthcare systems. OSC estimates the cost of unintended pregnancies resulting in abortions or births for the calendar year 2000, at $825.6 million among the State's public and private healthcare systems. When adjusted for inflation to June 2003, these costs increase to $913.3 million.[28]

These abortions and births also have resulted in important, long-lasting implications for women and our State. OSC has undertaken this study to identify costs associated with unintended pregnancies, and the potential effects that increased awareness and access to emergency contraception could have on reducing unintended pregnancies and costs associated with them. Any proposals that have the potential to improve women's reproductive care and mitigate the strain of increasing healthcare costs by controlling and reducing the number of unintended pregnancies in New York deserve consideration by State policymakers.

In addition to the consequences of unintended pregnancies noted above, studies show that the children resulting from unintended pregnancies often face life-long challenges and interaction with public service agencies. For example, many of these children experience foster care and/or require special education. Their families often live at income levels near or below the federal poverty level, requiring at times, reliance on public assistance. In addition, these children are at increased risk of interacting with law enforcement agencies. Accordingly, there are costs associated with all of these interactions between public service agencies and children of unintended pregnancies. Reliable data on such secondary impact costs is not readily available, therefore, these costs have not been factored into efforts to quantify benefits of ECP access in this study.

Medicaid Costs

The Medicaid program was created in 1965 as a joint federal and state program to provide health insurance for low-income, single-parent families with children, low-income elderly people and people with disabilities. New York has since expanded benefits to include

low-income, childless adults. Unlike most other states, New York requires county governments to share the costs of the Medicaid program.

The high cost of Medicaid is a chief concern for county governments as expenses for Medicaid are increasing faster than property tax revenues. Statewide, outside of New York City, local Medicaid expenditures of $2.1 billion represented 108 percent of general fund real property tax revenues for all counties in 2001 (excluding Schuyler County for which data is not available). Ten years earlier, in 1991, Medicaid expenditures for counties outside of New York City ($872 million) constituted only 45 percent of county property taxes. On a county-by-county basis, Medicaid costs exceeded property tax revenues in 24 counties for 2001, up from just three counties in 1991.[29]

The federal government mandates coverage of certain health services and gives states the option of providing others. New York has elected to cover essentially all optional services. For most Medicaid services, the federal government reimburses the State 50 percent of costs; however, family planning services receive a 90 percent federal match.

Medicaid covers family planning and reproductive health services, such as contraception (birth control pills, intrauterine devices, Norplant, Depo-Provera, sterilization, condoms, diaphragms and emergency contraception); screening and treatment for sexually transmitted diseases; screening for anemia, cervical cancer and other diseases; abortions in certain cases; and any educational and counseling services necessary to provide these services effectively.

Federal reimbursement for abortion services, though, is restricted pursuant to the "Hyde Amendment" that prohibits the federal government from providing reimbursement for abortions, except when the pregnancy is the result of rape or incest, when a woman suffers from certain physical problems or the woman's life is in danger. However, in the 1980s, the State opted not to seek any federal funds for these types of abortions and, as a result, the cost of these abortions is shared by the State and local governments. New York State is one of only 13 states to pay for all medically necessary abortions through its Medicaid program.

In October 2002, New York received permission from the federal government to implement a family planning waiver program that expanded Medicaid eligibility for family planning services to men and women with income below 200 percent of the federal poverty level. This waiver covers the family planning and reproductive services listed above, but it excludes abortion services that are not deemed medically necessary or are not necessitated as the result of rape or incest.

OSC estimates that there were 166,050 pregnancies among women receiving Medicaid services in New York State for 2000, resulting in 58,740 abortions and 107,310 births, as shown in the table below. As noted earlier, all abortions are considered unintended pregnancies. However, the proportion of Medicaid births that were unintended, as estimated by OSC, was 42.9 percent, instead of the 30.8 percent that was applied to the State as a whole.[30] The higher proportion was used to reflect a higher level of unintended pregnancies for women whose income levels would be low enough to qualify for Medicaid.[31] Accordingly, OSC estimates that the Medicaid costs for healthcare expenses associated with the 104,776 unintended pregnancies (63.1 percent of total Medicaid pregnancies) totaled $461.8 million in 2000, increasing to $510.7 million when adjusted for inflation to June 2003.[32] Of these costs, $45.4 million is associated

with all 58,740 abortions and $465.3 million is associated with 46,036 unintended births, after adjusting for inflation to June 2003. The methodology and calculations used in these estimates are described in more detail in the Appendix.

NYS Medicaid:
Estimated Adjusted Cost of Unintended Pregnancies in 2000
By Outcome
(dollars in millions)

Category	Total	Percent Unintended	Number Unintended	Total Adjusted Unintended Costs
Abortions	58,740	100.0%	58,740	$45.4
Births	107,310	42.9%	46,036	$465.3
Total	166,050	63.1%	104,776	$510.7

Other New York Healthcare Systems Costs

Since OSC was able to identify the actual number of births and abortions for the State's Medicaid population, the remaining births and abortions in the State are associated with those who have private insurance; self-pay medical costs; are enrolled in public non-Medicaid healthcare programs (such as Child Health Plus); or are uninsured. While the costs of unintended births and abortions for this population are paid for by private and public sector sources, they reflect an overall cost to the healthcare system in New York, and for the purposes of this report will be considered as "Other New York Healthcare Systems" costs.

OSC estimates that there were 257,317 pregnancies in the State for 2000, associated with Other New York Healthcare Systems. These pregnancies resulted in 105,890 abortions and 151,427 births, as shown in the table below. The 105,890 abortions attributed to the Other New York Healthcare Systems were determined by taking the difference between the total number of abortions in New York State (164,630) and the number of Medicaid abortions (58,740). Similarly, the 151,427 births attributed to the Other New York Healthcare Systems were determined by taking the difference of the total number of births in the State (258,737) and the number of Medicaid births (107,310).

There were 139,545 unintended pregnancies associated with the Other New York Healthcare Systems, reflecting a projected 54.2 percent of pregnancies that were unintended. There were 33,655 unintended births attributed to the Other New York Healthcare Systems for 2000 as estimated by OSC. These births were determined by taking the difference between the total number of unintended births in the State (79,691) and the number of unintended Medicaid births (46,036). The estimated proportion of unintended births among women with income high enough to disqualify them from receiving Medicaid is based on previous research showing that higher income women have a lower proportion of unintended births than do lower income women.[33] All 105, 890 abortions are considered unintended.

OSC estimates that costs to the Other New York Healthcare Systems for these 139,545 unintended pregnancies totaled $363.9 million for 2000. After adjusting for inflation to June 2003, these costs would be $402.5 million.[34] Of these costs, $78.8 million are associated with 105,890 abortions and $323.7 million are associated with 33,655 unintended births, after adjusting for inflation to June 2003. The methodology and calculations used in these estimates are described in more detail in the Appendix.

Other New York Healthcare Systems:
Estimated Adjusted Cost of Unintended Pregnancies in 2000
By Outcome
(dollars in millions)

Outcome	Total Number	Percent Unintended	Number Unintended	Total Adjusted Unintended Costs
Abortions	105,890	100.0%	105,890	$ 78.8
Births	151,427	22.2%	33,655	$323.7
Total	257,317	54.2%	139,545	$402.5

Emergency Contraception Pills

Emergency contraception is used to prevent pregnancy after sexual intercourse where contraception was either not used effectively or not used at all. The denotation of this method as "emergency" contraception is to underscore that it is not intended for use as a regular method of contraception.[35] In the United States, available emergency contraceptives include emergency contraceptive pills (ECPs) and the copper-T intrauterine device. For the purposes of this report, however, OSC's discussion of emergency contraception is limited to ECPs, since ECP use is considered more common and less costly.

Grimes and Raymond base their discussion of the two methods of ECP treatment on a study by Yuzpe and Lancee, as well as two randomized drug trials. Grimes and Raymond define ECPs as essentially a higher dose of ordinary birth control pills containing either a combination of the hormones estrogen and progestin (levonorgestrel), known as the Yuzpe method, or levonorgestrel alone.[36] While ECPs are commonly known as the morning-after pill, the term is misleading because women may start ECP treatment earlier, immediately after unprotected intercourse, or later, within 72 hours of unprotected intercourse. The ECP treatment consists of one dose taken within 72 hours of unprotected intercourse and another dose 12 hours later.[37] Recent studies extend ECPs' effectiveness at reducing the risk of becoming pregnant if taken up to 120 hours after unprotected intercourse.[38] However, women are encouraged to begin their first dose of ECPs as soon as possible, since ECPs are considered most effective when taken within 24 hours of intercourse.[39]

The effectiveness of ECPs in preventing pregnancy ranges from almost 75 percent for the Yuzpe method to 85 percent using the levonorgestrel method, according to Grimes and Raymond (citing studies by Trussel, et al. and the World Health Organization).[40] Along with differences in the effective rates of the two common ECP treatments, there are some differences in the side effects experienced by women taking ECPs. Under the Yuzpe method, 42 percent of women treated experience nausea and some vomiting, which can be reduced through anti-nausea medicines. These side effects have been found to be much lower for women using the levonorgestrel method. For example, only about one-quarter of the women taking levonorgestral have reported nausea (according to Raymond, et al. and two randomized trials).[41] The Food and Drug Administration (FDA) reported that the risk of related vomiting has been found to be reduced when a long-acting, non-prescription anti-nausea medicine is taken 30 minutes to one hour before taking each of the two doses of ECPs.[42] Additionally, a recent World Health Organization study indicates that combining the two doses of the levonorgestral method into a single dose treatment does not change the effectiveness or the side effects. [43]

In discussions of ECPs, it is important to define when pregnancy occurs in order to understand that ECPs prevent pregnancy and are not a medical abortion. The American College of Obstetricians and Gynecologists (ACOG) has stated that pregnancy starts at implantation of a fertilized egg.[44] The federal government also agrees that implantation is the beginning of pregnancy.[45] Typically, it takes six to seven days after intercourse for implantation and, therefore, pregnancy to occur. ECPs act during this period to prevent the pregnancy. [46] Further,

an ACOG practice bulletin states that ECPs will not disrupt an established pregnancy.[47] ECPs should not be confused with the early abortion pill, mifepristone (known as RU-486), which is only provided to a pregnant woman to terminate a verified pregnancy.

While there have not been widespread clinical studies relating to the manner in which ECPs prevent pregnancy, it is considered that ECPs work through multiple modes of action (together, Croxatto, et al. and Grimes and Raymond cite multiple studies).[48] Generally, ECPs delay or prevent ovulation.[49] "But depending on the timing of intercourse in relation to a woman's hormonal cycle, they may also prevent fertilization or alter the lining of the uterus to prevent implantation of a fertilized egg."[50] At least for the levonorgestrel method, studies have shown that prevention of fertilization may be attributed to a thickening of cervical mucous that hinders sperm from entering the uterus. (There have been no similar published studies of the Yuzpe method.) While some recent studies suggest that ECPs may only have pre-fertilization effects and may not interfere with implantation of fertilized eggs, it may be quite some time, if ever, before there is confirmation because of the ethical and logistical issues associated with conducting these types of tests.[51]

Use of ECPs is considered safe, with no long term or serious side effects. The ACOG ECP practice bulletin states that "adverse events with this method of emergency contraception, such as those listed for the known contraindications to daily use of combination birth-control pills, have not been reported in published studies using evidence-based criteria."[52]

In 1997, the FDA issued a statement in the Federal Register identifying oral contraceptives as effective and safe for use as emergency contraception to prevent an unwanted pregnancy. In addition, the FDA encouraged manufacturers to work toward making ECPs available through a dedicated product. Within the next two years, two manufacturers prevailed in gaining FDA approval of ECP products available through prescription.[53] In 1998, Preven, based on the Yuzpe method of combined hormones, became the first dedicated product for use as an emergency contraceptive. Plan B, consisting of levonorgestrel only, was approved by the FDA in 1999.[54]

In New York, Preven is the only ECP treatment currently available to women enrolled in Medicaid seeking emergency contraception. Women's Capital Corporation (WCC), the non-profit manufacturer of Plan B, has opted to not participate in the Medicaid program due to a lack of current infrastructure that would be needed to track and report sales information required under the Medicaid Rebate Program.[55] Plan B is WCC's only product. WCC also would be negatively affected financially from participation in the Medicaid Rebate Program because of complexities regarding the large percentage of discounted sales of Plan B. WCC's product is primarily available through Title X family planning clinics, such as Planned Parenthood and other 340B eligible entities, as well as through private prescription.

Title X is the only federal program dedicated solely to funding family planning and related reproductive health care services. The Title X program is responsible for helping prevent nearly one million unintended pregnancies annually, including 54,100 in New York.[56] A 340B entity refers to Section 340B of the Federal Public Health Service Act limiting the cost of drugs to federal purchasers and to certain grantees of federal agencies.

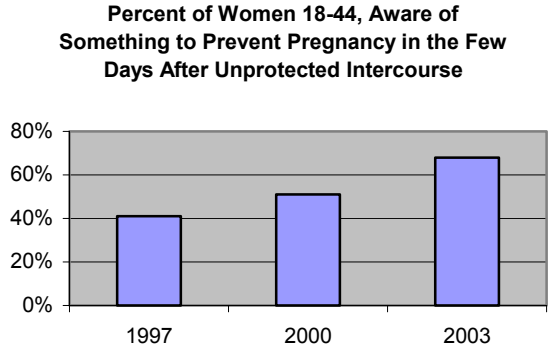
Use and Awareness

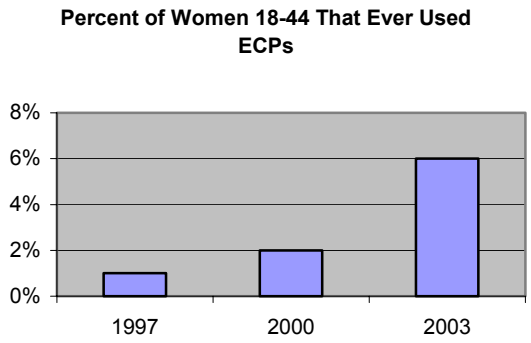
Prior to approval of dedicated products for emergency contraception, prescribing doctors were forced to do so "off-label" by breaking up packages of oral contraceptives containing the appropriate hormones. Although this is a common and accepted practice with FDA approved drugs, it is believed that, during this time, many doctors did not offer women information about emergency contraception during routine visits, due to the lack of a dedicated product.[57]

Unfortunately, despite the availability of dedicated ECP products for five years, studies are still reporting that many doctors do not often prescribe ECPs or discuss this option during routine visits with women, as a method of backup birth control. The Kaiser Family Foundation has been tracking obstetrician-gynecologist and general practitioner physician experiences and views relating to emergency contraception since 1995. The latest data available, gathered from Kaiser's *2001 National Survey of Women's Health Care Providers on Reproductive Health*, showed that 80 percent of obstetrician-gynecologists and a third of general practice physicians reported prescribing ECPs. The overall proportion of obstetrician-gynecologists prescribing ECPs has remained fairly constant since 1997. For general practitioners, there was a decline in the percentage of prescribing ECPs between 1997 and 2000. However, since 2000, the percentage prescribing ECPs among general practitioners has remained constant (1997 data is from the National Survey of Americans on Emergency Contraception).[58]

Kaiser's survey also tracks women's health care provider contraceptive counseling related to emergency contraception. Although the survey results show that more physicians are speaking with women about emergency contraception as a means of backup birth control during routine contraceptive counseling than in previous years, the percentage of physicians doing so is still low. Kaiser reports that only 25 percent of obstetrician-gynecologists and 14 percent of general practitioners indicated that they discuss emergency contraception in this way, "always" or "most" of the time. In contrast, in 1997, only 10 percent of gynecologists and 9 percent of general practitioners reported including emergency contraception in these discussions "always" or "most" of the time.[59]

Not surprisingly, the result is that many women are still not aware of ECPs and few have used this treatment to prevent pregnancy, although a survey conducted by Kaiser and *Self Magazine* in 2003 did show some improvement. For example, the percentage of women aged 18-44 who knew there was something a woman could do to prevent pregnancy in the few days after she had unprotected sex increased to 68 percent from 51 percent in 2000. In addition, the percentage of these women that had used ECPs at some time increased to 6 percent, in contrast to 2 percent, which was reported in 2000.[60]





Source: Kaiser Family Foundation

Access

According to Blanchard, et al. in their report on advance provision of ECPs, having "timely access to ECPs could increase use when needed and lead to improved efficacy."[61] The 2001 Kaiser provider survey found that of "physicians that had ever prescribed ECPs, only 25 percent of obstetrician-gynecologists and 15 percent of general practice physicians have ever offered or prescribed them prospectively, so patients could have them on hand."[62] In April 2001, ACOG issued a call to action to the nation's 40,000 obstetrician-gynecologists to help cut the nation's percentages of unintended pregnancy and abortion by offering an advance prescription for ECPs during women's routine gynecologic visits. At that time, ACOG also encouraged women to ask their physicians about ECPs should the topic not come up during office visits.[63]

Providing women with an advance prescription for ECPs gives women the opportunity to either obtain emergency contraception when needed or fill the prescription earlier to have ECPs on hand to minimize the passage of time after the incidence of unprotected sex. In an early study where pharmacists dispensed emergency contraception, 50 percent of women seeking emergency contraception were doing so on a weekend or after 6 p.m. on a weeknight.[64] Since pharmacists are more readily available than physicians may be at the times emergency contraception is requested, advance prescription greatly increases the access women have to ECPs. This, in turn, reduces the risk that women may wait until they become pregnant before taking action to end an unwanted pregnancy that could have been avoided.

Another way to provide women with timely access to ECPs is for physicians to prescribe ECPs over the telephone. This is appropriate, since a physical exam and pregnancy test are not necessary prior to using ECPs. In addition, obtaining a telephone prescription for ECPs saves obvious time by eliminating the need for an office visit.

Of the 194 Title X clinics in the State, 89 are operated by the Planned Parenthood Federation, serving 57 percent of women using such clinics.[65] Planned Parenthood is considered perhaps the largest resource in providing ECP counseling and education to women. Planned Parenthood is responsible for preventing many unintended pregnancies and has increased accessibility to ECPs by making them available to women on a walk-in and call-in basis. The activities of Planned Parenthood in providing these important services to women also serve in helping to reduce public health costs that result from unintended pregnancies.

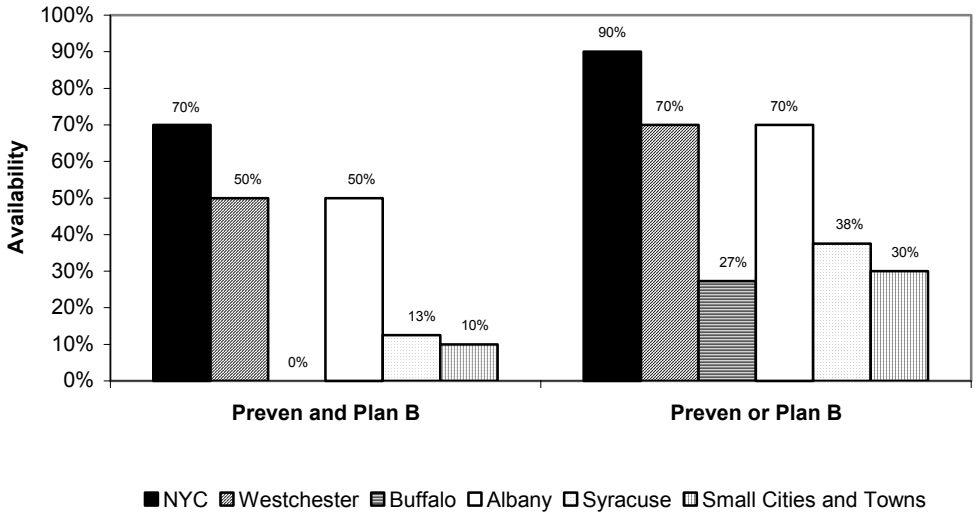
Availability of ECPs

Having dedicated ECP products has certainly advanced the promotion of this method of backup birth control as a means to prevent unintended pregnancies. Unfortunately, however, this step may not yet have resulted in the availability of ECPs at all, or even most, pharmacies in New York. Based on the results of a telephone survey of pharmacies around the State, OSC found that success in being able to prevent an unintended pregnancy resulting from unprotected intercourse may depend on where you live and the type of pharmacy (chain vs. independent) to which you have access.

In June, July and October 2003, OSC contacted 59 pharmacies throughout New York to find out how easily women could obtain dedicated ECPs. OSC interviewed staff at pharmacies in New York City, Westchester County, Albany, Buffalo and Syracuse, as well as in some small cities and towns throughout the State.[66] The pharmacies, which included 34 chain operated and 25 independently owned, were selected on a judgmental basis.

Overall, OSC found that 32 (54 percent) of the pharmacies surveyed had either Plan B or Preven in stock. Only 19 of the 59 pharmacies (32 percent) stocked both Plan B and Preven. This leaves women with little choice, if any, over which product to use and little control over selecting the product with the fewest side effects.

Availability of Emergency Contraception Pills By Area



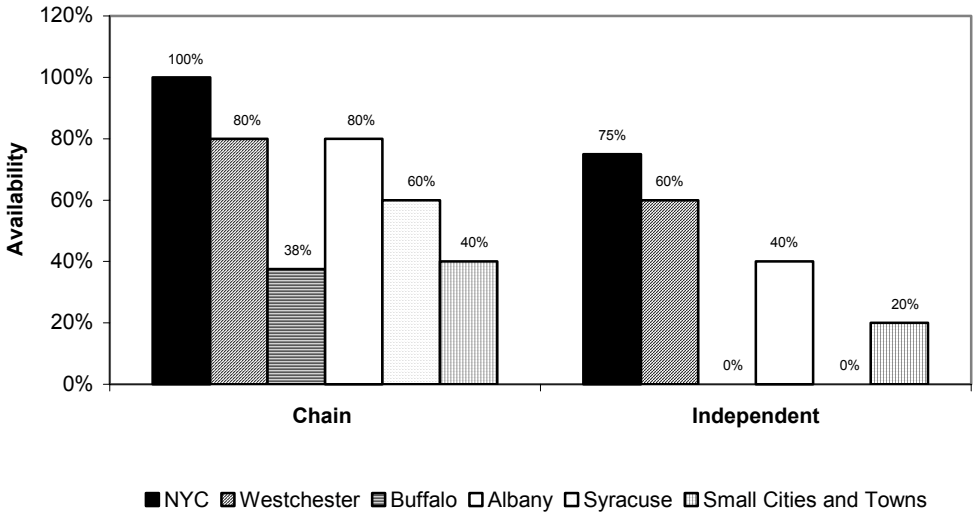
In considering the results of this survey by city, OSC found great variances in the availability of dedicated ECP products around the State. For example, only three of 11 pharmacies (27 percent) in the Buffalo area and three of eight pharmacies (38 percent) in the Syracuse area had either Plan B or Preven in stock. In contrast, OSC found that nine of the 10 pharmacies (90 percent) surveyed in the five boroughs of New York City had at least one of these dedicated products. Either Plan B or Preven was available in seven of 10 pharmacies (70 percent) surveyed in both the Albany area and in Westchester County. And finally, only three of 10 pharmacies (30 percent) located in small cities and towns in the State carried Plan B or

Preven, suggesting that women may have to travel to more urban areas to obtain ECPs in order to prevent unintended pregnancy.

In analyzing the results of this survey, OSC also found that, regardless of where you live in the State, it may be harder to obtain ECPs from an independently owned pharmacy than a chain owned pharmacy. For example, overall, only nine of 25 (36 percent) independently owned pharmacies had at least one of the dedicated ECP products, whereas 22 of 34 chain owned pharmacies (65 percent) surveyed indicated having one of the products in stock.

As might be expected, these statistics also vary by location of the pharmacies surveyed. In both Buffalo and Syracuse none of the three independently owned pharmacies surveyed in each area had Plan B or Preven in stock, in contrast to three of eight chain pharmacies (38 percent) in Buffalo and three of five chain pharmacies (60 percent) in Syracuse, which had at least one of these products in stock. In New York City, there was less of a difference, with three of four independent pharmacies (75 percent) having Plan B or Preven, while all six of the chain operated pharmacies had at least one of the dedicated ECP products.

Availability of at Least One Emergency Contraception Pill Product By Pharmacy Type



It is interesting to note that during this survey, those pharmacy staff who indicated they did not stock Plan B or Preven often cited a lack of demand for the products. Unfortunately, however, there was also several pharmacy staff who stated they had never heard of the dedicated ECP products before and were unfamiliar with their purpose.

College-age women have the highest percentages of unintended pregnancy and abortion in the United States. Therefore, it is important for colleges to play an active role in reducing unintended pregnancy and abortion percentages of their female students. However, a recent study in 2001 of all four-year residential colleges and universities in New York State examining female students' access to ECPs on campus found that while more than half of campuses provide ECPs, 42 percent do not. The survey also found that many college health centers, where female students would go to obtain ECPs, were closed throughout weekends or were only open for limited weekend hours, the time when services for emergency contraception are greatly needed. Further, the survey noted that less than one-third of college health centers provide women

students with advance ECP prescriptions for use at a later time.[67] The findings of this survey suggest that improvements are needed to ensure that ECPs are available when women attending these colleges have need for them.

To increase access and availability of ECPs and to have some type of significant impact on reducing unintended pregnancies in New York State, an organized public health education program is needed. Although advocates for ECPs continue to work at raising awareness of ECPs, there is a need for a statewide program that would target not only women of childbearing age, but also the healthcare community. Promoting ECPs to the medical community would focus awareness on all those in a position to provide women with reproductive information and access to ECPs, such as physicians, nurse practitioners and pharmacists.

At the federal level, in March 2002, "The Emergency Contraception Act" was introduced by Representative Louise Slaughter (D-NY) and Senator Patty Murray (D-WA). The bill would provide $10 million a year for five years to establish a public education and awareness program providing women with information on the availability of safe and effective emergency contraceptives. State and federal policymakers should support this legislation to help reduce unintended pregnancies in New York.

Public Health Concerns

Increasing access to and awareness of ECPs has raised some public health concerns that adolescents and young women might use the treatment in place of conventional methods of contraception. In particular, there are concerns that easy access to ECPs will result in increased sexual activity and a decrease in condom use. Such a decrease could result in an increase in the number of instances of sexually transmitted diseases (STDs). Condoms, when used correctly and consistently, have been found to be effective in preventing HIV/AIDS and other STDs.[68]

Studies both here in the United States and abroad, however, suggest that these concerns may be unfounded. A 1999 article in the *British Medical Journal* discussed the results of a questionnaire that studied the use of ECPs among teenagers in Finland. The results of the study showed that while there was a very high awareness of ECPs among adolescent girls (97 percent of 14-15 year old girls and 98.5 percent of 17 year-old girls), ECPs had not replaced regular methods of contraception among these teens. Further, it was reported that repeat usage of ECPs was low.[69] A recent study in England showed that advance provision of ECPs does not encourage young people to have unprotected sex.[70]

One study based in the United States provided a group of teenage mothers an educational program on the use of and access to ECPs. After the educational program, half of the young mothers received an advance supply of ECPs, which could be refilled. Researchers noted at the end of six months that there was no major difference in either condom use or primary contraceptive use between the two groups of mothers. In addition, during the same time-period, the group that received the advance supply was more than four times as likely to use the ECPs as the group of young mothers who had not received an advance ECP supply. The study recommends giving teenaged mothers an advance supply of ECPs during family planning visits.[71] Further, since ECPs are more expensive and have increased, short-lived side effects over regular birth control, it is considered that women would normally be less inclined to use it over regular birth control methods.[72]

As of November 2002, 27 countries worldwide, including the United Kingdom and France, provide direct access to ECPs without a prescription from a physician.[73] Efforts are currently underway in the United States to make ECPs available over-the-counter. Earlier this year, the manufacturers of Plan B submitted necessary materials to the FDA to achieve over-the-counter status. ACOG has stated its belief that emergency oral contraception can meet FDA criteria for over-the-counter availability.[74] In stating its general support for greater access to emergency contraception, the AMA said that if the FDA determines the ECPs are safe for over-the-counter use, it would support that increased access.[75] In August 2002, Physicians for Reproductive Choice and Health wrote a letter to the FDA stating: "There is sufficient reason to believe that the removal of the prescription-only barrier will serve to lower the level of unintended pregnancy and abortion in this country."[76]

Collaborative Agreements and Non-Patient Specific Prescriptions

Around the nation, states have been working to increase access to ECPs as an interim step prior to over-the-counter approval, so the treatment is available when women need it. One way that some states have found to do this is by discarding requirements for individual prescriptions, thus making ECPs available "behind-the-counter," through collaborative drug therapy agreements (collaborative agreements). Under collaborative agreements, pharmacists are allowed to "prescribe ECPs by signing a protocol for ECP prescription with a collaborating licensed prescriber, such as a physician. Collaborative agreements have been used successfully for other drug therapies and in other states, often in instances of chronic or long-term illness.[77]

A similar approach that other states are exploring to increase access to ECPs is through the use of state approved non-patient specific prescriptions. Non-patient specific prescriptions authorize nurses and pharmacists to dispense ECPs pursuant to a non-patient specific prescription written by a licensed prescriber, such as a physician, nurse practitioner or midwife.

In 1997, the State of Washington established the first Collaborative Agreement ECP Pilot Project to increase women's access through pharmacies.[78] The agreement allowed physicians and nurse practitioners to delegate their authority to prescribe ECPs to pharmacists. Initially, 130 pharmacies participated in the pilot project with pharmacists agreeing to screen, counsel and provide ECPs directly to women.[79] All participating pharmacists attended a continuing education training course that covered ECP therapeutic and dispensing information, as well as counseling and referral. The referral aspect is also considered important, since through this, women are able to obtain contacts for regular reproductive health care, such as contraceptives, STD diagnosis and treatment of sexual abuse.[80]

Over 90 percent of both pharmacists and independent prescribers associated with the pilot project reported that they were satisfied or very satisfied with their ECP collaborative agreements, and findings suggest that many women who received ECPs directly from a pharmacist, and did not have a healthcare provider, were subsequently linked to ongoing healthcare services.[81] ECPs provided directly by pharmacists are now available throughout Washington State.[82]

Subsequently, other states have implemented or are working to implement either collaborative agreements or non-patient specific regimens, such as legislation currently under consideration in New York for direct distribution of ECPs by pharmacists.[83] For example, in California a law that took effect in January 2002 quickly resulted in collaborative agreements with more than 700 ECP trained pharmacists by April 2002.[84] In total, 14 states considered legislation this year to expand access to emergency contraception.[85] Three state legislatures (Alaska, Hawaii and New Mexico) passed bills relating to direct pharmacy access of ECPs.

New York Activities

This year there has been significant legislative discussion and activity surrounding emergency contraception in both the State Legislature and the New York City Council. On October 1, 2003, legislation was signed into law (Chapter 625, Laws of 2003) that will make ECPs available to every sexual assault victim seeking emergency treatment in New York hospitals. Under the new law, hospitals will now be required to provide information on emergency contraception to rape victims and to administer it upon request of the victim.

Previously, under a protocol issued by the State Department of Health in June 2002, it was expected that staff in hospital emergency rooms would provide information about emergency contraception for the acute care of adult patients reporting sexual assault. However, there was no requirement that hospitals actually provide ECPs to victims of sexual assault.[86] As a result, a study published earlier this year by Family Planning Advocates showed that up to 1,000 rape victims a year in New York were sent away from hospital emergency departments without having received ECPs because all hospitals did not have a standard policy of providing ECPs to rape survivors.[87] The new legislation should end this problem and afford this vulnerable population with treatment to prevent pregnancies arising from these assaults.

The State Legislature also considered three additional bills related to emergency contraception this year. Two of these bills, one of which was approved by the Assembly, focused on authorizing pharmacists and registered nurses to directly dispense ECPs through non-patient specific prescriptions. Participating pharmacists would be required to undergo training to provide appropriate ECP information and reproductive care referral to women asking for ECPs. One additional bill under consideration would have required each State college and university with existing mechanisms in place to dispense medical prescriptions to provide ECPs to any student upon request.

The New York City Council acted on three bills this year regarding the provision and availability of ECPs. While the Mayor vetoed two of these bills, the City Council overrode both vetoes and enacted all three proposals. The first of these proposals requires all clinics and health centers operated by the City Department of Health providing treatment of STDs, to provide ECPs. This bill was signed into law and took effect in July.

The second proposal requires pharmacies that do not stock ECPs to post signs indicating that they do not have the dedicated ECP products in stock. This bill was designed to ease any embarrassment associated with asking if the treatment is available, as well as to prevent women from needlessly waiting in line at pharmacies that do not have ECPs. Although this City Council approved bill was vetoed by the Mayor, the veto was overridden by the City Council and the law took effect in June.

Finally, the last proposal prohibits New York City agencies from contracting with hospitals that either do not provide information and counseling about ECPs to sexual assault survivors or will not administer ECPs when requested. This City Council approved bill also was vetoed by the Mayor. However, the City Council subsequently overrode this veto and the bill took effect in May.

Estimated Cost Savings from Increased Use of ECPs

With increased awareness of and access to ECPs, it is considered that unintended pregnancies can be reduced by up to half.[88] As noted earlier, using healthcare data for calendar year 2000, adjusted for inflation to June 2003, a total of $913.3 million was paid for 164,630 abortions and 79,691 births resulting from 244,321 unintended pregnancies in New York. Decreasing these unintended pregnancies by half would have a meaningful societal and fiscal impact on New York. Using the methodologies employed in the studies above, OSC projects that such a decrease (using 2000 data) would result in 82,315 fewer abortions with associated savings of $59.1 million and 39,846 fewer births with associated savings of $393.2 million. The total potential adjusted savings to all of the healthcare systems in New York (including Medicaid) would be $452.3 million, reflecting a reduction of 122,161 unintended pregnancies.

This calculation of potential savings incorporates the costs associated with the number of ECP treatments that would be needed to achieve such a decrease, based on a 75 percent rate of ECP effectiveness. An AGI study – "Contraceptive Use Among U.S. Women Having Abortions in 2000-2001," by Jones, et al. - reported that, "in 2000, 1.3 percent of women having abortions reported having taken ECPs to prevent the pregnancy." This study employs the work of a study by Trussell, et al., who have estimated that for each pregnancy that occurs after use of ECPs, three pregnancies are prevented. Using this methodology, the Jones study determined that nationally in 2000, if 17,000 (1.3 percent) pregnancies that ended in abortion occurred after the use of ECPs, approximately 51,000 pregnancies that would have ended in abortion were prevented.[89] For every four treatments of ECPs, three pregnancies would be prevented and one would result in abortion, based on a 75 percent rate of effectiveness for ECPs. OSC's estimate considered that ECP treatments would be provided under non-patient specific prescriptions. It is assumed that under this process, women would not need to visit a physician solely to obtain ECPs, thereby saving costs associated with such a physician's visit.

In considering whether to account for costs related to potential serious side effects resulting from the use of ECPs, OSC relied on the information in the ACOG ECP practice bulletin regarding the lack of adverse events reported in published studies using evidence-based criteria. Therefore, OSC believes that should some additional costs arise from adverse events of ECP use, the potential savings identified in this report would not be significantly affected since OSC conservatively used the 75 percent rate of ECP effectiveness associated with Preven, instead of the higher, 85 percent effective rate linked to Plan B.[90] In addition, should Plan B become available to Medicaid recipients or receive FDA over-the-counter status, additional savings would be realized.

New York:
Estimated Potential Decrease in Unintended Births and Abortions
Through Increased Use of ECPs
(dollars in millions)

Outcome	Number Reduced from ECPs	Potential Savings from ECPs	Cost of ECPs	Net Potential Savings from ECPs
Births	39,846	$394.5	$1.3	**$393.2**
Abortions	82,315	$62.1	$3.0	**$59.1**
Total	122,161	$456.6	$4.3	**$452.3**

Medicaid

Reducing unintended Medicaid pregnancies by half (52,388) would result in 23,018 fewer births and 29,370 fewer abortions among Medicaid recipients. OSC estimates the fiscal impact of the decrease in births to be $232.1 million. The fiscal impact associated with the reduction in abortions would be $22 million. Total Medicaid potential savings from reducing Medicaid unintended pregnancies by 52,388, due to greater use of ECPs, would be $254.1 million. As noted above, this dollar impact is based on 2000 data and has been adjusted for inflation to June 2003.

In calculating the cost for ECPs, OSC used $17.95, the current Medicaid price reimbursed for Preven, currently the only dedicated ECP product available under Medicaid. To achieve these savings, 69,851 treatments of ECPs would be needed, based on a 75 percent effective rate in preventing pregnancy.

Other New York Healthcare Systems

Our model estimates that reducing unintended pregnancies associated with the Other New York Healthcare Systems by half (69,773) would result in 16,828 fewer births and 52,945 fewer abortions. The fiscal impact of the decrease in births would be $161.13 million. Similarly, the decrease in abortions would result in a fiscal impact of $37.06 million. As a result, the net savings to the Other New York Healthcare Systems that could result from a decrease of 69,773 unintended pregnancies through increased use of ECPs is $198.2 million. The dollar impact was based on 2000 data that was adjusted for inflation to June 2003.

In calculating the cost for ECPs, OSC used $33, a reasonable estimate of the price to purchase Plan B, which tends to be more expensive than Preven. These savings could be realized through the use of 93,030 treatments of ECPs, also based on a 75 percent effective rate in preventing pregnancy.

Public Health Education Campaign

As noted above, advocates have worked long and hard to promote the use of ECPs. However, in order to reduce the rate of unintended pregnancy in New York in a meaningful way, more action needs to be taken. A portion of the savings to all of the State's healthcare systems from the increased use of ECPs could be used to offset costs for a statewide public health education campaign on ECPs that targets women of childbearing age and the medical community, as well. In addition, public awareness of ECPs would be aided through passage of the federal Emergency Contraception Act proposed by Slaughter/Murray.

Recommendations

Emergency contraceptive pills have a significant potential to affect the lives of many New Yorkers by greatly reducing the number of unintended births and abortions, ultimately by half. The Office of the State Comptroller estimates that such a reduction would produce annual direct health care savings of $452.3 million. In order to reduce unintended pregnancy in a meaningful way, the following actions should be taken:

- **Provide ECP access through advance prescriptions and requests for telephone prescription.** During routine healthcare visits, including visits to college campus health centers, licensed prescribers, such as physicians, nurse practitioners and midwives, should provide women with counseling and advance prescriptions for ECPs. In addition, since a physical exam and pregnancy test are not necessary prior to using ECPs, licensed prescribers should allow access to ECPs through telephone prescription. This would ensure women the opportunity to obtain emergency contraception when needed.

- **State policymakers should support legislation for ECP non-patient specific prescriptions.** This legislation would allow pharmacists and nurses to directly dispense ECPs pursuant to a prescription and order of a non-patient specific prescriptions by a prescriber. Access to ECPs for women seeking to prevent unintended pregnancy after unprotected intercourse or sexual assault would be significantly improved through this type of direct access. Direct provision of ECPs has been successfully implemented in other states. This would also serve as a meaningful measure while awaiting FDA approval of over-the-counter status for ECPs and, even if one dedicated product attains over-the-counter status, continue to offer women a choice of product.

- **State policymakers should support the establishment of a statewide ECP public health education program.** Such a program would target not only women of childbearing age, but also the healthcare community to focus awareness on all those in a position to provide women with reproductive information and access to ECPs. The cost of such a program would be negligible in the context of considerable savings associated with the decrease in unintended pregnancy that would result.

- **FDA approval of over-the-counter status for ECPs should be achieved.** Earlier this year, Women's Capital Corporation, manufacturer of Plan B, submitted necessary materials to the FDA to achieve over-the-counter status. This move has been widely supported by ACOG, the AMA and Physicians for Reproductive Choice and Health, as well as many other organizations that support women's reproductive health care. This move, perhaps more than any other, would help women in preventing unintended pregnancies.

- **State and federal policymakers should support approval of the proposed Slaughter/Murray federal legislation.** The federal "Emergency Contraception Act" was introduced in March 2002. This bill would provide $10 million a year for five years to establish a public education and awareness program that would provide women with information on the availability of safe and effective emergency contraceptives. Its passage would result in more women knowing about emergency contraception and understanding how to access it when needed.

Appendix

Methodology to Estimate Medicaid Cost of Unintended Pregnancies

To estimate the cost of unintended Medicaid pregnancies, OSC identified actual costs for medical services associated with all Medicaid reported births and abortions. These costs were based on paid claims submitted by medical providers and processed through the Medicaid Management Information System (MMIS) administered by the New York State Department of Health.

OSC also took into consideration that Medicaid recipients receive health care through one of two models: fee-for-service or managed care. Under the fee-for-service model, participating Medicaid providers render services to eligible recipients and directly bill and receive payment from the Medicaid program. Under Medicaid managed care, recipients enroll with managed care organizations (MCOs). The MCOs ensure that each enrollee has a primary care provider and adequate access to a full continuum of 24-hour health care. In return, the Medicaid program pays a monthly premium payment to the MCOs for each enrollee.

Unintended Medicaid Birth Cost

According to Henshaw's 1998 study of unintended pregnancies, the proportion of births that were unintended for women with income below the federal poverty level was 44.8 percent, and 37.2 percent for women with income between 100 and 200 percent of poverty.[91] Using data from the Urban Institute's National Survey of America's Families, 1999, OSC estimates that of women of child-bearing age on Medicaid, about 75 percent have income below 100 percent of the federal poverty level and 25 percent have income between 100 and 200 percent of poverty.[92] OSC used this information to construct a weighted average of 42.9 percent for use in estimating the number of unintended births among Medicaid recipients in New York State.

To calculate the cost of unintended Medicaid births, OSC collected data from MMIS on all birth costs. For these calculations, birth costs included all prenatal care and the birth cost for mother and child from birth to discharge from the hospital, as well as the costs for any associated ancillary care. OSC's calculation of birth costs did not include subsequent or continuing hospitalizations of newborns arising from complications, such as premature birth. Accordingly, had these additional costs been included, the cost of unintended births would be higher. The unintended birth information was calculated by applying the 42.9 percent weighted average of unintended Medicaid births to the total number of Medicaid births for 2000. Similarly, OSC applied the 42.9 percent to the total cost of the associated Medicaid births. To determine the Medicaid births costs, OSC separated services to the mother and the newborn.

- **Mothers' Cost**

  OSC identified a total of 98,494 women receiving their health care through Medicaid who gave birth in 2000. In contrast, there were 107,310 Medicaid births for the same period. The difference between the number of mothers and births is attributed to the following factors:

- Multiple births – In New York for 2000, the Department of Health reported that due to multiple births, there were 98.16 mothers for every 100 births. As a result, for the 107,310 Medicaid births identified, there were 105,331 mothers.[93]

- Expanded Eligibility for Infants – Eligibility for children (aged 1–18) on Child Health Plus B is 250 percent of the federal poverty level. Eligibility for Child Health Plus A (Medicaid) for children (aged 1–18) is 133 percent of the federal poverty level and 200 percent of the federal poverty level for infants and pregnant women. As a result, there could be adolescents on Child Health Plus B that gave birth and stayed in Child Health Plus B, but the infant was enrolled in Medicaid. In these instances, the mother's cost would be incurred by the Other New York Healthcare Systems.

- Incomplete Medicaid Managed Care Encounter Data – Encounter data is information submitted by MCOs that identifies details on health care services provided to enrollees. MCOs do not receive reimbursement for encounter data and, as a result, this information is sometimes underreported. In OSC's audit report *Medicaid Managed Care Encounter Data* (2000-S-54), which covered the two-years ending December 31, 2000, the Department of Health estimated that encounter data was underreported by 8–18 percent. However, this audit found that encounter data was underreported 34 percent for a judgment sample of 200 enrollees.

Since OSC is unable to reconcile the precise difference in Medicaid reported mothers and births attributed to expanded eligibility and underreported encounter data, OSC has conservatively included in this estimate only the costs for the 98,494 mothers whose pregnancy and childbirth information was reported to MMIS. Accordingly, had reconciliation and inclusion of the costs for these additional mothers been factored into this estimate, associated Medicaid costs and costs to the Other New York Healthcare Systems would be higher.

In calculating the portion of Medicaid fee-for-service birth costs associated with the mother (mothers' costs), OSC first totaled paid fee-for-service claims for prenatal care, associated ancillary services and the hospitalization for the birth, as well as the costs for any other associated hospitalization. There were 76,151 women identified as giving birth in 2000 while under fee-for-service Medicaid. The average cost for these mothers was $5,511, with a median cost of $5,192.

The remaining 22,343 women who gave birth in 2000 received health care services through Medicaid managed care. Since there is no other available information to associate costs for women in Medicaid managed care with a resulting birth, OSC used the average Medicaid fee-for-service mother's cost ($5,511) to estimate these expenses. As a result, the estimated cost for the 98,494 women that gave birth in 2000 under Medicaid fee-for-service and Medicaid managed care is $542.8 million.

- **Newborn Cost**

  There were a total of 107,310 Medicaid births in 2000. In calculating the Medicaid fee-for-service costs for newborns, OSC totaled newborn hospitalization costs along with any associated ancillary costs up to the point of birth-discharge from the hospital. There were 81,126 Medicaid fee-for-service newborns for 2000 and the average cost for these newborns was $4,496. The median cost was $1,839.

  Under Medicaid managed care, a special payment is made to the MCO for each newborn to cover birth costs. This payment is known as the kick payment. OSC identified managed care newborns for 2000 by using paid kick payment information. Accordingly, there were 26,184 newborns under Medicaid managed care. The average kick payment cost for these newborns was $2,794 and the median cost was $2,948. By totaling the average fee-for-service and managed care costs for newborns, OSC estimates that the Medicaid cost for the newborn portion of these 107,310 births was $437.9 million.

- **Total Costs of Unintended Medicaid Births**

  The total Medicaid average cost per birth in 2000 was $9,139. OSC used the 42.9 percent weighted average rate of unintended Medicaid births, noted above, to estimate the total cost of unintended Medicaid births. As a result, OSC estimates for 2000 that unintended pregnancies resulted in 46,036 births that cost the Medicaid program $420.7 million. When adjusted for inflation to June 2003, these unintended Medicaid births cost $465.3 million.[94]

NYS Medicaid: Estimated Unadjusted Cost of Unintended Births in 2000

Payment Type	Number	Total Cost (in millions)	Average Cost	Median Cost
Mother	42,254	$232.8	$5,511	$5,192
Newborn - FFS	34,803	$156.5	$4,496	$1,839
Newborn - MC	11,233	$31.4	$2,794	$2,948
Total Birth	46,036	$420.7 *	$9,139	

FFS – Fee-for-Service, MC – Managed Care
* $465.3 million after inflationary adjustment

Cost of Medicaid Abortions

As noted above, all abortions are considered unintended pregnancies. To develop this estimate of the cost of the 58,740 Medicaid abortions identified through MMIS, OSC totaled paid fee-for-service abortion claims for 2000, as well as any associated prenatal and ancillary service claims. There were 55,479 Medicaid fee-for-service abortions for 2000. The average cost for 52,143 of these abortions performed in a clinic or physician setting was $532, with a median cost of $489. The average cost for the remaining 3,336 abortions, which occurred in an inpatient hospital setting, was $3,387, with a median cost of $3,170.

OSC also identified 3,261 Medicaid abortions for managed care recipients in 2000. Of these, 3,146 abortions were performed in a clinic or physician setting and 115 abortions occurred in an inpatient hospital. To estimate the cost of these abortions, the average fee-for-service abortion costs for clinic/physician abortions and inpatient abortions noted above were used.

As a result, OSC estimates that the 58,740 Medicaid fee-for-service and managed care abortions for 2000 cost $41.1 million. This reflects a total average cost of $699. When adjusted for inflation to June 2003, the cost for Medicaid abortions rises to $45.4 million.[95]

NYS Medicaid:
Estimated Unadjusted Cost of Abortions in 2000

Abortion Setting	Number of Abortions	Total Cost (in millions)	Average Cost	Median Cost
Clinic	55,289	$29.4	$ 532	$ 489
Inpatient	3,451	$11.7	$3,387	$3,170
Total	58,740	$41.1 *	$699	

- $45.4 million after inflationary adjustment

Total Cost of Medicaid Unintended Pregnancies

Combining the costs for unintended Medicaid births and abortions results in total costs of $461.8 million for 104,776 unintended Medicaid pregnancies in 2000. These costs increase to $510.7 million when adjusted for inflation to June 2003. [96]

NYS Medicaid:
Estimated Adjusted Cost of Unintended Pregnancies in 2000
By Outcome
(dollars in millions)

Category	Total	Percent Unintended	Number Unintended	Total Adjusted Unintended Costs
Abortions	58,740	100.0%	58,740	$45.4
Births	107,310	42.9%	46,036	$465.3
Total	166,050	63.1%	104,776	$510.7

Methodology to Estimate Other New York Healthcare Systems' Cost of Unintended Pregnancies

To develop the estimated cost of unintended pregnancies affecting the Other New York Healthcare Systems, OSC used data from the New York State Health Insurance Program (NYSHIP). NYSHIP is one of the largest group health insurance programs in the United States, providing hospital and surgical services and other medical and drug coverage to more than 790,000 active and retired State employees and their dependents. This program also provides coverage for more than 376,000 active or retired employees of participating local government units and school districts, and dependents of such employees. Specifically, OSC used data from the Empire Plan, an indemnity plan that is NYSHIP's primary health benefits program, providing services to almost one million individuals at an annual cost of more than $2.5 billion.

Similar to the estimated cost of unintended Medicaid pregnancies, OSC identified the actual cost for medical services associated with all births and abortions paid through the Empire Plan for 2000. In addition, to give appropriate consideration to both the high percentage and cost of self-paid abortions, OSC used data from both Henshaw and Finer's report – "The Accessibility of U.S Abortion Services in the United States, 2001" and the Department of Health.[97] All of this information was used to develop and then apply average costs for unintended births and abortions for these estimates.

OSC was able to identify the total number of unintended births and abortions for New York State overall using birth data from the National Center for Health Statistics, abortion data from Finer and Henshaw's study on abortion services in 2000 and the unintended pregnancy rate from Henshaw's study of unintended pregnancy in the United States.[98] In addition, OSC used information from MMIS to identify unintended births and abortions for the State's Medicaid population.

OSC estimates that there were 257,317 pregnancies in the State for 2000, associated with Other New York Healthcare Systems. These pregnancies resulted in 105,890 abortions and 151,427 births, as shown in the table below. The 105,890 abortions attributed to the Other New York Healthcare Systems were estimated by taking the difference of the total number of abortions in New York State (164,630) and the number of Medicaid abortions (58,740). Similarly, the 151,427 births attributed to the Other New York Healthcare Systems were

estimated by taking the difference of the total number of births in the State (258,737) and the number of Medicaid births (107,310).

There were an estimated 139,545 unintended pregnancies associated with the Other New York Healthcare Systems, reflecting a projected 54.2 percent of pregnancies that were unintended. There were 33,655 unintended births attributed to the Other New York Healthcare Systems for 2000 as estimated by OSC. These births were estimated by taking the difference of the total number of unintended births in the State (79,691) and the number of unintended Medicaid births (46,036). The estimated proportion of unintended births among women with income high enough to disqualify them from receiving Medicaid is based on previous research showing that higher income women have a lower proportion of unintended births than do lower income women.[99] All 105, 890 abortions are considered unintended. As a result, the remaining unintended births and abortions in the State are associated with the Other New York Healthcare Systems. Therefore, 33,655 births and 105,890 abortions, totaling 139,545 unintended pregnancies are associated with the Other New York Healthcare Systems.

Distribution of New York
Unintended Births and Abortions in 2000

Outcome	Total State - Unintended	Medicaid - Unintended	Other NY - Unintended
Abortions	164,630	58,740	105,890
Births	79,691	46,036	33,655
Total Pregnancies	244,321	104,776	139,545

Other New York Healthcare Systems' Unintended Birth Cost

To estimate Other New York Healthcare Systems' cost for the 33,655 unintended births, OSC developed an average cost based on Empire Plan claims paid in 2000 that included prenatal care, the birth cost for mother and newborn from birth to discharge from the hospital, as well as costs for any associated ancillary care. Birth costs did not include subsequent or continuing hospitalizations of the newborn arising from complications, such as premature birth. Accordingly, had these costs been included, the cost of unintended births would be higher.

- **Mothers' Cost**

  Using aggregate Empire Plan paid claim information for 2000, OSC determined that the average cost for the mother associated with a birth was $6,872. The median cost was $6,158. Using State Department of Health reported information on the distribution of resident births by plurality to account for multiple births, there were an estimated 33,034 mothers for the 33,655 newborns resulting from unintended pregnancies for the Other New York Healthcare Systems.[100] Based on the average cost above, OSC estimates the birth-related costs for these mothers to be $227 million.

- **Newborn Cost**

  Similarly, OSC used aggregate paid Empire Plan claim information for 2000, and calculated that the average newborn cost was $1,952. The median cost was $1,140. As a result, the estimated newborn-related costs for these 33,655 births were $65.7 million, based on the average cost above.

- **Total Costs of Unintended Other New York Healthcare Systems' Births**

  OSC estimates that the 33,655 unintended births in 2000 associated with the Other New York Healthcare Systems' cost $292.7 million. The total average cost for these births was $8,697. After adjusting for inflation to June 2003, these unintended birth costs rise to $323.7 million.[101]

Other New York Healthcare Systems:
Estimated Unadjusted Cost of Unintended Births in 2000

Payment for	Number	Total Unintended Costs (in millions)	Average Cost	Median Cost
Mother	33,034	$227	$6,872	$6,158
Newborn	33,655	$65.7	$1,952	$1,140
Total Births	33,655	$292.7 *	$8,697	

* $323.7 million after inflationary adjustment

Cost of Other New York Healthcare Systems' Abortions

Vital statistics information reported by the Department of Health for 2000 indicates that women self-paid for 64 percent of non-Medicaid abortions. The remaining 36 percent of non-Medicaid abortions was paid by other insurance.[102]

- **Cost of Self-Pay Abortions**

  In developing an estimate of the cost for self-pay abortions, it is important to consider statistics relating to the number of weeks at which the pregnancy was aborted (gestational age), since abortions are generally more expensive as the gestational age increases. For example, data from the 2001-2002 Alan Guttmacher Institute (AGI) abortion provider survey indicates that for 2001, a self-pay abortion in New York at 12 weeks gestational age costs $385. In contrast, at a gestational age of 16 weeks and 20 weeks, a self-pay abortion in New York costs $741 and $1,120, respectively, during the same period.[103]

  The Department of Health reported that for 2000, almost 93 percent of self-pay abortions in the State occurred at, or before, 12 weeks gestational age. Six percent

of self-pay abortions during the same period occurred from a gestational age of 13 to 19 weeks; and about one percent were performed at 20 or more weeks.[104]

Using the abortion cost data from the AGI survey and information from the Department of Health on gestational age for self-pay abortions, OSC developed a weighted average cost for self-pay abortions. As part of this calculation, the weighted average cost for 2001 was adjusted down to 2000. Consequently, the weighted average cost for self-pay abortions in 2000 was $394. Therefore, the 67,907 self-pay abortions occurring in 2000 in New York are estimated to have cost $26.8 million, or $29.6 million when adjusted for inflation to June 2003.[105]

- **Cost of Other Insurance Abortions**

Nearly all abortions in 2000 took place in a clinic, physician or hospital outpatient setting.[106] To develop the estimate of the cost of abortions that were paid by other insurance, OSC used aggregate Empire Plan paid claim information for 2000. The estimated total cost for the 37,983 other insurance abortions for 2000 was $44.4 million. This estimate reflects an average cost of $1,170, which in addition to the actual abortion cost, included any associated prenatal and ancillary service claims. The median cost was $912. After adjusting for inflation to June 2003, the estimated cost for these abortions is $49.2 million.[107]

- **Total Costs of Other New York Healthcare Systems' Abortions**

OSC estimates that for 2000, abortions cost the Other New York Healthcare Systems $71.2 million for 105,890 abortions, all of which are considered unintended. The overall average cost for these abortions was $672. When adjusted for inflation to June 2003, these costs total $78.8 million.[108]

Other New York Healthcare Systems:
Estimated Unadjusted Cost of Abortions in 2000

Payment Method	Number of Abortions	Average Cost	Total Cost (in millions)
Self-Pay	67,907	$ 394	$ 26.8
Private Insurance	37,983	$1,170	$ 44.4
Total	105,890	$ 672	$ 71.2 *

- $78.8 million after inflationary adjustment.

Other New York Healthcare Systems' Cost of Unintended Pregnancies

OSC estimates that costs to the Other New York Healthcare Systems for unintended pregnancies totaled $363.9 million for 2000. When adjusted for inflation, these costs increase to $402.5 million.[109] This reflects a projected unintended pregnancy rate of 54.2 percent or the 139,545 unintended non-Medicaid pregnancies that resulted in 33,655 births and 105,890 abortions.

Other New York Healthcare Systems:
Estimated Adjusted Cost of Unintended Pregnancies in 2000
By Outcome
(dollars in millions)

Outcome	Total Number	Percent Unintended	Number Unintended	Total Adjusted Unintended Costs
Abortions	105,890	100.0%	105,890	$ 78.8
Births	151,427	22.3%	33,655	$323.7
Total	257,317	54.2%	139,545	$402.5

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[92] "Table 13a. Characteristics of Low-Income Medicaid/SCHIP/State Enrollees in New York." Urban Institute tabulations of the National Survey of America's Families (NSAF) 1999. June 2003 <http://www.urban.org/Content/Research/NewFederalism/NSAF/Overview/NSAFOverview.htm>. The survey provides quantitative measures of child, adult and family well-being in America, with an emphasis on persons in low-income families. The survey draws on data from 13 states, including New York, which account for more than half of the nation's population.

[93] "Table 5. Live Birth Summary by Mother's Age." 2000 Vital Statistics. Sept. 2002. Department of Health 5 June 2003 <http://www.heatlh.state.ny.us/nysdoh/vital_statistics/2000/table5.htm>. OSC used this data to calculate rate of mothers for every 100 births.

[94] U.S. Department of Labor. Bureau of Labor Statistics Consumer Price Index for medical care, seasonally adjusted from Jan. 2001 through Jun. 2003. Sept. 2003 <http://data.bls.gov/servlet/SurveyOutputServlet?data_tool=latest_numbers&series_id=CUSR0000SAM&output_view=pct_1mth>. Total costs under managed care are generally considered to be less than fee-for-service costs. Additional analysis of Medicaid fee-for-service and managed care records for 2002 showed that while the number of newborns under managed care increased by 57 percent from 2000, the overall costs and average costs remained consistent with OSC's inflationary adjustment, due to increases in the cost of fee-for-service births.

[95] Id.

[96] Id.

[97] Henshaw, Stanley K. and Lawrence B. Finer. "The Accessibility of U.S. Abortion Services In the United States, 2001." Perspectives on Sexual and Reproductive Health 35.1 (Jan./Feb. 2003): 16-24. Henshaw provided New York specific data on self-pay abortions that was identified from the 13th Alan Guttmacher Institute survey of all known U.S. abortion providers; "Table 24. Induced Abortions by Resident County and Financial Coverage." 2000 Vital Statistics. Nov. 2002. Department of Health. 21 Oct. 2003 <http://www.heatlh.state.ny.us/nysdoh/vital_statistics/2000/table24.htm>.

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[100] "Table 5. Live Birth Summary by Mother's Age." 2000 Vital Statistics. Sept. 2002. Department of Health 5 June 2003 <http://www.heatlh.state.ny.us/nysdoh/vital_statistics/2000/table5.htm>. OSC used this data to calculate rate of mothers for every 100 births. Department of Health.

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[103] Henshaw, Stanley K. and Lawrence B. Finer. "The Accessibility of U.S. Abortion Services In the United States, 2001." Perspectives on Sexual and Reproductive Health 35.1 (Jan./Feb. 2003): 16-24. Henshaw provided New York specific data on self-pay abortions that was identified from the 13th Alan Guttmacher Institute survey of all known U.S. abortion providers; Department of Health. "Table 24. Induced Abortions by Resident County and Financial Coverage." 2000 Vital Statistics. Nov. 2002. Department of Health. 21 Oct. 2003 <http://www.heatlh.state.ny.us/nysdoh/vital_statistics/2000/table24.htm>; Herzfeld, Peter. "Table of Abortion by Gestation Age and Payor." Department of Health, Office of Vital Statistics. Email to Gabriel Deyo. 15 Sept. 2003.

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[105] U.S. Department of Labor. Bureau of Labor Statistics Consumer Price Index for medical care, seasonally adjusted from Jan. 2002 through Jun. 2003. Sept. 2003 <http://data.bls.gov/servlet/SurveyOutputServlet?data_tool=latest_numbers&series_id=CUSR0000SAM&output_view=pct_1mth>.

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[107] U.S. Department of Labor. Bureau of Labor Statistics Consumer Price Index for medical care, seasonally adjusted from Jan. 2001 through Jun. 2003. Sept. 2003 <http://data.bls.gov/servlet/SurveyOutputServlet?data_tool=latest_numbers&series_id=CUSR0000SAM&output_view=pct_1mth>.

[108] Id.

[109] Id.

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