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Adolescents and Emergency Contraceptive Pills in Developing Countries

Chris Parker

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I. EMERGENCY CONTRACEPTIVE PILLS: IMPORTANT FOR YOUTH

Emergency contraceptive pills (ECPs) have become more available in many developing countries. However, limited provider knowledge and negative attitudes, as well as poor user awareness and access, have hindered adolescents in learning about and using ECPs.

Despite programming and messages encouraging delayed sexual debut and abstinence, many youth have unplanned intercourse. Some youth have sex sporadically, which makes contraceptive planning difficult. Others experience contraceptive failure — and their failure rates may be higher than adults due to their inexperience. Also, many young women experience coerced sex, including rape.

A growing number of programs have begun to expand access to ECPs by adolescents through pharmacies, clinics with a youth focus, youth centers, and social marketing efforts, but more efforts are needed on a much larger scale. This paper highlights recent research on adolescents and ECPs, reviews the evidence about the most common barriers of youth access to ECPs, and summarizes ways to expand the access and availability of ECPs to adolescents.

Making ECPs accessible to adolescents can help prevent unintended pregnancy. The prevention of unintended pregnancy in turn prevents the risks that adolescent pregnancy poses for mother and child, including abortions. In addition, providing ECPs can provide adolescents with a bridge to other reproductive health services.

Prevents Unintended Pregnancy

Emergency contraception adds an important option for helping sexually active adolescents avoid unintended pregnancy. Many adolescent females are at high risk of unintended pregnancy. They have limited knowledge of contraception and generally lack access to services or do not feel comfortable using these services. According to the Demographic and Health Surveys (DHS) in Ghana, Kenya, Namibia, and Brazil, the proportion of currently pregnant women under age 20 who reported that their pregnancies were mistimed or unwanted was 46 percent, 50 percent, 55 percent, and 58 percent, respectively. The steadily decreasing age of menarche and increasing age of marriage have created a widening window of time for premarital sexual intercourse and pregnancies. Even in countries where age at first intercourse has risen, the increase in age of marriage is usually greater, resulting in a widening gap.

Studies have found a delay of about one year on average between starting sexual activities and first use of modern contraceptives.¹ Many unplanned pregnancies occur within a year after first sexual intercourse.² For example, among 16-year-olds delivering at Harare Maternity Hospital in Zimbabwe, more than half of the 200 surveyed had become pregnant within just three months of starting sexual activity.³ Young people in general are not experienced in using contraception, and those adolescents who do initiate a family planning method often do not plan in advance or lack the skills or motivation to use it correctly and consistently.

Gender inequity and cultural norms often make it hard to address the issue of contraception for adolescents. While condoms are available to adolescents in many countries, lack of power within relationships can make it difficult, if not impossible, for young women to negotiate condom use with their partners. In many cultures, sex-related issues are rarely discussed, even between

spouses. Many young women also experience coerced sex. A review of 14 studies conducted in developing countries found that 15 percent to 30 percent of sexually active girls reported that their first sexual experience was coerced.⁴

Behavioral factors that frequently put adolescents at greater risk of pregnancy include experimentation and risk taking, as well as limited ability to plan ahead. The nature of relationships and frequency of intercourse are often different during adolescent years than later in life. Shorter relationships, sometimes with long intervals in between, are not uncommon, and sex may be infrequent and sporadic. This may lead to reluctance to adopt a regular family planning method or make it harder to plan to use one.

Prevents Risks of Pregnancy for Adolescent Mother and Child

By preventing adolescent pregnancy, ECPs can help avert the risks to the mother and child associated with early pregnancy and childbearing. Adolescent pregnancy can lead to serious social stigma and health consequences for both mother and child. The adverse social and economic consequences for an adolescent who becomes pregnant will depend on her particular marital, cultural, familial, and community situation. However, in many developing countries, pregnancy severely limits an adolescent in pursuing education and in having broader economic opportunities in the future.

The physical and health consequences for a young mother and her child are nearly universally recognized as problematic. Compared with women in their twenties, adolescents ages 15 to 19 are two times more likely to die during childbirth, and those ages 14 years and younger are five times more likely to die.⁵

The health risks of prolonged, obstructed labor are more common among adolescents under 16 years old due to a narrow, underdeveloped pelvis. Obstructed labor can result in infection, vaginal fistula, or even death of the mother or infant. Hypertensive disorders of pregnancy are also more common in younger women. Such conditions as pre-eclampsia (hypertension, protein in urine, and/or water retention) and eclampsia (convulsions) can have serious consequences, including hemorrhage, coma and, if not recognized and treated promptly, death. For every maternal death, an estimated 30 women experience complications such as vaginal tears, fistulae, or excessive bleeding.

Early pregnancy also poses special health risks for the child. The infants of teenagers have higher rates of premature birth, lower birth weights, and higher mortality rates than infants of older mothers. In Bangladesh, India, Nepal, and Pakistan, the neonatal, infant and under-five mortality rates among live births by adolescents are at least 24 percent to 38 percent higher, compared with live births by women ages 20 to 29.⁶

Prevents Abortions

By preventing unintended pregnancies, emergency contraception prevents abortions. Unintended pregnancies often lead to unsafe abortions. The United Nations Population Fund (UNFPA) reports that more than 4.4 million females ages 15 to 19 have abortions every year. Almost half of these

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What Are ECPs and How Do They Work?

What are emergency contraceptive pills?

ECPs are oral contraceptive pills that a woman can take within 72 hours or more after unprotected intercourse to reduce her risk of becoming pregnant. They contain a higher dose of the same active ingredients that regular birth control pills contain. Recent research suggests the pills are also effective, though less so, if taken within 120 hours of unprotected intercourse.

When should emergency contraceptive pills be used?

They are intended for use after sexual intercourse when no contraception is used, when a regular contraceptive method does not work properly (as when a condom breaks or slips, or a daily oral contraceptive is missed), or if a woman is sexually assaulted.

What type of pills are available?

Two types of ECPs have been rigorously studied during the past 30 years. The more effective regimen is a progestin-only pill. Several manufacturers now package and brand an effective dosage as a dedicated ECP product. Common brand names include Postinor-2, Plan B, and NorLevo. These dedicated products contain a total of 1.50 milligrams (mg) of levonorgestrel. Some labeling requirements say this dosage should be taken in two pills (each of 0.75 mg), 12 hours apart. But research has shown that taking both pills at the same time is equally effective.¹⁵

If a progestin-only product is not available, a less desirable alternative known as the Yuzpe regimen employs commonly available combined oral contraceptive pills that contain both estrogen (ethinyl estradiol) and progestin (levonorgestrel). This regimen is generally taken in two doses, 12 hours apart, with each dose containing 100 micrograms (mcg) of ethinyl estradiol and 500 mcg of levonorgestrel.

How do the pills work?

The mechanism of action for ECPs is important for clients, providers, and policy-makers due to sensitive legal, social, and political questions related to abortion. However, ECPs are contraceptives, not abortifacients. Depending upon when the pills are taken during the woman's menstrual cycle, they either prevent or delay ovulation (the release of an egg from the ovary) or prevent fertilization of the egg. Studies indicate the pills primarily work by preventing or delaying ovulation. The pills will not work if taken after pregnancy has started and will not harm the pregnancy in any way.

How effective are the pills?

The sooner ECPs are started, the more effective they are. In the most thorough study to date, coordinated by the World Health Organization (WHO) and involving 2,000 women in sites throughout the world, progestin-only pills prevented 95 percent of expected pregnancies when started within 24 hours of unprotected intercourse, 85 percent when started in the 25th through 48th hour, and 58 percent when started in the 49th through 72nd hour. Combined pills were less effective, preventing 77 percent of pregnancies when started on the first day, 36 percent when started on the second day, and 31 percent when started on the third day.¹⁶ The study clearly points to the need to start ECPs as soon as possible after unprotected intercourse.

Do the pills cause side effects?

The pills sometimes cause nausea, vomiting, headaches, dizziness, cramping, fatigue, or breast tenderness. The pills also may cause irregular bleeding until a woman menstruates again, and menstruation may begin early or late. In the WHO study cited previously, about 20 percent of women taking the combined ECP experienced vomiting and 50 percent had nausea, compared to only 6 percent with vomiting and 20 percent with nausea among those taking the progestin-only pill.

What should a woman do after using the pills?

If a woman's menstruation is more than a week later than expected, she could be pregnant and may want to see a health care provider. If she is pregnant, all available evidence indicates that use of emergency contraceptive pills will not harm the pregnancy.

Can a woman use these pills every time she has sex?

Emergency contraceptive pills should not be used routinely to prevent pregnancy because they are less effective than other family planning methods, such as regular oral contraceptives, injectables, intrauterine devices, and condoms. Also, they have much higher dosages of hormones and more side effects than other methods.

Do the pills protect against sexually transmitted infections?

Like other hormonal contraceptives, ECPs provide no protection from STIs. Abstinence or latex condoms provide the best protection against sexually transmitted infections, including HIV.

Is the emergency contraceptive pill the same as the “morning-after pill?”

Yes, but the term “morning-after pill” can be misleading. Women might think they must wait to begin treatment until the morning after unprotected sexual intercourse. Or, they might think incorrectly that they have only 24 hours to use ECPs.

General source: International Consortium for Emergency Contraception (ICEC). *Expanding Global Access to Emergency Contraception*. Seattle, WA: ICEC, 2000.

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abortions are performed under unsafe conditions. A number of studies of clandestine abortion in developing countries have reported that abortion and abortion morbidity are most common among young, unmarried women. In Lusaka, Zambia, for example, 60 percent of women hospitalized for abortion complications were 15 to 19 years old.⁷ Among women hospitalized with abortion-related complications in Uganda, about two-thirds were 15 to 19 years old, two-thirds were students, and four out of five had never been married.⁸ Hospital-based studies have shown that in Nigeria up to 80 percent of patients with abortion-related complications are adolescents.⁹ Similarly, a Nigeria community-based study of abortion prevalence found that one-third of women who obtained an abortion were adolescents.¹⁰

The complications of unsafe abortion are serious and can be life threatening. Most common complications such as infection, hemorrhage, and injury to reproductive organs may result in sepsis (generalized infection), pelvic inflammatory disease, infertility, or even death. The Alan Guttmacher Institute estimates that in the United States more than 50,000 abortions were prevented by ECP use in 2000, which accounts for up to 43 percent of the total decline in the number of abortions.¹¹

Provides Adolescents a Bridge to Other Reproductive Health Services

Reaching youth with preventive reproductive health services is a challenge. For many, their first contact with health providers occurs when their health needs become urgent and real, for example, sexually transmitted infection (STI) treatment or antenatal care. Adolescents seeking emergency contraception realize that they are at high risk of pregnancy, and they will probably be more open to discussion with providers about their contraceptive and other health needs. They also may be more likely to consider ongoing contraception after using ECPs.

A survey of 205 students in Jamaica found that 55 percent of those who used ECPs for the first time adopted an ongoing method of contraception afterwards.¹² Other studies have also shown that women who use ECPs, including women who have received them in advance or who have easy access through clinics, tend to switch to more effective contraceptive methods¹³ and do not have more unprotected acts of intercourse.¹⁴ Thus, emergency contraception providers should use this opportunity to discuss future contraception and STI/HIV prevention with adolescents. In cases when ECPs are provided through pharmacies or other channels, information or referral for other health services, including family planning, should be given.

II. ADOLESCENT ECP PROVISION AND USE: COMMON BARRIERS AND CONCERNS

In general, adolescents' access to and awareness of regular contraception are low, and awareness of and access to emergency contraceptive pills are even lower. Even when adolescents are aware of their contraceptive choices, they face many obstacles in obtaining accurate information and access to contraceptives. Emergency contraception pills are no exception. A review of the evidence shows that adolescents' restricted access to emergency contraception is due to their lack of awareness of ECPs; barriers to their use of family planning clinics, including embarrassment, lack of familiarity with the clinics, and inconvenient clinic hours; and fear of a pelvic examination and provider attitudes.¹⁷

In addition, providers lack awareness and knowledge of the correct use of ECPs and often have biases and misconceptions, which pose significant barriers to ECP use by adolescents. Also, the legal, political, and social status of ECPs and contraception as a whole can serve to hinder timely access to ECPs.

Adolescents' Limited Awareness and Knowledge

Rates of emergency contraceptive use vary widely but are generally low, especially as reported from population-based surveys. Demographic and Health Surveys from 2000 show that fewer than two percent of youth ages 15 to 24 have ever used emergency contraception in Armenia, Cambodia, Haiti, Malawi, Turkmenistan, and Uganda. In a survey of sexually active youth in 2000-2001, 10 percent of Jamaican university students had used ECPs.¹⁸ Among young women who had previously had clandestine abortions in Nigeria, 16 percent had used ECPs.¹⁹

A recent review of emergency contraception literature from developed and developing countries indicates that awareness is generally low but slowly increasing. Even where the concept of emergency contraception is known, knowledge of accurate use of the method is very low.²⁰ Surveys among university and postsecondary students in several African countries found that while a quarter to three-quarters of youth had heard of emergency contraception, accurate knowledge about its use was minimal. In one study in Nigeria, 75 percent of students surveyed were aware of emergency contraception, but only 12 percent knew that the first dose of ECPs should be taken within 72 hours of unprotected intercourse.²¹ In a Ghana study, only 11 percent of the students surveyed (22 of 196 surveyed) knew the correct timeframe for starting ECPs.²²

In Jamaica, even though 84 percent of the 205 students surveyed knew of ECPs, few knew about availability, dosage, and timing.²³ A study in northern India reported that very few of the youth surveyed (women seeking abortions and college students) were familiar with the concept of emergency contraception.²⁴ In a survey of adolescent mothers in South Africa, 189 out of the 250 respondents (76 percent) did not know about the availability of emergency contraceptives.²⁵ In a study of female undergraduate students in Nigeria, 58 percent were aware of emergency contraception, but only 18 percent of those women knew the correct timeframe in which ECPs are most effective.²⁶

Adolescents' Limited Access to ECPs

Even if awareness of ECPs is increased, access can still be problematic for adolescents. Research suggests that youth are reluctant to go to family planning clinics (private, community, or college-based) to get ECPs. A study in Zambia found that youth view staff from traditional health care facilities as unwelcoming and judgmental and may not seek their services because of embarrassment or lack of privacy.²⁷ In Zimbabwe, young women who posed as clients seeking ECP services reported that staff from many of the 12 hospitals and clinics they visited were in a hurry, were not interested in helping them, or seemed condescending, condemning, or angry.²⁸ Also, clinics may not be open when emergency contraception is needed.²⁹ Given the need to take ECPs as soon as possible after unprotected intercourse, limited clinic operating hours, long waits to see a provider, and physical distance from clinics may discourage youth from seeking ECPs in a clinic setting.

Pharmacies have the potential to address many of the problems related to youth's reluctance to go to clinics for ECPs, particularly where prescriptions are not required. But pharmacies have some disadvantages as well. A study in Zambia by the Population Council and local collaborators found that pharmacists were the best provider of both ECP information and pills, compared to clinic-based providers, peer counselors, and community sales agents. About half of the 400 young women in the study turned to pharmacists for information, and nearly three-quarters of those seeking ECPs went to pharmacists. However, the pharmacists were the least likely of the groups to offer detailed information about ECPs or information on alternative contraceptive options.³⁰

Pharmacists generally do not consider counseling as their responsibility, and many lack the time or facilities to counsel in private, so youth are less likely to receive ECP counseling from pharmacies than from clinic staff. Similarly, guidance concerning regular family planning methods and STI prevention may be lacking or nonexistent in the pharmacy setting.

Limited Provider Awareness and Knowledge

Many health care providers have not received proper training on ECP provision. Two-thirds of 40 providers surveyed in Mexico had heard of ECPs, but less than one-third knew that ECPs were intended for use *after* unprotected intercourse.³¹ Among some 700 Venezuelan obstetricians and gynecologists who had heard of ECPs, about two-thirds did not know how effective ECPs are, and about 40 percent were unclear about contraindications.³² In a 2000 study of provider awareness of emergency contraception in Ghana, only about a third of 325 providers interviewed had heard about ECPs, and none of the providers had sufficient knowledge to prescribe it correctly.³³ Of 353 Brazilian obstetricians and gynecologists who said they had prescribed ECPs, only 15 percent could name the correct regimen and timing of the first dose.³⁴ Surveys among health professionals in South Africa and Zimbabwe found a similar lack of correct information.³⁵

In a study of providers in northern India, many providers (85 percent of gynecologists, 41 percent of general practitioners, 64 percent of medical students, and 3 percent of paramedical workers) were vaguely familiar with the concept of emergency contraception, but very few knew accurately about timing and doses.³⁶

In general, providers are somewhat more aware of ECPs than adolescent clients, but their low knowledge of correct usage indicates an urgent need for improved skills and knowledge.

Provider Reluctance to Provide ECPs to Adolescents

While a lack of knowledge among providers is a problem, negative attitudes toward providing adolescents with ECPs poses an equal challenge. Among 300 providers in Ghana, about three-quarters approved of ECP use in general, but only half thought they were appropriate for youth.³⁷ In a survey among nurses and nursing students in Kenya, only 21 percent approved of ECPs for adolescents. Some thought ECPs contributed to immoral behavior or promoted risky sexual behavior. About half believed incorrectly that ECPs function as an abortifacient or were illegal.³⁸

In countries where abortion is illegal or religious opposition to contraception and abortion is strong, providers and youth may be more likely to think incorrectly that ECPs act as an abortifacient. In Brazil, where general awareness that ECPs existed was nearly universal among 600 obstetricians and gynecologists surveyed, 30 percent erroneously believed ECPs to be an abortifacient, and 14 percent incorrectly identified ECPs as illegal.³⁹ Among over 700 Venezuelan obstetricians and gynecologists who had heard of ECPs, this misperception was less prevalent — less than 10 percent thought ECPs were an abortifacient.⁴⁰

Some health care providers, parents, and policy-makers fear that adolescent knowledge or use of ECPs may lead to more unprotected intercourse and a decrease in the use of a regular method of contraception. For example, a study in Kenya found that providers and others believe that ECPs will discourage regular contraceptive method use among youth.⁴¹ A recent overview of the literature on emergency contraception found that these assumptions and concerns are generally not true.⁴² For example, studies in India, Ghana, Mexico, the United Kingdom, and the United States suggest that advance provision of ECPs is not associated with abandonment of regular contraception.⁴³

In fact, ECPs might provide an entry point to using contraception, because youth seeking ECPs sometimes receive counseling about previously unfamiliar contraceptive methods. Among 205 university students in Jamaica who had used ECPs, 55 percent reported that they started using a regular method of contraception after using ECPs for the first time.⁴⁴ A 2004 study of adolescents in Mexico found that emergency contraception use had no adverse effects on condom use, but rather was associated with an increased probability of condom use and an increased perceived capacity to negotiate condom use.⁴⁵

In one study of postpartum women who had received an advance supply of ECPs and those in the control group who had not, women with ECPs on hand were four times more likely to have used emergency contraception over the course of a year (17 percent, compared to 4 percent). The women in the advance provision group were no more likely than the control group to report changing to a less effective method of contraception or using contraception less consistently.⁴⁶ Providing advance ECPs was not associated with more unprotected intercourse or less condom or hormonal contraceptive use. In the first month after enrollment in the study, adolescents provided with advance ECPs were nearly twice as likely to use it and began ECP use sooner. Two other recent studies provide evidence that information about and access to contraceptive methods, including ECPs, does not lead to promiscuity or earlier initiation of sex among adolescents.⁴⁷

A new 2005 study on ECP advance provision found that women who have advance access to emergency contraception without having to contact a pharmacy are no more likely to engage in unprotected sex or abandon use of other contraceptive methods than women who do not have

easy access to the pills.⁴⁸ However, in this study, advance provision of ECPs was not seen to lower the pregnancy rate.

Some providers fear that repeat use of ECPs presents health risks or will encourage women to use emergency contraception routinely. However, repeat use of ECPs poses no health risks, according to WHO, which has placed repeat ECP use in Category 1 of its medical eligibility guidelines, indicating that there is no restriction for the repeat use of this contraceptive method.⁴⁹ WHO guidelines on ECP service delivery state, “Although frequent use of emergency contraceptive pills is not recommended, repeat use poses no health risks and [health risks] should never be cited as a reason for denying women access to treatment.”⁵⁰

Legal and Social Restrictions of ECP Provision to Adolescents

Adolescents’ awareness of and access to ECPs are determined by a number of legal and societal factors. ECPs are not included in many national family planning programs and are available by prescription only in many countries. The high cost and limited availability of dedicated ECPs can deter adolescents from using them.

The legal status of ECPs varies by country. In many countries, lack of government policy about the method leaves providers unclear about its legal status and insufficiently informed to recommend it to women when needed.⁵¹ Clear policies to promote provision of ECPs would help ensure availability when needed.

Efforts to make ECPs widely available often depend on public and private sector recognition that ECPs are a contraceptive method and not a form of abortion.⁵² Widely accepted views of the medical community are reflected in the WHO definition of emergency contraception as “contraceptive methods that can be used by women in the first few days following unprotected intercourse to prevent an unwanted pregnancy.”⁵³ Once implantation has taken place, ECPs are ineffective and do not interfere with an established pregnancy.⁵⁴

Many countries have explicitly approved ECPs as a contraceptive method by licensing existing drugs or approving new drugs for use as emergency contraceptives; by incorporating ECPs into government-regulated family planning services and protocols for treating sexual assault survivors; or by endorsing ECPs through publicity and information campaigns. For information on the status of whether dedicated ECPs are approved in a specific country, visit the International Consortium for Emergency Contraception Web site at: <http://www.cecinfo.org/html/res-product-issues.htm>.

A global review found that many countries with highly restrictive abortion laws do permit emergency contraception, including Argentina, Brazil, Colombia, El Salvador, Kenya, Pakistan, Thailand, and Venezuela.⁵⁵ The acceptance of ECPs in these countries reveals an understanding that emergency contraception is contraception, not abortion. For example, the city of Rosario, Argentina, has incorporated ECPs into its Responsible Childbearing Program, which is administered by the Municipal Secretary of Health.⁵⁶ At the national level, the Kenyan Ministry of Health permits qualified health care workers at appropriate facilities to distribute ECPs.⁵⁷

III. EXPANSION OF ACCESS AND USE OF ECPs BY ADOLESCENTS

Emergency contraception has become a widely accepted method of contraception, and many governments have taken steps to increase women's access to it. However, substantial barriers remain for adolescents. To continue expanding availability of ECPs to adolescents and women as a whole, public health and policy advocates recommend that governments explicitly recognize ECPs as a safe, effective method of preventing pregnancy and strengthen their efforts to increase access. Recommendations to government agencies include:

- Register with the government and promote at least one product dedicated for ECP use (in contrast to using standard combined oral contraceptives in higher dosages)
- Expand awareness and access through efforts such as permitting the sale of ECPs without a doctor's prescription (over-the-counter)
- Enact laws and policies that recognize adolescents' right to use ECPs and that address the barriers they face in accessing and using ECPs

Support for a Dedicated ECP Product

Government support (whether explicit or implicit) is a prerequisite for successfully integrating ECPs into large-scale reproductive health programs. The collaboration of government agencies, such as the Ministry of Health and the drug regulatory agencies, is critical to ensuring the availability of an ECP product and appropriate service provision. Although government support is essential, it can be difficult to obtain if there are strong political pressures. The lack of government support results in serious barriers. In countries where abortion is a sensitive political and social issue, political leaders have been reluctant to provide a dedicated ECP product through government-funded programs because of the incorrect belief that ECPs are an abortifacient. Therefore, it is essential to understand the political and social context before initiating emergency contraception programs.

A dedicated ECP product, which contains only progestin, is easier to take, is more effective, and has fewer side effects than an ECP regimen using combined oral contraceptives.⁵⁸ More than 100 governments have registered dedicated ECP products, showing remarkable growth in potential availability in recent years.⁵⁹ While having a dedicated ECP product available is ideal, providers should keep in mind that combined oral contraceptives can be used as ECPs (see dosage details on page 3).

Another important way to expand access is to make ECPs available without a doctor's prescription, known as "over-the-counter." About 40 countries now permit ECPs to be sold in this way.⁶⁰ In addition, some governments have taken special steps to make ECPs available to women who are at greatest risk of unwanted pregnancy, such as rape victims.

Policies that make emergency contraceptive pills easily available, accessible, and affordable often are the result of efforts to educate policy-makers about the way the pills work and how they can help reduce unintended pregnancies and abortion. Because many policy-makers confuse ECPs

with abortion, proactive and consistent efforts are needed to educate policy-makers with evidence and policy examples from countries where ECPs are available and more accessible.

Outreach Approaches

To enhance access to ECPs by adolescents, these products need to be more readily available through clinics, pharmacies, social marketing, and over-the-counter. Several programs have attempted to increase access by educating providers at pharmacies and clinics, promoting social marketing through nongovernmental organizations (NGOs), and developing other programs such as telephone prescription services and hotlines, advance provision, and distribution by pharmacies without a prescription.

Because adolescents are often reluctant to obtain ECPs from traditional health outlets like clinics, other providers like those working in pharmacies can play a large role in distributing ECPs. The Program for Appropriate Technology in Health (PATH) developed a project in Cambodia, Kenya, and Nicaragua to strengthen the capacity of pharmacies to provide youth-friendly reproductive health services with a focus on emergency contraception. The initiative has trained pharmacy staff and peer educators to provide accurate, up-to-date information on ECPs and other reproductive health services.

An assessment indicates that the project increased the capacity of pharmacy personnel to provide high-quality reproductive health services to youth. Data suggest that pharmacy staff gained knowledge of ECPs, STIs, and ongoing contraception. In all three countries, knowledge of ECPs increased considerably. Before the training, initial assessment data showed that 0 to 30 percent of pharmacy staff provided ECPs correctly; after the training, about 80 percent of pharmacy staff gave mystery shoppers the correct products. Similarly, research assistants who posed as shoppers at the pharmacies found that after the training, more than half of pharmacy staff in each country spontaneously offered information about STIs when shoppers sought ECPs. Evaluation results also showed that services were being provided in a youth-friendly manner, with at least 75 percent of mystery shoppers in all three countries reporting a positive experience in the pharmacies.⁶¹ From their experience, PATH developed a global tool on how to work with pharmacies to make them more youth-friendly.⁶²

Existing family planning institutions can also help expand access. International Planned Parenthood Federation (IPPF) affiliates in Brazil, Chile, Colombia, and the Dominican Republic have sought to increase knowledge of and access to ECPs through clinic and outreach networks. In Colombia, for example, the affiliate is strengthening the capacity of 22 youth center coordinators to offer detailed information and training on emergency contraception and to provide peer educators with related materials and training. This affiliate has also launched a public media campaign about emergency contraception, focusing on gender-based violence and youth.

Social marketing campaigns can also expand access to ECPs. In Venezuela, for example, PRO-SALUD Inter-Americana, a group of reproductive health NGOs, distributes information on ECPs through school workshops, videos, comic books, and hotlines (see details on page 12).

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Social Marketing of ECPs in Venezuela: A Case Study

A group of nongovernmental organizations (NGOs) in South America have joined together through the PROSALUD Inter-Americana network, including PROSALUD (Venezuela and Argentina), APPRENDE (Peru and Bolivia), and COPPRENDE (Ecuador). These NGOs seek to develop, implement, and manage social marketing projects that improve the reproductive health of their clients through the provision of affordable products, education, referral information, outreach, and other services. During the past five years, these NGOs have successfully introduced and distributed dedicated ECPs through social marketing activities in Venezuela, Peru, and Bolivia, and are currently introducing one in Ecuador and Argentina.

In a 2001 study on knowledge, attitudes, and practices of providers, PROSALUD in Venezuela found that 55 percent of the women's youngest children had been the result of an unwanted pregnancy, up from 35 percent in a similar study done in 1991; 85 percent of adolescents did not know when they were most likely to become pregnant during their fertility cycle; and the majority of young women still relied more on their friends and parents than health specialists for information about their own reproductive health.

To help reduce the large numbers of unintended pregnancies and fill the information gaps, PROSALUD began working in 1999 to register the dedicated product Postinor-2 in Venezuela, working closely with the importer. Since its launch in March 2000, demand has grown rapidly, with 149,000 boxes distributed by 4,300 pharmacies throughout the country in 2001, growing to 328,000 boxes in 2003 and 552,000 boxes in 2004.

To build this growth, PROSALUD has used various social marketing strategies, including:

- Held symposia on emergency contraception in 1998, 2000, and 2003 (when 650 physicians attended), as part of an annual gynecological conference where they distributed informational packets on ECPs and sample packets of Postinor-2
- Supported visits to pharmacists and pharmacy staff by health educators to provide materials and explain the importance of ECPs and the mechanism of action
- Established a toll-free ECP hotline (0800-PROSALUD) that provided information on ECPs, Postinor-2, and medical referrals
- Conducted radio and television campaigns that discussed emergency contraception
- Offered more than 1,300 cost-free workshops for the high schools in Venezuela's two largest cities, with some 50,000 students attending
- Conducted outreach via health fairs, health clinics, and other public venues
- Created and distributed free to all high schools a 37-minute video on reproductive health that includes emergency contraception

- Created a first-of-its-kind, full-color comic book on emergency contraception entitled *El Amor al día Siguiente* (Love the Day After), tracing the story of Mary and Miguel, which presents an unplanned and unprotected sexual relationship, the advice of Mary's aunt who tells them about ECPs, and the need to see a doctor for regular contraception
- Distributed the comic books free of charge through the nation's 4,000-plus pharmacies and 2,000-plus high schools
- Developed an interactive training course on ECPs, distributed on more than 5,000 CD-ROMs

Assessing PROSALUD's Efforts in Venezuela

After the successful distribution of Postinor-2 in 2003, PROSALUD conducted a follow-up study on knowledge, attitudes, and practices. Nearly all providers (97 percent) had heard of ECPs (up from 92.5 percent before 1997), and three-fourths of providers surveyed had prescribed ECPs at least once (up from 62 percent before 1997). However, providers' understanding of ECPs was limited in key areas, such as efficacy, mechanism of action, and contraindications. One-third of providers created unnecessary medical barriers to ECP access, such as pregnancy tests or pelvic exams. In the one-quarter of providers who had not prescribed ECPs, most of them cited low knowledge and awareness — barriers that are relatively simple to address.

In a telephone survey of women who took ECPs (median age 25, from 15 of the 24 states in Venezuela), they generally reported easy access and correct use, despite lack of provider knowledge, medical barriers, and political and economic instability in Venezuela. Eighty percent said they found the cost reasonable; 20 percent said they would have had an abortion if not for ECPs. Almost all found the instruction inserts easy-to-read and clear, and took the ECPs correctly. However, 14 percent said they had not received sufficient information prior to taking ECPs. About 60 percent of ECP use was the result of not using any other method of contraception. Almost half of clients reported multiple episodes of ECP use. Of those who reported intercourse since ECP use, one-fifth reported unprotected intercourse.

Among the ECP users in this study, findings suggest frequent unprotected intercourse, multiple ECP use, and the desire for more information on ECP use. In addition to promoting awareness of ECPs, the NGOs in the PROSALUD Inter-Americana network are targeting ECP clients with reproductive health information, education, and services in an effort to reduce reliance on ECPs, reduce frequency of unprotected intercourse, introduce more reliable contraceptive methods, and reduce negative public health outcomes due to unprotected intercourse.

The NGOs have demonstrated that ECPs can be successfully marketed in South America once political and social obstacles have been removed. PROSALUD Inter-Americana continues its efforts to gain approval of ECPs in Central America. Once they are approved, the network can begin generating demand and expanding access there as well.

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In Jamaica, where ECPs are now available without a prescription, the Commercial Market Strategies Project assisted in an integrated condom and ECP social marketing campaign targeting sexually active adolescents. As part of the effort, physicians, pharmacists, and pharmacy clerks were trained to respond to ECP requests from youth.

In light of the inherent challenges of obtaining ECPs within a limited time frame, advocates are working on various ways to shorten the steps to getting ECPs. One approach is encouraging hospitals to offer emergency contraceptives to women who have been sexually assaulted. Another is motivating physicians to offer advance provision and telephone prescriptions to their patients. Yet another is making emergency contraceptives available directly from pharmacists without a prescription.

Women provided with ECPs in advance of when needed are more likely to use ECPs than are women who do not have them in hand, according to findings from several studies.⁶³ A recently published study in the United States found that women ages 15 to 24 with advanced supplies of ECPs were twice as likely to use them as women given advance access or ECP prescription cards to use at pharmacies. The study also concluded that while removing the requirement to go through pharmacists or a clinic to obtain ECPs increases use, the public health impact may be negligible because of high rates of unprotected intercourse and relative underutilization of the method.⁶⁴

As part of social marketing efforts, numerous hotlines for emergency contraception have been created in countries around the world. Hotlines have been an important element of expansion of ECPs in Latin America. In the United States, a national toll-free EC hotline 1-888-NOT-2-LATE (1-888-668-2-5283) provides information on how and where to obtain ECPs quickly. However, a study found that only about three of every four who called this hotline to obtain ECPs successfully got an appointment or telephone prescription from a hotline provider within 72 hours.⁶⁵

Removing Barriers

To overcome the barriers adolescents face when seeking ECPs, the International Consortium on Emergency Contraception recommends several measures: creating youth-friendly clinics that protect privacy and confidentiality; establishing accessible facilities with flexible hours; and offering affordable services.⁶⁶ Making ECPs available without a prescription would also potentially eliminate significant obstacles for adolescents who need ECPs.

Advocates for over-the-counter status contend that emergency contraceptives have all the characteristics of a nonprescription drug. Requiring a physician's prescription "makes no sense," says David Grimes, Vice President of Biomedical Affairs at Family Health International. "Emergency contraception poses no serious risks. It is nontoxic; there is no danger from overdose or potential for addiction; and dosage is the same for all women."

The regimen is easy to follow without the supervision of a health care provider. A 2002 study of over 660 women in eight U.S. cities (including many young and minority women and women of low literacy) was designed to evaluate how well women understood a prototype over-the-counter package label for emergency contraceptives.⁶⁷ The vast majority (85 percent) understood key

messages about indications for use, contraindications, instructions, possible side effects, and management of serious complications, and almost all women (97 percent) understood that the first pill should be taken within 72 hours or as soon as possible after unprotected intercourse in order to prevent pregnancy.

The over-the-counter campaign in the United States accelerated in February 2001 when more than 80 medical, public health, and advocacy groups signed a citizen's petition urging the U.S. Food and Drug Administration (FDA) to lift the prescription requirement. In February 2003, the manufacturer and distributor of one brand of emergency contraceptives, Plan B, filed an application with the FDA for over-the-counter status. As of April 2005, the FDA has not announced its decision.

Currently in the United Kingdom, young people over 16 years of age can purchase ECPs without a prescription. Also, Canada recently approved purchase without a prescription. In France, adolescents can access ECPs from a pharmacy free of charge without parental approval or a doctor's prescription. However, the pharmacist is required to educate adolescents about ECPs and encourage them to visit a doctor. Also in France, school nurses can distribute ECPs in secondary schools and provide appropriate counseling.

Service providers (e.g., health workers, pharmacists, school nurses, youth counselors) must have knowledge about ECPs and the skills needed to communicate this information to adolescents effectively. Also, when making ECPs available, providers need to offer information on routine contraceptive methods and STIs and make referrals if needed. If ECPs are available over-the-counter or through social marketing programs, the packaging should include relevant information as well as advice to visit a service provider for routine contraception or screening for STIs.

In many countries the market price of a dedicated ECP product can be prohibitive for many women who need them. In Bolivia, for example, where about a third of the population lives on less than US\$2 a day, several dedicated ECP products are sold in pharmacies for the equivalent of US\$4 to \$10. John Skibiak of the Population Council in Nairobi reports that the cost of dedicated ECPs varies greatly across countries in Africa. In urban areas of Kenya, NorLevo and Postinor-2 are widely available for less than US\$1, while in West Africa it can cost up to US\$7. He believes that the market price for dedicated ECPs fluctuates because they are relatively new on the market, there are only two major suppliers, and a large number of pills are currently on the market that were once provided free by government programs.

While governments and the private sector need to take action to make dedicated ECP products available and affordable to women, health providers and NGOs should continue to raise awareness of how to use ordinary oral contraceptives as ECPs.

IV. CONCLUSIONS AND RESOURCES

Emergency contraceptive pills have been shown to be safe, easy to use, and effective for preventing unintended pregnancies after unprotected intercourse. Young women are particularly vulnerable to unprotected intercourse and to risks from unintended pregnancy. ECPs provide an important protection and option for such women. Yet, a number of barriers exist that prevent young women from having easy access to ECPs. These barriers include provider knowledge and attitudes, distribution systems for ECPs, legal and social barriers, and cost. While research has answered many of the concerns about adolescent women using ECPs, other questions need attention.

Expanding Access of ECPs

To increase the availability and use of ECPs for women of all ages around the world, key next steps should include promoting evidence-based best practices to make ECPs more acceptable among policy-makers and providers and expanding the ways that programs make ECPs more available. Below are several key tools and Web sites that can help expand access of ECPs.

- PATH has assembled a toolkit to help policy-makers, program planners, donors, and family planning providers integrate ECPs into reproductive health programs in developing countries. This resource, *Resources for Emergency Contraceptive Pill Programming: A Toolkit*, provides specific steps to introduce ECPs and samples of tools used successfully in an array of countries. It contains nine modules, each focusing on one aspect of the introduction process, and provides information and materials to help advocates and program planners move forward to achieve broad programming of ECPs. Available at: <http://cecinfo.org/html/EC%20Toolkit.htm>.
- The International Consortium for Emergency Contraception Web site contains a wealth of emergency contraception information, including materials for program planning, policy statements, medical and service delivery guidelines for ECPs, information for clients, and information available for local use. Available at: <http://cecinfo.org/html/res-downloadable-mtrls.htm>.
- A PowerPoint presentation to introduce ECPs to policy-makers developed by the International Consortium for Emergency Contraception (ICEC) provides key information and benefits to introduce or increase access to ECPs. Available on the ICEC Web site.
- *Youth-Friendly Pharmacy Program Implementation Kit*, created by PATH in English and Spanish based on its program experience with pharmacies in several countries, contains a description of start-up strategies and activities; teaching modules on adolescent health, customer relations skills, ECPs, sexually transmitted infections, and ongoing contraception; handouts and job aids; prototype materials; and evaluation instruments. Available at: <http://www.path.org/materials/materials-details.php?id=860>.
- The Academy for Education and Development (AED) has developed a toolkit, *Building Emergency Contraception Awareness among Adolescents*, which contains information for educators, youth workers, and school-based health practitioners. Available at: www.aed.org/ToolsandPublications/upload/ECtoolkit3283.pdf.
- The Center for Reproductive Law and Policy has assembled useful information about a wide range of issues pertaining to contraception and women's health, including *Governments*

Worldwide Put Emergency Contraception into Women's Hands, which offers an analysis of the world's abortion and contraception laws and their implications for emergency contraception. View this and other documents at: www.reproductiverights.org/wn_contraception.html.

- Association of Reproductive Health Professionals, Emergency Contraception Resource Center. This site provides a valuable compilation of resources, links, and current information on the topic. Available at: <http://www.arhp.org/ec/>.
- Emergency Contraception Web Site, Office of Population Research at Princeton University. This site includes up-to-date information, answers to frequently asked questions, and information about worldwide product availability, listed by country. Some information is in Spanish, French, and Arabic. Available at: <http://www.not-2-late.com> or <http://ec.princeton.edu/>.
- Mexfam Emergency Contraception. In Spanish and English, it provides information about emergency contraception. Available at: www.mexfam.org.mx/esp_anti_em.htm.

Areas for Future Research

- More evaluations are needed of the impact and effectiveness of various approaches to improve provider and adolescent knowledge and skills in ECP service provision and use.
- Research could help develop a regimen that works more effectively than the current progestin-only regimen.
- More up-to-date surveys on the knowledge, attitudes, and practices of providers (including pharmacists) and adolescents regarding ECPs could assist program planning. Perceptions are changing rapidly as ECPs become more available and more people know about them.
- Assessments of how increased use of ECPs affects health care costs could provide useful and persuasive information for policy-makers. A preliminary assessment of cost-saving benefits in Ghana, Uganda, Cambodia, and Peru found that savings were significant, especially in countries where the costs associated with abortion and birth were higher and the price of ECPs could be kept lower.⁶⁸
- Understanding better the impact of ECP availability on sexual risk behaviors and routine contraceptive use, especially in Africa, would help promote ECPs as a priority for governments and program managers.
- A study would be useful to address FDA concerns about the ability of younger adolescents (11- to 15-year-olds) to read and understand instructions on over-the-counter products and to make informed decisions on their own about such health issues.
- Studying the quality of care for dedicated products compared to combined oral contraceptives would provide useful information. Public sector programs are not distributing dedicated ECPs widely in Africa due to the cost and a reluctance to buy a dedicated product when they can use already available combined oral contraceptives, which are generally low cost.

Conclusion

The body of literature and evidence about the safety, use, types, and efficacy of ECPs is expanding. A dedicated ECP product is now available in more than 100 countries. Although access and use of ECPs are increasing in many developing countries, significant barriers still exist, especially for adolescents. As discussed in this paper, programs and governments can increase availability of and access to ECPs by adolescents through the following actions:

- Work with policy-makers and opinion leaders to ensure they have correct information about the value of ECPs
- Register and promote at least one dedicated ECP product in each country
- Build community support and enact laws and policies that recognize adolescents' right to use ECPs and that address the barriers they face in accessing and using ECPs
- Expand adolescent awareness of ECPs through media campaigns and other outreach activities such as hotlines and the development and distribution of educational materials
- Improve youth access to ECPs by promoting youth-friendly pharmacies and clinics with flexible hours and affordable services
- Improve youth access by making ECPs available either in advance, by telephone prescription, or directly from pharmacists without a prescription
- Inform providers and physicians on the availability, legal status, and use of ECPs
- Educate and motivate providers and physicians to help remove misconceptions and reluctance to prescribe ECPs to adolescents in particular
- Encourage hospitals to offer emergency contraceptives to women who have been sexually assaulted
- Collaborate with organizations to develop local strategies to support these and other steps to improve availability and accessibility of ECPs
- In the absence of a dedicated ECP product, encourage the use of combined oral contraceptives as ECPs

Many adolescents have a high risk of unintended pregnancy. Such pregnancies often lead to abortion, serious maternal and child health risks, and reduced educational and financial opportunities. Emergency contraceptive pills provide an additional option for sexually active youth to avoid pregnancy and these adverse outcomes. The research findings and programmatic experiences summarized in this paper are intended to assist policy-makers, program managers, and providers in expanding the access and availability of ECPs for adolescents. Such efforts can contribute substantially to the larger goal of addressing the reproductive health needs of young people.

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