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## REVIEW ARTICLE

## A review of global access to emergency contraception

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## ABSTRACT

**Background:** Emergency contraception has been known for several decades, and dedicated products have been on the market for close to 20 years. Yet it is unclear whether women, particularly in low-resource countries, have access to this important second-chance method of contraception. **Objectives:** To review relevant policies, regulations, and other factors related to access to emergency contraception worldwide. **Search strategy:** A wide range of gray literature was reviewed, several specific studies were commissioned, and a number of online databases were searched. **Main results:** Several positive policies and regulations are in place: emergency contraception products are registered in the majority of countries around the world, listed in many countries' essential medicines lists, included in widely used guidance, and supported by most donors. Yet analysis of demographic data shows that the majority of women in low-income countries have never heard of emergency contraception, and surveys find that many providers have negative attitudes toward providing emergency contraception. **Conclusions:** Despite more than a decade of concerted international and country-level efforts to ensure that women have access to emergency contraception, accessibility remains limited.

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## 1. Introduction

The term “emergency contraception” refers to contraceptive methods that can be used to prevent pregnancy after sex. These methods include several kinds of emergency contraceptive pills, as well as insertion of a copper-bearing intrauterine device (IUD). The most widely distributed emergency contraceptive pills contain the hormone levonorgestrel (LNG); products containing the antiprogestins ulipristal acetate or mifepristone are on the market in a limited number of countries. Emergency contraception offers women an important second chance to prevent pregnancy when a regular contraceptive method fails, was used incorrectly, or was not used at all, or when sex was forced. Emergency contraception is a unique addition to the range of contraceptive methods, as it is the only method that can be effective after sex has taken place. For this reason, it is especially important for women who have been raped or coerced into sex.

Extensive research and monitoring efforts confirm that the main method of emergency contraceptive pills—containing LNG—is extremely safe [1]. If a woman takes LNG-containing emergency contraception and it fails (or if a woman is already pregnant when she takes emergency contraception), there are no adverse effects to either the woman or the ongoing pregnancy [2,3]. According to the WHO Medical Eligibility

Criteria [4], repeated use of emergency contraceptive pills is safe, so women can take them as often as needed. Like other hormonal contraceptive methods, emergency contraceptive pills offer no protection from sexually transmitted infections, including HIV. Studies of LNG-containing emergency contraceptive pills have shown that they reduce pregnancy by 52%–100% [5–12]. It has been estimated that, for every 1000 women who use emergency contraceptive pills after a contraceptive emergency, approximately 20 will face an unintended pregnancy; without emergency contraceptive pills, this number would be approximately 80 [13,14]. When used for emergency contraception, the IUD is extremely effective. Dedicated emergency contraceptive pills have been on the market for over a decade, yet women's access to them is still extremely uneven.

## 2. Materials and methods

To learn more about whether women around the world are able to access emergency contraception, we conducted a multifaceted scan of global and country-level policies, availability of emergency contraception products within countries, donor support for emergency contraception, and other aspects of emergency contraception access. Much of the data cited in the present article can be found in the International Consortium for Emergency Contraception (ICEC) online database of global emergency contraception product availability ([www.emergencycontraception.org](http://www.emergencycontraception.org)), maintained through periodic outreach to pharmaceutical companies and informal data collection via an international network. The database is coordinated and validated with partners at the Princeton Emergency

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Contraception website ([www.not-2-late.com](http://www.not-2-late.com)). Additionally, other databases such as RHInterchange, which is maintained by the Reproductive Health Supply Coalition (<http://www.myaccessrh.org/rhi-home>), provide valuable information on supply of emergency contraception by governments and donors.

ICEC also commissioned 2 studies: the first on donor policies regarding provision of emergency contraception, and the second on the social marketing sector. In addition, it commissioned the Population Council to review the peer-reviewed and gray literature on provider attitudes and practices regarding emergency contraception and analyzed, with a professor at the State University of New York Stony Brook, Demographic and Health Survey data to inform on global awareness and use of emergency contraception.

### 3. Results

Globally, policies support access to emergency contraception. Levonorgestrel-containing emergency contraception is included in the WHO Essential Medicines List [15] and in widely recognized norms and guidelines such as the Family Planning Handbook [16]. In addition, donor purchasing includes emergency contraceptive pills; more than 20 million doses have been procured by donors and non-governmental organizations since 2000; the USA began supporting emergency contraception purchasing through its bilateral aid programs in 2011 [17].

At the country level, policies in support of access are uneven. In 144 countries, an emergency contraceptive pill has been registered but 65 countries have no registered dedicated emergency contraception product. Some of these countries do allow emergency contraception to be imported with a special license, indicating that emergency contraception may be available but possibly with an inconsistent supply. In some of the countries with no product (e.g. Costa Rica, Honduras, and the Philippines), emergency contraception is not on the market because of opposition to its availability. In other countries, the market may be too small or the political situation too chaotic to support product registrations.

Globally, there are at least 40 manufacturers of emergency contraception products, many in the Southern Hemisphere. According to WHO national essential medicines lists, 59 countries include an emergency contraception product in their national policy document of essential medicines [18].

However, data collected by John Snow, Inc. (Boston, MA, USA) indicate that, in the public sector, where poorer women often seek services and where post-rape care is offered, just over half (23 out of 42) of the low-resource countries surveyed offered emergency contraception [19]. Social marketing programs are even less likely to offer emergency contraception than the public sector; a survey in early 2012 found that only 33% of social marketing family-planning programs currently offered an emergency contraception product [20].

Providers also have a key role in ensuring access to emergency contraception. Surveys of key opinion leaders and providers in India, Senegal, and Nigeria indicate that significant gaps still exist in attitudes to and knowledge of emergency contraception [21]. For instance, a majority of respondents were in favor of requiring a prescription to access emergency contraception and many opposed advance provision, by which emergency contraceptive pills are given to women in advance of need. These surveys also found significant variability in the providers' access to information and training on emergency contraceptive pills. Moreover, the wide variety of attitudes, including particularly negative ones, found in these surveys is echoed by news reports on "provider refusals" in various settings, where pharmacists, doctors, or other health providers withhold information about emergency contraception or even refuse to provide it. Such refusals are a grave violation of women's right to receive the full range of contraceptive information and methods, and indicate the need for additional training and sensitization for service providers. Important areas in which providers need to be better informed include knowledge of the mechanism of action of emergency contraceptive pills and their safety, including when used

more than once or multiple times within a single cycle and among special populations (e.g. adolescents).

Even where policies are favorable, emergency contraception is available, and providers are supportive, women must be aware of emergency contraception as an option. Demographic and Health Surveys provide standardized, comparable data regarding women's knowledge and use of emergency contraception in low-resource countries around the world. From these surveys, it is known that, despite more than 10 years of emergency contraception programming and marketing, women's knowledge is still lacking in most low-income countries and use of emergency contraception in these settings is extremely low.

Demographic and Health Surveys data from 45 countries in 4 regions were analyzed to learn more about the factors associated with women's knowledge and use of emergency contraceptive pills. Knowledge of emergency contraception among all women was highest in Latin America (with a mean of 35%), followed by Europe and West Asia (24.43%), Africa (15.03%), then Asia (11%). A similar trend was documented for use of emergency contraception among the sample of women who had ever had sex, with the highest percentage found in Latin America (3.5%), followed by Europe and West Asia (2.3%), Africa (1.8%), then East Asia (0.33%). Percentages of women reporting knowledge and use of emergency contraception varied considerably within regions. Chad, Timor-Leste, Azerbaijan, and Haiti had the lowest rates of knowledge and use in their regions, while Kenya, Congo, Pakistan, Ukraine, and Colombia had the highest. In almost every country, the most highly educated and wealthiest women had the highest rates of knowledge and use. Furthermore, in all but 3 countries (Egypt, Sao Tome and Principe, and Philippines) women living in urban regions had higher rates of knowledge and use than rural women. Across regions, the highest rate of use and knowledge varied among the 20–24-year-old, 25–29-year-old, and 30–34-year-old age groups. In no country did women under 20 years of age have higher rates of knowledge or use than women who were 20 years or older (unpublished data). These data show that, even in the regions and countries with the best access, the majority of women (65% of women in Latin America and 85% of women in Africa) have no knowledge of emergency contraception, profoundly hindering their ability to access this important contraceptive option.

There are some settings in which access to emergency contraceptive pills is of special importance. Post-rape care is one such setting. Despite the fact that emergency contraceptive pills are included in the norms and guidelines for post-rape care in many countries, their provision to women who have been raped is uneven at best [22]. The misapplication of conscientious objection, unsure supply chains, and uninformed or biased providers all contribute to this situation.

Similarly, in crisis settings such as during and after conflicts and natural disasters, women are in particular need of emergency contraceptive pills. In these settings, contraceptive supplies may be disrupted and women are often forced to move from their homes. Sexual assault and transactional sex may increase significantly as communities are displaced and destabilized. For these reasons, emergency contraceptive pills have long been integrated into the Minimum Initial Service Package offered in crisis settings, and emergency contraception supplies are included in emergency medical kits [23]. Despite these efforts, assessments report that women have little access to emergency contraception in these situations; low initial knowledge is compounded by disrupted services and lives (unpublished data). The risks of unintended pregnancies and unsafe abortion are especially high in these settings.

Finally, young women as a group have a special need for emergency contraceptive pills because they are especially vulnerable to sexual coercion and forced sex, are less likely to be using an ongoing method, are likely to have less knowledge about contraception and reproductive health, and in some settings face increased discrimination from pharmacists and healthcare providers [24]. They may also face additional regulatory hurdles such as prescription requirements that are not mandated for older women. Adolescents and young women need

both access and education to be able to use emergency contraceptive pills effectively to prevent early and unplanned pregnancies; evidence shows that they are able to use emergency contraceptive pills as safely and effectively as older women and can understand the instructions necessary to access this method over the counter [25,26].

#### 4. Discussion

Despite more than a decade of concerted international and country-level efforts to ensure that women have access to emergency contraception, accessibility remains limited. Data indicate that the large majority of women in low-income countries are unaware that emergency contraception exists as an option. The majority of social marketing family-planning programs do not include an emergency contraception product, and approximately half of low-resource countries surveyed do not offer emergency contraception through national healthcare systems.

Governments in both high- and low-income countries should commit to ensuring full access to emergency contraception among their population, including through the public sector, where services are the most affordable. In particular, emergency contraception should be fully integrated into post-rape care, and counseling and provision of emergency contraception should be provided by all first responders.

The data also highlight the need for better training for providers about emergency contraception. Pharmacists and other frontline health workers, in particular, are underrepresented in collected data, yet provide the large majority of emergency contraceptive pills to women and they may have a particular need for training and support in order to provide emergency contraception with confidence. Special efforts should be made to update pharmacists and others who provide emergency contraception on the safety, time limits, and other issues related to the method. Because pharmacy sales staff often have high turnover rates, strategies to sustain such information need to be developed; written materials for women and counter workers might be one such strategy.

Women themselves can be the best advocates for correct and prompt use of emergency contraception. Raising the correct knowledge of emergency contraception among the general public is critical and will lead women to seek it out for themselves. Today, innovative approaches such as mHealth, social networking, mass media, and peer education can all be applied and researched in an effort to improve knowledge of emergency contraception.

Opposition, where it arises, is best met with evidence-based advocacy that underlines emergency contraception's unique place in the contraceptive method mix, its safety, and where necessary its mechanism of action as a contraceptive rather than abortifacient medication.

The marketing of emergency contraception offers valuable lessons for emerging reproductive health technologies that may best be provided through the commercial sector; subcutaneous depot medroxyprogesterone acetate, topical microbicides, and misoprostol for prevention of hemorrhage at the community level are examples of products that may face similar challenges. Pharmacy and commercial-sector access to emergency contraception may help demedicalize access to other contraceptive methods and reproductive health products, if access to a high-quality product with adequate information provision can be assured. Yet the promise of emergency contraception has not yet been met; most women in low-income countries still lack access to this crucial contraceptive option, even as access for women in high-resource countries is increasingly assured. This inequity may still be righted.

#### Conflict of interest

The authors have no conflicts of interest.

#### References

- [1] World Health Organization, International Consortium for Emergency Contraception, International Federation of Gynecologists and Obstetricians, International Planned Parenthood Federation. Fact sheet on the safety of levonorgestrel-alone emergency contraceptive pills (LNG ECPs). [http://whqlibdoc.who.int/hq/2010/WHO\\_RHR\\_HRP\\_10.06\\_eng.pdf](http://whqlibdoc.who.int/hq/2010/WHO_RHR_HRP_10.06_eng.pdf). Published 2010.
- [2] De Santis M, Cavaliere AF, Straface G, Carducci B, Caruso A. Failure of the emergency contraceptive levonorgestrel and the risk of adverse effects in pregnancy and on fetal development: an observational cohort study. *Fertil Steril* 2005;84(2):296–9.
- [3] Zhang L, Chen J, Wang Y, Ren F, Yu W, Cheng L. Pregnancy outcome after levonorgestrel-only emergency contraception failure: a prospective cohort study. *Hum Reprod* 2009;24(7):1605–11.
- [4] World Health Organization. Medical eligibility criteria for contraceptive use – 4th ed. [http://whqlibdoc.who.int/publications/2010/9789241563888\\_eng.pdf](http://whqlibdoc.who.int/publications/2010/9789241563888_eng.pdf). Published 2010.
- [5] Arowojolu AO, Okewole IA, Adekunle AO. Comparative evaluation of the effectiveness and safety of two regimens of levonorgestrel for emergency contraception in Nigerians. *Contraception* 2002;66(4):269–73.
- [6] Wu S, Wang C, Wang Y. A randomized, double-blind, multicentre study on comparing levonorgestrel and mifepristone for emergency contraception. *Zhonghua Fu Chan Ke Za Zhi* 1999;34(6):327–30.
- [7] Hamoda H, Ashok PW, Stalder C, Flett GM, Kennedy E, Templeton A. A randomized trial of mifepristone (10 mg) and levonorgestrel for emergency contraception. *Obstet Gynecol* 2004;104(6):1307–13.
- [8] Creinin MD, Schlaff W, Archer DF, Wan L, Frezieres R, Thomas M, et al. Progesterone receptor modulator for emergency contraception: a randomized controlled trial. *Obstet Gynecol* 2006;108(5):1089–97.
- [9] Ho PC, Kwan MS. A prospective randomized comparison of levonorgestrel with the Yuzpe regimen in post-coital contraception. *Hum Reprod* 1993;8(3):389–92.
- [10] Dada OA, Godfrey EM, Piaggio G, von Hertzen H. Nigerian Network for Reproductive Health Research and Training. A randomized, double-blind, noninferiority study to compare two regimens of levonorgestrel for emergency contraception in Nigeria. *Contraception* 2010;82(4):373–8.
- [11] Farajkhoda T, Khoshbin A, Enjezab B, Bokaei M, Karimi Zarchi M. Assessment of two emergency contraceptive regimens in Iran: levonorgestrel versus the Yuzpe. *Niger J Clin Pract* 2009;12(4):450–2.
- [12] von Hertzen H, Piaggio G, Van Look PF. Emergency contraception with levonorgestrel or the Yuzpe regimen. Task Force on Postovulatory Methods of Fertility Regulation. *Lancet* 1998;352(9144):1939.
- [13] von Hertzen H, Piaggio G, Ding J, Chen J, Song S, Bártfai G, et al. Low dose mifepristone and two regimens of levonorgestrel for emergency contraception: a WHO multicentre randomised trial. *Lancet* 2002;360(9348):1803–10.
- [14] Cheng L, Che Y, Gülmezoglu AM. Interventions for emergency contraception. *Cochrane Database Syst Rev* 2012;8:CD001324.
- [15] World Health Organization. WHO Model List of Essential Medicines 17th List. [http://whqlibdoc.who.int/hq/2011/a95053\\_eng.pdf](http://whqlibdoc.who.int/hq/2011/a95053_eng.pdf). Published March 2011.
- [16] World Health Organization, Johns Hopkins Bloomberg School of Public Health, United States Agency for International Development. Family planning: a global handbook for providers. 2011 Update [http://whqlibdoc.who.int/publications/2011/9780978856373\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9780978856373_eng.pdf). Published 2011.
- [17] Reproductive Health Supplies Coalition. RHInterchange: A website for coordination of contraceptive orders and shipments. <http://www.myaccessrh.org/rhi-home>. Accessed January 15, 2013.
- [18] International Consortium for Emergency Contraception. Emergency Contraception in National Essential Medicines Lists. <http://www.cecinfo.org/custom-content/uploads/2013/03/EC-in-EMLs-03-12-13.pdf>. Published February 2013.
- [19] USAID, DELIVER PROJECT. Contraceptive Security Indicators Data: 2012 Data Collection. [http://deliver.jsi.com/dlvr\\_content/resources/allpubs/factsheets/CS\\_Indicators\\_Data\\_2012.xlsx](http://deliver.jsi.com/dlvr_content/resources/allpubs/factsheets/CS_Indicators_Data_2012.xlsx). Published 2012.
- [20] International Consortium for Emergency Contraception. How Social Marketing and NGOs are Expanding Access to Emergency Contraception. [http://www.cecinfo.org/custom-content/uploads/2013/01/social\\_mktg\\_handout.pdf](http://www.cecinfo.org/custom-content/uploads/2013/01/social_mktg_handout.pdf). Published February 2012.
- [21] Brady M. Widening the lens and deepening the focus on providers and key opinion leaders: A multi-country study of attitudes, beliefs, and practices around emergency contraception. *Revitalizing the Emergency Contraception Agenda*; February 29, 2012 Washington, DC, USA.
- [22] Keesbury J, Elson L. Health Care Providers in Uganda and Rwanda are Knowledgeable about Sexual Violence and HIV, but Few are Equipped to Provide Comprehensive Services. <http://www.svri.org/healthcareproviders.pdf>.
- [23] Inter-agency Working Group on Reproductive Health in Crises. Inter-agency field manual on reproductive health in humanitarian settings. [http://www.who.int/reproductivehealth/publications/emergencies/field\\_manual\\_rh\\_humanitarian\\_settings.pdf](http://www.who.int/reproductivehealth/publications/emergencies/field_manual_rh_humanitarian_settings.pdf). Published 2010.
- [24] Wilkinson TA, Fahey N, Shields C, Suther E, Cabral HJ, Silverstein M. Pharmacy communication to adolescents and their physicians regarding access to emergency contraception. *Pediatrics* 2012;129(4):624–9.
- [25] Raine TR, Ricciotti N, Sokoloff A, Brown BA, Hummel A, Harper CC. An over-the-counter simulation study of a single-tablet emergency contraceptive in young females. *Obstet Gynecol* 2012;119(4):772–9.
- [26] Harper CC, Rocca CH, Darney PD, von Hertzen H, Raine TR. Tolerability of levonorgestrel emergency contraception in adolescents. *Am J Obstet Gynecol* 2004;191(4):1158–63.