# **Executive summary**

## Context:

Emergency contraceptive pills (ECPs) give a second chance to prevent pregnancy in case of a contraceptive failure or unprotected sexual intercourse which is of high importance in Nicaragua where abortion is generally outlawed. The method is available in pharmacies without a medical prescription; thus, knowledge and attitude of pharmacy personnel regarding ECPs influence women's access to postcoital contraception.

#### Methods:

A cross-sectional survey was carried out in Nicaragua's capital Managua in August and September 2009. 93 in-person interviews with pharmacy staff of different educational level in randomly chosen pharmacies have been conducted by using a semi-structured questionnaire. Pharmacy staff's knowledge and attitude towards the ECP method were assessed. Further, availability of ECP products in pharmacies and selling practices regarding the method were investigated. Questions assessing knowledge and attitude were weighted and scored following a scoring system that was developed especially for this study. Scores were compared between different socio-demographic groups using independent groups t-test and correlations were investigated using Pearson's correlation test. Data was analyzed using SPSS statistical software version 13.0 and statistical significance was defined as p < 0.05 with a confidence interval of 95%.

## Results:

Out of the 93 visited pharmacies, 91 (97.8%) had at least one ECP product available at the time of the visit. All 93 interviewees (100.0%) knew about the method and reported to have selling experience with ECPs. 93.5% of interviewed pharmacy staff reported to sell the method once or several times a week and 96.8% of participants reported to sell the method mainly without medical prescription. Only about half of the participants had received information about ECPs in the past year; however, 67.7% felt satisfied with their current amount of information. Knowledge gaps could be identified: only about one third of interviewees stated that ECPs can be taken up to 72 hours after unprotected sexual intercourse as recommended by the main national ECP

manufacturer. None of the staff knew that ECPs are effective up to 120 hours after intercourse. 59.1% stated correctly that ECPs prevent pregnancy whereas 38.7% thought ECPs induce abortion. Most participants overestimated both contraindications and side-effects of ECPs. 68.8% of participants thought that ECPs should be only available with a medical prescription and the majority of pharmacy staff thought that women abuse the method, that ECPs discourage the use of permanent methods and that the pills have a negative influence on sexual risk-taking behavior and the transmission of HIV/STIs. Despite all doubts, 67.8% were convinced that ECPs are a necessary method to reduce Nicaragua's unwanted pregnancies and the majority of interviewees was willing to sell the method to most women in need. The group to which staff was hardly willing to sell the method was minors (12.9%). The majority of interviewed pharmacy staff (59.1%) reported to feel uncomfortable when selling the method without medical prescription. Female staff and staff aged >30 years was found to have significant better knowledge. Levels of attitudes were significantly more positive in staff without any religious background, but attitudes were not found to be significantly influenced by age, sex or knowledge levels.

#### Conclusions:

ECPs were widely available in Managua's pharmacies while pharmacy staff was aware of the method and had selling practice regarding the method. Frequency of sell in pharmacies was high and most Managuan clients used the possibility to buy the method without medical prescription. Overall knowledge levels of pharmacy staff following the scoring system resulted good; however, educational interventions are needed to close several knowledge gaps and tackle misconceptions regarding the use of the method, its mechanism of action, side-effects and contraindications. Attitudes following the scoring system resulted neutral and seem not to create major obstacles in the provision of the method to the clients in need. Further studies are needed in order to assess reasons for high frequency of use of ECPs among the Managuan population as well as women's knowledge, attitudes and practices regarding ECPs compared to permanent contraceptive methods.

**Key words:** Emergency contraceptive pills, Managua, Nicaragua, pharmacy, knowledge, attitude