

Editorial

# Long-Acting Reversible Contraceptives: An Important Approach to Reduce Unintended Pregnancies

## *Contraceptivos reversíveis de longa duração: uma importante medida para reduzir as gestações não planejadas*

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Unintended pregnancies are a major public health concern worldwide. In Brazil, as much as 55% of pregnancies are unplanned.<sup>1</sup> Unplanned pregnancy is associated with an increased risk of maternal, neonatal and infant morbidity and mortality.<sup>2</sup> It also reduces educational and career opportunities for mothers, and it may contribute to socioeconomic deprivation and widening income disparities.<sup>3</sup> The total cost attributed to unplanned pregnancy in Brazil is estimated to be R\$ 4.1 billion (roughly US\$ 1.85 billion) annually.<sup>4</sup>

Part of the high rate of unplanned pregnancies may be due to the relatively low use of long-acting reversible contraceptives (LARCs), specifically contraceptive implants and intrauterine devices (IUDs).<sup>5</sup> Less than 2% of Brazilian women who take contraceptives use LARCs.<sup>6</sup> By comparison, in the UK, LARCs are used by 31% of women using contraceptives, and the rate of unplanned pregnancies there is estimated to be 16.2%.<sup>7</sup> There are many reasons for the low prevalence rate of women using LARCs in Brazil, some of which are: only one type of LARC is available for free in the public health system (copper IUD); a lack of training in LARC methods in the majority of the obstetrics and gynecology residence programs; and biased information and inadequate counseling on LARCs being offered by some healthcare providers.

The CHOICE project was responsible for bringing LARCs and unplanned pregnancies to the spotlight of the reproductive planning discussion. The CHOICE project was an observational cohort study developed to promote the use of LARC methods in the St. Louis region (USA). It was designed to investigate if high and stagnant rates of unintended pregnancy could be reduced by increasing the uptake of LARC

methods. In order to achieve this objective, the project removed two major barriers in the use of LARC methods: the lack of access to free LARCs and the lack of adequate information on the safety and efficacy of these methods.<sup>8</sup> When the barriers of cost, access and knowledge were removed, 75% of the CHOICE cohort chose a LARC method at baseline enrollment.<sup>9</sup> The continuation rates of LARC methods were higher than those of non-LARC methods at 12 and 24 months (86 against 55% at 12 months; 77 against 41% at 24 months).<sup>9,10</sup> Overall, 84% of LARC users were satisfied with the method at 12 months, while only 53% of participants using short-acting methods were satisfied at the same period.<sup>9</sup> Although there is a concern that an increased uptake of LARC methods could increase risk-taking sexual behavior, the CHOICE project showed that the provision of no-cost contraception was not associated with increased risk-taking sexual behaviors.<sup>11</sup> Additionally, the superiority of LARC methods was confirmed over short-acting methods; implants and IUDs were 22 times more effective than oral contraceptive pills, patches, or rings.<sup>12</sup> In order to evaluate the population impact of this huge increase of LARCs use in the St. Louis region, the average annual rates of teen pregnancy, birth and induced abortion among the CHOICE participants were compared with the national rates of these outcomes. When compared with the national data, the CHOICE project showed over 75% reduction in all three outcomes.<sup>13</sup>

In Brazil, studies using LARCs also showed low rates of premature discontinuations, and high continuation and satisfaction rates when adequate counseling was provided.<sup>14,15</sup> Therefore, counseling and evidence-based information are crucial to facilitate the decisions of women regarding a

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contraceptive method.<sup>14</sup> In the family planning clinic of the University of Campinas (Brazil), where there is free access to LARCs, in the past 15 years the rates of women who opted to continue using LARC methods until menopause were higher than of those who opted for female or male sterilization. The annual number of sterilizations dropped markedly in the same period, as we can observe in this issue of RBGO.<sup>16</sup>

In addition to a positive impact on women's health outcomes, increasing LARC uptake has also a favorable economic impact.<sup>17</sup> For example, it was estimated that if 10% of women aged 20–29 years in the US switched from oral contraception to LARCs, the total cost of unplanned pregnancies would be reduced by US\$ 288 million per year.<sup>18</sup> With savings of more than US\$7 for each US\$1 spent, LARC methods were shown to be more cost-effective than short-acting methods or no method.<sup>19</sup>

In vulnerable populations, such as adolescents or drug users, the use of LARCs can have even a more prominent effect on women's health outcomes and on cost-effectiveness than short-acting methods. Women aged less than 21 years using short-acting methods were twice more likely to experience an unintended pregnancy than older women using the same method. Among LARC users, there was no difference in the risk of unplanned pregnancy across age groups.<sup>12</sup> In Brazil, unintended pregnancy is a major problem among crack cocaine users. Of 45,600 Brazilian children who lived in public foster care in 2013, 81% were from parents who are addicted to drugs, and while the majority of these children have a family, as many as 77% of them do not receive any visits.<sup>20</sup> The number of pregnancies per women (3.4) among Brazilian crack cocaine users is almost double the national rate.<sup>21</sup> These women also have a higher rate of syphilis (20.4 against 1.6%), HIV (8.2 against 0.4%), and hepatitis C (2.2 against 1.38%) when compared with reported national rates.<sup>21,22</sup> The increased rate of sexual infectious diseases and obstetrics morbidity (prematurity and fetal demise) in this population increases the social and economic costs of unplanned pregnancies.<sup>21</sup> A Brazilian study estimated that with the use of an etonogestrel-releasing implant by 101 female crack cocaine users, the public health system could potentially save R\$ 341,643.50 (roughly US\$ 94,980), considering only the costs of the pregnancies.<sup>21</sup>

The use of LARCs is also important during the postpartum period,<sup>23–25</sup> which offers a window of opportunity for contraceptive counseling and initiation. This approach reduces rapid repeat pregnancy by over 80%, especially in vulnerable populations like adolescents.<sup>24,25</sup>

Considering all advantages of LARCs, many health organizations, non-governmental organizations and medical societies are recommending adequate counseling on LARC methods and improvement of access to LARCs to all candidates, including nulliparous women and adolescents.<sup>5,26,27</sup> The World Health Organization (WHO) also included all LARC methods in the list of essential medicines for a basic healthcare system. In this list is included the most effective, safe and cost-effective medicines for priority conditions.<sup>28</sup> Despite these recommendations and a request from the Brazilian Federation of Gyne-

cology and Obstetrics Associations (Febrasgo), the Brazilian government refuses to include the etonogestrel-releasing implant and the levonorgestrel-releasing intrauterine system in the national list of essential medicines. The Brazilian government said that these methods do not present advantages over the contraceptive methods currently offered by the public health system, and that goes against current scientific evidence.<sup>5,9,10,12,13,17–19,26,27,29</sup>

In order to empower women when it comes to family planning, we must offer counseling and access to all methods of contraception, enabling women to make informed decisions about whether and when to have children. LARCs are the most cost-effective contraceptive methods; they have the highest efficacy and continuation rates among all contraceptives, and show the most prominent effect on reducing unplanned pregnancy and abortion rates. Increasing the use of highly effective contraceptive methods may be part of the solution to decrease the persistent high rate of unintended pregnancies. In order to increase LARC uptake, it is important to promote free access and information on these methods for women and adolescents, and to educate their partners, providers, and policymakers about the potential usefulness of LARCs. Finally, it is essential to implement family planning policies based on cost-effectiveness and the best evidence available.

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