

Long-Acting Reversible Contraceptive Use among Ethiopian Youth: Potential Demand and Strategies for Promotion

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Introduction and Theoretical Focus:

The family planning and reproductive health needs of young people in sub-Saharan Africa remains understudied and insufficiently understood. As growing numbers of girls age into adulthood, sustained efforts are needed to ensure that all receive access to the family planning counseling and services they want and need. Long acting reversible contraception (LARC) allows women to prevent pregnancy for many years at a time, offering young women in particular a valuable opportunity to postpone childbearing safely and effectively. However, use of LARC methods remains relatively low across the developing world, especially among young women. In Ethiopia, young women often begin sexual activity many years before marriage or childbearing is desired, highlighting the need for safe and effective ways of delaying pregnancy for relatively long periods of time. However, knowledge and use of LARC methods among young women remains relatively low in the country. For family planning programs and policies to meet the needs of young women, greater attention must be paid to the delivery of LARC services to these women.

The purpose of this research is to systematically review the literature on efforts to increase uptake of long-acting reversible contraception (LARC) in sub-Saharan Africa, to assess whether a potential demand for LARC services exists among young women in Ethiopia, and explore how the results of our literature review might help inform how to meet such a demand. Specifically, review the existing literature on promoting LARC use among women in the developing world to search for strategies and best practices to encourage LARC adoption among young Ethiopian women, a task whose public health and economic implications may be large.

We then examine patterns of current and desired childbearing among women aged 15-24, including stopping and spacing of pregnancies. We also assess their knowledge and use of modern methods of contraception. We expect that knowledge and use of LARC is likely to be very low in this population, but that many young women's reported fertility preferences could theoretically be well supported by LARC, suggesting a large potential demand for these contraceptive methods. We then calculate the "unmet need for LARC" among young women, a measure analogous to the more general concept of unmet need, which describes the percentage of young women in the area who are not using any form of contraception but would like to stop childbearing or delay it for 5 or more years. We suggest that this can serve as a useful indicator for the percentage of young women who could benefit from modern contraception, particularly LARC.

Methods:

We will review the existing literature on efforts to promote LARC use in the developing world, particularly among adolescents and young women, and will identify key strategies and best practices for satisfying the potential demand for LARC among young Ethiopian

women. Our literature search will utilize PubMed, Google Scholar, and ISI Web of Science to identify peer-reviewed articles related to the promotion of LARC use among women in the developing world. After an initial review of the articles found through these databases, we will consider expanding our search to include technical reports, program evaluations, and other relevant gray literature on this topic.

We also examine the potential demand for LARC among young Ethiopian women using the 2011 Ethiopia Demographic and Health survey, a nationally representative sample of women of reproductive age. We limit all analyses to women between the ages of 15 and 24, and analyze teenagers (15-19) and young adults (20-24) separately. In our preliminary, descriptive analyses, we first explore patterns of achieved and desired childbearing by wealth quintile, followed by knowledge and use of modern contraception, focusing on IUDs and implants, which are both considered LARC methods. We then assess how many fecund, sexually active women who report wanting to wait 5 or more years to have a child are currently using any method of contraception. We define those who are not using any method as having a potential unmet need for LARC.

Additional multivariable analyses will be conducted to explore determinants of LARC knowledge and unmet need for LARC. We anticipate that these analyses will help target family planning services, and especially LARC services, to the young women who may need them the most.

All analyses utilize the design weights developed by DHS in order to make inference to all young Ethiopian women of the specific age groups analyzed.

Results:

A preliminary review of the articles found in our literature review illustrates that LARC use is low and may have stagnated in sub-Saharan Africa. Researchers and health professionals have long recognized the potential benefit that LARC can bring to women, especially adolescents and young women, who often wish to delay childbearing for several years (1). Some efforts have been made to increase LARC uptake in the developing world, though these interventions have met with little success. Interventions that focus on increasing the ability of physicians to counsel/provide LARC have shown little to no success (2,3). Meanwhile, researchers have noted that quality of care and appropriate counseling could increase LARC use (1,4) but these suggestions have not aligned well with efforts to actually make these improvements. A recent intervention offering dedicated LARC providers showed some evidence of success in increasing LARC uptake in Zambia (5), further suggesting that task-shifting and other efforts might offer some of the best supply-side options for increasing LARC use.

Demand-side efforts to increase LARC use seem to be less common in the literature. Reasons why women do not choose to use IUDs or implants are well documented, though it appears that little has been done to try to change perceptions that LARC methods are

unsafe or inappropriate for young women. Our subsequent analyses using the Ethiopia DHS have been conducted from the perspective that a “potential demand” for LARC exists – that is, that women’s reproductive desires could be fulfilled by LARC use, even if they are not using or have not heard of LARC methods. Efforts to create and increase demand for LARC might be a consistent way to address this potential demand.

Our preliminary analysis of the 2011 Ethiopia DHS show that overall, 42% of teenagers and 78% of young adults have had at least one child at the time of the survey. 88% of teenagers and 82% of young adults would like to have a child (or another child, as the case may be), while only 9% of teenagers and 15% of young adults would like to stop childbearing altogether. Of fecund, sexually active women who want to have a child, 24% of teenagers and 25% of young adults would like to wait 5 or more years to become pregnant.

Of all fecund and sexually active teenagers, 22% have heard of IUDs and 64% have heard of implants. However, no teenagers reported currently using an IUD and only 1.5% reported current use of an implant. Similarly, 29% of fecund, sexually active young adults had heard of IUDs and 70% had heard of implants, but 0.4% were currently using an IUD and 4% were currently using an implant. In both age groups, knowledge of LARC methods were higher among those wanting to wait five or more years to have a child than those wanting to wait less time.

69% of fecund, sexually active teenagers who want to wait 5 or more years to have a child report using no method, and 60% of fecund, sexually active young adults who want to wait 5 or more years report using no method. These women represent a sizable population of young women who could benefit from having access to LARC methods.

Discussion:

Our preliminary literature review highlights the need for effective strategies to increase knowledge and acceptance of LARC, especially among young women. The existing gaps in the literature, and especially the relative dearth of demand-side strategies to increase LARC use, point to some potentially useful ways to promote LARC use among young women in Ethiopia.

The preliminary results of our analysis of DHS data highlight the significant potential demand for LARC among young women in Ethiopia. Based solely on reported fertility desires and contraceptive use, we have identified a large number of young women who could benefit from LARC services. Additional multivariable analyses will help to further describe who these women are and will help to shape policy and program recommendations in the future. Our systematic review of the literature will further contribute to our understanding of successful strategies to promote LARC use among women in the developing world, perhaps providing additional insights for how such strategies should be designed in Ethiopia. As our preliminary review of the literature suggests, a successful LARC promotion strategy will need to focus on young women’s knowledge and acceptance of such methods, highlighting the enormous potential benefits to women who are planning to delay pregnancy for several years.

The cross-sectional nature of DHS data does not allow us to explore changing fertility intentions and preferences over time. A growing body of evidence has found that women, and young women in particular, often change their minds rapidly about whether and when to have children, and such changes can be closely tied to other circumstances in their lives, including opportunities for education, employment, and marriage. This may help to explain the substantial proportion of non-numeric and “don’t know” responses to DHS questions about whether and when children young women would like to have children. Furthermore, it is likely that many of the women who we have identified as having a potential unmet need for LARC may actually choose to have children within 5 years. It is thus possible that the fertility intentions of many women identified in these analyses are poorly understood or likely to shift, resulting in significant changes to our estimates of unmet need for LARC over time. Still, given the very large proportion of women identified in our analyses, we believe that the need for youth-oriented LARC provision is still significant.

As with traditional measures of unmet need for family planning, our analyses also do not account for women’s stated preferences and desires for contraceptive methods. It is possible that many of the women identified as having an unmet need for LARC would not choose to use an IUD or implant if it were available to them, especially given the low knowledge of LARC overall. However, comprehensive counseling regarding LARC, including stressing the fact that LARC methods can be stopped voluntarily at any time, could help to increase uptake among the women who are most likely to benefit from it. Strong youth-oriented LARC programs must thus provide high-quality counseling and information in addition to services, and must also provide women with the option of obtaining other effective forms of family planning if they prefer.

For fecund, sexually active young women, LARC offers an effective way to postpone childbearing for relatively long periods of time. Young women in Ethiopia could benefit significantly from greater knowledge and availability of these methods, and family planning programs and policies targeted at serving youth should emphasize these methods more strongly.

References:

1. Eke AC, Alabi-Isama L. Long-acting reversible contraception (LARC) use among adolescent females in secondary institutions in Nnewi, Nigeria. *J Obstet Gynaecol.* 2011;31(2):164–168.
2. Hubacher D, Vilchez R, Gmach R, et al. The impact of clinician education on IUD uptake, knowledge and attitudes: results of a randomized trial. *Contraception.* 2006;73(6):628–633.
3. Wesson J, Olawo A, Bukusi V. Reaching providers is not enough to increase IUD use: a factorial experiment of “academic detailing” in Kenya. *J. Biosoc. Sci.* 2008;
4. Hong R, Montana L, Mishra V. Family planning services quality as a determinant of use of IUD in Egypt. *BMC Health Serv Res.* 2006;6:79.
5. Neukom J, Chilambwe J, Mkandawire J, et al. Dedicated providers of long-acting reversible contraception: new approach in Zambia. *Contraception.* 2011;83(5):447–452.