ORIGINAL RESEARCH ARTICLE

Provision of family planning services by community health workers in urban slums of Cameroon

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Abstract

Over 50% of pregnancies in slums are unintended, signifying unmet family planning (FP) needs. In Cameroon, about 60% of city dwellers live in slums where basic health services including FP is lacking. With an acute shortage of health personnel in Africa, community health workers (CHWs) can play a vital role in administering basic FP services. The Cameroon Baptist Convention Health Services implemented a pilot project to reduce the unmet FP needs in urban slums through utilization of CHWs. We found that with adequate training and support, CHWs can successfully provide basic FP services in urban slums. *(Afr J Reprod Health 2023; 27 [8]: 14-18).*

Keywords: Developing countries, family planning services, community health workers, unplanned pregnancies, contraceptive agents, delivery of health care

Résumé

Plus de 50 % des grossesses dans les bidonvilles ne sont pas désirées, ce qui signifie des besoins de planification familiale (PF) non satisfaits. Au Cameroun, environ 60% des citadins vivent dans des bidonvilles où les services de santé de base dont la PF font défaut. Avec une grave pénurie de personnel de santé en Afrique, les agents de santé communautaires (ASC) peuvent jouer un rôle vital dans l'administration des services de base de PF. Les services de santé de la Convention baptiste du Cameroun ont mis en œuvre un projet pilote pour réduire les besoins non satisfaits en PF dans les bidonvilles urbains grâce à l'utilisation des ASC. Nous avons constaté qu'avec une formation et un soutien adéquats, les ASC peuvent fournir avec succès des services de base de PF dans les bidonvilles urbains. *(Afr J Reprod Health 2023; 27 [8]: 14-18).*

Mots-clés: Pays en développement, services de planification familiale, agents de santé communautaires, grossesses non planifiées, agents contraceptifs ; prestation des soins de santé

Introduction

Almost one billion people in the global south live in urban slums or informal settlements and over 50% of urban dwellers in sub-Saharan Africa (SSA) live in these unsafe, unsanitary, and overcrowded communities[1]. In Cameroon, about 53% of the estimated population of over 25 million resides in cities and towns and over 60% of these individuals live in slums or informal settlements; this means that over seven million Cameroonians live in settings that may lack running water, electricity, and even basic healthcare[2].

To the latter point, there is evidence that young girls in urban slums are two times more likely to become pregnant compared to their counterparts residing in non-slum settlements[3]. Over 50% of pregnancies in slums are unintended, this likely indicates significant unmet family planning (FP) needs which is a global public health high-priority target; unintended pregnancies, particularly among adolescent girls, in urban slums are typically attributed to a lack of reproductive health education and inaccessibility of affordable FP services. Although exact FP figures for Cameroon are unavailable, we know that in Bangladesh, 15% of women in urban slums have never used any form of modern contraceptive[4], and in a study of Cameroonian women that were engaged in care found that less than one-third of

study participants had ever used any form of modern contraceptives[5].

. In settings where quality maternal and child health (MCH) and safe abortion services are not accessible, the morbidity and mortality associated with unintended pregnancy for both mother and child can be disastrous[8]. Therefore, improving access to modern FP methods is an essential strategy to protect the welfare of women and children.

Although Cameroon has a very restrictive abortion policy, which only permits abortion in pregnancies that originate from rape, incest, or if the pregnancy endangers the woman's life[9], there is evidence that induced abortions are common in Cameroon with a prevalence of 20 to 35% among women of reproductive age[10]. Due to this restrictive policy, abortion services are often provided in hiding, usually by unskilled personnel, which can lead to unsafe procedures with detrimental consequences. For example, unsafe abortions account for one-quarter of maternal mortality in Cameroon[11]. The abortions are usually performed at home or in clinics and are mostly provided by friends, general practitioners, and nurses or they are self-induced. The most common procedures are manual vacuum aspiration, dilatation and curettage, or use of misoprostol[12]. The importance of access to quality FP services to prevent such illegal and unsafe abortions cannot be overemphasized.

With an acute shortage of health personnel in low and middle-income countries (LMICs), community health workers (CHWs) can play a vital role in administering basic health services including basic FP. CHWs are lay health care providers who have been informally trained for a short time. They are usually members of the communities they serve and are often supervised by one or more hospitals or integrated health centers[13].

In LMICs, CHWs are becoming useful to provide basic FP services. CHWs have been dispensing condoms and birth control pills (BCP) for several decades in LMICs. The trust and close relationships between the CHWs and members in community may also result in higher FP uptake compared to that achieved by hospital-based services alone[13]. The CHWs feel motivated and recognized when additional responsibility is given to them especially when it is associated with extra financial benefits[14]. However, in Cameroon, CHWs have never been involved in the provision of FP services. The CHWs activities in Cameroon have been limited to sensitization for HIV testing and childhood vaccination, and distribution of mosquito nets and antihelmintics.

In Cameroon, data are not available on the unmet FP needs in urban slums; however, no comprehensive FP intervention program has been executed in urban slums to our knowledge. Moreover, there is a rapid rise in the population of the already overcrowded slums in the capital city, Yaoundé, and the economic capital, Douala, due to a six-year-old ongoing socio-political crisis in the Northwest and Southwest regions that has forced over 500,000 persons to flee their homes[15]. The influx of these internally displaced persons (IDPs) within the cities of Yaoundé and Douala has created an even more urgent need for FP services within its slums where many IDPs now live. These circumstances are concerning for a rising proportion of unplanned pregnancies and unsafe abortions occurring within these slums.

Service provision

To address this situation, the Cameroon Baptist Convention Health Services (CBCHS), a large faith-based healthcare organization in Cameroon with a network of 95 health facilities in nine of the 10 regions in Cameroon developed a pilot project to reduce the FP unmet needs in these slums through utilization of CHWs. This project was funded through the FP 2020 rapid response mechanism grant. The capacity of 30 CHWs (15 in Yaoundé and 15 in Douala) was enhanced by integrating basic FP services in their routine community activities within the urban slums. These CHWs were of both sexes and were predominately young and middle-aged persons.

With assistance from the Regional Delegates of public health for the Centre and Littoral regions of Cameroon and the district medical officers for New Bell and Bonassama Health Districts in Douala and the Biyem-Assi and Cité Verte Health Districts in Yaoundé, we selected 15 CHWs per city resulting in a total of 30 CHWs for the project that lasted for a period of four months beginning November 2019 and ending February 2020. The CHWs received one week of basic FP training for CHWs from each region. The training was

comprised of lectures on basic male and female reproductive anatomy, importance of FP, healthy timing and spacing of pregnancy, different contraceptive methods, FP counseling, rights of the client in FP, and infection prevention measures. Demonstration and counter demonstrations were conducted for male and female condom use and Sayana Press (an injectable contraceptive which is administered subcutaneously). A series of counseling and health education role plays were held. At the end of the training, each participant was given a working kit which was comprised of a bag with a flip chart for counseling and education, penile and vaginal models for condom demonstration, FP commodities including male and female condoms, BCPs, and Sayana Press. A curriculum for the provision of FP services by CHWs was developed by the CBCHS FP staff. This curriculum was also part of their working kits and they were encouraged to refer to it from time to time as a reference guide.

A referral card was developed to refer women needing long-acting reversible contraceptives (LARCs) such as implants and intrauterine devices (IUDs). The referrals in Douala were sent either to the Baptist Hospital in Mboppi or the Baptist Hospital in Bonaberi depending on the client's preference. In Yaoundé, all referrals were sent to the Baptist Hospital at EtougEbe. On the referral cards, CHWs wrote their name, name of the client they were referring, the method the client has chosen, and the date of referral. When the women arrived at the clinic with the referral cards, they were provided the LARC method of their choice at no cost as part of the project. The methods that were available for the women to choose from included: male condom, female condom, combined oral contraceptive pills, Progesterone only contraceptive pills, and Sayanna press in the community, and in the hospital, Copper bearing intrauterine device, Jadelle implant, and Implanon implant.

Periodic face-to-face field supervision was performed by two senior CBCHS FP providers to encourage the CHWs and to respond to their concerns. The CHWs returned to the clinics at the end of every month to submit their statistics, refill their supplies, and receive a stipend of 10,000 FRS CFA ($20) to enable them to move around their communities. In our program 30 CHWs were able to reach over 5,000 clients in slums settlements within the four months. This indicates that each CHW attended to approximately 42 clients per month. Figure 1 shows the gap between clients referred to the hospital and those that actually arrived the hospital.

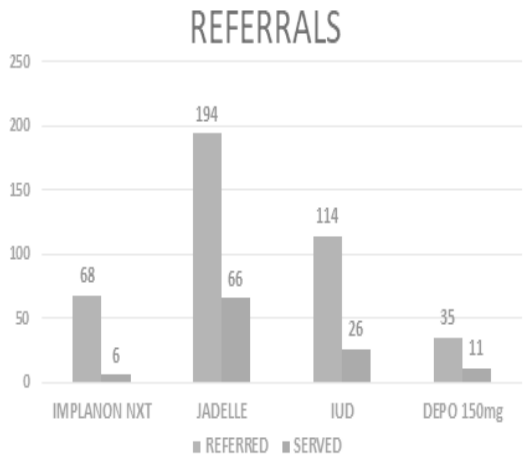

Figure 1: Referrals

Discussion

We found that with adequate training and support, CHWs in Cameroon can provide basic FP services in urban slums. CHWs have been used to provide FP services in other LMICs, but our project is unique because it was conducted in urban slums. In a systematic literature review of 86 studies evaluating the CHWs and FP provision, 93% confirmed that CHWs can effectively upscale the use of modern methods of contraception[13]. The authors concluded that there is strong evidence that CHWs can improve FP services access. Therefore, if many more CHWs from all the urban slums were empowered with basic FP skills, FP coverage in the country might significantly improve and the contraceptives prevalence rate (CPR) might rise.

Our findings improve on the reach outcomes attained in a comparable study conducted in Tanzania; where in three months, 25 CHWs reached 710 clients with FP methods[16]. The difference could be due to the fact that the Tanzania project was multifaceted because the CHWs were implementing three packages in one (FP, HIV, and STIs) whereas, our project was solely focused on FP even though the CHWs were doing the FP alongside their routine activities. In Ethiopia, CHWs were trained to administer intramuscular

injectable contraceptives and in three years, 600 CHWs administered 15,410 injectable contraceptives[17]. At the end of the project, a 25% increase in contraceptive use among the women surveyed was observed from 30.1% (baseline pre-intervention) to 37.7% (post-intervention). In a similar project in India executed by CHWs, the FP unmet need decreased from 22.4% to 14.7% in one year[18]. Results of a cross-sectional study in Niger shows that women visited by CHWs in the past three months were more likely to be using FP methods than women who were not (AOR = 1.94[95% CI 1.07–3.51])[19].

There are different perceptions about provision of FP services by CHWs from the client perspective. In our project, the CHWs appeared to be well received by the community as reflected by the number of clients reached within a few months. In a Rwandan project in which CHWs provided standard day methods with cycle beats, 99% of the women who were attended to affirmed that CHWs are competent in providing the method and they had confidence in them[20]. Whereas, in a cross-sectional survey in Western Kenya, two-thirds of respondents were not comfortable receiving FP services from CHWs and felt that they were not competent in offering such services[21]. However, this survey was not conducted in slums or informal settlements where there is an acute lack of basic health services. Where there is access to basic health services, women may not be comfortable getting FP services from CHWs.

CHWs can only provide short acting methods like BCPs, condoms, and injectable contraceptives, which is one major limitation. Even though these methods are very effective with perfect use, they are user dependent. With typical use, short acting methods are associated with lower efficacy rates due to non-adherence or renewal/refill delays[22] as well as high rates of discontinuation when minor side effects occur[23]. In our project, we trained and permitted the CHWs to administer Sayana press, which is a subcutaneous injection effective for three months. It is safe and requires fewer manipulations because it comes as a prefilled single use injection. Women are also trained to self-administer it. In the Ethiopian project, CHWs successfully administered intramuscular injectable contraceptive despite the numerous manipulations required[17]. In a systematic literature review of 19 studies evaluating administration of intramuscular injectable contraceptives by CHWs, the authors concluded that with appropriate training and supervision, CHWs can safely provide intra muscular injectable contraceptives[24]. Long-acting reversible contraceptives (LARCs), including IUDs and implants, have higher continuation rates, higher effectiveness, and higher tolerability compared to BCPs and injectables[22]. Unfortunately, due to inadequate or informal medical training, these cannot be provided by CHWs. In 2014, the CPR for Cameroon was 34.4%. If CHWs are fully involved in FP service provision, we hypothesize that the CPR could double. However, countries that have implemented provision of FP services by CHWs do not have higher CPRs than those that have not. This conclusion is difficult to make because there are no data on the pre and post CPRs based on implementation of FP methods by CHWs.

We identified several areas for improvement during the pilot implementation period. As noted in Figure 1, less than half of those referred for LARCs arrived at the referral clinics. This indicates gaps in the referral system that was put in place. The women were sent with a referral card; perhaps if the CHWs had to accompany them to the clinic (active rather than passive referral); the results may have been better. Subsequent projects should consider the implementation of an active referral system. Another major challenge was difficulty conducting supervision visits by trained medical personnel due to inaccessible roads within the slums. The supervisors often had to trek several miles on foot or use a motor bike for transport.

Conclusion

CHWs are capable of providing basic FP services including counseling, BCP, male and female condoms, and Sayana press in urban slums in Cameroon. FP programs should empower and train CHWs and deploy them in urban slums and other informal settlements that lack access to FP. An active referral system should be put in place for women needing LARCs.

Ethics approval and consent to participate

We obtained IRB approval from the Cameroon Baptist Convention Health Services and the University of Alabama at Birmingham.

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Authors' contributions

KN and FM wrote the grant application. SM, KN and FM implemented the project. SM drafted the first manuscript. HB, AT, KN and FM reviewed and edited the manuscript.

References

1. Alaazi DA, Aganah GAM. Understanding the slum – health conundrum in sub-Saharan Africa : a proposal for a rights-based approach to health promotion in slums. Global Health Promotion 2019;0(0):1-8. doi:10.1177/1757975919856273
2. UN Habitat. Participatory Slum Upgrading Programme. n.d. file:///C:/Users/HP/Desktop/FP2020%20Manuscript/UN%20Habitat.pdf.
3. Slum P, Programme U. PARTICIPATORY SLUM UPGRADING PROGRAMME CAMEROON IMPACT STORY : 2015;(September 2014):5-8.
4. Huda FA, Mahmood HR, Ahmmed F, Ahmed A, Aniqa Hassan AT, Panza A and Somrongthong R. The effect of a club in making differences in knowledge, attitude, and practices on family planning among married adolescent girls in urban slums in Bangladesh. *Int J Environ Res Public Health*. 2019;16(20). doi:10.3390/ijerph16204037
5. Budhwani H, Hearld KR, Dionne-odom J, Manga S, Nulah, K, Khan M, Welty T, Welty E and Tita AT. HIV Status and Contraceptive Utilization among Women in Cameroon. Journal of the International Association of Providers of AIDS Care. 2019;(18):1-7. doi:10.1177/2325958219826596
6. Saha UR and Soest AV. Contraceptive Use, Birth Spacing, and Child Survival in Matlab, Bangladesh. Contraceptive Use, Birth Spacing, and Child Survival.2013:45-66.
7. Bain LE and Kongnyuy EJ. Eliminating the high abortion related complications and deaths in Cameroon: The restrictive legal atmosphere on abortions is no acceptable excuse. *BMC Womens Health*. 2018;18(1):1-5. doi:10.1186/s12905-018-0564-6
8. Bongfen MC and Abanem EEB. Abortion practices among women in Buea: A socio-legal investigation. *Pan Afr Med J*. 2019;32:1-9. doi:10.11604/pamj.2019.32.146.17732
9. Tebeu PM, Ekane GH, Itambi MD, Mbu RE, Mawamba Y and Fomulu JN. Maternal mortality in Cameroon: A university teaching hospital report. *Pan Afr Med J*. 2015;21:1-8. doi:10.11604/pamj.2015.21.16.3912
10. Nkwabong E, Mbu RE and Fomulu JN. How risky are second trimester clandestine abortions in Cameroon: A retrospective descriptive study. *BMC Womens Health*. 2014;14(1):1-6. doi:10.1186/1472-6874-14-108
11. Scott VK, Gottschalk LB, Wright KQ, Twose, C, Bohren, MA, Schmitt, ME and Ortayli N. Community Health Workers' Provision of Family Planning Services in Low- and Middle-Income Countries: A Systematic Review of Effectiveness. Studies in Family Planning 2015(46)3.
12. Brunie A, Wamala-Mucheri P, Otterness C, Akol A, Chen M, Bufumbo, L and Weavern M. Keeping community health workers in Uganda motivated: Key challenges, facilitators, and preferred program inputs. *Glob Heal Sci Pract*. 2014;2(1):103-116. doi:10.9745/GHSP-D-13-00140
13. United Nations. OCHA Cameroon, North West and South West Crisis. Situation Overview: Philippines. 2018;30(29):1-8.
14. Agarwal S, Lasway C, Engle KL, Braun R, Silas L, Mwakibete A and Kudrati M. Family Planning Counseling in Your Pocket : A Mobile Job Aid for Community Health Workers in Tanzania. Global Health Science and Practice. 2016:300-310.
15. Weidert K, Gessessew A, Bell S and Godefay H. Community Health Workers as Social Marketers of Injectable Contraceptives : A Case Study from Ethiopia. Global Health Science and Practice.2017:44-56.
16. Wagner AL, Porth JM, Bettampadi D and Boulton ML. Have community health workers increased the delivery of maternal and child healthcare in India ? Journal of Public Health. 2017;40(2):164-170. doi:10.1093/pubmed/fdx087
17. Brooks MI, Johns NE, Quinn AK, Boyce, SC, Fatouma, IA, Oumarou, AO, Sani, A and Silverman JG. Can community health workers increase modern contraceptive use among young married women? A cross-sectional study in rural Niger. *Reprod Health*. 2019;16(1):1-10. doi:10.1186/s12978-019-0701-1
18. Vanenk L, Shelus V, Mugeni C, Mukabatsinda M and Cachan J. in Gisagara District , Rwanda. Studies in Family Planning. 2018. 49(2) 159-170. doi:10.1111/sifp.12059
19. Juma PA, Mutombo N and Mukiira C. Women's attitudes towards receiving family planning services from community health workers in rural Western Kenya. *Afr Health Sci*. 2015;15(1):161-170. doi:10.4314/ahs.v15i1.22
20. Luchters S, Bosire W, Feng A, King'ola N, Ampt F, Temmerman M and Chersich MF. "A baby was an added burden": Predictors and consequences of unintended pregnancies for female sex workers in Mombasa, Kenya: A mixed-methods study. *PLoS One*. 2016;11(9):1-20. doi:10.1371/journal.pone.0162871
21. Tolley E, Loza S, Kafafi L and Cummings S. The impact of menstrual side effects on contraceptive discontinuation: Findings from a longitudinal study in Cairo, Egypt. *Int Fam Plan Perspect*. 2005;31(1):15-23. doi:10.1363/3101505
22. Malarcher S, Meirik O, Lebetkin E, Shah I, Spieler J and Stanback J. Provision of DMPA by community health workers : what the. *Contraception*. 2011;83(6):495-503. doi:10.1016/j.contraception.2010.08.013.