Combining Social Marketing and Community- Based Distribution to increase access to injectable contraceptives

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Considerable need for family planning in rural areas in Africa could be met by community-based distribution of contraceptives but additional unmet need would persist. Rural African women prefer injectable contraceptives, which African community-based distribution (CBD) workers are not providing on a large scale. Examples from Ethiopia, Madagascar, Uganda and Malawi exist that demonstrate that injectable contraceptives can be safely administered by community-based distribution workers. Cash-strapped health systems cannot afford to pay salaries for large numbers of CBD workers, and relying on community-based volunteerism on a large scale is untenable. The purpose of this paper is to explore strategies that would expand social marking into rural areas by using CBD workers as social marketing agents. We use data from a community-based access to injectable contraceptives intervention, including data on willingness to pay for injectables.

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In the developing world, approximately 17% of married women – more than 100 million women – would like to delay or stop childbearing but they are not using a modern contraception to do so and therefore have an unmet need for family planning. Ross, J. A., & Winfrey, W. L. (2002). More than 20% of this unmet need comes from sub-Saharan Africa, with 24 million married women lacking modern options for family planning. Ross, J. A., & Winfrey, W. L. (2002). These estimates do not include the 8.4 million unmarried women globally with unmet contraception needs. Ross, J. A., & Winfrey, W. L. (2002). More recent analysis of data from more than 50 countries found that unmet need for family planning still amounted to 1 in 7 married women (14%) and 1 in 13 unmarried women (8%). Sedgh G et al 2007. In that analysis, the unmet need in sub-Saharan Africa among married women was 24% and among never married women was 9%. Sedgh G et al 2007.

Social marketing can be a powerful tool to improve access to contraception and family planning services. Through social marketing projects, donor agencies, non-government organizations (NGOs) and the private commercial sector, have introduced subsidized family planning products into the market in developing countries around the world. Contraceptive products such as condoms, spermicides, oral contraceptive pills and increasingly, injectables, are targeted toward the poor who cannot afford commercially available options. Capitalizing on market principles, social marketing creates brand names for subsidized contraceptive commodities, which appeal to consumers more than generic alternatives. Of paramount importance, this approach uses the existing commercial infrastructure as a distribution network. This infrastructure is much more extensive than public health clinics and hospitals, reaching the poor in urban and peri-urban settings. Government subsidies delivered through clinic-based settings often fail to reach the poor. Castro-Leal et al 2000. In a country such as Uganda, socially marketed commodities were selected by nearly half (47%) of oral contraceptive pill users and nearly all (96%) condom users. [Uganda Bureau of Statistics 2007] In Ethiopia, use of socially marketed commodities is on the rise, increasing since 2000 to nearly one third (30%) of the pills and more than half (58%) the condoms used by 2005. [Central Statistical Agency [Ethiopia] and ORC Macro. 2006] Unfortunately, both the public and private sector networks are limited in the rural settings, where the majority of the populations of developing countries live. Prata et al. 2010. This leaves the rural masses with considerable unmet need for family planning.

One approach to address the unmet need for family planning in rural settings has been to extend contraceptive access through community-based distribution (CBD). Such distribution of family planning services is offered by community-based distribution workers in many countries and throughout Africa. Phillips et al 1999. A study investigating the impact of community-based distribution on contraceptive continuity in Bangladesh using data from the early 1980's and 1990's found that receiving a CBD visit at least once in a 90-day period reduced the risk of contraceptive discontinuation by 65%. [Hossain 1996.] Analysis of the results of the introduction of CBD projects in six sites throughout urban and rural Pakistan in 1991 revealed that contraceptive prevalence rates ballooned from an average of 12% at baseline to 39% in less

than 2 years. The results in a conservative, rural site in the Northwest Frontier Province of Pakistan were similarly dramatic: contraceptive prevalence increased from a baseline of 7% to 31% after one year. [Shelton 1999] The integration of a CBD program distributing spermicides and condoms into an existing health care system in rural Mali in the early 1990's increased contraceptive knowledge and use compared to areas with contraception education-only programs or no intervention. Moreover, whereas women in the communities with the CBD or contraception education-only programs reported a smaller ideal family size and greater intention to use family planning after the intervention than had been expressed prior to the program implementation, these changes in attitudes were not observed in the control community. [Katz 1998]

Community-based distribution of contraceptives has greatly extended the reach of family planning services and increased contraceptive prevalence among rural couples. CBD workers live near their clients, a proximity which offers considerable advantages over clinic-based services. Clinic-based services can require inordinate travel time and additional expense and there is no guarantee against stock outs of preferred methods on the day of the visit. Community-based distribution of family planning services includes information, education and communication, outreach which can generate additional demand beyond initial unmet need by informing couples who never visit clinics. The one major disadvantage to CBD is the method mix that CBD workers are able to offer. Most CBD workers can only provide condoms, spermicides and oral contraceptive pills and must refer clients to clinics for other longer-acting family planning options including injectables. Prata et al 2005

Injectable contraceptives are rapidly changing the contraceptive method mix in many settings, and the rural context is no exception. Seiber 2007; Tawye 2005. Injectables are the preferred method of family planning among rural women for several reasons. Weldegerima, B 2008 There is a general preference for contraceptives that, unlike the condom, are non-coital dependent to avoid detracting from spontaneity and inconsistent use. Ruminjo, et al. 2005 Moreover, the dual utility of condoms for disease prevention may require more negotiating power than rural women have for family planning purposes. Langen TT. 2005. Furthermore, unlike the pill which requires daily doses, injectables are longer-acting contraceptives, thus more convenient and less conspicuous. Weldegerima, B 2008; C. Sekkade-Kigondu 1996(?) Some rural women might need to engage in clandestine contraceptive use [Weldegerima, B 2008] and may be unwilling to risk the discovery of hidden oral contraceptive pills by their husband or other powerful family members who disagree with their fertility regulation. [Biddlecom et al 1998; Stanback 2007] Injectable contraceptives are ideal since their use is difficult to detect and the most commonly used type only requires re-dosing once every three months.

There is a massive shortage of health care workers in most African countries and existing human resources are unevenly distributed, concentrated in urban areas where less of the populations live. Awofeso 2010. Existing public health networks are insufficient to reach the majority of the people, particularly the rural poor. Castro-Leal et al 2000. In response to inadequate human resources, many health services tasks are being shifted from doctors, nurses and clinical staff to lower-level providers, such as paramedical personnel, community

health agents and other lay workers, who are vastly more numerous, especially in rural areas with its majority of the population, and who, importantly, are more easily retained in such settings. [Herbst 2009 p 332] Task shifting in family planning services would alleviate strains on overburdened clinic staff and extend access to contraception to rural communities. A key family planning task for such delegation would be the administration of injectable contraceptives by well-trained community-based distribution workers, who already provide other family planning services and referrals. WHO and others have reviewed evidence and evidence based concluded because: this; this; and this.

Funding streams for family planning interventions are under constant threat and donor support alone is insufficient to satisfy increasing unmet need. Tawye 2005. National governments, struggling to pay established cadres of clinicians, cannot afford to remunerate large numbers of community-based distribution workers. Tawye 2005. Reliance on volunteer workers may provide short-term, emergency relief but is not sustainable over the long term. Tawye 2005. Circumstances necessitate the development of schemes that allows for expanded access to family planning commodities with considerable cost recovery to offset the expense related to wider distribution. Social marketing through community-based distribution workers may offer such opportunity to recover costs of distribution of contraception by compensating the worker with some or all of the proceeds from the sale of the contraceptive. In addition, distribution points would increase, thus increasing access. Governments and donors should continue to provide subsidized commodities but the costs would be reduced by the volume of sales.

The purpose of this paper is to explore strategies that would expand social marking into rural areas by using CBDs as social marketing agents. We use Ethiopia as an example of countries that are mostly rural, have high unmet need for family planning, and where injectables are the most wanted modern contraceptive method in rural areas.

Ethiopia is a high fertility country, with a total fertility rate (TFR) of 5.4 births per women amounting to an annual population growth rate of more than 3%. [Central Statistical Agency [Ethiopia] and ORC Macro. 2006]. There is a considerable urban-rural divide in terms of fertility, with an urban TFR of 2.4 and a rural TFR of 6.0. Central Statistical Agency [Ethiopia] and ORC Macro. 2006. The vast majority (84%) of Ethiopia's population is concentrated in rural areas. Ringheim 2009. Among married women, only 14% are currently using a *modern* method of contraception with even lower levels of *modern* contraceptive use among married women in rural areas (11%). Central Statistical Agency [Ethiopia] and ORC Macro. 2006. Injectable contraceptives are by far the most popular. While the contraceptive prevalence for *any* method is 15% among married women, 10% of married women use injectables, meaning that injectables account for 2/3 of the contraceptive method mix. Central Statistical Agency [Ethiopia] and ORC Macro. 2006 Nearly half (49%) of married Ethiopian women reported that they would like to space childbirth or limit their family size. Thus, just 31% of current family planning needs are being met, leaving 34% of married women with an unmet need for contraception. Central Statistical Agency [Ethiopia] and ORC Macro. 2006. A 2002 evaluation of national program

options for family planning reported that more than 3 million women in Ethiopia have an unmet need for family planning. Ahmed, J. and G. Mengistu. 2002.

In short, research demonstrates that women in Ethiopia want family planning services, especially injectable contraceptives. (Eth DHS 2005; Bekele 2006; Diaba 2008; Weldegerima 2008; Bhargava 2007)

DKT, an international non-governmental organization specializing in social marketing, has introduced several branded contraceptive commodities into the Ethiopian market place including condoms, oral contraceptive pills and the progestin-only injectable contraceptive, depot medroxyprogesterone acetate (DMPA). In partnership with Population Services International (PSI), DKT began socially marketing condoms in the Ethiopia in 1989. In 2009, DKT distributed more than 90% of the condoms in Ethiopia. DKT International: Ethiopia program website. From 2002 through 2008, the organization covered 44% of couple year protection (CYP) by distributing approximately 80 % of the condoms, 45% oral contraceptives pills and 41 % of the injectables used in Ethiopia. DKT/Ethiopia website. The injectable contraceptive product distributed by DKT in Ethiopia is marketed under the brand name, “Confidence.” Its availability throughout the country is facilitated by DKT extensive commercial network connections. Condoms and oral contraceptive pills can be further disseminated to community-based distributors at these distribution points. Unfortunately, wider distribution of injectables would be futile as injections can only be administered by clinical personnel in Ethiopia thus limiting their effective availability to only those clients who visit clinic settings or licensed pharmacists. Clinics and health posts are often a great distance from where most people live in Ethiopia and traveling to them entails additional expense, lost work time, child care complications and issues of cultural acceptability regarding the free movement of Ethiopian women. Ahmed 2002. Ideally, DKT’s distribution network in Ethiopia could be leveraged to allow wholesalers to sell injectables with costs reductions for bulk purchases to cooperatives of community-based distribution workers, trained and empowered to administer the injections.

In Ethiopia, efforts to increase access to family planning services, particularly in rural areas, began in earnest in the early 90’s and have relied largely on the provision of Community-Based Reproductive Health Services (CBRHS) using volunteer Agents (CBRHAs). Tawye 2005. The consortium of NGOs providing family planning services at the community level swelled from 7 non-profits in 1995 to more than 60 organizations in 2003. Tawye, 2005. Their ranks include nearly 13,000 trained community agents who fan out over 252 wards in seven regions. Tawye 2005. A study of CBRHS in the Eastern Showa Zone of Ethiopia in the year 2000 found that the effects of having current or former programs increase contraceptive knowledge and increased “ever use” of contraceptives over communities where such services were never provided, however, current family planning was only increased in areas with active CBRHS programs. Genna 2006. Pooling 2000 and 2003 survey data, other researchers determined that, in areas with mature CBRHS interventions, CBRHA tripled contraceptive prevalence rates compared to the rest of Ethiopia. Tawye 2005. They predicted that expansion of CBD programs nationally could lead to a doubling of current contraceptive prevalence rates. Tawye 2005. Thus,

community-based distribution plays a vital role in the provision of health services in Ethiopia, particularly family planning and has the potential to have an even greater impact.

There are many technical and logistical concerns about community-based distribution of injectable contraceptives. On a technical level, these concerns pertain to the ability of CBD agents to correctly screen prospective clients for counter-indication for DMPA use; to provide thorough counseling; to follow appropriate injection protocols; to adhere to re-injection timetable; and to properly dispose of injection supplies. Osorio Gus 2003. On the logistical side, concerns pertained to CBDs ability to maintain reliable supplies of injectables and to link to appropriate medical attention if women experience side effects. Osorio Gus 2003. Several successful intervention studies and pilot projects demonstrate that CBD agents can surmount these challenges and provide family planning services comparable to and occasionally even superior to their clinic-based counterparts. In 2004, a pilot study by Family Health International (FHI) in Uganda found equivalent continuation rates between the clients of 20 well-trained Community Reproductive Health Workers (CRHW) and clinic providers. Stanback 2007. FHI also organized a similar pilot project in Madagascar, training more than 60 CBD workers, who were already distributing condoms and contraceptive pills, to distribute and administer contraceptive injections by purchasing injectable supplies at a bulk rate (US$0.08) and selling them at a higher rate (US$0.16), retaining all the profit. Family Health International 2007. In 2008 and 2009, Malawi piloted and rolled out a limited training program for the distribution of injectable contraceptives administered by 300 community-based Health Surveillance Assistants (HSA) who lived ≤18km from their nearest health facility to target to most remote, difficult to access areas. Richardson, F. et al 2009; Hamblin, Kelly 2009. The program demonstrated that non-clinical staff could screen, inject and resupply injectable contraceptives to women in isolated communities, who face the greatest challenges reaching clinics.

In 2008, the Bixby Center for Population, Health and Sustainability at the University of California, Berkeley partnered with Ventures Strategies for Innovation, Venture Strategies for Health and Development, and the Tigray Regional Health Bureau (TRHB) in northern Ethiopia to pilot test the community-based distribution of injectable contraceptives. In rural areas of Ethiopia both the public and private distribution networks are more limited. They include local clinic-based government health workers, known as Health Extension Workers (HEWs) and the volunteer community-based private individual distributors, known as Community Based Reproductive Health Agents (CBRHA). HEWs have a high school education and receive and an additional 18 months of health care training. They staff rural health posts and are often relied on as the only source of basic health care for sanitation, vaccinations, disease management and treatment in additional to family planning services. Prata et al 2010. Unfortunately, reaching rural health posts often requires significant travel, at considerable expense and inconvenience, and those who arrive at health posts from remote villages often find the posts understaffed and poorly supplied, and overburdened with long wait-times. In this context, researchers designed a project “to provide evidence that CBRHAs can safely and effectively distribute and facilitate the supply of [injectables] to rural women and demonstrate that CBRHAs can deliver [injectables] with the same safety, effectiveness, and acceptability outcomes as HEWs” and thereby

"increase access to [injectable contraceptives] by using CBRHAs." Prata et al 2010. A complete report of the intervention project and its findings are published elsewhere. Prata et al 2010. The study targeted four village sites in two districts of the Tigray region for a total of 8 intervention sites. The project involved a ten-day training for 30 CBRHAs and 15 HEWs (although HEWs were already allowed to provide injectables, their inclusion in the standardized training ensured comparable protocols with CBRHAs). Once trained in family planning methods, study protocol, eligibility, injection administration, and reporting procedures in a class room setting, the participants went on to clinic-based practical training. CBRHA who successfully completed the training received special authorization from the TRHB to administer DMPA in a community setting.

We use data from community-based access to injectable contraceptives intervention, including willingness to pay for injectable. We conduct a cost-benefit analysis of the intervention. We model the cost of training, monitoring and supervision and seed money for each CBD as a start up for her business against the potential increase in contraceptive use, method mix, and continuation rates. We consider the acceptability of the intervention by the women and the potential revenue for the CBDs in the success of this intervention.

Results show that contraceptive prevalence could be increased by extending the social marketing schemes through community-based distribution of injectable contraception. With proper training, community-based distribution workers could serve as social marketing agents, including socially marketed injectable in the contraceptive method mix that they offer, along with condoms and oral contraceptives.

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