Programme BRIEFS

OPERATIONS RESEARCH
TECHNICAL ASSISTANCE
AFRICA PROJECT II
THE POPULATION COUNCIL

Community Based Distribution

Health care facilities (including hospitals, clinics and health posts) are the most common source of family planning and other reproductive health services in sub Saharan Africa. However, the distances to clinics in sparsely-populated rural areas, the overcrowding of clinics in urban areas, the often inadequate quality of care available, and the medical environment of clinics themselves, are some of the reasons why access to reproductive health services at clinics is limited for many potential service users in the region. Consequently, several programmes have developed and are implementing non-clinic based alternatives for providing these services. These include: delivering contraceptive services at the market and workplaces, as well as through Traditional Birth Attendants and Healers; training male and religious opinion leaders and adolescent peer leaders to inform and educate their communities about reproductive health services; and social marketing.

The alternatives most frequently implemented in Africa however, are Community-Based Distribution (CBD) programmes. These programmes vary greatly in structure and function, but consist essentially of a cadre of "agents" who work within their communities to educate community members about family planning and other services, and who distribute or sell contraceptive and selected health care commodities. The agents are usually (but not always) supported by a clinic-based programme that provides access to a broader range of reproductive health services, and are normally selected by and answerable to the community in which they live. In other regions of the world, CBD programmes have increased access to and utilisation of services. This summary presents the lessons learned from several operations research (OR) activities in Africa over the past 5 years, and provides guidance to managers planning to introduce a CBD component to their reproductive health programme.

ACTIVITIES UNDER THE AFRICA OR/TA PROJECT II

Country	*Study Description*
BURKINA FASO	*Test the impact of creating a cadre of community agents on family planning and other reproductive health behaviours, and compare with effectiveness of a clinic-strengthening intervention jointly and alone*
GAMBIA	*Comparison of community-based strategies that focus primarily on demand creation with those that also include community-based delivery of services*
GHANA	*Test the impact of relocating nurses from clinics and creating a cadre of community agents on family planning and fertility behaviour*
KENYA	*Review of programme documents and reports on all CBD programmes in the country*
KENYA	*Assessment of CBD programmes' functioning, determinants of effectiveness and cost-effectiveness through catchment area surveys, interviews with agents and staff, and document review*
TANZANIA	*Assessment of CBD programmes' functioning, determinants of effectiveness and cost-effectiveness through interviews with agents and staff, and document review*
ZIMBABWE	*Situation Analysis of the functioning and quality of care provided by CBD programme*

How are CBD programmes organised?

- Although every programme is unique in its structure and functioning, most programmes can be categorised in terms of whether:
  - they are implemented by the MOH, an NGO or a church-based organisation;
  - they are rural or urban-based;
  - their agents are full-time or part-time;
  - their agents are given a salary, allowance, non-monetary incentive and/or keep a proportion of commodity sales;
  - their agents are attached or not to a clinic;
  - and by the number of agents employed.

What information and services do CBD agents provide?

- The primary function of all CBD agents has been to inform and educate clients about family planning methods. All agents supply or sell condoms and spermicides, and many are allowed to supply or sell oral contraceptives, although they must also refer these clients for an examination.
- Allowing CBD agents to provide oral contraceptives can be controversial. In Burkina Faso, Kenya, Tanzania and Zimbabwe, agents are allowed to provide low dose combined and progestin-only pills to new and continuing clients.
- For most programmes, CBD agents use a checklist to screen for contraindications among their pill clients, and new pill clients are referred to a clinic for a medical check-up before being resupplied.
- Although the Ghana MOH has recently approved pill distribution by CBD agents, for cultural reasons it was important for the Navrongo programme managers to first pilot-test the addition of pills to the agents' activities; the study is currently on-going.
- Similar pilot studies were also necessary in Kenya and Mali, and both successfully proved that CBD agents are as competent as nurses in screening pill clients and in giving adequate and appropriate information to pill users. In other countries there was less concern about non-medical providers distributing pills and so pilot-testing was not necessary.

- Agents in the Navrongo and Bazega programmes sell some basic medicines, such as analgesics, malaria pills and ORT, and keep a share of the income generated from this. In addition, the agents in the Navrongo programme organise mass child immunisation sessions attended by a team from the local clinic.
- Most CBD programmes now expect their agents to inform and educate clients on STI/HIV symptoms, transmission and prevention, and referral for diagnosis and treatment. Although communities have welcomed this additional service, the agents' knowledge of STIs is still generally poor and they feel their training is inadequate; refresher training is clearly essential.
- Many agents spend time on activities that are not recorded; for example, in Tanzania more than 20 percent of an agent's time is spent informing and referring clients on reproductive health issues other than family planning. Their record keeping and reporting procedures, however, are organised around the number of clients served and the couple years of protection (CYP) provided.

With their re-orientation towards providing other non-family planning services, there is an urgent need for CBD programmes to start recording and reporting on these activities. If not, the productivity of CBD agents will be under-reported and programme evaluations will misrepresent the effectiveness of CBD programmes in contributing to a broader reproductive health agenda.

- In Tanzania and Kenya, it was found that agents who provide a broader range of health services are both more productive and feel better accepted as meeting the needs of their community. What effect the addition of these services has on the programme and the community is currently being tested in Navrongo and Bazega.
- Some services may not be appropriate for CBD agents, however. For example, the MOH in Kenya considered and rejected including the injectable as a CBD-provided method.

Agents in Burkina Faso were initially trained in sensitising communities to the problems associated with female circumcision, but this was unsuccessful because most agents support the practice themselves.

What role can CBD agents play in meeting reproductive health needs?

- In Kenya, catchment area surveys revealed that CBD agents play an active role as providers of information and services within their communities:
  - Only one half of women and men in the agents' catchment areas knew of the agent, and one quarter of women and one fifth of men had ever met directly with the agent. Programmes should therefore publicise their presence more strongly to increase the likelihood of people using their services.
  - Agents are often the main source of family planning information, especially among men. Programmes should ensure that agents are given contraceptive updates regularly.
  - Among women using the pill in communities served by a CBD programme, 44 percent get their supply from the CBD agent.
  - Among men using the condom who know a CBD agent, this person is their main source of supply.

How well do CBD programmes perform?

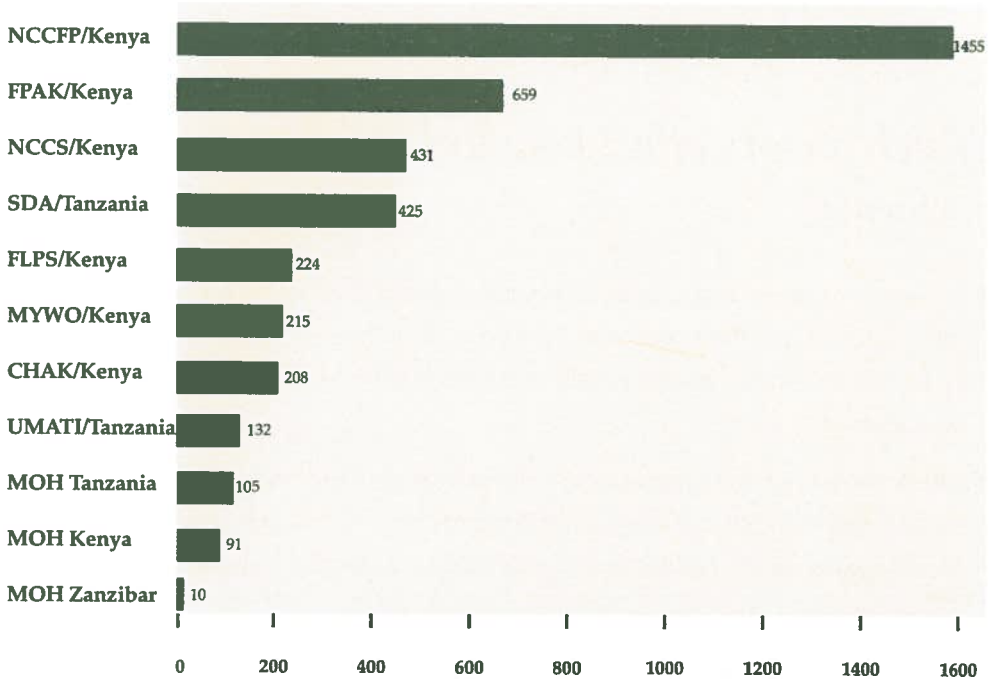
- As seen in Figure 1, the annual number of new, revisit and referral clients served per agent can vary widely between programmes in the same country. Some of the reasons are as follows:

- In virtually all CBD programmes (as with most clinic programmes) agents serve more continuing clients than new clients or referrals. They also provide more CYP through the methods they supply than through referrals for clinical methods. However, Agents for three programmes in Kenya saw more new than revisit condom clients, suggesting that these programmes may serve as first or one-time sources and may not be the preferred regular source for condom clients, a role probably better fulfilled by social marketing programmes.

- Rural programmes in Kenya provide most of their CYP through the pill, but in urban programmes the distribution between methods is either more even or in favour of the condom, possibly because they serve more men.

- Although the largest number of referrals is for clients wanting the injectable, clients referred for sterilisation generate a higher level of CYP.

Figure 1: Average number of clients served annually in the Kenyan and Tanzanian CBD programmes



- The FPAK programme in rural Kenya shows that urban CBD programmes do not always serve more clients than rural programmes, even though they are located in larger, more densely populated areas.

- Agents working in areas with higher contraceptive prevalence do perform slightly better than those in areas with lower prevalence, but with the right support and motivation, agents in low prevalence areas can perform equally well.

- To achieve one couple year of protection, a client in Kenya meets with an agent between five to eight times per year. CBD programmes which give contraceptives for free normally restrict the number of pill cycles and condoms an agent can supply at one meeting.

- The number of clients served is a better indicator of performance for a CBD programme than CYP. Agents can spend significant proportions of their time communicating information about reproductive health services - these activities cannot be measured through CYP.

- Comparisons between the roles of CBD and clinic programmes are difficult to make. Some insights can be gained, however, from an analysis of the church-based CHAK programme in Kenya that has both CBD agents and hospitals operating in the same catchment areas. The 527 CBD agents met more new and revisit family planning clients than the 21 hospitals. They also generated more CYP for pills, condoms and spermicides than the hospitals, but overall the hospitals provided more CYP because they are also able to provide other types of contraceptives.

Which factors affect how well a CBD agent performs?

- In Kenya, an agent's age, educational level, marital status and religion make little difference to their productivity. The average age was 37 years, 90 percent were married and at least one half of agents had secondary or tertiary education.
- Although many CBD programmes originally recruited female agents only, the demonstrated success of men as CBD agents has led to a concerted effort to recruit males. In the Navrongo programme, for example, virtually all CBD agents are male because the programme is explicitly using this strategy for reaching men with messages about family planning.
- Overall, female CBD agents are more effective at providing the pill to women, and male agents are more effective at providing condoms to men. In both Kenya and Tanzania, male agents have proven more effective in reaching other men and so CBD programmes should try to ensure a balance to increase their ability to involve men as partners in family planning.
- As would be expected, those agents receiving a salary generally make more client visits than those receiving an allowance, and these agents perform better than those receiving only non-monetary incentives.

In Tanzania, the programme that provided non-monetary incentives also supported income-generating activities for their agents (e.g. group ownership of a tractor, truck or boat, sewing machines for dressmaking, etc.). This additional incentive is highly valued, appears to boost productivity, and so should be considered by other programmes that rely solely on volunteerism.

- Agents tend to be more productive and committed for a longer duration when they have monthly individual and group supervisory meetings, when their community plays an active role in managing the program, and when they are satisfied with their jobs. Community participation has proved particularly important when setting up CBD programmes in rural areas with little demand for family planning, for example, in the Navrongo and Bazega programmes.
- In both Kenya and Tanzania, agents working in areas with lower contraceptive prevalence could be motivated to perform better than those in the high prevalence areas if they were well-supervised, had support from their communities, and/or received a financial allowance or participated in an income-generating activity. However, it was also found in Kenya that, for agents receiving an allowance, a higher level of payment does not automatically lead to higher productivity.

What quality of care do CBD agents provide?

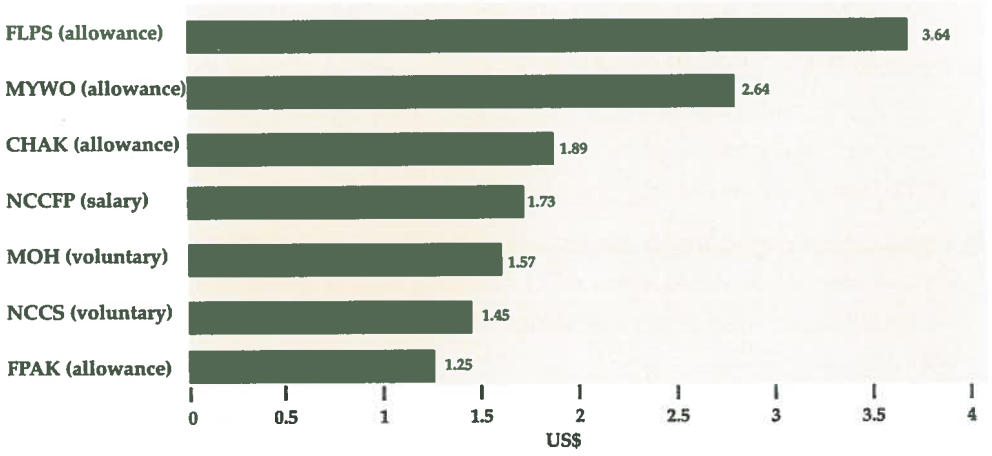
- Quality of care was measured only in Kenya and Zimbabwe. In both countries most agents had some IEC materials, and supplies of both low and high dose combined pills and condoms. In Zimbabwe, agents also carry stethoscopes and blood pressure machines to assist in screening pill clients.
- Using composite scores to measure their technical knowledge of how clients should use pills and condoms, CBD agents in Kenya demonstrated disappointingly low levels, suggesting that refresher training is essential to maintain their skills.
- In both countries, agents place more emphasis on informing pill clients about its use, and less on establishing a client's needs or discussing side effects and their management.
- In both countries, agents discuss a range of methods with their clients, although in Zimbabwe there has been a decline in the proportion of clients hearing about the condom. With the rapid spread of HIV in the region, CBD agents should be active promoters of this method for dual protection purposes.

What costs are involved in providing information and services through a CBD programme?

- The costs of seven CBD programmes in Kenya and three programmes in Tanzania were measured and compared in terms of their cost structures and cost-effectiveness. Different methods were used for each analysis because the studies had different objectives, and so the results are not comparable across the two countries. These studies mark the first time such data have been collected in Africa.

- In both countries, the programmes with the highest annual cost per agent were those that used salaried, full-time agents, and those with the lowest costs per agent were those that used volunteers.
- Because the costs per agent and their productivity are clearly related, it is preferable to compare programmes by their cost-effectiveness ratio to get a better idea of which models are more efficient. As shown in Figure 2, the cost per client served for most of the programmes in Kenya were generally similar, even allowing for whether agents were voluntary, received an allowance or were salaried, confirming that different models can be made to work with similar levels of efficiency.

Figure 2: Average cost per client served in Kenya (1994)



- Agent remuneration must not be considered in isolation from the overall cost structure for a CBD programme. Spending less on motivating an individual agent does not necessarily reduce the overall cost of the programme, however, as such programmes often invest relatively more resources in training and supervision. If a programme is using voluntary agents, however, a model that has many agents serving a small number of clients can lead to a good cost-effectiveness ratio, as has been achieved by the Kenyan MOH programme, and the UMATI programme in Tanzania.
- In both Tanzania and Kenya, the programmes that give only non-monetary incentives to their voluntary agents tend to spend higher proportions of their budget on supervisors and other staff and on training and administrative costs. Although the direct cost of the agents is zero in the two programmes using volunteers, these programmes allocate more of their budgets to programme staff. Programmes using payments-in-kind may want to test ways of re-allocating some of these funds to remunerating the agents to see if it increases their productivity.

What impact can be expected of a CBD programme?

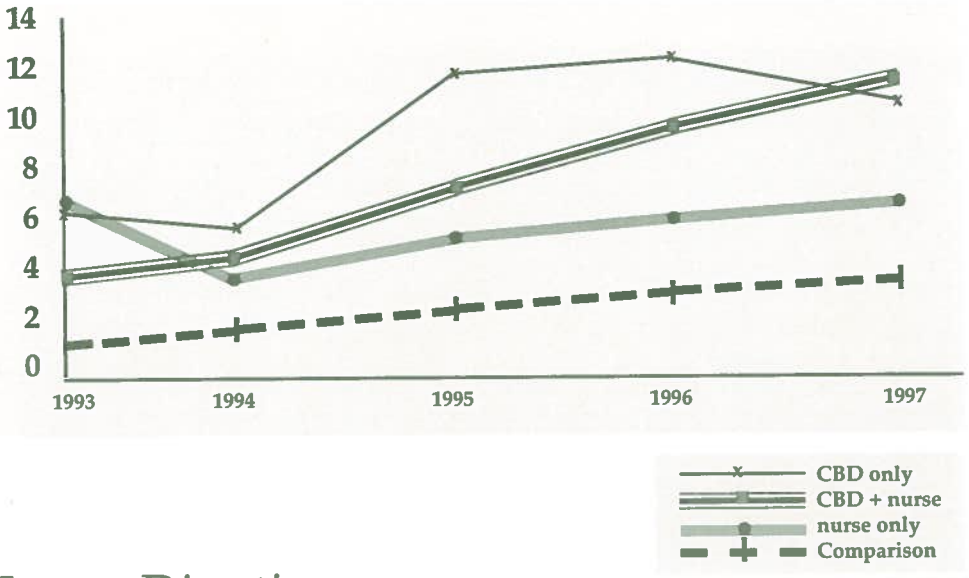
- Family planning CBD programmes are expected to increase demand for contraceptives and to satisfy unmet need, resulting from poor access to clinic sources. This impact is most commonly evaluated by an increase in contraceptive prevalence in a programme's catchment areas over time.

> The pilot phase of the CBD programme in Mali was tested in two districts as an OR study. It showed an increase in contraceptive prevalence from one percent to 11 percent in its first year, and to 21 percent in its second year. The pill was added to the program in some pilot villages at the end of the first year, and prevalence was even higher in these villages in the second year (31 percent). As a result of this clear evidence of impact, the MOH expanded the programme nation-wide.

- A study in the Gambia suggests that focusing strongly on reducing social barriers to family planning, especially among men, can increase contraceptive use significantly. The study used two interventions: training TBAs and respected women to discuss family planning among the women of their extended family; and holding village meetings led by male religious leaders to show that Islam supports birth spacing and is not against modern methods. The Navrongo programme and a CBD programme in Cameroon have also demonstrated that systematically addressing the concerns of men through community-based information strategies can greatly increase the acceptability and use of modern contraceptives.
- For the first time in Africa, the Navrongo and Bazega programmes will evaluate whether these CBD programmes have influenced family planning and fertility over time. These studies will also compare CBD agents relative to other sources of information and services in their catchment areas, notably fixed clinics (in both programmes) and mobile nurses (in Navrongo only).
- As seen in Figure 3, the male CBD agents in the Navrongo programme appear to have had a significant effect on the use of family planning in their catchment areas, both where they function on their own and in conjunction with the mobile nurse.

- Data from the Bazega programme show that contraceptive prevalence has doubled from four to eight percent in the areas served by CBD agents and where clinics had been strengthened, and increased from four to six percent where clinics alone have been strengthened, whereas there has been no change in the control areas.

Figure 3: Percentage of currently married women (15-49 years) using modern contraception in Navrongo



Future Directions

- As national health programmes embrace cost-recovery through charging fees, CBD programme managers will need guidance on how to administer the purchase, supply and sales of contraceptive (and other) commodities. Because of their national policies, the Navrongo and Bazega programmes are already organised to do this, and lessons learned from their experiences will be available shortly.
- How best to motivate agents so that they are productive, personally fulfilled and stay with the programme over time is still a crucial issue. Agent productivity, agent motivation and cost to the programme are so inter-related that individual programmes should consider undertaking detailed cost-effectiveness analyses that would enable them to plan their future direction in a climate of funding retrenchment.
- The number and type of services which a CBD agent can be expected to provide and remain effective needs consideration. CBD programmes originated as single-purpose family planning programmes, and although the trend towards making CBD agents multi-purpose is welcomed by both agents and their communities, and is in line with the ICPD Plan of Action, there needs to be a limit if they are not to become over-loaded and dysfunctional. What are the most appropriate range of skills for a CBD agent, and how this relates to their productivity and personal characteristics, needs addressing urgently as programmes seek to implement the Cairo ICPD Plan of Action.

Resources available from Africa OR/TA Project II

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Africa OR/TA Project II

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