

**PHASE I OF THE NAVRONGO COMMUNITY HEALTH
AND FAMILY PLANNING PROJECT**

KEY FINDINGS AND LESSONS FOR POLICY

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Abstract

The Navrongo Health Research Centre has recently completed a field investigation of ways to organize primary health care at the village level. Community Health Nurses were assigned to village level clinics that have been constructed with volunteer labor. Village workers were trained to canvass all compounds in regular work cycles. New administrative support systems were developed community liaison, communication, and logistics operations. The discredited VHW scheme has been abandoned and a new and comprehensive community managed volunteer program has been developed. This involved constituting village health committees, training committees in the requirements of managing volunteer effort, guiding committees in the selection of volunteers, training volunteers in recurrent training sessions, and providing community health committees with simple to use village based MIS for the control of essential drugs and the monitoring of the service performance of volunteers. Close supervisory liaison procedures are designed to develop community based accountability for volunteer service activities.

The pilot program had dramatic impact on health utilization and immunization coverage. Family planning use increased, mainly for injectable contraceptives. The report reviews various operational lessons that emerge from this success. Various problems also arise that merit policy review. Implications for policy change are reviewed and discussed.

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I. INTRODUCTION

The Navrongo Health Research Centre recently complete a pilot project which developed a community based health and family planning program for trial in a district-wide factorial experiment. The experiment, known as the Community Health and Family Planning Project (CHFP), responds to a problem addressed by comments by President J.J. Rawlings at the 1993 Cairo Conference on Population and Development:

?... donors are increasingly conditioning their aid on the adoption by the recipient country of a population policy formulated elsewhere. There is a need for flexibility and respect for locally-tailored programmes.?

Developing a ?locally-tailored? programme for the rural northern Ghanaian setting is critically needed. Family planning has yet to succeed in the northern regions; health services remain remote from most communities. A program of trial, observation, and dialogue was launched in three pilot villages to develop a strategy for managing community health care in consultation with the communities served.¹ Particular attention has been directed to the task of implementing recent Ministry of Health guidelines calling for decentralization of the Primary Health Care (PHC) programme to districts, decentralization of operational support to subdistricts, and full community participation in PHC activities at the village level.

Although policy pronouncements call for revitalizing the link between traditional communities and Ministry staff, practical experience on how to achieve this is very much needed.² For nearly twenty

¹ The design of the Navrongo Experiment is reviewed in Binka, et al., 1995 and Nazzar, et al., 1995.

² Various policy documents appeal for ?Community Initiated Clinics? (Technical Coordination and Research Division, 1994), ?Community Health Posts? (Monekosso, 1994) or ?Community Based Distribution? (National Population Council, 1994). The CHFP aims to provide operations research on what this means in terms of

years, the Ministry of Health has had policies aiming to develop primary health care in village locations:

?Because most disease problems that cause the high rates of illness and deaths among Ghanaians are preventable or curable if diagnosed promptly by simple basic and primary health care procedures, the major objectives are to extend health services to the most people possible during the next ten years.?

Health Policies for Ghana, p.1
National Health Planning Unit
1977

The frontline worker for this initiative were Community Health Nurses, known as CHN. But more fundamentally, the philosophy was to reorient the system of care to villages, with community sponsored clinical and volunteer outreach services comprising ?Level A.? As the 1977 Health Policy for Ghana plan stated,

?In order to provide this extent of coverage, it will be necessary to engage the co-operation and authorisation of the people themselves at the community level. It will involve virtual curtailment of the sophisticated hospital construction and renovation, and will require a reorientation and redeployment of at least some of the health personnel from hospital based activities to community orientated activities.?

The Navrongo project is addressed to the observation that these plans were never implemented in the northern regions. The plan to establish PHC services through ?Level A? clinics remains rhetoric rather than reality. CHN are assigned to clinics, where resource constraints prevent their mobility and bad roads, pervasive poverty, and vast distances limit the capacity of families to reach PHC facilities. The need to demonstrate practical means of implementing Level A is long overdue.

To address this issue, recent policy changes have recognized the need to decentralize authority for PHC to the district level and channel resources for implementing PHC to the Sub-District (Figures 1 and 2). As Figure 1 shows, The District Health Management Team (DHMT) is central to PHC, providing technical support to Sub-District and community health services. Current plans call for strengthening the role of the Sub-District as an ?operational support unit? with direct responsibility for

District Health Team tasks and actions. An appeal for this type of investigation appears in the Research Priorities section of the 1994-95 Policies and Priorities Statement of the Ministry of Health, MOH, 1994.

implementing village level care. Primary responsibility for decentralizing care is vested in the DHMT, illustrated in the Figure 2 scheme as the responsible unit for coordinating the interface of health services provided by the District Health Administration with the Local Government Office, various District level social, agricultural, and human service agencies. In new policies, local government, the District Assembly, and inter-sectoral coordination is more important than has been the case in the past. As Figure 2 shows, the foundation of the PHC scheme rests on the communities that it serves. Thus, communities are not just as recipients of health care, but full participants in planning, implementing, and monitoring PHC.

The CHFP is addressed to the observation that the community foundation for PHC depicted in Figure 2 is not yet developed in Ghana's northern regions. Volunteer Health Workers (labeled 'VHW' in the diagram) exist in name only, village health committees are not constituted, critical health services delegated to communities, such as the 'Bamako Initiative' do not work or do not exist. The role of the DHMT in linking technology, inter-sectoral action, and community participation, does not occur. The activities of District Assemblies are not effectively linked to PHC. The powerful institutions of chieftaincy, lineage, and community are not utilized by DHMT in daily work routines. Understanding why these operational problems exist and what can be done to resolve them is the central theme of the Navrongo trial.

Although the CHFP is a scientific project governed by a research protocol,³ its primary aims are directed to policy questions and issues. Conducting this trial will provide a basis for understanding the determinants of health transition and reproductive change and the process of developing appropriate service delivery systems for rural communities (Binka et al., 1995). Experimental cells examine the process and impact of mobilizing two under-utilized resources in rural Ghana:

C **Mobilizing health bureaucracies.** Clinical health services are under-utilized. Community Health Nurses who have been recruited and trained to provide community based care rarely do so; instead they sit idle in clinics that villagers rarely utilize. There is a need to demonstrate ways in which effective community health services can be developed, with the existing cadre of CHN as the front line worker for community health care.

³ See Binka and Nazzar, 1992; Binka, et al., 1995.

C **Mobilizing traditional communities.** Powerful social institutions organize village life throughout Ghana. Remarkably little has been done to mobilize these institutions for health and family planning activities. There is a need to demonstrate way in which traditional communities can provide direction and support for family planning and reproductive health services. Practical guidelines are needed on how to achieve meaningful community participation in programmes of the Ministry of Health, where services are more typically clinically directed or hospital based than community managed or compound based.

Mobilizing these resources implies two dimensions of the experiment, one which involves traditional society in programme management, the other which reorients Ministry services to village based activities. As a practical matter, this has involved two sets of complementary activities:

C **Reorienting the MOH system to village based PHC.** This involved training CHN to canvass all compounds in regular work cycles, equipping them with housing, motorbikes, essential drugs, developing administrative support systems, and establishing other necessary elements of community health system support such as community liaison, communication, and logistics operations for PHC.

C **Redeveloping volunteerism.** This involved disbanding the discredited VHW scheme and developing a new and comprehensive community managed programme of volunteer effort with community based MIS, community control of essential drugs, community selected volunteers, and community accountability for service activities.

Practical guidelines on how to mobilize these components of community health care were unknown in 1994. For this reason ?Phase I? was undertaken in 1995 to develop a culturally appropriate programme and practical experience in how to manage it. In 1996, a four year ?Phase II? component was launched to test the impact of this programme on fertility and mortality.

This paper represents the first in a series of synopses of policy lessons from the CHFP. It begins with an over-view of the steps pursued in ?Phase I? and the service system that was developed in this pilot project. Each step in the process is accompanied by policy recommendations that emerge from the experience gained: First, communities were visited to determine services receptiveness to a new programme and recommendations for its strategic design. Second, the service system was reviewed to clarify resources that could be mobilized for this effort, problems to be corrected, and operational plans to be developed. Third, pilot technical training was launched to clarify training needs

and develop high quality services for the pilot study. Fourth, a plan was developed to reorient the district management team to the system support requirements of the new programme. Fifth, the Management Information System (MIS) and supervisory system was redesigned to meet the needs of village service work. Sixth, a pilot programme of compound based service delivery was launched. Seventh, a pilot volunteer service programme was launched. Finally, community reactions to pilot services were assessed, and recommendations for change were instituted. General problems arose that could not be resolved in the Phase I trial. The paper concludes with a review of implications unresolved problems for community health and family planning service policy.

II. STEPS IN THE PLANNING PROCESS

1) Seeking Community Advice.

In order to organize community health services in ways that reflect the traditional organization of the communities to be served, Paramount Chiefs, elders, and others were contacted in the initial stages of the project about the underlying service objectives of the initiative, and the need for community advice on how to proceed. Focus groups were convened and in-depth interviews were conducted.

This process generated the following advice:

- C **Legitimizing action must involve traditional leaders; mobilizing action, community labor, or work involves liaison with social groups.** While Chiefs and elders play a crucial role in legitimizing and launching initiatives, actual labor is provided by ?Unit Committees? which are elected for fixed terms and coordinate traditional networks that are formed among farmers, women, youths, and other peer networks.
- C **Rename and redefine the role of CHN.** Community dialogue indicated that CHN are characterized as a group of idle workers who have no link to villages and little understanding of community health care needs. *It was appropriate to engage the community with dialogue about a new programme, rename the CHN to ?Community Health Officers? to emphasize their new identity.* Implementing CHO community based services involves approaching the Paramount Chief and his elders about the proposed service system and clarifying community tasks and responsibilities required before the project can be launched.
- C **Volunteer efforts failed in the past because community supervision was never organized. VHW were individuals reporting to the DHMT and nobody else.** To correct this problem, Paramount Chiefs and councils of chiefs and elders were invited to constitute an

implementation committee for health. This was termed a ?Yezura Nakwa? [Kassim] or ?Imasa Kima? [Nankam]. In the tradition of this locality, both men and women participate in implementation committees. Thus, Yezura Nakwa (YN) are constituted in equal numbers of men and women. Once constituted, YN are approached with questions about how volunteerism could best be developed in pilot communities.

- C **The mobility of women and autonomy to seek services is extremely limited. *To succeed, services must be taken to the doorstep with the active support of traditional leaders.*** Various cultural traditions restrict the autonomy of women and impede the introduction of new ideas and technologies (Adongo, et al., 1995). Focus group discussions that multiple actors must be involved in a woman's decision to adopt contraception, an obligation that confronts contracepting women with considerable risk of embarrassment and ostracism. In both survey research and focus group sessions, men and women express interest in family planning, indicating that some demand exists despite pronatalist traditions, but demand for family planning will not translate into adoption unless services address women's concerns about privacy and address men's needs for information and social legitimization of the service programme.
- C **Chiefs, elders, and community leaders welcome dialogue with MOH staff and seek regular exchanges.** Prior to our programme, none of the Paramount Chiefs had ever been contacted by MOH officers to seek their advice on organizing health services. *A regular programme of community dialogue and exchange should be part of every DHMT work programme.* Once contacted, traditional leaders will organize traditional village communication and provide open and active support to family planning.
- C **Traditional mechanisms for collective community action are valuable resources for health service organization.** We are advised to pursue approaches that resemble political campaigns or other occasions requiring community action. On such occasions, the Paramount Chief assembles elders, lineage heads, and explains the need for collective action in a ?durbar?--an open community gathering designed to inform communities of a programme of action and to solicit open discussion of reactions, opinions, and questions.
- C **Men lack basic knowledge about family planning and express concern that family planning promotes the sexual autonomy of wives.** Spousal mistrust represents a major barrier to the introduction of family planning among the Kassena-Nankana. *Introducing services should address male concerns, involve male leadership systems, and reach men with information and services through their traditional social groups. A purely woman-to-woman approach to health or family planning outreach will probably fail in this setting.*
- C **Communities will contribute labor to the construction of dwelling units if they can be**

assured that services will be provided once construction is completed. In the initial exchanges, traditional leaders requested the MOH to construct clinics in their villages. Since no funds existed for the requested construction, a compromise was reached in which leaders were promised the resident clinical support of CHO if communities donated land and constructed a traditional structure to serve as her home and community clinic. From this discussion, the concept of a "Community Health Compound" (CHC) was eventually developed. Each CHO has a walled dwelling area, with a courtyard and separate room for clinical consultation. Steps in site selection, construction, and community promotion were subsequently managed by chiefs and elders. In this manner, community involvement was secured in the procedural details of relocating CHO to village settings. *Seeking community commitment to construction and CHO housing was a valuable initial point of exchange with communities. Community donated housing built collective commitment of men to the programme and community awareness of the CHO work routine.*

C Community mobilization (CM) requires catalytic resources. It is unrealistic to expect communities to finance all elements of community mobilization for PHC. CM has a cost that represents a sound investment for the MOH. A fund is needed for the essential construction costs of the CHC initiative: iron sheets, cement, food and refreshments for construction workers. This, in turn, requires careful consideration of how these resources are managed and allocated.

C Health concerns are paramount. Since mortality is high and health services are limited, family planning can succeed in this setting only if health outreach is fully developed. Health care should be taken to every doorstep. *Once credible health services are conveniently available at every doorstep, family planning can be offered without incurring opposition from men.* Establishing credibility is not simply a matter of delivery technology, however. Health services, the role of workers, the goals of the programme -- the total system, must be openly presented at durbars, publicly debated, and openly endorsed by the traditional leadership system.

C Privacy concerns are prominent. Family planning services should be discussed in open durbars; actual services should be strictly private. *Careful attention should be addressed to developing confidentiality and assuring women that adoption will not be a source of embarrassment.* Although women are provided with a wide range of contraceptive options (pills, condoms, foam, and DMPA in homes; IUD, NORPLANT, and tubectomy in clinics), nearly all adopters have chosen DMPA. The importance of keeping use secret explains the popularity of injectable contraception.

2) Mobilizing Existing Resources of the Service System.

A review of District health service operations was conducted in collaboration with MOH staff to identify key operational problems and solicit advice on what could be done to mobilize MOH field

resources. The primary health care service delivery points (SDP) of the district were visited to inventory family planning/MCH equipment and commodities and supplies, as well as educational and promotional material for family planning. The staffing pattern of the service delivery points was also reviewed, and the training of service providers for family planning technologies was assessed. The management information system (MIS) system was examined, as well as reported service statistics, the supervisory system, and service costs to clients. This led to the following conclusions and recommendations:

- C **The level of utilization of fixed facilities is very low.** Clinical locations are far removed from most settlements in the district, a problem that is exacerbated by the total absence of a public transportation system for towns other than Navrongo, where two clinics are located. Far more staff are assigned to clinics than are needed for the volume of care to be provided. CHO are idle for the most part. *Redeploying CHO to village locations will not disrupt clinical services.*

- C **The quality of care available at clinics is unacceptably poor.** Although clinics are inaccessible to the population, each of the facility provides basic health and family planning services on a daily basis. Stocks of commodities are on hand for most primary health care needs but essential equipment is lacking: all clinics lacked the basic equipment and materials that are required for family planning services and reproductive health care, such as microscopes, examination tables, flashlights, sterilizers, non-disposable gloves, and thermometers. Facilities were in general disrepair, requiring lighting, roofing, paint, plumbing fittings and general maintenance. *Efforts to develop village based services should be accompanied by a rigorous review of STP service quality and upgrading clinical capacity.*

- C **Technical training is needed at all levels.** Workers are trained for dispensing pills, but were not accustomed or equipped to provide clinical contraception. Clinical service delivery workers are oriented to the provision of non-clinical modalities, but the work system was strictly clinic based. *Clinical workers should be trained and equipped to provide high quality clinical services.*

3) Preliminary strategic planning.

Steps 1 and 2 demonstrated a need for a systems perspective on developing village based care. Posting CHO to villages disrupts their personal lives, changes their work roles, and exposes them to new pressures and challenges. A comprehensive support system is required that involves new approaches to district health services management. Elements of this community-based support system

could be designed in advance and refined as the micro-pilot progressed. This involved developing five domains of system support:

C Technical and logistics support. When CHO were interviewed about factors that hamper their work, the most common issue raised was the conviction that community relocation would be fruitless. In the past, equipment for travel has been inadequate, fuel was lacking, referral services were not functioning, and so forth. The following elements of technical and logistics support require attention:

- i) Logistics planning is needed to assure CHO that their village based services will be supported with requisite transportation, fuel, and supplies.
- ii) Existing CHO management information systems are inadequate for village work. A new system was developed and tested (Nazzar et al., 1994).
- iii) Work routines must be defined so that compounds are visited in a routine cycle. *Since injectable contraception is very popular, and the injection cycle is 90 days, the work cycle must be 90 days or less.* For the CHFP system to work, there must be an adequate number of CHO in the system. A fully equipped CHO can cover 200-250 compounds in a month. *Consideration should be given to increasing the density of CHO.*
- iv) **A crucial concern of CHO are worries about the adequacy of accommodation. Merely involving communities in CHC construction was insufficient. Guidelines are necessary to insure that CHC have adequate standards of construction and sanitation.** CHO have become accustomed to the relative comforts of MOH housing; minimal standards must be met to address housing concerns. This involves constructing a facility with an iron sheet roof and cement floors to minimize maintenance, and providing living space that is separate from clinical space. Living space must include a bedroom, a water sealed toilet, a cooking area, and a bathing area.

C Supervisory support. Supervisory systems were revised to accommodate the new system of household coverage and outreach services. In the CHFP system, supervisors provide support services for CHO, solving problems that arise and providing them with backstopping on demand. More than simply supervising workers, a ?bottom-up supervisory support perspective? was required. *Achieving supervisory support requires strategic planning for supervisory training, emphasizing problem identification, problem solving, and resource mobilization.*

C Peer support. When CHO are interviewed about their reactions to being assigned to village

locations they express concerns about isolation, fear of rejection by the community, and vulnerability to pressures of various sorts. *Frequent meetings are needed, involving the CHO in sharing their mutual experiences.* Peer support refers the need to make workers aware of mutual problems, and the importance of working together on possible solutions.

C Social support. In the past, MOH services were detached from the community and CHO lived in clinics isolated physically from communities. Two critical problems for CHO require attention in this programme:

- i) **Community support.** Posting CHO to villages requires support for the programme among chiefs and lineage heads. This is a necessity for any programme that posts workers to traditional communities. *Building community support for CHO requires more than liaison with community leaders. Effective support requires continuous promotional activities in durbars designed to build CHO credibility and acceptance in the community where she is based.*
- ii) **Familial support.** Reposting CHO to village locations removes them from their established residence at MOH facility where they have been based. Husbands and children have remained in the staff housing, isolating CHO from their families. *Recognizing the role of husbands in this scheme has been important to its success.* Leave policies, vehicle policies, and other elements of flexibility are needed that respect the need for CHO to see their families frequently.

Preliminary planning was thus directed to building a system of support for concerted action at the periphery. Many of the operational details of this support system were developed gradually in the course of the micro-pilot. From the outset, however, preliminary plans were put in place to respond to workers concerns about isolation, lack of support, and risk. Since demand for family planning is weak, and traditional social support for fertility regulation is fragile at best, operational planning was required that strengthened social support for the new role that outreach workers were being assigned.

4) Implementing Technical Training.

Although all MOH personnel in Kassena-Nankana District have been trained to provide basic health and family planning services, few CHO had actual field experience in visiting compounds to generate interest in the services. It was therefore apparent that worker retraining was needed, first to provide a retraining on technical issues to be address, and secondly to emphasize the new model for

services proposed for the Navrongo area. A training syllabus was designed to reorient the CHOs for the micro pilot, and to serve as a prototype syllabus for eventual use in training all CHO in the district.

Various lessons emerged from this training programme:

- C ***Frequent practical training sessions are preferable to longer term formal sessions.*** The project emphasizes practical on-the-job experiential training, offered in short and intense sessions that solve problems arising. In this way, resolving problems experienced by one worker upgrades technical capacities of the team as a whole.

5) Designing MIS and the field supervision system.

The existing MIS system was not designed to support operational management decision-making for community based services. A new approach to MIS was developed that embraces a "workers perspective." Information is designed to develop team work and cohesion. MIS was designed by assessing the minimal data requirements as primary workers, their supervisors, and the DHMT described their requirements. The following lessons emerged from this planning process:

- C **Orient MIS data to primary work routines rather than information that officials need.** Workers need to know if coverage objectives are being achieved, if the population served is responding to services, if basic support functions for the field operations are functioning smoothly so that logistics and supply operations are adequately supporting field operations, and problems that hamper operations are solved. ***MIS for village based community health services requires careful attention to "bottom-up" communication: Mechanisms were developed for workers to meet frequently, assemble narrative reports, discuss progress and problems, and communicate matters of concern to senior officers.***
- C **Orient work routines to client needs.** Outreach in Navrongo is designed to reach every compound in the study area every 90 days with basic health and family planning services. Women indicate a strong preference for injectable contraceptives. The product available, DMPA,⁴ requires a 90 day injection cycle.
- C **Organize staff meetings to utilize MIS.** The work routine calls for a monthly "zonal meeting" of eight CHO in an area and a quarterly meeting to summarize progress and MIS reports on problems and progress. At Zonal Meetings, each worker summarizes the key issues arising in the current round of activity. Emphasis is placed on narrative reporting and problem solving. Meetings lead to a supervisors report summarizing key issues raised and actions

⁴ DMPA is the acronym for the drug depot-medroxy progesterone acetate, often referred to by its trade name, *Depo-Provera*?

required by the DHMT. Reference is also made to the CHO registers and current tallies of the number of compounds covered and women encountered, special problems addressed, and unresolved problems arising. Particular attention is accorded to barriers to sustaining the planned coverage regimen, diplomatic problems requiring intervention, and special follow-up needs of men requiring the attention of male supervisory staff.

- C **Design MIS to support field routines.** Each CHO is provided with a register that is arrayed by mothers and children (rows) with columns for each compound visitation round, and space provided for each visit round where simple codes are entered for the reproductive, family planning, and health status of mothers, and immunization and health service indicators for their under-five children.⁵ Information required for the register are names and ages of women of reproductive age and their children. Other information that is helpful to CHO can be compiled in subsequent rounds of compound visitation: Tetanus vaccination data for mothers, EPI status data for children, numbers of pregnancies, live births, number of children who have died, date of last live birth, survival status of last live birth.

6) Implementing community based services.

The most important single conclusion to emerge from the provision of community based services is reflected by the data in the Figure 3 time series of MIS reports on contraceptive current users as a ratio to all women of reproductive age:

- C **Compound to Compound Service Delivery Can Introduce Family Planning in Rural Communities.** *When services are offered, a steady but gradual uptake of contraception occurs. This suggests that demand for family planning exists, and that reproductive behaviour will change if convenient services are offered to women in their homes.*

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Figure 3: Trends in Current Use of Contraception among the Women Aged 15-49 Residing in Three Pilot Villages: February, 1994 - April, 1996

⁵ See, Nazzar, et al., 1994. In developing this register, the NHRC aimed to design a system that could function well in the absence of computers: Hand held registers can be prepared manually by CHO by printing a blank register in notebook format, and manually completing the pages on the first round of household visitation. In the NHRC system, however, all requisite information for the register is contained in the Navrongo Demographic Surveillance System The Navrongo Demographic Surveillance System is reviewed by Binka, et al., 1993.

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C **Dropouts become a serious problem if services are disrupted.** As Figure 4 shows, all three pilot CHOs have consistent increases over time for the first year of operations. Only 2 out of 2,851 women aged 15 to 49 were contraceptive users at the start of the micro-pilot (0.1 percent); 173 were current users at the end of round five (6.1 percent). Various factors led to a disruption in the provision of services. *Just as contact with CHO leads to adoption, disruption in contact with CHO leads to discontinuation.* Very careful attention must be directed to sustaining the pace and quality of contact once an outreach programme is launched.

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Figure 4: *Trends in 90 day probabilities of Discontinuation of Contraception among Users Residing in Three Pilot Villages: February, 1994 - April, 1996*

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C **Injectable contraception is preferred over other methods.** Although a wide range of methods are available, all but four of the pilot study round five users are injectable clients. *Household distribution of the injectable method DMPA fulfills a demand for injectable contraception that was not met in the past by the clinical service program.* Very significant demand for family planning might be met by village based DMPA services.

C **The ? trusted outsider.?** There are marked differentials in the trends reported by village. This is shown in Figure 3 by an end of pilot prevalence in Kayoro village of 9 percent versus 3 percent in Kologo. In Kologo, the CHO was the wife of the paramount chief and resident in her husband?s compound. In-depth interviews show that Kologo villagers were reluctant to accept family planning from a CHO who resides in the chief?s compound. Concerns about confidentiality indicate the CHC should be separated from chief?s compounds and that CHO should not be members of the communities they serve. *Villagers value the respect that CHO extend to their chiefs and elders; they consign considerable importance to close liaison between the CHO and the community; but they also value an element of social distance between service providers and the community. Locating the CHC in donated space does not work.* A socially wired CHO is potentially threatening to a couple who view family planning acceptance as something that is socially risky; a wise and trusted outsider is a safer source of information and service.

C **The importance of contact.** The prevalence increase depicted in Figure 2 is modest for studies of this complexity. It is important to note, however, that the mobility of women is severely constrained by economic and social factors; dependence on the outreach system is

great. *If means could be found to increase the contact rate, acceptance rates would be higher.* Other factors are also important determinants of contraceptive use, but this implication of the trial has been noted and merits further investigation. Women indicate a reluctance to adopt family planning services provided in group settings, but expect information to be provided in the open to familial or social groups. Means of increasing service exposure by reaching women in groups merit investigation and trial.

- C **The importance of reaching men.** An unanticipated finding from the micro-pilot is the willingness of men to discuss family planning with CHO, who are women. Women can serve quite effectively as information providers to men, so long as strict secrecy about the contraceptive decisions of wives is maintained at all times. A recurrent theme in focus group sessions is the general acceptance of the role of CHO, even among men who express concerns about family planning. This acceptance of the CHO among, however, does little to obviate the need for a more general strategy for reaching men. This, we believe, will be the contribution of the *Zurugelu Dimension*. We turn next, to a discussion of this component of the program.

Once Community Health Compound (CHC) was completed, a durbar was held to celebrate its completion and the launch services.⁶ Various lessons emerged from this programme of community action:

- C **Communities will construct CHC, but the appropriate timing of community action is crucial to success.** Fostering community action in Community Health Compound construction requires a durbar for explaining the construction plan, soliciting assistance, and celebrating the MOH's decision to post a CHO to the village in question. *Construction is simple and rapid, but delays can be problematic if work is attempted in planting or harvest seasons when labour is in short supply.*
- C **A CHC initiative based entirely on traditional construction methods and donated materials is not sustainable.** Traditional compounds are built by men; routine maintenance is considered women's work. CHO and village women are too busy with their daily work to perform maintenance. Laterite roofs soon begin to leak, causing structural problems during the rainy season. Because mud walls and roofs are heavy, weakened structures can be dangerous.

⁶ The design of the CHC has evolved over the course of the pilot. At present, the CHC is a separate dwelling unit constructed in the fashion of a traditional compound with local materials and labour. A living area and a clinical area are joined in an oval area by a common wall and separated by an interior courtyard. This layout ensures that visitors will not have to pass through other dwelling units to reach the CHC, providing an element of privacy for the CHO. After encountering maintenance problems with traditional laterite roofing, tin roofs have been used. Also, cement veneer is used to prevent erosion of foundations and courtyard surfaces.

The original appeal of ?traditional construction? was the notion that low cost donated housing would be sustainable. In fact, *a purely traditional design for construction is not sustainable because traditional housing requires sustained family maintenance work.* A sustainable CHC has an iron sheet roof, cement veneered floors and courtyards, and secure wooden shutters and doors. The cost of these features is about Cd 700,000 (US\$450) for a walled unit that has a bedroom, a clinic room, and a courtyard with a kitchen and bathing area.

- C **Fund raising for CHC construction can be problematic.** Delays in CHC construction arise when funds must be raised. Conflict, political disputes, and other community problems become evident when resources must be raised. *Just as CHO services and motorbikes are provided by the MOH, key construction supplies should be provided to communities that donate labour for a basic CHC structure.*

- C **The CHC initiative contributes to more general community awareness and ownership of the initiative.** After the CHC has been constructed, the CHO is oriented to the community and a durbar is scheduled to celebrate the launching of services. The event is designed to build understanding about the role of the CHO and community commitment to her presence. Health and family planning is discussed, but the main objective has been to put into place the elements of supervisory, community, and political support for the outreach team. *The CHC construction is a defining event that crystallizes collective action. CHC construction delays signal underlying community organizational problems that require programme understanding and diplomacy.*

- C **Compound based services are welcomed and accepted.** The central contribution of the CHO scheme is the capacity of the MOH to deliver a credible package of services to women in the privacy of their homes. Men could not do this; open meetings or outreach clinics cannot achieve this; no other approach could be suggested by communities that would substitute for personal exchanges between a trusted female paramedic and married women in their homes. This dependence on house-to-house encounters represents a major strategic burden on the program, because home visits, at 90 day intervals, are fewer than women feel is optimal. Given the geography of the locality and the low density of MOH staff for this activity, it is not possible to accelerate the pace of outreach. *It is evident, nonetheless, that the project could achieve more in the initial stages, if the intensity of household visitation cycles could be increased.*

- C **Outreach to groups and establishing rapport is appropriate in the early stages of programme introduction.** Initial discussion of contraception with individuals is less effective than a gradual approach that begins with contacts to the extended family about health followed by a dialogue with husbands about family planning. Once these contacts are established, exchanges with women about the health concerns and family planning needs can proceed. *Effective CHOs thus begin outreach encounters by building their credibility with the*

compound power structure -- husbands, compound heads, and elders, while at the same time being a trusted confident of individual women. Building rapport in this fashion often take several outreach visits before the stage is set for family planning.

- C **Work routines should be known in the community so that men and women know when to expect a CHO visit.** A woman is more likely to consider adopting family planning more seriously if she has confidence that she will be visited again in the future by someone who remembers what they have discussed. MIS is appropriately designed to provide simple information for guiding exchanges, and reminding a CHO of issues that arose in past encounters. For this reason, a population register system is much more effective for MIS than a loose paper system.
- C **The CHO visitation programme is effective and efficient. A single CHO equipped with a motorbike and a packet of essential drugs provides more services than an entire Level B clinic at a fraction of the cost.** The purchase of equipment for CHO should not be dismissed as an unaffordable investment. It is far more effective to equip workers to be active community service providers than to pay them to sit idle in clinics.

7) Developing Volunteerism

For two decades, the MOH has had policies promoting programs through volunteer workers.⁷ In the course of Phase I, a new type of volunteer scheme was developed that addresses problems with the VHW approach. Navrongo volunteer workers are known in the local idiom as *Yezura Zenna* (YZ), a term connoting a person who is in charge of the well being of the community. YZs are young men and women who are recruited by YN on the basis of their commitment to community work. They are viewed as members of the community who can be trusted to keep secrets, carry out work of the YN, and maintain commitments. The YZs are the sole service provider the *Zurugelu system* and provide a key link between YNS and the traditional system of government, the Unit Committees, and networks.

⁷ Although this programme was originally justified as a means of marshaling traditional village support for health service delivery, the VHW scheme has not worked well. The MOH has therefore consigned priority to research on the appropriate design of community health services. The Village Health Worker (VHW) programme and the Community Clinic Attendant program have failed to work. Volunteer programs have become controversial within the Ministry (see, for example, Ministry of Health, 1994).

The YZ new concept differs from that of the VHW in several important respects. These are summarized in Table 1:

- C **YZ should be selected by communities, not by the MOH.** An effective volunteer is chosen by the people to be served by the program.
- C **YZ should be selected among leaders of social networks.** Community YZ selection should not be left entirely to YN, but should involve guidance and orientation from the program. YZ are appropriately chosen for their participation in community groups and their acceptance as peer leaders rather than as individuals with independent qualities or predefined characteristics. The YZ have been recruited by the Yezura Nakwa from the ranks of existing traditional network leaders. In the tradition of the Kassena-Nankana people, networks are formed from peer groups to provide cooperative labour at times of planting and harvesting, joint action for community work, and other activities requiring collective opinion or effort. YN are engaged in discussions about characteristics of effective YZs prior to volunteer selection the MOH, but in fact accountable to no one. YZs are community workers with terms of reference to health communities formed in ways that cover traditional social groups and ensure the participation of all social elements. A poorly performing YZ will be noticed by the YN and replaced if needed. A YZ facing problems can count on the YN or MOH staff to provide support.

Programme characteristic	Village Health Worker scheme	Yezura Zenna Approach
Recruitment:	MOH in consultation with chiefs	Yezura Nakwa in consultation with Chiefs and MOH
Accountability:	None specified	Yezura Nakwa
Technical supervision:	None specified	CHO
Administrative supervision:	None	Yezura Nakwa in consultation with CHO & Chiefs
Compensation:	Profit from drug sales	Bicycle use + community recognition + Yezura Nakwa based compensation
Task and Service Regimen	Sales of essential drugs only	Essential drug dispensing + health education + family planning education and CBD + health liaison
Training	Two week initial training, village based, once only	One week initial training, continuous follow-up training (one day every two weeks)
Task development:	None	Step by step incremental development of service regimen
Gender mix:	Men only	Men and Women
Mobility:	None	Bicycle provided + spare parts

Table 1: A comparison of programme characteristics of the Village Health Worker Scheme and the Yezura Zenna Approach		
Programme characteristic	Village Health Worker scheme	Yezura Zenna Approach
MIS	None	Registers with symbols and checklists
Institutional link:	Ministry of Health District Health Management Team (Bureaucratic system)	Traditional leadership system (Zurugelu system)
Coverage:	Services on demand Individual client oriented	Active outreach Group and network focused

- C Managing a volunteer programme poses new organizational and management challenges.** Two streams of supervision are needed -- one from the community assuring that work is actually done, and one from the ministry, insuring that the appropriate types of health and family planning services are provided and that technical competence of the YZ is maintained at a high level. In the VHW system, no attention was directed to supervision.
- C Careful attention to logistics is required.** Bicycles are provided to YZ. This represents a major incentive to join the program, and provides essential mobility. Regular supervisory visits to YN are required to replenish supplies.
- C Explicit attention must be directed to securing sufficient compensation for YZ.** No worker can be productive without some form of transportation. extend community recognition to YZ at every opportunity. Prestige and recognition represent a form of compensation. Third, the scheme for pricing, cost recovery, and compensation is set by the YN, with allowance made for disbursements to YZ. In the VHW scheme, drugs were peddled, and all resupply links were commercial and commercially motivated. In the YZ approach, the MOH provides drugs at cost, and YZ are not allowed to dispense commercial drugs. What is made available is linked to training programs, insuring safety and quality.
- C Extensive training is essential. Training must be continuous.** As Table 1 notes, the YZ service delivery role is somewhat broader than the VHW service approach. In order to intensify the active outreach process, YZ workers are recruited and trained in primary health care service and referral, to include selected aspects of reproductive health and family planning. Their role involves treatment of minor ailments, ambulatory care for certain illnesses such as malaria, and diarrheal disease rehydration therapy. YZ also refer clients to the CHOs and clinics, and resupply condom and pill users. The YZs provide information and education within villages and compounds, and organizing durbars and other community meetings.
- C Strict technical supervision of YZ is a continuing challenge.** It is clear that YZ could readily abuse their credibility if the wrong drugs, such as antibiotics, were available to them, or if inadequate training were provided for the drugs on hand. For this reason, the project has

instituted strict controls over essential drugs, and careful monitoring of the YN function in drug distribution.

- C **The YZ programme works best where it can be coordinated with the CHO village service program.** Where both CHO and YZs are functioning, a working partnership has developed concerning male roles in family planning, promotional activities directed to male networks, and other issues concerning village diplomacy that men are positioned in society to address. CHOs have thus learned to view their relationship with YZs as complementary. Volunteer services can work, but major organizational effort is required from the MOH.

The Navrongo project has demonstrated that volunteerism can be an important resource to the MOH. Instituting a volunteer cadre, however, should not be interpreted as a low cost programme that is simple to organize and manage. Considerable effort must be directed to volunteer training, supervision, and organizational work. Careful liaison with communities is required to develop community management systems. This, in turn, requires training for community health committees and careful operational planning. DHMT must be trained in community organizational skills that are presently lacking. Supervisory teams must be equipped to conduct this program. In general, schemes that require community resources, such as volunteer programs, also require extraordinarily careful field management and organizational effort.

8) Assessing Community Reactions to the Pilot Project.

A series of focus group studies were conducted at the end of the pilot to assess community reactions to the CHO community service programme and the Zurugelu approach. General reactions to the scheme are, as follows:

- C **All age groups of women and men were supportive of the CHO program.** Expected opposition from men never arose. Concerns about community opposition to the programme have proved to be unfounded.
- C **Respondents are particularly appreciative of health service outreach.** CHO are viewed as people who care about the community, providing services that are very much in demand.
- C **The Navrongo system has restored credibility to community volunteer workers.** Focus group respondents characterize the YZ as a volunteer who cures sick people. In baseline appraisals, VHW were characterized as drug peddlers who gave injections for a fee. The YZ are linked with the roles of CHOs and appreciated for improving the accessibility of low cost

essential drugs.

III. THE IMPLICATIONS OF UNRESOLVED PROBLEMS

Three broad classes of problems have arisen in the course of this trial that could not be resolved owing to policy or resource constraints.

1) ***DHMT supervisory staff are neither oriented to community health services nor equipped to provide supervisory support to village based workers.*** Pilot activities were supervised by a special team of CHFP community organizers who directed activities and supervised workers. When the programme was scaled up to a district-wide initiative, supervision was shifted to the DHMT. Regional roles, district health management tasks and other obligations prevent DHMT staff from conducting routine field visits that the programme requires. Fuel and equipment problems prevent DHMT supervisors from attending to a regular village visitation cycle. ***Therefore supervisory support for community health services should be developed through the Sub-district Head or created afresh as a new MOH cadre.*** Current MOH policy statements provide new resources to Level B clinics for decentralized management of the Primary Health Care Program. This new policy should be implemented on a trial basis by the Navrongo project by equipping Sub-District Heads with motorized transportation, and training Sub-District Heads in community liaison methods, community organization, and field support techniques.

2) ***When CHO are assigned to village locations, they are removed from their residence, separated from families, and isolated from amenities that they have become accustomed to.*** In the course of the scaling up, workers selected for this new role objected to their village placement, complained about the financial loss incurred, and refused to participate in the scheme.

In the service hiatus that ensued, many of the pilot adopters were lost to follow-up. In all, 40 percent of all users discontinued as a result of the service disruption. These problems have been addressed through diplomacy and renewed worker commitment to the scheme, but underlying problems persist

that merit MOH review. At present, resources of the Ministry are oriented to fixed facilities rather than to communities. Workers assigned to clinics are rewarded with residences, light work loads, and regular work hours. *Careful review of MOH personnel policies should seek conditions that make village work more appealing:*

- C **Housing.** Adequate housing currently provided to Ministry of Agriculture extension workers or to Ministry of Education primary school teachers. Community health is as important as agriculture or education. Parity in village housing standards are required so that MOH community workers can be attracted to resident community work.
- C **Compensation.** Assigning a CHO to a CHC incurs costs that merit appraisal and MOH review. Consideration should be given to compensating CHO for these costs.
- C **Recruitment and posting policies.** At present, women seeking the position of CHN apply for admission to the training programme and are posted by Regional Health @@@. Consideration should be directed to recruiting candidate CHO from health deprived localities rather than from a pool of applicants. Assigning workers to their home village is less likely to be viewed as a hardship than the present scheme of assigning workers to communities far from their homes.
- C **Worker density.** CHO can visit about 7 compounds a day, given the extensive demand for health care and the time consuming task of introducing family planning. In the pilot, the appropriate caseload was determined to be about 2,800 eligible women, their husbands, and children. Current policy calls for assigning one CHN to 5,000 women, an impossible workload for the population to be served. Low worker density creates production demands that cannot be met. Resources misdirected to services at fixed facilities should be redirected to increasing the density of community workers. Realistic workloads would improve worker morale, enhance service quality, and extend PHC coverage.

3) *Communities will donate labour to CHC construction, promote health services in durbars, and welcome family planning activities. However, seeking cash outlays for cement, iron sheet and other essential construction supplies delays CHC construction and impedes programme implementation.* Kassena-Nankana District ranks among the most impoverished areas of the northern regions. Communities provided the resources for CHC construction only after considerable diplomacy and skilled liaison from project staff. This level of intense supervisory support of the CHC may not be replicable in other districts, unless modest resources are set aside for roofing

sheets, cement flooring, and latrines. About Cd 700,000 (US\$450) was required to finance the construction of a village clinic.

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Figure 1 Cells in the experimental design

Assigning Ministry of Health nurses to village locations "Bureaucratic dimension"	Marshaling traditional community volunteerism <i>"Zurugelu Dimension"</i>	
	No	Yes
No	Comparison (IV)	Volunteers only (I)
Yes	MOH village workers only (II)	MOH village workers and volunteers (III)

Figure 2 Trends in MIS contraceptive prevalence, three pilot villages

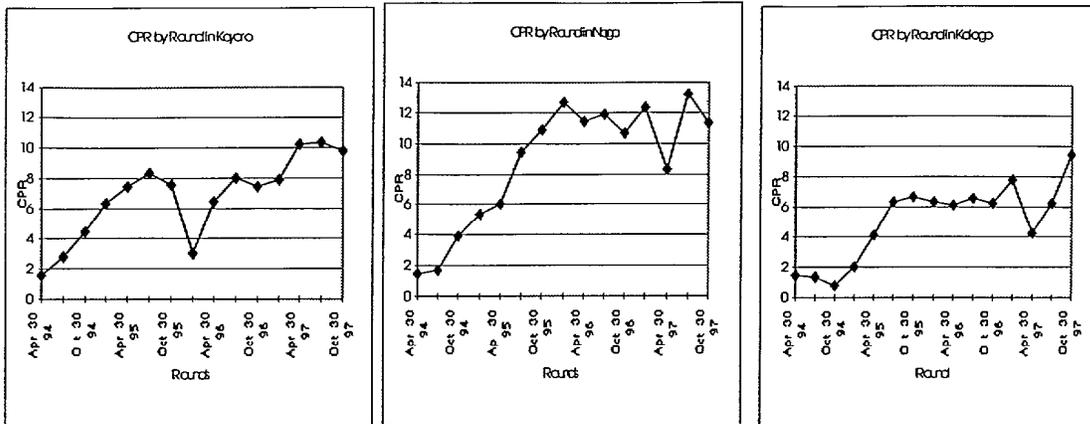


Table 1 Lessons learned from preliminary community dialogue

<i>Field activity</i>	<i>Problems identified</i>	<i>Lessons learned</i>
Seeking community involvement and advice	Basic primary health care clinical services are too remote from rural villages Community hostility to "Level B" clinical programs	Village-based clinical services and doorstep nurse outreach can be offered to study communities A new community program is required with <ul style="list-style-type: none">• improved community liaison and leadership,• renamed nurses "Community Health Officers" (CHO), and• retrained staff to improve community outreach and diplomacy
Community request for village-based clinics and resident paramedics	Lack of funds for construction	Constructing "Community Health Compounds" (CHC) will address community clinical needs with a affordable and replicable facility
Community concern about health and illness, limited interest in family planning	Widespread ignorance about family planning, particularly among men	Involve chiefs and elders in community education, involve men in CHC construction and program promotion Male participation in CHC construction builds male participation more generally
	<ul style="list-style-type: none">• Male worries about infidelity• Family "ownership" of wives for the purpose of childbearing	Convene durbars to explain family planning
	Communities lack minor resources for traditional durbar refreshments and gifts	Modest flexible funds are needed for community liaison activities

Table 2 Lessons learned about mobilizing clinical resources

<i>Component of the deployment process</i>	<i>Problem encountered</i>	<i>Lessons learned</i>
Mobilizing existing MOH clinical service resources	Fixed service point utilization is very low	Construct Community Health Compounds (CHC) at community selected sites
Reassign nurses to village CHC	Workers not trained in community outreach	Develop household outreach by <ul style="list-style-type: none"> • Retraining nurses • Purchasing motorbikes and training nurses to ride and maintain them
	Worker isolation loneliness	Develop support systems involving <ul style="list-style-type: none"> • supervisory support • peer support • family support • community support
	Workers assigned to CHC object to the loss of amenities	<ul style="list-style-type: none"> • Improve the quality of life through improved and standardized CHC conditions
Improve clinical services	Poor quality of care	Quality improvement <ul style="list-style-type: none"> • staff retraining • facilities development • MIS improvement
	Low utilization of facilities	Referral services can be readily improved
	Overstaffing of fixed facilities	Reassigning nurses to CHC does not disrupt clinical services
Developing logistics support	Worker isolation, logistics breakdowns	Worker problems can be addressed by developing new MIS according to worker activities and needs Routinizing household visitation routines improves community support

Table 3 Lessons learned about constructing community health compounds

<i>Service development component</i>	<i>Problems encountered</i>	<i>Lessons learned</i>
Approaching communities to plan CHC construction	<p>Unrealistic expectations</p> <ul style="list-style-type: none"> • Communities expect external assistance for constructing a modern clinical complex • The project expected communities to donate construction resources plus labour • Communities lack experience in planning a public health facility 	<p>There is a need for construction plans and resources</p> <ul style="list-style-type: none"> • There is need for a program with modest resources for <ul style="list-style-type: none"> --tin roofs --"bitumin," --wood frames for windows and doors, --cement for floors --latrine seals, and --basic furniture and equipment and --refreshment for communal labourers • Communities will donate labour for <ul style="list-style-type: none"> --constructing a two room laterite residence-clinic --a perimeter wall, --a bath area-kitchen area, and --a latrine pit • There is a need for a simple floor plan or demonstration site illustrating the minimal requirement
Locating CHC	<p>Donated facilities may not be appropriate for family planning services</p> <ul style="list-style-type: none"> --Patient privacy is of paramount importance, --Nurses require autonomy 	<p>Invite communities to select sites for a separate traditional compound near markets, roads, public wells or other convenient locations, CHC should not be in the chief's compound attached to other compounds, or linked to schools or other public facilities</p>
Constructing CHC	<p>Communities that lack committed leaders experience organizational problems that produce long construction delays</p> <p>Communities sometimes omit key compound components such as the perimeter wall, floors, or latrines</p> <p>Communities will sometimes cut costs in ways that make facilities unliveable</p>	<p>If chiefs do not respond to the initiative, respected educated citizens can organize youth leaders ("bia pe") to volunteer labour. This approach requires extensive project organizational involvement, however</p> <p>Traditional compounds often lack essential amenities. The CHC program must emphasize all aspects of a completed CHC and organize complete construction</p> <p>Wall height and thickness, wood quality, latrine type, roof type, etc. constitute crucial construction details that must not be compromised to save construction costs or construction time. There is a need to involve relevant rural construction experts as advisors</p>
Maintaining CHC	<p>Traditional compounds are laborious to maintain. Women are expected to plaster walls and repair roof. CHO do not have time for such chores</p>	<p>Purely traditional construction does not work</p> <ul style="list-style-type: none"> • iron sheet is needed for roof construction, thatch or laterite requires too much labor to maintain • cement is needed for floors to prevent water damage, • bitumin is needed to stabilize walls

Table 4 Lessons learned about management, training, and supervision

<i>Component of the program</i>	<i>Problems encountered</i>	<i>Lessons learned</i>
Management information system	Information is extracted from workers rather than used to support routine tasks Supervisors do not use MIS for field support	MIS can be developed to support worker tasks and activities An MIS-based supervisory system can be developed involving regular field staff meetings and problem solving
Training	Training is clinical, problems are community health service related, training is infrequent	A continuous task oriented training approach is needed
Supervision	Supervisors lack transportation or fuel	If supervisors are provided with reliable access to fuel and transportation overall performance improves
	Supervisors lack information about field problems	A task-oriented MIS can generate performance information and supervisory work routines

Table 5 Lessons learned from monitoring routine CHO village work

<i>System component</i>	<i>Problems encountered</i>	<i>Lessons learned</i>
Transportation for compound based services	Compounds are dispersed, villages are remote Nurses are not trained to ride motorbikes Villages lack maintenance or fuel facilities Obtaining fuel can be time consuming	Motorbikes are essential to improving CHO outreach Motorbike training is crucial to starting the program Organizing maintenance is essential Provide fuel in supervisory visits
Contact with clients	Secrecy is important to women	Men fear family planning as something that threatens their reproductive "ownership" of women
<ul style="list-style-type: none"> • Culturally sensitive outreach to women • Open and intensive promotion of family planning among men 	<ul style="list-style-type: none"> • When CHO are changed, users sometimes deny use when visited by the new worker • Women adopt in secret fear of ostracism or violence if contraceptive use is known by husbands or kin 	Rotating workers can lead to discontinuation Durbars and outreach to men is required to prevent social discord This involves <ul style="list-style-type: none"> • legitimizing family planning through chiefs, elders and lineage heads, • promoting family planning through male networks, responding to problems that women experience with intensive outreach to offending men
Services at CHC	Distances to "Level B" clinics make services inaccessible Communities request ambulance services, emergency obstetric care, and other ambulatory care exceeding the technical competence of resident CHOs	CHC caseloads are high, the CHC concept is popular Community durbars must educate the public on what CHO can do as well as services that CHO are not competent to perform

Table 6 A comparison of programme characteristics of the disbanded Village Health Worker scheme and the experimental Zurugelu approach

<i>Programme characteristic</i>	<i>Components of the disbanded Village Health Worker scheme</i>	<i>Components of the Zurugelu scheme for Yezura Zenna</i>
Health service activities	Primary health care pharmaceutical sales Illicit antibiotic injection sales	<ul style="list-style-type: none"> • Primary health care pharmaceutical sales ORS, paracetamol, etc • Health education • Community health organization • Primary health care referral
Recruitment	MOH in consultation with chiefs	Yezura Nakwa in consultation with Chiefs and MOH
Accountability	None specified	Yezura Nakwa
Technical supervision	None specified	CHO
Administrative supervision	None	Yezura Nakwa in consultation with CHO & Chiefs
Compensation	Profit from drug sales	<ul style="list-style-type: none"> • Bicycle use • Community recognition • Yezura Nakwa-based compensation
Task and Service Regimen	Sales of essential drugs only	<ul style="list-style-type: none"> • Essential drug dispensing • Health education • Family planning education and CBD • Health liaison
Training	Two week initial training, village based, once only	<ul style="list-style-type: none"> • One week initial training • Continuous follow-up training (one day every two weeks)
Task development	None	Step by step incremental development of service regimen
Gender mix	Men only	Men and Women
Mobility	None	Bicycle and spare parts provided
MIS	None	Registers with symbols and checklists
Institutional link	Ministry of Health District Health Management Team (Bureaucratic system)	Traditional leadership system (Zurugelu system)
Coverage	<ul style="list-style-type: none"> • Services on demand • Individual client oriented 	<ul style="list-style-type: none"> • Active outreach • Group and network focused

Table 7 Lessons learned from the Zurugelu System

<i>Program component</i>	<i>Problems encountered</i>	<i>Lesson learned</i>
Yezura Zenna		
Selection and deployment	High turnover	<ul style="list-style-type: none"> • There is a need to involve communities in all aspects of selection • There is a need for a continuous program of YZ selection training and deployment
Training	Technical competence is limited volunteers tend to assume roles external to their competence	Training should be continuous monitoring and supervision is essential
Activities involving	Sustainability	
Health services	YZ require compensation or community assistance with farming	<ul style="list-style-type: none"> • Community recognition in durbars represents an incentive for volunteers to continue • YZ increase access to ORS and other basic primary health care pharmaceuticals
Family planning	YZ offer a limited range of methods	<ul style="list-style-type: none"> • Pill distribution training is planned for 1998 • YZ activities may contribute to contraceptive use Cell I prevalence increased faster than other cells, 1995-96

Notes

- ¹ The design of the Navrongo Experiment is reviewed in Binka et al 1995 and Nazzar et al 1995
- ² Various policy documents appeal for Community Initiated Clinics (Technical Coordination and Research Division 1994) Community Health Posts (Monekosso 1994) or Community Based Distribution (National Population Council 1994) The CHFP aims to provide operations research on what this means in terms of District Health Team tasks and actions. An appeal for this type of investigation appears in the Research Priorities section of the 1994-95 Policies and Priorities Statement of the Ministry of Health (MOH 1994)
- ³ See Binka and Nazzar 1992 and Binka et al 1995
- ⁴ For ethical reasons training and clinical systems development cannot be withheld from Cell IV. Thus implementation will involve upgrading all clinical service delivery points in the district so that supplies and equipment will be adequate for delivering a full range of family planning services and clinical personnel will be trained as necessary
- ⁵ The design of the CHC has evolved over the course of the pilot. At present, the CHC is a separate dwelling unit constructed in the fashion of a traditional compound with local materials and labour. A living area and a clinical area are joined in an oval area by a common wall and separated by an interior courtyard. This layout ensures that visitors will not have to pass through other dwelling units to reach the CHC providing an element of privacy for the CHO. After encountering maintenance problems with traditional laterite roofing tin roofs have been used. Also cement veneer is used to prevent erosion of foundations and courtyard surfaces
- ⁶ DMPA is the acronym for the drug depot-medroxy progesterone acetate often referred to by its trade name *Depo Provera*
- ⁷ See Nazzar et al 1994. In developing this register the NHRC aimed to design a system that could function well in the absence of computers. Hand held registers can be prepared manually by CHO by printing a blank register in notebook format and manually completing the pages on the first round of household visitation. In the NHRC system however all requisite information for the register is contained in the Navrongo Demographic Surveillance System. The Navrongo Demographic Surveillance System is reviewed by Binka et al 1993
- ⁸ Although volunteer programmes were originally justified as a low cost means of marshaling traditional village support for health service delivery the Village Health Worker (VHW) programme and the Community Clinic Attendant program have failed and have become controversial within the Ministry (see for example Ministry of Health 1994). The Ministry has therefore consigned priority to developing paramedic based community health services and has abandoned volunteer based approaches