Outreach Activities

Community's Window to the Health System

Applied Health Research of Kampot Provincial Health Department

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ACRONYMS and ABBREVIATIONS

ADD	Accelerated District Development
AEFI	Adverse Effects following Immunization
ANC	Antenatal Care
BCG	Bacille-Calmette-Guarin
BS	Birth Spacing
CBD	Community-Based Distributor (of Contraceptives)
CMS	Central Medical Supply
DOTS	Directly Observed Therapy Short course
DPT	Diptheria-Pertussis-Tetanus
EPI	Expanded Program on Immunization
FBC	Feedback Committee
FDH	Former District Hospital
FGD	Focus Group Discussion
FIC	Fully Immunized Child
GAVI	Global Alliance for Vaccination and Immunization
GTZ	Gesellschaft fuer Technische Zusammenarbeit
GTZ-IFSP	Integrated Food Security Project
GTZ-RDP	Rural Development Program
GTZ-SHSR	Support to the Health Sector Reform
HC	Health Center
HIS	Health Information System
HKI	Helen Keller International
HMA	Health Management Agreement
MCH	Maternal and Child Health
MoH	Ministry of Health
MPA	Minimum Package of Activities
MSF	Medicins Sans Frontieres
NCHADS	National Center for HIV/AIDS, Dermatology and STD
NGO	Non-government Organization
NIDS	National Immunization Day Strategy
NIPH	National Institute of Public Health
OA	Outreach Activities
OD	Operational District
OP	Outpatient

PHD	Provincial Health Department
PI	Principal Investigator
PNC	Postnatal Care
PW	Pregnant Women
Racha	Reproductive and Child Health Alliance
SNIDS	Sub-National Immunization Day Strategy
STD	Sexually Transmitted Disease
TB	Tuberculosis
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VAC	Vitamin A Capsule
VC	Village Chief
VHSG	Volunteer Health Support Group
VHV	Village Health Volunteer
VHW	Volunteer Health Worker
WHO	World Health Organization

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Executive Summary

After almost three years of implementation of Outreach Activities in Cambodia, the Kampot Provincial Health Department together with the National Institute of Public Health, German Technical Cooperation and United Nation's Population Fund[1] thought of conducting an applied research on Outreach Activities. The objectives of the study were:

- To assess the performance of Outreach Activities in selected Health Centers in the Province;
- To identify constraints and other contextual factors affecting the performance of Outreach Activities.
- To provide feedback and recommendations to the Provincial Health Department and Operational Districts to improve the quality of the outreach services and performance of the Health Centers
- To build the capacity of the Provincial Health Department senior management team in conducting qualitative research. To train and set up a research pool within the PHD
- To establish and promote links between the NIPH and the provinces

The research is divided into three phases: baseline, intervention and evaluation phases. This document focuses on the baseline phase of the research. The baseline phase utilized quantitative and qualitative research methods. The study units are the Health Centers and two to three villages in Health Center catchment areas.

The research revealed that Outreach Activities are assessed differently by different stakeholders. For the health managers, a successful outreach means reaching the target set by each program. Most OA staff view a successful outreach if sessions are well participated by the community. The community has a more elaborate measure of outreach performance: frequency and duration of visits, the services provided, staff competence and behaviour both during outreach and at the Health Center. The study also identified the different factors affecting performance of outreach:

- Support to Outreach in the form of supervision and technical support; drugs, vaccines and materials supply; financial support and comprehensive training for outreach;
- Health Center-Related recounts the staff and preparation of Outreach Activities;
- Coordination with Local Authorities, Community Volunteers, Local Institutions and other providers;
- Community participation which is related to the confidence in the OA staff and the experience they had with Outreach Sessions;
- Village Characteristics which is based on the distance, quality of road/course, the nature of settlements and seasonal accessibility.

From the above perspectives, several conclusions were drawn regarding approaches towards improvement of Outreach Activities performance. Outreach Activities can be treated on a program basis which is the present situation. Another way to look at Outreach Activities is to see it as a holistic package, where programs are mutually interdependent

[1] The Provincial Health Advisor is under UNFPA Contract in 2003 when research was started.

on each others performance. One perspective points towards viewing Outreach Sessions as an experience (pleasant) more than a just a service, where community members (and OA staff) like going through it again.

Finally, Outreach Activities serve as community's window to the health system. Outreach sessions are visible manifestations of the Ministry of Health's aim of improving the health of the Cambodian population. Performance of outreach sessions reflects health system's performance. Outreach is seen as an extension of service of the fixed facilities. Thus, community draws on the previous outreach performances the decision whether services at fixed facilities are to be relied upon or not. Such continuum of service from outreach to the hospital is very much in the minds of the people in the community.

Community members also perceive the staff going to the villages for outreach (or even for other activities) as part of and representing the health system. Hence, the villagers not only expect the health staff to provide the services they perceived needed but at the same time to assist the community in solving health problems. With the Outreach Activities Guidelines having specific programs included, it is important to address the discrepancies between the views of the community on the services which outreach sessions should deliver and what the staff can provide according to the guidelines.

Chapter

2

Introduction

The Outreach Activities Research is divided into three phases: baseline, intervention and evaluation phases. This document focuses on the baseline phase. It aims to provide information about the performance of Outreach Activities by Health Center staff and identify constraints and contextual factors affecting their performance. This phase also deals with the community's perspectives on these services delivered by the Health Center staff in their villages. Nevertheless, the baseline phase can also be considered as a "stand alone" research project as it has gone beyond collecting baseline data. This research also dealt with several issues some of which were probed in depth as discussed in Chapter 5.

1 Outreach Activities

1.1 Outreach Defined - Reaching the unreached

The Oxford Dictionary[2] defines outreach as "n. the activities of an organization that provides a service or advice to people in the community especially those who cannot or are unlikely to come to an office, a hospital, etc. for help." A WHO document on Sustainable Outreach Services[3] defines outreach mainly as "reaching the unreached". The "unreached" was well classified into three distinct groups: those with physical access to health facilities but shun contact; those who live far from the national infrastructure; and those with good access who partially receive the services e.g., immunization but drop out.

In March 2001, the Ministry of Health of the Kingdom of Cambodia developed guidelines for Outreach Services from Health Center. It defines outreach as "*an operational strategy to reach populations living far from the Health Center with some selected health services."* Specifically, the guideline also defines the "contents of an outreach package."[4, 5]

The term outreach activity is commonly used by different agencies, government and non-government organizations whenever they extend activities beyond their facilities. Some examples are as follows:

1) Outreach and peer education for direct commercial sex workers Project in Cambodia[6]
2) "Outreach is an essential tool for targeting high risk groups. Sex workers, especially those who are brothel based and whose mobility is often restricted by the owners are thus a prime target."
3) Guidelines for outreach eye care services procedures and protocol in Cambodia[7]

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[2] Oxford Advanced Genie CD-ROM. Oxford Advanced Learner's Dictionary of Current English, A.S. Hornby, 6th Edition. Oxford University Press. 2002.

[3] Sustainable Outreach Services, A strategy of reaching the unreached with immunizations and other services. EPI Team and Department of Vaccines and Biologicals, WHO, Geneva 2000.

[4] For details see Guideline for Outreach services from Health Centers, March 2001.

[5] At the time of writing this report, the first edition of the Guidelines for Outreach Services from Health Center is under revision.

[6] Preventing HIV/AIDS: Outreach and peer education for direct commercial sex workers in Cambodia (1995-98). Project evaluation conducted by National Center for HIV/AIDS, Dermatology and STD (NCHADS) and Edna Oppenheimer (Technical Advisor). 1998

7 Guidelines for outreach eye care services procedures and protocol in Cambodia. Ministry of Health National Sub-committee for the prevention of blindness. Royal Kingdom of Cambodia. April 1997.

4) "Outreach Eye care services or extended eye care services - a temporary usually short term provision of trained personnel, resources and equipment to a specific area for a specified time in order to boost or augment the existing levels of ophthalmic care in the area to help alleviate one or more outstanding community ophthalmic problems."
5) Other Outreach Activities by specific national programs, e.g., TB, Malaria

All these point towards outreach as a means to deliver services to those who have limited or no access to services due to geographical, physical or social reasons. As stated in the first paragraph, the main focus will be on Outreach Activities mentioned in the MoH guidelines for Outreach Services from Health Centers.

1.2 Experiences on Outreach Activities in Cambodia

Since 1994 some NGOs began encouraging Health Center staff to take health services to the community. NGOs often support these activities by providing money for transportation, ice food allowance or trainings. The primary services provided depend on the health focus of the NGO: immunization, antenatal care, birth spacing commodities, TB treatment to name a few. In cases where difficulties were encountered, for example large numbers of children in poor health are present or villagers are reluctant to accept a certain service, like immunization among ethnic groups, some NGO staff join the health staff.[8] This is particularly true for NGO called Servants to Asia's Urban Poor, which was one of the first organizations to start work on TB (treatment and education) and provide immunization as outreach services.

Malteser Germany[9] in Oddar Meanchay Province north of Cambodia, ran mobile clinics for 12 months in 15 villages in Kon Kriel commune from 1999 to 2000. These clinics included immunization, antenatal care, family planning, TB and malaria screening (and treatment if required) and curative care. Staff from Kon Kriel Health Centre (not built and non-functioning during that time) were included with one staff member participating in EPI services in each village.

In 2000, the Kon Kriel Health Centre was built and with assistance from Malteser, was opened. Mobile clinics were subsequently discontinued and replaced by Outreach Activities according to the national guidelines. The focus was mostly immunization activities, however, Vitamin A distribution twice yearly and health promotion activities were also included. In 2002 additional Outreach Activities (ANC, PNC, Family Planning and health education) were included.

In Ratanakiri, Health Unlimited[10] has been supporting the government system to provide Outreach Activities for the past three years. The support comes in the form of per diem and supplies. Health Unlimited purchases vaccines for Expanded Program for Immunization (EPI) as the distribution from MoH-CMS "is usually delayed." They also have their own staff joining the outreach team as educators as most Health Center staff are "not interested" in providing health education/promotion. They cover almost all the activities of the basic outreach package in addition to malaria-related activities. Apart from the outreach services, there are Health Posts in Ratanakiri run by 2 staff coming from the commune (pet khum, pet phum), who provide treatment for malaria, ARI, diarrhea and other illnesses.

Another form of Outreach Activities implemented in Sesan District, Stung was the Mobile Team Pilot Project. Its main objective was to provide health care, the MPA defined by

[8] Piloting of Community DOTS in 1996 at Mean Chey. Report on Tuberculosis and immunization community outreach support in Mean Chey District Phnom Penh, SERVANTS to Asia's Urban Poor.

[9] Personal interview with Dr. Frances Daily, former Program Manager of Malteser Hilfdienst In Oddar Meanchay, March 2004.

[10] Personal interview with Ms. Caroline McCausland, Co-project Manager, Health Unlimited Ratanakiri, March 2004.

MoH, to remote villages of Sesan District. Activities provided by the mobile team followed the MPA package of MoH guidelines and included:[11]

- curative consultations for children and adults
- expanded program on immunizations (EPI), the growth monitoring is done regularly
- antenatal/postnatal consultations
- birth spacing
- Sexually Transmitted Diseases
- Consultations
- Health education organized before the start of activities.
- Severely sick cases referral to Stung Treng Hospital

This project was heavily supported by Medicins Sans Frontieres (MSF) in terms of financial, material and human resources. There were two evaluation reports from MSF which drew several recommendations[12]:

- Frequency of visits - can be scheduled every six weeks to three months to allow for birth spacing (BS) activities as well
- Composition of team - two to three staff required depending on the expected difficulty in the area e.g., when using boat as a means of transport, or when needed to stay overnight in the village
- More incentives if conducting visits in difficult areas e.g. 2 USD per day and extra for overnight stay/mountainous areas.
- Health education prior to starting other activities

Regarding consultations, the two reports differ in that the first one (Couffignal, 1999) advocated its abolition while the other report (Gamper, 2000) relates the decreasing ANC attendance to the lack of curative consultation services. According to the report, more often it was the consultation nurses who met pregnant women and sent them for antenatal care.

While most of the NGOs primarily provided support to the health system through the Health Centers, Racha[13] (Reproductive and Child Health Alliance), also worked with Operational Districts to strengthen Health Centers and Referral Hospitals. Racha's support to Outreach Activities was a result of several strategies to decrease Neonatal Tetanus. In the beginning, Racha conducted Neonatal Tetanus case investigations and invested heavily on training on Immunization and health education campaign to villages. The strategy did not prove to be cost-effective; hence they started to support routine immunization by way of Health Center Contracting.[14] Nevertheless, the said strategy can only improve those Health Centers under contract. Recently, Racha embarked on a revolving fund system, whereby per diems, transportation cost and ice costs were provided by Racha for one year. The government budget which comes three to six months delayed will be used to replenish the revolving fund which will allow the Operational Districts to continuously provide the Outreach Activities budget on time[15] to the Health Center staff.

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[11] Couffignal, S., Evaluation of the Mobile Team Sesan District, Stung Treng Province, MSF- Suisse. December 1999.

[12] For details see Couffignal, 1999. See also Gamper, A. Report of the Mobile Team two-year pilot project. MSF-Suisse. October 2000. The two reports have slightly different findings.

[13] Personal interview with Dr. Sun Nasy, Deputy Director, Reproductive and Child Health Alliance. March 2004.

[14] Health Center Contracting is a strategy whereby transport support (motorbikes) are contracted with Health Centers who agreed to accomplish a certain health service targets. The motorbikes are continuously issued or pulled out depending on the achievement of the target. Evaluation is done on a bi-annual basis.

[15] On time is defined as immediately after performance of Outreach Activities (within the month of OA performance).

Different organizations supporting Outreach Activities have different explanations on how the present outreach package was realized. In 1996, the National Malaria Program carried out systematic distribution of mosquito nets to forest villages. For four years of implementation, it proved to gather success in covering the majority of the target population. As a result, spontaneous combinations of services occurred that centered around bed net distribution: a) malaria treatment of fever, b) differential diagnosis of all fevers and treatment c) distribution of Mebendazole d) Vitamin A distribution e) screening for leprosy and f) routine EPI[16].

Outreach has been the major strategy to reach target children for immunization. In 1995, the National Immunization Days (NIDS) for Polio began in Cambodia. It was also during this time that Vitamin A was experimentally piggy-backed on to the NIDS. The result was successful which led to the adoption of NIDS as one of the main strategies for Vitamin A Capsule (VACs) distribution which continued until 1997 when the NIDS for Polio ended. It was then decided that VACs would be distributed through routine immunization services. In 1998, VAC distribution was integrated into the National Immunization Program[17] Soon after other programs were included: health promotion, reproductive health (in particular birth spacing), leprosy and TB programs. Finally, in March 2001, the Ministry of Health created guidelines for the conduct of Outreach Activities from Health Centers for more uniform implementation.

1.3 Problems in the Performance of Outreach Activities

There has been a general consensus of the unsatisfactory performance of Outreach Activities among government health managers and NGOs months after the issuance of the Outreach Activities Guidelines. Nevertheless, there has been no systematic evaluation of the performance of Outreach Activities in the country. In Kampot Province, the PHD realized that Outreach Activities are not performed properly: the health service indicators of outreach services are low, there are limited services per session and villagers complain that Outreach Activities are not being conducted in their communities among others. The Health Center staff on the other hand complained about difficult coordination with local authorities, lack of community participation, lack of supplies and materials for outreach, difficult road access but most importantly, the delay in financial support for Outreach Sessions.

Another constraint identified that relates to the quality of outreach services is the non-performance of other components included of the outreach package. Apart from Expanded Program on Immunization (EPI), most Outreach Activities do not deliver Birth Spacing, Antenatal Care and other services included in the outreach package. This focus does not come as a surprise since the main stakeholders involved in Outreach Activities mostly support immunization program. The report on National Immunization Program Accomplishment 2003[18] on Outreach Activities relates “conducting quality Outreach Activities with good monitoring of vaccination coverage by PHD/OD”. The Global Alliance for Vaccination and Immunization (GAVI) provides initial fund for Outreach Activities with immunization coverage as main indicator for monitoring.

The crucial role of outreach in health service delivery and the need to offer solutions to the problems, challenged the Kampot PHD and GTZ Health Project[19] to conduct applied health research on Outreach Activities.

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[16] Sustainable Outreach Services, A strategy of reaching the unreached with immunizations and other services. EPI Team and Department of Vaccines and Biologicals, WHO, Geneva 2000. p. 15

[17] Routine Immunization outreach as a good strategy for delivering Vitamin A Capsules to Cambodian Children. Initial findings from the 2000 Cambodia Micronutrient Survey. Supporting document to the Micronutrient Workshop held on February 20, 2001. Phnom Penh, Kingdom of Cambodia. HKI International. P. 13.

[18] National Immunization Program Accomplishment Report 2003 Presentation, November 2003.

[19] In 2003, the Provincial Health Advisor for Kampot PHD was under a UNFPA Contract.

2 Background on Kampot Provincial Health Department

Kampot Province is one of twenty three provinces in Cambodia. It is located in the south-eastern part of the country bordered in the north by Kampong Speu Province, by the Gulf of Thailand, Vietnam and Kep Municipality in the south, by Takeo Province in the east and by Sihanoukville in the west (Annex 1). It has a population of 578,258 in 2003 (see Table 1) with a surface area of 4873 kms^2. The province has a total of eight administrative districts unequally distributed to four Operational Districts (the 1995 Health Coverage Plan of the MoH utilized a population-based organization of health infrastructures). Each Operational District has a referral hospital and 10 - 15 Health Centers. There are 47 Health Centers scattered throughout the province. See Annex 2 for the Map of Kampot Province and its Health Infrastructures.

OD	Population	< 1 yr	< 5 yr	Women 15 - 49 yr	Pregnant women
Angkorchey	113,243	3,850	15,628	29,443	4,303
Chhouk	173,744	5,907	23,977	45,173	6,602
Kg Trach	156,791	5,331	21,637	40,766	5,958
Kampot	134,480	4572	18,558	34,965	5,110
TOTAL	578,258	19,661	79,800	150,347	21,974

Table 1. Population per Operational District including Selected Age Groups, 2003.

Source: Health Information System Office, Kampot PHD

The Provincial Health Department is the intermediate level in the Cambodian health system. Its main role is to link the Ministry of Health with the Operational Districts through[20]:

1) Interpretation, dissemination and implementation of National Health Policies through strategic development and annual planning;
2) Support the development of Operational Districts by regular monitoring and evaluation;
3) Ensure equitable distribution and effective utilization of available resources;
4) Mobilize additional resources;
5) Provide continuing education through the regional training centers.[21]

The PHD in itself is not an autonomous entity as it depends on the Ministry of Health for financing, materials and other resources. One of the few independent activities of the PHD is the licensing of private clinics. The Kampot PHD structure is more or less similar to that of the other PHDs in Cambodia with four bureaus providing support to the Operational Districts.[22] (See Annex 3 - Organizational Structure of Kampot PHD) The Operational District is the unit that directly supports the Referral Hospital and Health Centers. Understandably, a delay in the flow of support e.g., finance, drugs, from the MoH to the PHD, from the PHD to the OD, and OD to the health facilities, delays or limits the service delivery in the health facilities e.g., Outreach Activities.

There were 701 staff assigned to the Provincial Health Department (PHD) in 2003 of which almost half were nurses. This was followed by Primary Nurse, Primary Midwife and Secondary Midwife. Except for Primary Midwife, most of them are stationed in the Referral Hospitals or Health Centers.

[20] Guidelines for Developing Operational Districts, Ministry of Health, Kingdom of Cambodia, December 1997. p. 2.

[21] The last role was now delegated directly by the Ministry of Health to the Regional Training Centers.

[22] In 2003, the Regional Training Center was given an independent structure and is no longer a part of the PHD.

	Categories	PHD	OD	RH	HC	Total
1	Medical Doctor	13	15	26	1	55
2	Pharmacist	3	4	3	0	10
3	Dentist	0	2	0	0	2
4	Medical Assistant	10	6	22	10	48
5	Pharmacist Assistant	2	1	3	0	6
6	Dentist Assistant	0	0	2	0	2
7	Secondary Nurse	28	21	81	60	190
8	Secondary Midwife	20	7	22	30	79
9	Secondary Lab Tech	0	1	8	2	11
10	Primary Nurse	9	18	32	54	113
11	Primary Midwife	2	1	7	36	46
12	Primary Laboratory Tech	0	0	0	0	0
13	Kinesie	1	0	1	0	2
14	Driver	5	0	0	0	5
15	Other Skilled Staff	5	4	7	53	69
16	Non Technical Staff	12	12	24	15	63

Table 2. Staff in Kampot Health Facilities, Kampot PHD. 2003

Source: Administration Office, Kampot PHD

The Health Centers in Kampot have different staffing patterns. In 2003, there were 17 Health Centers with qualified staff[23] out of forty-seven Health Centers. Some Health Centers have two staff, while others (Former District Hospitals) can have as much as eighteen staff. (See Annex 4 - Health Centers in Kampot Province with and without Qualified Staff)

2.1.1 Financing

As in all other PHDs, Kampot PHD has an Accounting Department in charge of financial inflow from the Ministry of Health and to some extent other NGOs/partners. The budget allocated for the provinces is divided into five budget chapters: Chapter 10 for salaries, Chapter 11 for operating costs (including drugs and consumable medical supplies, Chapter 13 or ADD Funds,[24] Chapter 31 for social allowances, and Chapter 32 for international organizations. Among the five chapters, the three first chapters are the most important for the functioning of the health service delivery. However, experience in the past years demonstrated a slow course in the budget disbursement from the national bodies to the provinces. The figures below presented the budget provided for the first nine months and the budget that was given to complete the whole year. For the Year 2000, there was no data available for the amount received on the ninth month. It has to be

[23] Health Centers with qualified staff is defined as a Health Center with at least six staff two of which are secondary midwife and secondary nurse.

[24] Also known as Accelerated District Development (ADD) funds. This is a special programme agreement between the Ministry of Health and Ministry of Economy and Finance whereby MoH was given the mandate to disburse the amount directly to the district level without passing the provincial authorities. From the National Budget Book 2000. English Edition. Ministry of Health Financial Planning Unit. Aprill2000.

understood that the amounts indicated for one year were disbursed even after the end of the fiscal year (1st and 2nd quarters of succeeding year).

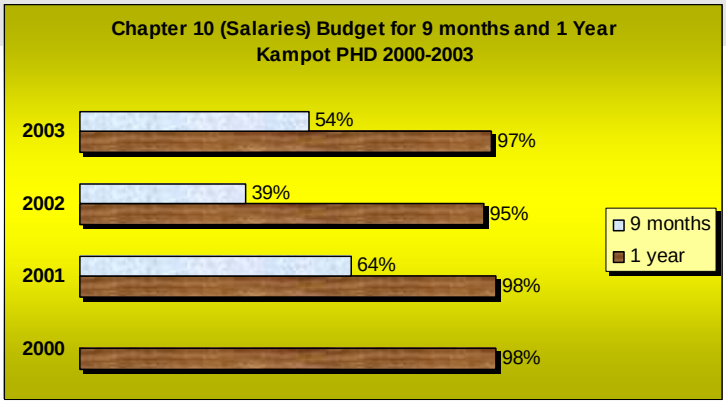


Figure 1. Chapter 10 Budget for 9 months and 1 Year. Kampot PHD

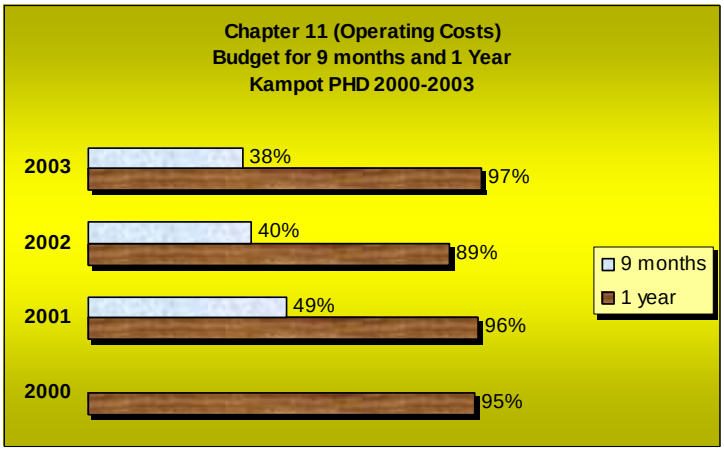


Figure 2. Chapter 11 Budget for 9 months and 1 Year. Kampot PHD

Chapters 11 and 13 are particularly important for Outreach Activities as these are the budget lines where per diems, ice costs and transportation costs (Chapter 11) were taken from. From the graphs, it is quite customary that even on the ninth month of the fiscal year, the funds for these chapters hardly reach one third of the total budget. This is particularly true with Chapter 13 where three Operational Districts of Kampot get their outreach per diems from.

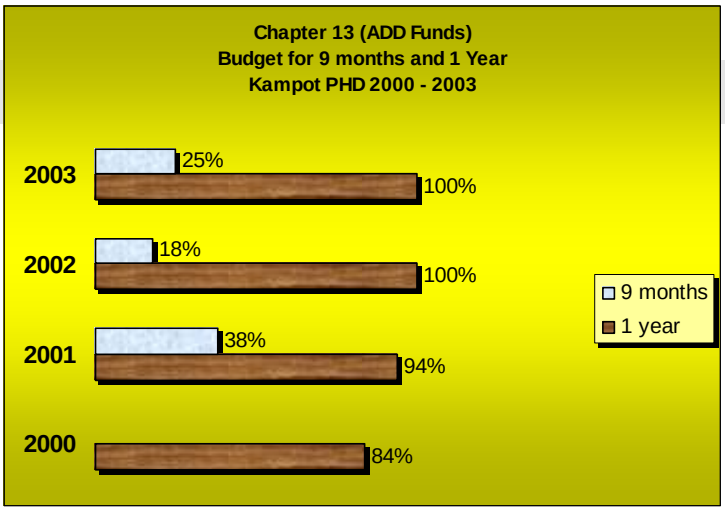


Figure 3. Chapter 13 Budget for 9 months and 1 Year. Kampot PHD

2.1.2 Health Service Indicators

The table below gives an idea of the performance of Health Centers related to the different health services they provide. The trend presents increase in performance until 2002. The data in 2003 are mostly accomplishments for eleven months. Nevertheless, most of the accomplishments in 2003 are lower than the previous year.

Indicators	1999	2000	2001	2002	2003
No. of Contacts/HC worker/mo	31	94	102	127	173
No. of OP consult/mo	0.20	0.21	0.32	0.20	0.20
Drop-out BCG - Rouvax	11%	21%	10%	17%	21%
Drop-out DPT1-DPT3	11%	17%	7%	9%	10%
Fully Immunized Child				51%	42%
Tetanus Toxoid 2 for PW				40%	39%
Birth Spacing Current User	13%	20%	18%	26%	29%
Birth Spacing New Case		8%	8%	11%	8%
Second Antenatal Care	15%	23%	29%	27%	26%
BK+ TB Cure Rate	94%	78%	92%	91%	96%

Table 3. Selected Preventive Health Service Indicators, Four ODs, Kampot PHD

Source: Health Information System Office, Kampot PHD

3 Rationale for Outreach Activities Research in Kampot

3.1 Background

More than a year ago, after the Outreach Services Guidelines were issued, the staff of the Health Centers were instructed to conduct Outreach Activities in every village within their coverage area. The main operational objective of outreach services is to reach each village at least twelve times per year and on the average six times a year for remote villages. By doing this, it is expected that outreach services be able to decrease morbidity

and mortality by achieving greater coverage of effective interventions and reaching larger populations with services and health education.[25]

Nevertheless, the health service indicators noted above did not show improvement. The performance of Outreach Activities in Kampot Province was considered unsatisfactory. Several problems were identified that contributed to the poor performance of Outreach Activities the most notable of which is the financial support to the staff in performing Outreach Activities, transportation and ice costs. The per diems were only received when funds became available e.g., per diems usually arrives after several months (4 to 6 months later) except when there are organizations (NGOs) directly supporting the Health Centers in Outreach Activities. This implied that HC staff should incur their own expenses at the time of delivering OA. Taking into account their low salaries their options are either to be challenged and conduct the Outreach Activities or miss them out entirely, and make a report on OA that were not conducted. The same observations are mentioned by Scheyer[26] in his Comparative Analysis of Outreach Activities in Cambodia: either the staff perform outreach with the hope of eventually being reimbursed, not perform the outreach and fail to perform the required task or not perform the outreach and record it as done.

The above problem has been observed by most of the health managers of the Provincial Health Department in Kampot Province as well as other health support organizations working in the province.

Since the Provincial Health Department has limited capacity to make this financial proposal feasible, it was considered whether organizations could assist financially. The health support organization (NGO) provides an initial financial contribution ranging from 75% - 100% for Outreach Activities for the next six months (extending to one year) and the Provincial Health Department will provide the remaining 25% of the total budget for that same time frame. When the budget from the MoH finally arrives, replenishment of the depleting 75% (health support organization contribution) will then be made by the PHD. This is to ensure that per diems for Outreach Activities in the following months would also be given on time. Nevertheless several problems can arise particularly when research is actively conducted as government disbursement is a low 40%. Nevertheless, still this kind of arrangement could facilitate earmarking of the forthcoming budget for Outreach Activities (no matter how minimal it is) since there is no budget line specification for every given step. The idea of health support organizations providing initial fund to pay the per diem on time to the staff was proposed by RACHA in Angkorchey OD (started in October 2003) and complemented by GTZ Health Project in the remaining three districts (Chhouk, Kampot and Kampong Trach Operational Districts).

Other factors affecting the quantity and quality of the delivery of Outreach Activities have been identified as mentioned above. Some of them were provider-related factors and others were more specific to the characteristics and dynamics of the community including the link between the outreach services providers and community based organizations or key players. These factors were raised during a brainstorming session with the PHD senior management team and were summarized in Figure 4.

3.2 Kampot PHD Research Activity

The Provincial Health Department in Kampot Province with the support of the German Technical Cooperation Support to the Health Sector Reform Program (GTZ-SHSRP) and UNFPA technical assistance[27] (2003) has started a process to improve the capacity of health managers in the province. Regular discussions on issues related to the

[25] MOH Guidelines for Outreach Services from Health Centers. p. 4. March 2001.

[26] Scheyer, S. A comparative analysis of the Approaches to Community Outreach in Cambodia's Health System. University Research Co. LLC (URC), October 2003. p. 17.

[27] Kampot PHA position was funded by UNFPA in 2003 and seconded to GTZ Health Project.

performance of Health Centers, planning process at different levels, NGO coordination are included. Such practical aspects are used to complement the continuing education being undertaken by some senior managers and staff. As a complementary aspect of this process of capacity building a new component has been introduced in collaboration with the National Institute of Public Health i.e., to assist health managers to conduct applied health research.

The research component aims to improve the quality of health service delivery in Kampot Province by identifying problems and constraints, providing feedback and corrective measures to improve the quality of health services offered to the population. It is also the intention to create a pool of researchers within the Provincial Health Department who will undertake applied health research when specific needs arise. As a hands-on exercise responding to a priority identified by the management team a research topic has been selected: to look into the performance of the Outreach Activities provided by the Health Centers.

3.3 Research Objectives

The general objectives for Outreach Activities research are two-folds: the first two objectives relate to the performance of Outreach Activities while the remaining objectives relate to the role of the PHD in improving capacity on health research and promoting links with other national institutions.

- To assess the performance of the Outreach Activities in selected Health Centers
- To identify constraints and other contextual factors affecting the performance of Outreach Activities
- To provide feedback and recommendations to the Provincial Health Department and Operational Districts to improve the quality of the outreach services and performance of the Health Centers
- To build the capacity of the Provincial Health Department senior management team in conducting qualitative research. To train and set up a research pool within the PHD
- To establish and promote links between the NIPH and the provinces

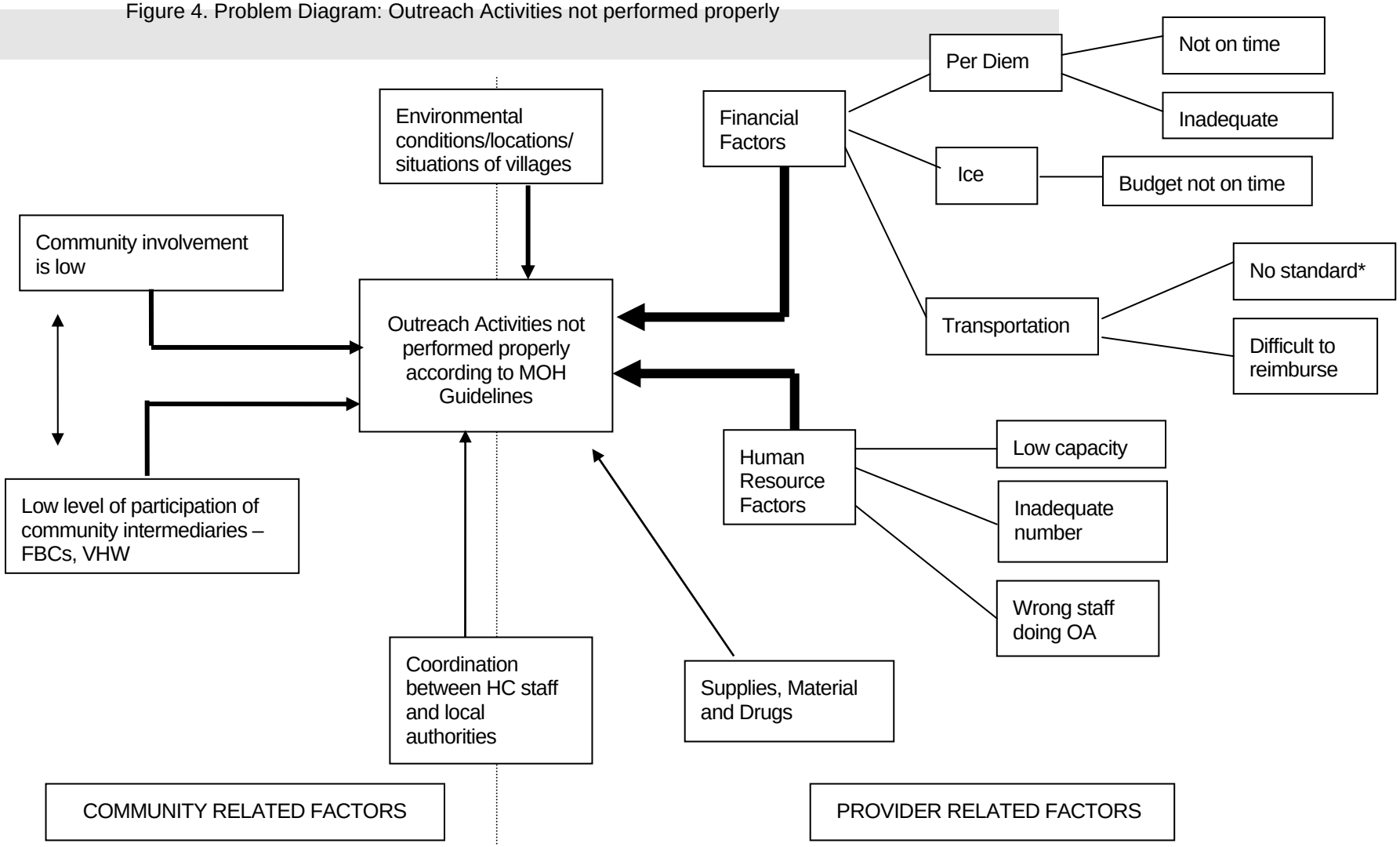
3.4 Research Questions

The research questions enumerated below facilitated the achievement of the research objectives mentioned.

- What are the HC staff knowledge about Outreach Activities? How do the HC staff perceive Outreach Activities? How does a properly performed Outreach Activities look like?
- What are the environmental factors affecting the provision of Outreach Activities in the village? What experiences do they have in conducting Outreach Activities? What are the constraints/barriers faced by the HC staff providing Outreach Activities? What facilitates ease of conducting Outreach Activities? Does payment of per diem on time lead to better quality or more Outreach Activities?
- What are the existing facility and community-based mechanisms supporting Outreach Activities? In what ways do they provide support to Outreach Activities? What other mechanisms should be in place for Outreach Activities to be performed properly? What measures or remedies should be undertaken to improve the quality and quantity of Outreach Activities?
- How does the community perceive the provision of health services in the village? What services reach them? What services do they think should be provided? To what extent are the poor reached by these services (Outreach Activities)?
- What are the health seeking patterns of the members in the community?

- What should be the role of the community in health service provision particularly during Outreach Activities?
- What communication channels (formal/informal) exist between public health providers and community? among health providers? among community? How do they function? What facilitates/hinders communication?

Figure 4. Problem Diagram: Outreach Activities not performed properly



Chapter

3

Research Methodology

1 Research Design

The Outreach Activities Research is divided into three phases: baseline, intervention and evaluation phases (Table 4). The study is both quantitative and qualitative research encompassing two types of study designs: descriptive and comparative: one-group *pretest - posttest*.[28] A baseline phase was conducted in June and July 2003; intervention is currently in process and will be followed by an evaluation phase in August 2004.

	2003							2004								
Phases	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Baseline																
Intervention																
Evaluation																

Table 4. Phases in the Outreach Activities Research.

In the baseline phase, the variables related to Outreach Activities were measured, e.g. immunization and other relevant health service indicators, or observed (and documented) for example community perceptions on health staff and Outreach Activities performance among others. The ongoing intervention phase involves providing timely per diem for Health Center staff performing Outreach Activities. The same variables will be measured (observed) again during the evaluation phase for comparison with the baseline phase data. This design is called a one-group pretest-posttest study design and is illustrated below.

Time 1		**Time 2**	
Assignment	Pretest	Intervention	Posttest
	O1	X	O2

Table 5. The One-group Pretest-Posttest Design.[29]

The one-group pretest-posttest design is one among the research designs used in both quantitative and qualitative researches[30]. According to Bernard, it is an improvement of the

[28] Bernard, R.H. Research Methods in Anthropology, Qualitative and Quantitative Approaches. 3rd Edition. Altamira Press, 2002. pp. 121 - 122.

[29] Ibid. p 122. **O** stands for observation/measurement and **X** stands for intervention. O1 is the observation done in Time 1 and O2 is the observation done in Time 2.

[30] For a summary of different experimental research designs, see Bernard. p. 115.

one-shot case study design[31] whereby baseline data are established allowing comparison with the evaluation results. Nevertheless, Campbell[32] mentioned that there are several limitations inherent in this study design. First, any difference in the pretest-posttest measurement cannot be attributed solely to the intervention. Second, it is dangerous to generalize on the basis observed only in one study. Pelto[33] even cautioned researchers of "extreme vulnerability" of pretest-posttest research design to extraneous factors. Campbell recommended that to improve validity and generalizability of results, it is useful to a) repeat the intervention in other areas, and b) perform process evaluation while intervention is being applied. Both measures were adapted in the Outreach Activities research.

The activities included in each phase are written below. This paper focuses on the baseline phase only.

Phases	Activities
Baseline	Baseline information collection and initial analysis
Intervention	Provision of timely per diem and transportation cost Process evaluation involving spot-checking in the a) Health Center b) Outreach Activities Site c) Villages/Communities
Evaluation	"Post-intervention phase" data collection and comparison (with baseline)

Table 6. Activities in Each Phase of OA Research.

2 Sampling and Study Population

There are two study units in this research: the public health providers and the villages. The public health providers are composed of Health Center staff performing outreach and OD/PHD staff responsible for supporting Outreach Activities. The election of villages followed the selection of Health Centers which were included in the study. (See Annex 5 - Map of Outreach Activities Study Area) The following paragraphs explain the selection criteria for each study units, both for qualitative and quantitative parts of the research.

2.1 Public Health Providers

As mentioned above, the Provincial Health Department in Kampot Province is composed of four (4) operational districts (ODs): Angkorchey, Chhouk, Kampong Trach and Kampot. There are 47 Health Centers in total and four (4) Referral Hospitals. In 2002, the PHD categorized the Health Centers based on the Input provided by both PHD and OD. The Health Centers were then divided into four categories: A, B1, B2 and C with Category A having the most input and the Category C, the least.[34] The category of the Health Center was considered when the HCs were selected/chosen for the study.

[31] Bernard defines one-shot case study design as a study design that "measures dependent variables after an intervention has taken place. Such study design has neither a pretest nor a control group." It also called ex post facto (Bernard) or quasi-experimental design (Campbell).

[32] Campbell, O. et al. Social Science Methods for research on Reproductive Health. UNDP/UNFPA/World Bank Special Programme of Research, Development and Research Training in Human Reproduction. WHO. 1999. WHO/RHR/HRP/SOC/99.1. p. 21.

[33] Pelto, P. and Pelto, G., Anthropological Research. The structure of Inquiry. 2nd Edition. Cambridge University Press. Digital Reprinting 1999. p. 237.

[34] There are six input categories included: human resource, finance, supplies, NGO support, infrastructure and facility. For details, see Annex 6 Operationalization of Reward and Sanction Mechanism for Kampot PHD.

Operational District	Number of Health Centers per Category				Ref. Hosp.
	A	B1	B2	C	
Angkorchey		1	9		1
Chhouk	2	8	2	3	1
Kampong Trach	4	4	3	1	1
Kampot	5	4	1		1

Table 7. Health Facilities in Kampot Province (including Categories of Health Centers).

The study was conducted in three operational districts namely Chhouk, Kampong Trach and Kampot. Angkorchey OD was excluded from the study since, another NGO - the Reproductive and Child Health Alliance (Racha) is doing a parallel intervention and study on Outreach Activities. Racha has been providing support on MCH activities as well as other activities to Angkorchey OD since 1997. Health Centers assisted by GTZ - Integrated Food Security Project (now GTZ - RDP) on Outreach Activities were also excluded with one exception: Health Center 03-07-00[35]. This HC acted as the representative Health Center belonging to Category A in Chhouk OD. The diagram below shows Health Centers included in the study and those that are not. Nine (9) Health Centers are included in the study.

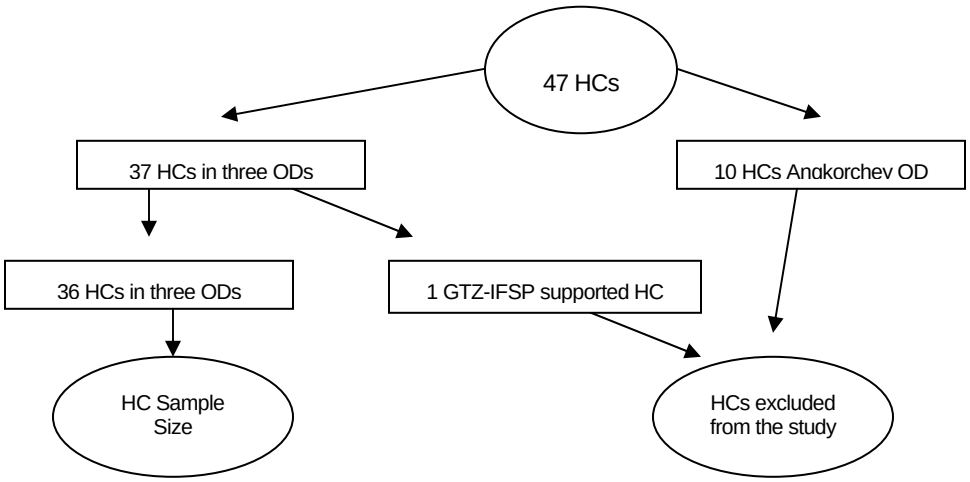


Figure 5. Number of Health Centers included and excluded in the study.

Selection of Health Centers was random (drawing lots) with each OD being represented by three Health Centers belonging to different categories. The names of the Health Centers belonging to a certain category (in each OD) were placed in a box and drawn by one of the Principal Investigators. The process was repeated until the different categories of the Health Centers were represented in the three ODs. The result of this selection process can be seen in Table 8.

The selection for PHD and OD interviewees was based mostly on the involvement of the staff in Outreach Activities i.e., outreach supervisors, those responsible for providing financial and material support, etc. In cases where staff were part of the research team either as Principal Investigator or Researcher, his or her deputy qualified as respondent.

[35] As can be seen later, all study units were given six-digit code numbers and additional letters if necessary.

The research staff from the National Institute of Public Health (NIPH) interviewed the staff at the PHD and ODs. There were a total of twelve (12) interviews with PHD/OD staff and twenty three (23) interviews with heath center staff.

2.2 Villages

The selection of villages followed catchment areas of the chosen Health Centers. The initial idea of having three villages for each Health Center was hindered by the unequal distribution of villages covered by each Health Center. Instead, more villages were chosen in those Health Centers with larger catchment areas.

HC Category	Operational Districts					
	Kampong Trach		***Kampot***		***Chhouk***	
	Health Centers	***Villages***	***Health Centers***	***Villages***	***Health Centers***	***Villages***
A	1	4	1	2	1	4
B1			1	3	1	4
B2	1	4	1	3		
C	1	3			1	3
Total Number	3	11	3	8	3	11

Table 8. Study Sites and Number of Health Centers and Villages included in the research.

There were 30 villages included in the study, fulfilling the required number of villages for EPI cluster coverage survey prescribed by the WHO.[36] Based on the cluster coverage survey, a 30-cluster sampling was used in the quantitative aspect of the research where in each village (N=30), seven women with children less than one year and seven women with children aged 12 to 23 months were interviewed. The research team took the total number of eligible households[37] in the village and divided that number by seven. All in all, there was a maximum of fourteen (14) households per village. There were a total of 415 mother respondents in the survey. Women with children less than 12 months were asked questions about Tetanus Toxoid and ANC coverage, women 15 - 49 years with children older than 6 months were asked about birth spacing and mothers with children aged between 12 and 23 months were asked about EPI coverage (See Table 9).

Topic	Respondents' Profile	Number
Tetanus Toxoid	Mothers with children less than 12 months	214
Antenatal Care	Mothers with children less than 12 months	214
Birth Spacing	Mothers 15-49 years with children more than 6 months	294
EPI	Mothers with children aged between 12 - 23 months	197

Table 9. Respondents' Profile per Research Topic.

[36] Patterned after the Methodology used in Kampot PHD/Memisa study: Report on the ANC, EPI and Birth Spacing District Coverage Surveys, Kampot Province, 2001 by Dr. Loan Liam of Memisa and Kampot PHD Team. August 2001.

[37] Eligible household means household with women having children less than one year and children aged 12 to 23 months.

For the qualitative part of the research, focus group interviews were conducted with the community members (women mostly in the reproductive age group) in all villages. Individual interviews were performed with village chiefs, volunteer health support groups, TBAs and other community key informants. Table 10 shows the interviews conducted with different respondents. See Annex 7 for detailed listing of interviews and FGDs.

Respondents	Number
Village Chief	30
Volunteer Health Support Group (VHSG)	13
TBAs	4
Monks, elders, etc	10
Focus Group Discussion (FGD) 7-10 people	30

Table 10. Respondents in the Villages.

3 Research Methodology

3.1 Research Technique

Qualitative and quantitative research techniques were used to capture and assess the present situation regarding Outreach Activities from the perspectives of the providers as well as the beneficiaries and other community members. The quantitative part tries to capture the socio-economic-demographic situation of the population as well as the performance and coverage of the Outreach Activities services (EPI, BS, and ANC). The qualitative part explored the perspective of the providers: perception of their work and organization of Outreach Activities. It also explored the community perspective on outreach including their involvement in health activities, perception on provider's performance and health seeking patterns. The following techniques were used:

1) Document review OD/PHD HIS regarding the population coverage, population of target groups, health facility human resource and key health service indicators[38].
2) A survey questionnaire was performed in 30 villages focusing on the socio-eco-demographic situation, services provided during Outreach Activities and the segment of the population benefiting from the services.
3) Semi-structured interviews were conducted with Health Center staff, health support groups, local authorities and community key informants regarding their participation, knowledge and perception of Outreach Activities.
4) Focus group discussions were conducted with the community members (mostly women in reproductive age group) concerning health issues, perceptions regarding the services and how to improve them.

3.2 Research Organization

The research on Outreach Activities in Kampot Province credits the participation of both the NIPH and the Kampot PHD and GTZ staff and consultants. Dr. Chheng Kannarath, the head of the Research Unit at the National Institute of Public Health (NIPH), designed the survey questionnaire with the Research Team and trained PHD staff in data entry. Ms Sofi Ospina, part time consultant for NIPH for qualitative research, contributed to the development of the proposal, training of staff and coding of qualitative data. Dr. Liz Hoban, a visiting anthropologist from Deakin University, Australia, provided assistance in practical

[38] EPI coverage, ANC, BS to mention a few.

training of the researchers, coding and initial analysis of the qualitative data. Dr. Gertrud Schmidt-Ehry and Dr. Paula Quigley-Glueck provided technical assistance throughout the research concept development.

The Research Steering Committee was composed of Dr. Lim Kaing Eang, Dr. Touch Sokha, Dr. Lao Vanna and Mr. Tann Chheng from Kampot PHD; Dr. Yolanda V. Bayugo, Dr. Song Chhiay from GTZ Health Project, Dr. Sol Sowath from Racha and Dr. Leng Supheap from NIPH. The steering committee was established to oversee the design and development of the operational research, technically and administratively, on a day to day basis. The Principal Investigators (PIs) all come from the coordinating agencies: Dr. Lao Vanna and Mr. Tann Chheng, Dr. Song Chhiay and Dr. Leng Supheap.

There were three Research Teams (one for each OD) headed by one Supervisor and 3 researchers as listed down in Annex 8. Kampot Research team was composed of staff from the four Operational Districts, the Regional Training Center in Kampot and the PHD. These researchers were assigned to collect data in ODs different to their usual assignment. The Principal Investigators also participated in the data collection process. The research staff from NIPH interviewed the staff at PHD and ODs. (See Annex 8 - Organizational Structure of OA Research and the Research Team)

3.3 Research Preparation

The research was approved by the Research Ethics Committee at the NIPH with minimal revision (one year intervention phase instead of the proposed six months). While waiting for the approval, the PHD and the Principal Investigators recruited staff that they later trained as researchers. An initial one-week qualitative-quantitative methods training was conducted followed by a two-day refresher course immediately after the data collection.

Prior to the data collection, written approval for the study from the Provincial Governor of Kampot Province was provided to all researchers. The PHD also informed all OD Directors and Health Centers involved in the research prior to the outset of the study. The OD Directors coordinated with the participating Village Chiefs to obtain a list of eligible populations, i.e., women with children less than one year old and with children 12 – 23 months old.

3.4 Data Collection process

Data collection tools were developed for both quantitative and qualitative components of this research (see Book 2 Part 1 - Questionnaires and Interview Guides used in Outreach Activities Research). The qualitative component (semi-structured interview and focus group discussion guides) were prepared by the Principal Investigators together with the consultants on qualitative research from NIPH. All data collection tools were pre-tested in villages excluded in the study area. Extensive theoretical and practical training on conducting qualitative and quantitative researches were provided to the Kampot Research Team. This ensured common understanding of the data collection tools and basic skills in performing research techniques. During the period of data collection, the research team met every three days and gave feedback regarding problems and difficulties encountered in the field. Discussions were held on the proposed ways to solve the problems. Furthermore, during these meetings, the codes and themes were initially drafted.

It took the Research Team approximately two weeks to conduct the survey and three weeks to perform the interviews. The teams sometimes faced problem of being mistaken as political party representatives as the research commenced seven weeks before the national election. The timing was deliberate to avoid the rainy season which may have

hampered data collection activities in the villages. Nevertheless, The Research Team did not encounter resistance from community gatekeepers. [39]

All informants, provider or community, were assigned a six-digit number code and additional letters when necessary (particularly for interviews) to ensure confidentiality. Verbal consent was sought from participants before commencing the interviews

3.5 Data Collation

The collation of the survey data was done using Epi Info 6. Two staff at the PHD Administration knowledgeable on computer programs were trained by Dr. Chheng Kannarath. The data was entered twice to ensure accurate data entry.

The PIs and consultants from NIPH developed themes and codes from the interviews. The interviews were translated from Khmer to English. Translation was done by the Principal Investigators and one staff member at the PHD. The English language version helped the consultants in reading the transcriptions and thus aiding in codes and theme formulations. Nevertheless, the Principal Investigators utilized the original (Khmer) transcript during coding. Coded responses of different respondents are presented in matrix form in Annex 9. Full coding transcripts were compiled as a supplementary document to the Outreach Activities Research Document (see Book 2 Part 2 - Qualitative Codes Transcription).

3.6 Analysis

Bernard[40] pointed out several possibilities to analyze qualitative or quantitative data using as illustrated in Table 11:

		Data	
		Qualitative	Quantitative
Analysis	Qualitative	***a***	***b***
	Quantitative	***c***	***d***

Table 11. Qualitative/Quantitative Data Analysis

where:

cell ***a*** is qualitative analysis of qualitative data e.g., interpretation of texts;

cell ***b*** is qualitative analysis of quantitative data e.g., searching for patterns in quantitative data through visualization methods etc;

cell ***c*** is quantitative analysis of qualitative data i.e., turning the data from words into numbers;

cell ***d*** is quantitative analysis of quantitative data i.e., statistical analysis of quantitative data.

The Outreach Activities research utilized all these possibilities in analyzing its qualitative and quantitative data albeit greater emphasis is placed on qualitative analysis of qualitative data (*a*).

For the analysis of the quantitative data, a descriptive analysis was performed using tables and summary statistics. Each variable was first analyzed individually (univariate analysis), and in the case of health service indicators, compared with the provincial target. These individual variables were again analyzed by looking at possible associations with other

[39] Gatekeepers are institutions, organizations or individuals a researcher need to ask permission from, formally or informally, to gain access to the research participants. Gatekeepers can be formal e.g., government body, people in authority, or informal e.g., respected elders in the community, patron, etc.

[40] Bernard, R.H. Research Methods in Anthropology, Qualitative and Quantitative Approaches. 3rd Edition. Altamira Press, 2002. pp. 121 - 122

variables (bivariate analysis). There were occasions when more than one independent variable were put together to come up with a new variable which will then be compared to another variable (multivariate analysis). One example would be the variable BCG[41]. BCG result was analyzed as an individual variable by comparing with the provincial target. After which, it was analyzed together with Rouvax.[42] To identify whether there is high or low drop-out among immunizable children. All the EPI vaccines (independent variables) for children were put together to create a new (dependent) variable: Fully Immunized Child. Another example of bivariate analysis is comparing women who received Iron Tablets and number of Antenatal Care check-ups.

The analysis of qualitative data utilized through general text analysis in particular grounded theory method or thematic analysis. [43] This involved inductive approach whereby codes and themes were developed from the transcription of interviews and focus group discussions.

Another method applied was componential analysis. Componential analysis is a formal, qualitative technique for studying meaning.[44] In this research, one example for componential analysis was the identification of the community's idea of the components of outreach package.

Analyses were presented with the use of tables, models (causal maps or flowcharts) and exemplar quotes. Use of quotes is an important method in text analysis. As Bernard puts it, "quotes lead the reader to understand quickly what it took the researcher months to figure out."[45] Despite its usefulness, Bernard also warned researchers of excessive quoting or practice of using jargon language in quotes. In the analysis part of this paper, efforts were made to minimize these "two sins" of quoting.

3.7 Limitation of the Study

3.7.1 Timing

The data collection for OA research was started seven weeks before election and managed to finish one week before it. Reason for the timing was mentioned earlier. The researchers managed to explain their purpose and provided the community appropriate documents to back up their claim. They also wore uniforms (T-shirt) marked with the title of the research printed on it.

3.7.2 Staff as researchers

Two issues were considered when using health staff from the operational districts and provincial health department as researchers. The first one is the question of impartiality in conducting the research. The second is their skills in conducting qualitative and quantitative research. To address the first issue, staff were allocated in a different operational district than their own. They were also mainly responsible in Health Centers and community interviews and data gathering while the staff from NIPH interviewed the OD and PHD staff to reduce interviewer bias. Nevertheless, there were occasions when HC staff would avoid answering sensitive questions or give inaccurate responses to the researchers. This was particularly true in topics related to financial matters.

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[41] Bacille-Calmette-Guarin. A vaccine which is a part of the Expanded Program on Immunization. It is given to newborn or children less than 1 mo (I year) to prevent Cerebral and Miliary Tuberculosis.

[42] Measles in English.

[43] Although both Rice (2002) and Bernard (2002) mentioned the difference between grounded theory or thematic analysis with content analysis, it is still possible to make use of both in this research. Rice mentioned two examples where a researcher coined the term "ethnographic content analysis" to mean inductive methods of thematic analysis. Another example mentioned was the approach used by Lindesmith (1968) in his study of addiction to opiates. For more of this discussion, refer to Rice and Ezzy Qualitative Research Methods, A Health Focus. Oxford University Press. Reprinted 2002. pp. 190 - 195.

[44] See Bernard, 2002. p. 508.

[45] Ibid. p. 471.

With regard to the second issue, a five-day training on the techniques to be used in the research, both quantitative and qualitative was conducted. The instrument and guide for the survey and focus group and in-depth interviews were finalized and discussed in detail with the researchers. Field practice was conducted for two days, immediately before the researchers commenced the data collection. The researchers were also limited in terms of documenting situations as they see it. Sometimes the descriptions were "thin." It is for these reasons, that, feedback meetings with the researchers as mentioned above were conducted every three days during data collection.

Nevertheless, there were still several limitations observed including reading back answers of interviewee after the interview and asking for his/her approval. Limited skills in probing[46] and formulating follow-up questions were observed in some situations.

3.7.3 Translation

The Principal Investigators took two months to translate the qualitative data. The translation was delayed because two of the PIs went for one-month training overseas and another one went to prepare for her Masters program. The delay in translation became a major difficulty in proceeding with coding and analysis. In the future, we hope that the schedule will put emphasis on prompt translation by assigned persons.

In addition, some interview transcriptions were not comprehensible. Most of the problems encountered with interview transcriptions were related to time i.e., instead of four hours, the translation would read as four o'clock. One translation was read as *hardly* although it should be translated as *very hard*. These translation errors were often detected when putting into context the statement in relation to the whole paragraph or the whole document. When cases like these occur, the author conferred with the original Khmer documents aided by Khmer colleagues.

3.7.4 Participation of the Principal Investigators

The Outreach Activities Research was originally a joint research of the Kampot PHD, NIPH and GTZ Health Project. All agencies participated actively during the research preparation and data collection. Data collation, translation and coding were mostly done by the PHD and GTZ staff since the PI from NIPH became occupied with other things. Final coding, analysis and write-up have been major challenges because of the complex nature of the research method and analysis used which entailed putting together qualitative and quantitative results together. Qualitative analysis is a particular struggle because the team was fairly new to research much more to "*grounded theory analysis*." Another factor is that the PHD PIs were also occupied with other activities and did not have enough time to focus on the research. It has to be mentioned though that the PHD PIs participated in the research without additional financial support from GTZ. Presently, they are very active in the intervention phase of the research.

[46] Probing is stimulating a respondent to produce more information, without injecting the interviewer so much into the interaction. Bernard. 2002.

Chapter

4

Study Sites and Characteristics of People under Study

The Chapter on Study Sites and Characteristics of People under Study is a part of the research findings (results) and aims to contextualize the findings in Chapter 5.

Nine Health Centers and three representative villages for each Health Center's catchment areas were included in the study. The Health Center staff performing Outreach Activities were interviewed. Survey and focus group discussions were performed in the community while individual interviews were conducted with Village Chiefs, volunteer health support groups and other key informants in the villages. Also interviewed were the staff at the Provincial Health Department and Operational District responsible for supporting Outreach Activities.

1 Population of Study Sites

The table below shows the Health Center catchment population, the village population and the percentage of these villages in relation to the overall HC catchment area. The catchment population ranges from a little less than ten thousand (9,872) to more than sixteen thousand (16,103) people. The population of the villages in the study ranges from 347 to 3,547 inhabitants. Thirteen villages cover more than 1,000 population. The percentage of the population these villages cover within the HC catchment area ranges from 2% to 41%.

Health Center No.	Catchment Population	Villages	Population	Percent of HC Catchment Area
1	11,707	1	1,797	15%
		2	2,534	22%
2	10,181	3	2,269	22%
		4	895	9%
		5	3,223	32%
3	8,577	6	2,064	24%
		7	1,749	20%
		8	3,547	41%
4	16,103	9	843	5%
		10	800	5%
		11	900	6%
		12	347	2%
5	11,695	13	1,151	10%
		14	187	2%
		15	940	8%
		16	875	7%

Health Center No.	Catchment Population	Villages	Population	Percent of HC Catchment Area
6	15,330	17	1,665	11%
		18	2,227	15%
		19	1,617	11%
7	14,850	20	1,037	7%
		21	737	5%
		22	720	5%
		23		
8	9,872	24	864	9%
		25		
		26	563	6%
9	13,229	27	1,362	10%
		28	745	6%
		29	610	5%
		30	749	**6%**

Table 12. Health Center Catchment Population and OA Villages Estimated Population, 2003

2 Characteristics of the Study Population

2.1 Health Centers

The nine Health Centers included in the study varied in characteristics such as number of villages in the catchment area and remoteness from the OD. Efforts were made to include Health Centers with different resource levels as seen in Column 2 and the last columns (human resources). Most of the Health Centers, except for HC 03-07 and HC 03-08, has been functioning for 4 to 6 years.

HC Code	HC Category[47]	Year built	Distance to OD (kms)	Catchment Population	No. of Villages	Human Resource			
						Tech	Non Tech	Total	with Qual staff[48]
01-01	A	2001	0	11,707	4	8	4	12	Y
01-02	B1	1998	17	10,181	7	4	0	4	N
01-03	B2	2001	36	8,577	4	4	0	4	N
02-04	A	2000	38	16,103	17	7	2	9	Y
02-05	B2	2000	19	11,695	12	3	0	3	N

[47] From Reward and Sanction Mechanism Health Center Categorization, where HC in Category received the most input (support) from the PHD/OD. Kampot PHD 2002. See explanation in Research Methodology.

[48] Qualified staff = at least 7 staff, one of which is a secondary midwife or MA and a secondary nurse. Guidelines in Developing Operational District, MoH. 1997.

HC Code	HC Category[47]	Year built	Distance to OD (kms)	Catchment Population	No. of Villages	Human Resource			
02-06	C	1999	14	15,330	7	2	0	2	N
03-07	A	1993		14,850	17	9	3	12	Y
03-08	C	no building	8	9,872	9	2	2	4	N
03-09	B1	2000	50	13,229	17	0	8	8	N

Table 13. Profile of Health Centers in the Outreach Activities Research.

Most of the Health Center staff interviewed were technical staff with an average eight (8) years of service at the HC. These HC staff were already in service even before the Health Centers were built which explains the discrepancy between years of service and actual functioning of the HC. Both sexes were represented. Most of the staff interviewed have positive attitude towards Outreach Activities. The major bulk of identified tasks are related to health service delivery. See Annex 10 for staff profile.

2.2 Community

2.2.1 Survey

The survey questionnaire was conducted in thirty villages with seven women with children less than one year and seven women with children aged 12 to 23 months in thirty villages. The total number of interviewed women is 415. The age of most of the women interviewed ranges from 20 - 34 years. Household composition of the interviewees ranged from 3 - 5 members although household members numbering 6 - 9 were also common. The number of dependents per household ranged from 0 - 5 dependents.

Description	Frequency	Percentage
Age of Mother		
15 – 19	12	3%
20 – 24	141	34%
25 – 29	80	19%
30 – 34	105	25%
35 – 39	48	12%
40 – 44	23	6%
45 and above	6	1%
TOTAL	415	100%
Age of Children (mos)		
0 - 11	202	50.4%
12 - 23	197	49.1%
>23	2	.5%
Total	401	100%

Description	Frequency	Percentage
Household Members		
3 – 5	232	56.0%
6 – 9	166	40.1%
10 and above	16	3.9%
TOTAL	414	100%
No. of Dependents		
0 – 2	194	46.9%
3 – 5	200	48.3%
6 – 8	20	4.8
TOTAL	414	100%

Table 14. Age of Mothers, Number of Household Members and Dependents

The main religion in these villages is Buddhism. Those interviewed were mostly Khmer. The main form of occupation is farming with fishing as distant second common form of occupation.

	Freq	Percentage
Religion		
Buddhism	405	97.8%
Islam	6	1.4%
Christian	2	0.5%
Others	1	0.2%
TOTAL	414	100%
Ethnicity		
Khmer	407	98.3%
Chinese	1	0.2%
Cham	6	1.4%
TOTAL	414	100%

Table 15. Religion, Ethnicity of Family of Respondents.

	Freq	Percentage
Main Occupation		
Farming	313	76%
Selling	12	2.9%
Crafts production	1	0.2%
Taxi/Moto	8	1.9%

	Freq	Percentage
Worker	7	1.7%
Fishing	48	11.7%
Government staff	14	3.4%
Others	9	2.2%
TOTAL	412	100%

Table 16. Main Occupation of Family of Respondents.

2.2.2 Interviews and Focus Group Discussion Respondents

The main village key informants were Village Chiefs and Volunteer Health Support Group (VHSG) members. In case of unavailability of the Village Chief, the Vice Chief was interviewed instead. If there were no VHSG in the village, the researchers interviewed TBAs, elderly people, clergy men and other community members who are knowledgeable in Outreach. Women in the reproductive age group mostly participated in the Focus Group Discussions.

As seen in Table 17, all the Village Chiefs in the areas under study were male and belonging to the older generation (average is 50 years old). They also have many years of service with an average of thirteen (13) years. In contrast, the VHSG are younger (average age is 34), mostly females and with lesser years of service (2.7 years)[49]. Only one VHSG interviewed worked for 13 years. There were 25 villages with VHSG either as Feedback Committee[50] (FBC) or Village Health Volunteer/Worker (VHV/VHW)[51]. Other key informants are elderly members, mostly males, having responsibilities in the pagoda and active in village activities. There were also four TBAs interviewed.

	Village Chief/ Vice Chief	VHSG
Age	Freq	Freq
15 - 24		4
25 - 34		3
35 - 44	7	1
45 - 54	8	4
55 - 64	10	
d/k	5	3
Total	30	15

[49] The years in service for VHWs are relatively short. There is an average of 2.7 years including one VHW with 13 years of service and an average of 1.8 years if excluded.

[50] Feedback Committee is an old term used by the health system for community members who provide feedback to the Health Centers regarding community events/information that relates to health.

[51] Village Health Workers or Village Health Volunteers are terms coined by NGOs to community members they recruit for specific tasks e.g., Nutrition, Vitamin A, among others.

	Village Chief/ Vice Chief	VHSG
Sex		
Female	0	10
Male	30	2
d/k		3
Total	30	15
Years in Service		
1- 8	9	12
9 - 16	8	1
17 - 24	12	
d/k	1	2
Total	30	15

Table 17. Age, Sex and Years in Service of Community Key Informants.

The activities of the Village Chiefs in the study were primarily in community conflict resolution. The common conflicts attended to were land dispute and conflicts in family relations. The next important activity of the Village Chief is to ensure security in the village. They are also responsible for recording basic information in the village e.g., population, number of women, men and children among others. They are also involved in correspondence and coordination activities with NGOs and the Commune Council. Coordination with NGOs and Commune Councils relate primarily with development works water system. Their health related activities include reporting outbreaks and assisting OA staff in recruiting people to avail outreach services. There are at least twenty five villages with VHSG[52]. As mentioned, they can be FBCs or VHVs.

2.3 Socio-economic Profile

Around fifteen percent (15.5%) of those interviewed do not have land and at least seventy three percent (73.4%) owned land less than one hectare. It has to be mentioned that land inquiry has met difficulty since the community were not very aware of the measurement in hectares. In some cases, they would answer in terms of produce e.g., how many cavans of rice, etc. From there, approximations were done as to the land area owned.

Description	Freq	Percentage
Land Area (in ha.) **(N=413)**		
0.00	64	15.5%
0.01 - 0.49	111	26.9%
0.50 - 0.99	101	24.5%
1.00 - 1.49	91	22.0%

[52] Under the Policy on Community Participation (MoH, 2003), Volunteer Health Support Group is the cover term used for all Feedback Committee Members, Supporting Committee, Co-financing Committee, Volunteer Health Workers and other community arms organized by NGOs and other programs. Despite the cover term, the Health Center staff most of the time still distinguish the different terms based on their activities in the community and whom they report to.

Description	Freq	Percentage
1.50 - 2.00	34	8.2%
More than 2.00	10	2.9%
Agricultural Properties (N = 414)		
Cattle	258	62.3%
Cart	122	29.5%
Mill	8	1.9%
Koyont	3	0.7%
No. of Agricultural Properties per HH		
0	154	37.2%
1	136	32.9%
2	116	28.0%
3	8	1.9%
Total	414	100%

Table 18. Land Area and Agricultural Properties of Families of Respondents.

Regarding agricultural properties, the majority of those interviewed owned at least one cattle. Cattle are the most important farm asset of community members. There is approximately sixty two percent (62.8%) of households who have at least one agricultural implement owned.

Almost half of the population (47.6%) have bicycles as their form of transportation, at least fifteen percent (15.5%) have motorcycles while the very few would have cars or other form of transport. At least a third (29%) of the households do not own any transportation means while the remaining two thirds of the population own at least one means of transportation.

Description	Freq	Percentage
Transportation Means (N=414)		
Bicycle	197	47.6%
Motorcycle	64	15.5%
Boat	36	8.7%
Motor Boat	11	2.7%
Car/Van/Truck	3	0.7%
No. of Transportation Means per HH		
0	120	29.0%
1	176	42.5%
2	98	23.7%
3	18	4.3%
4	2	0.5%
Total	414	100%

Table 19. Available Means of Transportation among Families of Respondents.

More than half of the household do not own any form of communication. Nevertheless, least thirty three percent (33.3%) have radio and almost twenty percent (19.6%) own a television.

Description	Freq	Percentage
Communication Means (N=414)		
Radio	138	33.3%
TV	81	19.6%
Phone	11	2.7%
No. of Communication Means per HH		
0	222	53.6%
1	159	38.4%
2	28	6.8%
3	5	**1.2%**
Total	**414**	**100%**

Table 20. Available Means of Communication among Families of Respondents.

2.4 Other Services Available in the Village

One Health Center included in the study had NGO support until 2002. This was also one of the Health Centers under the Community Birth Spacing (CBS or CBD) Program of the Ministry of Women's and Veteran's Affair. However, while the baseline research was in progress, an NGO started to work in another Health Center included in the study. Private Practitioners also abound in some villages particularly those near the center. They were scarce in distant villages.

Chapter

5

Results

The Results Chapter is divided into five sections:

- Preparation for Outreach Activities mainly focuses on the general preparations done prior to the performance of Outreach Activities;
- Performance of Outreach Activities deals with how outreach is performed, its frequency and duration including community participation in outreach. The section also contains the survey results of health services included in outreach;
- Health Systems Support to Outreach relates to the supplies, supervision, technical and financial support for outreach;
- Outreach Services: Merits and Constraints provides an overview on how different stakeholders see outreach activity. The contents of this section went beyond discussion of outreach services since all community interviews related outreach to the overall functioning of the health system; and
- Ways to Improve Outreach Activities section put together all the recommendations mentioned by the different stakeholders interviewed. It has to be understood what are written in this section are not recommendations coming from the author but the result of the interviews.

The readers are also informed of possible overlaps in some topics as they are closely interrelated.

1 Preparation for Outreach Activities

1.1 Preparation of Materials for Outreach Sessions

1.1.1 Drugs and Materials

Most drugs and materials needed for outreach are included in the regular supply provided to Health Centers (HC). The Chiefs of the Health Centers send their monthly requests to the Operational Districts (OD) Pharmacy who in turn send the request to the Drugs Bureau at the PHD. Occasionally, some drugs are overlooked and not included in the request and hence are not given during Outreach Sessions, e.g., Vitamin A Capsules and Mebendazole. In some outreach sessions, Vitamin A capsules (VACs) and Mebendazole were not given. The Staff mentioned that they did not have stock at the Health Center and no training had yet provided on how to give Vitamin A capsules. Upon inquiry, it was found that the Health Center did not include the drugs in their request.[53]

The OA staff completes request forms for drugs and materials to be brought for outreach. In principle, leftover drugs from outreach should be taken back to the HC Pharmacy; however, this is not always the case. Some Health Center staff mentioned that the future requests are based on the previous OA consumption thus it is not often that there are leftovers.

[53] The PHD Drugs Bureau confirmed that the stock of Vitamin A and Mebendazole were adequate during that time.

1.1.2 Vaccines and Cold Chain

While drugs for outreach are available at the Health Centers, vaccines are taken from the OD every session. Those HCs with cool boxes can obtain vaccines sufficient for one week supply. Another option is for OA staff to get vaccines from nearby Former District Hospitals (FDH) who have vaccine fridges. Problems occur for OA staff whose HCs are remote to the OD or the FDH. One OA staff mentioned that:

> *"We have to travel long distance (to Chhouk) to collect vaccines for every session before traveling up to the villages." IM, Health Center Chief for 5 years, M. 03-08Ch.*

The staff at the OD also mentioned this problem as additional difficulty for the HC staff in preparing materials for outreach. The lack of cool boxes also poses another problem. What do OA staff use in bringing vaccines to the village? One deputy village chief observed:

> *Q: Do OA staff come to the village with enough supplies?*
> *A: Sometimes they borrow ice box from the villagers to put the vaccines.*
> *OP, Deputy Village Chief for 10 years, 47 y/o M. 03-07-23A.*

During the period prior to the research data gathering, the OD and PHD staff also mentioned that BCG was out of stock for a short period.

1.1.3 Cost for Ice

Availability of ice is another constraint. OA Guidelines state that 1000 R/day is available for ice. But money does not come on time. OA staff either get the money from HC health financing scheme or pay from their own pocket. The money allocated for ice from Chapter 13 is available on the average after three months. In the past, cost for ice was supported by UNICEF in Kampot Province; however, support stopped in mid 2003.

In inquiring to OA staff how they organize outreach sessions, most of them made mention of the number of staff required to go for outreach. Others discussed in detail what they prepare for outreach, making sure that the supply will last for the entire duration of the session. In general, the OD staff perceived the lack of preparation of materials and supplies by OA staff before going for outreach.

1.2 Staff Assignment in Outreach Sessions

The Health Center Chief assigns staff who will perform Outreach Activities. Health Centers with limited number of staff i.e., 2 - 4, inevitably are all assigned to perform outreach. Those with more staff have two groups assigned for Outreach Activities, each composed of two staff performing alternately. In most cases, the Chiefs also participate in outreach. One HC Chief explained his reason:

> *"Even though I am the HC chief, I also participate in these activities because I wanted to know the situation in the village, their diseases. I also wanted to promote the health services and fees for these services at the Health Center." KD. Health Center Chief for 5 years, 50 y/o M. 01-01Ch.*

It is not clear how assignments were made except for the staff in-charge of EPI being automatically included in the OA team. One Health Center with enough technical staff included non-technical staff as an outreach team member. This staff member is normally in charge of drugs but at the same time very interested in Outreach Activities. On the other hand, another member of OA team, a staff in-charge of EPI dislikes immunization and BS.

Not only that these are the two main activities performed in outreach but immunization is his major responsibility. It is not surprising when he expressed:

> *"I am not so happy with these services (outreach)." KR, HC staff for 5 years, M. 01-02St1.*

Four Health Centers in the study have majority of the OA staff not in favor of outreach and few services in the outreach package. Out of these four Health Centers are two Health Centers with two and three staff each. This means that these Health Center staff have to perform outreach despite their non-preference to the activity. The most common reason mentioned was lack of cooperation from the local authorities, side effects of the services in particular, the vaccines, difficult road and per diem not given on time. Constraints in OA will be discussed in detail in succeeding sections.

Some Health Center Chiefs are strict about staff attendance in outreach. One HC chief mentioned that in the monthly planning for outreach, the staff has to give advance information when they cannot go for outreach because of its consequence to BS users:

> *We clearly assign staff for OA. Those who will be on leave must inform me in advance so that I can replace (her) with other staff; because if it (outreach) will be interrupted, then the users of BS will have no pill to use. CKR, Health Center Chief for 8 years, 49 y/o F. 03-07.*

Health Centers vary in organizing village assignments for OA teams. Some Health Centers have fixed village assignments while others rotate. For fixed village assignments to OA teams i.e., same OA staff perform outreach session in the same villages, there have been reported problems of some services e.g., antenatal care and BS not performed especially when OA teams do not have a midwife. The Health Center Chief below mentioned that it is difficult for the "midwife"[54] to ride the bicycle to far and difficult places.

> *"We provide ANC and BS only in five villages out of eighteen." GS, HC staff for 3 years, 31 y/o M. 03-09St1.*

Other teams are quite content with the fixed assignments because they are familiar with the place and have established rapport with the people. They can also follow up those who were missed in the last session. Some OD staff share the same view, mentioning geographical and political situation familiarity as other important advantages.

Non rotation of technical staff, particularly midwives in outreach sessions is one factor for not performing other outreach services. In some Health Centers, there is just not enough technical staff capable of carrying out these activities. The staff quoted earlier belongs to a Health Center where all health staff are non-technical.

Most Health Centers in the province are also dominated by male staff, presenting another difficulty. At least exceptions happen in Health Centers with male nurses who perform ANC in OA:

> *"In SC Health Center, one staff knows how to perform ANC, so every time he goes to the village he performs ANC to pregnant women. The women go to him and do not seem to mind him being a male." OD staff for 13 years, 00-02St1*

[54] The "midwife" the Village Chief refers to is a non-technical staff that performs the function of a midwife. It will be seen later that this health center do not have technical staff.

Several trainings related to outreach have been conducted in the province. Most Health Center Chiefs attended a dissemination workshop on Outreach Activity Guidelines as well as Vitamin A Capsule Distribution. EPI training has been conducted to most Health Center staff on several occasions. Midwives were mostly the recipients of Antenatal Care and BS training. Despite training, some Health Center staff feel inadequate performing some outreach services. One staff mentioned that all Health Center staff should be trained in outreach.

1.3 Communicating OA Schedules

Health Center Chiefs arrange schedules for OA sessions one month in advance. The schedule is sent to the OD for recording purposes and then to the OD/PHD Accounting Office as a basis for the OA mission letter.

The information of an OA session is given to the villagers one or two days in advance using different routes: a) commune council to the village chief; b) Health Center staff sending information to village chief and FBC[55] or directly informing the villagers. Once known by the Village Chief, information is then disseminated to the community by way of deputy chief, group chiefs or FBC. Dissemination is also done during weddings or other ceremonies, meetings and other activities including road repair. The figure below shows the different patterns of informing the community about outreach sessions. One or two routes are operational in most cases.

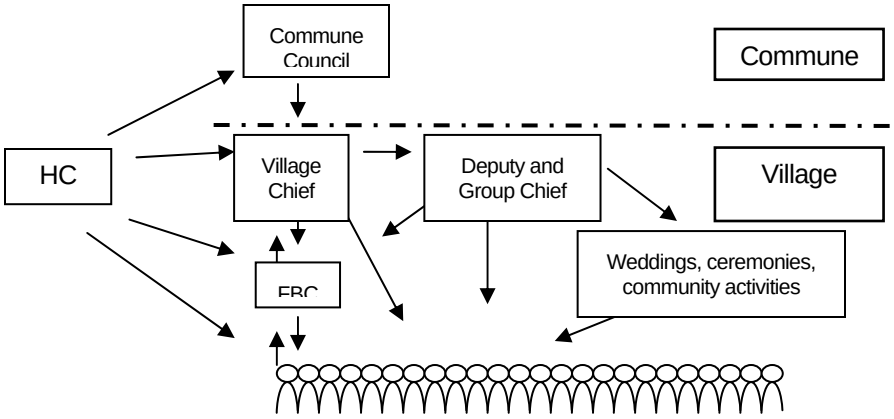

Figure 6. Communication Pattern for Dissemination of Outreach Session Schedule

The OA staff more often utilize the VHW and the Village Chiefs routes. Few would send to the Commune Council because "sometimes the letters are left at the Commune Council Office and not given to the Village Chief." Nevertheless, the route to the Commune Council has a bearing on the Village Chiefs as it is considered "official." OA staff also utilize motodop drivers to relay information to the village; otherwise they go to the village either one day before or on the day of outreach session, without advance notification. One Village Chief was not happy with the Health Center staff because they do not coordinate with him:

> *"They (health staff) do not communicate or coordinate with me (2x). I want them to inform me in advance their visit to our village. I want them to coordinate with me." CG, Village Chief for 7 years. 48 y/o M. 03-09-30A.*

[55] FBC, VHW and VHSG will be interchangeably used since the original transcriptions of interviews mentions both VHW and FBC.

In that village an FBC was not asked to take part in the health activities. The non-notification of the outreach schedule is seen as more problematic in distant villages since advance notification for outreach session is difficult to convey.

In general, the next sessions are never communicated by OA staff during the preceding outreach session. Staff said it is difficult to inform about the date of the next outreach sessions since they are not sure about their own schedule at the Health Center. They also expressed that the community gets upset if the schedule does not materialize. Not much explanation was given by OA staff why they cannot set a date for the next outreach session except for the possibility of floods or heavy rains on the next OA schedule. On the whole, it seems that the health staff do not see this confusion in communication as a major constraint. One OA staff said:

> *"We don't inform the villagers in advance but we have some people to help us in gathering." NS, HC staff for 3 years, 52 y/o M. 01-03St1*

1.4 Location and Mobility of Outreach Sessions

Outreach sessions are conducted in the compound of Village Chiefs' houses, members of Village Health Support Groups, Pagodas or houses of community members. More often the OA staff move between two to three places in the village per session. Houses in villages are often scattered and in small clusters so the location of outreach sessions has a bearing on the community attendance. Some community members prefer that OA staff have a place of their own and not in houses of villagers.

There were cases when houses (posts for outreach) chosen by the health staff were not accepted by some villagers. Some community members expressed the need for health staff to have their own "vaccination place" or a health post. Still others would settle for what is available but would prefer an "appropriate place for Outreach Activities" in the future. An appropriate place for outreach would be a place where the house owner does not have an outstanding rift with community members and a place where people with different political ideologies are welcome. This may be a reason why community members appreciated health staff's mobility in the community during the outreach session.

In addition to moving between two to three places in the village, most OA staff go to houses of villagers to convince them to avail the service and hence these services are provided in those villagers' houses. This has been a common practice among OA staff. Several reasons for lack of attendance to outreach sessions include: family members refuse immunization to their grandchildren; side effects experienced from the vaccine and parents of children are away. These constraints are discussed below.

2 Performance of Outreach Activities

2.1 Health Services in Outreach Sessions

There are six components of the basic outreach package as written in the Outreach Activities Guidelines of the MoH.[56] These are immunization services, Vitamin A supplementation, health promotion, birth spacing (BS), periodic deworming and follow-up of defaulters of TB and leprosy. The guidelines also stated the components of an expanded outreach package which include antenatal care and treatment of symptomatic malaria. The OA survey covered information on the first four components and on antenatal care. In HC reports, no distinction is made whether these activities are performed at the Health Centers or during outreach sessions. The following sections indicate the activities mainly performed during outreach.

[56] See the Ministry of Health's Guidelines for Outreach Services, 2001.

2.1.1 Immunization and Related Services

For the community, an outreach activity mainly means immunization for children. When asked about the services delivered during outreach, Tetanus Toxoid immunization, health education and Vitamin A distribution were mentioned half as often while other activities like Birth Spacing, Antenatal care and deworming were mentioned rarely. Similar patterns were also observed in Village Chief and Village Health Support Group interviews. As one VHSG mentioned:

> *"They come here three times a year and they come to provide immunization." VHSG 02-05-14B*

Similarly, all Health Center staff mentioned immunization for children as their main activity during outreach, followed by health education. Vitamin A distribution, Tetanus Toxoid, ANC and BS services were mentioned half as often. It has to be pointed out though that half of the staff, who mentioned ANC and BS services, perform these services only in limited villages in their catchment areas. ANC and BS services will be dealt with later.

Despite being the main activity in outreach, survey results for EPI revealed low coverage rates for all antigens except Tetanus Toxoid. It is pertinent to mention that during the research period, there was a Tetanus Campaign which may have biased the results. Drop-out rates for different antigens were similar. Coverage rates for fully immunized children are about half the yearly target.

EPI Indicators	Target 2003	Survey Result
TT2	60%	94.2%
OPV1	85%	71.6%
OPV3	80%	44.2%
DPT1	85%	70.6%
DPT3	80%	44%
BCG	85%	73.6%
Rouvax	80%	48%
Other EPI Indicators (computed from Antigen Results)	**Target 2003**	**Computed Result**
Fully Immunized Child	60%	34%
OPV1-OPV2 Drop-out	<10%	38%
DPT1-DPT3 Drop-out	<10%	37%
BCG-Rouvax Drop-out	<10%	35%

Table 21. Survey and Computed Results on Selected Immunization Indicators.

Almost twenty three percent (22.6%) of eligible infants and fourteen percent (14.2) of children more than one year have no immunization. Full immunization is forty five percent (45.3%) and thirty three percent (33.3%) for eligible infants and children 12-23 months of age, respectively.

Number of Immunizations Received	Under 12 months (Eligible <12 N= 75)		12 to 23 months	
	Freq	Percentage	Freq	Percentage
0	17	22.6%	29	14.2%
1 - 2	10	13.3%	39	19.1%
3 - 4	8	10.6%	27	13.3%
5 - 7	6	8.0%	41	20.1%
8	34	45.3%	61	33.3%
Not eligible	137	64.7%	0	0
Total	212		204	100%

Table 22. Immunizations Received by Eligible Infants and Children 12 to 23 months of age.

There were approximately seventy percent (70%) of children aged one year and above who received Vitamin A Capsules in the last twelve months. It is interesting to note that Vitamin A distribution is often mentioned in community interviews as one outreach component although it takes place only twice a year.

Vitamin A Received	Frequency	Percentage
0	61	30.5%
1	104	52.0%
2	34	17.0%
3	1	0.5%
Total	200	100%

Table 23. Children aged 1 year and Above who Received Vitamin A Capsule in the last 12 months.

The survey also showed that less than half (46%) of the children have yellow cards. It was not known whether the yellow cards were not distributed or whether they were lost sometime later after distribution. It is interesting to note that at least half of the children more than one year old have their yellow cards with them even after the immunization year is finished.

Yellow Card	Under 1 Year		More than 1 Year		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
Without Yellow Card	119	55.1%	103	51.0%	222	53.1%
With Yellow Card	97	44.9%	99	49.0%	196	46.9%
Total	216	100%	202	100%	418	100%

Table 24. Yellow Card Safekeeping for Children up to 2 Years.

Some health staff make use of information provided in the yellow card to provide an incentive to their holders. One Health Center Chief mentioned that when children come to them for consultation, they would often ask for the yellow card and if they see that the child is fully immunized then they provide the service free.

2.1.2 Birth Spacing Services

The knowledge on Birth Spacing was quite high with eighty nine percent (89%) of the surveyed population (N = 294) able to identify birth spacing methods. The most commonly known method is contraceptive pills (86.4%) followed by injection (68%).

BS Method	Freq	Percentage
Pill	254	86.4%
Injection	199	68%
IUD	92	31.3%
Condom	61	20.7%
Implant	16	5.4%
VSC	15	5.1%
Calendar	8	2.7%

Table 25. Birth Spacing Methods Identified.

Community members remembered Birth Spacing as the most common health message during outreach sessions. Nevertheless, the survey revealed that neighbors are the main source of information (55%). The same result is quite similar in villages having Community-based Distribution of Contraceptives Project (CBD or CBS) by the Ministry of Women's and Veterans Affair and UNFPA. The only difference is that in these CBD Villages, the OA staff ranked second in providing information to the community (50%).

Source of Info	With CBD (N=36)		Without CBD (N=225)		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
Neighbors	21	58%	123	54%	144	55%
Mass Media	13	36%	86	38%	99	38%
OA Staff	18	50%	44	19%	62	24%
HC/Hospital	3	8.3%	56	24%	59	22%
VHSG	6	16.7%	10	4.4%	16	6%

Table 26. Sources of Information on BS Methods

Seventy seven percent (77%) of women with knowledge on Birth Spacing methods used Birth Spacing in the past while twenty two percent (22.6%) are current users. The survey result for BS current user is slightly lower than the target for 2003 (25%). The percentage of women who have knowledge on Birth Spacing methods is higher in CBD areas than in non-CBD. While there are more women in non-CBD areas who used BS methods (78.2%), the current users are ten percent higher in CBD areas.

	With CBD (N=37)		Without CBD (N=257)		Total (N = 294)	
	Freq	Percent	Freq	Percent	Freq	Percentage
BS Knowledge	36	97.3%	225	87.5%	261	89.0%
Past Users	25	69.4%	176	78.2%	201	77.0% (68.4%)
BS Current User	11	29.7%	48	18.7%	59	22.6% (20.1%)

Table 27. BS Knowledge, Used Birth Spacing and Birth Spacing Current User in the Survey.

Despite the community's perception of Birth Spacing as the most common health education message, it is interesting to note that OA staff do not necessarily provide birth spacing services during outreach session:

Q: What services are provided during OA?

A: The health services available are immunization to children and women, education about BS and ANC.

Q: What needs to be improved in OA?

A: The staff should come here more often and have enough medicines and they should provide BS and ANC services. Community FGD, 02-06-18C

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Q: What services are provided during OA?

A: There are immunization against 6 diseases and education about BS and where to receive the services. Village Chief for 3 years, Male. 02-05-15A.

It is important to mention that most of the time, OA staff charge for BS and ANC services. Immunization in general is free. The common rate for BS pills is 500 Riels, injectable is 1000 Riels and ANC is 700 Riels. OA staff also provide special packages to community members availing the services.

Results revealed that the Health Center is the most common place where BS methods are provided (65.6%) followed by private practitioners (48.6%). Only seven percent (7.3%) receive BS methods from OA staff. See Annex 11 - Birth Spacing Source of Information and Service Location.

In the villages where most FGD members complained about Birth Spacing side effects, almost all villages had BS education. It can be both ways: more women use BS method in those villages and experience the side effects or the only thing that stays in memory of community in BS education are BS possible side effects. The survey on these women revealed fear of side effects (51%) as the primary reason for not using BS methods.

Reasons for not using BS Method	Frequency	Percentage (N=198)
Afraid of Side Effects	101	51%
Want to have children	66	33.3%
Others (related to period i.e., no menstruation, having menstruation, pregnant)	16	8.0%
Husband is away	6	3.0%

Table 28. Reasons for not using BS Methods

2.1.3 Antenatal Care Services

There are at least forty three percent (42.7%) of women with children less than 12 months who had Antenatal Care (ANC) visits. Twenty nine percent (29.1%) had two or more ANC visits. The survey result is lower than the PHD target for 2003 (35%).

Frequency of ANC	Number	Percentage
0	118	57.3%
1	28	13.6%
2	60	29.1%
Total	206	100%

Table 29. Frequency of ANC among Women with Children less than 12 months.

Most ANC examinations are done at the Health Center (52.3%). The OA staff share 19.3% of ANCs conducted. It was not specified in the questionnaire whether some ANCs occur in private clinics. It may be that those under the category of hospitals and others form the fraction of those who went to private practice for ANC.

Places for ANC Consultation	Frequency	Percentage
At the Health Center	46	52.3%
HC staff in the village	17	19.3%
In the Hospital	14	15.9%
Others	10	11.4%
TBA in the village	1	1.1%
TOTAL	88	100%

Table 30. Place of ANC Consultation

The table below showed the components of the examinations to women who go for ANC. The checking of blood pressure and measuring of abdomen size are the most common examinations performed. Half of those examined had fetal heartbeat and signs of anemia checked. Very few respondents mentioned being weighed during ANC.

ANC Component	Frequency (N=88)	Percentage
Check Blood Pressure	76	86.4%
Measure Abdomen Size	74	84.1%
Check Heartbeat	39	44.3%
Check Conjunctivae (for pallor)	39	44.3%
Check Legs	14	15.9%
Weigh	13	14.8%

Table 31. Examinations Performed during Antenatal Care Visits.

The place for delivery, food and hygiene and expected date of delivery were mentioned to half of the women who went for Antenatal Care. Information on the risk signs of pregnancy

were seldom given during the session. In the survey, fifty seven percent (57.5%) of women with ANC know at least one danger sign of pregnancy.

Information given during ANC	Frequency (N=88)	Percentage
Place of Delivery	41	46.6%
Food and Hygiene	39	44.0%
Expected Date of Delivery	37	42.0%
Risk Signs of Pregnancy	15	17.0%

Table 32. Information given to Women during Antenatal Care Visits.

Edema (37.9%) and hemorrhage (36%) ranked highest among the danger signs mentioned. Nevertheless, knowledge about danger signs of pregnancy is still low.

Danger Signs	Frequency (N = 87)	Percentage
Edema	33	37.9%
Hemorrhage	32	36.0%
High Blood Pressure	17	19.5%
Fever	9	10.3%
Anemia	8	9.2%
Convulsion	4	4.6%
Leaking Amniotic Fluid	3	3.4%

Table 33. Danger Signs in Pregnancy Mentioned by Respondents.

At least seventy one percent (71.6%) of women with children less than 12 months received Iron tablets. Most of the women received Tetanus Toxoid with at least seventy nine percent (79.3%) receiving two or more injections.[57]

Other Services related to ANC	Frequency	Percentage
Iron Tablet	N = 101	
Not Received	29	28.4%
Received	73	71.6%
Tetanus Toxoid	N = 208	
0	12	5.8%
1	31	14.9%
2 and above	165	79.3%

Table 34. Other Services available related to Antenatal Care.

[57] It was already mentioned that the research was conducted where there was an ongoing Tetanus Toxoid campaign in the province.

Most of the community members expressed the need for outreach services to improve. They mentioned that additional services should be provided, particularly Birth Spacing, Antenatal Care and health education. The first quote below was taken from an FGD in a village considered as "difficult to conduct outreach."[58]

"ANC, Birth Spacing and health education should be provided in our village." Community FGD participant. 01-02-05C.

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"There are only problems in vaccination but villagers like to use ANC and BS." TS, VHSG, 48 y/o F. 03-07-22B

2.1.4 Health Education

The community mentioned different health messages given to the villagers. Health messages vary and can include breastfeeding, HIV/AIDS/STD, night blindness, hygiene, danger signs in pregnancy, dengue, malaria and use of abate. Birth Spacing has been the most commonly mentioned health messages by the community members.

In general, there are no formal health education sessions during OA. Health information is provided by OA staff when they receive services e.g., immunization or Birth Spacing. Some health topics mentioned above could have been given by NGOs visiting the villages together with the staff or when specific programs come to the villages and provide education as in the case of Malaria. Many of those living in malaria prone areas have good knowledge about causes of dengue and malaria. When asked about the causes of malaria or dengue, community members were able to mention the species of mosquito causing certain illness (Anopheles for malaria, Aedes for Dengue). Nevertheless, in all these activities, HC staff take time to promote Health Center services and inform the community regarding fees for these services.

While little emphasis on health education is given during outreach, increasingly, community members are inclined in viewing health education as important for them. These community members mentioned:

"The health staff are friendly but they don't educate." Community FGD participant. 03-08-26C.

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"The health staff are very good in explaining to us and convincing villagers and they are very friendly." NN, Village Chief for 24 years. 57 y/o M. 01-01-02A.

_____

"The HC staff did not educate after examining a pregnant woman with swelling." Community FGD participant. 03-07-22C.

It has also been observed that progressively, community members are developing higher expectations from the staff and the services they provide. It is interesting to note that in one village, community members noticed the need for the OA staff to improve their skills in educating villagers:

"The Health Center staff should have skills in educating about BS and ANC." Community FGD participant. 03-08-24C.

[58] Differentiation of easy and difficult villages for outreach was not completely explored although the author made some criteria which will be discussed in the next section.

"The health staff should have more skills and capacities." NN, Village Chief for 13 years, M. 02-06-19A.

The already limited services delivered during outreach have failed to match community's expectations. Apart from requests for ANC, BS services and health education, the community would also like to have curative services during outreach sessions.

"I would like health staff to come to this village regularly once a month and distribute enough drugs to cure the diseases and not only coming here for vaccination." SC, Key Informant, 63 y/o M. 03-08-24B1.

"The health staff should provide assistance to us if we have grave diseases in the community." Community FGD Participant, 03-07-20C.

There was a different view of the community on the services which outreach sessions should deliver and what is stated in the MoH Outreach Services Guidelines. This long standing request for curative services to villagers is frequently mentioned during community discussions. The community members also see the role of the health staff in providing assistance during disease outbreaks or when there are unusual illnesses in the province. Even if this is not part of the outreach guidelines, in the eyes of community members, these services should be the function of the health system represented by the staff performing outreach.

2.2 Frequency and Duration of Outreach Sessions

Most Outreach Activities are conducted regularly (monthly or every two months) in villages close to Health Centers and during the dry season. During the wet season, and in remote villages the service is less regular. One remote village was not visited for five months by the OA staff. Another village chief pointed out that OA sessions are conducted only during the dry season.

"The health staff come here once a month during the dry season but they do not come during the rainy season because of flood." Village Chief, 02-05-13A.

The duration of outreach sessions varied with most of the OA taking half a day per village with variations ranging from an hour to a whole day stay.

"Usually they come every month, worked the whole day in the village and moved to two to places to provide vaccine." Village Chief for 17 years, 41 y/o M. 01-02-03A

"We never saw the health staff in three months. When they come, they are always in a hurry and do not have time to discuss with the villagers." Community FGD participant, 02-05-13C

It did not seem to show that the less frequent OA sessions are compensated by longer stay in the next outreach session. This was quite evident in the responses of the interviews and focus group discussions. In some cases, the health staff had left the village before the villagers managed to reach the vaccination place. Interestingly, it is noted that staff participating in campaigns stay the whole day in the village.

While the community perceived outreach sessions as infrequent, the EPI monthly report for 2002 in these villages revealed that villages in study areas are visited at least eight to

twelve times a year by OA staff.[59] See Annex 12 - Assumed Visits in Villages for Outreach Activities Based on EPI Monthly Report. The months of October and November were the months least visited. Most of those villages not visited were reported as flooded. The EPI Monthly Report is an indirect measure of the frequency of outreach sessions in the villages since immunization services are mostly performed during outreach sessions. Nevertheless, it is quite simplistic to base the frequency of outreach sessions on one report when the interviews with Village Chiefs and Volunteer Health Support Group Members and focus group discussions with community members revealed otherwise. The disparity between these sources of information should be further studied. It is still useful to assume that the problem of staff visibility in the community (for outreach sessions) can be attributed to the duration of stay and the frequency of outreach visits.

The high frequency of and increased length of stay per outreach session for the community could serve other purposes, i.e., for the health staff to see the real situation of people in the village, understand them, help them in solving health problems and provide remedies for different ailments. This facilitates building of trust and confidence by the community to the health staff and as one Village Chief said:

> *"The Health Center staff should come to the village more often so they will know more about the health situation of the people. It also makes the villagers gain more confidence to the health services at the Health Center." Village chief for one year, 56 y/o M. 01-03-08A.*

2.3 Community Participation in Outreach

Most Village Chiefs participate in OA sessions by disseminating information and gathering villagers to attend OA sessions. The Village Chiefs in four villages, where there used to be NGO support, participate in the actual activities of the session. One Village Chief used to be a VHSG and then became elected and still continues to support health activities. When asked about his responsibilities:

> *"I am very busy because of the upcoming election. I also do the work of the community health worker who stopped working." NN, Village Chief for 4 years, 39 y/o M. 03-07-22A*

Involvement of Village Chiefs in most communities is considered to encourage the maximum participation from the villagers. This is particularly true in outreach sessions. It has been observed that outreach sessions supported by the Village Chief often have greater participation from the community. Problems arise when OA staff failed to coordinate with the Village Chief as in the previous example (Communicating Outreach Schedule). There are also occasions when too much coordination to the point of dependence is looked upon by these local authorities:

> *"The health staff should provide more health education and they should not depend on me because I am busy." PO, Village Chief for 9 years, 43 y/o M. 03-07-20A.*

The FBC often participates more in the actual activities of outreach: recording data, conducting health education and distribution of anti-helminthics and Vitamin A Capsules. They also gather the community and convince them to participate. There were FBCs in 25 of the 30 villages in the study. Some of them are still busy with their health work in the community, most of them are not. Some of them have worked as "volunteers" with other organizations in the past. Almost all of those interviewed have less than four years of

[59] Visit to the villages are based on the names of the children immunized monthly and the villages where they come from.

service as FBCs or VHWs (VHSGs). The most important reason for non-participation in health work is the lack of financial incentive. This has been pointed out by both village Chiefs and health providers. At the same time, some Village Chiefs also expressed the need to provide training to VHSG:

> *"I want MOH to provided training to VHWS on how to give tablets and how to inject. I want MOH to give money to VHWs." NN, Village Chief for 4 years, 39 y/o M. 03-07-22A.*

The participation of TBAs interviewed were mostly gathering the villagers and accompanying the health staff to the houses of the villagers. There was no mention of coordination between TBA and health staff in relation to other activities e.g., ANC or postnatal care. Nonetheless, the TBA mentioned their requests that delivery kits be provided to them. It is also pleasing to note that there are community members aside from FBCs and TBAs who assist the health staff in outreach sessions. One Festival Management Committee member and clergyman assisted in disseminating information to the community through his own channel.

Community members are the recipients of outreach services. OA staff observed that community members with some form of education (able to read and write) and those with average standard of living avail of services more than the rest. It has also been observed that there is more participation during the first doses of immunizations. There are contrasting perceptions on the poor people's participation in outreach. This will be discussed in detail in the next section.

Community participation is an important indication of a successful outreach session. One OA staff even mentioned "when there are a lot of community members participating in outreach, I don't feel hungry at all."

3 Health System Support to Outreach

3.1 Supplies

As mentioned earlier, the drugs and materials needed for outreach are requested together with the regular supply for Health Centers (HC). These requests are then checked against the corresponding record at the OD Pharmacy. From there, requests are approved and sent to the PHD Drugs Bureau who sends the request to the Central Medical Supply (CMS) at the MoH. When the drugs arrive at the PHD they are already allocated to the respective ODs. The quantities listed in the requests are not often followed due to the limited amount of drugs available at the CMS on some occasions (problems in the past of drug procurement and bidding process at the central level). At the PHD, the main responsibility of the Drug Bureau's staff is to maintain balance of drugs, check availability of drugs in ODs and redistribution of drugs if necessary (e.g., when one drug is out of stock in one OD but abundant in other OD). The office also keeps the record of all drugs, materials and supplies that arrive in the province.

As mentioned, there were occasions when some drugs were not ordered e.g., Vitamin A Capsule and overlooked because the drug has been considered as "drugs used only for campaign." The PHD staff also realized that drug preparation available in the supply, in particular Paracetamol 500 mg strength is difficult to cut and give to small children. It was not explored well how the OA staff were briefed when for a short time there was a shortage of BCG vaccine. The cold chain has been particularly problematic not only because of the lack of materials e.g., cool boxes but also because of the quality of kerosene supplied by CMS for vaccine fridges. OD staff in charge of EPI mentioned that he has to be called several times in the FDHs to light the fridge because the flame often dies out.

3.2 Supervision and Technical Support

According to the MoH Outreach Activities Guidelines, supervision for outreach sessions is to be conducted by the OD Supervisory Team every three months using the Special Module IIIC of the Health Center Integrated Checklist. Previously, the supervision was funded by the World Bank under the Health Management Agreement (HMA). The support stopped in June 2002.

There were only two OD interviews where supervision activities were mentioned:

> *"I went down to see whether HC staff is doing outreach or not. I used the checklist to monitor. I also supervised the preparation of vaccination post whether it is suitable or not, injection of vaccines whether correct or not. I help them draw the graphs, register the data, find target children and others. If I find some problems I tried to show it to them, explain and make necessary corrections." NN, OD Tech Bureau staff for 12 years. 02-02St1.*

The OA staff gave varied answers when asked who provides OA supervision and how often. Responses include: OD does once a month, two to three times a month and one to two times a year and supervisions was performed by EPI OD Chief, TB staff and EPI PHD Chief. Interesting is when they mentioned that the Vice Chief of the Health Center is doing OA supervision. All in all the OA supervision can be described as what this OA staff stated:

> *"The supervision is not done regularly. It sometimes comes from the MoH, PHD or OD." LV, Health Center Chief for 7 years, M. 01-02Ch.*

Supervision in OA can be program specific. The staff from PHD, OD and National Programs go to supervise outreach with the specific focus on the national programs they are involved in. With the termination of the Health Management Agreement (HMA) between the World Bank and the province, Integrated Supervision was neglected. OD and PHD staff see their role in providing back up support in problematic cases: rumors that drugs used for outreach come from Vietnam for drug trial and the death of a child days after being immunized.

Often PHD and OD staff would lament that some staff do not try to reach the target. Some would even give exact figures on how many cases should they look for to reach the target. On the other hand, they also justify the non-performance of other outreach services due to the lack of specific staff oriented to provide the service:

> *"They don't provide BS and ANC because only midwife can do it. Furthermore, it is really difficult to make the report." KS, OD Vice Chief for 6 years, M. 01-01.*

The program and target specific orientation towards outreach by the Supervisors do not facilitate the OA staff to view outreach as a comprehensive health service package to the population.

3.3 Training

Almost all Health Center Chiefs and OD Vice Chiefs in charge of Health Centers have attended a workshop on the MoH Guidelines for Outreach Services from Health Center. Information from these workshops were apparently fed back to the remaining Health Center staff. PHD and OD staff mentioned that EPI training was also conducted to staff at the Health Center except for new staff. Birth Spacing and ANC training were provided primarily to midwives and Health Center Chiefs. There was no known training yet

conducted to OA staff whereby all the outreach services are presented as one package of activities.

Based on the MoH Integrated Database,[60] Health Education (Module 7) was the most common training attended by the OA staff interviewed (16 out of 23). Birth Spacing - MCH training was the next most common training received. It is important to note that there were only nine staff who received the BS - MCH training. Five out of these nine staff received the training at least two times with one midwife receiving the training four times. Nevertheless, at least one OA staff in each Health Center have BS - MCH training. Specific training for ANC on the other hand is not available even for Health Center staff not involved in outreach. See Annex 13 - Training Attended by all HC Staff in Outreach Activities Research Study Areas.

3.4 Finance

The per diem and cost for ice are allocated under Chapter 13. There was never an occasion when the money arrived on time. According to the PHD it is the fault of the treasury. The PHD sees the importance of this issue for the OA staff hence there was a staff member assigned to follow-up the matter closely. Regarding transport costs for outreach, the PHD tried to cover this expense but experience taught them that reimbursement for taxi fare turns out to be difficult as they cannot produce official receipts. They also urged the OD to inform them of the mistakes in sending out mission letters to OA staff. Some PHD staff mentioned that misunderstanding of this nature happens because mission letters are issued at the Accounting Office while technical reports are sent to the different national programs at the Technical Bureau.

Some OD staff mentioned that when OA staff would like to get the money in advance; they give a certain percentage of that amount to the accountant. This however was not explored further as the OD staff considers this "personal."

4 Outreach Services: Merits and Constraints

4.1 Advantages of Outreach Sessions

Outreach services are very much liked by most community members, village health support groups and most Village Chiefs. The two most common reasons why they like outreach are because services are generally free and these services can protect their children against diseases. From these two reasons, the Village Chiefs ponder more on the health benefits the services have provided the population.

"About 70% of the villagers bring their children for immunization. The villagers gradually believe the health services because for example, now there are no more cases of measles, tetanus and polio in our village." Village Chief for 20 years, 51 y/o M. 02-05-16A

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"The villagers don't need to pay for these services; if they go to private clinic they will spend lots of money. There are no more tetanus cases in my village now." SC, Key Informant, 63 y/o M. 03-08-24B.

Another reason for liking outreach services is its availability in the village which means not spending money traveling to the Health Center. This also means that they can afford to bring their children and themselves to receive health services with less time spent on

[60] Cambodian MoH Human Resource Database Ver. 3. Kampot PHD Component, Updated 1st Quarter 2004. The training and information regarding floating staff (3) included in the study were not available from the Database hence not included in the numbers mentioned.

traveling and waiting at the Health Centers, thus having more time to do their chores and earn a living.

One Village Chief experienced that the health services are provided to most segments of the population without discrimination. This observation is confirmed by the health staff who expressed that when there are different ethnic groups in the village; they separate them according to their ethnicity but at the same time render the same service.

> *"Health services are provided to all without discrimination." NN, Village Chief for 22 years, M. 02-04-10A.*

The OA staff also perceive the advantages outreach services can provide to the community. Even those who are not so enthusiastic in performing outreach sessions mentioned the health improvement and financial benefits of outreach services to the villagers. They also mentioned promoting health awareness amongst villagers. The time spent in the villages gives OA staff an opportunity to know more about the villagers and investigate some diseases. Another important function of outreach is not only to promote the Health Center services but also the capacity of Health Center staff:

> *"OA has good impact on Health Center services. Villagers come to know the services available here (Health Center). It further shows that HC staff has enough capacity to provide services." AO, Health Center Chief for 2 years, 02-05Ch.*

4.2 Cost of Outreach Services to the Community

Most of the reasons mentioned for liking OA are somewhat linked to their economic advantage. At the same time the community's perceived improvement in health i.e., prevention of diseases, reduced cases of measles and others are also viewed with the same "economic" lens.

> *"Most of the villagers use the services. We don't need to pay and it can reduce the occurrence of diseases therefore we have more time to work for our families." Community FGD Participant, 02-06-17C.*

The same perspective offsets attendance in outreach by the community. The opportunity and direct costs of fever after immunization have triggered non-participation in the successive outreach sessions. The mothers stated:

> *"After the child was vaccinated, she developed fever, got sick and I have to bring her to Kantha Bopha Hospital. It costs us a lot of money." Community FGD participant, 03-09-28C.*
>
> _____
>
> *"After receiving vaccination, the children develop fever and the mother or father cannot go to work." Community FGD participant. 03-07-24C.*

Being sick or experiencing side effects from immunization and to some extent birth spacing are also considered by the Village Chief and VHSG as a hindering factor for the community in availing outreach services. These side effects were also known to Health Center and PHD/OD staff as significant constraints in the performance of outreach services. Fever, pain at the site of injection and paralysis were mentioned as the adverse effects following immunization, while women mostly complain of losing weight and hemorrhage. Reassurance from the health staff is by providing Paracetamol to the

mothers of immunized children or asking the villagers to go to the Health Center when the child develops fever. But at the Health Center, after service care seems also limited.

> *"HC staff said that if villagers have some problems, they should go to HC but when they go, they give them one or two tablets. If the villagers go to their house they treat them well. Maybe government staff does not have enough money, so they do not care well with the villagers." TS, VHSG 48 y/o F. 03-07-22B.*

Another related point is when being financially better-off gets in the way of utilizing outreach services. Most of the reasoning of those with some financial resources relate to the capacity to pay when they get sick. On the other hand, as mentioned earlier, villagers have conflicting views on how the poor benefit from the services in outreach. Attending outreach sessions mean taking away time for them to earn their living. While immunizations, Vitamin A and Mebendazole are free, birth spacing, antenatal care services are not always rendered free. Even in places where there used to be CBD[61] (4 villages), paying for BS services is not as widely accepted. In some cases, a community member needing birth spacing commodity is instructed to go to the house or to the Health Center to get the service for a fee. The disingenuous publicity of outreach services being a free service is known to some community members.

> *"VHW say that poor can get birth spacing pill for free. But I don't dare to go there without money." Community FGD. 03-07-21C.*

As mentioned, the immediate adverse effect after immunization e.g., fever, sometimes necessitates follow-up consultation. The parents in return will have to stay home and look after the child hence not only taking away money (from medicines and consultations) but also time for them to work. This consequence can be disturbing to community members with average income but can be devastating to the poor.

4.3 Perceptions towards Outreach Staff

The OA staff are perceived to be friendly by most villagers. Some of them would start the session by chatting with the villagers and examining the vaccination card before performing immunization. Some OA staff would also bring cakes to the village as a gesture to communicate and encourage villagers to access the service. Nevertheless, this is not always the case. While other OA staff manage to do "warming up" activities with the community, some go straight and perform their work unbothered:

> *"They rarely talk or give explanations to the villagers. They focus on their activities." Community FGD participant. 02-06-19C*

Another basis for accessing the outreach services depends on whether the community has confidence or not in the health staff and the services they offer. It is quite common for the community members, VHSG and village chief to mention about frequency and duration of outreach session as important factors for the health staff to know more about the people in the village. During the process, the community starts gaining confidence in the health staff and the services they provide. They are quite happy with Outreach Activities not only because of the already mentioned economic advantage to the community. They also appreciate the absence of other not so welcoming features present in most health facilities e.g., long waiting time, unfriendly staff. The belief in the service does not seem to concern the health staff's performance in outreach sessions alone. In

[61] Community-based distributor of birth spacing methods

the interviews conducted, the performance at the Health Center is an important community yardstick in gaining confidence in outreach services.

"They are friendly during outreach but when the villagers go to the Health Center, the staff are not friendly." Community FGD. 03-07-22C

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"They don't have good relationship with the villagers. They are always absent at the HC." Village Chief for 24 years. 59 y/o M. 02-06-18A.

_____

The Health Center staff should work full time at the Health Center." Community FGD. 02-04-09C.

The limited appearance of health staff in the villages and their less than adequate performance at the Health Center combined do not enhance confidence in outreach services.

4.4 Community Perceptions on Health Service Delivery beyond Outreach

The perception extends very well to the services delivered in the hospitals. As mentioned, outreach services are liked by most of the community members because of the absence of some characteristics not liked by the community in fixed facilities. In mapping the health seeking pattern of the community, it was found that public health facilities (Health Centers and hospitals) are not the most commonly visited facilities when seeking care. We can see in the diagram below the health seeking flow of the community and the most common path is buy medicine or utilize traditional methods such as coining and cupping prior to visiting private facility. It was evident that there is a limited role of Health Centers and government hospitals in providing care to the community.

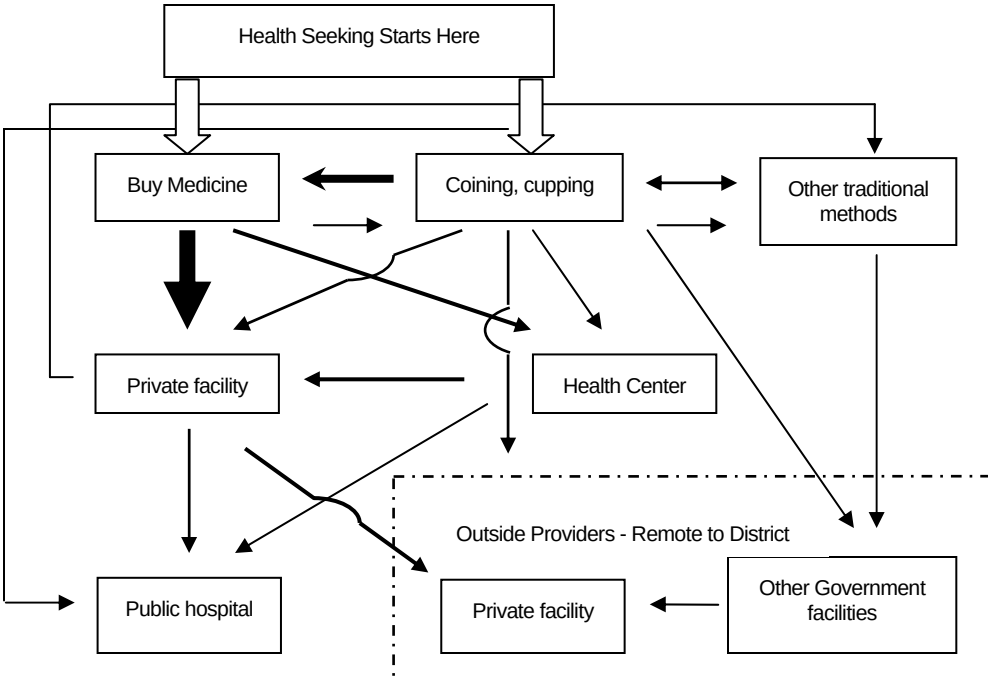

Figure 7. Pathways in seeking care. Community FGD in OA Research Villages.[62]

[62] The heavier the arrow, the more often it is utilized in seeking care.

Long waiting time is the most common reason for not seeking care in public health facilities. One community member mentioned that if they have a sick child in the family they bring it to the private health practitioner. Adult patients are brought to government facilities because "adult patients can wait." It has to be understood that the context of long waiting time mentioned is not related to the number of patients attended by the health staff but the absence of staff in the facility. Other barrier in the use of public health facilities related to staff attitude are the perception that health staff do not care or do not provide enough care to patients, are not friendly and blame patients.

4.5 Constraints in Performing Outreach Activities: Provider Perspective

4.5.1 Per Diem, Transport and Ice Costs

The most important constraint for the staff in performing outreach is the lateness of the per diem. Since the budget comes three months late, the staff spend their own money for petrol and ice. For transportation to the villages, most staff use their own motorcycle which when broken cannot be financially supported using the government budget. Knowing about these certainties, the OA staff also considers that the money provided is too little. Despite this financial condition in supporting outreach services, some staff still manage to give incentives e.g., cakes to villagers thereby draining more resources from them. Nevertheless, some staff mentioned that even if the per diem arrive late, they receive the full amount of money.

The OD staff gave conflicting views about staff receiving the entire per diem. Some PHD staff expressed that there have been problems in the OA budget being depleted from top to bottom. Others mentioned that the per diem is shared between other Health Center staff that are not participating in outreach sessions. PHD and OD staff also expressed that some staff receive money without being informed clearly what the money is for. There are some outreach sessions compensated for without being performed. This happens when the OD Office sends outreach schedules to the PHD as basis for a mission letter to OA staff one month before the sessions are actually performed.

4.5.2 Village Classification: Difficult versus Easy

The physical features of the villages pose another major constraint to the OA staff. Some villages can only be reached by passing through paddy fields and river courses during the dry season. These trails can become a challenge during the rainy season. Large villages can also become difficult especially when houses are in small clusters and far from each other. In the village, villagers whose houses are along the main road access service more. Thus, for OA staff, ease in performing outreach sessions depends on the size of the village, the road quality, clustering of houses and location of houses in relation to the road in the village. The OA staff noted that the distance of villages from the Health Center is not the only decisive factor in defining whether villages are difficult or not.

4.5.3 Staff Workload vis-à-vis Staff Capacity

Some Health Center staff also feel that their workload has gone beyond their capacity. They are also quite aware of the limited knowledge and skills of some staff. This is quite evident when they mentioned the reputation of staff to the villagers. The PHD and OD staff also realize the inadequacy not only on technical aspects but also on social and problem solving skills of the OA staff. These limitations made it difficult for them to cope with all the programs that are being implemented at their level. It has also been mentioned earlier the concern regarding the limited number and qualification of staff in some Health Centers which adds up to the difficulty.

5 Ways to Improve Outreach Activities

5.1 Overall Performance of Health Services

5.1.1 Outreach Frequency, Duration, Services and Continuity of Care

The community members, VHSG and Village Chief often mention the frequency and duration of visits by OA staff when asked on how to improve Outreach Activities. One of the reasons as mentioned earlier is to build or establish relationships with the community hence building up confidence in the service. The inclusion of BS, ANC, Health Education and curative care to be a regular activity together with immunization was often mentioned. Although some members are satisfied with small payment for these services, some would like the services to be free of charge. Regarding side effects after immunization, it is interesting that some community members and even OA staff have wished that vaccines should not have side effects. With the side effects of immunization, in particular fever, they would like to see the Health Center staff are ready to face the "responsibility" - after service care. Some would like permanent staff to be assigned in the village and readily available when they have health problems. The VHSG quoted below is a new health worker and still agitated to do her work and would like to get reassurance or support whenever community members come to her and complain about side effects after immunization.

"I want HC staff come the village 2 or 3 times a month and they should come here early morning, provide health education to the villagers house to house, and come here 1 day after providing vaccination." PN, VHV for 1 year, 30 y/o F. 03-07-20B

5.1.2 Overall Health Sector Improvement

In the same vein, the community members, VHSG and Village Chiefs relate improvement of outreach services to the overall improvement of services in the community and other health facilities. As mentioned, OA staff were also expected to perform roles beyond the guidelines of Outreach Activities because whenever they go to the community, they also represent the government health system in general. Their perspectives have gone beyond mere improvement of the outreach services. It seems that they see that the inadequate performance of Outreach Activities is due to lack of support given to health staff. Some Village Chiefs urge the government to "improve the health sector so the staff will work regularly and that the village will benefit more and become healthy." They also request the government to facilitate building of health posts/centers, roads and other infrastructure.

5.2 Participation in Outreach

5.2.1 Collaboration among Institutions

Participation is what everybody wants to improve, which is why coordination, cooperation and communication among them are important. The Village Chiefs, VHSGs and other individuals want the OA staff to communicate about activities in the village. The OA staff would like them to cooperate in terms of informing villagers about their activities hence facilitating villagers' participation. The interest of the OA staff to encourage participation is evident in their effort to provide small incentives, e.g., cakes to villagers, exempting children fully immunized from user fees, etc. Some Village Chiefs on the other hand, consider regulation of pharmacies and private practices as a means to encourage more villagers to use outreach services. The OA staff also realize the potential of other institutions (the schools and private practitioners) in encouraging participation. Some suggestions of checking yellow cards as a basis for children's school admission, encouraging private practitioners to require parents to immunize their children are in the minds of some OA staff. Some OA staff see the potential of mass media in making Outreach Activities known and hence encouraging participation. Despite all these strategies for improving participation, the OA staff has yet to fully acknowledge their role in adapting outreach sessions to match community's work rhythm.

5.2.2 Incentives for Participation

Participation by some Village Chiefs and VHSG relate to some extent, to financial incentives. The Village Chiefs and OA staff mentioned in particular the VHSG who needs support. The PHD and OD mentioned the financial assistance given to the VHSG by some organizations like Helen Keller International that make them perform their work better.

5.3 Support to OA Staff

There is an increasing expectation on staff performance from both the PHD/OD and the community side. In general, they would like the staff to have more technical skills and capacities, as well as social and problem solving skills, proper behaviour and good relationship towards the villagers. Both sides would like to see staff having clear plans and realistically implementing them. In summary it points towards a higher sense of professionalism in work.

5.3.1 Training

To achieve this, one PHD staff suggested comprehensive training to staff. What comprehensive means has not been explored although it can be understood that the expectations towards staff performance go beyond improvement of technical knowledge and skills.

OA staff recognize the need for additional training in the delivery of health education to the community. It has been mentioned that there is an increasing concern by the Village Chiefs and VHSG on how little health education has been accomplished during outreach sessions. Despite requests for more health education, it was also not explored what OA staff and community really means when they say health education including their expectations what good health education can do for them.

5.3.2 Financial Assistance

The OA staff also realize much has to be done in terms of their performance in outreach and their function as a whole, but for them, support is very much needed to accomplish all these. This relates to the financial, material and technical input they expect the system to provide. Much has been said about the tardiness in providing per diems. They also try to compare the amounts that were provided to them in relation to other similar activities like campaigns by specific national programs. Few PHD and OD staff belittle this concern expressing that even if per diems come on time, it is still uncertain whether performance will improve. Most of them, OA staff included, mentioned that it will change OA performance dramatically. The ongoing concern on low salary cannot escape from the discourse.

Coordination among the PHD, OD and Health Center staff is also important. As one OD staff mentioned that coordination among PHD and OD in following up financial issues and activities at the Health Center and community are important for staff not to have grudges and bad feelings on how their plight are dealt with by their superiors.

The financial discussion relates also to the material support and how the present system works. The lack of cool boxes and the transport cost in getting vaccines in the ODs before every outreach strains the already limited financial resources they have. The use of their personal motorbikes and the absence of support if they require repair all the more contribute to the difficulty.

5.3.3 Supervision

Both PHD/OD and OA staff consider supervision needs improvement, in particular regular supervision. Few OD staff mentioned that supervision helps them to join the OA staff and assist them particularly in their technical difficulties. For the OA staff, the function of these

"visits" is more for the community to see "new faces" and for them to be helped in community health education.

"Like the case in 2001, in SK village, the villager had accused our staff of making her paralyzed after injecting Tetanus Toxoid. If we didn't have the staff from PHD and MoH coming to assist in handling the situation we would have very huge trouble with the villagers and could not go there anymore. Now we can go there normally." NN, OD Tech Bureau staff for 12 years. 02-02St1.

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"We need the staff from OD and PHD or foreigners to assist because the people come to use the services." CKR, Health Center Chief for 8 years, 49 y/o F. 03-07Ch.

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"We need staff from MoH or PHD or OD to assist in health education." GS, Health Center staff for 3 years, 31 y/o M. 03-09St1

From the study, factors influencing performance Outreach Activities are summarized in the diagram below. Nevertheless, several factors identified in the Problem Diagram (Figure 4) were elaborated in Figure 8.

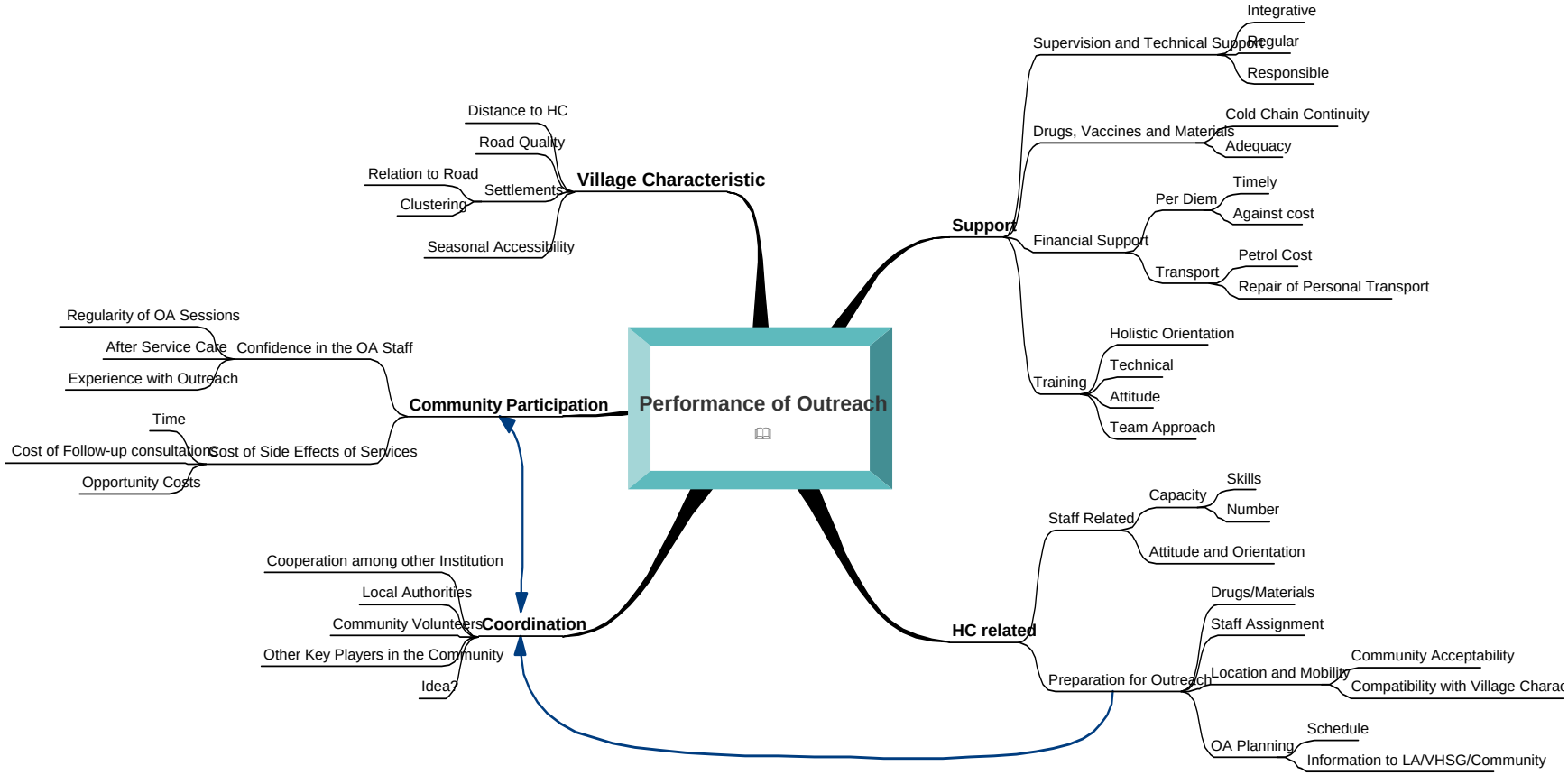

Figure 8. Factors Affecting Performance of Outreach Activities.

Chapter

6

Conclusion and Recommendations

"Outreach is not performed properly. OA staff don't come regularly and villagers need the service."

"When I see a lot of people participating in Outreach, I can work longer and I don't feel hungry at all."

"I think if in one session they find 4 or 5 children, then they will reach the target."

Performance of outreach session is assessed differently by different groups of people (stakeholders). For the health managers, a successful outreach means reaching the target set by each program. Most OA staff view a successful outreach if sessions are well participated by the community. The community has a more elaborate measure of outreach performance: frequency and duration of visits, the services provided, staff competence and behaviour both during outreach and at the Health Center. It has become apparent that outreach performance cannot be simply assessed using a single viewpoint. The following sections presented outreach using different perspectives.

1 The Different Perspectives of Outreach Activities

1.1 Outreach Activities and Components

Survey results revealed high distribution rate for Vitamin A Capsule and high coverage rate for Tetanus Toxoid. Women in the community have extensive knowledge on Birth Spacing Methods, particularly pills. Survey results for other indicators did not reveal favourable. Most antigens included in EPI (for children) showed low coverage rates. The most important reason for the low coverage is the fear or the experience of the community members on the adverse effects following Immunization (AEFI). While Birth Spacing knowledge is high, Indicator for Current Users is low. The knowledge on danger signs of pregnancy is low with more than half of those interviewed having no knowledge of these danger signs. Likewise, indicators for Antenatal Care Visits are low with ANC2 result below the target set for 2003. More than half of the women who were pregnant did not have Antenatal Care Visits. During these visits, weighing has been the least performed at 14% followed by examination to detect anaemia. It has to be pointed that most of these ANC Visits occur in the Health Centers. Nevertheless, more than 70% of women received Iron Tablets. Outreach Activities has yet to prove instrumental in achieving the target set by each programs.

The above bottlenecks in outreach should be addressed by the programs concerned. While contemplating on program orientation, it has also to be reflected that individual program orientation in Outreach Activities does not necessary facilitate achievement of targets. There is also a need to try approaches oriented towards treating Outreach as a package of activities and offering the services using a "family approach."[63]

[63] Family approach is a term I coined to mean that delivery of outreach services is performed to the family as a whole. I have observed several Outreach Sessions whereby missed opportunities were encountered because of a program-based focus of OA staff.

"Health Education" has different meanings to different people. OA staff use this to mean different things: convincing villagers to use the service and to give health information. Some community members consider provision of health information on certain illnesses, like malaria; biological state like pregnancy and many others. The latter meaning is where most of the OA staff fail to provide to the villagers. While the OA Guidelines did not include a full-scale Health Education for outreach, it is important that OA staff can provide health messages when the occasion calls for it.

1.2 Outreach Activities as a Package

1.2.1 Holistic Potential of Outreach Services

Outreach sessions' multi-service nature has the capacity to present a holistic approach to the otherwise fragmented nature of the present system of service delivery. The MoH Outreach Activities Guidelines stated that the potential benefits of the coordination of National Programs in performing Outreach Activities will allow more efficient use of resources. Nevertheless, the goal of providing a more holistic package of services to the community is yet to be realized. Immunization Program dominates outreach sessions. This is the same finding Scheyer[64] highlighted in his study. A lot of missed opportunities occur because of the immunization-focus of outreach sessions. Birth Spacing is often not performed during outreach sessions despite trained staff performing outreach. OA staff often fail to maximize outreach sessions to promote good health practices among community members. Despite the presence of OA guidelines, outreach sessions still lack coherence in implementation.

The significant support of the National Immunization Program (NIP) and NGOs on outreach plays an important role in outreach orientation. The NIP and organizations involved in immunization are more consistent in providing support to outreach and in supervising outreach sessions. Other programs included in outreach have different modes of implementation and thus utilize outreach less. Nevertheless, it is important to point out the value of providing a holistic package of services to the community and supporting outreach sessions in the same fashion as NIP.

1.2.2 Some Specifics on OA Guidelines

The OA guidelines did not clearly state whether outreach services should be rendered free or not. This has not been a concern for immunization services, Vitamin A and Mebendazole distribution. Birth Spacing and ANC services on the other hand, have the potential of raising income whether at the Health Centers or in the staff's private practices. The OA staff's ambivalence in providing BS and ANC services can be partly attributed to these two factors: BS and ANC services are often charged for during outreach sessions which were not stated in the guidelines. On the other hand, providing these services during outreach could entail losses in income at the Health Center or staff's private practices. Nevertheless, it has to be mentioned that income from outreach sessions without receipts are subject to tampering and has a greater possibility of not being brought back to the HC Health Financing Scheme.

According to the OA guidelines, the villages are categorized based on their distances (measured as time traveled) to the Health Centers. This helps decide what kind of outreach package to provide. An alternative categorization that emerged in the study is whether the village is difficult, easy or in between. This categorization is based on several criteria: quality of road/path/course, relation of villagers' houses to the road and to each other, the size of the village, seasonal accessibility and community participation. This categorization, although not explored in-depth, provides a clearer picture of the villages needing expanded outreach package.

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[64] Scheyer, Stanley. A comprehensive Analysis of the Approaches to Community Outreach in Cambodia's Health System. Health Systems Strengthening in Cambodia. University Research Company, LLC. October 2003.

The OA Guidelines can also facilitate the committment of NGOs, donors and health partners supporting Outreach Activities to adhere to the full implementation of the package. It has been shown that these organizations are strong forces in OA staff orientation to outreach; hence it can be emphasized in the OA Guidelines the responsibility of every support organization to abide by it.

1.2.3 Material, Technical and Financial Support

There is a need to ensure that materials and drugs for outreach are available and well maintained. Drugs should come in appropriate strengths e.g., Paracetamol 100 mg for children's fever; Vitamin A as a regular and not a campaign drug. Ensuring cold chain for vaccines start by ensuring cool boxes, vaccine fridges are available and functioning properly. It is quite important that material support for outreach is well thought of by concerned departments at the national, provincial and operational district levels.

A comprehensive training on outreach, including all components and how to perform a multi-service session in the community, need to be designed putting into mind the other community members who can get involved in outreach. It has to be pointed out that on most occasions, staff have enough technical training and skills in most activities included in outreach but lack the motivation to perform these activities. Thus, it is important that OA staff are also provided with different viewpoint on outreach. Presently, the strongest force in performing outreach is the financial motivation. There is a need to balance the external motivation with intrinsic processing on what outreach services try to achieve as a whole. A deeper meaning of these activities should always be a part of any outreach services orientation and training.

Supervision should be regular, comprehensive and responsible. For comprehensiveness, Module IIIC of the Integrated Supervision Checklist can form a base but some items in both Modules A and B e.g. related to BS, ANC, etc., can fill the gaps as well. Supervisors for outreach should be able to sort out problems encountered during the session and assist the OA staff in their needs.

Fairly recently, Outreach Activities were included in the Annual Plan for costing. Nevertheless, financial input to the provinces for all activities including outreach is often delayed for several months. Scanning the different financial arrangements in health, one can see that national programs' reimbursements in general, are more efficient. Thus one option is for OA to be treated similarly with other national programs although as a cluster of activities. The funds can then be delivered on time without deduction. Outreach Sessions have the greatest potential of covering the population with much needed services; hence it is important that adequate attention be afforded to it.

Another option of bypassing the bottleneck in the present system of finance is by way of providing revolving funds for Outreach Activities. This is the system being tried out in Kampot Province as mentioned in the Introduction Chapter.

While efforts are being tried to make funds for outreach accessible, there should also be ongoing effort at all levels to ensure financial transparency. Outreach Sessions entail hard work hence compensation should be given proper accord. There should also be agreement between the mission letter and performed outreach sessions. The government is also expected to develop a more efficient way of budget disbursement.

1.2.4 Support Structure to Outreach

The Ministry of Health has yet to establish a support structure to offer outreach as a holistic health service package. The big tasks mentioned above can be readily accomplished once there is a unit or department given the responsibility for outreach: at the MoH, PHD and OD. These staff/units will oversee outreach implementation: coordinate all services included in outreach, promote holistic approach to outreach through a comprehensive Outreach Activities Training, liaise with different offices to ensure adequacy of drugs and materials, follow-up financial support to outreach and

perform integrated outreach supervision. At present, the only department prioritizing outreach is the NIP. The Preventive Medicine Department is involved in guideline revisions but not in outreach implementation. The PHD does not have persons/units responsible for outreach. At the OD level, the OD Vice Chief is responsible only for outreach supervision whose conduct is mainly subject to availability of financial support.

1.2.5 Preparedness for Outreach Activities

Most outreach sessions lack preparation. It has been shown that ill-prepared outreach sessions often result in poorly performed sessions. Preparation for outreach sessions entails proper planning of outreach schedule, location, drugs and materials, and staff preparation. Outreach schedule can be planned on a quarterly basis with community members, VHSG and Village Chiefs given appropriate schedules well in advance. Contingency measures should also be included in the OA plan in cases when villages become unreachable due to floods, cut bridges, etc. The importance of a well-communicated outreach schedule should not be overlooked. The location of outreach sessions should be arranged bearing in mind community network. One advantage of fixed assignments in outreach is the knowledge of OA staff about the community hence knowledge of where outreach is best accessed. Community gatekeepers and allies play important role in convincing villagers to avail of services thus minimizing house to house visits during outreach.

Drugs and materials for outreach should also be prepared in advance. The checklist in the OA guidelines will help facilitate preparation. Staff should also complete request forms for outreach drugs and return leftovers. The next OA team can then fill the OA bag with their requested drugs and materials.

A more challenging preparation is that of staff. With the community having higher expectation of staff performance, there is a need for OA staff to perform self-check on their technical knowledge, skills and attitude towards outreach. Staff preparation starts by reflecting on scenarios where performance of outreach receives resistance. This enables the staff to set their minds and get ready for challenges to be encountered. Setting minds for outreach also involve creativity e.g., male staff to perform some “female” domain services proven possible in some Health Centers in the province. It is also important for OA staff to make it a conscious effort to start thinking about the consequences of a poorly performed outreach sessions.

1.2.6 Promoting Outreach

There is still a great deal of work to improve participation in outreach. The usual strategy is to involve community members in persuading villagers to avail the services. Some OA staff facilitate participation by providing incentives to community e.g., cakes while others exempt fully immunized children from Health Center fees. It is quite interesting that staff made use of information in yellow cards as basis for incentives. This strategy can also be extended to BS users, pregnant women on their ANC visits even defaulting for TB. These strategies not only allow safekeeping of these health documents, but also diligence in availing the services.

Another concern for outreach is its noticeability in the community. More often, outreach sessions are performed with parts of community not aware of it. Present efforts are directed towards visibility of outreach: putting banners and posters in strategic places in the villages to inform about outreach sessions. Recently, attempts were made to improve “audibility” of outreach sessions. Speaking through a megaphone has been practiced in most outreach sessions. Another way to make use of audible representation of outreach is by bell ringing while on the way to outreach location or sending off music with messages of Outreach Activities. The strategy which is being used by other businesses e.g., movie promotion, ice cream sellers, can also be made use on outreach.

Unknowingly for OA staff, some of the efforts being undertaken point toward "institutionalizing" Outreach Activities. Institutionalization[65] of Outreach Activities actually means development of shared values for outreach. Outreach Activities are institutionalized when it is made a shared value within the community and among stakeholders. In the above example, a child fully immunized is a value shared both by the OA staff and the parent of the child. By institutionalizing Outreach Activities, values can be created e.g. that availing services in Outreach Activities is a good health practice and people who avail of the services care for themselves and for their families.

1.2.7 Dealing with Local Authorities and Volunteers

There were diverse experiences of OA staff in dealing with local authorities in the study. The level of interest in health by the Village Chiefs varies thus their level of support. The most important lesson learned is that Outreach Activities are well participated when Village Chiefs are involved. Nevertheless, there have been several references on how to improve participation in outreach. At the level of OA staff, it is important to acknowledge the authorities of Village Chiefs in their areas and extend best coordination and cooperation with them.

The VHSGs in the study areas belong to the younger age group. Most of them have duration of service less than three years in service. For some, participation is related to financial remuneration while others still work willingly with minimal incentive. Treatment of VHSG should consider the backdrop against which the community volunteers based their decisions to participate in health work. It is useful to invest on training and other forms of capacity building to those who show more commitment. In some study areas, VHSGs who are related to local authorities show more commitment and stay longer as VHSG. While the political neutrality is paramount in choice of VHSG, it is also important to assess the situation on a case basis.

1.3 Outreach as an Experience

Unlike in Health Centers, interactions during outreach are not limited only to those who use outreach services but to the entire community members witnessing the outreach session. This makes every outreach session an individual and a community experience. Pine and Gilmore[66] believe that experiences are a distinct offering from services. While OA staff try to provide health services, the communities avail the services mindful of the experiences they had in the previous outreach sessions. Experiences must provide a memorable (pleasant) offering that will remain with one (or the whole community) for a long time in order to exert a pull on the next outreach session. Turning a service into an unpleasant experience happens when services are provided via rote or through impersonal activities that are static more than dynamic. The community members often mention their experiences related to the staff (staff friendliness, perceived technical skills, punctuality, compliance in schedule, etc) and the services (side-effects of antigens and pills and the related financial and opportunity costs, after-service care, etc.). The experience in outreach goes beyond the session. The service-related experience mentioned mostly happen after the session. This is also the occasion when villagers see the need for staff to provide reassurance and assume responsibility in cases where there are adverse effects after immunization. The active effort by OA staff to make these experiences pleasant and "life transforming" can facilitate participation in the future outreach sessions.

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[65] Taken from the Concept of Institutionalization of the Habit of Reading. Soriano, E and Pena-Alampay, L. Strategic Options Arising from the Impact Evaluation of the Studies of the *Sa Aklat Sisikat (SAS)* Reading Program. Thinklab Solutions, Philippines. Inc. 2004.

[66] Pine, B.J., and Gilmore, J. The Experience Economy. Work is Theater and Every Business a Stage. Harvard Business School Press. April 1999.

It is also important for staff performing Outreach Activities to have a positive outlook towards outreach. OA staff mentioned about community members participating and utilizing the service as good experiences. Thus, learning some more approaches on how to increase community participation in outreach is imperative for OA staff. The timely financial support experienced in Program Campaigns by OA staff serve as positive stimulus in performing outreach sessions.

1.4 Outreach Activities as Window

Outreach Activities serve as the community's window to the health system. Outreach sessions are visible manifestations of the Ministry of Health's aim of improving the health of the Cambodian population. Performance of outreach sessions reflects health system's performance. Outreach is seen as an extension of service of the fixed facilities. Thus, the community draws on the previous outreach performances the decision whether services at fixed facilities are to be relied upon or not. Such continuum of service from outreach to the hospital is very much in the minds of the people in the community.

Community members also perceive the staff going to the villages for outreach (or even for other activities) as part of and representing the health system. Hence, the villagers not only expect the health staff to provide the services they perceived needed but at the same time to assist the community in solving health problems. With the Outreach Activities Guidelines having specific programs included, it is important to address the discrepancies between the views of the community on the services which outreach sessions should deliver and what the staff can provide according to the guidelines.

Table 35. Recommendations

Aspects	Findings (Gaps)	Recommendations (Design Options)	Level of Responsibility
Outreach Activities Component	Low coverage rates for all EPI antigens except Tetanus Toxoid	Investigate further on the cost to the families of adverse effects following immunization	MoH, NIP, NGOs
	The rate for Birth Spacing Current Users is low	Emphasize on the provision of BS methods in every OA session.	OA Supervisors OA staff
	The rate for Antenatal Care Visits is low Incomplete performance of Antenatal care examinations Low knowledge on the danger signs of Pregnancy "Health education" is lacking in most OA sessions	Pregnant women seen during outreach should be examined and asked to follow up at the Health Center. Checklist for ANC (like the one developed by Racha) should be filled up by staff for every pregnant woman examined A "health message pocketbook" can be developed and provided to OA staff basic health information to the community	OA staff MoH, NCHP
Outreach Activities as a Package a. Comments on OA Guidelines	Unclear whether services in OA are free or not	Specify in the OA guidelines the services that can be charged and allow staff to issue receipts to patients to be put back in HC-HFS	MoH, Preventive Medicine Department
	Insufficient basis in categorizing villages	Investigate further on the value of difficult and easy village categorization to the present near and remote classification	
	NGO's role beyond financial assistance not specified	Spell out in the OA guidelines the responsibility of NGOs to adhere to the OA guidelines	
b. Materials, Technical and Financial Support	Drugs not having appropriate strengths (Paracetamol 500 mg vs 100 mg) Vitamin A considered as "campaign drugs" only Cold Chain inadequate	Organize drugs and materials for outreach as one package Provide of cool boxes (vaccine carriers) and ensure kerosene for vaccine fridges are of good quality	MoH, CMS, Provincial Drugs' Bureau

Aspects	Findings (Gaps)	Recommendations (Design Options)	Level of Responsibility
	Financial assistance to OA staff always late	Manage disbursement of finances for OA similar to other National Programs Pilot Revolving Funds for OA in partnership with PHD and NGOs	MoH, MoEF, PHD, NGOs
c. Support Structure to Outreach	Staff orientation to OA is fragmented Extrinsic motivation (per diem) emphasized more than instilling intrinsic motivation on OA staff Irregular, incomplete and negligent Supervision	Formulate a comprehensive training package for outreach including all components; how to perform multi-service session which should include other community members who can get involved in OA.	MoH
	No existing support structure for OA	Supplement Module IIIC of ISC with some aspects in both Modules IIIA and IIIB OA Supervisors should be well-versed in all OA components and able to assist staff in analysis and sorting out problems on-site. Establish a support structure to offer outreach as a holistic health service package.	MoH
d. Preparedness for Outreach Activities	Most OA sessions lack preparation	Ensure proper planning on outreach schedule, staff assignment and how to communication outreach. Gatekeepers should be identified to facilitate ease of communication	OD OA staff
	Village communication network of OA staff has yet to function		
	Drugs and Materials are not prepared in advance		
	Staff attitude towards OA needs improvement	Self-check and reflection	
e. Promotion of Outreach Activities	Community members not aware of OA sessions in the community	Increase visibility and "audibility" of outreach sessions through banners and posters and sending off music or using megaphones to catch community's attention	MoH, PHD, OD OA staff

Aspects	Findings (Gaps)	Recommendations (Design Options)	Level of Responsibility
	Lack of "institutionalization" of outreach	"Institutionalize" outreach (see details in conclusion and recommendations chapter)	MoH, Preventive Medicine, NGOs
f. Dealing with Local Authorities	Lack of assessment on the level of participation of Local Authorities and VHSG	Identify level of engagement in health work of Local Authorities and VHSG and collaborate according to their level of engagement Provision of non-monetary motivation	OA staff
Outreach as a Strategy	Fragmented implementation with too much emphasis on immunization Missed opportunities because of immunization-focused OA sessions	Re-orientation of OA as presently performed Orient staff to utilize "family approach" during outreach session After service care as part of OA package Ensure timely material, financial and technical support to OA staff	MoH, NIP, PHD, NGOs, OD, HC
	Unpleasant experiences on OA sessions by community members e.g., AEFI - Outreach as an Experience Unfavorable circumstances on which OA sessions are performed		
	Community sees in Outreach the performance of the whole health system structure	Rethink the target orientation and service provider perspectives in outreach to consider the community perspective in outreach	MoH, Preventive Medicine