

VBA: an alternative obstetric care in rural Papua New Guinea

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Introduction

The training of village women to become village birth attendants (VBAs)¹, otherwise called traditional birth attendants (TBAs), is a relatively new concept in Papua New Guinea² unlike the neighboring countries. The TBAs existed in some parts of Papua New Guinea, particularly in the islands and the coastal region; however, they were non-existent in the highlands and the inland regions.

Anecdotal stories indicated that the initial training of VBAs was started by the missionaries in Manus Province in the early 1960s. However, a systematic training of VBAs seemed to be started sporadically by different non-government organisations (NGOs), such as UNICEF, Project Concern International (PCI), and missionaries in the 1980s.^{1,2}

PCI started training of village birth attendants in Morobe Province in 1987. The project was funded by USAID under the Child Survival Project. Morobe Province is the second largest province in Papua New

Guinea covering approximately 33,152 square kilometers and has a total population of approximately 500,000. The majority of the population is scattered around in the mountainous or coastal regions where accessibility to health facilities is very limited.

Since little information about the work of TBAs or VBAs was available at the government level, the Child Survival Support Project (CSSP) operated by John Snow Inc., and funded by USAID, conducted the first workshop to investigate the availability and the work of VBAs in 1991. The results showed that a total of seven VBA projects were operated by five different NGOs or government agencies at that time.³ Based on the results of the workshop, the Department of Health decided to establish a standardised VBA curriculum and the Provincial Guidelines for the establishment of VBA Projects. A VBA committee comprising all the agencies involved in VBA training was established and met periodically since 1991. Despite the efforts to standardise the VBA training and its components throughout the country, carrying out the plan has been quite difficult due to the differences in the aims and the operations of each

Abstract

The training of village women to become village birth attendants (VBAs) is a relatively new concept in Papua New Guinea. Unlike the neighboring countries, hardly any traditional birth attendants (TBAs) existed except in some parts of the islands and the coastal regions of Papua New Guinea (PNG). In the inlands or highlands regions, many women deliver their babies alone in the bush without any assistance from their family members, relatives, or health professionals.

Although accurate statistical information is not available, the maternal mortality is said to be the highest in the Pacific. The reasons for the high maternal mortality include the lack of availability, accessibility, acceptability, and quality of health care services, to mention a few. The training of VBAs is considered as an alternative to improve the obstetric needs of rural women. A total of 215 village women were trained as VBAs in Morobe Province of Papua New Guinea, particularly in the Kaiapit and coastal Lae districts, by Project Concern International (PCI) from 1987 until December 1994.

This paper describes the overall obstetric problems facing the rural women of Papua New Guinea and the involvement of PCI in improving the obstetric needs of rural women by training VBAs. The problems and issues associated with VBAs and their works are discussed and the recommendations are provided for the future expansion of VBAs activity in Papua New Guinea.

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organization. In addition, VBAs are volunteers who have not been fully recognized by the government.

Although the health care infrastructure has been established for many years, the availability, the accessibility, and the quality of care in the rural areas remains very poor. In fact, the maternal and infant mortalities are reported to be among the highest in the developing countries.

Maternal and infant mortalities

Despite the fact that a maternal mortality register was commenced in 1971,⁴ no accurate information has been available due to insufficient data collection in Papua New Guinea. Maternal mortality is approximately 800-1200/100,000 and infant mortality is 72/11,000.³ Almost 85% live in rural areas; however, the rural health care system is currently fragmented and ineffective. It is estimated that one out of every twenty-two rural mothers will most likely die of pregnancy and childbirth. In addition approximately 14,000-15,000 children die before the age of five from preventable diseases.⁵

The estimation done by Dr Edwards indicated that less than 40% of deliveries were supervised in Papua New Guinea.⁶ Unsupervised delivery was considered as one of the factors contributing to the high maternal mortality.⁶ The reasons for the high unsupervised deliveries were compounded by:

1. Lack of access

Although the Department of Health has an extensive health care infrastructure, it has not been fully functioning. In Morobe Province, a total of 308 government and church operated health facilities exist: 1 provincial hospital, 23 health centres (including six urban clinics), 10 sub-health centres, and 275 aid posts. However, considering the size of the province and its population, the availability of health services is very limited.

Although a major highway runs from the city of Lae to other highlands provinces, very few other roads are available to connect remote mountainous and coastal villages. For most rural people, the nearest aid post is more than two hours away. Some of them have to walk more than 6-8 hours to reach a health centre. A majority of the villages are accessible only by foot or boat. During the wet season, transporting patients or health workers to visit villages no longer is possible because most of the available roads are often washed away due to floods or no boat operators and health workers are willing to risk their lives at sea.

PCI conducted a Knowledge Attitude and Practice (KAP)

survey in 1992 to examine the current health knowledge and practices of mothers with children less than two years of age. The results showed that one of the reasons for not visiting antenatal clinics was that they were too far away to visit health facilities. It would be very difficult for women who are in full term to walk to a health facility for delivery.

The majority of Papua New Guineans are engaged in subsistence economy. In the project areas, many women often engage in selling their garden products to markets; however, most of the money they earn is used for their children's education or for their husband's personal use. Therefore people were often unable to pay for maternal services.

2. Low availability

The obstetric care is available only at the provincial hospital, health centres, and sub-health centres and not at aid post level. The aid posts are often one-man operations where an aid post orderly or a Community Health Worker (CHW) provides basic first aid treatment to villagers. For most rural villagers, aid posts are the first contact for health care services.

Not all the health centres and sub-health centres are equipped with obstetrical equipment and midwives. Antenatal clinics are often held once a week. The mobile MCH units are supposed to provide outreach services to isolated communities at least once a month; however, they are often cancelled due to lack of transport staff, and adverse weather conditions. This suggests that obstetric care for most of rural women is almost non-existent.

3. Poor acceptability

In the remote rural areas, a strong blood taboo still prohibits many people from seeking care and assistance during menstruation, pregnancy, and child delivery. During menstruation, women have to spend their time in makeshift huts built in the bush. Also, child delivery often takes place in the bush using a bamboo blade to cut the umbilical cord or takes place at one's own home. If female relatives touch blood, then they are prohibited from cooking food for the family members for more than a week. The contact with uterine blood is believed to cause sickness and touching the uterine blood is taboo for men.

Currently, most of the aid post orderlies and CHWs are male which often creates the problem of acceptability regarding obstetrical care for the rural people. Many rural women feel hesitant and shy to visit post orderlies/CHWs for reproductive health problems even if the aid post orderlies

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are willing to assist. In addition, aid post orderlies CHWs are not often trained to provide such care. Moreover, some male health workers are hesitant to assist women with deliveries due to the strong blood taboos.

4. Traditional customs and women's lifestyle

Most people are still engaged in a subsistence economy and value large families. Thus, women often marry young, as early as 16 years old, and have many children. Often the idea of family planning has not been accepted by many men. The total fertility rate is 5.4 and approximately 43% of total population is less than 15 years old.³

Although each tribal clan has different food taboos for pregnant women, many women in the villages are affected by the traditional beliefs that the intake of animal meats and its products causes difficult pregnancy and childbirth. Some believe that the baby will be born just like the animal one ate during the pregnancy. The intake of animal protein food during pregnancy is often prohibited. In addition, the custom does not allow women to eat sufficient food during pregnancy because women are the last to eat in the family and often sufficient foods are not left for them. Even for those who are engaged in the cash economy, many women face hardships because men, particularly among the uneducated, often use almost the entire salaries or income for alcohol consumption and little money is left for the rest of the family members.

The traditional customs and beliefs create problems of undernourished mothers and babies. Compounded by malaria infections, the health of women is often in jeopardy.

Many rural women have poor education; therefore, they simply do not know about nutrition and how to use the available food sources. Illiteracy among Papua New Guinea women is about 70%. Modern teaching methods (using books, brochures, posters) often do not work for rural communities. Another difficulty in disseminating proper information and knowledge is the language. There are more than 700 languages in Papua New Guinea and many rural women do not speak Tok Pigin that is a common language.⁷

5. Poor quality

The lack of quality care are due to the shortage of qualified health professionals, the shortage of budget allocated to its health sector, and the lack of accountability and the attitudinal problems of health workers.

Although the health workers have been trained, little in-service training has been provided to update their knowledge and skills, particularly for aid post orderlies, CHWs, and nursing sisters. Only a handful of health workers are fortunate enough to receive in-service training; however, most of them fail to transfer the knowledge and skills they acquired to lower level health workers.

Mainly health facilities are staffed by very few qualified personnel who are often bombarded by the basic treatment of many outpatients. Thus, the time spent for each patients is minuscule, hardly any explanations about the treatment, drugs, and health education are provided to the patients. Many women in the project area explained that often pregnant mothers are verbally abused by nurses during their antenatal visits that often discourage women to visit the clinics.

The facilities in many parts of Papua New Guinea are rundown with insufficient supply of medicines and medical equipment. Lack of funding, proper maintenance of facilities and medical equipment and proper management and the "careless" attitudes of some health professionals all negatively contribute to the low quality of care.

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However, the problem is not only caused by the provider's side but also from the receiver's side. The lack of appreciation toward the services and assistance provided free to the communities by the government or the foreign aid agency often creates the shutdown of health facilities and their services. Public properties such as health centers and schools often fall victim of tribal disputes, frustration and anger toward the government policies and operation.

VBA: an alternative approach to maternal and child health

A few NGOs took the initiative to experiment with the utilization of volunteer female workers, such as village birth attendants, in improving the obstetric care of rural women. The aim was to create "self-sufficiency" within the community regarding essential obstetric care. PCI is one of the leading agencies in carrying out VBA training in Papua New Guinea.

The training of village women to become village birth attendants in Papua New Guinea is a very time consuming task. The Western notion of efficiency rarely works when dealing with illiterate village population. Several contacts with villagers and women's leaders need to be organized to find support from the community toward the work of VBAs. As stated previously, each organization provide slightly

different VBA training. The following information is based on the PCI's experience in Papua New Guinea.

Selection of areas and VBAs

PCI staff select the area in consultation with the district health center staff. PCI and health center staff visit approximately five to six villages nearby and introduce the notion of village birth attendants and the potential services provided by VBAs to village leaders and women's group. Upon acceptance of the idea by the leaders of the community, PCI in consultation with the village leaders decides the actual training location. In addition, PCI requests leaders to select village women from their villages as possible candidates for VBAs. A standard selection criteria for VBAs are provided to the leaders. In addition, the location for the training facility, accommodation/food arrangements for trainers and trainees will be negotiated with village leaders. The entire process usually takes a few months by visiting these villages several times before the training begins.

To have VBAs trained in the village is important to keep the main focus of this health education within the village community. This enables PCI staff to conduct other health education sessions to villagers after the VBA training session. This enables VBAs to acquire more support from their communities for their work.

The number of women to be trained in each course depends on the population base of the area; however, it usually consists of approximately 10/15 village women from 5-6 nearby villages each time.

Course contents and duration of training

The training course is developed using a phased, modular approach. The course covers basic obstetrics, maternal and child health, family planning, control of diarrhoeal disease, STD/AIDS, and acute respiratory infection (ARI). The course is conducted by using role play, flash cards, posters, films, slides, and use of the pelvic models, so the illiterate women could comprehend the teaching materials. The course is taught in Tok Pigin; however, for those women who don't understand Tok Pigin, an interpreter is required. The contents of the course are very basic since hardly any of them have more than elementary education. The training course usually lasts for two weeks.

During the training, VBAs are taught how to identify high risk pregnancy and delivery cases. Since they will only receive basic obstetric care, handling high risk deliveries is not possible for them. Therefore, the most crucial element

of the training is the emphasis on the identification of high risk women. The identification cards that utilize the pictorial form are given to VBAs at the end of the training and they are required to use the form when referring the high risk women to a health center.

Approximately three months after their initial training, the VBAs receive two days of in-service training to review their knowledge and skills and collect data from VBAs regarding their work.

It needs to be clearly stated that the purpose of training VBAs is not to save the lives of all women from the complications of child delivery and possible death. The main purpose of VBAs work is prevention. VBAs major tasks are to identify high risk pregnancies and deliveries and refer the cases to formal health care facilities, to provide basic health messages to village women, and to assist normal child delivery in the village.

Costs of the training

The costs of the training depend on the location of the training and the number of people involved; however, the cost of the training itself is very minimal. The most expensive part is the cost of travelling for the trainers.

PCI encourages the participation of the community with VBA training. Often the community provides

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free space such as school or church facilities to conduct the training. They also often provide free accommodation for both trainers and trainees by allowing them to stay at their houses or allocate vacant houses. The community women's group cooks food during the training course. PCI covers the cost of teaching materials, teaching equipment, travelling costs, and foods such as canned goods and meats, and some token for the women's group for their cooking and the preparation of three meals a day.

Logistics

This is one of the most time consuming and difficult tasks to arrange. It takes at least three visits to villages before the initial training begins. Since many VBA candidates come from nearby villages that may take more than 4-6 hours to reach, the coordination and the organization of each meeting is very difficult. The communication such as sending the messages to the right person is not reliable due to lack of communication mechanisms, misunderstanding due to language problems, weather conditions, etc.

At the time of the VBA training, all the teaching materials and the equipment such as the generators and foods are loaded into either utility vehicles, boats, or a small airplane to be transported to the training site. Forgetting some items would cause a problem. For instance, if the selected village women cannot reach the training site by themselves due to a lack of transport, PCI has to organize extra transportation for them to come to the training site. Often the detailed plan does not work; therefore, it requires a considerable amount of flexibility.

Men's education

PCI provides men's health education sessions concurrent with the VBA training for two-three days for village men and husbands of VBAs to gain their support for the VBAs activities and women's health in general.

Papua New Guinea is a male dominated country where daily life of women is greatly affected by men's decisions. Unless there is an understanding of women's health needs and support for them, no progress can be expected. Therefore, the men's education session is a critical component of the VBA training.

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The problems and issues associated with VBAs

A total of 215 village women (a total of 110 villages) in both Kaiapit and the coastal Lae areas of Morobe Province were trained as village birth attendants from the start of the project in late 1988 until December 1994. The first training was conducted in late 1988. However, no comprehensive records of VBAs activities from the beginning of the project are available. The training is still being conducted in Morobe Province. A sample of the assisted deliveries by VBAs in the project area is shown in Table 1 below.

The data from each VBA should be collected by the designated health center staff periodically; however, the collection of data is the most problematic process. Visiting each VBAs regularly is impossible for health center staff nor PCI staff because all the villages are scattered around in the mountainous and the coastal regions. Although the mobile MCH clinics should be periodically provided by the health center staff, the clinics are often postponed or not provided due to various constraints. VBAs are recommended to give their data to APOs so then they can transfer the data to health center staff, but it often does not work. Usually the data is collected only when the VBAs visit the health center. Not many VBAs visit the health center due to transportation problems.

Although attempts were made to collect data whenever trained VBAs attended the in-service trainings provided periodically by PCI and the health center staff, the efforts have not been successful due to the communication problems: the message to bring the reports have not been communicated well or the importance of recording and reporting have been forgotten by both parties.

The compilation of the data has also been problematic. Although the DOH monthly report form has been revised to include the activities of VBAs, the collected data has not been integrated into the report systematically. The anecdotal reports from VBAs showed that no village maternal deaths occurred after the inception of the VBAs activities in many parts of the project area, but, it is very difficult to verify this due to lack of available data.

The difficulty of collecting and compiling data is shared by many organizations working in Papua New Guinea and this is not a specific problem only facing PCI's project. Regardless of the training and the explanation of the value of data, understanding the importance of the use of data in planning and management of activities is often lacking or forgotten.

Based on the available records, the attrition rate is 5 percent (10 out of 215). Although it has not been possible to accurately calculate attrition rates of VBAs due to lack of sufficient data at this time, the major cause of attrition was the lack of support from their village people. The other reasons were either VBAs passed away or moved from their villages.

With the limited time of the project, the sustainability of the project became a major concern. Training more VBAs who could cover more areas and to supervise already trained VBAs in the project areas were very difficult with the limited staffing of PCI. Therefore, a new approach to the VBA training at the village level was developed.

Training of trainers of VBAs

Since late 1993, PCI modified its strategies to include the training of trainers of VBAs by training health center staff or interested NGOs to become the trainers who could conduct the VBA training at the community level. In this way, the number of VBAs to be trained in a year and the covered areas will increase dramatically. A total of 42 health workers were trained as trainers by the end of December 1994 and the number of trained trainers is increasing.

The Department of Health is currently examining the possibility of expanding the VBA activities countrywide. It will be an excellent move to recognize VBAs as an alternative

Table 1. Assisted deliveries by VBAs, 1990 - 1994

Village	Date of training	Total assisted deliveries				
		1990	1991	1992	1993	1994
Binimamp	Dept 88	9	10	5	*	2
Wartizian	March 89	15	13	*	*	12
Atzunas	March 89	2	13	4	2	*
Ngaratumua	March 89	8	5	10	*	*
Sakarak	March 89	1	2	4	*	*
Reginam	Oct 89	3	0	4	*	5
Uffuat/Gantisap	March 90	9	3	6	7	3
Ragidjumpiet	March 90	1	1	7	1	3
Puguap	May 90	0	2	4	*	11
Imane	May 91	-	10	23	14	*
Tapakainantu	May 91	-	0	6	4	*
Kapara	Sept 91	-	2	6	3	10
Numbugu	Sept 91	-	5	0	1	8
Langkwam	Sept 91	-	0	4	15	*
Samura	Sept 91	-	0	4	*	9
Buhalu	April 93	-	*	-	13	16
Wanganluhu	April 93	-	-	*	0	3
Apo	April 93	-	*	-	2	14
Total		48	66	87	62	96

- indicates no training was conducted during this period.

* indicates either no data was available or no data collection was conducted at the time of writing of this article.

to improve the obstetrical needs of rural women, however, certain issues need to be examined carefully.

The issues associated with the training of trainers course

The advantage of conducting the training of trainers course is the exponential increase in the number of VBAs, the area coverage, and the benefits that the rural women receive. However, if the funding depends on the government budget, then the effort could be in vain. If no money is available, no training will be conducted, therefore, no VBAs will be trained. Even if the training of trainers courses are conducted, the constant follow-up and supervision are imperative to ensure the achievement of the final goal to train the village women to become VBAs. Otherwise, it will be a wasted effort to just conduct the training of trainers course.

The issues associated with VBAs activities

Several issues need to be discussed regarding the activities of VBAs such as legal and administrative issues.

Legal issues

Since VBAs are volunteer workers without any legal status, the potential problem of dealing with unsuccessful delivery assistance may create some threats to VBAs and their family members. In the case of death of either the mother or baby, the VBA might be accused by the family of the deceased and are asked for compensation of money. Although several cases were involving the death of both mothers and babies, no compensation problem has arisen within the PCI project area. Prior to the initial VBA training, having a clear understanding among villagers that no VBAs will be responsible for the death of mothers and children is very important. In the Southern Highlands Province where another agency was conducting the VBA training, the problem of compensation has occurred. Therefore, this issue should not be ignored. The potential compensation problem may discourage village women from becoming VBAs.

Administrative issues

As with any other occupation, VBAs require recognition and support from the formal health care personnel and the community in general. Without such understanding and

support, the long-term commitment of VBAs toward their work may become weak and fragmented. Although providing regular supervision is difficult due to many constraints imposed by the Government, some mechanism to provide periodic supervisory visits needs to be carefully arranged.

Monitoring and data collection needs to be strengthened. The importance of the purpose of the data collection needs to be fully understood between VBAs and health center staff. Many health workers do not know how to supervise and how to monitor the activities effectively.

Conclusions

VBAs are volunteer workers who are committed to contribute some of their time to help women in the village. Although VBAs cannot replace the work of formal health care workers, their work could be considered as an aid to fill some gaps where formal health care services are unable to reach. In examining the other developing countries, the works of TBAs and VBAs have been decreasing in parallel to the development of modern medicine though the revival of midwives has been seen in the United States in recent years. In considering the current situation of the Papua New Guinea medical system. It is imperative to use as much assistance as possible to improve the health status of people, particularly women and children. The work of VBAs is not without problems, as stated previously, based on the experience of PCI in Morobe Province. However, it could be a useful tool to improve the obstetric needs of rural women.

Some specific points to be considered in expanding the VBAs activities are:

1. To ensure that the VBA training at community level would be provided by the trained trainers after the Training of Trainers of VBAs (TOT-VBAs). If the provincial or district governments do not have sufficient funding and staffing, then the training of trainers will be a wasted effort.
2. Once the provincial or the district government is committed to having VBAs, developing a position of provincial VBA coordinator would be recommended. Or, this

position could be integrated into another position under MCH. Appointing someone who would be responsible for organizing and coordinating the VBA activities in the provinces is crucial.

3. Coordinate and collaborate with existing NGOs who are currently involved in the VBA training in the area.
4. If possible, establish a village birth and death registry with village leaders. The records should be provided to health centers biannually or annually.
5. Make sure that the monitoring of VBAs activities and the data collection will be periodically conducted. The VBAs activity records, such as number of village births, deaths, high risk cases, etc., should be integrated into the existing MCH health information system.
1. Establish the VBA committee involving all the agencies and redefine the role of the committee. The committee could act as a central coordinating body.

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The best contraception is a glass of cold water:
not before or after but instead

Anonymous delegate at IPPF Conference