VILLAGE HEALTH PARTNERSHIP
safer motherhood in rural Ethiopia

2017 Screen, Transport and Treat Program Field Report

Executive Summary

Every year, an estimated 303,000 women around the world die due to complications of childbirth. Health conditions related to childbirth are a primary cause of mortality among women in their reproductive years, particularly in developing countries. The 2018 World Health Organization (WHO) website on this topic reports that '99% of worldwide maternal mortality is in underdeveloped countries', and while progress has been made in improving maternal outcomes worldwide, this progress is far from equal or universal. Globally, the incidence of maternal mortality and childbirth health related issues is still most acute in sub-Saharan Africa, and Ethiopia is one of the top sub-Saharan African countries suffering the highest burden of maternal deaths.

As somber as this situation is, it still does not convey the full seriousness of the human condition. For every woman who dies due to pregnancy-related causes, an estimated 20 more women suffer from acute or chronic morbidity, which includes all illnesses and complications associated with childbearing short of death. These complications have consequences well beyond physical ailments, as they affect not only women, but their families and communities as well. In Ethiopia, only 34% of women receive any antenatal care from a trained health care provider and less than 10% of births occur in a health facility.

Even this is understated in rural areas because health institutions are located in cities, road infrastructures are weak or nonexistent, and high poverty levels limit people's access to critically needed health care. In a country such as Ethiopia, where 83% of the population lives in rural communities, there is a desperate need for the expansion of lifesaving health services into these more remote areas.

The Village Health Partnership (VHP), a non-profit medical aid organization based in Denver, CO, was established in 2010 to provide direct assistance to women in rural Ethiopia who are at risk for maternal morbidity and mortality. An immediate pressing need was identified in the Kelem Wollega Zone, a remote and rugged area in western Ethiopia, for women with gynecologic complications of childbirth.

In this part of the county, most women are poor, illiterate subsistence farmers who live in isolated, remote villages where they have little or no access to healthcare. Life is very, very hard. From an early age they work in the fields and carry heavy loads of wood and water on a daily basis. They marry young and without birth control give birth again and again. They often deliver children at home alone or with only the assistance of a family member. Many die in the process and those who survive are often left with serious gynecologic injuries. In this condition husbands routinely divorce their wives leaving them destitute. The shame and depth of the physical and emotional suffering are enormous. In spite of this, multiple factors prevent women with gynecologic complications of childbirth from seeking, reaching and receiving the medical care that they urgently need.

In response, VHP initiated a Screen, Transport and Treat (STT) Program to provide assistance in identifying prospective patients for medical attention, facilitating their transport to medical facilities and in paying for their surgical treatment at one of the few medical centers in the area. The STT Program

project focuses on the Kelem Wollega Zone, an area far from any treating medical facility. In addition to the goal of providing immediate medical care to women in need, the STT Program was also designed to begin to establish health systems of care and to generate a ripple effect that would initiate prevention efforts. An integral part of the project was to collect pre and post-treatment data from individual participants in order to better define and assess the current needs of this patient population and the effectiveness of the STT Program at breaking down barriers to care, establishing health systems of care and initiating prevention efforts.

There were significant practical, operational, and social constraints involved in screening, transporting and treating women in need, and in the pre and post data collection. In this part of Ethiopia, women hide in shame with their medical conditions. Soliciting patients for care required outreach via health extension workers and through word-of-mouth in village markets. Most women had to walk for miles on foot to reach the health centers where they were screened. Once screened, transportation had to be arranged to the treating facility. The hospital where they received surgical attention was sparsely equipped and staffed by a single OB/GYN surgeon who was responsible for handling all of the obstetric and gynecologic cases in the facility. Once treated the women were discharged directly home as there was no place for them to stay and recover.

In 2017 an OB/GYN surgeon at Aira Hospital conducted an initial interview with all women who were referred for treatment to obtain demographic information and a medical history. In December 2017, personal interviews with women who had received treatment through the program required VHP staff to spend full days of rough driving to reach the health center where the women assembled after walking in from their villages. Considerable communication obstacles arose from translation given the various languages spoken, religious and cultural differences, and the limited medical knowledge of many translators. Interviews were conducted face-to-face through translators using the same formal question template for all interviews. The focus of the interview process is to solicit direct, personal information concerning the health environment of each participant in the program, in order to identify and address issues that require attention in future extensions of medical aid to this population. A summary of the data and data collection process is outlined below.

Overview of the data collection process

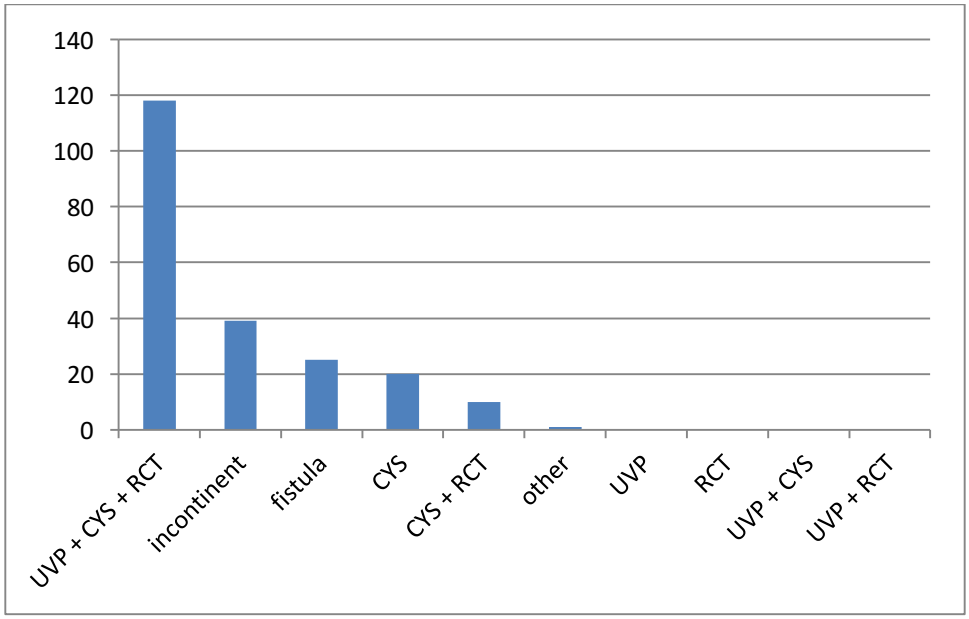
As described, a central feature of the STT pilot project was to collect data directly from patients before and after treatment, in order to better understand the population of patients being served, document and evaluate the effectiveness of the STT model and identify opportunities to improve the overall health and well-being of women in this area of Ethiopia. To this end, STT personnel developed a standard survey instrument to be directly administered upon admission to the hospital and then through translators in the presence of project staff in the field. The follow-up interview process faced the logistical challenges of arranging transportation to the interview site, arranging and scheduling translation services and assembling patients for interviews.

All of the 175 patients who received treatment in 2017 completed pre-treatment interviews. 51 post-treatment interview responses were acquired, an approximate 30% sample ratio. In view of the logistical and operational constraints surrounding the project environment, this represents a very respectable follow-up response rate. In any event it is important to keep in mind that the purpose of

post-treatment data collection is not a clinical study or comparative experiment, but rather to provide the first-ever objective profile of the population of women at risk of health issues arising from childbirth in this region of Ethiopia. The survey instrument was designed specifically to allow future interviews to be added to the existing database, in order to produce an ongoing pulse of the demographic and medical profiles and allow statistically meaningful time-based comparisons. This will enable an ongoing review, evaluation, and modification of the STT health delivery model and provide for optimal efficiency and effectiveness of future resources.

Diagnostic and Demographic profile collected at Aira Hospital when admitted for treatment:

Diagnosis at the time of surgical treatment:

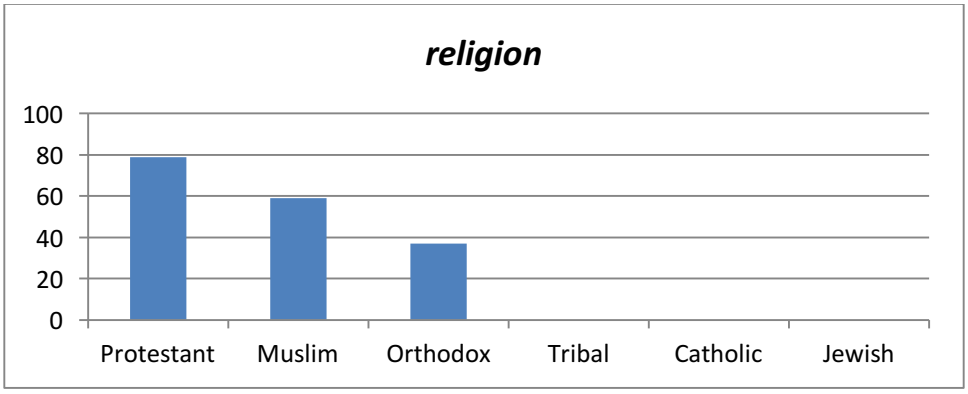


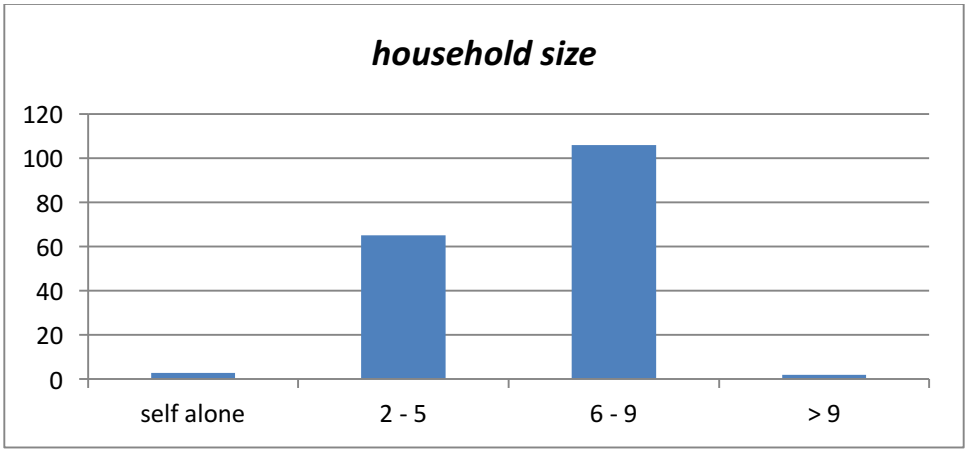
UVP	utero-vaginal prolapse
CYS	cystocele
RCT	rectocele

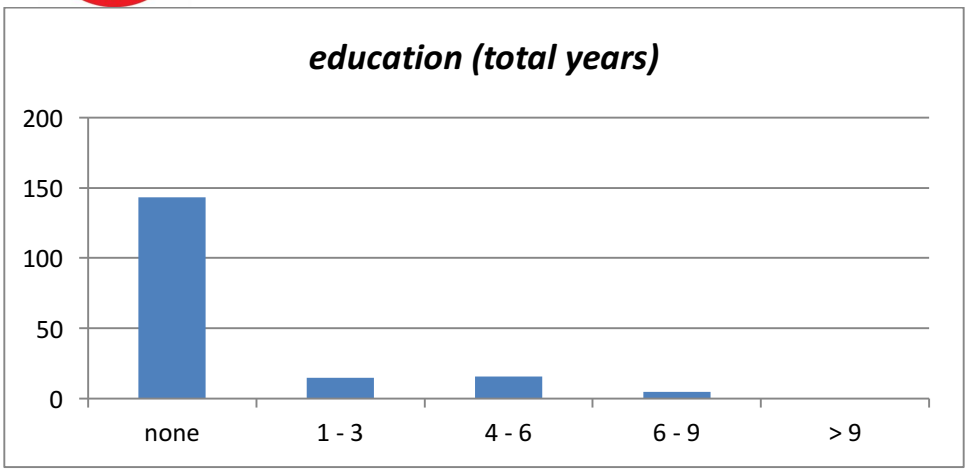
note that the categories shown above are not redundant; a patient diagnosed with all three health issues is not double counted in, e.g., CYS alone.

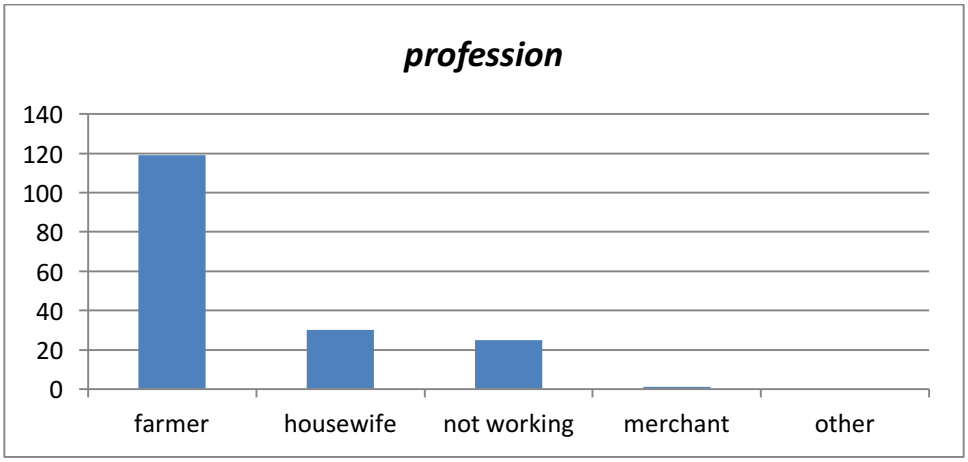
The following information collected at admission prior to surgery provide a demographic picture of the 175 patients treated in 2017. Patient reported age was recorded in previous years but evaluation of the responses strongly indicated that patients were only vaguely able to report their ages and responses tended to group in 5-year intervals with no intermediate data. Given the spurious nature of previous responses to self-reported age and the fact that it is not a reliable demographic indicator, the question was deleted from the 2017 demographic inventory. The purpose of this inventory of patient backgrounds conducted by the health professionals at Aira Hospital in to establish a profile of the

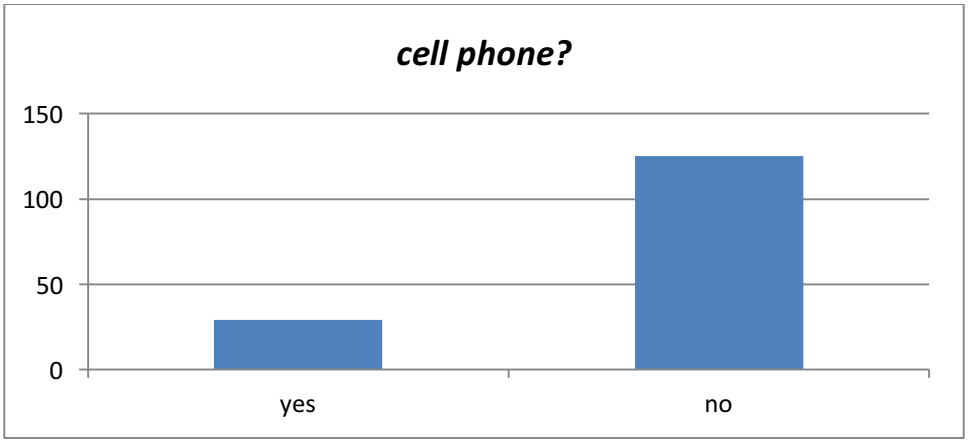
population being treated through the STT program in order to provide for year-on-year comparisons as the program continues. The following data are presented exactly in the order of the admittance questionnaire.

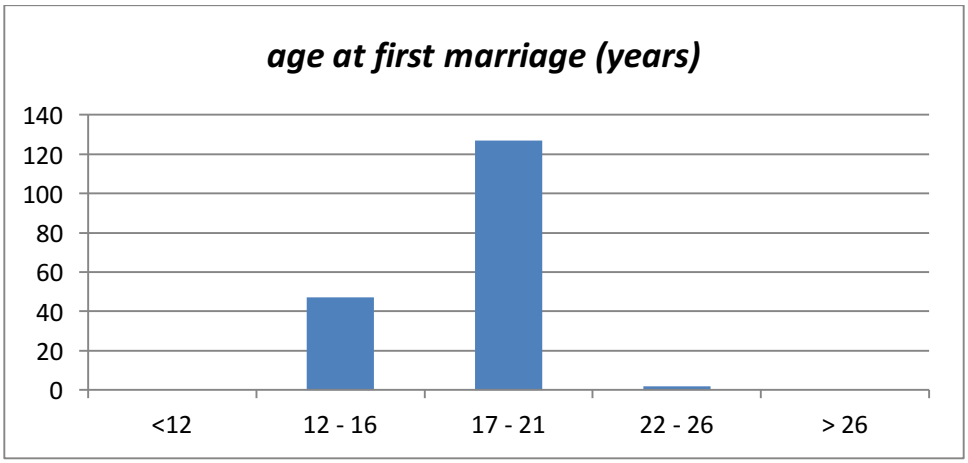


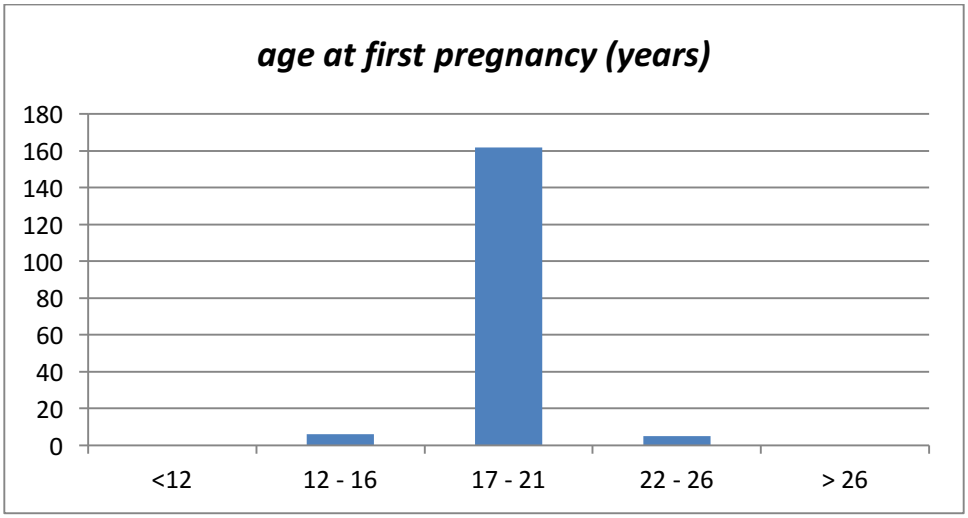


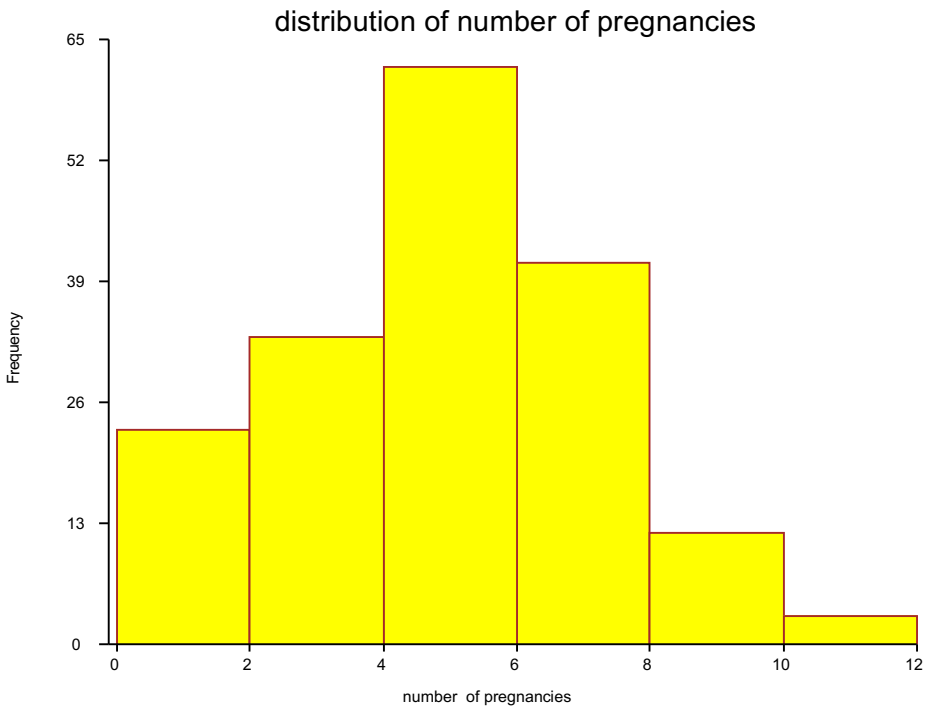

education (total years)
200
150
100
50
0
none
1 - 3
4 - 6
6 - 9
> 9

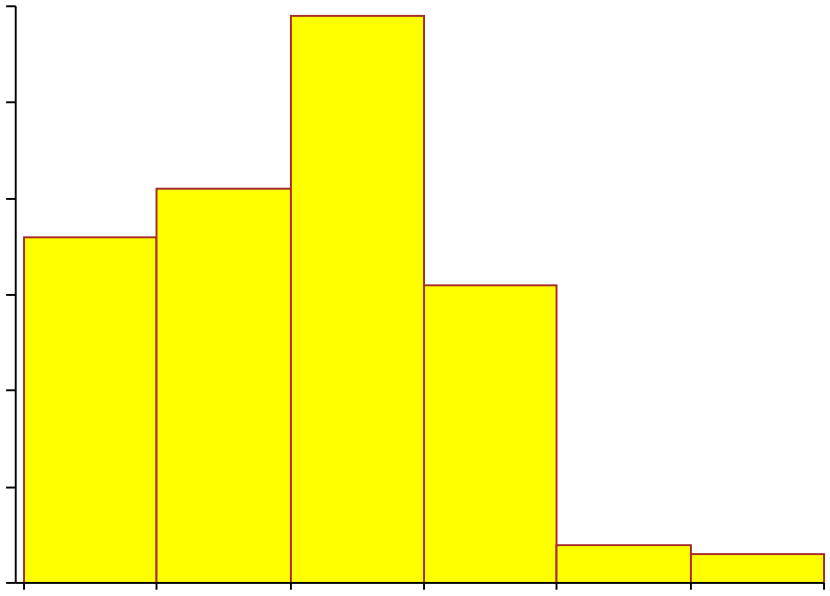

profession
140
120
100
80
60
40
20
0
farmer
housewife
not working
merchant
other


cell phone?
150
100
50
0
yes
no


age at first marriage (years)
140
120
100
80
60
40
20
0
<12
12 - 16
17 - 21
22 - 26
> 26

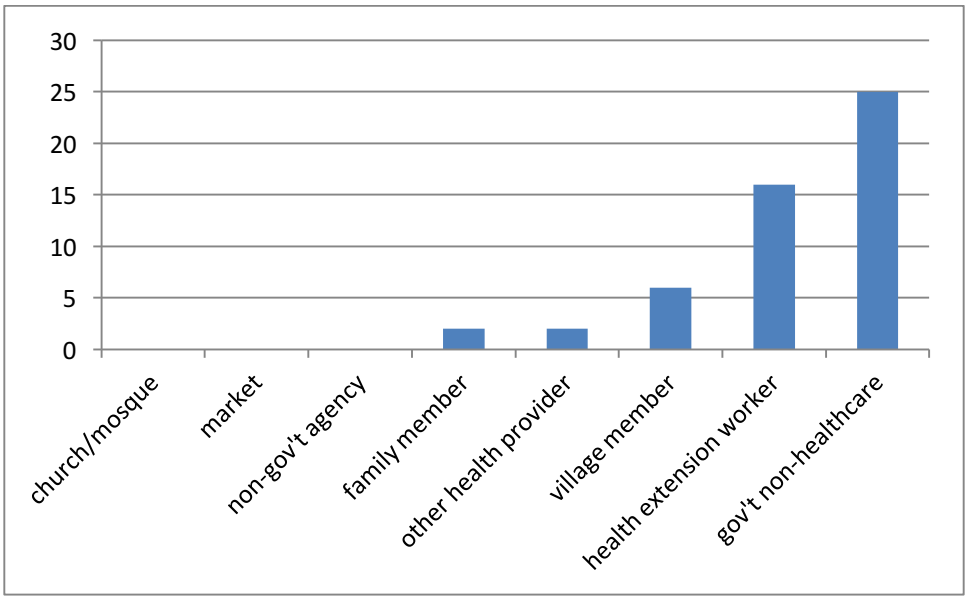

age at first pregnancy (years)
180
160
140
120
100
80
60
40
20
0
<12
12 - 16
17 - 21
22 - 26
> 26


distribution of number of pregnancies
Frequency
65
52
39
26
13
0
0
2
4
6
8
10
12
number of pregnancies

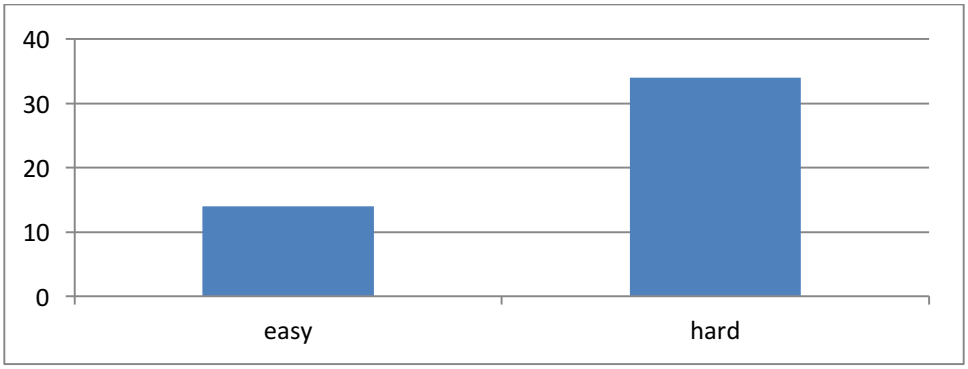


Program data collected in the field by VHP Personnel following treatment at Aira Hospital:

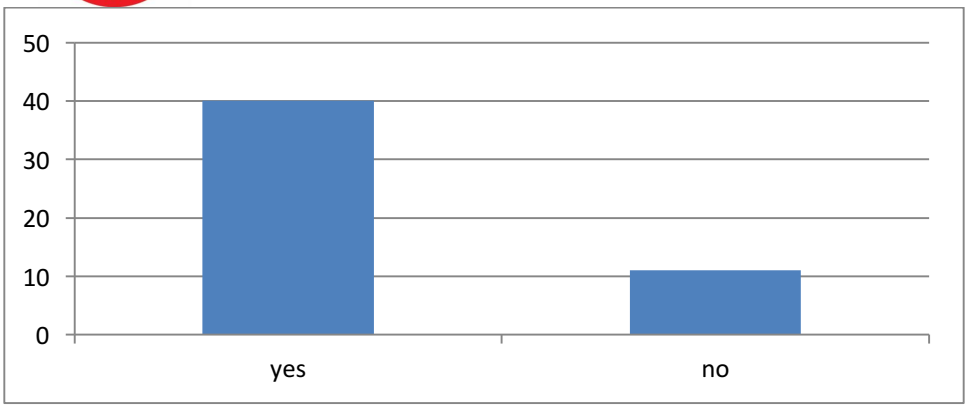
How did you hear about the STT Program?



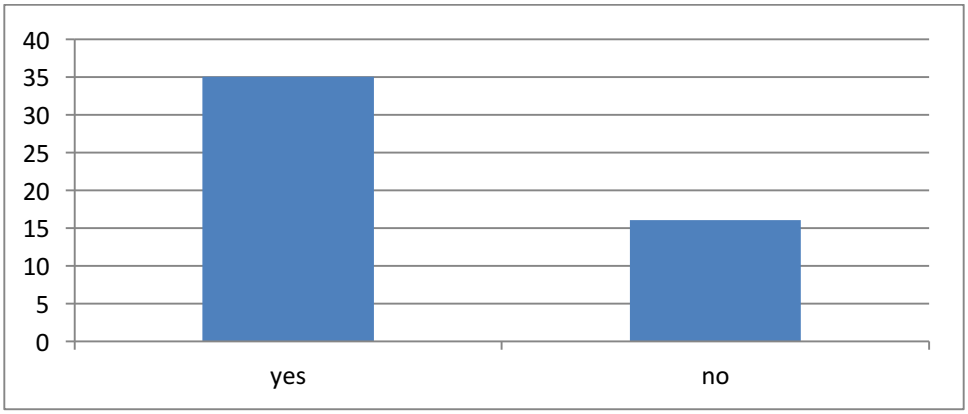
How difficult was it to get to the screening?



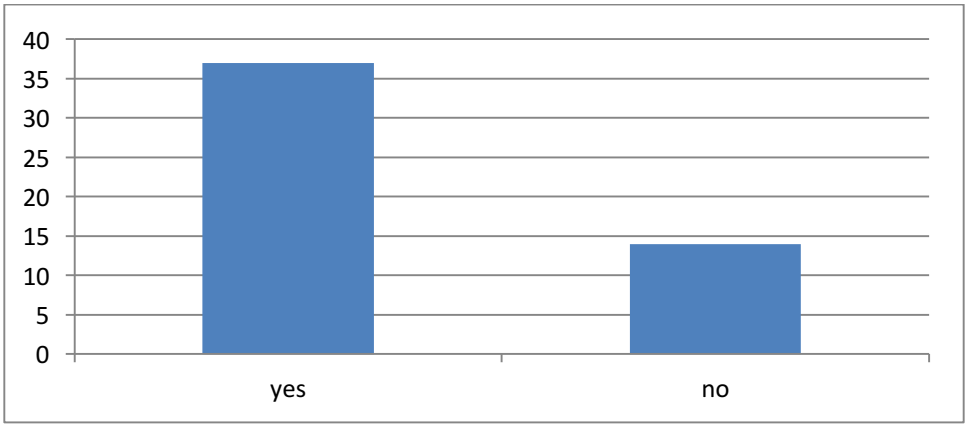
Were you transported to the hospital for treatment?



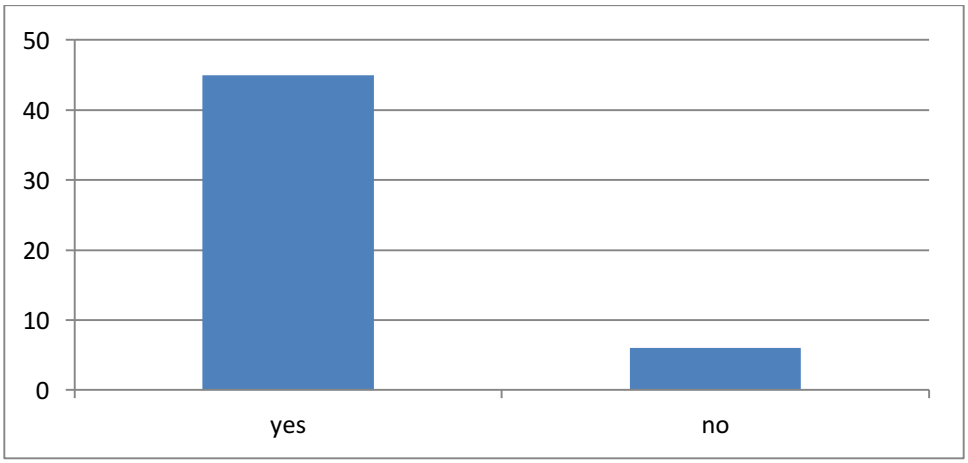
Were you provided money for transportation to the hospital before treatment?



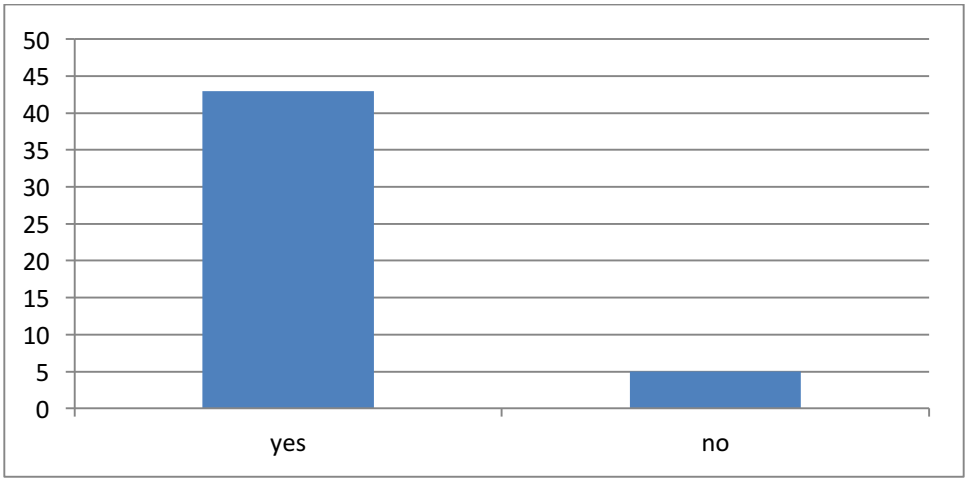
Were you transported from the hospital after treatment?



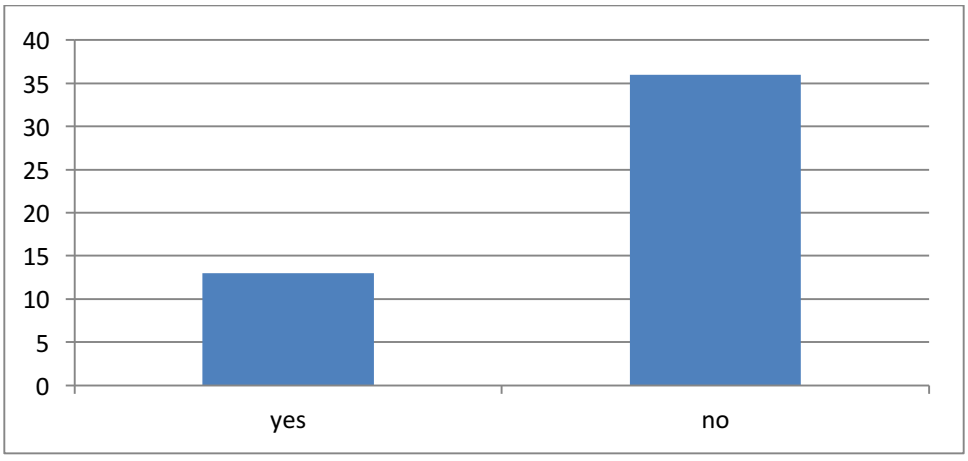
Were you provided money for transportation from the hospital after treatment?



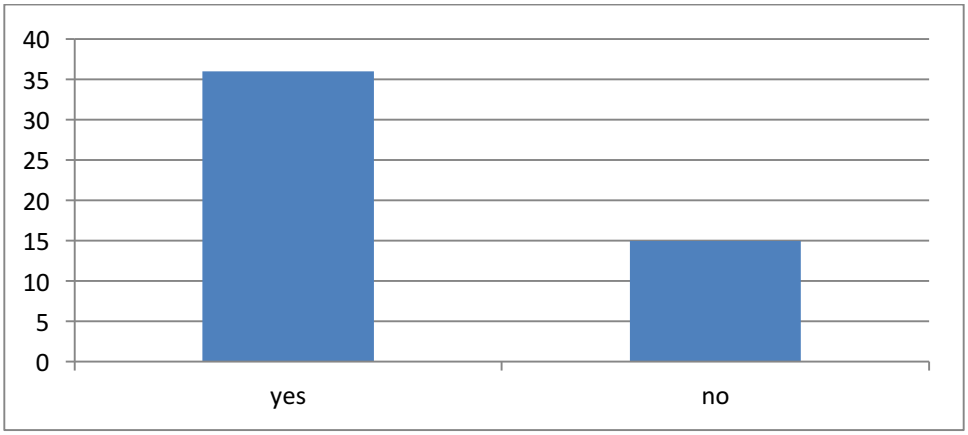
Has your life improved after treatment?



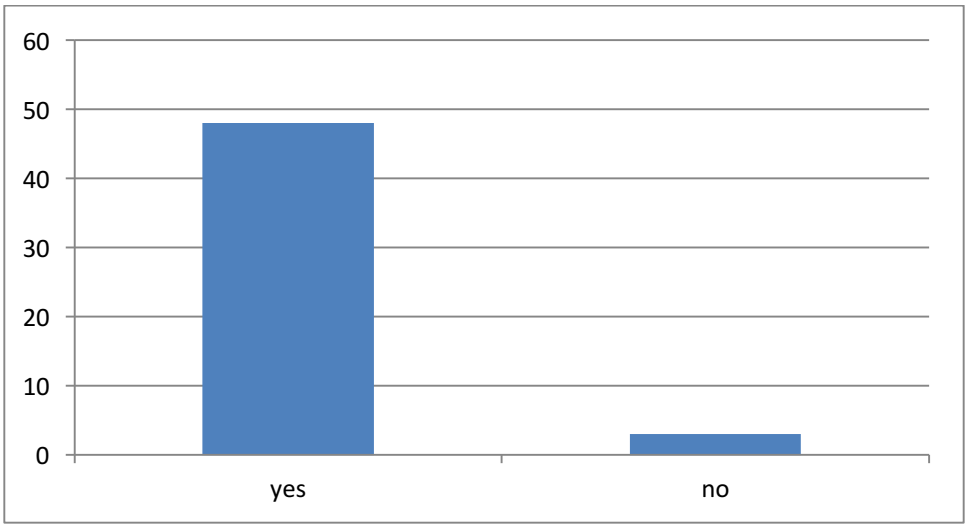
Were you incontinent after treatment?



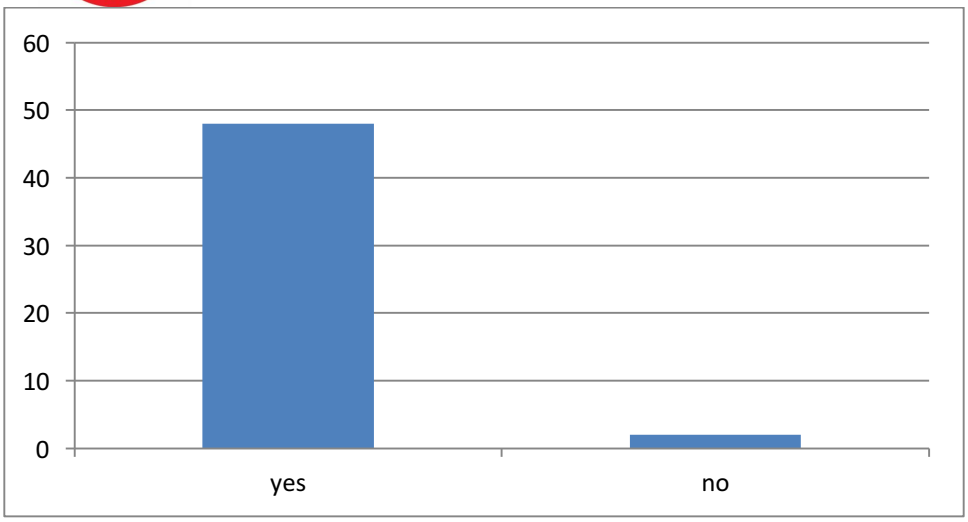
Are you in pain after treatment?



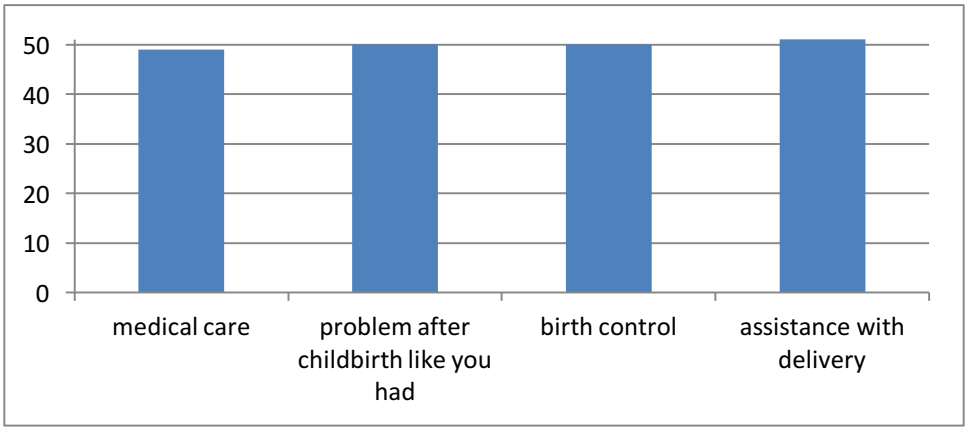
Do you have greater trust in the healthcare system after treatment?



Would you recommend that family/friends participate in screening (STT)?



Would you recommend services for?



Data Summary: medical and demographic profiles [N=175 treated patients]:

VHP provided funding for the identification, transport and surgical treatment of 175 women with gynecologic complications of childbirth through the STT Program in 2017. Diagnostic medical data from Aira Hospital underscores the seriousness of the gynecologic injuries that these women presented prior to surgery. The majority suffered from three organ prolapse (rectum, bladder and uterus) and many had associated incontinence. 25 women were found to have an obstetric fistula with associated incontinence. *Please refer to the summary of diagnoses graph on page 3.*

All of the women admitted for surgery described themselves as being in pain. "Pain" is itself difficult to quantify even in the best of environments (e.g., the 1-10 self-reporting scale commonly used in American hospitals) and is especially challenging to assess when patients have multiple aggravating health conditions which may extend beyond the maternal and gynecological issues they are being treated for. This is further discussed below.

Demographic data collected at the hospital construct a profile of the women treated in 2017 through the VHP STT

Program. Most women are illiterate, subsistence farmers who have no access to a cell phone or the outside world. They married young and have had multiple pregnancies. Most live in large families (6-9 household members) and have lost at least one child. *Please refer to the summaries of personal information on pages 4 through 7.*

Data Summary: VHP & STT Program profiles [n=51 follow-up field interviews]:

Most women were referred for screening by social workers from the local Ethiopian Government Department of Labor and Social Affairs or health extension workers from the Ethiopian Government Departments of Health. This represents buy in by Ethiopian government officials at both the Woreda and Zonal levels. It also suggests integration of the program into the existing health system. Women were also referred in by less formal word-of-mouth. As word of the success of the program spreads, so does community acceptance of the STT Program and therefore referrals into the program.

Given the isolated and rugged terrain it was difficult for most women to get to the screenings which were held at local health centers. This difficulty is compounded when you consider the medical condition that these women were in when they presented for evaluation. The situation parallels the difficulty that women have when attempting to access medical care in general.

Lack of transportation from health center to and then from the hospital was previously identified as a significant barrier to accessing surgical treatment. Often the only means of transport is on foot or by horse or mule. This method of transport is unrealistic if distances are great as is the case for those who live in the Kellem Wollega Zone if women seek care at a functioning hospital. If a woman is incontinent and unable to bathe, transport by private or public vehicle is often refused. Under the STT Program transportation is arranged or money is given to pay for transport to and from Aira Hospital. The data confirm that our partners are doing their job to facilitate transport to and from Aira Hospital where women undergo surgical treatment.

Nearly all women reported that their lives had improved with surgical treatment pointing to the overall success of the program. In spite of this, some women reported that they still suffered from incontinence and/or pain following surgery. We know that not all gynecologic injuries can be completely repaired. Preventing these injuries with skilled assistance at the time of delivery is always preferable. Pain on the other hand, is a complex symptom. All these women suffered from long standing pelvic injury with associated pain. Perhaps not all chronic pain resolves with surgery. Some women had just undergone surgery and were still recovering. For others, pain may represent depression and demoralization. As discussed in the medical diagnosis section above this is a difficult condition to assess and will be given further attention going forward in 2018 and subsequent years.

Many women reported little change in their activities of daily living before and after surgical treatment particularly as it related to the hard labor of hauling wood and water on a daily basis. Some associated the work with the cause of their original injury, others expressed fear that with heavy lifting their injuries would recur. For whatever reason, it is clear that reentry back into village life is not easy. This issue also warrants further exploration.

In spite of these issues, nearly all women reported greater trust in the healthcare system. Building greater trust in the healthcare system is an important corollary goal of the STT Program. It is reasonable to assume that women must feel that their lives have improved as a prerequisite to establishing increased trust but this is not an end in itself; it is necessary but not sufficient for the STT Program to become an ongoing force to improve the lives and welfare of these women.. The critically important outcome of greater trust in the healthcare system is the previously mentioned “ripple effect” by which women independently recommend participation in the STT Program to their family and friends. This element is essential for self-sustaining change in the ability of women to seek and receive needed medical attention; because obviously it is unlikely one would recommend participation if they did not feel it would be helpful and that they have trust and confidence in the system.

As a result of having greater trust in the healthcare system, the women who have been treated are referring their family and friends in to health facilities for medical care. This is particularly important because it demonstrates almost universal support and buy-in for the STT Program. It is also an important criterion for success. More importantly it indicates that the STT Program has opened the door for prevention efforts. If women with gynecologic complications of childbirth can actually be treated, women encourage others to access the healthcare system to be treated, or, better yet, prevent the problem and access the healthcare system for birth control and skilled assistance at the time of delivery to prevent death or complication.

Conclusion and recommendations

The STT Program is successfully breaking down barriers to seeking, reaching a receiving medical care for women with gynecologic complications of childbirth in Kelem Wollega Zone of rural western Ethiopia. In doing so, the program is beginning to lay a foundation for health systems of care where there are none. The program is also generating a positive ripple effect that supports continuation and even expansion of the program, but more importantly, it supports prevention efforts. Women still die in childbirth in this remote part of the world, and those who survive are often left with debilitating complications. Not all of these complications can be fixed and most women will suffer lifelong pain as a result. Although women report that their lives have improved with treatment not only must we assess and work to eliminate the barriers to full functioning, we must work to support prevention efforts.