THE ROLE OF MATERNITY WAITING HOMES as PART OF A COMPREHENSIVE MATERNAL MORTALITY REDUCTION STRATEGY in LESOTHO
ABOUT PARTNERS IN HEALTH:
PIH is a global health organization relentlessly committed to improving the health of the poor and marginalized. We build local capacity and work closely with impoverished communities to deliver high quality health care, address the root causes of illness, train providers, advance research, and advocate for global policy change.

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Cover: Malethoko Mohohala waits with her newborn daughter, Sebonoang, for a checkup at the PIH-supported health center in Bobete, Lesotho. Photo by Rebecca E. Rollins/Partners In Health

Right: Women enjoying the sun outside the maternity waiting home at Nohana. Photo by Jennie Riley/Partners In Health
IN 2010, NEARLY 300,000 WOMEN DIED IN CHILDBIRTH, THE VAST MAJORITY IN DEVELOPING COUNTRIES.
Maternity waiting homes are built near a facility with essential obstetric services and allow pregnant women to travel there several weeks before delivery, wait for the onset of labor, and be quickly transferred to the facility for safe delivery. They have been introduced in many developing countries, but their efficacy in decreasing maternal mortality remains controversial. In Lesotho, which has one of the highest maternal mortality rates in the world, Partners In Health (PIH) has included maternity waiting homes since 2009 as part of a comprehensive effort to increase facility-based deliveries and reduce maternal mortality. The maternity waiting homes are located at seven PIH-supported health centers in some of the most remote, underserved areas of rural Lesotho. The homes provide food and shelter for women who live far away from the health center or have risk factors for potential obstetric complications, and are well-regarded by both health center staff
and pregnant women. Since the implementation of the Maternal Mortality Reduction Project, PIH has seen waiting home admissions and the number of monthly deliveries at health centers increase dramatically. Failure of previous studies to demonstrate a positive impact of maternity waiting homes may reflect the failure to successfully implement other supporting components of a larger, comprehensive strategy to increase access to maternal health services.

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Left: Expectant mothers staying in the maternity waiting home at Bobete prior to delivery of their babies. Photo by Jennie Riley/Partners In Health
INTRODUCTION

Death of women from complications of childbirth remains a major global health problem. In 2010, nearly 300,000 women died in childbirth, the vast majority in developing countries. The maternal mortality ratio—deaths associated with pregnancy or childbirth per 100,000 live births—has proven to be one of the most intractable health indicators in the developing world. Few resource-limited countries have made significant progress toward the Millennium Development Goal 5 target to reduce the maternal mortality ratio by 75% between 1990 and 2015. Lesotho, for example, has one of the highest maternal mortality ratios in the world—in fact, the maternal mortality ratio increased from 237 to 1155 per 100,000 live births between 1990 and 2009. In contrast, almost all resource-rich countries have less than 10 maternal deaths per 100,000 live births.

Common causes of maternal death in resource-limited settings include obstetrical hemorrhage, peripartum infections, eclampsia, and obstructed labor. The majority of these deaths can be prevented with timely access to emergency obstetrical care. However, in resource-limited settings, many deliveries occur at home, often aided by a traditional birth attendant or family member without the skills or the equipment to respond effectively to obstetric emergencies. The geographic distance between women’s homes and the nearest health facility can also magnify the problem. In a setting like rural Lesotho, where women must traverse mountainous terrain to reach a facility with obstetric services, the delay can be significant. If a woman experiences a complication with rapid onset, even a delay of several hours can be fatal. Such emergencies often cannot be easily predicted.

Maternity waiting homes are built near a facility with essential obstetric services and allow pregnant women to travel there.
several weeks before delivery, wait for the onset of labor, and be quickly transferred to the facility for safe delivery. Waiting homes have been introduced in many developing countries, but their efficacy in decreasing maternal mortality remains controversial. In our experience, maternity waiting homes can be an extremely effective intervention, but only if they are part of a larger, comprehensive strategy to increase access to maternal health services. This strategy requires decentralizing primary health care services to bring skilled obstetric care closer to women in rural areas as well as the use of community health workers to identify pregnant women and accompany them to the facility for care (Figure 1).

In 2006, Partners in Health (PIH) began to partner with the Lesotho Ministry of Health and Social Welfare to renovate and support seven rural health centers in some of the most remote, underserved areas of Lesotho. The development of maternity waiting homes is an essential part of a comprehensive maternal mortality reduction program that aims to have all women give birth in an adequately staffed and equipped health facility. In this report, we describe the PIH experience in implementing maternity waiting homes in Lesotho. We share the details of the program design and implementation, lessons learned, and evidence of the program’s success.

A HISTORY OF MATERNITY WAITING HOMES

Maternity waiting homes are not a new idea. Since the early 20th century, waiting homes have existed in the United States and Europe, particularly in remote rural areas where women have limited access to an obstetric facility. Maternity waiting homes began to be introduced into developing countries in the 1960s. Though the World Health Organization has provided broad guidelines of what should be included in maternity waiting homes, significant variation exists in how they have been implemented. Setups range from traditional-style huts to modern houses to old hospital wards. Waiting homes have also differed in terms of whether food, water, and other necessities are supplied, and whether family members are also accommodated.

Historically, maternity waiting homes have been part of a maternal mortality reduction strategy focused on risk screening to identify women who should receive facility-based intrapartum care. In this model, women at high risk for complications (e.g., previous postpartum hemorrhage, previous cesarean section, age > 35 years) are encouraged to stay in a waiting home built near a hospital with emergency obstetric care several weeks before the onset of labor. One rationale for risk screening is that it prevents hospitals from being overwhelmed with patients who could safely be managed at the health center level. In most settings, maternity
Maternity waiting home programs that focus on risk screening fail to account for women with low-risk pregnancies who end up facing an obstetric emergency at home far from facility-based delivery care.

The high-risk screening strategy, however, has proven to be largely ineffective because complications are difficult to predict.\(^{11,12}\) The majority of complications arise in pregnancies initially identified as low-risk. Even in a low-risk population, an estimated 15-20% of pregnancies will result in complications requiring treatment at a facility with comprehensive essential obstetric care.\(^{13,14}\) Maternity waiting home programs that focus on risk screening fail to account for women with low-risk pregnancies who end up facing an obstetric emergency at home far from facility-based delivery care.

**WHY HAVE MATERNITY WAITING HOMES BEEN INEFFECTIVE IN REDUCING MATERNAL MORTILITY?**

In the published literature, there is no clear evidence demonstrating that maternity waiting homes have been effective in reducing maternal or perinatal mortality.\(^{15}\) This is partly due to the difficulty of measuring impact on maternal mortality at a community or population level. Most of the studies that have evaluated the effectiveness of maternity waiting homes analyzed only facility births and did not include home deliveries.\(^{5,16-18}\) The greatest impact of maternity waiting homes, however, is likely to be in preventing maternal deaths by reducing the number of home deliveries. One study in Zimbabwe did include home births in the analysis, and found that more high-risk women (previous cesarean section, parity five or above, and primipara) gave birth in a hospital, but the authors were not able to demonstrate an association with use of the waiting homes.\(^{19}\)

Until recently, no research had evaluated whether women living in remote areas were more likely to deliver in a health facility once maternity waiting homes were available. In Timor-Leste, Wild and colleagues found that the proportion of facility-based deliveries in two districts (based on the estimated number of expected births) did not increase significantly among women who lived more than 25 kilometers away from a health facility following the creation of maternity waiting homes.\(^{9}\) In other words, maternity waiting homes alone are ineffective; they must be implemented alongside other efforts to increase access to facility-based delivery care.

Other studies have examined community acceptability of waiting homes. In Malawi, women praised the easy access to skilled attendance during delivery and the companionship with other women staying in the home.\(^{20}\) Studies have reported recommendations for what should be available at maternity waiting homes, including privacy and separation from men\(^{21}\) and income-generating or skill-development activities to pass the time.\(^{22}\) In Laos, prior to the establishment of waiting homes, a community acceptability study revealed that there would be barriers to their use by minority ethnic groups. The program was subsequently designed to address these potential barriers, including the integration of microcredit and income-generating activities with maternal health services, and permission for non-harmful traditional birth practices to take place alongside modern medical practices.\(^{23}\)

The literature published on maternity waiting homes also reveals a number of other recurring problems that prevented successful implementation. In the Democratic Republic of the Congo, women reported that they actually associated greater risk with staying in the maternity waiting homes compared to their own homes because there was no food and no one to help them there.\(^{24}\) Other implementation problems reported in the medical literature are listed in Table 1.

**THE SETTING: LESOTHO**

Lesotho is a highland country surrounded by the Republic of South Africa with a population of about 1.8 million people. Seventy-seven percent of the population lives in rural areas, and more than 60% of the landscape is mountainous. In addition to these geographic challenges, Lesotho has an adult HIV prevalence of 24%, and 59% of maternal deaths are estimated to be HIV-related.\(^{2,25}\)

The mountainous terrain in rural Lesotho is a significant barrier to health care access and facility-based delivery. In the PIH
### TABLE 1. PROBLEMS THAT HAVE PREVENTED SUCCESSFUL IMPLEMENTATION OF MATERNITY WAITING HOMES IN OTHER SETTINGS

<table>
<thead>
<tr>
<th>PROBLEM REPORTED IN THE PUBLISHED LITERATURE</th>
<th>PIH/LESOTHO SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Referral and transport challenges</strong></td>
<td>Waiting houses built on the grounds of the health center for convenience. Clear protocols for referral, transport, and communication with the district hospital.</td>
</tr>
<tr>
<td>Poorly chosen location, far from the hospital.</td>
<td>8</td>
</tr>
<tr>
<td>Lack of transport for referrals.</td>
<td>26</td>
</tr>
<tr>
<td>Lack of means of communication with referral facility.</td>
<td>27</td>
</tr>
<tr>
<td><strong>Human resource challenges</strong></td>
<td>Nurse-midwife in charge of the maternal health program living on the grounds of the health center. Regular refresher trainings for health care workers, including on the topic of compassionate, dignified care.</td>
</tr>
<tr>
<td>Lack of nurse-midwife to supervise.</td>
<td>27</td>
</tr>
<tr>
<td>Health care personnel not available at night.</td>
<td>8</td>
</tr>
<tr>
<td>Poor attitudes or behavior of health care workers.</td>
<td>22</td>
</tr>
<tr>
<td><strong>Cultural barriers</strong></td>
<td>Hiring traditional birth attendants as MMRPAs and providing them with a secure salary. Accommodating harmless traditional practices such as burying of placenta. Engaging MMRPAs to educate men and mothers-in-law in their communities.</td>
</tr>
<tr>
<td>Not engaging traditional birth attendants to refer women.</td>
<td>28</td>
</tr>
<tr>
<td>Prohibition of traditional birthing practices.</td>
<td>23</td>
</tr>
<tr>
<td>Men’s dismissal of the value of institutional birth for safe delivery.</td>
<td>28</td>
</tr>
<tr>
<td>Resistance by husbands or mothers-in-law to granting permission.</td>
<td>22</td>
</tr>
<tr>
<td><strong>Communication failures</strong></td>
<td>Meetings with village chiefs and community gatherings prior to implementation. Engaging MMRPAs to teach their communities about the waiting homes and their purpose.</td>
</tr>
<tr>
<td>Failure to consult the community.</td>
<td>8</td>
</tr>
<tr>
<td>No clear communication about what to expect.</td>
<td>22</td>
</tr>
<tr>
<td>Lack of awareness about the homes in the community.</td>
<td>22</td>
</tr>
<tr>
<td><strong>Supplies and infrastructure challenges</strong></td>
<td>Budgetary planning based on results of a reproductive health survey in each health center catchment area to estimate the number of women of childbearing age. Renovation of health centers and waiting homes to accommodate monthly targets of expected deliveries.</td>
</tr>
<tr>
<td>Small, crowded facilities.</td>
<td>29</td>
</tr>
<tr>
<td>Insufficient financial resources.</td>
<td>28</td>
</tr>
<tr>
<td>Shortage of water and firewood.</td>
<td>29</td>
</tr>
<tr>
<td><strong>Additional concerns from pregnant women</strong></td>
<td>Provision of food to reduce indirect expenses. Waiting homes with multiple rooms built on the grounds of the health center for patient safety.</td>
</tr>
<tr>
<td>High indirect expenses.</td>
<td>8,28</td>
</tr>
<tr>
<td>Considered unsafe at night.</td>
<td>8</td>
</tr>
<tr>
<td>Concerns about lack of privacy.</td>
<td>23</td>
</tr>
</tbody>
</table>
catchment areas, women travel an average of 3.5 hours by foot, horse, or donkey over difficult mountain roads to reach the nearest health facility. Even by car, the roads are difficult to navigate, and in the rainy season, flooding of the rivers can prevent vehicles from reaching the health centers. Based on our estimates of the number of women of reproductive age and fertility rate, the percentage of facility-based births in these areas was far below the national average for other rural areas of Lesotho.
MATERNAL MORTALITY REDUCTION PROGRAM

In PIH/Lesotho, the maternity waiting homes are one component of a comprehensive maternal health program called the Maternal Mortality Reduction Program. The goal of the Maternal Mortality Reduction Program is to ensure that 100% of women in the PIH catchment area deliver at a health facility that is adequately staffed and resourced to provide high quality basic obstetrical care and can refer to a higher level of care for emergencies.

Prior to the Maternal Mortality Reduction Program, most women in the catchment area delivered at home, assisted by traditional birth attendants. Traditional birth attendants in Lesotho and in many other countries are compensated by their clients with money or bartered goods. A traditional birth attendant therefore has a financial disincentive to refer pregnant women to health facilities. Safe motherhood initiatives in many countries have attempted to provide traditional birth attendants with training to conduct safer deliveries while continuing the informal economy of home delivery. In contrast, the Maternal Mortality Reduction Program has retrained traditional birth attendants to become Maternal Mortality Program Reduction Assistants (MMRPA). MMRPAs are directly compensated by PIH/Lesotho to accompany women to health centers for antenatal care, facility-based delivery, postpartum care, and newborn/child health care. Since it is important that the community understands the importance of facility-based delivery, this is the main focus of the education they provide during community gatherings. They also work to address traditional beliefs and other cultural barriers that might prevent a woman from receiving care at the facility.

WAITING HOME ADMISSION PROTOCOL

The waiting homes are intended for not only women identified as high risk but also women who live far from the health center or face other geographic barriers, such as rivers during the rainy season. Any pregnant woman is eligible to stay in the waiting homes, but priority is given to women from rural areas (e.g. living more than two hours from the facility by walking) and women with risk factors for complications (e.g. age less than 16 or more than 40 years, first birth, more than six births). The admission protocol is shown in Box 1.

LABOR AND DELIVERY PROTOCOL

The maternity waiting homes are part of a comprehensive care strategy for antenatal care, labor and delivery, and postpartum care. The other integral components of this strategy—trained...
health personnel, uninterrupted supplies for safe delivery, referral and transport protocols—ensure that women benefit from staying in the waiting homes. The nurse-midwife lives in staff housing on the grounds of the health facility and is on call regardless of the time of day. When a woman staying at the waiting home goes into labor, the nurse-midwife is alerted and the woman is transferred to the labor ward at the adjoining health center. The nurse-midwife is capable of managing basic emergency complications, including administering antibiotics and oxytocin, actively managing the third stage of labor, and manually removing the placenta.

If a woman is experiencing prolonged labor, severe postpartum hemorrhage, or another complication that requires a higher level of care and intervention not available at the health center, such as cesarean section or blood transfusion, arrangements are made to transfer her to the district hospital. Each health center has an emergency transfer protocol that has been individualized to its particular geographic location. Health centers located within several hours’ drive to the district hospital have a car and driver on call for road transport. At sites without cars, PIH has made arrangements in advance with people who live in nearby villages who have access to vans or trucks. For health centers that are located more than three hours by car from the nearest district hospital, health center staff coordinate with the nonprofit organization Mission Aviation Fellowship to transport the women by single-engine planes (Figure 2). In the winter, the snow can pack so high that mountain roads are not passable by foot or car and airport runways are closed. For emergency cases, health center staff may coordinate with the government to transport pregnant women by military helicopter (Figure 3).

For very high-risk women (e.g., older women pregnant for the first time or women with a previous cesarean section scar), delivery is not attempted at the health center, and a transfer to the district hospital is scheduled instead. Still, many of these women will stay at the waiting homes in preparation for transfer to the district hospital in advance of their expected delivery date.

**PROGRAM ROLLOUT**

Figure 4 shows rollout timelines for both the Maternal Mortality Reduction Program and the maternity waiting homes across the PIH-supported sites. Initially at Bobete, PIH rented several traditional Basotho rondavels (round houses with stone walls and thatched roofs) in nearby villages where the women

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**BOX 1. PROTOCOL FOR MATERNITY WAITING HOME ADMISSION**

- Pregnant women who come from distant places (e.g., those who must walk more than two hours to the clinic) should be admitted at greater than 38 weeks gestation.

- Pregnant women who are from high-risk groups should be admitted at 35-36 weeks gestation for monitoring and preparation for referral to the district hospital.

- Admission date should be written in the waiting home booking diary prior to admission.

- Admission date should be determined by the nurse-midwife.

- All mothers should be informed of the waiting home rules.

- One bed should strictly accommodate one pregnant woman.
**FIGURE 2.** MODES OF TRANSPORT AVAILABLE AT RURAL HEALTH CENTERS IN LESOTHO

**FIGURE 3.** PREGNANT WOMAN BEING TRANSPORTED FROM A HEALTH CENTER TO THE DISTRICT HOSPITAL BY HELICOPTER AFTER A SNOWSTORM

Photos by Jennie Riley and Max Bearak/Partners In Health
could stay prior to delivery. However, there were concerns about guaranteeing the women’s safety and security, so a new building was constructed on the gated grounds of the health center, which has a security guard (Figure 5). When the Maternal Mortality Reduction Program was expanded to other health centers, waiting homes were built or renovated at all of the health centers.

Rondavels in the nearby villages were rented while construction was completed. Table 2 shows the capacity of each maternity waiting home in relation to the health facility’s estimated travel time to nearest referral hospital, estimated catchment area, and monthly delivery targets.

**TABLE 2. CAPACITY OF THE MOTHERS’ WAITING HOUSES BY HEALTH FACILITY**

<table>
<thead>
<tr>
<th>Health facility</th>
<th>Capacity of maternity waiting homes</th>
<th>Estimated travel time to nearest referral hospital by car</th>
<th>Estimated catchment area</th>
<th>Estimated number of women of reproductive age</th>
<th>Monthly delivery target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobete Health Center</td>
<td>12</td>
<td>2.5 hours</td>
<td>25,000</td>
<td>7,600</td>
<td>32</td>
</tr>
<tr>
<td>Nohana Health Center</td>
<td>12</td>
<td>6 hours</td>
<td>25,000</td>
<td>7,600</td>
<td>32</td>
</tr>
<tr>
<td>Nkau Health Center</td>
<td>12</td>
<td>1.5 hours</td>
<td>15,000</td>
<td>4,560</td>
<td>19</td>
</tr>
<tr>
<td>Tlhanyaku Health Center</td>
<td>12</td>
<td>3 hours</td>
<td>15,000</td>
<td>4,560</td>
<td>19</td>
</tr>
<tr>
<td>Methalaneng Health Center</td>
<td>12</td>
<td>2 hours</td>
<td>20,000</td>
<td>6,080</td>
<td>25</td>
</tr>
<tr>
<td>Manamaneng Health Center</td>
<td>12</td>
<td>2.5 hours</td>
<td>10,000</td>
<td>3,040</td>
<td>13</td>
</tr>
<tr>
<td>Lebakeng Health Center</td>
<td>12</td>
<td>3 hours</td>
<td>10,000</td>
<td>3,040</td>
<td>13</td>
</tr>
<tr>
<td>Mamohau Hospital</td>
<td>25</td>
<td>--</td>
<td>70,000</td>
<td>21,280</td>
<td>89</td>
</tr>
</tbody>
</table>

*a* Calculated as 30% of the catchment population, based on the number of women of childbearing age identified during a household reproductive health survey conducted in the catchment area of Bobete Health Center.

*b* Because the goal of the program is 100% facility-based deliveries, the monthly target is the number of expected deliveries in the catchment area per month. Calculations are based on the assumption that 5% of women of childbearing age have a pregnancy per year (based on percentage of women ages 15-49 years who are currently pregnant as reported in Lesotho 2009 DHS).
MATERNITY WAITING HOME COSTS

The average cost of constructing each maternity waiting home was USD $36,760. Construction costs depended on whether a home was built or an existing home was renovated. Construction costs also depended on the difficulty of transporting building materials to a given health center in the mountains. Each house required initial supplies valued at USD $450, including a table, kerosene heater, beds and mattresses, curtains, trash can, water bucket, drinking mugs, and a water jug.

A lack of food at maternity waiting homes has prevented their successful implementation in other settings. PIH addresses this problem by having cooks at each health center who are responsible
for preparing meals for pregnant women staying in the waiting homes as well as meals for staff and inpatients. The provision of food helps to cut the indirect costs of staying in the houses and prevents women from choosing not to stay at the waiting homes because of concerns about taking food away from their households—a common concern in resource-limited settings where maternity waiting homes have been previously unsuccessful. PIH spends an average of USD $3 per woman per day each month on food and kerosene.

A lack of food at maternity waiting homes has prevented their successful implementation in other settings.

CHALLENGES

Unintentionally long stays at the waiting homes lead some women to return home before delivery.

Prolonged stays at the waiting homes—the unintentional result of post-term pregnancy or difficulty with accurately estimating the expected date of delivery—are a challenge. Women at the homes who are determined to be post-term (gestational age of more than 42 weeks) are referred by the nurse-midwife to the district hospital. But several of the health centers have reported that a small number of women have left the homes after staying for a prolonged period (generally more than 21 days). Often these women subsequently deliver at home. To address this problem, nurse-midwives are now trained in basic ultrasonography to diagnose potential complications. This has also increased the accuracy of delivery date estimates and reduced the number of women leaving the waiting homes.

Child care concerns prevent some women from staying at the waiting homes.

Usually husbands or grandparents are willing and able to care for other children while women are staying at the waiting homes. A small number of women, however, have refused to stay in the homes because of concerns about care for their young children. One of the advantages of working with MMRPAs is that they can help to address these kinds of barriers. MMRPAs live in the villages with the women they serve and are trusted members of their communities. They are uniquely qualified to arrange child care with husbands, mothers-in-law, and other family members, and to serve as a communication link between the village and the pregnant woman while she stays in the waiting home.

The demand for the waiting homes exceeds the capacity at some health facilities.

The number of women seeking to stay at the maternity waiting home at some health centers often exceeds capacity. When the home is full and cannot accept all the women who wish to stay there before delivery, there is a potential for an increase in home births. These health centers use temporizing measures such as extra mattresses or housing women in unused rooms in the health center, but additional construction to expand the maternity waiting homes at some health centers is needed.
At the PIH-supported health centers, waiting home admissions now account for the majority of monthly deliveries (Table 3). As the Maternal Mortality Reduction Program expanded to include additional sites, the number of waiting home admissions increased by over 10 times (Figure 6). Women 25 years and younger account for 56% of waiting home admissions (Figure 7).

At Bobete Health Center, where data were available before and after the implementation of the Maternal Mortality Reduction

### TABLE 3. AVERAGE NUMBER OF WAITING HOME ADMISSIONS PER MONTH, BY HEALTH FACILITY

<table>
<thead>
<tr>
<th>Health facility</th>
<th>Average number of admissions per month</th>
<th>Average number of deliveries per month*</th>
<th>Admissions as a percentage of monthly deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobete Health Center</td>
<td>17.7</td>
<td>16.4</td>
<td>108%</td>
</tr>
<tr>
<td>Nohana Health Center</td>
<td>7.1</td>
<td>12.8</td>
<td>55%</td>
</tr>
<tr>
<td>Nkau Health Center</td>
<td>8.0</td>
<td>9.9</td>
<td>81%</td>
</tr>
<tr>
<td>Thanyaku Health Center</td>
<td>7.3</td>
<td>9.3</td>
<td>78%</td>
</tr>
<tr>
<td>Methalaneng Health Center</td>
<td>12.6</td>
<td>11.2</td>
<td>113%</td>
</tr>
<tr>
<td>Manamaneng Health Center</td>
<td>5.3</td>
<td>6.9</td>
<td>77%</td>
</tr>
<tr>
<td>Lebakeng Health Center</td>
<td>5.3</td>
<td>5.7</td>
<td>93%</td>
</tr>
</tbody>
</table>

*Calculated since the Maternal Mortality Reduction Program started at the site. Totals do not include referrals to the district hospitals, so some admissions as a percentage of monthly deliveries exceed 100%.
Program, facility-based deliveries showed a marked increase after implementation in 2009. Average monthly deliveries increased from 3.8 in the year preceding the program to 18.0 by the second year following the program’s implementation, representing an increase in estimated coverage from 14% to 64%. The waiting homes seem to be well-received by both health facility staff (Box 2) and pregnant women (Box 3).

**FIGURE 6. INCREASE IN WAITING HOME ADMISSIONS WITH EXPANSION OF THE PROGRAM TO ADDITIONAL HEALTH FACILITIES, SEPTEMBER 2009 – APRIL 2012**

**FIGURE 7. AGE DISTRIBUTION OF MATERNITY WAITING HOME ADMISSIONS**
BOX 2. STAFF IMPRESSIONS ABOUT THE MATERNITY WAITING HOMES

“Women are gradually beginning to appreciate staying in the waiting homes and the importance of delivering in a health facility.”  
– Mohloki Chere, registered nurse-midwife at Lebakeng Health Center

“This month [July 2011] it was very busy, most of deliveries were pregnant women from the shelters. After every delivery there was an admission to shelter which occupied any empty bed.” – Mme Phafoli, registered nurse-midwife at Bobete Health Center

“[The maternity waiting home] is a safe haven for innocent mothers who never understand the danger of being pregnant in Africa until the last day comes.” – Dr. Muluken, obstetrician at Mamohau Hospital

Mamotlatsi, maternal health worker (and former traditional birth attendant) at Nohana Health Center, expressed gratitude for the program, saying that she was pleased to see fewer and fewer births taking place at home. As someone who used to help mothers deliver in the village, Mamotlatsi said the facility births were much smoother, with resources and services available if anything went wrong.

BOX 3. PATIENT STORIES FROM THE MATERNITY WAITING HOMES

Mosa is sitting outside the maternity waiting home at Bobete where she has been staying for five days. She lives an hour and a half walk from the clinic, so she chose to stay at the home in preparation for her delivery. This is her first pregnancy. She came to Bobete because she saw other women in her community benefiting from the services there, so she began attending antenatal visits and has been pleased with the care. Her family is glad that she can receive care here, as opposed to staying at home in their village, where it’s not guaranteed there will be someone available to assist her when she goes into labor.

Malithaba delivered a baby boy after a 12-hour journey from her home village with her MMRPA. After attending two antenatal care visits at Tlhanyaku health center, she had been scheduled to be admitted to the maternity waiting home in advance of her expected delivery date. However, her contractions began earlier than expected—before they had even left their village. After the long journey, including a five-hour stopover at a village along the way, she delivered at Tlhanyaku.
PATIENT STORIES FROM THE MATERNITY WAITING HOMES (CONT.)

Basele is a 21-year-old from Shoella, a village two hours’ walk away from Methalaneng. Basele was accompanied by her MMRPA to the health center in Methalaneng to stay in the maternity waiting home. Seven days later, she gave birth to a baby boy, her first child. Basele said she and her husband were planning to sell a sheep in order to buy food and clothing for the baby. She also said that she wants to send her little boy to school and wants to deliver her future children in the health center. Basele said that she “hoped that the women’s shelter will always be there, whether or not we are able to raise support.”

Malebohang is from the village of Ha-Kori, about a three-hour walk from the Nohana health center. She is nine months pregnant with her second child. Malebohang delivered her first child at home, attended by mothers in the village and her mother-in-law, without complications. Malebohang said she came to learn about the Maternal Mortality Reduction Program when she attended a community gathering where a MMRPA informed the community about the program and the importance of women attending antenatal visits and delivering at a facility. Later, when she became pregnant, she approached the MMRPA, and they came together to the Nohana health center for her first antenatal care visit. She checked in to the maternity home two weeks prior to her expected delivery date. Importantly, her mother-in-law is supportive of her being at the home; she came to visit Malebohang last week. Her husband is at home taking care of the other child. When asked about the benefits of the program, Malebohang said, “In case of emergencies, I will get the appropriate care here, unlike at home.” She added that she and the other mothers are “very thankful for the support, for their own good and for their babies.”
MATERNITY WAITING HOMES CAN BE SUCCESSFULLY IMPLEMENTED AT THE HEALTH CENTER LEVEL.

In many other settings, maternity waiting homes are located only near hospitals. In PIH/Lesotho, however, waiting homes were implemented at rural health centers. This focus on facility-based deliveries at the health center level prevented the program from overwhelming district hospitals with women who could be safely managed at the health centers by nurse-midwives with training and supplies for basic emergency obstetric care. It also allowed the program to open the waiting homes not only to women identified as high-risk during antenatal care, but also any woman, high-risk or low-risk, who lived at least a two-hour walk from the clinic. This supported the program’s goal to achieve 100% facility-based deliveries in the catchment area. This strategy was also effective because there were clear protocols for referral and transport of pregnant women to a higher level of care for complications that could not be managed by a nurse-midwife.

FORMER TRADITIONAL BIRTH ATTENDANTS CAN BE ENGAGED AS ALLIES IN THE SUCCESSFUL IMPLEMENTATION OF MATERNITY WAITING HOMES.

The nurse-midwives view the MMRPAs as a key communication link between the health center and the community. The MMRPAs are not only compensated for their time, but also receive an incentive for accompanying women to the health center for delivery. They therefore encourage women to make use of the maternity waiting homes. As members of the same community, the MMRPAs can help individual women to communicate with their families and make arrangements for child care in their absence, thus overcoming these common barriers to use of maternity waiting homes.

MATERNITY WAITING HOMES MUST BE PART OF A COMPREHENSIVE MATERNAL HEALTH PROGRAM IN ORDER TO HAVE MAXIMUM IMPACT.

In Lesotho, maternity waiting homes are just one component in a comprehensive effort focused on increasing facility-based deliveries and reducing maternal mortality. The comprehensive program also includes well-trained nurse-midwives who are on call at the health center at all times, community outreach to identify pregnant women early in their pregnancies, and strong collaboration between the community-based MMRPAs and facility-based nurse-midwives. Efforts to publicize and ensure community acceptability of the waiting homes are also important. The failure of previous studies to demonstrate a positive impact on maternal outcomes by maternity waiting homes may reflect the failure to successfully implement these other supporting components.


THE ROLE OF MATERNITY WAITING HOMES AS PART OF A COMPREHENSIVE MATERNAL MORTALITY REDUCTION STRATEGY IN LESOTHO

Above: A pregnant woman walks from Bobete to a nearby village with MMRPA Palesa Chetane and a nurse-midwife.

Photo by Jennie Riley/Partners In Health