EXPANDNET

TECHNICAL REPORT

Workshop to develop a strategy for Scaling Up of the "Que vivan las madres" (Long live the mothers) Project: An integrated approach to reducing maternal and perinatal mortality in Northern Guatemala.

Hotel Santander Plaza, Guatemala City, March 4-6 2014

Organizers:
Dr. Edgar Kestler
CIESAR

Dr. Dilys Walker
PRONTO

Facilitator:
Dr. Juan Díaz

Reprolatina - ExpandNet

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Background and justification

Efforts to reduce maternal mortality in low income countries are well documented. Some countries have achieved important successes, with or without international assistance. Nonetheless, there are a number of countries that continue with unacceptably high rates of maternal mortality, like Guatemala for example, where maternal and perinatal mortality continues to be a serious problem and reaching the millennium development goals will be difficult to achieve in the coming decades.

The maternal mortality ratio in Guatemala overall is 140 per 100,000 live births, and has changed little in recent years. The departments in the north of Guatemala, with larger concentrations of poor, indigenous populations, have the highest maternal mortality ratios, which can be as high as 260 per 100,000 live births. Similarly, neonatal mortality is also unacceptably high, with a national average of 23 per 1000 live births and 52 per 1000 live births in the rural areas in the north of the country. Three out of four neonatal deaths occur in the early neonatal period.

In spite of the fact that it is recognized that births with a skilled attendant present undeniable advantages over births attended by lay persons, only 31% of vaginal births in Guatemala are attended by skilled personnel, a doctor and/or nurse. Per the World Health Organization (WHO), the traditional birth attendant is not considered skilled personnel. Since early 2004 the Guatemalan government, with help from the World Bank, has invested heavily in building and updating clinics with capacity to attend deliveries 24 hours per day in rural areas. In the north the number of health centers, now called Permanent Centers of Attention (CAP), increased from 11 to 63 in four departments: Alta Verapaz, Huehuetenango, Quiché, and San Marcos. It was expected that by providing increased access to institutional birth, rates of maternal and neonatal mortality would decrease, which has not occurred. The reasons for this lack of beneficial effect from the increase in facilities appears to be due to the fact that the women resist being attended at the center, especially because they don't like the way they are attended to and because the personnel at the centers are not well prepared in the management of obstetric and perinatal emergencies.

In July of 2011, a study was begun to test the effect of a package of interventions which included: 1) a low cost simulation-based training program (PRONTO) to teach provider teams emergency management during childbirth, 2) a research-driven social marketing campaign encouraging women to give birth in clinics where they would be attended efficiently and respecting their decisions around the modality of birth, rather than at home, and 3) the introduction of professional midwifes who function as liaisons charged with connecting traditional birth attendants to the formal health care system as well as closer participation of the professional midwife with the health system personnel, allowing the traditional midwife access to attend deliveries at the health centers.

The results of the application of this package of interventions showed that PRONTO training moderately increases the knowledge of health providers in how to manage obstetric emergencies, hemorrhage, and newborn resuscitation, the implementation of the social marketing strategy attracted more deliveries to the places where the interventions were implemented and there was an increase in knowledge among traditional birth attendants about hemorrhage in the puerperium. Although the analysis

of the results on perinatal health have not been completed, there are data that permit the inference that these results have also been positive for newborns.

These data justify the expansion or scaling up of this package of interventions to all the communities in Alta VeraPaz and Huehuetenango, to reduce maternal and perinatal morbidity and mortality in both departments, which is the objective of this expansion or scaling up.

The coordinators of the team of investigators decided to request the collaboration of ExpandNet professionals to design, in a collaborative manner, with the team that coordinated and evaluated the first project, a strategy for scaling up the implementation of the package of interventions in all the health centers in all the communities of Huehuetenango and Alta Verapaz.

The ExpandNet team agreed to collaborate and Dr Juan Diaz accepted the assignment to prepare and facilitate a three day workshop to work with the research team, training them in the use of the ExpandNet methodology for designing scale-ups and to prepare the first version of the scale up strategy for the project in the aforementioned states

The workshop was held March 4th to 6th in the Hotel Santander Plaza in Guatemala City. The agenda is included as an appendix.

Summary of Project which will be scaled up

"Que Vivan Las Madres" or "Long Live the Mothers": Scaling up of an integrated package of interventions to reduce maternal and perinatal morbidity and mortality in a poor indigenous population in Guatemala.

Estimated start date: January 2014
Estimated end date: December 2017

Overall Objective of the Study

To scale-up the package of interventions that has been tried in 15 communities in 4 departments in the north of the country, to 34 communities in the departments of Huehuetenango and Alta Verapaz. Scaling up will be done following a stepped wedge design over the next 3 years until all of the health centers that attend births in the 34 communities have been reached.

The first activity will be an assessment of the situation in 34 communities that will be carried out over six months, to have a baseline for later comparison.

Before beginning the intervention, communities will be grouped into 6 zones or groups. The interventions will be implemented sequentially in each of the six groups over a period of four months for each group. The order in which the groups receive the intervention will be randomized, to avoid any influence of the investigators in the selection of the order for intervention. Over the next three years, the interventions will be implemented in all of the health centers that attend deliveries in the 34 communities in Huehuetenango and Alta Verapaz.

Specific objectives of the study:

- Increase the number of institutional births by 15%.
- Reduce the rate of perinatal mortality (PMR) by 35%.
- Reduce indicators of maternal and perinatal morbidity related to attention at delivery and management of obstetric emergencies at the health centers.

The package of interventions will be implemented in all the communities in the two departments, including all of the health centers that attend deliveries (CAP, CAIMI and hospitals). However, in the evaluation of the intervention we will use only the data from the 34 health centers (CAPs). The 34 communities will be grouped geographically in 6 zones with five or six communities in each zone. Implementation of the intervention will be done one zone at a time, over a period of 4 months for each zone. The order in which the zones receive the intervention will be randomized, as described earlier.

In each zone, during the 4 months of intervention, Module I of PRONTO training will be completed, the social marketing campaign will be launched, and the professional midwife liaison activities will start in the first two weeks.

These activities will be complete within one month. Module II of PRONTO training will be done later but within the four month intervention period that corresponds to each zone. Throughout the entire four month period the social marketing activities and work with traditional birth attendants through the professional midwives will continue.

Data Collection and Analysis Plan

All project data will be collected over a period of 36 months: a baseline (6 months), an implementation period for the intervention package (6 zones * 4 months each = 24 months), and an endline evaluation (6 months).

Baseline	Implmentation of intervention package	Endline
6 months	24 months	6 months

The data will be obtained by trained field workers familiar with management of information produced by the CAPs, CAIMIs and hospitals, using the following methodology:

PRONTO TRAININGS

Obstetric practices during the attendance of normal deliveries will be observed in a simple of CAPs, before and one year after PRONTO training.

1) PRONTO participant knowledge about obstetric emergencies and goal achievement will be evaluated for each CAP before training and three months after the completion of training. Knowledge of course participants about emergency obsteric care and goal achievement by teh CAP will be evaluated before training and three months after training is completed. This will be done with structured pre-post tests and information from strategically planned clinical sessions.

Social Marketing Campaign
Information will be collected to measure the knowledge attitudes and practices of the primary target of the social marketing campaign. This evaluation will be done with a structured questionnaire administered to women waiting for prenatal care at the CAPs. We will use the same sample of CAPs as for the birth observations.

Linkage between professional midwives, traditional birth attendants (TBAs), and the CAPs:
Information will be collected about the number of pregnant women referred by professional midwives to the CAP, as well as the number of births attended by TBAs in the CAP.

Preparation and ethical handling of data
The field workers will be trained in the data collection process and ethical Management of data. All information will be collected using previously developed forms that will be revised and updated based on the experience of data collection in the previous randomized cluster trial.

Data cleaning and analysis
All data collected in Annexes 1-2 will be tabulated and coded during field work. Data will then be reviewed, first by the respective departmental coordinator, who should assure that the questionnaires have been completely filled and check the quality of the information. All questionnaires will be sent to the central project offices by the general project coordinator where the data cleaning and entry will begin. Data quality and validity of our process and outcome indicators will be assured ongoing data entry in a data capture system that permits the identification of range errors and inconsistencies at the time of entry.

Data analysis
Descriptive ad inferential statistics

The stepped wedge design is ideal for community level research of public health interventions that have been shown to be effective in experimental studies of Phase IV trials.

Given that the baseline data collection will supply the information to define the number of communities that will form each zone and in which the intervention package will be implemented at a given time, it will not be known until that point what the actual variance between sites will be. This will be important in determining whether the analysis will be done with zones of equal size (equal number of communities) or different sizes.

Descriptive information for each process and outcome indicator will be obtained, as well as the final definition for use in a Linear Mixed Model, as used in this type of study.

Data interpretation plans
Impact indicators

There are three primary impact indicators of interest:

- Increase in institutional delivery dates by 15% in intervention communities.
- Reduction in the perinatal mortality rate (PMR) .
- Decrease n maternal and perinatal morbidity indicators including obstetric and perinatal complications during delivery, morbidity secondary to complications and maternal and perianal morbidity secondary to interventions by physicians and nurses in the management of obstetric emergencies.

Process indicators

Various process indicators which contribute to reductions in mortality and maternal and perinatal morbidity will be measured. In diminishing home births in these communities,

we also intend measure several process outcomes, which we expect will contribute to reducing perinatal mortality. Decreasing home births in these communities and increasing institutional births we expect will have an effect on maternal morbidity and perinatal and maternal mortality. For the training component, process measures include increased knowledge for diagnosis and initial management of common emergencies, self-established clinic goal achievement for improving care, the presence or absence of evidence-based practices as carried out by providers during normal delivery For the social marketing component process indicators include an assessment of the distribution, reach, and exposure of the target audience to the social marketing campaign, and changes in attitudes, knowledge and practices in relation to institution-based childbirth among pregnant women and health personnel. Process indicators about the professional midwife liaison activity will include indicators related to the number of traditional birth attendants that have had different activities in the current study.

Ethical aspects of the study

The design of the study does not require individual information or data, given that the unit of analysis will be the clinics (CAPs). All information will be obtained from clinical records without any personal identifying information. Given that no information is obtained directly from patients, there will not be any patient interviews. Given the nature of the results measured by this study and the impracticality and difficulty of requesting authorization from every patient to review her medical record, a waiver of consent will be requested from the Independent Latin Ethics Committee of Guatemala.

As per established practice in projects in Guatemala, once the project has received ethical approval from the Independent Latin Ethics Committee of Guatemala, it will be reviewed by the Ethics Committee of the Ministry of Public Health and Social Assistance of Guatemala. Both committees reviewed and approved the Cluster Randomized Trial carried out in 4 department sin Guatemala and given that the intervention package in this new study is the same as in the previous one, approval should be obtained without major delay.

Dissemination plan

The results of the scaling up will primarily be done at the national level. Policy makers, health program managers, health area directors, hospital directors, community leaders, coverage extension program managers, community organizations that work in health, etc etc should be appraised of the results.

Data currently available

The analysis, while not yet completed, shows that the three components of the intervention had the desired effect, which justifies the planned scale up.

PRONTO training results

Knowledge and changes in attitude were measured before, immediately after, and three months after training.
Knowledge about hemorrhage was similar in all the departments and this knowledge increased significantly after training. Although the level of knowledge declined by

three months after training, it remained significantly higher than prior to training. The results show the same trends of neonatal resuscitation but the increase over baseline was greater than for hemorrhage.

Social marketing results
The results, evaluated using difference in difference, showed that the intervention communities had an increase of 9.4% in institutional delivery, statistical significantly higher than control communities.

Results of the work with traditional birth attendants
Showed a significant increase in knowledge about how to manage obstetric hemorrhage.

Agenda and workshop (The agenda is included in the annex)

Objetives of the workshop:

1. Discuss the concept of Scaling Up innovative interventions in health
2. Present the ExpandNet methodology for Scaling Up
3. Present and discuss the characteristics of the intervention that will be scaled up.
4. Conduct a planning exercise for scaling up the project "Que Vivan las Madres"
5. Prepare a plan or strategy for scaling up the project
6. Debriefing. Action and Monitoring Plans

Participants:

Ana Cecilia Fajardo	APROFAM	Adolescent Program
Gabriela Meléndez	Professional Midwifery School	Coordinator
Janeen Simon	Asociación Alas de Guatemala	Executive Director
Lic. Carlos Tzub	CIESAR	Coordinator General
Lic. Marvin Franco de la Rosa	CIESAR	Coordinator, Alta Verapaz
Lic. Edwin Ronaldo Canú	CIESAR	Coordinator Huehuetenango
Licda. Gloria García	CIESAR	Field worker
Cristina Sut Tocora	CIESAR	Field worker
Dr. Edgar Kestler	CIESAR	Director
Dra. Dilys Walker	PRONTO	Director
Lic. Shirley Raida	Health área (DAS) Huehuetenango – Reproductive Health	

Elizabeth Butrick	Global Health UCSF	
Rossana Cifuentes	PASMO	Coordinato

Facilitador: Dr. Juan Díaz, ExpandNet, Reprolatina
Secretaria; Ana Margarita Gonzales CIESAR

Methodology and brief description of the activities
The workshop was planned to be carried out in two days (16 hours), leaving a third day for a final meeting with the coordinators or other interested professionals to discuss methodological doubts and to define the first version of the strategy. (The agenda is included in the annex). It was established with the coordinators that the schedule was flexible and that we could use part of the third day to complete the discussions. This was because it was very important to allow full participation of everyone and so that there were not any remaining doubts about the methodology or the first draft of the strategy.

The methodology was very participative, limiting the presentations to a minimum to permit full participation by all the professionals. The participative methodology allows participants to discuss the methodology in depth, exchange ideas and contribute effectively to the definition of the strategy that will guide the project for the next 4 years.

The participation of everyone was very active and attendance was nearly 100% throughout the first two days. The last day there were some people who could not participate in the final discussions and debriefing.

The characteristic of being a participative workshop with full participation meant that some topics, especially the analysis of the project and the characteristics it should have in the future were longer than expected but extremely productive.

The theoretical presentations of Expandnet, the bases or principles of the methodology of Expandnet and the nine steps were received with much interest and the participants asked a number of questions and maintained lively discussions that allowed everyone to fully understand the objective of preparing a strategy to work on the scale-up in a systematic way, planned following the methodology of the nine steps of Expandnet. The basic documents of the strategy of Expandnet had been delivered in advance to all the participants and are included as well in this report (Annexes) as references and support for implementation of the scaling up strategy in the field.

Analysis of the ExpandNet scaling up methodology

The discussion and definition of the ExpandNet methodology was carried out based on presentations made by the facilitator and the documents that had been previously distributed. In addition to discussing the theoretical bases for the ExpandNet methodology, based on the principles from the "WHO strategic focus to strengthen policies and programs in sexual and reproductive health", the methodology and the

utilization guide for the Nine Steps, which would be the instrument used to design the scaling up strategy for Que Vivan las Madres, was discussed in greater detail.

The participants agreed that the methodology being proposed was very appropriate for the task being proposed and they understood that the process of scaling up is a process that should be done systematically, that it is a multidisciplinary process, and that it is not just technical but that it also has important political and administrative components. Given that the scaling up of the project will affect the whole health system in the participating departments, the aspect of coordination and collaboration with health authorities and facilities is crucial for the success of the process.

Definition of a strategy for Scaling Up the Que Vivan Las Madres Project using the NINE STEPS methodology of ExpandNet.

As recommended by the methodology, before analyzing in depth the nine steps, we conducted a participative exercise to define a few basic aspects about what the participants could expect as a result or product from the workshop, responding in a participative way, to the following three questions:

1. What are your hopes and expectations for Scale Up?

The group understands the Project very well and is working on a very important topic that has the potential to produce great benefits for the population. They are conscious that scaling up will bring a series of challenges even more complex than those faced in the implementation of the first project, because they will encounter some resistance and probably also some disinterest among some of the professionals working in the community, which are important pieces of the process. They are also conscious of the constant battle against administrative and financial problems which are inevitable but will test the team's motivation and capacity.

The group understands as well that Scaling up is not only a technical activity or a study, but that implementing changes, sometimes profound changes, en the health services, may be difficult in some of the intervention communities. On the other hand, they are also confident that they have or will obtain the tools to manage to continue advancing the project in spite of difficulties and they hope that the methodology that will be used for this workshop will be important to help them achieve this.

2. In 5 years, what would you like to be occurring with the innovations in this project?

The majority expressed that they would like for the proposed intervention to have been expanded to the 34 CAPs that will be included. The intervention, with its three components should have produced the effect that women go to the CAPs for delivery, that they have managed to create a closer and respectful collaboration between professional midwifes and traditional birth attendants and that this will have resulted in better quality care which is reflected in a significantly higher number of births attended by qualified personnel in health institutions.

3. Do you have any doubts or concerns about scaling up of the project innovations?

The participants stated quite frankly that they are optimistic and convinced they will manage to implement the project and significantly impact some maternal and perinatal

health indicators. On the other hand, they are conscious that there are enormous difficulties, which will require redoubled efforts, not just in the technical aspect, but also that they will need to make a huge effort in advocacy and political impact, both at the community level and the central level.

The following were mentioned as the primary difficulties that could negatively affect the process of scaling up:

- Lack of trained motivated personnel. The lack of trained personnel persists, among other things, because of the rotation of personnel between facilities, which makes training a task that yields little because trained personnel leave or get assigned to other posts.
- Poor working conditions. The staff complains about the working conditions and the poor condition of the facilities.
- There are ongoing complaints of lack of medicines and supplies.
- Low salaries, job insecurity, and periods without pay negatively impact the motivation of workers and this can also result in resistance in adherence to the project because they see it as additional work without any personal compensation.
- Finally, but not less important, the community authorities can be resistant because the project may be altering the way they work and they may see the project as a threat because they may feel they are in danger of losing any benefits they have acquired locally.

Analysis of the situation and definition of the strategy using the methodology and the Guide to the NINE STEPS of ExpandNet.

Step 1. The Innovation – Evaluation of the Applicability at Scale and the Implications for the Scaling Up Strategy

The analysis of the innovation was done following the analysis of factors for success described in the guide for use of the methodology following the attributes in the acronym CORRECT. (Credibility, Observability, Relevance, Relative Advantage, Ease of implementation, Compatibility and Testability)

What is the innovation or the package of innovations that will be scaled up? (Enumerate all the components that need to be included)

As was previously described, the innovation is a structured package of interventions, with three fundamental components:

- A program of training in low-cost highly realistic simulation (PRONTO) to train staff from the CAPs en the management of emergencies during childbirth and the immediate care of the newborn.
- A social marketing campaign "Que Vivan Las Madres" (Long Live the Mothers) to encourage women to deliver in health facilities where they will be attended efficiently and respectfully instead of delivering at home and
- Introduction of professional midwives that act as a link between traditional birth attendants and the CAPs, in an attempt to increase referrals of women for institutional births, as well as closer collaboration between the traditional birth attendant and the heath institution staff, that might enable the traditional birth attendant to attend births in the CAP.

- **Credibility: Is there enough evidence to support the effectiveness of the intervention?**

Although the results of the evaluation of the initial Project are still not complete, there is sufficient data that show that the project produced an increase in the number of facility births in the intervention communities and that there was an improvement in knowledge of the health providers about obstetric emergencies and perinatal health. The increase in provider knowledge, together with the increased motivation that providers got from training has been reflected in an improved quality of care. Some members of the group, especially the director of the school of midwifery, insisted on the necessity of better documenting the impact on the quality of care. Concretely, the proposal would be to conduct quality studies and client satisfactions surveys by taking advantage of the fact that there will be students available if necessary. The idea was left as a proposal to try to implement in some of the scale up sites.

The results also show that the increase in the level of knowledge was significant but modest and the increase in knowledge diminished significantly after three months which indicates a need for refresher training and ongoing supervision.
The quality and prestige of the professionals and institutions that are supporting this initiative add to its credibility.

¿Has the strategy been tested in environments similar to the scale-up environment?

Another strength of the innovation is that it has already been tested in communities with similar conditions to those which will be part of the scale-up. In fact, given the design, in some communities the scale up will be a refresher for communities that already participated in the previous project.

Can the innovation be simplified to facilitate scale-up?

The experience of the original study shows that all three components are very important and this is one of the strengths of the project. This means it is highly recommended to keep the same structure of the project with all three components. There does not seem to be an advantage in simplifying the design.

- **Observability: How observable are the results of the intervention?**

The results to date have been easily observable and easy to collect, for example the number of deliveries in the CAPs. Other components, like the incidence of perinatal complications or maternal morbidity can be more difficult to observe. The information about perinatal mortality and morbidity should also be collected to show the leadership of the health services the benefits of implementing the intervention to the community. Much stress was made in the importance of disseminating the results continuously to motivate the participating communities.

- **Relevance: Does the innovation address important problems that are clearly perceived by the community?**

Without a doubt this is one of the strongest points of the innovation because it proposes an intervention to improve one of the most important problems in the country, given that maternal and perinatal morbidity and mortality are important problems that have become endemic in the country in spite of efforts made by both public and private institutions. The community is also clearly conscious of the problem and about the need to take a more active role to diminish the insulting frequency of births not attended by qualified personnel that is reflected in the high rates of maternal and perinatal morbidity and mortality.

- **Relative Advantage: Does the innovation have a relative advantage over usual practices or other models?**

The results of the study conducted show clearly that the innovation, or the simultaneous application of the three components of the package of interventions that makes up the innovation has produced a large improvement in indicators in the intervention communities compared to communities where the innovation was not implemented.

- **Ease of implementation or transfer: Will it be easy of complicated to scale up the innovation to other sites?**

Scaling up is never easy, but the innovation is neither complicated nor difficult to implement. The team is aware that the methodology is simple and the innovation can be easily scaled up with the resources that are available through the end of the finding cycle. Some members of the group, on more than one occasion, expressed doubts about the sustainability of the intervention once the project with external funding ends.

This led us to the conclusion that during the process of scaling up it is necessary to look for mechanisms that guarantee sustainability, especially that there not be any reductions in personnel and that supply of medications and essential supplies be maintained.

- **Compatibility: Is the innovation compatible with the existing values, practices and structures?**

The innovation is compatible with the values, at least with the official declarations of what the program values are, but it will produce certain tensions with local practices which in general do not value quality care or systematic collection of data. Without a doubt, it will be necessary to make a continual effort to introduce a culture or giving priority to quality care and the collection of reliable data. In terms of the structures there is great variety as some centers are very low resource and others are better equipped.

- **Testability: Can the user organization test the effectiveness of the innovation without implementing it completely?**

The provability is demonstrated by the results of the previous study which was done in 15 communities, some of which will participate in the scale up.

Step 2. Evaluation of the User Organization and Implications for the Scale up strategy.

The user organization will be made up of the health services that attend deliveries in both departments. The package of interventions will affect all centers, but for evaluation purposes only data from the CAPs will be used. The hospitals and CAIMIs will receive training but the data from these centers will not be counted in the evaluation. All CAPs in both departments will participate in the process and their results will be evaluated.

As a result, the user team will be composed of the personnel from the CAPs and the DAS (Departmental Health Team). Although the health system in Guatemala is decentralized, resistance to participate from the CAPs is not anticipated although in theory they could decline to participate, which the project team does not think will happen.

One thing that is expected that could be a problem is that some CAPs may not take much interest and some professionals will not actively participate. The fact that the DAS in each department is explicitly supporting and participating in the project is an important factor that could contribute to increasing the participation of all of the CAPs. The staff of CIESAR will be crucial in the work of relating with the CAPs and the departmental health authorities to obtain full collaboration from the CAPs. The CIESAR coordinators will be the principal negotiators for achieving full proactive collaboration from the CAPs.

In addition, the characteristics of the CAPs are fairly different, both in the degree of capacity of the professionals and in the quantity of resources available and in the quality of the installations. This can create some difficulties in the trainings in trying to get to where everyone achieves a similar level and can offer more or less the same services. The training effort should be extended to some administrative aspects of the project management and especially to increase the capacity of the CAP to collect information correctly to allow for adequate evaluation of the project.

Step 3. Evaluation of the Environment and Implications for Scale up

Both departments which will participate in this project of scaling up the package of interventions are poor departments with many deficiencies in their health systems, and as a result there are many deficiencies in the services. They also have high rates of neonatal mortality, high rates of maternal morbidity, and the maternal mortality rates of the two departments are among the highest in the country.

The team is conscious that the principal problem will be the large economic deficiency that brings the chronic shortage of resources and the ancestral traditions that make the women resist, by their own volition or under pressure from their family, having their births attended at the CAPs, preferring to be attended in the home of a TBA.

The culture is a rural, sexist culture in which women, in general, are married off before 12 years of age. Women practically do not have an adolescent period because they go from being girls to being married women. But this change in status does not bring with it the right to decide what to do. Paradoxically, because they are married, they are treated like children, they are discriminated against and often are denied access to contraceptives. There is very little diffusion of sexual and reproductive rights and situations of conflict between the laws and the customs.

For example, the law which theoretically protects women, and obligates health providers to report all pregnancies in women under 14, under presumption of rape, results in the fact that pregnant girls do not go to prenatal care for fear of the law which increases their risk during pregnancy rather than protecting them.

This tension between the growing interest of the authorities to defend the rights of women and the customs in the community is very far from resolved and is a factor that increases the risks of pregnant women.

The training of providers will have to include an educational component so that they better respect the rights of adolescents and women in general. There is an office of women's affairs which should protect women's rights but for now it is a legal institution without much effect.

In the communities there is also a strong influence of religion, especially against family planning, which will also be an obstacle to the implementation of some of the project activities, such as the implementation of post obstetric event contraception.

But not everything is negative in the environmental analysis because the health directorate (DAS) in both departments are explicitly supporting the project which may be may be critical in the work of making services more accessible, collaborative and open to working with midwives and TBAs and encouraging women to come to the CAP more often.

Step 4: Evaluation of the Resource Team and Implications for Scaling Up

The resource team, led by Dr. Edgar Kestler, will be formed by representatives of organizations that coordinated the pilot Project, CIESAR, The University of California, San Francisco and representatives of other institutions that have been collaborating with the Project and are willing to work on the scaling up. The team is not completely defined but there will be participation of Alas, MSH, APROFAM, Escuela de Parteras Profesionales and representatives of the DAS in both departments.
The constitution of the team guarantees the presence of the abilities necessary for implementation of the Project and all members are motivated and committed.

The participation of representatives of the DAS (the Huehuetenango representative participated in the workshop) will give additional strength to the team and will help in negotiations with communities about implementation. In addition it will make possible permanent contact between the project coordinators and the health authorities which could be very important to ensure regular flow of supplies, avoid lack of personnel and manage to resolve administrative problems in the CAPs.

APROFAM offers its technical capacity to support the contraceptive component, and Alas is specifically interested in supporting the post-delivery contraceptive component.

The resource team is aware of the need to create a structure that allows for the training of staff in other aspects not covered by the PRONTO training because there is a commitment to improve the quality of care at the CAPs. It is important that the CAPs are prepared to give support in breastfeeding education, and the provision of contraceptives that don't interfere with breastfeeding. In addition the CAPs should be prepared to efficiently promote check-ups at 30 days for both the mother and the newborn.

The resource team will also be preparing to perfect the data collection system, using a simplified form that allows collection of the necessary information to evaluate the progress of the indicators which will be measured.

During the process the resource team will make efforts to incorporate other institutions in the process and strengthen the cooperation with the DAS and the municipal authorities.

The resource team should not be too large and perhaps a decision should be made to limit it to 8 to 10 members, but the team can form an evaluation committee with professionals that can collaborate on specific project activities.

Step 5. Types of Scale up – Determination of the Role of Scale up by Normative/Legal/Political Means (or Vertical)

This step has less importance in this project as the scale-up is primarily a horizontal one, as is discussed in the next step. Nonetheless, the group understood that there are some activities necessary in the areas of normative, administrative and technical areas, which are typical examples of vertical expansion which can be useful for the project.

Illustrative examples of this could be the guidelines for postpartum family planning in the CAP, and defining clinical practice areas for the professional midwives, among others.

Step 6. Types of Scale-Up – Determination of the Role of Scale up by Expansion (or Horizontal)

This project represents a typical example of the process of scaling up by expansion or horizontally. During the project, the innovation will be implemented in 34 CAPs, all of those existing in the departments, following a sequential methodology called a stepped wedge.

During the workshop we discussed in detail the methodology, already detailed in the description of the project protocol.

Every four months a group of communities will be added to the intervention, after which there will be a process of data collections and evaluation and an ongoing influence of the social marketing campaign to promote institutional delivery and greater integration between professional midwives and traditional birth attendants.

The design of the process allows for a comparative analysis of the impact of the intervention in the communities during different time periods.

Step 7. Types of Scale up – Determination of the Role of Scale up by diversification (insertion, functional)

The design of the project allows for the introduction of other components, for example, postpartum family planning, conducting user satisfaction surveys and quality of care surveys, without altering the process as originally designed. In addition, growing collaboration with eth school of professional midwifery could result in placement of midwifery students for training at some of the CAPS that have achieved a sufficient level to perform this role.

The design of the project also allows for the addition of other components in some or all of the CAPs.

Step 8. Types of Scale up – Determination of the Role of Spontaneous Scale Up.

The structure of the package of interventions that will be scaled up in this project is complex and very specific which makes it highly improbable that it will be scaled up spontaneously in other regions, so this step was not discussed in the workshop. This type of spontaneous scale up can occur when scaling up less complex interventions that don't depend so heavily on a specific training.

Step 9. Summary of the Strategy, Review of Decisions and Key Responsibilities.

The analysis using the method of the NINE STEPS of ExpandNet indicates that the innovation proposed for scale up has the attributes to allow us to say the scale up can be successful.

The application of the package of interventions in the comparative project showed that it is possible to increase the number of women who deliver in health facilities and increase the capacity of the personnel in each CAP to provide high quality care, especially for the management of obstetric and neonatal emergencies, which should be reflected in lower rates of maternal and neonatal morbidity and mortality.

The evaluation also shows that the three components are all important to obtain the results shown, which justified the decision to scale-up the complete package of interventions. Excluding any component of the package would change the intervention and reduce its impact.

The analysis of the objectives of the scaling up to all the CAPS in both departments is not simply the repetition of the pilot study, now in all of the communities. The objective of the scale up extends to all the health services in the departments, including the CAIMIs ad hospitals, in a systematic process of collaboration with the local services in order to establish mechanisms that guarantee the sustainability of the process after the external financial support has ended.

The process of implementation of scaling up should include a strong continuous evaluation component of the process in order to be able to detect possible problems early so they can be addressed early. The methodology should be flexible and allow for

changes in the course of implementation and eventually adding other components, as was described when discussing scaling up with diversification.

The inclusion of the CAPs in the project will be done according to the original protocol. The 34 CAPs will be divided in 6 zones or clusters. The 6 zones will enter the project sequentially in an order determined at random. The implementation period for each zone will be 4 months. Once activities have started in the first selected cluster, the resource team will do the randomization to choose the second zone, and so on.

There was agreement that the resource team, especially the CIESAR coordinators in each department will have a critical role in the negotiation of the implementation of activities given that although there is a general agreement with the DAS in the two departments, so far there has not been an agreement made with each CAP. This negotiation work is fundamentally important to avoid delays in the implementation timeline and to avoid uneven timing of the incorporation of the CAPs. The team also reiterated the decision that, although the activities of the CAIMI and the hospitals will not be evaluated by the project, they will receive PRONTO training and can use the data collection forms if they find it convenient. The collection of data form these institutions will not be the responsibility of the project, but it would be interesting to negotiate agreements that allow for more precise evaluation of the influence of the project in the CAIMIs and the hospitals.

Alteration of the data registration forms.(Near Miss) the group decided that the collection of data that will be done in the 34 CAPs will continue to be done with the projects own system in order to guarantee the quality of the data, because the evaluation is a fundamental component of the process and the CAP's system does not guarantee the quality of the data. The experience of the first project showed that the data collection form was excessively long and unnecessarily complex, so it was decided to modify it, to make it simpler to complete, reduce its length, but without this limiting the collection of data necessary to evaluate the scale-up. In fact the information collected previously that will not be collected in this phase is irrelevant to the objectives of the project. The project team will assume responsibility for reviewing the data in each CAP and ensuring that the forms have been completed correctly before entering the data. In spite of the fact that the group was very satisfied with the new form, the possibility of making small changes or additions was not completely discarded. After collecting data for the first six months (baseline) the form won't be changed until the end of the project.

It was also decided to carry out, at least in some of the CAPs, qualitative studies to evaluate the perception of the users, their families, and the personnel in the CAPs about the quality of the services and the satisfaction with the services offered. Obviously, these studies are not an integral part of the central strategy of the scale up project but efforts will be made to obtain the human and financial resources necessary to do the studies.

One of the resources that was discussed was making it possible for students from the School of Midwifery to collaborate with the collection of data for the qualitative studies and with the data processing and analysis. This activity would consolidate further the Alliance of the School of Midwifery with other institutions participating in the project. There was consensus in the group that efforts should be made to implement these studies as they could offer very valuable information about aspects of the methodology that should be reinforced or improved.

The group agreed to consider the inclusion of postpartum contraception and encouraging of exclusive breastfeeding for at least 6 months as priorities. This is one of the most important factors in reducing maternal mortality by reducing the frequency of births in multiparous women with birth intervals of less than two years. Alas and APROFAM are very interested and willing to coordinate, with the resource team, a strategy to include these services in in the CAPs, as well as the CAIMIs and hospitals. The definition of the implementation strategy for these services will have to be established while the baseline is being done, depending on available resources it may be implemented only in some clusters which would allow for evaluation of its efficacy by comparing the results to clusters where this component was not implemented.

All of the represented institutions at the workshop reiterated their willingness to participate actively in the implementation of the project and to collaborate in the dissemination of information about it, within and outside of the two participating departments. Equally, everyone should collaborate, to the extent they are able in awareness raising about the importance of this activity will all of the communities that will participate, to promote the enthusiastic participation of the the personnel of the CAPs, the health authorities, and the community at large.

The strategy should reinforce the PRONTO training component so that, in addition to the principal objective of preparing the staff how to respond to perinatal and obstetric emergencies, it trains the providers about exclusive breastfeeding for at least 6 months and about postpartum contraception. Everyone agreed that the training should add a component about exclusive breastfeeding and postpartum emergency contraception. There is a priority need to reposition postpartum contraception because it is one of the most cost-effective interventions to reduce maternal morbidity and mortality.

Attributes of the project, the innovation and the resource team which are predictors of success of the strategy.

- The project (innovation):
  - Relevance of the project and felt need in the participating departments
  - Package of interventions proven effective in Guatemala and other countries
  - Scientifically accurate and well-structured methodology
  - Project accepted and supported by the Secretaries of Health of the two Departments
  - An intervention with an objective of decreasing maternal and perinatal deaths does not cause local ideological resistance
- The resource team
  - Wide experience with the methodology
  - They know the geographic area where the intervention is being implemented.
  - The resource team includes professionals from the local DAS from the departments
  - The team is respected locally with a good relationship with the authorities.
  - There are adequate financial resources to keep all of the staff active for the duration of the project.

Threats to the success of the project, depending on the environment and the user team

- Scarcity of resources at the CAP

- Frequent staff rotation
- Teams at the CAPS that are unmotivated, poorly paid, lacking in resources, etc
- Possible effect of elections in two years, in the politics of SSR
- Lack of clear definition in the programs of the Ministry of Health
- Cultural resistance to changes in the way births are attended
- Risks of changing a lot the relation between the community and the providers with the traditional birth attendants

Summary of the Scaling up strategy:

- Complete the evaluation of the pilot project
- Structure the resource team
- Confirm the participation of the 34 CAPs
- Agreement with the DAS of both departments (DAS of Huehuetenango confirmed their agreement during the workshop)
- Creation of the six groups or clusters (zones) into which the communities will be divided.
- Initial diagnostic (baseline) in the 34 communities using the data collection form recently redesigned in the workshop (6 months)
- Randomization to assign the cluster that will receive the package of interventions first.
- Review and define the final version of the data collection form (s).
- Confirm participation and define dates for intervention in the first cluster (zone).
- Definition of the implementation of the program of encouraging breastfeeding and postpartum (ALAS or APROFAM).
- Implementation of the package of interventions in the first zone (4 months)
- Successive implementation in the other 5 zones, with the order defined by randomization.
- Implementation will be done over 4 months in all the zones.
- Design and implementation of studies of quality of care and user satisfaction and provider satisfaction.
- The zones in which the intervention has already been implemented will continue to collect data.
- Periodic collection of data in the 6 zones will be done in visits at least every two months.
- Evaluation, reporting and publications.

Final Considerations:

The final evaluation of the workshop was very positive. The participants praised the participative methodology which allowed for the effective inclusion of the perspective and experience of the participants. The discussion was important to clarify some concepts and put the objectives of the scaling up project in the proper perspective. The changes in the data collection instruments were considered to be very important and will contribute to a more efficient baseline and final evaluation. At the end of the workshop the participants declared they optimistic about the future of the project, but highlighted that the principal threats are in the country context and will require them to remain vigilant to ensure there are not any detours in implementation and that the human and material resources are available in the CAPs.

The other concern is related to the sustainability of the project after the end of the external financing, for which everyone was committed to working from the beginning of the scale up to look for mechanisms that increase the long term sustainability. The good relationship between the resource team and the health authorities is a factor that everyone considered crucial to the maintenance of support for the project through its life. This relationship is supported by the quality of the resource team and the prestige of te institutions supporting the team but all were conscious that the advocacy work for the project should be continual, searching for sustainability through inclusion and institutionalization of the package of interventions in the Care Program of the Ministry of Public health and Social Assistance (MSPAS).

Finally, it is important to highlight that the work of the workshop was facilitated by the excellent organization of the event and the willingness of all the participants to participate fully in the work without limits of time, respecting the established rules at the beginning of the workshop and contributing their experience to the workshop and consequently to the success of the project.

ANNEXES:

Annexes from the meeting and reference documents were included:

Workshop Agenda (AGENDA TALLER GUAT)
Scaling Up protocol (PROTOC EXPANS FEB 2014)
Data Collection form (FORM RECOL DATOS MARZO 2014)
Guide to working with the 9 steps methodology (GUIAS DE TRABAJO PARA AE 9 PASOS)&
Beginning with the end in mind (BEG W END IN MIND)#
Guide to the 9 steps of Scaling up. (GUIA 9 PASOS AMPLIAC A ESCALA)&
Practical Guide to Scaling up (GUIA PRACTICO APLICACIÓN A ESCALA)&

& Documents from ExpandNet that can be obtained in English on the website www. Expandnet.net
# Documents in English, Spanish translation not available.