Sugha Vazhvu Guide Program: Evaluation of the Community Health Worker Program Year 1

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Acronyms

CHW	Community Health Worker
HEW	Health Extension Worker
HMIS	Health Management Information System
ODK	Open Source Data Kit
OMR	Optical Mark Recognition
PISP	Population-level Individual Screening Package
RMHC	Rural Micro Health Centre
RRA	Rapid Risk Assessment

Operational Definitions of Community Health Worker for this Evaluation

There are numerous widely accepted definitions for community health workers, and a review of literature found that the roles, responsibilities, and management structure vary widely among community health worker programs. For the purposes of this report, the evaluator has adopted the following definitions:

A community health worker

- Acts as a connector between patients and providers in areas that have traditionally lacked access to adequate care (UNICEF, 2004).[i]
- Performs set of essential health services and who receives standardized training outside the formal nursing or medical curricula and has a defined role within the community and the larger health system" (USAID, 2010).
- Need not have extensive formal education but should be able to ready, write, and perform simple mathematical calculations. More importantly, s/he should be "armed with knowledge that no professional can match: an intimate knowledge of their own culture" (Pan American Health Organization, WHO, 1999).[ii]

Part I: Background

Overview of IKP Centre for Technologies in Public Health and Context for the Evaluation

IKP Centre for Technologies in Public Health is a not-for-profit research organization whose mission is to design inclusive health-systems for remote rural populations by focusing on designing, developing and delivering innovative solutions in health-care concerning India and the developing world. (ICTPH, 2011). With its on-ground partner SughaVazhvu, ICTPH is piloting a technology-enabled comprehensive primary healthcare delivery model in rural Thanjavur, Tamil Nadu. Each of the pilots (3 at time of publication), referred to as a Rural Micro Health Centre (RMHC), operates as a doctor[1] supervised clinic that provides primary care to a population of approximately 10,000 people within a 3-4km radius of the RMHC. Beginning in August 2010, ICTPH piloted a community health worker initiative, henceforth referred to as the Guide program, within the Karambayam RMHC catchment area. This report is an evaluation of the Guide program in year one, beginning August 1, 2010 and ending at the expiry of the first contract, August 31, 2011.

Overview of the Sugha Vazhvu Guide Program: History, Evolution, and Goals[iii]

Nala Oli Program

Prior to the Guide program, in January 2009 Sugha Vazhvu initiated a Community Health Worker program known as Nala Oli (meaning "good light" in Tamil). Twenty Nala Olis, women from the surrounding community, were recruited on a volunteer basis to disseminate messages of preventive and promotive care to a catchment of 50 households. The Nala Olis' key tasks were to conduct follow up visits and ensure drug compliance and recovery with RMHC patients in her catchment.

The Nala Oli program faced many challenges, outlined below.

1. There was not yet the adequate technological infrastructure to measure and identify trends in households who benefited from the Nala Olis' active messaging.
2. The RMHC nurse[2] and the Nala Oli functioned as two distinct entities rather than as two interconnected functions.
3. The RMHC nurse bore too much clinical responsibility and could not properly supervise the program.
4. The Nala Olis were volunteers, which contributed to diminished participant interest and program outcomes.

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[1] AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) physicians, primarily Ayurveda and Siddha

[2] Originally nurse-managed, from May 02, 2011 onwards with the opening of the Andipatti RMHC, ICTPH transitioned to AYUSH-managed health centers.

To address the above challenges of the program as well as extend the reach of the RMHC in the community, ICTPH restructured the Nala Oli to incorporate lessons learned and expand the program objectives. The Nala Oli program was dissolved and the Guide program was created in August 2010 with newly defined roles and program structure.

Guide Program

ICTPH defined a Guide as:

> "A member of the community who would reach out to every member in her village to ensure their wellness. With increased need for ambulatory care, she will serve as a general purpose health worker attached to a general purpose clinic with household focus where she will actively screen every family in her community for early detection of hidden factors to good health and support them with timely directional guidance (referral) for appropriate care. With careful selection and simple structured training she would gradually assume the role of a 'pathway' to good health. Wellness and not illness management would become her mandate. These women will eventually grow to be an important source of health information, transforming the way people view health and to seek care at the appropriate time and manage their health at the village level itself" (Lakshmanan, 2011).

Sugha Vazhvu selected 12 Guides to serve the designated catchment area. In this redefined role, the Guides

- Administered the Population-based Individual Screening Protocol (PISP),
- Conducted follow-up, home, and emergency visits,
- Maintained health records of their catchment population, and
- Performed twice monthly clinical duties at the Karambayam RMHC.

[Note: See Results section for additional details on the nature of these activities.]

Realizing these heightened expectations were not sustainable in a voluntary capacity, ICTPH structured the program to provide each Guide with an honorarium of Rs. 1000 per month, free health care at the RMHC for her entire family, a managed care plan, and life insurance.

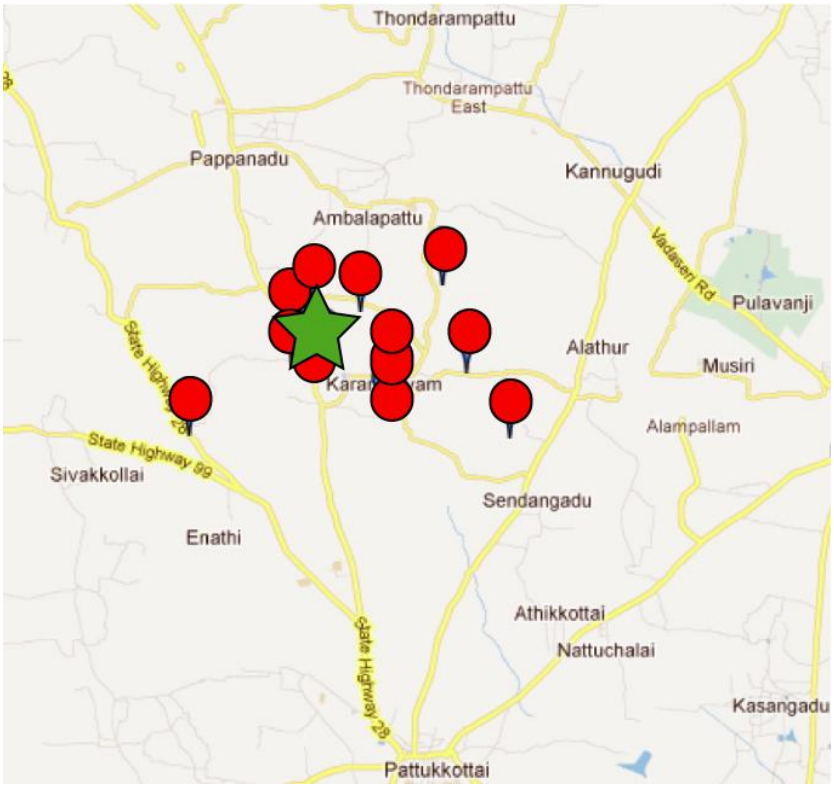
To read a more complete history of the Guide program evolution including a detailed account of recruitment, selection, and training, refer to Sangeetha Lakshmanan's paper "Selection Tool for Health Extension Workers in Rural India."

Guide Program: Target Population

The Guide program operated exclusively in the Karambayam RMHC and is located 40 kilometers from Sugha Vazhvu's central Thanjavur office. The Karambayam RMHC catchment includes

12,000 individuals spread over 5 villages. See Figure 1 for map of the Guides' homes relevant to the RMHC.

Figure 1: Location map of Guide homes in relation to Karambayam RMHC



Legend: Red circles: Guides homes (12); Green star: Karambayam RMHC

Karambayam Demographic Snapshot

- 80% nuclear families with 4 members
- 96% homeowners
- 88% have electricity
- 58% have agricultural land
- 64% have livestock
- 81% literacy rate
- 8% persons >15 years old smoke
- 10% persons >15 years old drink alcohol

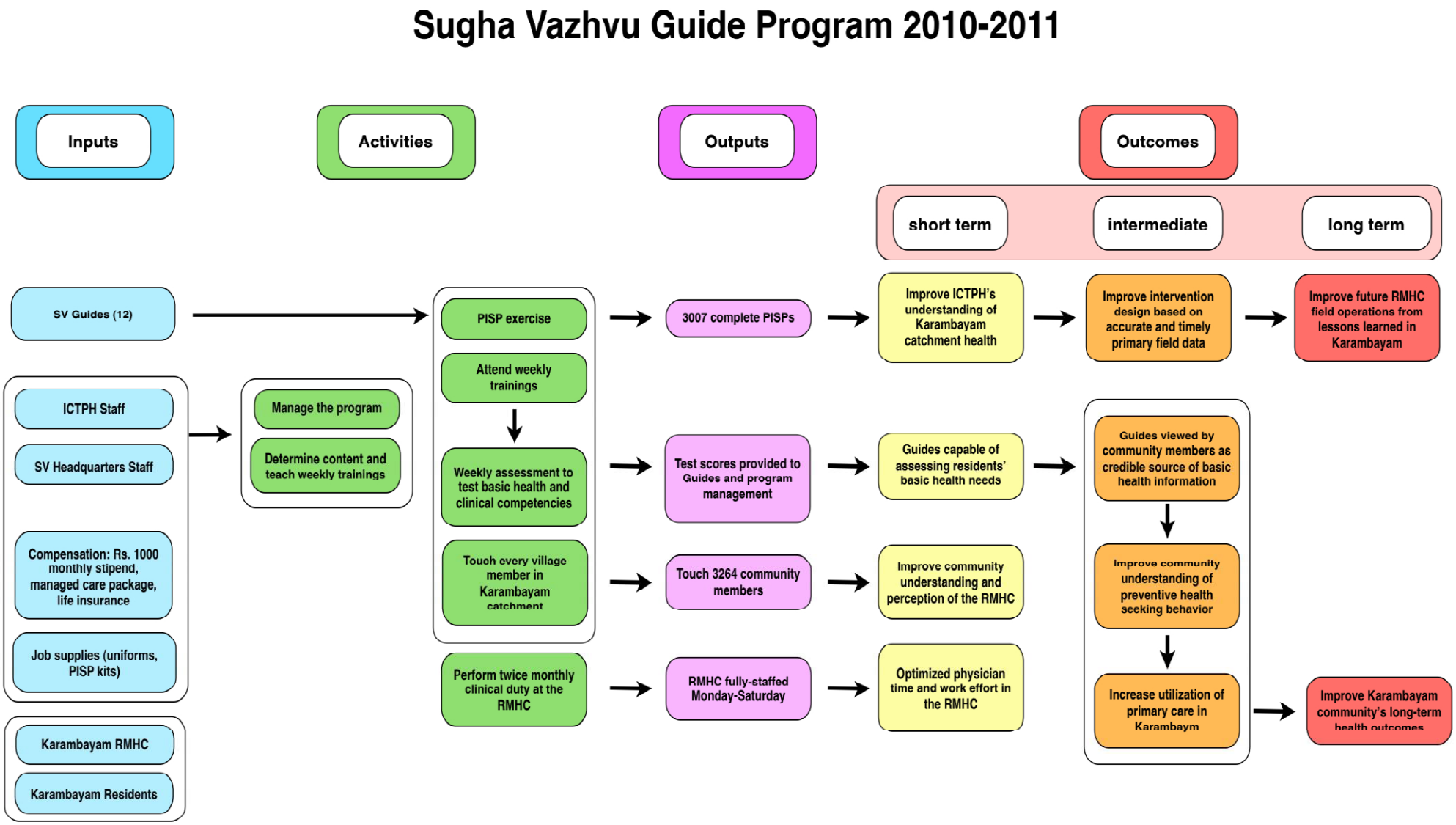
Patient Traffic at the Karambayam RMHC

In the first year of the Guide program, there were 937 total visits to the Karambayam RMHC including follow up and diagnostic visits. Of these 937 visits, 591 (63%) were unique patients. If follow up and diagnostic visits are not included, total patient traffic in Karambayam falls to 790 patients.

Logic Model of the Guide Program

The following (Figure 2) is a logic model of the Guide program as designed in its first year. This model was constructed for the purposes of this evaluation to provide an overview of the program's first year activities and a logical framework against which the program could be evaluated.

Figure 2 Guide Program Logic Model Year 1



Part II: Project Objectives

Purpose of the Evaluation

Given its mission to build a primary healthcare system throughout remote and rural communities in India, ICTPH senior management sought to find a scalable method of service delivery that would connect the physician at the RMHC with the community members in the surrounding catchment. The Guide program pilot in Karambayam was an effort to do that. As such, it was a priority for the organization to assess how the Guide program was functioning and if it was successfully bridging the RMHC to the community. Within the first year of operation, ICTPH had identified fundamental challenges with the existing Guide model that made it a nonviable scalable CHW model. To address these issues and explore alternative solutions, ICTPH hired an external professional to conduct a systematic process evaluation of the Guide program.

As requested by ICTPH management, the purpose of the evaluation was fourfold:

1) To take stock of the program's activities and outputs in the first year,
2) To clarify the goals and outcomes of the Guide program moving forward,
3) To identify program activities and structure that need to be modified in order to accomplish the desired program outcomes, and
4) To propose a scalable restructured program that incorporates lessons learned from the first year and best practices in the field of community health

Evaluation Questions:

Given these objectives, the evaluator structured the evaluation to answer the following questions:

- **What were the Guide program activities and outputs in year 1 (1st August, 2010 to 31st August, 2011)?**
- **How do program stakeholders (ICTPH management, Guides) self-evaluate the program?**
- **What are ICTPH management's goals and vision for the Guide program moving forward?**

Scope of the Evaluation

To answer the above questions, this report evaluates:

- Activities and outputs of the Guide program,
- Incentive packages provided to Guides,
- Management structure of the Guide program, and

- ICTPH Staff and Guide satisfaction with the program.

Given the program stage, organization's previous efforts, and the evaluation budget and timeframe, the evaluation scope does not include the following:

- Cost-effectiveness of the program,
- Recruitment and initial training of Guides (previously documented in an ICTPH self-published report)
- Community perception of the Guide and Guide program

[Note: See Limitations for explanation on scope.]

Relevance of the Evaluation to Key Stakeholders

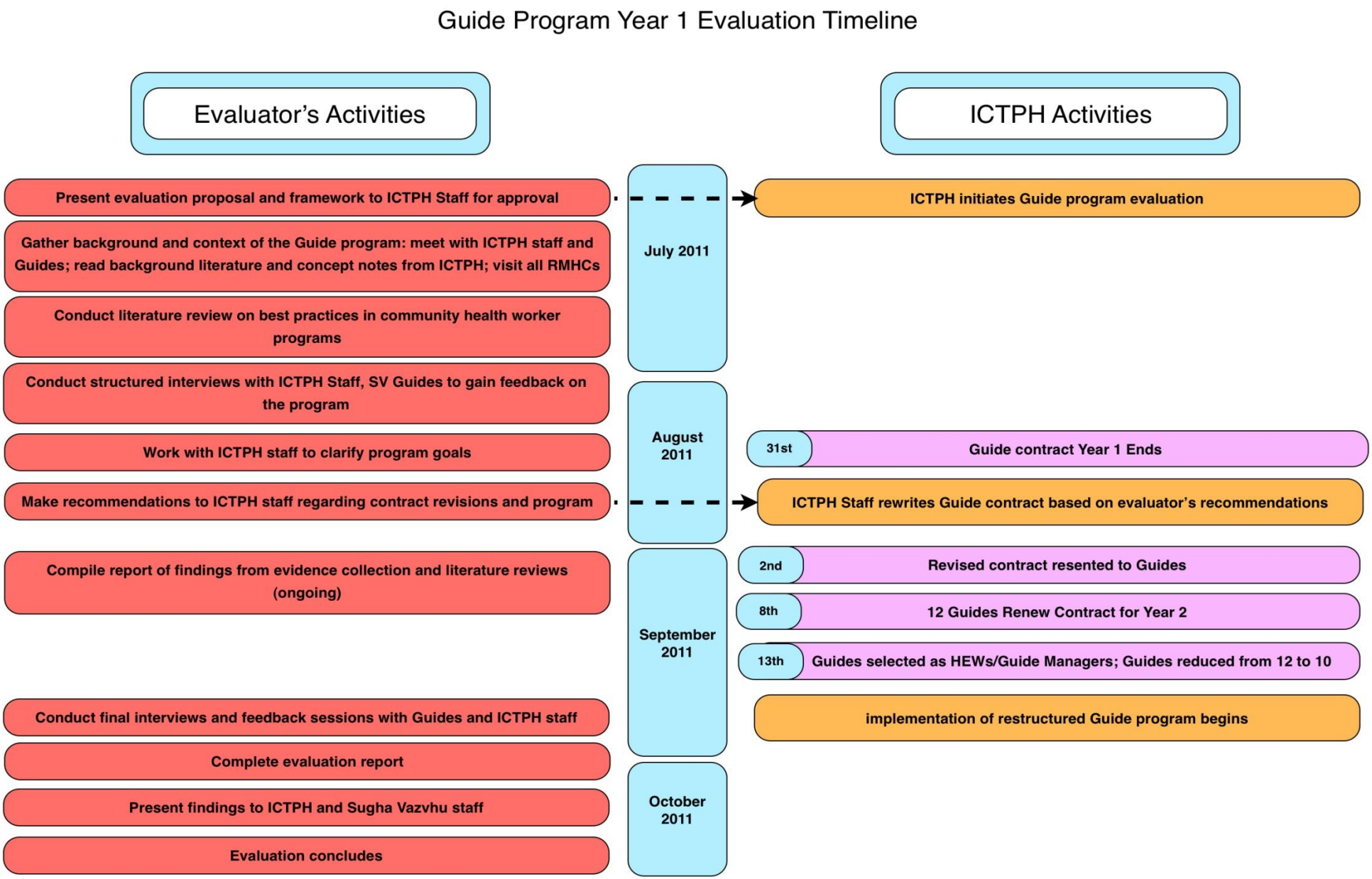
The main audience for this evaluation is ICTPH Senior Staff. As mentioned above, the evaluation findings are intended to improve current program structure, management and operations as well as provide a baseline for future evaluations. The findings of this evaluation will also be distributed to Sugha Vazhvu Guides and to the broader public health community for the purpose of mutual learning.

Evaluation Timeline

See Figure 3 for a visual overview of the evaluation project timeline. Concurrent key activities undertaken by ICTPH management are also featured in the timeline to provide context.

As part of the program evaluation, the evaluator spent the first 7 weeks learning about the program and soliciting feedback from ICTPH staff and the Guides. During this time, the evaluator sought to identify the specific programmatic issues that needed to be addressed through an extensive review of literature of community health worker programs and through primary data collection with Guide program stakeholders. The evaluator identified issues to address and proposed a set of recommendations for program improvement to ICTPH management. Management considered the proposed recommendations and adopted those they deemed feasible given the program's budget, organizational capacity, and potential for scaling the program to other RMHC catchments. These recommendations were incorporated into the Guide's revised contract terms, which were issued on September 2, 2011.

Figure 3 Guide Program Evaluation Timeline July-October 2011



Stage of the program being evaluated:

At the time of evaluation, the Guide program was in the implementation stage, during which "program activities are being field-tested and modified" and 'the goal of evaluation is to characterize real, as opposed to ideal, program activities and to improve operations, perhaps by revising plans."[iv]

Evaluation Framework

The evaluation conducted was a process evaluation, performed when a program has been implemented but program outcomes may not yet be possible to assess. Rather than looking at the theoretical framework for a program, process evaluation examines actual program implementation in light of the identified critical program elements.[v] Following Michael Patton's framework for program evaluation, the evaluator systematically collected information about the Guide program activities, characteristics, and outcomes in order to make judgments about the Guide program, improve its effectiveness, and inform decisions about future programming.**Error! Bookmark not defined.**

The evaluation utilized emergent design flexibility, which adapts the evaluation aims and questions as the evaluator's understanding of the program deepens and/or circumstances in which the program operates change. This was particularly important for this context, as the evaluation was initiated in the final month of the Guides' contract and program structure and contract terms were being decided based on preliminary evaluation findings.

Methodology

Data Collection and Fieldwork Strategies

Utilizing Patton's strategy for evaluation data collection, qualitative primary data and secondary research from literature were utilized.**Error! Bookmark not defined.** Throughout the evaluation the evaluator sought to capture different program stakeholders' unique perspectives on the Guide program. Copies of each assessment tool used to solicit this information can be found in report appendices.

Below is a list of data collection strategies used throughout the evaluation.

- ***Participant observation*** within the ICTPH office and in the Karambayam field area with rich field notes taken for future analysis
- ***In-depth key-informant interviews*** with program stakeholders (Guides and ICTPH staff) that captured direct quotations about personal experiences and professional assessments of program performance.
    - Note: The evaluator initially conducted informal interviews with all of the Guides, meaning there was no predetermined set of questions and the interview was conversational in nature.

- ***Qualitative written survey*** with Guides in which questions were open-ended to allow respondents to provide relatively unconstrained responses
- ***Primary document review*** of contracts, Guide recruitment and training paper, and Guide training procedures.
- ***Literature review*** of best practices in the field of community health worker programming and management

Data analysis

The evaluation adopted Ritchie and Spencer's five-step framework for qualitative data analysis, which progresses from familiarization of the data to establishing thematic frameworks, and finally to interpreting results. [vi] Given the relatively small volume of data, the evaluator conducted all textual analysis of the interview and field note observation data in Microsoft Word. [vii] The evaluator analyzed written survey responses (quantitative and qualitative) in Microsoft Excel.

Data Protection Plan Statement

All interview transcripts and field notes were saved on the personal computer of the evaluator, which requires a password to access. This data will never be passed on to anyone other than the evaluator. Two years after the completion of this project, the evaluator will destroy all raw transcript data.

Protection of Evaluation Participants

Before any interviews were conducted, all participants were read a confidentiality statement that assured their identity would not ever be traced to their responses. Verbal consent was obtained before proceeding. In the case of written survey responses by the Guides, all respondents used the same type of pen and did not write their names on the survey. When the surveys were translated from Tamil to English, the translator had no knowledge as to whose responses s/he was reading. A local Tamil English speaker who did not have any stake in the evaluation conducted all translation of written documents and interpretation in the field.

Limitations of the Evaluation:

1. Many of the interviews conducted at RMHC due to burdensome nature of travel for guides to the RMHC on multiple days and inability of staff to visit the homes of guides in the most rural areas.
2. The evaluator did not speak or read Tamil, the language spoken by all of the Guides in the interviews and written by all of the Guides in their formal feedback survey. A competent

field interpreter was used to interpret conversations and translate written responses. However, the evaluator may not have understood the full meaning or nuance of some feedback provided by the Guides.

3. The evaluation process was initiated during the midst of contract renewal; thought confidentiality was assured, some element of social desirability could have played a role in the feedback provided.

Part III: Results

Description of the Sample

The population evaluated is comprised of all Guides employed by Sugha Vazhvu (n=12) during the program's first year (August 1, 2010-August 31, 2011) and all ICTPH senior staff who interacted with the Guide program as part of their work (n=6).

Profile of the Guide:

Every Guide is Tamil-speaking woman and Indian citizens (n=12, 100%). The mean age of the Guides at the program's beginning was 34 (Range: 28-44). The average family size was 4.3 persons per household. Twelve Guides were married (100%). The highest level of education completed by the Guides was 12th Standard (11, 92%) and 10th standard (1, 8%).

Profile of ICTPH staff surveyed:

Three women (50%) and three men (50%), all Indian citizens, were surveyed. At the time of interview, the mean age of the interviewees was 27 (Range: 21-32). The highest level of education completed among the respondents was bachelors (50%, n=3), masters (33%, n=2), and doctorate (17%, n=1).

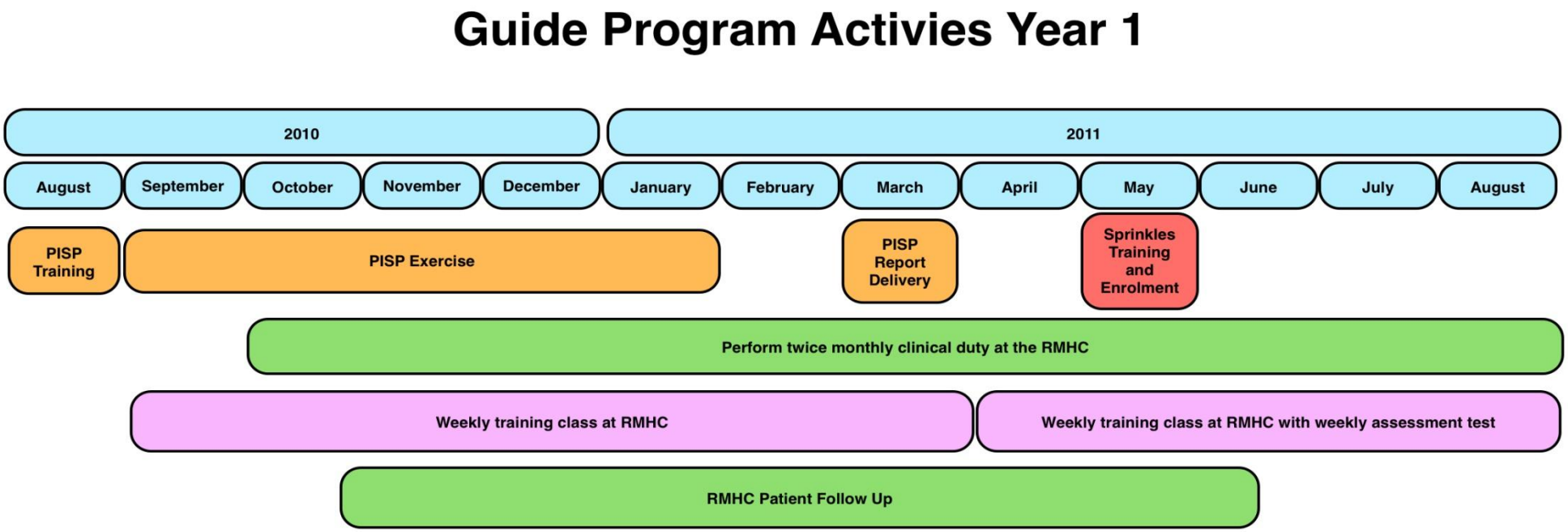
Evaluation Questions Answered through Primary and Secondary Data Collection

The following evaluation questions were answered through the evaluator's collection of primary and secondary data, as discussed in the methodology section above.

1. **What were the program outputs of the Guide program in year 1 (1st August, 2010 to 31st August, 2011)?**

See Figure 4 for a timeline of Guide program activities in the first year.

Figure 4 Timeline of Guide Program Activities from August 1, 2010-August 31, 2011



PISP and Sprinkles Outputs

Beginning in September 2010 and until January 2011, the Guides gathered health data at a population-level via the Population-based Individual Screening Protocol (PISP). The PISP required the Guides to collect basic health information such as visual acuity using the Snellen's chart, family history, personal history of acute and chronic conditions, sexual and reproductive health, and nutritional information in the case of infants on every individual in the geography served by the RMHC. The Guides administered the PISP and collected the data optical mark recognition (OMR) forms. During this PISP period, the 12 Guides conducted 3264 PISPs (total). Of these, 3007 were completed and the OMR sheets were processed. An additional 257 PISPs were conducted but not processed. From the 3007 completed PISPs, the Guides delivered completed reports to 24 households in the Karambayam catchment. Additionally, the Guides conducted 162 PISP high risk follow up visits, home visits in which Guides encouraged patients to seek follow up care for risk factors identified in his/her PISP data.

In May 2011, the Guides were trained in the Sprinkles intervention, a child nutrition intervention aimed to reduce anemia among children aged 6-24 months. Sprinkles is also the name of the micronutrient powder administered to the young children identified as anemic. As part of the Sprinkles intervention, the Guides conducted 39 household visits to homes with infants age 6 to 24 months old resided.

Cumulative Community Encounters

When the PISP activities, high-risk follow up visits, and Sprinkles visits are combined, the Guides had 3489 recorded encounters with community members in the program's first year. This number does not include a standard follow-up visit by a Guide conducted (after a patient residing in her catchment visited the RMHC), as this information was not tracked. Of these visits, 3264 were unique patients. Based on population estimates for the Karambayam catchment, the Guides encountered or "touched" 27% of the total catchment population in the program's first year. On average, there were 272 unique community encounters and 291 cumulative community encounters per Guide.

Weekly classes and tests

Each week the Guides attended an hour-long class at the Karambayam RMHC taught by one of the Sugha Vazhvu nurses or physicians. There was not a set schedule for the content taught in each class. Rather, it was determined from week to week by ICTPH or Sugha Vazhvu depending on the current needs from the Guides. For example, before the Guides began the Sprinkles intervention, they were provided a basic health overview of anemia and taught signs to recognize anemia in young children. Beginning in April 2011, whoever taught the weekly class began administering a basic competency test on the material covered in class.

Due to a lack of accurate records, the evaluator was not able to determine the number of hours invested in weekly trainings, the catalog of material covered during training, the Guides'

attendance record at weekly trainings, or the Guides' average performance on the weekly assessments.

2. How did the program stakeholders (ICTPH Staff, Guides) evaluate the program?

The following section answers the question above and is divided into two distinct sections: 1) ICTPH staff feedback and 2) Guides' feedback. This information was obtained through qualitative one-on-one interviews with the Guides and ICTPH staff and written surveys from the Guides.

ICTPH Managing Staff's Evaluation of the Program

PISP Effort

Although ICTPH staff consistently reiterated that the PISP offered extensive insight into the health geography in Karambayam, the 5 staff surveyed who were involved in the PISP field effort also cited tremendous frustration.

Those frustrations included:

- the latencies involved in the PISP process including the time involved to administer the PISP (and find villagers at home during the daylight hours),
- the high error rate by Guides on the OMR,
- the error correction process by management, and
- the time required to process the reports and provide results to community members.

When describing the PISP exercise, staff freely used words such as "headache," "inefficient," and "frustrating." In reflecting on the process, one interviewee shared that, "We knew the responsibilities [involved in the PISP], but we didn't expect these externalities. The heat, people not being at home when the Guide arrived, having to make a second or third visit, the distance between the houses," all contributed to the field effort of the PISP ending prematurely in January 2011. [Note: The PISP is still performed on patients visiting the RMHC.]

A critical aspect of the PISP process was delivering the health status report (written in Tamil) to the residents who participated. As mentioned, only 24 households (of 3007 total PISPs) in the entire catchment received follow up reports, and these were not distributed until March 2011. One staff member shared the implications of this delay: "It prevents the RMHC physician and the Guides from responding in a timely fashion to the health risks identified. So while the information obtained was valuable, some of it would "expire" before it could be used." The interviewee shared the example of an individual identified as having a fever at the time of the PISP was administered. This patient may not have received follow up from the Guide until months had passed, as had the patient's fever.

Management Structure

A midlevel researcher at ICTPH managed the Guide program in its first year. When ICTPH staff was asked about the Guide program's management structure, one employee identified a challenge echoed throughout the interviews, which was that "There is not one owner of the Guide program. Everyone is a consultant and no one is a decision maker." In the interviews, four staff members expressed that the role of the Guide program manager was never clearly defined, and as the newly launched program underwent transition and change, the role of the manager was increasingly blurred.

Communication

Significant feedback was provided regarding the communication between the Guides and ICPTH and Sugha Vazhvu. Half of the respondents (n=3) identified this as one of central challenges of the existing Guide model. One interviewee shared that the communication "loop kept getting weaker and weaker between the Guides and [the program manager] until finally it broke. " The "break" referred to in this quote was the underperformance of the Guides in the Sprinkles intervention. According to the interviewee, this low performance served as a "wake up call" for program management and in some ways ushered in the evaluation of the Guide program.

Performance Management

No form of performance or consequence management was built into the Guide program in its first year, which resulted in a varying degree of effort and outcome. As one interviewee shared, one "would go an extra foot forward, others who didn't would get the same applause" This posed a problem for managing staff, who reported frustration with not being able to reward high performers or enforce consequences with low performers.

Training

There were no consistent themes in employee feedback regarding training, though it was generally well regarded as a necessary aspect of the model. One interviewee closely involved with the program shared that the trainings are "the same thing over and over again. It's not very interactive, but it was good at the beginning." The same staff member shared that the introduction of the pre- and post- assessments on the weekly content, introduced in April 2011, helped to generate more questions, attention, and interest from the Guides. Additionally, with the implementation of the pre- and post-class assessments, the management also introduced applause and recognition for the highest test performers.

There were many ideas provided on what should change with training moving forward, which can be found under the heading, "What are ICTPH management's goals and vision for the Guide program moving forward? Training."

Twice monthly rotations in the RMHC

When asked how the Guides' twice monthly rotations at the RMHC functioned, three interviewees shared that having the Guide in the clinic was helpful to the RMHC physician, freeing him or her from performing the more administrative or clerical aspects of a patient visit. However, two staff members commented on the hierarchy between the Guides and the RMHC physicians that had presented challenges during the first year. There were reports made of RMHC physicians shouting at the Guide and disrespecting the Guide openly in front of patients. ICTPH resolved the issue when it occurred, but the two respondents conveyed that the physician Guide dynamic was an issue that needed further attention.

Compensation and Benefits

Two staff members cited cycles as job tools that could "make the Guide's life easier," make them more efficient, and cost the organization very little.

Four interviewees (67%) felt the salary was adequate or slightly high for the current work expectations.

There was mixed feedback on the Guides' wearing uniforms in the field and at the clinic to conduct their work, with 2 persons neutral, 2 persons in favor of the uniform, and 2 persons in favor of eliminating the uniform moving forward. One reason given for eliminating the uniform was that, since it is the same as the RMHC physician, it might confuse community residents. Another person thought that the wear and tear of the uniform might make the Guide look "shabby, and thus reflect poorly on the services she offers." One participant(or/interviewee) in favor of the uniform cited community recognition and branding as an advantage to the uniform, offering that the Sugha Vazhvu uniform would become synonymous with quality community health.

Managed Care Plan

In the year 1 contract, the Guides were promised a managed care plan up to Rs. 50,000 in claims with primary care based out of the RMHC. However, the evaluator learned through the course of the interviews that the managed care infrastructure was not yet in place, and thus, the benefit could not be availed by the Guides. One staff member shared that "What was written in the contract was not real…and it was not until an issue arose [with a Guides' health] that we started brainstorming how to create the system." When the evaluator inquired about this issue in the interviews, ICTPH staff recognized the breach of contract, acknowledging "We have thoroughly mismanaged this," and "completely messed [the Managed Care Plan] up." [Note: at the recommendation of the evaluator, management quickly righted this issue, and all unpaid managed care claims were reimbursed.]

Guide Evaluation of the Program

Connection with the Community

The Guides overwhelmingly responded (83%, n=10) that service to the community in some form motivated them in their work as a Sugha Vazhvu Guide. Though not explicitly asked in the written survey, 8 Guides (67%) reported being very satisfied with their interactions with the community.

Five Guides (42%) said they joined to educate their fellow community members on health issues and to improve community health. Some Guides provided more than one motivation for joining, saying, "I chose to do this to serve the community and to ensure that all in the rural area are healthy. "

Managed care plan

On the written survey, 10 (83%) Guides reported being "very unsatisfied" with Sugha Vazhvu's managed care plan. One Guide commented that "I did not receive any benefit from the [managed care plan.]." Another added that, "The insurance is not working properly. Though we have the bills, we are not getting a proper response. We are asking for help on this. I have not gotten the care I need because I am afraid I will not be reimbursed. And I do not have the money right now."

Additionally, through the one-on-one interviews with the Guides, three reported that they were seeking primary and secondary care at private institutions where they had to pay rather than at the RMHC where their care was free. The reasons provided were that the Guide did not feel welcomed at the RMHC and/or felt more comfortable seeking care elsewhere. Two Guides shared that they were not seeking the proper follow up care they needed because their medical bills were not being reimbursed. As noted above, when the evaluator brought this issue to the attention of the management, they readily agreed to reimburse the medical claims from the previous year, as the managed care program was not implemented as intended.

Salary

Throughout the interviews, Guides expressed discontent with the salary. When asked on the written survey, 12(100%) Guides reported that the Rs. 1000 salary was not sufficient for this work.

All 12 Guides expressed their continued interest in working with Sugha Vazhvu if the salary was increased. And, when asked, each Guide indicated that the salary as combined with the job expectations would be an instrumental factor in deciding to renew the contract for the second year. One Guide explained that " I am willing to do whatever you want, but I need a higher

salary to raise my children. I don't expect much from Sugha Vazhvu. Income is the only problem. I feel happy to be a part of the Sugha Vazhvu Guides."

Another theme, shared by 4 Guides in general discussion of salary, was the Guides' narration of adverse community reaction to the Rs. 1000 stipend. One Guide explained that "The community and society respects and recognizes me, but [they] ask me, 'Why do you do this job for only Rs. 1000?' You work too much for too little.' I get upset by hearing these words, and they lose respect for me."

When asked what an appropriate salary for their current job expectations would be, the Guides responded with a range of Rs. 3000-5000 per month. The average expected salary based on 10 responses was Rs. 3925/month. When asked what she might do for work if the new contract terms were unsatisfactory, the Guides cited the following employment options[3]:

- 100 Days Work[4] (Rs. 119/day in Tamil Nadu)[viii]
- Tailoring (Rs. 200/day)
- Data entry (Rs. 3500/month with promotion at 6 months)

Communication with Management

Seven Guides (58%) reported on the written survey that Sugha Vazhvu management did not respond to their concerns when communicated to them. One Guide wrote that "Communication with ICPTH it is not working…. There is no one to look out for the problems we face. We need someone to represent us and communicate with us."

Most of the communication challenges the Guides cited specifically were in regards to the Managed Care plan discussed above. To illustrate the communication gap felt by the Guide, one shared a representative example regarding a water bottle. She explained that Sugha Vazhvu had given them a water bottle as one of the benefits or accessories to use on the job. This Guide said that she had never used her water bottle and her coworkers did not either, as they could obtain water from neighbors or shops easier than adding a water vessel to their bag. She shared that "We were given a water bottle but if we had been asked what we needed, we would have said this was not necessary. We need to be listened to."

[3] The tailoring and data entry wages are estimates from the Guides' interviews and could not be further verified

[4] 100 Days Work is a poverty-combating measure created by the National Rural Employment Guarantee Act (NREGA) under which every state government in India should guarantee at least 100 days of paid work (usually unskilled manual labor) every year to each rural household that needs work.

Training

On the written survey, 12 Guides (100%) reported they were satisfied with and/or value with the weekly classes and tests. One Guide wrote " I have learned a lot in this program about diseases, blood sugar, cholesterol,…I've learned more than I ever learned in school."

Nine Guides (75%) expressed an explicit desire to be trained further, one indicating computer training would be helpful while others wanted more direct clinical skills such as wound dressing and ability to read medicine labels (n=5).

Clinical Work

Responses from the written survey found that 8 Guides (67%) reported being "very satisfied" with the work in the clinic, and that 10 Guides (83%) appreciated the professional relationship and interaction with the RMHC physician. However, there was also feedback to a separate question from two Guides indicating that they did not feel like the RMHC physician treated them appropriately when she or her family visited as a patient. This echoed the feedback from ICTPH staff in the previous section regarding the disrespect shown to some Guides by the RMHC physician.

Job Logistics

Throughout the course of the evaluation interviews, the Guides frequently cited the burdensome nature of travel from house to house on foot. The Guides shared their experiences from conducting the PISP when they had to carry a heavy bag of the necessary equipment while walking on foot for long distances in heat and rain. There were also repeated requests for cycles and (and umbrellas once) were made.

Additionally, the Guides' feedback was consistent with ICTPH's regarding the difference between expectations and program realities. One such example was the time required to conduct a PISP. Though the PISP itself involved a relatively standard amount of the Guides' time, actually traveling to all the houses in the order prescribed by ICTPH and then finding the family members at home when she arrived required a greater time investment than anyone had anticipated.

3. What are the evaluator's critical observations of the Guide program based on field visits and interview feedback from stakeholder?

Strong sense of solidarity/unity among the Guides

During the evaluator's field visits just prior to the new contract issue, she asked each of the Guides for their feedback on an incentivized pay structure. This inquiry was met with resistance by the Guides,

who had begun to share openly with the evaluator when asked questions. Specifically the evaluator asked each Guide if an incentive pay would motivate her schemed, and if so, what incentives would be beneficial. The concept of ranking the employees based on outputs was received rather coolly by all of the Guides. In fact, not one Guide interviewed responded in favor of an incentivized structure. This reaction may be attributed to the language and/or cultural barrier between the evaluator and the Guides, a resistance to any new payment structure, or perhaps as a threat to the group's unity. At the end of the interview, one guide shared that some of the Guides were underperforming and had asked their peers to be less diligent so that management would not single out any individuals for low performance.

Knowing the management's intention to introduce some incentive component to the Guide contract, the evaluator pushed the Guides to share what incentives would be of interest and/or motivating. The Guides shared the following two answers: more training opportunities for high performers (n=6) and a financial stipend at festival time (Diwali, Pongal)(n=2).

What are ICTPH management's goals and vision for the Guide program moving forward?

Overall Vision of a Guide

The evaluator asked each staff member to think about how they would define a Guide and her role within the Sugha Vazhvu system. The following three themes, supported by representative quotes, emerged strongly. Most respondents saw the Guides as some combination of the three themes:

Guides as bridge between the RMHC and the Community

This theme appeared in 100% (n=6) of the responses, indicating that it is important that the Guide function as a conduit for information, health resources, and outreach to the surrounding community.

"The Guide is the last mile connector between us at the RMHC and the household. This guide acts as our link to the community so that there is a connection from the household to the RMHC. This way [village residents] are embedded into the healthcare system."

Additionally, when asked if there should be a Guide program in future RMHC catchment areas, 100% of ICTPH staff responded "Yes." When asked why, 4 respondents cited the Guides' connection to the community and her ability to connect others to the RMHC as the reason. One interviewee stated that "[Sugha Vazhvu] is not a camp. We are very much [in the community] long term," and the Guide program was part of that strategy.

Guides as health ambassadors and educators

In this role, the Guide is responsible for looking out for the health of her catchment,

assisting with drug compliance and, over time, lifestyle modification in the community.

"The Guides are supposed to educate people on health, as part of [Sugha Vazhvu's] preventive promotive approach. [Sugha Vazhvu] needs to reach out to the community rather than wait for them to come. I think the Guide is an important piece of that….and has to reach out to the community and make sure the interventions are working. The interventions we have will not work without the Guide."

Guides as Connection to the Community

As residents of the surrounding catchment, the Guide is a natural connection to the RMHC catchment population. Several respondents saw this as important to Sugha Vazhvu's long-term scalable plan.

"I realize that having someone in the community longer term is beneficial. They will provide great feedback to the system."

"The rural setup is different. You need to have that connection [to the community]. Otherwise you are an alien who plops in the community. In the rural setup they have to consider you as part of them. There is no other way to crack…rural Indian dynamics. We want to create a sustainable health venture, and we have to make sure we understand these patients are not isolated individuals. They are communities. For us to get into the community, we have to have Guides as golden mile workers [paving the way to the RMHC]."

Demographic and Skill Profile

The following provides ICTPH staff's answers to a series of questions regarding the desired skill and demographic profile for a Guide. When asked what the Guides…

- ***Comfort with technology*** should be, four staff members (67%) mentioned "willingness to learn" "eagerness to learn" as an important factor. Two persons (33%) answered that their technology knowledge need be "very basic" or "basic."
- ***Age or age range*** should be, three respondents (50%) said she should be between 25-40 whereas the remaining three respondents said that age does not matter (n=2, 33%) and that she must be "mature enough to handle challenges of the job" (n=1, 17%).
- ***Highest level of education completed*** should be, all respondents stated that the Guide should have finished 8^{th}-12^{th} standard. Specifically 33% (n=2) believed that 12^{th} standard should be the minimum education requirement.
- ***Level of physical fitness*** should be, the words "healthy" or "energetic" appeared in 67% (n=4) of the responses. "endurance" and "stamina" were also mentioned in 67% of responses as important qualities. Lastly, half of the respondents cited that the Guide should also have the appearance of health, using words like "polished" or "healthy

looking" (n=3) to describe a Guide.

Program Management Structure

The responses in regards to the program management structure were clearly in favor (n=5, 83%) of moving the program's management at the RMHC level in order for the model to be scalable in future RMHC catchments.

> "[The Guide program] should be decentralized to the clinic itself….The doctor could have a dashboard of the Guides' tasks and call them if they were not living up to their targets and see…how they can help them meet the target. The doctor should have this ownership of the program."

Three respondents also believed that it was important for someone at midlevel or "fairly senior" within ICTPH to be responsible for continued design modification and evaluation of the Guide program.

> "ICTPH should *measure* them but not *manage* them. We should give them a daily target and then we can monitor if they reach it….Without [RMHC-based program management], we can't scale up this model."

Role of the Guide within the RMHC Ecosystem

One respondent offered that "We (ICTPH/Sugha Vazhvu) really need to establish that relationship between the physician and guide. If the doctor looks on [the Guide] as the least important rung, that will backfire….This is a crucial relationship, because the Guide is the first person to talk to any future RMHC patient when they are in the community."

"Rather than having conversations about tea or being tired, [the Guide and physician] can have conversations about what they saw in the field and how to respond."

Tasks

Three respondents mentioned the importance of providing the Guides with "tangible, measurable task that can be monitored" to ensure success. One interviewee noted that when Guides were given structured tasks and reasonable performance expectations, the Guides performed "exceedingly well."

Two interviewees mentioned high-risk patient follow up as a task for which the Guide should be responsible.

Salary and Incentives

All of the interviewees (n=6) believed that the program should remain a paid position. Additionally, all also believed that some form of incentives should be introduced to the Guide payment structure. Three advocated for a performance-based-pay scheme within the program, as was used successfully with short-term employees in other catchments.

Three interviewees referred to non-monetary incentives as important motivators. Motivators suggested were public encouragement from Sugha Vazhvu management, awards from community leaders in recognition of service, school stipends for high performers, etc.

Training

All interviewees agreed that the training component was a necessary and integral component to the program. Two respondents offered suggestions that whoever supervises the Guide program should provide regular feedback on what knowledge gaps exist with the Guides to ensure that relevant materials are covered during the classes.

Technology

One respondent advocated for a sophisticated technology piece that would enable better management of care by the Guides. The interviewee stated that "The doctor should be thinking about wellness and not clerical duties," and technology might facilitate that. Another interviewee noted that the role technology will play in the Guide program is not yet clear and ever-evolving, stating that "We aren't yet sure how much [technology] should or could replace the human intervention."

Performance Management

Two interviewees outlined similar performance management systems in which a Guide's success was measured by her ability to impact the health status of her community positively as measured through the health information captured by the Guides and at the RMHC. One stated that "A community health report card…would be the guide's evaluation criteria. Take Diabetes as an example. Have [the program managers] seen any reduction in the prevalence of Diabetes in a given period of time in the Guide's catchment? If so, reward the Guide and RMHC physician. If not, why not? Does the model need to be changed? Does the Guide need to face consequences?"

Part IV: Recommendations

Context for Recommendations:

The evaluation began on July 6, 2011, and the first year contract for the Guides expired on July 31, 2011. To provide the evaluator more time to conduct research and receive feedback from stakeholders, the contract terms were extended by one month (to end on August 31, 2011).

As part of the program evaluation, the evaluator spent the first 7 weeks learning about the program and soliciting feedback from ICTPH staff and the Guides to identify the specific programmatic issues that needed to be addressed. Those findings are outlined in the Results section above. Once the evaluator had identified the key issues to address and conducted research on best practices in community health worker programs, she presented a set of recommendations for program improvement. ICTPH senior management considered the proposed recommendations and adopted those they deemed feasible given the program's budget, organizational capacity, and potential for scaling the program to other RMHC catchments.

With the assistance of the evaluator, ICTPH revised the Guides contract terms and program structure to incorporate lessons learned and current best practices in community health worker program management. The new contract was issued on September 1, 2011. All twelve Guides chose to renew the contract for another year.

The following outlines the program evaluator's recommendations made to ICTPH that were incorporated to the new contract terms. Those recommendations not adopted are included in Section VI, Issues for Future Consideration.

Restructure the Program

Create Year-long Timeline of Guide Activities

During its first year, the evidence showed that the Guide program lacks(ed?) a clear idea of structured program activities and outputs intended for the Guides to accomplish. However, research is clear that program designers and the CHWs themselves must have clearly stated and agreed upon objectives for the program including the nature of CHW activities (i.e. clinical duties, household visits, community engagement), relative time the CHW will spend in preventive versus curative activities, catchment size for which the CHW is responsible, and the position of the CHW within the health service delivery hierarchy. [ix]

It was recommended that ICTPH management create a detailed yet flexible time-bound plan of program activities and expected outcomes for the second year of operation. This plan would include an outline (including timeline) of Guide participation in interventions and/or enrolment processes. At the writing of this report, ICTPH had drafted a yearlong program plan, which can

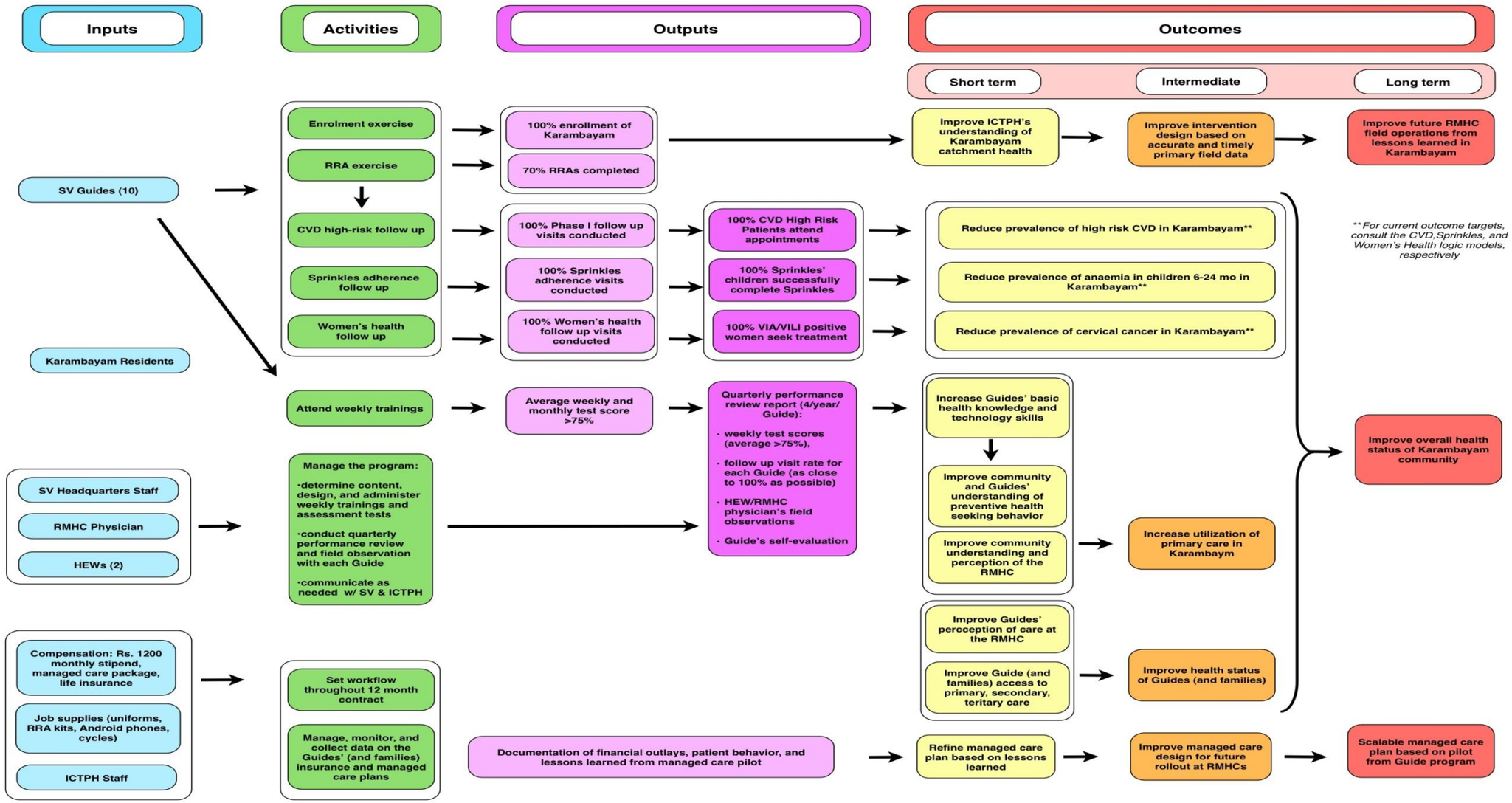
be found in Section V The Way Forward. To facilitate this process, the evaluator constructed a logic model of the second year program's revised structure and anticipated activities and outputs. See Figure 5.

As part of this program restructuring, the program management and feedback system was defined and explained to all stakeholders. In the new program structure, the Sugha Vazhvu Medical Director, based at headquarters, is the owner of the program. However, the two newly created position of HEW/Guide Manager serve as the operational manager of the program.

Two Guides were selected by interview process to serve as the Health Extension Workers/Guide Managers at the Karambayam Clinic. In this role, these two women work half of the week in the RMHC supporting the physician and spend the other half of their week in the field with the Guides, shadowing their work and reporting back to the RMHC physician regularly on what she observes. The HEW/GM is expected to use her firsthand observations to inform the RMHC physician regarding necessary training opportunities for the Guides, the community's reaction to the Guide's activities and/or to the RMHC, and to inform the Guides' quarterly performance evaluation. The HEW/GM is also responsible for recording all complaints formally made by the Guides and to ensure the issue is dealt with in a timely fashion. An ICTPH researcher continues to communicate regularly with the HEW and RMHC physician to ensure operations are running smoothly. When issues arise with the program design or structure, the researcher is responsible for proposing solutions based on best available evidence from literature.

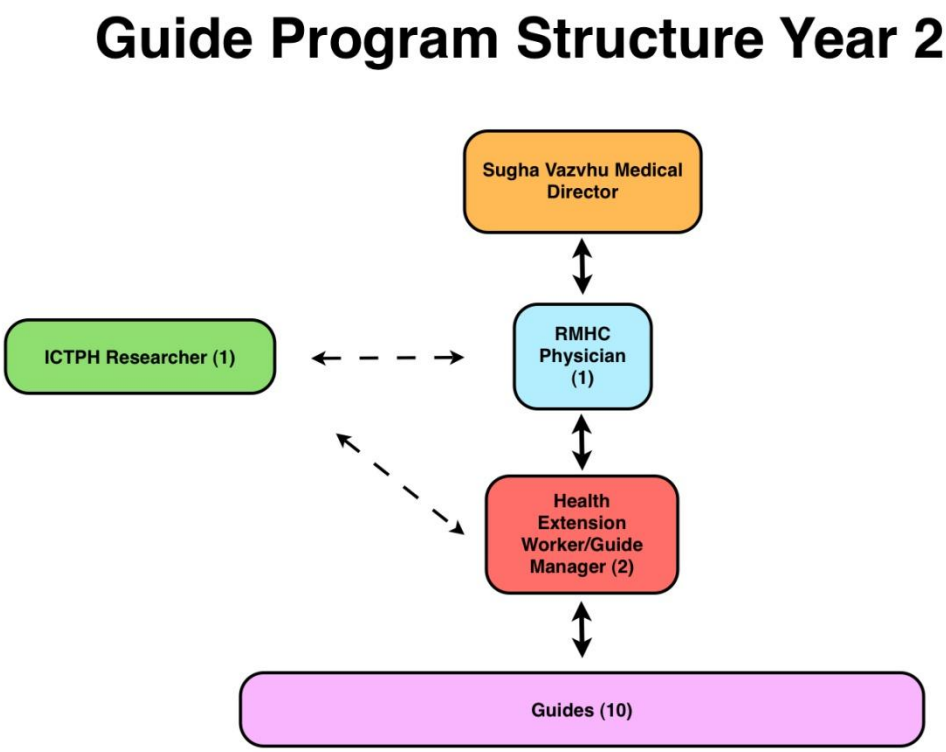
See Figure 6 for revised program structure.

Sugha Vazhvu Guide Program 2011-2012



Note: All performance values assigned are estimates based on current best available evidence and will be modified for the program's duration to reflect realisitc yet ambitious expectations for program ouputs and outcomes.

Figure 6 Guide Program Reporting Structure September 2011-Present



Revised Contract Terms

The following outlines the revised program structure and benefits for the Guide program, as stated in the contract.

Benefits

Each Guide will be provided with the following benefits:

- Rs. 1300/month
- Managed Care Plan (up to Rs. 50,000) with free primary care provided at the Karambayam RMHC
- Life Insurance
- Pay-for-Performance rewards for Rapid Risk Assessment enrolment

- Cycle
- Umbrella
- 1 New Uniform
- Recognition or reward for exceptional performance

Though monetary incentives may be difficult to sustain, WHO reports that 'there exists virtually no evidence that volunteerism can be sustained for long periods: as a rule, community health workers are poor and expect and require an income'. **Error! Bookmark not defined.**

Expectations

Each Guide will be expected to invest 20 hours of work each week in the following:

- Perform tasks as assigned by Sugha Vazhvu related to enrolment and/or Rapid Risk Assessment, intervention assistance, high risk patient follow up and compliance.
- Attend weekly training sessions with a 90% attendance average[5]
- Score consistently at or above 75% on weekly assessment tests

Supervision and Performance Management

From the evaluator's literature review, there was a recurring theme of inadequate supervision or supervision failure within CHW programs.[x] Additionally, it has been shown that more frequent and regular supervision is associated with improved CHW services.[xi] One source notes that CHWs require quality supervision because they "tend to have fewer skills than other health personnel and to work alone in rural areas."[xii] Supervision has also been shown to help CHWs not feel isolated in their work, sustain CHW interest and motivation, and lower attrition rates by as much as two or three times.[xiii]

As the structure of the supervision, it should utilize "a team approach…should be developmental, systematic, planned and budgeted for accordingly, in order to achieve the desired service delivery and health outcomes."[xiv] In addition, health professionals are trained

- [5] Continuous training is noted as "an essential prerequisite" to sustaining a CHW program and the motivation of the CHWs themselves. Source?.

within the "hierarchical framework of disease-oriented medical care systems." This sense of superiority of health personnel has been observed as a problem, as health professionals often perceive CHWs as "lowly aides" misunderstanding their health promoting and enabling role within communities. Therefore, program managers must appropriately inform CHW supervisors of the CHWs role as well as train the supervisor in supportive supervision of CHWs. Research has shown that ensuring that supervisors are trained to conduct such supervision increases CHW retention.

The CHW AIM Toolkit also outlines the key components to successful program management and CHW supervision. The following proposed supervision and performance management structure is in response to the referenced evidence.

Performance Reports and Reviews

Sugha Vazhvu will provide each Guide with:

- Monthly summary of training attendance and test scores.
- Quarterly 1 on 1 supervision session with the RMHC physician and a field visit accompanied by the HEW
- Annual performance review with the HEW and RMHC physician

Self-Assessments:

Each month, each Guide will provide Sugha Vazhvu with a brief self-assessment in which the Guide evaluates her own performance as well as opportunities for improvement in the field and at trainings. This self-assessment will serve as both a professional development tool and a means to communicate the Guide's fieldwork with the RMHC. The self-assessments may also be referenced in quarterly and annual performance reviews.

Performance Management

Each Guide's job performance will be assessed based on her:

- Attendance and performance at weekly trainings,
- Self-assessments, and

- Quarterly reviews (including field observation)[6]

At the time of quarterly review, if a Guide is found not to have met defined expectations, the following will occur:

1. The Guide's low performance will be noted in her performance review and she will be issued a verbal warning that is noted in the HEW's record book.
2. The RMHC physician and HEW will review the job expectations (see above) with the Guide to make sure expectations are clear.
3. The Guide will be given 1 month to meet defined expectations.
   - If after 1 month the Guide's performance remains below expectations, she will be released from the program.
   - If for the next 3 months the Guide's performance meets expectations, she will no longer be on warning.
   - If after 1 month the Guide's performance improves but then again falls below expectations within the quarter, the Guide will be given one final warning.
   - If a Guide who is issued a warning does not stay consistently at or above expectations for 3 consecutive months, she will be released from the program.
   - If a Guide is consistently performing below expectations, the HEW and/or RMHC physician may call an individual meeting with the Guide and initiate the above procedure.

Communication between the Guides and Sugha Vazhvu:

To create a formal feedback channel between Sugha Vazhvu management and the Guides as well as track employee satisfaction throughout the program, each Guide will provide Sugha Vazhvu with:

- Monthly written feedback form (anonymous) *at end of* the weekly training meeting
- Quarterly written feedback form (anonymous) *in place of* weekly training meeting. This will include questions regarding satisfaction with and appropriateness of:
  - Weekly trainings,

[6] See CHW AIM Toolkit (2011) Supervision section for more detailed recommendations regarding quarterly performance review purpose and content.

- Supervision and communication with SV
- Job expectations

Other Recommendations not in Revised Guide Contract

The following are recommendations made by the evaluator that are not written in the new contract terms but are recommendations agreed upon by ICTPH managing staff.

Settle Guides' Unpaid Healthcare claims from the first year

Since the Managed Care plan devised by ICTPH was not delivered in the program's first year, many Guides were left distrusting the Sugha Vazhvu health system. In order to restore the Guides' trust and confidence in Sugha Vazhvu as an employer, health care provider, and community institution, the evaluator strongly recommended that Sugha Vazhvu pay all unpaid healthcare bills and claims outstanding from the program's first year.

Documenting Complaints and Issues from the Field

When a Guide reports an issue to the HEW, she must make a written record of the report or complaint. Additionally, that person must ensure that, if necessary, the issue is addressed by the appropriate staff person within the week. This is to ensure that the communication loop between the Guides and management is functioning in a timely fashion. Additionally, it provides a record against which the HEW and RMHC management can be evaluated.

Determine Performance Benchmarks through Field Pilot

As the new contract introduces the concept of performance monitoring with benchmarks, it is critical that the management team set realistic targets for the Guides to meet in the field. To do this, the evaluator recommends that before any intervention benchmarks are set, someone from the central office performs the expected tasks under the same conditions as the Guide would (using a cycle, during the day, in the Karambayam catchment). Not only will benchmarks be grounded in firsthand experience, but also the management can assure the Guides that the targets are realistic, as other staff has already met them.

Devise Weekly Training Syllabus

A systematic review of CHW literature has shown that improved health and nutrition indicators are associated with programs that are "appropriately indentured, trained, and supported."[xv] The evaluator recommended that Sugha Vazhvu and ICTPH map out a syllabus of weekly training content to ensure that key learning objectives continue to be addressed throughout the course of the program.

Additionally, a review of literature revealed a strong need for community health worker training in interpersonal communication and counseling skills utilizing methods of adult

participatory learning. This should be considered when creating the syllabus so that essential yet non-health related information is incorporated in the Guides' learning.

Part V: Detailed Way Forward

The Way Forward: Guide Program 2011-2012

The following section maps out the near future of the Guide program under the revised management and program structures.

Context: Guide Program 2010-2011

Realizing the need for quicker turn-around times in assessing health risks at catchment levels, in September 2011 with the signing of the new contracts, the Guides began administering a stripped down version of the PISP known as the Rapid Risk Assessment (RRA). Concurrently the Guides also engaged villagers in the enrolment process, which entails the Guides visiting every household in the identified catchment, collecting information such as the name, age and gender of each family member, and the latitude-longitude co-ordinates of the household. At the end of the visit, the Guide would provide the family with a household identification card to be used at future RMHC visits to access this information captured. The data collected is then fed into the HMIS for immediate use in the RMHC. [Note: the PISP exercise shifted to be performed by the Health Extension Worker at the RMHC as part of standard first visit protocol.]

Where the PISP was administered on OMR forms, the RRA is conducted using Android smart phones using an open-source data-collection tool called ODK Collect. ODK software allows ICTPH to customize forms, collect data and curate the survey results.

This method of data collection was used successfully in Andipatti, a recently opened RMHC site where the entire enrolment exercise was completed in less than 15 days. Short-term employees known as enrolment officers collected the information on nearly 13000 individuals and 3000 households. This experience was repeated at another pilot site, Alakkudi, in less than 10 days.

There were a few major differences between the previously referenced enrolment processes and the work in Karambayam. First, the Guides were tasked with completing the enrolment and the RRA in the same visit to each household. Second, the Guides were not short-term employees but long-term community members capable of providing follow up with patients identified as “high risk” as a result of the RRA. Third, since the Guides received a fixed monthly honorarium, the pay-for-performance scheme used with enrolment officers was modified to complement the honorarium.

At the writing of this report, the RRA and enrolment processes are currently underway in Karambayam. The Enrolment exercise requires one adult respondent per household to be surveyed, while the Rapid Risk exercise individually surveys all Adult members in the catchment area, and consequently the rate of completion of RRAs will begin to fall once saturation of non-working household members available for survey has been reached. At current levels of

performance of 250 Household Enrolments and 500 RRAs per week, it is estimated that the Enrolment exercise will be completed by the end of November. Additionally, more than 60% of the village will have completed the RRA (assuming there are 2000 households and 7000 adults in the catchment area). Once the Enrolment is 100% complete, the staff will reconsider a realistic percentage target of RRAs. As a result Guides may be asked to pass through their catchment a second time to gather additional respondents or the process will conclude.

Beyond Enrolment/RRA

The following is a timeline of the proposed workflow for the Guides for the remaining months of their contract.

Guide Work Plan October 2011 to April 2012

Months	Tasks	Hours/week
September	Enrolment* &	
October	Rapid Risk Assessment (RRA)*	20-80
November		
December 1-15	RRA* Second pass (if required)	20-80
December 15-30		
January	CVD High Risk Follow Up	
February	Sprinkles Home Visits	Up to 20
March		
April		

**Tasks for which the Guides are additionally variably incentivised (i.e., directly linked to performance) over and above their monthly honorarium.*

Once the Enrolment/RRA exercise is complete, the weekly time commitment expectation from the Guides returns to the stipulated 20 hours/week, where they would be expected to attend weekly trainings, make home visits for high-risk CVD and Sprinkles follow-ups. Between CVD and Sprinkles follow-ups, the time division is expected to be about 80:20. While follow-ups for CVD would be ongoing, Sprinkles follow-ups would last for the course of Sprinkles i.e., every two weeks for the duration of 60 days.

Protocol for Cardiovascular Disease (CVD) Follow Up

CVD follow-ups will be done when a patient has been identified as having 2 risk factors per the RRA questionnaire. When conducting a CVD follow up, the Guide would do the following:

- Visit the house of a patient who is identified as needing an appointment that s/he did not attend
- Administer a short survey on the mobile phone:
    - Capture his/her reasons for missing follow-up;
    - Determine whether the patient is managing his condition elsewhere outside the SughaVazhvu system; and if so, where (given that the goal is to track and monitor the chronic condition regardless of where treatment is being sought)
- Measuring any vitals if required (e.g. the BP of hypertensive patients)
- Delivering targeted educational awareness at the household such as behavior modification lessons regarding salt reduction advice for hypertensive patients

With the RRA capturing the health information for the whole catchment within two months, it is anticipated that there will be a significant number of patients requiring CVD follow up. This visit (post-RRA) is known as the Phase II follow-up within the CVD protocol. These Phase II follow-ups should occupy the Guides for at least two months (potentially longer) at the expected 20 hours per week. Beyond Phase II Screening, CVD follow-ups would be an ongoing event, with the chronic condition followed-up periodically until the patient exits the CVD cohort.

Protocol for Sprinkles Follow-Up

Guides conducting Sprinkles follow up (see program description in the Results section) will do the following:

- Conduct bi-weekly visits to the house of an infant who has been enrolled in the anemia package
- Administer a short survey on the mobile phone capturing the infant's change in activity levels, the mother's perceptions about the product, side effects and concurrent illness if any, etc.
- Measure the infant's anthropometric measures (height, weight, MUAC[7])
- Administer anemia education by means of flipcharts

[7] Mid-upper arm circumference

Part VI: Conclusions and Issues for future consideration

This concludes the Year 1 Evaluation of the Sugha Vazhvu Guide Program. The second year program model that emerged from this evaluation is the result of many inputs: structured observation, interviews, research, and brainstorming by the evaluator and stakeholders. All of these contributed to the restructured Guide model, designed to reach residents in Karambayam and future RMHC catchments.

Though the Guide program was improved from its pilot model, this is likely another iteration of many models to come in ICTPH community health efforts. Indeed, community health worker program structures and management is a field with which the public health community continues to grapple. As such, there are many issues for which best practices do not yet exist.[xvi] These questions include,

- What measures does your program use to assess functionality, engagement, and performance? Have you seen correlations among them?
- What should performance appraisal systems for CHWs look like? And what is practical given the budgetary and human resources constraints of most CHW programs?
- What are the most effective methods for galvanizing effective community leadership for CHW support?
- How do public health professionals strengthen the integration of national CHW programs and the myriad NGO-managed CHW programs to contribute to national outcomes?

USAID's Health Care Improvement Portal recently launched CHW Central, a forum for sharing lessons learned, successes in the field, and resources to assist planners and implementers of CHW programs. ICTPH and Sugha Vazhvu should contribute their knowledge to the global conversation and stay abreast of the ever-evolving literature on community health worker programs.

Appendix A: Photos throughout the Evaluation

Photo 1: Karambayam RMHC: Site for Guides' clinical duties and weekly classes

Photo 2: Weekly Guide Training class at the Karambayam RMHC

Photo 3: Taken on one of the evaluator's rapport building home visits; pictured: Guide preparing limejuice for the evaluator and interpreter

Photo 4: Photo taken on one of the field visits with a Guide in the Karambayam catchment

Photo 5: Evaluator utilizing services in the Karambayam RMHC with the medical assistance of a Guide

Photo 6: Guide Written Survey; pictured: Guides reading through questions before filling out the survey

Photo 7: Contract Renewal; pictured: ICTPH researcher explaining revised contract terms to the Guides

Photo 8: Contract Signing Day; pictured: Sugha Vazhvu Medical Director co-signing contracts and shaking hands with each Guide renewing her contract

Photo 9: Sugha Vazhvu Medical Director, 10 Guides and 2 HEWs standing in front of the Karambayam RMHC after contract signing

Appendix B: Guide Written Survey Questions

The following are the questions asked of the Guides in the written evaluation. [The format has been modified to reduce space in this report.] The survey was translated to Tamil before the survey was administered.

1. Why did you choose to be an SV Guide?
2. What expectations did you have coming into this job?
3. Has this job met your expectations? Yes No Somewhat

If no, how has this job been different than what you expected from the beginning?

4. Is this the kind of job or career you desire? Yes No Somewhat

If no, what kind of job or career do you desire?

5. How satisfied are you with the work you are doing currently?

   Circle where on the line you feel

☹ Very Unsatisfied ☹----------I Neutral I---------- ☺ Very Satisfied ☺

6. What does the community think of your work as a Guide?
7. Where do you currently seek medical care? Please circle one

RMHC PHC Private Clinic/Hospital I do not seek care Other_____

8. Where does your family currently seek medical care? Please circle one

RMHC PHC Private Clinic/Hospital My family does not seek care

Other_____

9. How satisfied are you with the insurance provided by Sugha Vazhvu?

   Circle where on the line you feel

☹ Very Unsatisfied ☹----------I Neutral I---------- ☺ Very Satisfied ☺

10. **We want to hear how you feel about the following job-related issues:**
    - Travel required for your job
    - Physician you work alongside
    - Insurance plans provided by Sugha Vazhvu
    - Rs. 1000 monthly stipend
    - Communication and support from Sugha Vazhvu management
    - Quality and content of weekly trainings (Thursday meetings)
11. What is the mission/objective of Sugha Vazhvu?
12. Do you feel like part of the Sugha Vazhvu organization?

    Yes No Somewhat

    Please explain:
13. Are you aware of what Sugha Vazhvu is doing in Andipatti and Alakuddi?

    Yes No Somewhat
14. What would be an appropriate monthly salary and benefits package for the work you are doing?
15. What would you change about the SV Guide program?
16. What do you like about SV Guide program?

Please write any additional comments on the Guide program here:

Appendix C: Guide Contracts, Year 1 and Year 2

The following is a copy of the Guide Contract Year 1.

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
SUGHAVAZHVU HEALTHCARE PRIVATE LIMITED
AND
SUGHVAZHVU GUIDE

This MOU is entered into on July 29, 2010
BETWEEN
SughaVazhvu Healthcare Private Limited, a company incorporated under the Companies Act, 1956 and having its registered office at A2, L.P. Amsavalli Illam, 7th Cross Street, Arulananda Nagar, Thanjavur, Tamil Nadu- 613007 (hereinafter referred to as "SughaVazhvu" which expression shall whenever the context so admits include its authorized assigns and successors in title of the FIRST PART.
AND
Ms.....
Wife/Daughter of .....
Residing at .....
(Hereinafter referred to as SughaVazhvu Guide).

Article 1: Background
1. Whereas SughaVazhvu is in the field of managing a network of Rural Micro Health Centres (RMHCs) in remote rural villages facilitating primary healthcare to rural populations, along with referral services with the mission of improving the health and wellbeing of the populations that it seeks to serve.

2. Whereas SughaVazhvu Guide has expressed her voluntary interest and keenness to provide pro-bono services to her neighbouring community in preventive health-care, risk screening, referral and follow-up care under the supervision of the SughaVazhvu Doctors and Nurses.

Article 2: Objective

1. The objective of this MOU is to provide an opportunity to every suitable individual who wishes to provide her pro-bono services to her neighbours in close collaboration with SughaVazhvu for enhancing their health and wellbeing.

Article 3: Terms of MOU

1. This MOU is valid for a period of one year effective from the date mentioned in first para of this MOU.

2. The MOU will remain valid over the period unless terminated by the parties mutually.

3. In the case of this MOU is not terminated by the parties after the expiry of above mentioned period, this MOU will be assumed to be renewed each time for the same period from the last day of expiry of this MOU with the same conditions as are existing at the time of each expiry of this MOU.

Article 4: Terms Agreed by SughaVazhvu

SughaVazhvu agrees to:

1. Provide training to the SughaVazhvu Guide for implementing the Population Level Screening Package (PLSP) – questionnaires and screening tools.

2. Provide technical training to SughaVazhvu Guide for operating various clinical instruments such as the mercury sphygmomanometer, stethoscope and spirometer and for computing indicators such as the Body Mass Index.

3. Provide necessary data recording tools such as paper based forms and mobile phone based applications

4. Provide more advanced medical training through scheduled RMHC rotations.

5. Provide mentoring while field implementing PLSP.

6. Provide weekly schedule/beat for follow-up of individual cases in the defined territory for follow-up health-care.

7. Provide SughaVazhvu uniform required to be used by the SughaVazhvu Guide while performing its obligations.

8. Provide free basic and primary healthcare facilities for the SughaVazhvu Guide and her family members (family defined as spouse and children as listed in Article 17, and residing in the same address as of SughaVazhvu Guide) at the SughaVazhvu RMHC.

9. Provide hospitalization cover of up to Indian Rupees 50,000/- as a family floater (family defined as spouse and children as listed in Article 17, and residing in the same address as of SughaVazhvu Guide) insurance policy offered to the SughaVazhvu Guide.

10. Provide accident insurance cover of up to Indian Rupees 25,000/- to the SughaVazhvu Guide.

11. Provide life insurance cover of up to Indian Rupees 50,000/- to the SughaVazhvu Guide.

Article 5: Terms Agreed by SughaVazhvu Guide

The SughaVazhvu Guide agrees to:

1. Attend all the training programs organized by SughaVazhvu.

2. Provide services specified from time to time by SughaVazhvu to about 1000 people in the neighbouring community, or as per the territory defined by SughaVazhvu as her area of field operations.

3. Implement PLSP under the supervision of the SughaVazhvu Nurse.

4. Attend weekly update/review meetings at the RMHC to be conducted by the SughaVazhvu Nurse.

5. Provide community/individual feedback consolidating field visit experience.

6. Abide by the RMHC rotation schedule, towards medical assistant training under the supervision of the RMHC Nurse.

7. Abide strictly by the code of conduct of SughaVazhvu as communicated through policy circulars from time to time.

8. Abide by the uniform code of SughaVazhvu while performing SughaVazhvu related obligations/duties.

9. Provide emergency care to the defined territory, strictly as per the training provided by SughaVazhvu.

10. Abide by all referral protocols communicated by SughaVazhvu and consult the RMHC in case of any doubts.

11. Allow SughaVazhvu to seek regular feedback from those members of the community that she has chosen to serve about the quality of care that they have been receiving from her.

12. Maintain the confidentiality of all medical and other information that she becomes privy to while performing these tasks.

Article 6: Honorarium

1. Since, the SughaVazhvu Guide desires to offer her services to her neighbours on a pro-bono basis and will be receiving a substantial amount of training and skill building support in health care; she does not seek to be monetarily compensated for the time that she spends on this work.

2. Even though SughaVazhvu will not receive any monetary benefit from her work, since the work that the SughaVazhvu Guide seeks to perform is consistent with its mission, SughaVazhvu agrees to pay her a fixed honorarium of Rs 1,000/- (Indian Rupees One Thousand Only) at the end of every month in order to defray any out-of-pocket expenses incurred by her while performing these tasks in a satisfactory manner.

Article 7: Modification and Termination

1. This MOU may be modified or terminated at any time. Either party may terminate this MOU with thirty (30) days prior notice in writing to the other party, provided that the party's duty to fulfil its obligations incurred prior to termination shall survive termination of this MOU.

2. Either party may terminate this MOU with immediate effect upon commission of an incurable material breach by the other party.

3. Either party may terminate this MOU with a written notice of thirty (30) days to the other party, if the other party fails to cure a material breach within such period of notice.

4. The MOU may be terminated by either party in the event the performance of the obligations under this MOU becomes impossible due to reasons beyond the control of either Party.

Article 8: Effect of Termination

1. Neither Party will represent the other Party in any of its dealings and neither Party shall intentionally or otherwise commit any act(s) as would lead a third party to believe that the other Party still has a business relationship with the former Party.

2. Each Party shall stop using the other Party's name, trade mark, etc., in any audio or visual form. Neither Party will be eligible to claim any amount of loss or compensation for the termination of this MOU provided that such termination is effected in accordance with the provisions of these presents.

3. Within thirty (30) days after such termination, each Party will return all confidential information of the other Party in its possession as on the date of termination of this MOU and shall not make or retain any copies of such confidential information.

4. Upon termination the SughaVazhvu Guide shall return all instruments and equipment as provided to her as per Article 4.

Article 9: Confidentiality

The Parties recognize that, by virtue of this MOU, each Party will be given and have access to the confidential and proprietary information of the other Party. Each Party undertakes not to divulge or communicate to any person (unless required by law) or use or exploit for any purpose whatever, any of the trade secrets or confidential knowledge including the terms of this MOU or information of the other Party which the Party may receive or obtain as a result of entering into this MOU, and each Party shall use its reasonable endeavours to prevent its officers, employees or agents, if any, from doing so.

This obligation and restriction on each Party shall continue to apply for a period of one (1) year after the termination of this MOU. The Parties acknowledge that a breach by a Party of any confidentiality or proprietary rights may cause the non-breaching Party irreparable damage, for which the award of damages would not be adequate compensation. Consequently, the disclosing Party may institute an action to enjoin the receiving party from any and all acts in violation of those provisions, which remedy shall be cumulative and not exclusive, and the disclosing Party may seek the entry of an injunction enjoining any breach or threatened breach of those provisions, in addition to any other relief to which the disclosing Party may be entitled at law or in equity.

Article 10: Indemnity

Each Party ("Indemnifying Party") agrees to indemnify, defend and hold the other Party and its affiliates, their directors, officers and employees ("Indemnified Party") harmless from all claims, damages, demands, liabilities,

costs and expenses, actually suffered and incurred by the Indemnified party, arising by reason of any material breach of the indemnifying party with respect to any of the terms of this MOU.

Article 11: Limitation of Liability

1. In no event shall either Party be liable for any special, incidental, indirect or consequential damages of any kind in connection with this MOU.

2. Without prejudice to the foregoing, either party's liability under this MOU, if any shall not exceed a total amount of Rs. 10,000 (Indian Rupees Ten Thousand).

Article 12: Notice

Any notice required or permitted to be given to the Parties hereunder shall be in writing and sent or transmitted by (i) registered or certified mail, (ii) hand-delivery, or (iii) facsimile transmission confirmed by transmission report, (iv) internationally recognized courier service, provided its receipt is acknowledged and dispatched or sent or transmitted to the addresses of the Parties as set out in the first page of this MOU or to such other address as the Parties may specify from time to time.

Article 13: Force Majeure

Neither Party shall be liable to the other for delays or failures in performance resulting from causes beyond the reasonable control of that Party, including, but not limited to, acts of God, labour disputes or disturbances, material shortages or rationing, riots, acts of war, governmental regulations, communication or utility failures, or casualties ("Force Majeure"); and shall, to the extent reasonably possible, use its best efforts to remove or remedy such cause. However, such Party shall give prompt notice within a period of two (2) days from the date of occurrence of Force Majeure, and providing a description to the other Party of such Force Majeure in such notice, including a description, in reasonable specificity, of the cause of Force Majeure; and provided further that such Party shall use reasonable efforts to avoid or remove such cause of non - performance and shall continue performance hereunder whenever such causes are removed.

Article 14: Dispute Resolution

This MOU shall be subject and accordance with the laws of India.
The Parties to this MOU will attempt in good faith to negotiate a settlement to any claim or dispute between them arising out of or in connection with this contract. In the event that such disputes, claims, suits and actions are not resolved to the mutual satisfaction of the Parties, then the same will be finally decided in accordance with the Arbitration and Conciliation Act, 1996. The venue for arbitration proceedings shall be Tanjavur. All proceedings shall be conducted in Tamil. Subject to the foregoing, the Parties shall submit to the exclusive jurisdiction of the courts of Tamilnadu, India in respect of any disputes or differences or claims arising between the parties.

Article 15: Severability

Any provision of this MOU that is prohibited or unenforceable in any jurisdiction will, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining portions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

Article 16: Miscellaneous

This MOU constitutes the entire MOU between the Parties and pertains to the subject matter hereof and supersedes in their entirety over all other written or oral MOUs between the Parties.

Article 17: Family Members

Family members restricted to spouse and children of the SughaVazhvu Guide.

"In the event of any contradiction between the English and Tamil text, the English text shall prevail, be binding and relied upon".

The following is a copy of the Guide Contract Year 2 with revised contract terms.

MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
SUGHAVAZHVU HEALTHCARE PRIVATE LIMITED
AND
SUGHVAZHVU GUIDE
This MOU is entered into on September 1, 2011

SughaVazhvu Healthcare, a company incorporated under the Companies Act, 1956 and having its registered office at A2, L.P. Amsavalli Illam, 7th Cross Street, Arulananda Nagar, Thanjavur, Tamil Nadu- 613007 (hereinafter referred to as "SughaVazhvu" which expression shall whenever the context so admits include its authorized assigns and successors in title of the FIRST PART.

AND
Ms.....
Wife/Daughter of .....
Residing at .....
(Hereinafter referred to as SughaVazhvu Guide or Guide).

Article 1: Background
1. Whereas SughaVazhvu is in the field of managing a network of Rural Micro Health Centres (RMHCs) in remote rural villages facilitating primary healthcare to rural populations, along with referral services with the mission of improving the health and wellbeing of the populations that it seeks to serve.

2. Whereas SughaVazhvu Guide has expressed her voluntary interest and keenness to provide pro-bono services to her neighbouring community in preventive health-care, risk screening, referral and follow-up care under the supervision of the SughaVazhvu Doctors and Nurses.

Article 2: Objective

The objective of this MOU is to provide an opportunity to every suitable individual who wishes to provide her pro-bono services to her neighbours in close collaboration with SughaVazhvu for enhancing their health and wellbeing

A**rticle 3: Terms of MOU**

1. This MOU is valid for a period of one year effective from the date mentioned in first paragraph of this MOU.

2. The MOU will remain valid over the period unless terminated by the parties mutually.

3. In the case that this MOU is not terminated by the parties after the expiry of above mentioned period, this MOU will be assumed to be renewed each time for the same period from the last day of expiry of this MOU with the same conditions as are existing at the time of each expiry of this MOU.

Article 4: Terms Agreed by SughaVazhvu

SughaVazhvu agrees to:

1. Provide time to time training to the SughaVazhvu Guide for implementing interventions and protocols that SughaVazhvu wishes to roll out.

2. On an as-needed basis, provide necessary tools, which the SughaVazhvu Guide would need for implementation of SughaVazhvu interventions or protocols.

3. Provide more advanced medical training through weekly scheduled RMHC sessions.

4. Provide weekly schedule/beat for follow-up of individual cases in the defined territory for follow-up health-care.

5. Provide free basic and primary healthcare facilities for the SughaVazhvu Guide and her family members (family defined as spouse and children as listed in Article 18, and residing in the same address as of SughaVazhvu Guide) at the SughaVazhvu RMHC.

6. Provide referral and hospitalization cover of up to Indian Rupees 50,000/- as a family floater (family defined as spouse and children as listed in Article 17, and residing in the same address as of SughaVazhvu Guide) insurance policy offered to the SughaVazhvu Guide.

7. Provide accident insurance cover of up to Indian Rupees 1,00,000/- to the SughaVazhvu Guide.

8. Provide life insurance cover of up to Indian Rupees 1,00,000/- to the SughaVazhvu Guide.

9. Provide feedback in a structured format as defined in Article 7.

Article 5: Terms Agreed by SughaVazhvu Guide
The SughaVazhvu Guide agrees to:

1. Attend all the training programs organized by SughaVazhvu.

2. Provide services specified from time to time by SughaVazhvu to about 1,000 people in the neighbouring community, or as per the territory defined by SughaVazhvu as her area of field operations. This would entail about 20 hours of her time per week and the schedule would be communicated to her by the SughaVazhvu Health Extension Worker (HEW)

3. Attend weekly update/review meetings at the Rural Micro Health Center (RMHC) to be conducted by a SughaVazhvu Nurse.

4. Provide feedback in a structured format as defined in Article 7.

5. Abide strictly by the code of conduct of SughaVazhvu as communicated through policy circulars from time to time.

6. Abide by the uniform code of SughaVazhvu while performing SughaVazhvu related obligations/duties.

7. Provide emergency care to the defined territory, strictly as per the training provided by SughaVazhvu.

8. Abide by all referral protocols communicated by SughaVazhvu and consult the RMHC in case of any doubts.

9. Allow SughaVazhvu to seek regular feedback from those members of the community that she has chosen to serve about the quality of care that they have been receiving from her.

10. Maintain the confidentiality of all medical and other information that she becomes privy to while performing these tasks.

11. Refrain from misrepresenting SughaVazhvu in any form.

12. Refrain from prescribing medicines, injectibles or acting in any form for which she has not received training from SughaVazhvu.

Article 6: Honorarium

1. Since, the SughaVazhvu Guide desires to offer her services to her neighbours on a pro-bono basis and will be receiving a substantial amount of training and skill building support in health care; she does not seek to be monetarily compensated for the time that she spends on this work.

2. Even though SughaVazhvu will not receive any monetary benefit from her work, since the work that the SughaVazhvu Guide seeks to perform is consistent with its mission, SughaVazhvu agrees to pay her a fixed honorarium of Rs 1,200/- (Indian Rupees One Thousand Two Hundred Only) at the end of every month in order to defray any out-of-pocket expenses incurred by her while performing these tasks in a satisfactory manner.

3. Also, to help the SughaVazhvu Guide perform her tasks better, SughaVazhvu shall provide her with a cycle. If her performance is satisfactory through the period of this contract, she will be allowed to keep the cycle once the contract ends in a year. In any other event, the Guide will have to return the cycle to SughaVazhvu

Article 7: Performance Management

Feedback from SughaVazhvu Guide: Each SughaVazhvu Guide will provide SughaVazhvu with:

- Monthly written feedback form (anonymous) *at end of* the weekly training meeting

- Quarterly written feedback form (anonymous) *in place of* weekly training meeting. This will include questions regarding satisfaction with and appropriateness of: weekly trainings, job training, and supervision and communication with SughaVazhvu.

- A monthly self assessment wherein the Guide will evaluate her own performance as well as opportunities for improvement in the field and at trainings.

Performance Evaluation:

Each Guide's performance will be assessed based on her (i) attendance and performance at weekly trainings , (ii) self assessments and (iii) quarterly reviews.

In the process of performance management, SughaVazhvu will provide each Guide with:

- monthly summary of training attendance and test scores.
- quarterly one on one supervision session with the RMHC physician and a field visit accompanied by the HEW
- annual performance review with the HEW and RMHC physician.

At the time of quarterly review, if a Guide is found not to have met defined expectations, the following will occur:

A. The Guide's low performance will be noted in her performance review and she will be issued a warning.
B. The RMHC physician and HEW will review the job expectations with the Guide to make sure expectations are clear.
C. The Guide will then be given one month to meet defined expectations.
    a. If after one month, the Guide's performance remains below expectations, she will be released from the program.
    b. If for the next three months the Guide's performance meets expectations, she will no longer be on warning.
    c. If after one month the Guide's performance improves but then again falls below expectations within the quarter, the Guide will be given one final warning.
    d. If a Guide who is issued a warning does not stay consistently at or above expectations for three consecutive months, she will be released from the program.

- If a Guide is consistently performing below expectations, the HEW and/or RMHC physician may call an individual meeting with the Guide and initiate the above procedure.

Article 8: Modification and Termination

1. This MOU may be modified or terminated at any time. Either party may terminate this MOU with thirty (30) days prior notice in writing to the other party, provided that the party's duty to fulfill its obligations incurred prior to termination shall survive termination of this MOU.

2. Either party may terminate this MOU with immediate effect upon commission of an incurable material breach by the other party.

3. Either party may terminate this MOU with a written notice of thirty (30) days to the other party, if the other party fails to cure a material breach within such period of notice.

4. The MOU may be terminated by either party in the event the performance of the obligations under this MOU becomes impossible due to reasons beyond the control of either Party.

Article 9: Effect of Termination

1. Neither Party will represent the other Party in any of its dealings and neither Party shall intentionally or otherwise commit any act(s) as would lead a third party to believe that the other Party still has a business relationship with the former Party.

2. Each Party shall stop using the other Party's name, trade mark, etc., in any audio or visual form. Neither Party will be eligible to claim any amount of loss or compensation for the termination of this MOU provided that such termination is effected in accordance with the provisions of these presents.

3. Within thirty (30) days after such termination, each Party will return all confidential information of the other Party in its possession as on the date of termination of this MOU and shall not make or retain any copies of such confidential information.

4. Upon termination the SughaVazhvu Guide shall return all instruments and equipment as provided to her as per Article 4.

Article 10: Confidentiality

The Parties recognize that, by virtue of this MOU, each Party will be given and have access to the confidential and proprietary information of the other Party. Each Party undertakes not to divulge or communicate to any person (unless required by law) or use or exploit for any purpose whatever, any of the trade secrets or confidential knowledge including the terms of this MOU or information of the other Party which the Party may receive or obtain as a result of entering into this MOU, and each Party shall use its reasonable endeavours to prevent its officers, employees or agents, if any, from doing so. This obligation and restriction on each Party shall continue to apply for a period of one (1) year after the termination of this MOU. The Parties acknowledge that a breach by a Party of any confidentiality or proprietary rights may cause the non-breaching Party irreparable damage, for which the award of damages would not be adequate compensation. Consequently, the disclosing Party may institute an action to enjoin the receiving party from any and all acts in violation of those provisions, which remedy shall be cumulative and not exclusive, and the disclosing Party may seek the entry of an injunction enjoining any breach or threatened breach of those provisions, in addition to any other relief to which the disclosing Party may be entitled at law or in equity.

Article 11: Indemnity

Each Party ("Indemnifying Party") agrees to indemnify, defend and hold the other Party and its affiliates, their directors, officers and employees ("Indemnified Party") harmless from all claims, damages, demands, liabilities, costs and expenses, actually suffered and incurred by the Indemnified party, arising by reason of any material breach of the indemnifying party with respect to any of the terms of this MOU.

Article 12: Limitation of Liability

1. In no event shall either Party be liable for any special, incidental, indirect or consequential damages of any kind in connection with this MOU.

2. Without prejudice to the foregoing, either party's liability under this MOU, if any shall not exceed a total amount of Rs. 10,000 (Indian Rupees Ten Thousand).

Article 13: Notice

Any notice required or permitted to be given to the Parties hereunder shall be in writing and sent or transmitted by (i) registered or certified mail, (ii) hand-delivery, or (iii) facsimile transmission confirmed by transmission report,

(iv) internationally recognized courier service, provided its receipt is acknowledged and dispatched or sent or transmitted to the addresses of the Parties as set out in the first page of this MOU or to such other address as the Parties may specify from time to time.

Article 14: Force Majeure

Neither Party shall be liable to the other for delays or failures in performance resulting from causes beyond the reasonable control of that Party, including, but not limited to, acts of God, labour disputes or disturbances, material shortages or rationing, riots, acts of war, governmental regulations, communication or utility failures, or casualties ("Force Majeure"); and shall, to the extent reasonably possible, use its best efforts to remove or remedy such cause. However, such Party shall give prompt notice within a period of two (2) days from the date of occurrence of Force Majeure, and providing a description to the other Party of such Force Majeure in such notice, including a description, in reasonable specificity, of the cause of Force Majeure; and provided further that such Party shall use reasonable efforts to avoid or remove such cause of non - performance and shall continue performance hereunder whenever such causes are removed.

Article 15: Dispute Resolution

This MOU shall be subject and accordance with the laws of India.
The Parties to this MOU will attempt in good faith to negotiate a settlement to any claim or dispute between them arising out of or in connection with this contract. In the event that such disputes, claims, suits and actions are not resolved to the mutual satisfaction of the Parties, then the same will be finally decided in accordance with the Arbitration and Conciliation Act, 1996. The venue for arbitration proceedings shall be Thanjavur. All proceedings shall be conducted in Tamil. Subject to the foregoing, the Parties shall submit to the exclusive jurisdiction of the courts of Tamilnadu, India in respect of any disputes or differences or claims arising between the parties.

Article 16: Severability

Any provision of this MOU that is prohibited or unenforceable in any jurisdiction will, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining portions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

Article 17: Miscellaneous

This MOU constitutes the entire MOU between the Parties and pertains to the subject matter hereof and supersedes in their entirety over all other written or oral MOUs between the Parties.

Article 18: Family members

Family members restricted to spouse and children of the SughaVazhvu Guide.

In witness where of the parties have caused this MoU to be executed as of the date written herein

SughaVazhvu Guide	SughaVazhvu Health Care
Signature:	Signature:
Name:	Name:

Date: Date:

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