Protocol for a qualitative study of the prospective scalability and sustainability of the Village Health Worker Scheme in Gombe State, Nigeria

Deepthi Wickremasinghe, Ahmed Gana, Neil Spicer, Tanya Marchant

March 2017

This document has been prepared by the IDEAS project in collaboration with the Gombe State Primary Health Care Development Agency (GSPHCDA). It is the protocol to assess the scalability and sustainability of the Village Health Worker scheme, implemented in Gombe State.

The Village Health Worker scheme is a component of a body of work carried out on behalf of the (GSPHCDA), in partnership with Society for Family Health, PACT, Champions for Change, Evidence for Action and IDEAS. The effectiveness and impact of this wider programme will be evaluated and described by a separate protocol

This protocol is the third part of a four-part research agenda to study the scheme, which addresses questions of:

- estimating the effectiveness of the Village Health Worker scheme (led by IDEAS)
- monitoring of the Village Health Worker scheme implementation (led by SFH);
- the sustainability and scale up of the scheme (led by IDEAS and GSPHCDA); and
- the costs of the Village Health Worker scheme (led by SFH with input from IDEAS).

GOMBE STATE PRIMARY HEALTH CARE DEVELOPMENT AGENCY

Society for Family Health

IDEAS

Background and rationale

Global maternal and neonatal mortality rates have fallen over the 25 years to 2015, but remain comparatively high in Nigeria, where the maternal mortality rate (MMR) stood at 560 per 100,000 live births in 2015, and the neonatal mortality rate was 34 per 1,000 live births.[1]

Reasons these rates are high encompass both supply and demand side issues. Supply side issues relate to low attendance for antenatal care and poor uptake of health facility delivery, minimal skilled attendance at birth, such as family behaviours that do not encourage the use of maternal and newborn health care services, and lack of access to those services. Access to affordable health care services includes not only physical access, but also financial and socio-cultural constraints and a lack of appropriate information. In rural settings in particular, there is a preference for home births and senior family members often deny pregnant women and women in labour permission to seek care at health facilities.

The Village Health Worker (VHW) scheme is a Federal initiative; the National Primary Health Care Development Agency has developed a National Road Map for VHWs with an emphasis on promoting maternal and newborn health services at primary health care facilities in particular. The Subsidy Reinvestment and Empowerment Programme, Maternal and Child Health (SURE-P MCH) Programme introduced VHWs in the northern States of Katsina, Jigawa and Zamfara[2], in 2013-2014. In Gombe State, in northeastern Nigeria, the Gombe State Primary Health Care Development Agency (SPHCDA) is working with the Society for Family Health (SFH) to introduce VHWs who will work with the community, families and individuals to increase knowledge and encourage changes in attitudes and practice by:

1. encouraging the uptake of maternal, newborn and child health services
2. promoting healthy behaviours to families in the home at household level, including adequate and safe water, good hygiene and sanitation practices, optimal breast feeding, thermal care and cord care for newborn babies and home care during sickness
3. undertaking preventive interventions for mothers unable or unwilling to attend ANC at facilities, or who decide to deliver at home, and ultimately some curative interventions
4. identifying and referring pregnant women at risk of pregnancy complications and sick newborns and mothers in the immediate postnatal period

VHWs perform a similar role to Accredited Social Health Activists (ASHAs) in India and the Women's Development Army (WDA) in Ethiopia in providing a link between communities and the health system. Figure 1 shows how their work will contribute to appropriate timely and complete community-based care for mothers and infants across the continuum of care and increase the uptake of routine and emergency-based facility care.

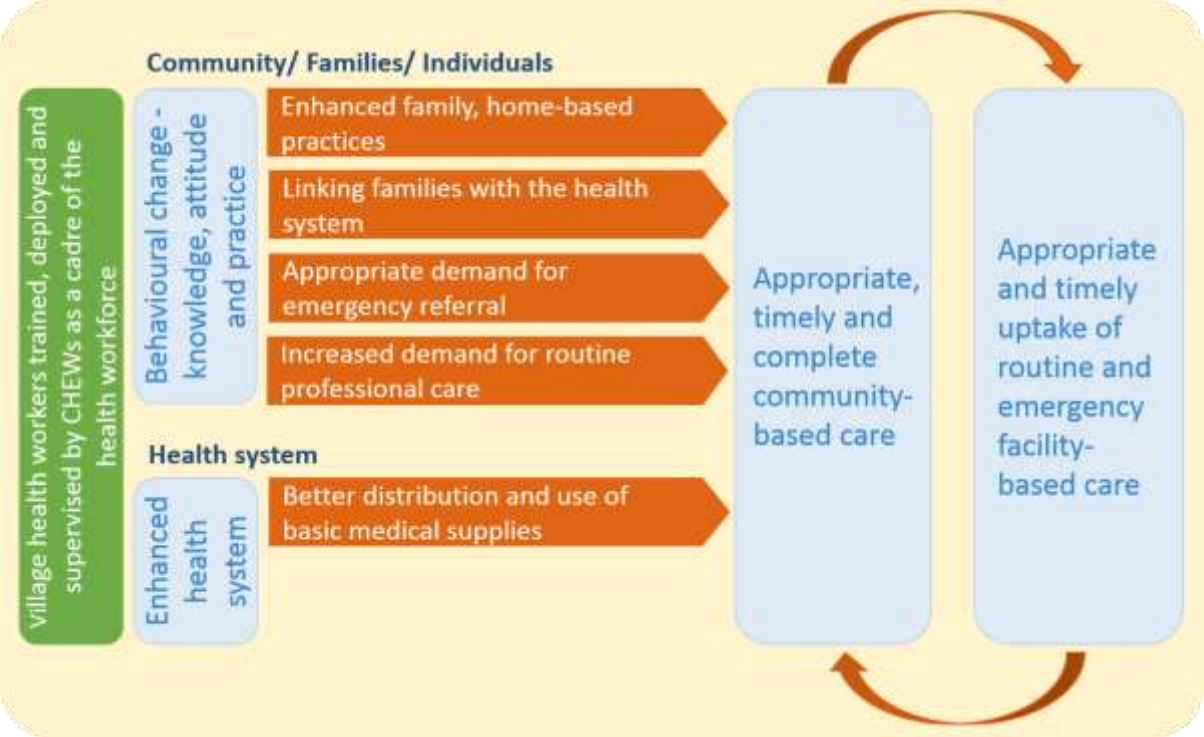
In Nigeria, the VHW scheme also aligns with the National Task Shifting/ Task Sharing Policy by equipping this new cadre of health workers to fulfil the originally intended role of the Community Health Extension Workers (CHEWs), whose work is now mainly within health facilities, making up for a shortage of trained nurses and midwives, particularly in remote areas.

---

[1] Countdown to 2030 Maternal, Newborn & Child Survival: Nigeria Health Data- 2015 Profile. http://countdown2030.org/documents/2015Report/Nigeria_2015.pdf

[2] Findley SE, Afenyadu G, Okoli U, et al. *Implications of the SURE-P MCH National Village Health Worker Experience in Northern Nigeria for the Road Map for Village Health Workers in Nigeria.* Journal of Community Medicine & Health Education, 2016. 6:2. http://dx.doi.org/10.4172/2161-0711.1000419

Figure 1: Village health workers' contribution to appropriate and timely community-based and facility care



The VHWs are women, preferably married and preferably living within the local community where they work, and are supervised and supported by a CHEW from their local primary health care facility and the local ward development committee (WDC). Each CHEW supervises around 10 VHWs per ward.

In Gombe State, the VHW scheme is part of a wider programme that SFH is implementing to improve community care of newborns and pregnant women. It builds on SFH's previous Frontline Worker Programme, which worked with traditional birth attendants and volunteers from the Federation Of Muslim Women's Associations in Nigeria (FOMWAN). The VHWs have a more formal role, as the link between the community and primary health care services. Implementation of the VHW scheme began in the third quarter of 2016, with the recruitment, training and deployment of approximately 1,200 VHWs to work in the State-designated 57 priority wards. These priority wards comprise half the wards of the 11 Local Government Areas (LGAs) in Gombe State. VHWs have undergone formal training for three weeks using a standard manual for Gombe State, adapted from the national curriculum and training guideline. Once trained they have received a utility kit that has been developed to equip and supply them regularly with essential medical supplies, job aids and equipment. They also receive regular supervised training by a CHEW and SFH Programme Officers who has been formally trained on supportive supervision, using a standard guideline. In addition, VHWs will have five weeks' field training in the community to gain practical experience of community mobilisation and community practice. A second round of training to expand VHWs skills is planned for later in 2017.

SFH is responsible for the initial training of VHWs and their CHEW supervisors, equipping VHWs with a kit containing the tools and materials they need for their job and, for the first few months, paying them a monthly stipend of 4,000 naira (13 USD). CHEW supervisors receive a monthly stipend of 3,000 naira (9.8 USD) to cover transport costs, particularly to access hard-to-reach areas. Measures

planned towards ensuring the sustainability of the scheme, include steps to affirm the SPHCDA's ownership of it, by the SPHCDA facilitating the initial monthly stipend payments and agreeing to take over those payments after the scheme's set-up phase, and also by training CHEWs as trainers for future cadres of VHWs. In addition, while SFH is responsible for current monitoring of the scheme, it is also developing a simple e-based tracking system for the SPHCDA to use when it takes over responsibility for monitoring and evaluation.

Value and justification

This study is part of a body of evaluation work being undertaken in collaboration with the SPHCDA and SFH, Pact, Champions for Change and Evidence for Action, that is intended to build up a full picture of the VHW scheme in Gombe State. The other studies will focus on:

- estimating the effectiveness of the Village Health Worker scheme (led by IDEAS)
- monitoring of the Village Health Worker scheme implementation (led by SFH)
- examining the costs of the Village Health Worker scheme (led by SFH with input from IDEAS).

Although the VHW scheme is less than a year old, this exploratory study of its scalability and sustainability is hoped help to inform the SPHCDA's intended expansion of the scheme to the other 57 wards within Gombe State, as well as contributing to any future scale up of the initiative across Nigeria by the National State Primary Health Care Development Agency. More broadly, this study is a contribution to the global body of knowledge about factors that could affect the scale-up and sustainability of health care innovations in resource-poor settings and is likely to be of interest to an international audience of donors, implementers and researchers.

The aim of this study is therefore, to understand the factors that would contribute to making the VHW scheme sustainable at scale across Gombe State and potentially throughout Nigeria.

At three different points in time, key stakeholders in the VHW scheme will be interviewed or invited to participate in focus group discussions to reflect on different phases of the scheme: setting up, densification and the mature phase, including any changes or adjustments that are made over time, particularly those relating to its scalability and sustainability. The setting up phase of the scheme involved all aspects of introducing the scheme in to the 57 wards and selecting, initial training and equipping the first cadre of VHWs, training CHEWs to supervise and deploy them, setting up the monitoring processes and arranging SPHCDA systems for disbursing the stipend. The densification phase involves VHWs being trained in additional skills; SFH developing an electronic software that the SPHCDA will use when it takes over responsibility for monitoring the scheme; and the SPHCDA funding the monthly stipend payments. The mature phase is when the VHWs have been fully trained and the SPHCDA has taken over full management of the scheme and plans for scaling to the rest of the State are in place. This study will be undertaken in collaboration with the SPHCDA and is intended to contribute to strengthening state government capacity to conduct qualitative research.

Objectives

The objectives of this study are to:

1. Assess the:
    a. Scalable attributes of the VHW scheme, as outlined in the table in Appendix 1, including the scheme's effectiveness and advantages, observable benefits,

acceptability to health workers and communities, and simplicity and costs, as well as potential challenges

   b. Key actions required to foster sustainability at scale of the VHW Scheme relating to the following dimensions: within the innovation design, financial and political sustainability, institutionalisation, organisational capacity and programmatic sustainability, routinisation and social sustainability[3]

2. Identify the factors, both within the scheme and the broader health system, socio-economic and geographical contexts, that might inhibit its sustainability and scale-up and how those barriers might be overcome
3. Assess the critical factors that motivate and help to retain village health workers, including financial incentives, conversion to a permanent Government paid job, training opportunities, free health care benefits, commendation within the community, an enabling working environment and logistics support
4. Draw on the findings of the VHW implementation evaluation to make recommendations to the SPHCDA and ultimately federal government on the scalability and sustainability of the scheme

For this study, *scale-up* is defined as: government adoption and implementation of health innovations, increasing geographical reach to benefit a greater number of people beyond externally-funded implementers' programme districts. *Sustainability* is defined as: the continued, long-term implementation and effective operation of a health innovation as a fully integrated component of the existing local health system, without external support. The close association between these two terms would suggest that for the VHW scheme, both its scale-up and sustainability potential should be considered.

Team roles

The IDEAS lead researcher on this study is Deepthi Wickremasinghe, in collaboration with the Gombe SPHCDA lead Dr Ahmed Gana (Executive Secretary), who will lead the work on objective 3, to assess the critical factors that motivate and help to retain VHWs. This study will be supported by Neil Spicer as Senior Academic and Tanya Marchant as Co-Principal Investigator for IDEAS, and by SFH as ongoing implementation and evaluation collaborators. In addition, local field interviewers will be contracted to conduct and document some of the interviews and focus group discussions and members of the SPHCDA will be invited to attend the orientation and training to contribute to their capacity development for conducting qualitative research.

Study setting

Operating as part of the National Road Map for VHWs, the VHW scheme in Gombe State has been introduced in the SPHCDA's 57 priority wards within the state's 11 LGAs, with the intention that the SPHCDA will scale it up to the other 57 wards from the end of 2018. Its set-up and initial implementation is one aspect of an integrated programme to improve community care of newborns and pregnant women in Gombe State that is being implemented by SFH. Other components include fora for mothers-in-law and men to raise awareness and promote behaviour, strengthening the capacity of ward development committees to bring about behaviour change for MNH, emergency

[3] Based on the four elements of sustainability defined by Torpey, Mwanda, Thompson et al. *From project aid to sustainable HIV services: a case study from Zambia*. J Int AIDS Soc. 2010. 13.

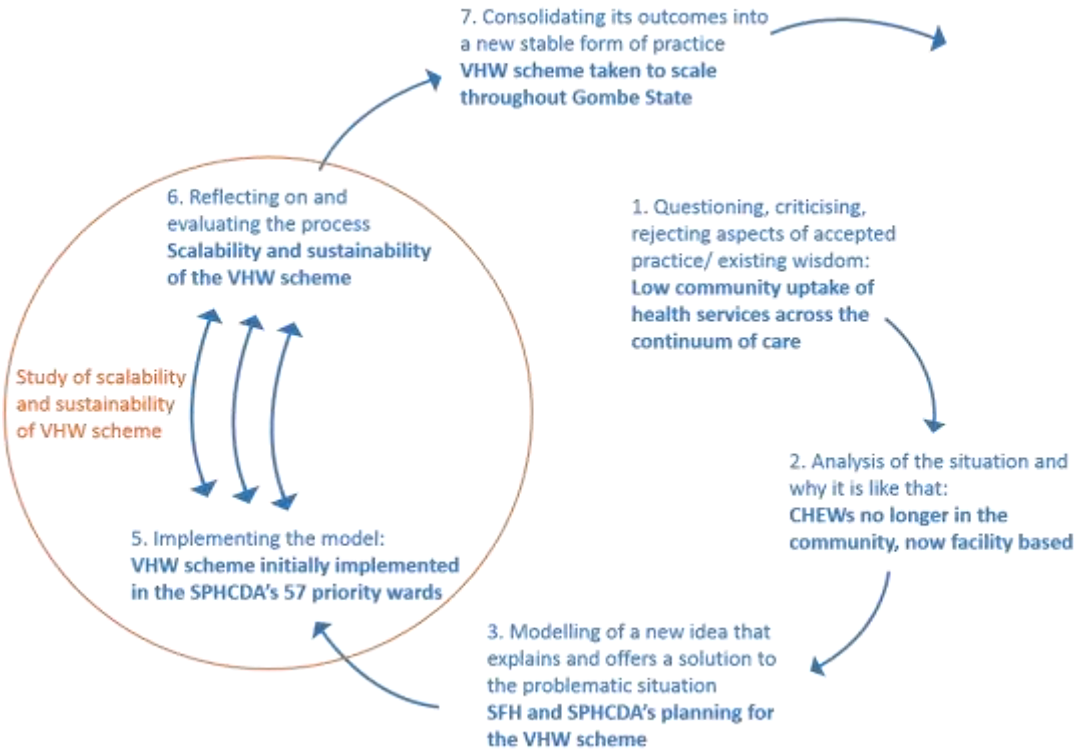
transport through the Emergency Transport Service and Community Transport Volunteers, and supplying essential commodities to facilitate improved quality of care. Other initiatives in Gombe that complement the VHW scheme, include the State Accountability and Quality Improvement Project (SAQIP) mothers' groups, which also aim to raise awareness and encourage and uptake of MNH services, as well as improving literacy and household income generation, and are being implemented by PACT, and the work of Champions for Change and Evidence for Action.

Study design

Figure 2 shows how we conceptualise the development for the VHW scheme in Gombe State based on Engeström's model of an expansive learning cycle, involving a series of learning actions.[4] This originates from his theory of development work research, a form of action research intended to facilitate organisational change. The study of the prospective scalability and sustainability of the VHW scheme encompasses actions 5 and 6 of the cycle – implementation, and reflecting on and evaluating the process. It will create an iterative process between these two actions, before moving on to the final action in the cycle, consolidation. Therefore, this study will consist of three rounds of data collection, to capture the thinking, processes and development of the VHW scheme in Gombe State at three different points in time over 18 months, reflecting on the set-up, densification and mature stages of the scheme. Each round of data collection, will be followed by rapid analysis and feedback of the information collected, to help inform implementation going forward and identify areas for follow up in future interviews.

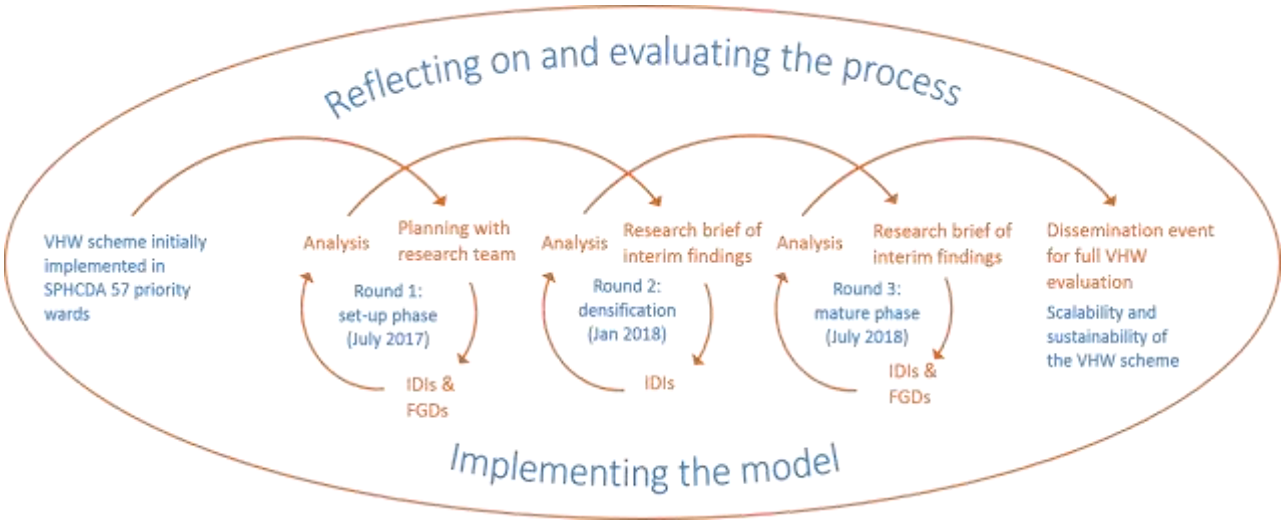
Figure 2: Expansive learning cycle for the VHW scheme and the position of this study within it

[4] Engeström Y, Sannino A. Studies of expansive learning: Foundations, findings and future challenges. *Educational Research Review.* 2010. 5 (1): 1-24. https://pdfs.semanticscholar.org/a04c/39965299e8a408aa9fe95a3db1f428d89e92.pdf



Three rounds of in-depth qualitative interviews will be conducted with purposively selected key stakeholders from the State and LGA levels, i.e. members of the SPHCDA and SFH to reflect on the set-up, densification and mature phases of the VHW scheme. In the first and third rounds, separate focus group discussions are also planned with the LGA Primary Health Care and MCH Coordinators, Monitoring & Evaluation Officers and Ward Focal Persons; WDC members and local community leaders (including district heads and religious leaders); CHEWs and facility in-charges who supervise VHWs; and VHWs respectively for two comparison wards. Additionally, separate focus group discussions are planned for the third round with beneficiaries and their husbands in two comparison wards, to gain their views on interactions with VHWs and local embeddedness of the scheme and to triangulate data collected in the other focus groups from a different viewpoint. This embeddedness underlies the effective functioning of village health workers in providing a link between the community and health services, and the real contribution they can make towards strengthening the broader health system, its efficiency and efficacy. Moreover, how the community perceives and accepts village health workers may also have an impact on their motivation and retention. The three rounds of data collection will take place every six months from July 2017 and each will include rapid analysis and the production of a research brief to share with the stakeholders ahead of the next round of interviews. (Figure 3)

Figure 3: Study cycle for scalability and sustainability study



In Round 1 interviewees will be invited to reflect back to the planning and setting up of the scheme as well as its current status. Using the elements under the six areas of sustainability, questions for Round 1 will be tailored to specific interviewees or groups of participants based on the elements shown in Table 1.

Table 1: Areas of sustainability and VHW scheme elements matched to participant groups

Sustainability domain	Element	Interview & FGD participants
Innovation – design for sustainability	Understanding whether sustainability was considered in the design of the VHW scheme	SFH/ SPHCDA/ Gates
	Understanding whether implementation is as planned or has changed	SFH/ SPHCDA
	Recruiting, training and deployment of the planned number of VHWs to provide an effective and efficient number of community visits for pregnant women and new mothers	SFH/ SPHCDA/ WDC members
	Understanding the activities that VHWs are undertaking and whether they are doing them all, or doing any additional activities	SFH/ SPHCDA/ LGA officers/ WDCs/ CHEWs/ VHWs
Financial & political sustainability	Capturing implementation costs	SFH/ SPHCDA
Institutionalisation	The extent to which VHWs are embedded within the primary health care system	SPHCDA/ SFH/ LGA officers/ WDC members/ CHEWs/ VHWs
Organisational capacity/ Programmatic sustainability	The extent to which VHWs are committed to the scheme and the motivational and retention incentives available to them	SFH/ CHEWs/ VHWs
	Ensuring a reliable mechanism is in place for paying the monthly stipend to VHWs in a timely manner	SFH/ SPHCDA/ VHWs
Routinisation in health worker practices	Monitoring the scheme regularly to track results and evaluate its effectiveness	SFH/ LGA officers/ SPHCDA/ WDC members/ CHEWs
	Training sufficient CHEWs to supervise and train VHWs	SPHCDA/ CHEWs/ VHWs
	Ensuring VHWs receive regular supervision, support and training updates	SFH/ CHEWs/ VHWs
	Ensuring each VHW has the job aids and medical supplies she needs to carry out her work	SFH/ SPHCDA/ CHEWs/ VHWs
Social sustainability	Acceptance and use of the VHW scheme within the community	SFH/ WDC members including community & religious leaders/ VHWs/ beneficiaries (in Round 3)
	The extent to which the SPHCDA and local community feel they have ownership of the VHW scheme	SPHCDA/ WDC members including community & religious leaders/ beneficiaries (in Round 3)
Aid effectiveness	The approaches taken by donors, government and implementers regarding the aid effectiveness principles of country ownership harmonisation, alignment, transparency and accountability, predictability of donor funding and civil society engagement	SPHCDA/ SFH

Some additional interviews will be conducted in the first round with staff from the Bill & Melinda Gates Foundation to capture a donor perspective on planning for scale-up and sustainability. For Rounds 2 and 3 the elements about which SFH and the SPHCDA are interviewed may change, depending on the progress made in implementation and the maturing of the VHW scheme. During these latter two rounds, any changes, adaptations and additions to elements of the scheme and the reasons the for them will also be investigated.

The data collection team will consist of some members of the IDEAS team, staff from the SPHCDA and a group of field researchers based in Nigeria who specialise in qualitative data collection methods. All the researchers will attend a one-day training session ahead of the first round of data collection. During data collection, they will be supervised by the research lead, either in-person or through daily phone calls and emails.

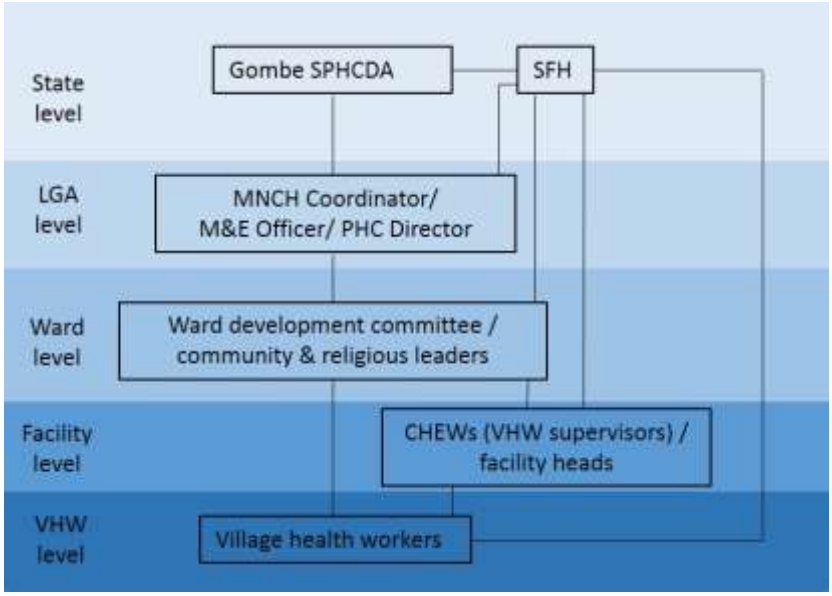
Validity and reliability of qualitative data

A combination of data triangulation methods will be used to ensure that the interview data are robust, well-developed and comprehensive. These will include: cross-data validity checking between members of the field research team present at an interview or focus group discussion; cross-data validity checking against the field notes of other interviews and focus group discussions; cross-data validity checking between interviews and quantitative data collected as part of the evaluation of the VHW scheme. Direct quotes will be checked against the sound recording, and in cases where permission to record the interview was not granted, with the interviewee. Where inconsistencies occur these will be taken as areas for deeper enquiry in future interviews.

Participants

Ten participants for one-to-one interviews will be purposively selected from among key stakeholders in this programme, drawn from members of the Gombe SPHCDA and SFH staff and will be interviewed in each of the three rounds in July 2017, January 2018 and July 2018. A total of eight focus group discussions will also be conducted, four each in two wards during the first and third rounds of data collection (July 2017 and July 2018), with an additional four focus group discussions with beneficiaries and, separately, with their husbands in July 2018. The two wards will be chosen so that a comparison can be made of one ward in which implementation of the VHW scheme has been relatively smooth and one in which implementation been less straightforward. For the first round of data collection, these will be selected from the IDEAS 2016 Household Survey, based on the two LGAs with the most facility deliveries and the two LGAs with the fewest, to understand something of the health system context into which the scheme was introduced. From these four, one ward will be chosen from each category that is within a day's return journey from Gombe town. In each of these wards, separate focus group discussions will be held with the Local Government Area MCH coordinators and M&E officers; community representatives drawn from the ward development committees and religious leaders; PHC facility heads and CHEW supervisors and trainers; and VHWs. Figure 3 shows the stakeholder groups at each level of the VHW scheme from which a sample of interviewees will be selected. Additionally, one or two members of staff at the Bill & Melinda Gates Foundation, who work on its Nigeria programmes will be interviewed to gain insights for objectives 1 and 2 of this study; and in the third round, separate focus group discussions will be held with beneficiaries, women and their husbands.

Figure 3: Stakeholders at each level of the VHW Scheme in Gombe



Field methods and tools

Tool design

For the interviews: an information sheet (Appendix 3) and a draft generic topic guide (Appendix 4), to prompt interviewers on the issues to be discussed during the course of each interview, will be prepared. These documents will be shared with the researchers at a face-to-face meeting/ training session to familiarise them with the purpose of the study and the types of information that might be relevant to it, as well as to gain their feedback before finalising the topic guide.

Field researchers will attend an orientation day prior to the first round of data collection, which will include a study familiarisation session as well as, checklists for gaining consent, interview and focus group facilitation skills, note-taking during the interviews, and writing up the field notes using a template, populated with headings for the focus areas for analysis. For the focus group discussions, distinct facilitator's guides will be developed to encourage each of the groups to explore areas relevant to their involvement and experience of the VHW scheme.

Fieldwork in practice

The topic guide and facilitator's guides will be revised for each subsequent round of data collection to reflect findings from the previous round and any issues at are identified, when interim results are presented to key stakeholders, as important for further investigation. Questions will be adapted to suit the knowledge, understanding and experience participants have of the VHW Scheme and its implementation in Gombe.

Where possible, interviews will be conducted in English, in order to retain the nuances and vibrancy of the conversations. However, the research team will include local researchers with experience of conducting qualitative interviews and focus group discussions who are also fluent in Hausa, in order to ensure that the views of interviewees who prefer to speak Hausa are captured. Where participants give permission, interviews and focus group discussions will be recorded. Where permission is not given, field notes will be taken and any direct quotes used in writing up the

analysis will be checked with the participant being quoted. The focus group discussions will be conducted by two interviewers; one to facilitate the discussion and one to take notes and observations.

Data management

Data collection will take the form of expanded field notes, supported by recordings. Issues about data security and data management in the field will be discussed during the training sessions with researchers. At the end of each data collection period, the sound recordings, expanded field notes and scanned consent forms, will be transferred to and stored securely on the IDEAS password-protected shared online workspace. Each researcher is then responsible for deleting digital files from all other electronic devices.

Data analysis

Field researchers are expected to write up field notes as soon as possible after each interview or focus group discussion, using a template based on the headings in the table at the beginning of the topic guide (Appendix 4) and this will form the basis of the analysis. These notes will be checked by the research lead on the same day as part of the supervision of the field work and any feedback on areas to be explored in later interviews will be fed back to the research team.

A rapid analysis of the data captured will be undertaken manually after each round using a framework based on the four areas of sustainability and correlating elements of the VHW scheme outlined in Table 1. The key points identified in the analysis will be shared with participants before the next round of data collection. It is anticipated that each round of interviews and focus group discussions will build on what was reflected in the previous round to construct a picture of how the VHW scheme develops and matures over time, highlighting challenges encountered and how they have been dealt with, as well as what has gone well.

Study outputs

Ongoing results will be shared with key stakeholders during the lifetime of this study through one- or two-page research bulletins. The full results will be presented to the SPHCDA and key stakeholders within Gombe State at a dissemination event in Gombe, for all four components of the VHW Evaluation. A dissemination event will also be held in Abuja, for the National PHCDA, to contribute to planning for scaling up the VHW scheme more widely in Nigeria. Furthermore, to reach an international audience of funders, implementers and researchers, a peer-reviewed paper is planned and opportunities to present the findings at an international conference will be identified in due course.

Ensuring ethics and quality in practice

Ethical approval will be sought from the London School of Hygiene & Tropical Medicine's Research Ethics Committee and Research Ethical Committee of the Gombe State Ministry of Health.

At the end of the study, it is unlikely that it will be possible to make the expanded field notes available through open access, because it is doubtful that participants of the in-depth interviews can be anonymised sufficiently, given the small number of stakeholders from SFH and the SPHCDA.

At the beginning of any interview or focus group discussion the purpose of the research will be explained to the participants, the steps that will be taken to protect their anonymity, how the interview will be recorded, how the material will be used and stored and that there will be no consequences if they choose not to be interviewed. On this basis, participants' written informed consent will be sought. Appendix 2 shows the consent form template. Participants will also be given an information sheet explaining the purpose of the study. If it is necessary to conduct any interviews by phone or skype, participants will be sent the information sheet in advance and informed consent will be sought by email or will be included as a direct question at the beginning of the interview recording.

Timeline

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Develop documentation									
Study orientation and finalising of topic guide									
Round 1	Interviews and focus group discussions to capture start-up phase								
	Rapid analysis of findings								
	Interim feedback to key stakeholders								
Round 2	Interviews to capture densification								
	Rapid analysis of findings								
	Interim feedback to key stakeholders								
Round 3	Interviews and focus group discussions to capture the mature phase of the scheme								
	Full analysis of findings								
	Full feedback key stakeholders								
	Write up and broader dissemination of findings								

Appendices

Appendix 1: Attributes of scale-up[5]

Relevant & important	Addresses important and/or visible health problems/needs
Effective & advantageous	Impacts positively on communities' health
	Has a comparative advantage over other innovations
Observable benefits	Benefits and health impacts are visible
	Benefits are easily demonstrated through evidence
Acceptable to health workers & communities	Culturally acceptable to sociocultural norms, religions, language, health beliefs and practices
	Appropriately branded using ideas and language meaningful to users
	Seen as being owned by communities
	Works with existing community structures and actors including village committees and traditional birth attendants
	Benefits and incentivises health workers
	Does not burden health workers by adding to their workload or making them more accountable for failure
Simple & low cost	Simple/convenient to use and easily understood by health workers and communities
	Low cost to implement at scale and/or cost effective
	Low human resource inputs required
	Places no/minimal cost burden on user communities
Aligned & harmonised	Builds on and aligns with existing government health systems
	Addresses needs/fills gaps in government health programmes
	Coordinates with other donor programmes
Adaptable	Adaptable to different geographical, socioeconomic and cultural contexts
	Adaptable to different health systems contexts
Sustainable	Avoids/has low recurrent costs
	Includes local income generating schemes

[5] This framework is based on 150 interviews reflecting on scaling-up health innovations in three low- and middle-income countries (Spicer N, Bhattacharya D, Dimka R, et al. *'Scaling up is a craft not a science': Catalysing scale-up of health innovations in Ethiopia, India and Nigeria.* Social Science & Medicine, 2014. 121:30-38. http://dx.doi.org/10.1016/j.socscimed.2014.09.046)

Appendix 2: Consent form template

IDEAS: Study of the scalability and sustainability of the Village Health Worker scheme - Consent form

Please tick all boxes that apply:

I have been given a clear overview of the study	
I am happy for you to write about what I have said during our interview on the understanding that you will not reveal my identify in any study outputs	
I am happy for the interview to be sound recorded	
I am happy for you to include quotations from this interview in publications, reports, web pages and other research outputs	
I am happy for the information collected in our interview to be transferred to London, UK	
I am happy for the notes of this interview to be archived (anonymously) on a secure server at LSHTM	
I am happy for the notes of this interview to be shared with other authenticated researchers, if they agree to preserve the confidentiality of information as requested in this form	
I am happy for authenticated researchers, to include quotations from this interview in publications, reports, web pages, and other research outputs, if they agree to preserve the confidentiality of information as requested in this form	
I am willing to be interviewed	

Interviewee

Name (in BLOCK CAPITALS):

Signature: Date:

Researcher

Name (in BLOCK CAPITALS):

Signature: Date:

London School of Hygiene & Tropical Medicine Ethics Ref: 14284
National Health Research Ethics Committee of Nigeria Approval Number: NHREC/01/01/2007-17/08/2017 (from 17/08/2017 to 16/08/2018)

Appendix 3: Information sheet for participants

Qualitative study of the prospective scalability and sustainability of the Village Health Worker Scheme in Gombe State

The Village Health Worker (VHW) scheme is a component of a body of work carried out on behalf of the Gombe State Primary Health Care Development Agency, in partnership with Society for Family Health, PACT, Champions for Change, Evidence for Action and IDEAS.

This is a qualitative study to understand the factors that would contribute to making the VHW scheme sustainable at scale, within Gombe and potentially throughout Nigeria, in order to inform the Gombe State Primary Health Care Development Agency, the National Primary Health Care Development Agency and a wider international audience of donors, implementers and researchers.

The study will:

- assess the attributes of the VHW scheme that make it scalable and foster its sustainability;
- identify the factors within the broader health system, socio-economic and geographical contexts, that enable and inhibit its sustainability and scale-up and how those barriers might be overcome;
- assess the critical factors that motivate and help to retain village health workers in the longer term;
- make recommendations to the State Primary Health Care Development Agency, and ultimately to federal government, on the scalability and sustainability of the.

This study is one part of a four-part research agenda to evaluate the VHW scheme. The other parts will estimate its effectiveness; analyse routine monitoring data and evaluate the cost of the scheme.

It is being conducted by the IDEAS project team at the London School of Hygiene & Tropical Medicine and funded by the Bill & Melinda Gates Foundation. IDEAS aims to improve the health and survival of mothers and babies through generating evidence to inform policy and practice.

We invite you to take part in the study by participating in a qualitative interview to capture your thoughts and experience of the VHW scheme and the factors that might contribute to, or inhibit its scale-up within the rest of Gombe State and its continued implementation in the longer term, which we refer to as sustainability.

The interview will last no more than one hour. Before your interview begins, the researcher will explain the sorts of questions they will be asking you. With your permission, they will record the interview. If you do not give permission for the interview to be recorded, the researcher will take notes. Your name will not be used in naming the audio file or on the transcript of your interview, but because we are conducting a limited number of interviews specifically on the VHW scheme in Gombe State, we cannot guarantee that it will be possible to maintain your complete anonymity when writing up the study findings. However, we will not use your name or the names the specific LGA and ward where you work or live. In addition, we will only refer to your role in general terms and we will always check with you before using a quote from your interview. The reseacher will not discuss you or your interview with anyone outside the research team for this study.

The information (data) you provide will be stored on a secure server in London to which only the research team has access. Researchers will ensure that once stored there, files are deleted from all other devices. When we have completed the analysis, the data will be transferred to the LSHTM secure server, accessible only to the lead researcher for this study and the LSHTM Data Manager. The data may be shared with other authenticated researchers who have a valid reason for accessing the data and who will be bound by the same rules of confidentiality. We will consider any request to access the data on individual merit.

If you wish to discuss any concerns about participating in this study, please contact:
Dr Nasir Umar, the Nigeria Country Co-ordinator for IDEAS: +2348102474488, or
Dr Yashua Alkali Hamza, who is coordinating the local research team for this study: +2348056494362

If you prefer not to take part in this study, or if you would like to withdraw at any time you are free to do so, without any consequences.

Thank you for your interest.

Ms Deepthi Wickremasinghe (Lead researcher for this study and member of the IDEAS project team)

Appendix 4: Draft generic topic guide

Generic topic guide – VHW study – DRAFT

SUSTAINABILITY DOMAIN	DESCRIPTION	ACTIONS	CONTEXT
	In which ways has the innovation been sustained?	What actions are taken to achieve sustainability? Which actors are performing these actions? Have actions been effective?	Enabling contextual factors? Undermining contextual factors?
Overall sustainability			
Decision making to scale-up and sustain innovation			
Innovation design			
Financial & political			
Institutionalisation			
Organisation capacity			
Routinisation			
Social sustainability			
Aid effectiveness			

Overview of VHW implementation

DESCRIPTION

Has **implementation** of the village health worker scheme gone according to plan? (in terms of recruitment, training, deployment, supervision, tasks covered, incentive scheme, monitoring)

What has been particularly **effective**?

Have there been any **challenges**, and if so what?

ACTIONS

Did the scheme have to be **adapted or changed** in any way? If yes, how were any challenges overcome?

Who was involved in making those changes?

Were they only implemented in one or two wards, or across all 57?

How might those variations be accommodated when the scheme is scaled to the rest of the Gombe State?

Overall sustainability of the VHW scheme

DESCRIPTION

Is the VHW scheme sustainable? In what ways? How long is it expected to be sustained?

ACTIONS

What key **actions** have fostered innovation sustainability?

Which **actors** performed/perform those actions?

Have these actions been **effective**?

How was the **decision** made to sustain the innovation?

What were the key **factors** influencing the decision to sustain the innovation? [probe – was evidence of cost/cost effectiveness a part of the decision making?]

Who were the main **actors** influencing the decision?

CONTEXT

What are the main factors in the northeast Nigerian **context** enabling and undermining innovation sustainability?

Were **actions** taken to overcome any barriers?

Decision making

How was the decision made to adopt and sustain the innovation at scale?

Who were the main **actors** influencing the decision? [Probe – individuals and organisations]

What were the main **factors** influencing the decision? [probe – generation and presentation of evidence; government involvement in project; effective policy advocacy; support from champions and other organisations; scale-up was integrated within project design]

Did the **country context** influence the decision to adopt and sustain the innovation at scale? [probe – health and other development priorities; governance – how governments make policy decisions; influence of development agencies, civil society and other policy actors]

Innovation - design for sustainability

DESCRIPTION

Is the innovation designed to be sustainable? In what ways? [probe – use table?]

Relevant & important	Addresses important and/or visible health problems/needs
Effective & advantageous	Impacts positively on communities' health
	Has a comparative advantage over other innovations
Observable benefits	Benefits and health impacts are visible
	Benefits are easily demonstrated through evidence
Acceptable to health workers & communities	Culturally acceptable to sociocultural norms, religions, language, health beliefs and practices
	Appropriately branded using ideas and language meaningful to users
	Seen as being owned by communities
	Works with existing community structures and actors including village committees and traditional birth attendants
	Benefits and incentivises health workers
	Does not burden health workers by adding to their workload or making them more accountable for failure
Simple & low cost	Simple/convenient to use and easily understood by health workers and communities
	Low cost to implement at scale
	Low human resource inputs required
	Places no/minimal cost burden on user communities
Aligned & harmonised	Builds on and aligns with existing government health systems
	Addresses needs/fills gaps in government health programmes
	Coordinates with other donor programmes
Adaptable	Adaptable to different geographical, socioeconomic and cultural contexts
	Adaptable to different health systems contexts
Sustainable	Avoids/has low recurrent costs
	Includes local income generating schemes

ACTIONS

What **actions** were/are being taken to help ensure the innovation is designed to be sustainable?

Was evidence generated to support decision making? [probe – impacts evidence; operational evidence; cost evidence; other]

Which **actors** performed/perform those actions?

Have these actions been **effective**? How?

CONTEXT

Are there **contextual** factors making it more of less difficult to design the innovation for sustainability?

Were **actions** taken to overcome any barriers?

Financial and political sustainability

DESCRIPTION

What **financing model** has been/will be adopted to support the continuation of the innovation? [probe – government budgets; private sector investment; donor support; local income generation]

Which **actors** are providing sustainable financing?

What are the **strengths and limitations** of the model?

Is government able to financially sustain the innovation **without donor support**?

Is there **sustainable political support** for longer-term financing for the innovation?

Which **actors** support the sustainability of the innovation?

ACTIONS

What **actions** enabled/are enabling political support and financial sustainability of the innovation to be achieved?

Which **actors** performed/perform those actions?

Have these actions been **effective**?

Have mechanisms been put in place for ensuring the sustained flow of finances to ground?

CONTEXT

Are there **adequate** and **predictable** financial resources in the country context?

Were **actions** taken to overcome any barriers?

Institutionalisation

DESCRIPTION

Has the innovation been **embedded in country institutions** – health policies; health systems; health services? [probe – legal, regulatory, budgetary frameworks; routine information systems; logistics and supply chains; human resources systems, monitoring]

ACTIONS

What **actions** enabled/are enabling the innovation to be embedded within country institutions?

Which **actors** performed/perform those actions?

Have these actions been **effective**?

CONTEXT

Are country institutions supportive or undermining of the introduction of the innovation? Which aspects? How? [probe – legal, regulatory, budgetary frameworks; routine information systems; logistics and supply chains; human resources systems]

Were **actions** taken to overcome any barriers?

Organisational capacity / programmatic sustainability

CONTEXT

Does the health system have **sufficient capacity** to sustain the innovation? [probe – governance; financial systems; logistics and supply chains; information systems; human resources]

Are there **weaknesses** in the health system than make it difficult to sustain the innovation?

Were **actions** taken/will actions be taken to overcome any weaknesses?

ACTIONS

Have **actions** been taken/will actions be taken to strengthen aspects of the health system to enable the innovation to be sustained?

Which **actors** performed/perform those actions?

Have these actions been **effective**? How?

Routinisation in health worker practices

DESCRIPTION

Have VHWs been adopted as part of routine practices within the health system?

What incentivised HWs to **adopt** the innovation?

What incentivises HWs to continue to use the innovation within their **routine practices**? [probe - supervision, support and training updates; low effort to learn, use and remember; 'fun' and 'pleasurable' to use; gives HW a sense of agency and control; helps HW perform their roles; increasing HW status and ability to persuade others; improves HW pride and awareness of their effective performance]

ACTIONS

What **actions** have been taken/will be taken to encourage health workers to use the innovation within their routine practices?

Which **actors** performed/perform those actions?

Have these actions been **effective**? How?

CONTEXT

Are there **contextual** factors enabling or undermining health workers adopting the innovation within their routine practices? [probe – economic factors; geographical factors; sociocultural factors influencing HW behaviour]

Were **actions** taken to overcome any barriers?

Social sustainability

DESCRIPTION

Is there longer term acceptance of and demand for the innovation from beneficiary communities?

Are community structures and leaders supportive of the innovation?

Is there community ownership of the innovation?

ACTIONS

Have **actions** been taken/will actions be taken to foster acceptance, demand and ownership from beneficiary communities and support from community structures and leaders?

Which **actors** performed/perform those actions? [probe – actions to involve communities/community structures and leaders in designing and implementing the innovation?]

Have these actions been **effective**? How?

CONTEXT

Does the sociocultural **context** enable or undermine communities' acceptance of and demand for the innovation?

Were **actions** taken to overcome any barriers?

Aid effectiveness – behaviour of donors, government and implementers

How should **donors** behave (what approaches should they take) to foster scale-up and sustainability of externally funded innovations?

Probe –

Coordination – harmonisation and alignment and embracing country coordination mechanisms

Embracing country ownership including using existing country systems

Predictability of donor funding

Transparency and accountability

How should **governments** behave (what approaches should they take) to foster scale-up and sustainability of externally funded innovations?

Probe –

Coordination – promoting harmonisation and alignment among donors and implementers and government leadership of country coordination mechanisms

Civil society participation and engagement

Transparency and accountability

How should **implementers** behave (what approaches should they take) to foster scale-up and sustainability of externally funded innovations?

Probe –

Coordination – harmonisation and alignment and embracing country coordination mechanisms

Embracing country ownership including using existing country systems

Transparency and accountability