Ministry of Health and Sports
The Republic of the Union of Myanmar

COMPREHENSIVE LITERATURE REVIEW ON VILLAGE BASED HEALTH WORKERS IN MYANMAR:

EXTENDING SERVICES TO COMMUNITIES

December 2017

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Acronyms

ACT	Artemisinin-based Combination Therapy
AIM	Assessment and Improvement Matrix
AMW	Auxiliary Midwife
AOP	Annual Operational Plan
BHS	Basic Health Staff
CBNBC	Community Based Newborn Care
CCM	Community Case Management
CHW	Community Health Worker
DOTS	Directly Observed Treatment, Short Course
EHO	Ethnic Health Organization
EPHS	Essential Package of Health Services
GF	Global Fund
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ITHP	Inclusive Township Health Plan
LLIN	Long-Lasting Insecticidal Nets
LMIS	Logistics Management and Information System
MNCH	Maternal, Newborn and Child Health
MoHS	Ministry of Health and Sports
NGO	Non-Governmental Organization
NHP	National Health Plan
NIMU	National Implementation Monitoring Unit
NMCP	National Malaria Control Program
NSP	National Strategic Plan
TB	Tuberculosis
RDT	Rapid Diagnostic Test
VHV	Village Health Volunteer
VBHW	Village Based Health Worker
VRS	Volunteer Recording System

EXECUTIVE SUMMARY

The main goal of the **National Health Plan (NHP) 2017-2021** is to extend access to a basic **Essential Package of Health Services (EPHS)** to the entire population while increasing financial protection. The defined basic EPHS emphasizes the critical role of primary health care and the delivery of essential services and interventions at Township level and below, starting within the community. In order to extend service delivery to all communities, the NHP calls for all health workers (whether community-based, outreach-based or facility-based) involved in the delivery of health promotion, prevention and treatment services to be **fully recognised and institutionalized** within the health system to ensure efficient use of resources, necessary oversight and quality service provision (regardless of whether the health workers are voluntary or salaried). The first year **Annual Operational Plan (AOP) of the NHP 2017-2021** calls for a **comprehensive literature review** of the situation of all **Village Based Health Workers (VBHWs)** in the country to inform the development of a **comprehensive, institutionalized approach to community health for the country.**

This literature review is guided by the principles of the NHP and is informed by global evidence through use of the **Community Health Worker Assessment and Improvement Matrix (CHW AIM)** as an organizing framework. Promising practices, existing challenges, knowledge gaps and systems considerations are highlighted for further discussion and follow-up.

KEY FINDINGS

1. **Service Package & Role:** Service packages and roles for a range of public health care and disease control oriented VBHWs are well documented with some variation in these services and roles depending on the organization providing support; the range of VBHWs in existence have evolved over time based on the initiatives of donors and national programs.
2. **Recruitment:** Selection criteria for all types of VBHWs are well documented, but selection procedures and distribution of VBHWs varies to some extent depending on the organization providing support or the guidelines of programs; there is currently no common system for tracking the existence and mapping the distribution of all VBHWs across the country.
3. **Initial Training:** Topics and length of training for all types of VBHWs are well documented, but who provides this training, what methodologies are used and whether or not the training provides the skills necessary to enable safe, effective quality care is not always assessed or documented; these practices can also vary depending on the donor, national program or organization providing support.
4. **Continuing Training:** Frequency of refresher training varies widely across VBHWs and depends at least in part on the donor, national program or organization providing support; who provides this training, what methodologies are used and whether or not it sufficiently reinforces skills relevant to the VBHW service package and role is not always assessed or documented.
5. **Incentives:** Inconsistent monetary and non-monetary incentives among the same and across different types of VBHWs are noted to be problematic and have resulted in calls for harmonised incentive systems, including both monetary and non-monetary incentives.

6. **Opportunity for Advancement:** There are no defined opportunities for advancement available to VBHWs apart from some instances where additional training is made available to expand skills within a particular VBHW role.
7. **Equipment and Supplies:** Details of the arrangements in place for local management and provision of equipment and supplies to VBHWs is limited in the literature, but dependence on donor funding and supply systems are noted as a common concern; available literature indicates that a substantial proportion of VBHWs do not receive continuous provision of supplies.
8. **Supervision:** Varies widely in frequency and methodology across contexts and programs, depending on the organization providing support, collaboration with BHS as well as availability of funds for transport and program specific supervision checklists.
9. **Documentation and Information Management:** There is no defined system for data collected and reported by VBHWs to systematically contribute to the national HMIS or be shared with communities and used for health service improvement, but some national programs have defined data collection and reporting procedures; several program reviews have called for standardized data collection tools that align with the full service package a VBHW provides and a system for contributing VBHW data to the HMIS.
10. **Individual Performance Evaluation:** Individual performance evaluations are not routinely undertaken or in place to measure individual VBHW performance against indicators, objectives or targets on a regular basis for any type of VBHW.
11. **Program Performance Evaluation:** Specific program performance evaluations are not annually or regularly undertaken to measure program performance of VBHW interventions against indicators, objectives or targets.
12. **Community Involvement:** General references are made to collaboration with Township Health Committees and various types of Village Health Committees, Village Self Health Groups or other Village level groups within the available literature, but there is little clarity and consistency in the roles these groups or communities more broadly are noted to play in supporting VBHWs in the areas of selection, supervision, offering incentives or providing feedback.
13. **Referral System:** A defined and supported referral system that includes a process for determining when a referral is needed, a logistics plan for transport and funds when required as a well as a process to track and document referrals is not a part of most VBHW activities, although most VBHWs are trained to recognise danger signs to make referrals, some VBHWs are provided forms to track referrals and others are involved in more comprehensive referrals systems in areas where specific donors provide this support.
14. **Linkages to Health Systems:** Linkages of VBHWs and communities to the wider health system are weak, unclear or inconsistent with significant variation in the roles that BHS or EHO facility based staff and communities play in VBHW recruitment, training, supervision, incentives as well as provision of supplies, use of data and support to referrals.
15. **Country Ownership:** The available literature notes that VBHWs have been a part of national policies and strategic plans for many years, but are not fully integrated into national budgets, operational plans, supply chains and coordination mechanisms from national to local levels.

CONCLUSION

This **comprehensive literature review** has gathered a substantial amount of published and unpublished documentation (more than 80 documents) about VBHWs in the country. Based on the overall findings of the comprehensive literature review, there are gaps in knowledge that could be **usefully addressed through a situation analysis**. As outlined in the **first year NHP AOP,** a situation analysis would complement the literature review findings to better understand the different VBHW modalities and systems arrangements in place as well as inform the development of a comprehensive, institutionalized approach to community health for the country. A situation analysis would also help to ensure the on-the-ground realities across a diversity of country contexts are adequately considered, even in contexts where existing literature is limited.

The first year NHP AOP states that this situation analysis should include the following:

- Evidence-based review of gaps in the community-based workforce;
- Identification of types of VBHW, mapping of roles and working modalities (e.g. incentives, training, supervision, etc.);
- Listening to the voices of existing VBHWs and the BHS supervising their work;
- Identification of best practices.

In order for the situation analysis to be optimally informative and practical, the questions to be addressed should be **informed by global evidence and the perspective of MoHS decisions makers.** Structuring the key questions to be addressed in the situation analysis around the **CHW AIM** used in the comprehensive literature review would help to ensure consideration of all the essential components a comprehensive, institutionalized approach to community heath entails.

Based on the findings of the comprehensive literature review and discussion among members of the MoHS VBHW Working Group, questions that could be considered in the situation analysis are as follows:

- What is the distribution of all types of VBHWs within a variety of contexts? What factors influence this? Is this distribution effective and efficient for delivery of the basic EPHS?
- How common is overlap between VBHW identities (e.g. a person who is both a CHW and malaria volunteer) and how does this influence workload and motivation? Does this provide any learning for how service packages could be integrated and rationalized?
- How much time is spent on particular tasks and functions for the various types of VBHWs (e.g. time and motion analysis)? How much time does this total and how does it compare to expected time commitments? How should this be considered in definition of service packages and forms of remuneration?
- How are supply chains to VBHWs managed and resourced at local levels? What are the current barriers or enabling factors involved?
- What modes of supportive supervision by BHS or EHO facility based staff to VBHWs are functional (e.g. during health facility meetings and/or outreach visits)? What elements make these feasible?

- What structures and mechanisms exist at sub-national to local levels (particularly Township to Village level) for collaboration and coordination between BHS/EHO facility based staff, VBHWs and communities? How do these work? How might these be improved?

As described in the first year NHP AOP, the comprehensive literature review and the situation analysis should ultimately bring together complementary information to help inform the **MoHS' long-term vision for delivery of services to all communities,** including how community-based services can complement outreach and facility-based health services as a part of a wider health system that leverages all types of health providers (e.g. Ethnic Health Organization, Non-Governmental Organization and Private-for-Profit). In order to make this vision a reality, it will be essential to link with concurrent streams of work already moving forward under the NHP 2017-2021, such as the following:

- **Inclusive Township Health Plan (ITHP) assessments, plans and service delivery** from facility to community levels;
- **Human Resources for Health Policy and Strategic Plan 2017-2021,** including considerations for the health workforce from facility to community levels;
- **Costing of the Essential Package of Health Services,** including necessary reflection of service delivery modalities at facility, outreach and community levels;
- **Review and revision of job descriptions** of health cadres from Township levels and below to ensure alignment with delivery of basic EPHS (note: job descriptions of BHS already completed in 2017; job descriptions for VBHWs to be updated in accordance with policy as outlined in the first year NHP AOP).

Taken together the development of a comprehensive, institutionalized approach to community health, which is appropriately reflected across the necessary health system components and streams of work within the NHP 2017-2021 will advance the NHP's **main goal of extending access to the basic EPHS to the entire population while increasing financial protection.**

INTRODUCTION

National Health Plan 2017-2021 Commitments

The main goal of the **National Health Plan (NHP) 2017-2021** is to extend access to a basic **Essential Package of Health Services (EPHS)** to the entire population while increasing financial protection. The defined basic EPHS emphasizes the critical role of primary health care and the delivery of essential services and interventions at Township level and below, starting within the community. The NHP 2017-2021 recognizes that considerable efforts will be needed to strengthen the health system to support effective delivery of quality services and interventions.

In order to do this, the NHP aims to promote alignment at several levels:

- **Among national programs** by encouraging more integrated training, joint supportive supervision, better aligned referral mechanisms and a more streamlined health information system;
- **Among development partners** through stronger oversight and coordination;
- **Among the different types of providers,** through the engagement of EHOs, NGOs and the private-for-profit;
- **Among implementing agencies** by ensuring that projects and initiatives contribute to the achievements of the NHP goals.

In order to extend service delivery to all communities, the NHP calls for all health workers (whether community-based, outreach-based or facility-based) involved in the delivery of health promotion, prevention and treatment services to be **fully recognized and institutionalized** within the health system to ensure efficient use of resources, necessary oversight and quality service provision (regardless of whether the health workers are voluntary or salaried).

This means:

- Inclusion in national level policy frameworks, plans and budgets at all levels;
- Integration into HRH plans for necessary oversight, retention and quality:
    - Defining roles and responsibilities
    - Determining quantity and distribution for recruitment
    - Standardizing training in line with national policies
    - Ensuring continuous supervision, support and performance management
    - Recognizing and motivating through standardized incentives
    - Building in the potential for employment and career development
- Integrated data and reporting that supports performance management, informs decision making and contributes to national Health Management Information System (HMIS);
- Integrated service delivery to make the most of patient contact (e.g. referral for immunization during sick child consultation);
- Supply of commodities and equipment through the national Logistical Management Information System (LMIS);
- Linkage with health governance structures from national to community level for accountability;
- Inclusion of initial, recurring and operational costs (e.g. initial training, refresher training, basic kits, replenishment of drugs, travel costs) in government budget allocations.

Comprehensive Literature Review

The first year **Annual Operational Plan (AOP) of the NHP 2017-2021** calls for a **comprehensive literature review** of the situation of all **Village Based Health Workers (VBHWs)** in the country to inform the development of a **comprehensive, institutionalized approach to community health for the country.** Global literature on community health uses the term "Community Health Worker" (CHW) to describe *a health worker who performs a set of essential health services, receives standardized training outside the formal nursing or medical curricula, and has a defined role within the community and the larger health system (*Crigler *et al.,* 2011). However, CHW refers to a specific type of cadre in Myanmar, so the NHP uses the term VBHW instead to include all health workers based at the village level (e.g. Auxiliary Midwives, Community Health Workers, Malaria Volunteers, etc.). This literature review will use the NHP terminology of VBHW for clarity in the Myanmar context.

In July 2017, **Ministry of Health and Sports (MoHS)** Directors from the Basic Health Staff, Child Health, Disease Control, and Maternal Reproductive Health Departments as well as the National Implementation Management Unit (NIMU) gave approval and appointed focal points to an MoHS Working Group to conduct this literature review with support from the 3MDG Fund. This literature review summarizes the current situation of VBHWs in the country from a systems perspective based on available published and unpublished literature, including a wide range of documents (e.g. curriculum, guidelines, National Strategic Plans, project evaluations, program reviews, research studies, situation analyses, etc.).

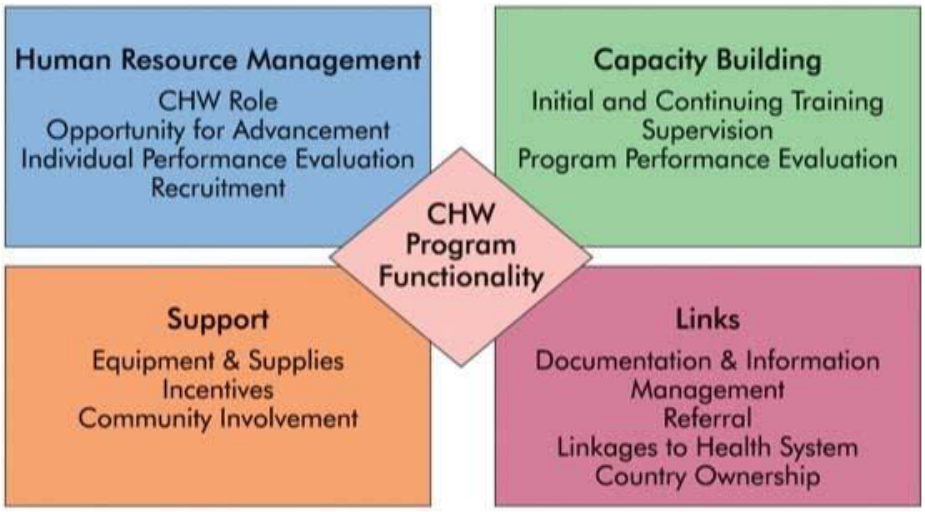
This literature review is guided by the principles of the NHP and is informed by global evidence through use of the **Community Health Worker Assessment and Improvement Matrix (CHW AIM)** as an organizing framework.[1] Promising practices, existing challenges, knowledge gaps and systems considerations are highlighted for further discussion and follow-up.

Community Health Worker Assessment and Improvement Matrix

The CHW AIM was first developed in 2010 based on a global review of programs and evidence of successful community health programs and has since become a standard framework used to assess and improve the functionality of large-scale community health programs. The CHW AIM tool examines **15 programmatic components** that have been identified as critical to successfully supporting CHWs, which are summarized across quadrants of the **CHW AIM Functionality Model.** Best practice definitions are given for each of these programmatic components with guidance for benchmarking across four levels of functionality (*see Annex 1. Overview of CHW AIM*).

[1] Crigler L, Hill K, Furth R, and Bjerregaard D. 2011. Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving CHW Programs and Services. Initiatives, Inc. and University Research Co., LLC with support from USAID: Washington, DC. Available at: http://www.who.int/workforcealliance/knowledge/toolkit/CHWAIMToolkit_Revision_Sept13.pdf.

CHW AIM Functionality Model



Source: CHW AIM: A Toolkit for Improving CHW Programs and Services, Revised September 2013.

Evidence of VBHW Contributions and Impact in Myanmar

A number of program reviews and studies have documented the contributions of VBHWs to health promotion, disease prevention and curative services in a range of contexts in Myanmar.

The program review of the Joint Initiative for Maternal Newborn and Child Health (JIMNCH) in the Delta Region found that Auxiliary Midwives (AMWs) and Community Health Workers (CHWs) play a critical role in supporting improved outcomes in terms of Disability Adjusted Life Years (DALYs) averted and extending the roles of these VBHWs could potentially increase this impact. The review calculated that 7,740 DALYs per 100,000 population were averted per year (based on program outputs for 2011 across the original three townships of implementation) and could be increased to 9,708 DALYs per 100,000 population with additional family planning, nutrition and pneumonia treatment interventions (Burnet Institute, 2013).

Program data collected by particular MoHS departments have also documented the contributions of AMWs and CHWs in delivery of defined interventions. For example, based on data collected by the Child Health Department on Community-Based Newborn Care (CBNBC) in 2016, there were 3,579 AMWs trained in CBNBC in 57 townships; based on data submitted by these AMWs, a total of 5,125 low-birth weight newborns were given care in 2016, including 72% (3,746 newborns) receiving a full course of care and 2% (82 newborns) referred for facility-based care (MoHS, 2017a).

A published impact evaluation of a pilot project implemented by four Ethnic Health Organizations (EHOs) in Shan, Mon, Karen and Karenni areas found that an innovative three-tiered network of community-based providers resulted in significant improvements in the delivery of maternal health interventions. Analysis of baseline to endline survey data demonstrated higher coverage of antenatal care (71.8% versus 39.3% (PRR = 1.83 [95% CI = 1.64–2.04])) and use of modern methods of contraception (23.9% to 45.0% (PRR = 1.88 [95% CI 1.63–2.17])) among other intervention coverage improvements (Mullany, *et al.,* 2010).

Several studies on the effectiveness of community programs and cadres in malaria control and treatment have been published recently (Drake *et al.*, 2015; Lwin *et al*., 2014). Additionally, the National Strategic Plan (NSP) 2016-2020 for Malaria notes that of the 182,616 malaria cases diagnosed in 2015, a total of 104,925 (57%) were diagnosed and treated by volunteers (MoHS, 2016c). Similarly, volunteers have made substantial contributions to TB detection and treatment. The National Tuberculosis Program (NTP) notes significant contributions of volunteers to referrals and treatment with 30,114 presumptive TB cases referred by volunteers, resulting in detection and treatment of 5,130 cases in 2015 (MoHS, 2017c).

Finally, interventions implemented through trained and supported VBHWs in Myanmar have been demonstrated to be cost effective at an average of US$0.7646 per capita for AMWs and CHWs based on a recent value for money analysis (HERA & 3MDG Fund, 2016) and at an annual implementation cost of US$ 966–2486 (including monetary incentives and a variety of organizational arrangements for support in a wide range of contexts) for malaria community health workers (Kyaw *et al.*, 2016). These cost inputs reflect the requirements of a comprehensive approach, including the training, supervision, reporting and supplies needed for effective delivery of interventions.

REVIEW OF LITERATURE

Key findings from the review of available literature in Myanmar are summarized below according to the 15 programmatic components outlined by the CHW AIM, in order to provide an overview of what is know about the situation of VBHWs in the country from a systems perspective. Each programmatic component is introduced with a brief description from the CHW AIM, then relevant findings from the literature are presented and concluding statements highlight any promising practices, existing challenges, gaps in knowledge or systems considerations based on the available literature.

1. Service Package & Role

Describes the "job" of the VBHW with clear expectations for actions and behaviors necessary for success, tasks that are measurable activities as well as clarity of the role from community, program and health system perspectives.

Village-Based Health Workers have been a feature of the health system in Myanmar for many years. This started with the introduction of AMWs and CHW in 1978, but other types of VBHWs have been introduced overtime, often in association with donor supported projects that have a particular geographic and intervention focus (Kyaing, 2007). At the same time, other voluntary and private untrained health workers have also existed at the village level, perhaps most notably traditional birth attendants (Oo, 2011; Tun, Unknown Year; UNFPA, 2010). A substantial proportion of pregnant women give birth with Traditional Birth Attendants, particularly those residing in villages at least three miles from a midwife (Sein *et al.,* 1996; Win *et al.,* 2006). In the past the Ministry of Health placed effort on training Traditional Birth Attendants, but this approach was later abandoned and limited to provision of "Dos and Don'ts" materials (Merlin, 2014). However, some EHOs in the country (e.g. Kayah, Kayin, Mon and Shan States) still train Traditional Birth Attendants to act as important VBHWs within their EHO supported community health systems (Low *et al.*, 2016).

An overview of the major types of VBHWs currently in existence are as follows:

1. **Auxiliary Midwives** are trained to provide antenatal care, safe and clean home delivery for mothers who are unable to go to health centers; assist midwives in MCH services; assist in immunization activities; provide health education; detect and report epidemic outbreaks; organize and assist in sanitation and immunization activities as well as coordinate with health centers for early referral of cases and other health activities. Certification is by completion of a six month MoHS training course, which includes three months theory and three month practical training at the Township Health Department or Rural Health Center level (Min, 2014; Merlin, 2014). The total number of AMWs currently existing and the percentage quoted as functional varies in the literature. According to Public Health Statistics 2015-2016 there were 24,160 AMWs existing in 2016; the NHP 2017-2021 states that two-thirds of trained AMWs (21,034 out of 31,580) in 2011 were functional.

2. **Community Health Workers** are trained to provide health education; detect epidemic outbreaks; assist in sanitation and immunization activities as well as coordinate with health centers for early referral of cases and other health activities. Certification is by completion of a 28 day MoHS training course provided at the Township Health Department. The total number of CHWs currently existing and the percentage quoted as functional varies in the literature (Sommanustweechai *et al.,* 2016; Merlin, 2014). According to Public Health Statistics 2015-2016, there were 15,112 CHWs existing in 2016; the NHP 2017-2021 states that about half of trained CHWs (20,956 out of 40,910) in 2011 were functional.

3. **Malaria Volunteers** (sometimes referred to as Community Health Workers or Village Health Volunteers)[2] are trained to provide malaria diagnosis and treatment at the community level using Rapid Diagnostic Tests (RDT) and Artemisinin-based Combination Therapy (ACT); some are also engaged in preventive work such as Long-Lasting Insecticidal Nets (LLIN) distribution and health education depending on the organization that supports and supervises them (Cho, *et al.,* 2015; WHO, 2013). Certification is by completion of a two day MoHS training course provided by the National Malaria Control Program (NMCP) or other organizations engaged in malaria prevention and control (e.g. EHOs or NGOs), but this is expanded by some organizations to up to five days (Cho, *et al.,* 2015). The total number of Malaria Volunteers currently existing and the percentage quoted as functional varies in the literature. The NSP 2016-2020 for Malaria states that 40,000 VHVs have been trained and around 38% are still active. The NMCP is now pursuing an "Integrated Community Malaria Volunteer" (IMCV) approach to expand the scope of services provided by existing malaria volunteers can provide, which is currently in pilot phase with national roll out anticipated in 2018 (MoHS, 2017b).

[2] This type of VBHW is referred to as a "Village Health Volunteers" (VHV) in the NSP 2016-2020 for Malaria, but different names are used interchangeably in other documents (e.g. "Malaria Volunteer" or "Community Health Worker"). In order to distinguish malaria focused VBHWs from other types of VBHWs in this literature review, the more specific term "Malaria Volunteers" will be used.

4. **TB Volunteers** (sometimes referred to as DOTS Promoters or Community Volunteers)[3] are trained to provide TB screening and referral, assist in sputum collection and transport, accompany individuals with presumptive TB cases for diagnosis and in follow-up treatment support, particularly through home-based DOTS and in some cases the facilitation of TB Support Groups. Certification is by completion of a two day MoHS training course for drug sensitive TB and an additional two-day training course for multi-drug resistant TB. In some places, NGO-supported volunteers link presumptive TB cases to private practitioners who diagnose and treat drug sensitive TB and refer MDR-TB to government facilities. International or national NGOs select new TB Volunteers (usually with local community members and/or BHS involvement), then provide training according to their community-based models (Han *et al.,* 2016; World Vision, 2012). The total number of TB Volunteers in the country could not be determined from the available literature, but according to the monitoring systems and progress reports of the 3MDG Fund and Global Fund Principal Recipients (i.e. Save the Children and UNOPS) there were a total of 6,277 TB Volunteers being supported by these major donors as of June 2017.

5. **Village Health Workers** are trained in ethnic areas across Myanmar by a number of EHOs (Davis & Jollife, 2016). The training and service delivery scope of these health workers has evolved overtime ranging from environmental sanitation, diarrhea, malaria as well as maternal, newborn and child health. Review of one existing "Village Health Worker Handbook" indicates that services provided by Village Health Workers are similar to the environmental and disease control services provided by the MoHS trained CHWs.

6. **Maternal Health Workers** are trained in ethnic areas across Myanmar by a number of EHOs. Review of the available literature indicates that this type of VBHW cadre has evolved over time, allowed for progressive development of skills with additional training and may even be considered facility based in some areas now. The ''Mobile Obstetric Maternal Health Worker'' (MOM) Project implemented by EHOs in areas across Kayah, Kayin, Mon and Shan from 2005 to 2008 documented the training and service delivery of Maternal Health Workers. This VBHW cadre was provided two months of training based on aspects of basic emergency obstetric care, which was expanded through regular refresher training by more experienced health workers in the field (Low *et al., 2016;* Mullany *et al.,* 2010). Maternal Health Workers can also advance with additional training to be facility based Maternal and Child Health Workers and Basic Emergency Obstetric Care Workers (Davis & Jollife, 2016).

7. **Trained Traditional Birth Attendants** are trained and supported in ethnic areas across Myanmar by a number of EHOs and in the past were trained by the MoHS; both trained and untrained Traditional Birth Attendants exist across the country. This work by EHOs in the country has been well documented by the MOM Project in areas across Kayah, Kayin, Mon and Shan. Studies documenting the implementation arrangements and health outcomes of the MOM Project describe Trained Traditional Birth Attendants as playing a crucial role in strengthening the link between pregnant women and other health workers, while also

[3] The NSP 2016-2020 refers to "community volunteers" engaged in TB related activities, but in order to distinguish TB focused VBHWs from other types of VBHWs in this literature review, the more specific term "TB Volunteers" will be used.

providing the most basic components of antenatal, delivery and post-natal care (Mullany *et al.,* 2008; Mullany *et al.,* 2010). The Traditional Birth Attendants were provided a seven day training with curriculum centred on evidence-based antenatal care, essential newborn care, clean delivery as well as the importance of their role in strengthening communication and working effectively with maternal health workers and health workers within the EHO systems (Low *et al., 2016;* Mullany *et al.,* 2010). The MoHS does not currently provide training to TBAs, but provides "Dos and Don'ts" guidance materials when requested by supporting organizations (Merlin, 2014).

The types of VBHWs in existence have continued to evolve based on the initiatives of various national programs within the MoHS and donors. This has taken the form of creating new types of VBHW cadres or developing new types of trainings to give existing VBHW cadres new skills and responsibilities (described in the training section below). These initiatives are sometimes described as targeted at existing VBHW cadres (e.g. providing malaria training to existing CHWs), but the literature does not reflect evidence of systematic approaches or adherence to this in implementation. Additionally, there is no documentation in the literature of the number or percentage of VBHWs with these types of dual identities. The national HMIS only tracks the existence of AMWs and CHWs, so there is no single data source available to know the total number of all VBHWs in the country.

A few examples of new VBHWs that were introduced at small-scale in recent years are as follows: **1) Community Support Group** volunteers trained to disseminate messages on reproductive health and HIV/AIDS to groups of 30 households in their community, which were support by UNFPA and JOICFP in over 70 Townships; **2) Maternal Child Health Promoter** volunteers trained to identify pregnant women and children under five to promote MNCH practices through home visits, which were supported by JOICFP through a project from 2005-2010; **3) Community-Owned Resource Persons** trained to diagnosis and treat uncomplicated malaria, which were supported by Asia Development Bank in 50 villages of three districts in Eastern Shan State (Burnet Institute, 2013; MoHS, 2014; Tun, A., 2010).

Based on the available literature, there appears to be some variation in the role of the various types of VBHWs (e.g. AMWs, Malaria Volunteers or EHO supported Village Health Volunteers, etc.), depending on the organization that trains and supports them. There is no documentation on the clarity of these roles from the perspective of communities.

2. Recruitment

How and from where the VBHW is identified, selected, and assigned to a community, including selection criteria.

Distribution and targeting of **public health oriented** VBHWs has largely followed the principle of population-based coverage on a village-by-village basis (i.e. one BHS or VBHW per village). When AMWs and CHWs were first introduced as VBHW cadres to bring primary health care to every community in the country, it was intended that there would be one CHW per village (approximately one for every 200 households) and one AMW for every two villages (approximately one for every 500 households) where there was not already a Midwife (Kyaing, 2007). In 2014, the MoHS trained additional AMWs with the aim to achieve the target of one AMW per village (Merlin, 2014). Both

GAVI HSS and 3MDG Fund have been major donors supporting the annual recruitment and training of new AMWs and CHWs across the country (WHO, 2008; 3MDG, 2016).

Distribution of **disease control oriented** VBHWs has been more variable with a range of organizations and national programs recruiting and supporting VBHWs through the implementation of disease specific projects with donor funding. This has been noted at problematic in terms of ensuring coverage and avoiding overlap (WHO, 2013). Additionally, targeting of VBHWs for disease prevention and control purposes involves differentiating approaches for higher disease burden or more at-risk sub-populations for each intervention area, which are described as follows:

- The **NSP 2016-2020 for Malaria** outlines a plan for expanding community-based malaria case management for hard-to-reach areas to cover all endemic settlements more than 2 km (or as appropriate) from a functioning health facility, starting from Stratum 3a to 3c eligible settlements (i.e. "village" micro-stratification of high to low annual parasite incidence).

- The **NSP 2016-2020 for TB** defines essential services to be implemented nationwide, as well as differentiated approaches for intensified focus, based on programmatic performance and epidemiology of geographical areas to target most-at-risk sub-populations. Advocating for further integration of TB screening into General Health Services (e.g., OPD, DM clinics and MCH programs) and integration approaches for utilization of community volunteers in TB, HIV and MNCH are noted as high priorities.

- The **NSP 2016-2020 for HIV/AIDS** outlines a plan for optimizing the response to HIV in Myanmar through analysis of geographical distribution of need and risk of new infections with townships categorized as high, medium and low priority; guidelines for VBHW distribution, targeting or selection are not covered, but strategies to engage and work with civil society organizations more generally are described.

Review of available literature highlights that there is no single information system for tracking the existence of VBHWs in the country or common process for mapping their distribution at any level, although the National Malaria Control Programme is noted for its substantial effort to determine with all partners the village level coverage of Malaria Volunteers across the country on a bi-annual basis.

Table 1. Overview of Selection Criteria for VBHWs

Type of VBHW	Selection Criteria
Auxiliary Midwife	A women from a village where there is no health facility or health staff, interest in health and social work, desire to stay and serve in the village after the training, completed middle school education and in good health, no more than 30 years of age and recommendation from the local midwife and/or village leader (DOH, 2008; Wangmo *et al.,* 2016).
Community Health Worker	A person who is interested in delivering health care and messages to the rural community, preferably those who are under the age of 35, having middle school-level education at least, and living in the rural area, but not the village where a sub-centre exists, in order to have sufficient education to read and write the Burmese language and speak the local dialect (DOH, 2008; Sommanustweechai *et al.,* 2016).
Malaria Volunteer	Malaria volunteer must be able to read and write, pass primary school level, be recommended by village health committee, must live in the community, not too young not too old, interested in the volunteer work, live in a hard to reach village, a malaria endemic village, a village where there is no BHS (MoHS, 2016c).
TB Volunteer	Selected in collaboration with BHS and Township Medical Officers and work collaboratively with BHS (MoHS, 2016b); individual implementing partners have developed more specific selection criteria (*see Annex 3).*
Trained Traditional Birth Attendant	Identified from among those actively attending births and recognized by their community as someone to call upon for antenatal care, delivery, post-natal or other reproductive health services. Experience and background training were not considered in the selection of TBAs (Mullany *et al.,* 2008).
Community Based Newborn Care	Existing AMWs are eligible for this training (MoH & UNCEF, 2014).
Community Case Management of Diarrhea & Pneumonia	Being a promotional health volunteers (e.g. malaria volunteer, AMW or CHW); willingness to work as CCM Volunteer at least for 3 years; known resident of the village, preferably the one who is likely to stay in the village; ensure availability; less mobile and traveling; know how to read and write in Myanmar with numerical skills, preferably secondary education; good relationships with other community members; age between 18-50 years (MoH & UNCEF, 2014).
Integrated Community Malaria Volunteer	Minimum literacy (can read and write), neither too old nor too young, selected or approved by village health committee, stays permanently in selected village and interested in volunteer works. Selection criteria for villages with ICMV: hard to reached village, malaria cases loaded village, lack of health staff in this village and prioritized to more populated villages (MoHS, 2017b).

Note: only includes types of VBHWs where specific selection criteria were found in the literature.

The selection criteria for public health care oriented VBHWs appear to have remained largely unchanged over the years. Based on a cross-sectional census survey of 715 CHWs working in 21

Townships, more than half of the CHWs (53 %) reported that they applied for CHW training on their own, while 21 % were proposed by the midwives in the sub-centre, 15 % were nominated by the village head, and 11 % by the villagers (Sommanustweechai *et al.,* 2016). This highlights the variation noted in the literature around the involvement of BHS and communities in the recruitment of VBHWs.

3. Initial Training

Prepares a VBHW for his/her role in service delivery to ensure s/he has the necessary skills to provide safe, effective, quality care.

As described above, **AMWs** receive six months of training (three months theoretical; three months practical) based on MoHS curricula with trainers from local THDs; **CHWs** receive 28 days of training based on MoHS curricula with training from local THDs; **Malaria Volunteers** receive five day modular training based on MoHS curricula for malaria diagnosis and treatment, provided by local THDs or staff of the organization providing support; **TB Volunteers** receive a two-day MoHS training course for drug sensitive TB and may receive an additional two-day training course for multi-drug resistant TB both provided by NTP trainers and/or additional training on other topics depending on the community-based model of the organization providing support; **Trained Traditional Birth Attendants** receive a seven-day curriculum developed by EHOs and centered on evidence-based antenatal care, essential newborn care, clean delivery and the importance of their role in strengthening communication and working effectively with maternal health workers and health workers (Mullany *et al.,* 2008). *Overviews of training manuals for AMWs, CHWs, CCM DP, TB, Malaria and IMCV can be found in Annex 2.*

Most of the descriptions of training in the literature provide overviews on the topics covered and length of the training, but little information on who provides the training (e.g. particular MoHS or EHO facility based staff, training teams or implementing partner staff) or what methodologies for training are used. The malaria and TB training materials include examples of role-play exercises that can be used (Ministry of Health & UNICEF, Unknown Year). Pre and post-tests before and after training for either knowledge or skill do not appear to be a standard practice for training of VBHW cadres in most cases. The training guide for AMWs suggests provision of tests after each chapter and at completion of training and the training guide for CHWs suggests provision of tests at completion of training, but standard tests are not provided (MoH, 2008). Few studies focus on evaluating the skills of VBHWs, although some do assess key areas of knowledge (e.g. Min, 2014; Than *et al.,* 2017). Altogether, this makes it difficult to determine if VBHWs have the necessary skills to provide safe, effective, quality care.

4. Continuing Training

Provided to update VBHWs on new skills, to reinforce initial training, and to ensure practice of skills learned.

The frequency of refresher training that VBHWs receive varies widely in the literature. One study that assessed the performance of CHWs in four Townships found that CHWs that had ever received refresher training in the past year varied from 31% to 93.5% (Tin, 2003). Another study that looked at the contributions of AMWs to MNCH as well as factors influencing their productivity and willingness to serve in 21 Townships found that 58.2% of AMWs had received refresher training at

least once in the past year (Wangmo *et al.,* 2016). Finally, a landscaping exercise conducted with organizations implementing malaria prevention and control interventions found that 16 out of 18 implementing partners conducted two to three day refresher trainings with the Malaria Volunteers they support on an annual basis, with two implementing partners conducting these twice per year and two conducting on-the-job-training during field visits rather than refresher training (Cho *et al.,* 2015).

Length of refresher training also varies depending on the type of VBHW or training program as well as availability of funding and approach of the organization providing support. For example, refresher training for both AMWs and CHWs is typically once a year for five days in length, but provision of this training depends on availability of funding often from donors such as GAVI and 3MDG, so this is not nationwide (WHO, 2008; 3MDG, 2016). Refresher training for Malaria Volunteers is typically once a year for two days, which is a shortened length from the initial five-day training (Cho *et al.,* 2015). Refresher training for TB Volunteers is typically once a year for two days, using the same initial two-day training for drug sensitive or multi-drug resistant TB (MoHS, 2016b).

Additional training modules and programs have been developed to provide existing VBHWs with expanded skills and service packages. These are as follows:

- **Community Based Newborn Care (CBNBC)** is a five day training, which focuses on providing existing AMWs with skills to counsel and support families in appropriate newborn care practices immediately after birth, including special care for small babies and recognition of danger signs for referral (MoH & UNCEF, 2014);

- **Community Case Management of Diarrhea and Pneumonia (CCM DP)** is a five day training, which focuses on diagnosis and treatment and has been targeted to existing "promotional health volunteers" (e.g. AMW, CHW, Malaria Volunteers) and has been rolled out in 39 Townships with UNICEF and 3MDG support (MoH & UNCEF, 2014);

- **Integrated Community Case Management (iCCM)** is a eight day training, which has been piloted in three townships to test the feasibility in training existing Malaria Volunteers in case management of pneumonia, diarrhea, malnutrition screening and nutrition counselling (MoHS & Malaria Consortium, 2017);

- **Integrated Community Malaria Volunteer (ICMV)** is a six day training, which has been developed in order to expand the scope of services existing malaria volunteers can provide to include screening and referral of dengue, lymphatic filariasis, tuberculosis, HIV/AIDS and leprosy; currently in pilot phase, but national roll out anticipated in 2018 (MoHS, 2017b).

Details on how refresher training is delivered (e.g. particular MoHS or EHO facility based staff, training teams or implementing partner staff) and the methodologies used (e.g. classroom based or on-the-job training) are rarely explicitly noted in the literature. However, some innovative models for supervision and continuing training exist, such as mobile clinic teams conducting monthly village visits where on-the-job-training is provided to the VBHW through review of patient registers and provision of patient consultations (MAM, 2016).

5. Incentives

A balanced incentive package of monetary (e.g. salary, bonuses or other defined financial distributions) and non-monetary (e.g. training, recognition, certification, uniforms, medicines, etc.) incentives is recommended to be appropriate to job expectations (e.g. tasks, workload and time spent).

Available literature consistently cites problems associated with inconsistent monetary incentives. While AMWs and CHWs do not typically receive monetary incentives, both Malaria and TB Volunteers do receive these kinds of incentives, which have varied in terms of amount and mode of allocation (e.g. monthly or annual lump sum; performance or output based) across implementing organizations (e.g. *see overview of incentives given to Malaria Volunteers in 2015 in Annex 4*).

Table 2. Summary of VBHW Monetary and Non-Monetary Incentives

Type of VBHW	Monetary Incentives	Non-Monetary Incentives
Auxiliary Midwife	None, except for transport funds to attend trainings or meetings when specific donor support is available for this in a Township or when fees/incentives are given by community members (Sein *et al.,* 2015; Myint *et al.,* 2011).	Initial AMW kit and sometimes other supplies*;* social recognition and moral support given in a variety of ways depending on the engagement of communities, TMOs and donor supported programs (Sein *et al.,* 2015; Saw *et al.,* 2016a).
Community Health Worker	None, except for transport funds to attend trainings or meetings when specific donor support is available for this in a Township or when fees/incentives are given by community members (Sein *et al.,* 2015; Saw *et al.,* 2016b).	Initial CHW kit and sometimes other supplies*;* social recognition and moral support given in a variety of ways depending on the engagement of communities, TMOs and donor supported programs (Sein *et al.,* 2015; Saw *et al.,* 2016a).
Malaria Volunteer	60,000 Kyats per quarter, but will be reduced to 50,000 Kyats per quarter in 2018.	Initial kit and other supplies*;* in kind materials such as t-shirts, umbrellas, etc. depending on organizational and donor support (Cho *et al.,* 2015).
TB Volunteer	20,000 kyats per month for travel costs; 2,000 kyats per TB case referred; other transport funds to attend trainings or meetings when donor support is available in a Township.	Social recognition, recognition trips, in-kind materials, etc. depending on organizational and donor support (Saw *et al.,* 2016a).
Trained Traditional Birth Attendant (primarily supported by EHOs)	Appears that no monetary incentives are given by EHOs (or MoHS in the past), but not explicitly stated in the available literature.	Appears that some supplies are provided by EHOs, but details not clear in the available literature.
Village Health Volunteer (only supported by EHOs)	Appears that no monetary incentives are given by EHOs (or MoHS in the past), but not explicitly stated in the available literature.	Appears that some supplies are provided by EHOs, but details not clear in the available literature.

Note: Descriptions of kits and supplies for different types of VBHWs provided in Annex 5.

Several reviews suggest problems with performance- or output-based incentives contributing to distortion of health worker priorities, neglect of unpaid tasks and lack of motivation when incidence of disease decreases where identification or treatment of cases has been monetized (Cho *et al.,* 2015; WHO, 2012). Several program reviews and the National Strategic Plans Malaria, Newborn and Child Health, and TB call for harmonized incentive systems, which consider not only monetary incentives, but other factors that contribute to motivation such as rationalized roles/responsibility/service packages, refresher training, continuous supplies, regular supportive supervision as well as recognition and career advancement opportunities (Merlin, 2014; Save the Children, 2015).

Related to specific concerns around incentives, there are broader concerns around retention/attrition of all types of VBHWs noted in the literature. However, explicit definitions of functionality or attrition are often not cited, which makes it difficult to compare figures and findings on this topic. For example, there is currently no single, standardized approach used by the NMCP or malaria Implementing Partners (IPs) to distinguish active from non-active Malaria Volunteers (Cho *et al.,* 2015). Rates of "attrition" are quoted for all types of VBHWs as being within a range of 20-50%, but rather than being calculated as an annual drop out rate (or some other defined rate) these figures appear to be based on the total number deemed functional out of the total number ever trained. For example, the NHP 2017-2021 states that as of 2011 only half of the trained CHWs (20,956 out of 40,910) and two-thirds of the trained AMWs (21,034 out of 31,580) were functional. It should be noted that in the case of AMWs or CHWs, these figures of total number ever trained can go back as far as 20 or 30 years.

The annual Community Healthcare Program Evaluation (i.e. "La-Ka-Sa") provides figures for the total number of AMWs and CHWs existing in the previous year, total number trained in the current year and total number existing in the current year; the total number existing is based on the local Midwife's judgment of whether or not they are functional. The existence, training or activities of other types of VBHWs (e.g. Malaria or TB Volunteers) are not reported though.

Review of available literature identified studies on VBHW retention and motivation in Myanmar to be more often focused on AMWs than other types of VBHWs (DoH, 2005; Merlin, 2014; Min, 2014). However, one study that looked at CHW motivation found that altruism was the main motivation to be a CHW, as 87 % reported the chance to serve the people in their own villages, 9 % said they were recognized by the communities, and less than 1 % reported having a chance to earn some money from being a CHW (Sommanustweechai *et al.,* 2016). Studies on AMW retention, motivation and functionality (usually described as level of collaboration with midwives or other BHS) have found that lower education level, older ages of recruitment, organizational support (i.e. continuous supplies and regular supervision) and further distance from a health facility (i.e. not in the same village as a facility or midwife) were associated with retention and functionality (Wangmo *et al.,* 2016; Min, 2014).

6. Opportunity for Advancement

Possibility *for growth and advancement for VBHWs, including certification, increased responsibilities, and a path to formal sector or change in role*.

Based on the available literature, opportunities for advancement are not currently available to VBHWs apart from some additional training to expand skills as described above.

7. Equipment and Supplies

Necessary equipment and supplies are available when needed to deliver expected services.

Availability of essential medicines and supplies, including a reliable supply chain and stock management system, are essential for VBHWs to provide services, but the literature is limited on the arrangements currently in place for this.

The Central Medical Store Depot procures and distributes medicines to hospitals all over the country, but supplies are insufficient and management of the supply chain needs to be strengthened (Sein *et al.,* 2014). Availability of supplies particularly at the primary health care levels of Rural Health Centers and Sub-Rural Health Centers is noted to be weak (Guyon *et al.,* 2016). For example, only 20% of sampled public Rural Health Centers and Sub-Rural Health Centers were found to have Amoxicillin in the 2015 WHO Service Availability and Readiness Assessment survey (MoHS & WHO, 2016). The Essential Drugs List was last updated in 2005 (updated 2017 version is pending circulation), but drugs and commodities by level of care do not in all cases align with current treatment guidelines, especially at community level (Guyon *et al.,* 2016).

Procurement and distribution of medicines/supplies to be used by VBHWs are not entirely integrated into the government procurement and distribution systems. The majority of drugs and supplies used by VBHWs are procured by international donors and development partners (e.g. UNICEF and 3MDG for AMWs and CHWs, including for CCM of Diarrhea & Pneumonia; GF and USAID for Malaria Volunteers) and then implementing partners use specific supply chain management systems and standard operating procedures as required by their individual donors. Procedures for distribution of supplies, reporting on stock consumption and maintaining buffer stocks vary across partners (Cho *et al.,* 2015).

Dependence on donor funding and supply systems has been noted as a concern for the continuity of VBHW service provision (Guyon *et al.,* 2016). The NHP 2017-2021 calls for supply of commodities and equipment to VBHWs to be through the national LMIS.

Table 2. Summary of VBHW Kits and Other Supplies

Type of VBHW	VBHW Kit	Other Supplies
Auxiliary Midwife	AMW Kit after completion of initial AMW training.	Usually no additional supplies are provided, unless specific donor support is available for this in a Township (with the exception of clean delivery kits, annually distributed by MoHS nationally). Other medicines and supplies provided when trained in **CBNBC** or **CCM DP** and donor support is available for this in a Township *(see Annex 5).*
Community Health Worker	CHW Kit after completion of initial CHW training.	Usually no additional supplies, unless specific donor support is available for this in a Township. Other medicines and supplies provided when trained in **CCM DP** and donor support is available for this in a Township *(see Annex 5).*
Malaria Volunteer	CHW Kit after completion of initial CHW training.	Medicines and supplies are provided on a monthly basis (*see Annex 5);* Other medicines and supplies provided when trained in **iCCM** or **IMCV** with donor support *(see Annex 5).*
TB Volunteer	No defined kit.	IEC Materials.
Trained Traditional Birth Attendant (primarily supported by EHOs)	No documentation found.	Appears that some supplies are provided by EHOs, but details not clear in the available literature.
Village Health Volunteer (only supported by EHOs)	No documentation found.	Appears that some supplies are provided by EHOs, but details not clear in the available literature.

Note: Descriptions of kits and supplies for different types of VBHWs provided in Annex 5.

8. Supervision

How feedback, coaching, problem solving, skill development, and data review are carried out regularly.

Regular supportive supervision is recognized as essential for VBHWs to provide quality services, including by VBHWs themselves (Sommanustweechai *et al.,* 2016; Save the Children, 2015). However, the available literature is limited on the details of current arrangements in place for this, such as whether supervision is done during outreach visits, health facility meetings or other times. The Job Descriptions for BHS indicate that MWs are responsible for supervising AMWs and PHS2 are responsible for supervising CHWs. Both Malaria and TB Implementation Partner staff are engaged in supervising Malaria and TB volunteers, although the Malaria focal point within a THD may supervise 2-3 volunteers per quarter. There is evidence that this varies widely across contexts and programs, depending on implementation partner arrangements, collaboration with BHS and availability of funds for transport and programs specific supervision checklists. The NSP 2016-2020 for Malaria

notes that the frequency and quality of supervision provided for Malaria Volunteers varies considerably from one agency to another and this is likely reflected in the quality of both the care provided and the data submitted (MoHS, 2016c). As far back as 1985, a Situation Analysis of Training and Utilization of Auxiliary Midwives recommended development of a standardized supervision form that can be used by BHS in supervising AMWs (DoH, 1985).

Supervision is noted as a challenge in a number of programs for reasons of accessibility, security, time and skills. Poor road conditions and a length rainy season pose challenges for reaching all village location on a regular basis and security concerns limit freedom to travel in some parts of the country (Cho *et al.,* 2015; Guyon *et al.,* 2016; Mullany *et al.,* 2010). In some cases the length and complexity of supervision checklists and frequency of required supervision visits have been considered too burdensome by BHS (MoH & UNICEF, 2013; MoHS & Malaria Consortium, 2017). Program reviews have suggested integration of supervision checklists focusing on essential skills for mentoring purposes as well as integration of supervision visits into BHS micro-plans (Burnet Institute, 2013; Save the Children, 2015). Overall, the literature supports the view that the supervision of VBHWs needs to be strengthened for quality control, volunteer motivation and sustainability of interventions (Maung *et al*., 2017; Ohnmar *et al.,* 2012; Oo *et al.,* 2011).

9. Documentation and Information Management

How VBHWs document visits, how data flows to the health system and back to the community, and how it is used for service improvement.

The Health Management Information System (HMIS) collects data from all public facilities starting from the Sub-Rural Health Center level and thus depends heavily on Midwives to collect and report data from the villages within her catchment area. There is no defined system for data collected and reported by VBHWs to systematically contribute to the national HMIS, although guidance for the HMIS states that Midwives should coordinate with AMWs and TBAs. National efforts are underway to transition this paper-based HMIS system to an electronic system using a common DHIS2 platform.

The national disease programs collect data in parallel to the HMIS, either through standardized forms that are used by VBHWs (e.g. the NMCP requires standardized reporting from Malaria Volunteers) or at an aggregated level by Implementing Partners (e.g. the NTP requires standardized reporting from all Implementing Partners). The NSP 2016-2020 for Malaria and TB both note that recording and reporting of data still need to be improved and outline plans for strengthening these systems through supervision, on-job training and other material inputs. Data collection and reporting for CBNBC and CCM of Diarrhea & Pneumonia is also done in parallel to the HMIS with specific registers and reporting forms that are collated by the Child Health Department at the central level (MoH & Unicef, 2014; Guyon *et al.,* 2016).

One community health information system to be used by AMWs and CHWs, called the Volunteer Recording System (VRS), has been developed and rolled out across 27 townships with the support of the 3MDG Fund Management Office and Implementing Partners. The VRS allows for information about services provided, stock and supplies used, and other health information to be systematically collected and reported by AMWs and CHWs in such a way that could potentially contribute to HMIS reporting in the future (3MDG Fund, 2017).

Program reviews of community-based health programming have called for standardized data collection tools that align with the full service package of the VBHWs with the potential to align and contribute to the HMIS. These reviews have also called for routine management, review and analysis at the THD level of data collected by VBHWs for improved health planning and management (Burnet Institute, 2013; Save the Children, 2015). However, very little is written about experiences or recommendations for how such VBHW based data could be systematically shared back with communities.

10. Individual Performance Evaluation

Evaluation is conducted to fairly assess work during a set period of time.

Based on the available literature, individual performance evaluations are not routinely undertaken or in place to measure individual VBHW performance against indicators, objectives or targets on a regular basis for any type of VBHW.

11. Program Performance Evaluation

Evaluation of performance against indicators, objectives and targets is carried out on an annual basis.

Based on the available literature, specific program performance evaluations are not annually or regularly undertaken to measure program performance of VBHW interventions against indicators, objectives or targets.

12. Community Involvement

The role that the community plays in supporting (e.g. supervising, offering incentives, providing feedback) a VBHW.

Consideration of coordination and governance mechanisms at the subnational and local levels is largely absent in the existing literature. Some references are made to collaboration with Township Health Committees and various types of Village Health Committees, Village Self Health Groups or other Village Working Groups, but there is little attention or consistency in the roles these groups play in relation to VBHWs. However, the importance of these structures are highlighted in a number of sources (Burnet Institute, 2013; Merlin, 2014; Save the Children, 2015; MoHS, 2016b). The formation of Township, Village Tract and Village Health Working Groups described in the NHP 2017-2021 presents an opportunity for strengthening local coordination and governance mechanisms to support VBHWs.

13. Referral System

A process for determining when a referral is needed, a logistics plan is in place for transport and funds when required, and a process to track and document referrals.

Based on the available literature, a defined and supported referral system does not appear to be a systematic part of most VBHW activities. However, Malaria Volunteers are trained to recognize danger signs for referral and are provided with forms to document referrals. Similarly, TB Volunteers are trained to conduct TB screening and referral as one of their primary responsibilities

and are provided with forms to document referrals. Finally, in townships with 3MDG Fund support, a defined emergency referrals system for complications in pregnancy, delivery and postnatal mothers, severely ill children (under five years of age) and other life threatening illness including severe malaria have been supported through AMWs, CHWs and Village Health Committees (MoHS & 3MDG, 2016).

There is currently no common referral system, which includes a plan for transport, funds or a process to track and document all types of referrals made by VBHWs.

14. Linkages to Health Systems

How VBHWs and communities are linked to the larger health system through involvement in recruitment, training, incentives, supervision, evaluation, equipment and supplies, use of data, and referrals.

The Myanmar Health Sector Coordinating Committee (M-HSCC), established as a part of the Nay Pyi Taw Accord in 2013, has the broad mandate as the coordinating body for all public health sector issues. The M-HSCC, chaired by the Minister of Health and Sports, oversees implementation of the NSP and has participation of other ministries, United Nations organizations, NGOs, development partners and community organizations. The M-HSCC has seven Technical and Strategy Groups (TSGs), including those focused on HIV/AIDS; TB; malaria; maternal and child health and reproductive health; monitoring and evaluation; health system strengthening and emergency and disaster preparedness (Sein *et al.,* 2014).

The mandate of these TSGs is to provide technical guidance in the development of national strategies, to provide coordination among partners, and to provide clarity on major technical and policy issues. The TSGs meet periodically to discuss, review and endorse certain proposals (particularly in the case of HIV, malaria and TB for Global Fund proposals), reports and other documents and carry out the assignments given to them. The TSGs also provide broad oversight of the implementation of grants and projects as required. While each of these TSGs engage in concerns regarding the VBHW cadres associated with their particular intervention areas, there is no single central body providing direction or oversight across intervention areas. Insufficient coordination across implementation partners on issues around VBHWs is noted consistently in the literature (MoHS, 2016b; WHO, 2013).

Following the development of the NHP 2017-2021, the NHP Implementing Monitoring Unit (NIMU) under the Minister's Office was established to monitor the implementation of the NHP AOPs based on the current NHP 2017-2021. The NHP 2017-2021 also outlines the establishment of a system of inclusive Township, Village Tract and Village Health Working Groups to support improved coordination and collaboration from Township to Village levels.

As described in the preceding sections, the literature indicates that linkages of VBHWs and communities to the larger health system are weak, unclear or inconsistent with significant variation in the roles that BHS and communities play in VBHW recruitment, training, supervision, provision of equipment and supplies, provision of incentives, use of data and support to referrals.

15. Country Ownership

Extent to which policies are in place that include VBHWs in health system planning and budgeting as well as provide logistical support to sustain district, regional and/or national VBHWs programs.

Myanmar adopted a "Health for All" commitment with principles and strategies of primary health care in 1976 (just prior to the Alma Ata Declaration in 1978), which were taken forward in a series of successive four-year "People's Health Plans" (from 1978 to 1990) and "National Health Plans" (from 1991 onwards). Two types of voluntary health workers were introduced under this "Health for All" movement - Community Health Workers (CHWs) and Auxiliary Midwives (AMWs) - in order to take primary health care to the community level. Malaria Volunteers were introduced in 2011; TB Volunteers were first introduced in 2007. The National Health Committee (NHC) was established in 1989 as a high level inter-ministerial and policy-making body concerning health and in 1993 guided the development of the National Health Policy, which once again placed the "Health For All" goal using a primary health care approach as a key objective (Kyaing, 2007; Sein *et al.,* 2014).

Alongside the four-year "National Health Plans," national strategic plans for key program areas have also been developed. The current national strategic plans for HIV, Malaria and TB (2016-2020) as well as Newborn and Child Health (2015-2018) and Reproductive Health (2014-2018) all contain strategies for engaging communities and delivery services to the community level. These strategies include leveraging various types of VBHWs, which may be recruited and supported by non-governmental organizations or the MoHS national programs, but generally with some linkage or coordination with local BHS and Township Health Departments.

Financing and budget allocations have not historically aligned with policy commitments to "Health for All" and application of primary health care approaches. In 1978, expenditure on health remained at 1% of gross domestic product (GDP) with only 30% of total expenditure on health going to basic health care and public health activities, while 70% of expenditure went to hospital services, in particular to pay salaries (Kyaing, 2007). As noted in the NSP 2017-2021, this low level of investment in the health sector and limited proportion of total expenditure allocated to primary health care continued for decades, but in recent years has been changing with increases in allocation to the health sector budget and emphasis in the current NSP to shift emphasis and resourcing to the primary health care at Township level and below.

Despite the introduction of AMWs and CHWs into the health system of Myanmar, recurrent costs for refresher training, supplies and supportive supervision of AMWs and CHWs have not been included in government budgets and support for these cadres has largely come from international donors. This extends to intervention specific programs, such as the roll out of CCM Diarrhoea and Pneumonia, which has been supported in a limited number of townships primarily by UNICEF and 3MDG (MoHS & UNICEF, 2013; Guyon *et al.,* 2016). Moreover, resources to support malaria and TB oriented VBHWs have come from international donors (e.g. Global Fund, USAID and 3MDG Fund) with government funding used mainly to pay for infrastructure, payment of government staff salaries and supplies (MoHS, 2016c).

Regardless of ultimate funding source, the available literature indicates that VBHWs are not currently fully integrated into national budgets, operational plans, supply chains and coordination mechanisms from national to local levels.

Conclusion

The main goal of the **National Health Plan (NHP) 2017-2021** is to extend access to a basic **Essential Package of Health Services (EPHS)** to the entire population while increasing financial protection. The defined basic EPHS emphasizes the critical role of primary health care and the delivery of essential services and interventions at Township level and below, starting within the community. The first year **Annual Operational Plan (AOP) of the NHP 2017-2021** calls for a **comprehensive literature review** of the situation of all **Village Based Health Workers (VBHWs)** in the country to inform the development of a **comprehensive, institutionalized approach to community health for the country.**

This **comprehensive literature review** has gathered a substantial amount of published and unpublished documentation (more than 80 documents) about VBHWs in the country. It has been guided by the **principles of the NHP** and informed by global evidence through use of the **Community Health Worker Assessment and Improvement Matrix (CHW AIM)** as an organizing framework. Many of the documents reviewed describe the types of VBHWs currently in existence, their roles and demographic characteristics as well as some aspects of their health knowledge, practices and need for performance improvement and support. A number of studies have focused on the knowledge and activity based outputs of VBHWs, but few have focused on the **modalities and broader health system components** (e.g. financing, governance, health information, supply chains) **necessary for a successful community health approach**. While weaknesses in VBHW performance and related health system components are noted, few reviews or studies focus on successful examples or make specific recommendations to **inform feasible modalities and solutions to address these necessary health system components.** These gaps in knowledge could be **usefully addressed through a situation analysis**.

As outlined in the first year NHP AOP, a situation analysis would complement the literature review findings to better understand the different VBHW modalities and systems arrangements in place as well as inform the development of a comprehensive, institutionalized approach to community health for the country. This would also help to ensure the **on-the-ground realities across a diversity of contexts** are adequately considered, even in contexts where existing literature is limited. The first year NHP AOP states that this situation analysis should include the following:

- Evidence-based review of gaps in the community-based workforce;
- Identification of types of VBHW, mapping of roles and working modalities (e.g. incentives, training, supervision, etc.);
- Listening to the voices of existing VBHWs and the BHS supervising their work;
- Identification of best practices.

In order for the situation analysis to be optimally informative and practical, the questions to be addressed should be **informed by global evidence and the perspective of MoHS decisions makers.** Structuring the key questions to be address in the situation analysis around the **CHW AIM** used in the comprehensive literature review would help to ensure consideration of all the essential components of a comprehensive, institutionalized approached to community heath.

Based on the findings of the comprehensive literature review and discussion among members of the MoHS VBHW Working Group, **questions that could be considered in the situation analysis** are as follows:

- What is the distribution of all types of VBHWs within a variety of contexts? What factors influence this? Is this distribution effective and efficient for delivery of the basic EPHS?
- How common is overlap between VBHW identities (e.g. a person who is both a CHW and malaria volunteer) and how does this influence workload and motivation? Does this provide any learning for how service packages could be integrated and rationalized?
- How much time is spent on particular tasks and functions for the various types of VBHWs (e.g. time and motion analysis)? How much time does this total and how does it compare to expected time commitments? How should this be considered in definition of service packages and forms of remuneration?
- How are supply chains to VBHWs managed and resourced at local levels? What are the current barriers or enabling factors involved?
- What modes of supportive supervision by BHS or EHO facility based staff to VBHWs are functional (e.g. during health facility meetings and/or outreach visits)? What elements make these feasible?
- What structures and mechanisms exist at sub-national to local levels (particularly Township to Village level) for collaboration and coordination between BHS/EHO facility based staff, VBHWs and communities? How do these work? How might these be improved?

As described in the first year NHP AOP, the comprehensive literature review and the situation analysis should ultimately bring together complementary information to help inform the **MoHS' long-term vision for delivery of services to all communities,** including how community-based services can complement outreach and facility-based health services as a part of a wider health system that leverages all types of health providers (e.g. Ethnic Health Organization, Non-Governmental Organization and Private-for Profit). In order to make this vision a reality, it will be essential to link with concurrent streams of work already moving forward under the NHP 2017-2021, such as the following:

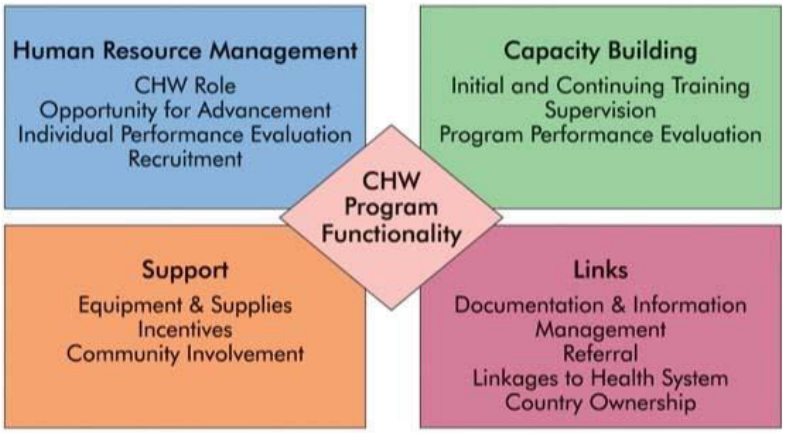
- **Integrated Township Health Plan (ITHP) assessments, plans and service delivery** from facility to community levels;
- **Human Resources for Health Policy and Strategic Plan 2017-2021,** including considerations for the health workforce from facility to community levels;
- **Costing of the Essential Package of Health Services,** including necessary reflection of service delivery modalities at facility, outreach and community levels.
- **Review and revision of job descriptions** of health cadres from Township levels and below to ensure alignment with delivery of basic EPHS (note: job descriptions of BHS already completed in 2017; job descriptions for VBHWs to be updated in accordance with policy as outlined in the first year NHP AOP).

Taken together the development of a comprehensive, institutionalized approach to community health, which is appropriately reflected across the necessary health system components and streams of work within the NHP 2017-2021 will advance the **NHP's main goal of extending access to the basic EPHS to the entire population while increasing financial protection.**

ANNEXES:

Annex 1. Overview of Community Health Worker Assessment and Improvement Matrix Tool

Functionality Model



Programmatic Components

CHW AIM outlines 15 programmatic components that have been found to contribute to an effective CHW program.

1.	**Recruitment**	How and from where a community health worker is identified, selected, and assigned to a community, including selection criteria.
2.	**CHW Role**	The alignment, design, and clarity of role from community, CHW, and health system perspectives. The role generally includes a description of how the "job" contributes to the program; clear expectations that define actions and behaviors necessary for the CHW to be successful; and tasks that are measurable activities that the CHW performs when providing services.
3.	**Initial Training**	Training is provided to the CHW to prepare for his/her role in service delivery and ensure s/he has the necessary skills to provide safe, effective quality care.
4.	**Continuing Training**	Ongoing training is provided to update CHWs on new skills, to reinforce initial training, and to ensure practicing skills learned.
5.	**Equipment and Supplies**	The requisite equipment and supplies are available when needed to deliver expected services.
6.	**Supervision**	Supportive supervision is carried out regularly to provide feedback, coaching, problem solving, skill development, and data review.
7.	**Individual Performance Evaluation**	Evaluation is conducted to fairly assess work during a set period of time.
8.	**Incentives**	A balanced incentive package includes financial incentives such as salary and bonuses and non-financial incentives such as training, recognition, certification, uniforms, medicines, etc. appropriate to job expectations.

9.	**Community Involvement**	The role that the community plays in supporting (supervising, offering incentives, providing feedback) a CHW.
10.	**Referral System**	A process for determining when a referral is needed, a logistics plan is in place for transport and funds when required, and a process to track and document referrals.
11.	**Opportunity for Advancement**	The possibility for growth and advancement for CHWs, including certification, increased responsibilities and a path to the formal sector or change in role.
12.	**Documentation and Information Management**	How CHWs document visits, how data flows to the health system and back to the community, and how it is used for service improvement.
13.	**Linkages to Health Systems**	How the CHWs and communities are linked to the larger health system through involvement in recruitment, training, incentives, supervision, evaluation, equipment and supplies, use of data, and referrals.
14.	**Program Performance Evaluation**	General program evaluation of performance against targets, overall program objectives, and indicators carried out on a regular basis.
15.	**Country Ownership**	The extent to which the ministry of health has policies in place that integrate and include CHWs in health system planning and budgeting and provides logistical support to sustain district, regional and/or national CHW programs.

Scoring of Programmatic Components

For each of the 15 components listed above, four levels of functionality are described ranging from non-functional (level 1) to highly functional as defined by suggested best practices (level 4).

Level of Functionality			
1	**2**	**3**	**4**
Non functional	Partially functional	Functional	Highly functional

These levels describe situations commonly seen in CHW programs and provide enough detail to allow stakeholders to identify where their programs fall within that range. Level 4, ”highly functional”, provides the currently accepted best practice for each component. Resources and tools to aid implementers in achieving a higher level of functionality are provided as part of this instrument.

Annex 2: Overview of Training Manuals for AMWs, CHWs, CCM D&P, TB, Malaria and IMCV

AMW Manual (2016)

- Role and responsibilities of AMW
- Dos and Don'ts for AMW and trained TBA
- Topics
    - Human anatomy and physiology
    - Knowledge for reproductive health
    - Anti-natal care
    - Normal delivery process and care for normal delivery
    - Contraception
    - Post-natal care
    - Neonatal care
    - Under 5 children care
    - Nutrition for mothers and children
    - Personal hygiene care, environmental sanitation and prevention of diseases
    - Knowledge for HIV/AIDA and home care
    - First Aid
    - Health education, counseling and referral

CHW Manual for Primary Health Care (2016)

- Specification to be a CHW
- Role and Responsibilities of CHW
- Topics
    - Infectious disease
        - Transmitted from food and water
        - Transmitted from insects
        - Transmitted from animals
        - Transmitted from sexual intercourse
        - Transmitted from respiration
        - Vaccine preventable infectious diseases
        - Infectious diseases to eye
        - Prevention of disaster
    - Non-infectious chronic diseases
        - Diseases related to obesity
        - Hypertension
        - Diabetes
        - Coronary heart disease
        - Cancers
        - Psychological diseases
        - Dangers of cigarette and tobacco leaf
    - Personal hygiene care, environmental sanitation and prevention of diseases
        - To have clean water source
        - Disposal of stool
        - Disposal of general waste
        - Hand hygiene

        - Food sanitation
        - Oral sanitation
    - Family Health
        - Maternal and child health
        - ANC
        - Newborn care
        - Under 1 children care
        - Under 5 children care
        - Students health
        - Health for children outside of the school
        - Nutrition activities
        - Vitamin A deficient diseases
        - Iron deficient diseases
        - Iodine deficient diseases
        - Protein deficient diseases
        - Vitamin B1 deficient diseases
    - General Health
        - Cough and sneezing
        - Fever
        - Headache
        - Weakness and vertigo
        - Heat stoke
        - Skin diseases
    - Traditional medicine
    - First Aid
        - Animal bite
        - Dog bite
        - Snake bite
    - Registration for LB, SB and recording health information
    - Health Education
    - Annexes
        - Basic information of the village
        - Patient referral form
        - Report form 1
        - Report form 2
        - Monthly activity report
        - Anatomy of human body

Manual for TB Volunteers (2016)

- History
- Why is this project implemented
- Objective of the project
- Who are who in this project
- Micro plan of township level community based TB eradication project
- Steps needed for community based TB eradication project
- Capacity building and appreciation to community health volunteers
- Flow diagram and steps of community based TB care activities
- Field supervision
- Monitoring and evaluation
- Annexes
    - Learning about the TB care project in Nay Pyi Taw (Pyin Ma Nar Township)
    - Non-government organizations (who are implementing for TB eradication project)
    - Supervisor check list
    - Registration of township level health volunteers
    - Referral form
    - Patient registration form for volunteers
    - Monthly / 3 monthly report forms for volunteers
    - Monthly / 3 monthly reports forms for supervisors
    - Record form for supervisors

Manual for Malaria Volunteers (2016)

Implementation Guide for Community Case Management of Diarrhea & Pneumonia (2012)

Chapter 1
•Non-complicated pneumonia and diarrhea
•Under 5 children linkage with malaria
•Early diagnosis and treatment
•Timely referral with danger signs
•Quality essential generic medicine
•Key family practices related with child survival

Chapter 2
•Medicine (para,amoxicillan,cotrimoxizol,ORS, Zinc)
•Respiratory timer, digital thermometer, plastic box, bag,
•Patient register book, treatment record, medicine stock record, Monthly Report form, IEC)
•Receipt and storage of medicines
•Physical inventory of medicines
•Dispensing of medicines

Chapter 3

•Information to local authorities
•Support of local authorities and leaders.
•Various trainers and supervisors of intermediate and peripheral level.
(1) Advocacy meeting of different level.
(2) Social mobilization (Raise awareness, Community participation, improve utilization)

Chapter 4

•Selection process (township Health team and community)
•Hard to reach villages
•Village selection (geographical accessibility, Existence of health care providers, size of under 5 population)
•Identification of potential villages (mapping of areas, health facilities, hard to reach more than5 km, numbers of inhabitants)
•Distance of each villages, other villages covered by the identified village, distance between identified village and the health center)

Chapter 5 Training

•Trainers (TOT3days)
•Supervisors (3 days)
•CCM volunteers (5days)
•Supervisors (selection)
•CCM volunteer hand out
•CCM volunteer guide
•Management of common childhood illnesses
•Photo album
•Video
•Treatment record form
•Patient registerbook
•Drug stock book
•Supervision checklist
•Instruction on the selection of villages and volunteer

Manual for Integrated Malaria Control Volunteers (2017)

Annex 3. TB Volunteer Selection Criteria Used by Implementing Partners (Program Documents, 2017)

MDR TB Volunteer selection criteria from MMA:

1. Should preferably be selected from existing community health workers;
2. Acceptable to the patient and his or her family;
3. Active, strong and not too old to work;
4. Available to support the patient at any time during the day or night;
5. Can observe confidentiality of the patient's records;
6. Has a stable living situation near the patient;
7. Has basic literacy skills (should be able to read and write);
8. Is motivated to care for DR TB patients;
9. Is committed to supporting the patient for the full length of treatment;
10. Should not have a health condition that could lead to immune-suppression (DM and HIV)
11. Has received basic TB training and DR TB-specific training.

MDR TB Volunteer selection criteria from MHAA:

1. Everybody can work but not to be over 60 year of age, pregnant women, diabetes patient, HIV positive person.
2. The person who is completed basic education middle school.
3. The person who is staying in the same village they are working.
4. The person who is activity participated in social activities.
5. Being able to provide direct observe treatment for patients up to treatment complete (2 years).
6. Good communication with patients and keep the confidential information of patient.
7. Not NGOs/INGOs staff.
8. Not government staff.
9. Can work under the guidance of Township health department and Township MDR TB project staff
10. Can attend two days training which are provided by MDR TB project.

MDR TB Volunteer selection criteria from PGK

1. Local people currently residing in that area
2. At least read and write the Myanmar Language
3. Goodwill on patients
4. Must have volunteer experiences
5. Be active
6. Keep the confidential issues
7. Provide the care on patient at anytime
8. Goodwill on MDR TB patients
9. Volunteer are accepted by the patients and their family members.
10. Must not be HIV positive patients, very young age and very old age
11. Give priorities for the person who have TB and MDR TB related training experiences.

TB ACF Volunteer selection criteria from MHAA:

1. The person who are staying in the same village they are working
2. The person who completed the primary education
3. The person who admit for working at least one year
4. Minimum working days is 6 days per month
5. The person who can contribute the time to community development
6. The person who is interested in social activities
7. The person who has good communication skills
8. The person who is agreed by administrative person and health department
9. Age have to be between 18 to 60 years

TB ACF Volunteer selection criteria from MAM:

1. Being local person and having interest in health care services
2. Having good communication with community, being trusted and relied by the community, having good attitude
3. Being 18-50 years old and healthy person
4. Passing basic education middle school (Grade 9) (if not available, second priority goes to those who pass primary school - Grade 5)
5. Being able to help and cooperate with Government BHS
6. Being able to provide health care service for the community, at least 2 years after VHW training

TB ACF Volunteer selection criteria from MMA:

1. Age have to be between 18 to 60 years.
2. The person who completed the primary education and can write Myanmar Language well.
3. The person who has good communication skills.
4. Being local person in health care services.
5. Being able to provide health care service for the community, at least 1 years after volunteer training. If volunteer would like to leave from project, he/she must inform one month notice to Medical officer from MMA TB ACF project.
6. The person who is interested in social activities.
7. The person who is received at least one recommendation from Township health department, National Tuberculosis Program, administrative person from their ward, Myanmar Medical Association, Health Assistants and Basic Health Staffs.

TB ACF Volunteer selection criteria from PSI:

1. Local people currently residing in that area
2. Village where RHC/SC is not located
3. Middle school level education
4. 18-45 years of age
5. Must be interested in volunteer work for community health
6. Willingness to be monitored and supervised
7. Willingness to give report
8. Currently not working in government service/INGO
9. Recommended by township health personnel

Annex 4: Overview of Incentives Provided to Malaria Volunteers (2015)

Table 1–Incentives used by 18 implementing partner organizations

Incentive method	No. of IPs	Comment (1 USD is approximately 1200 kyat)
Cash incentive		
Monthly fixed cash incentive with or without additional transportation cost	6	Variable: from 8000 to 50,000 kyat per VHV
Performance-based cash incentive	5	By number of blood tests – variable: 200, 500 or 1000 kyat By treatment – variable: 300 or 500 kyat Completion of DOT – 3000-6000 kyats Gathering people to attend group discussion - 500 kyat Facilitating a group discussion - 1000 kyat Monthly meeting attendance - 3000 kyat Collection of Day 3 blood slides - 5000 kyat Staying overnight during mobile team visit - 2000 kyat Unidentified activities - 10 to 20 USD
Monthly fixed cash incentive + performance based incentives	3	Both "a" and "b" systems are used
Quarterly fixed cash incentive (transport subsidy)	2	Variable: 50 USD, and 20,000-50,000 kyat
No cash incentives	2	Travel cost for meeting attendance, meal allowance provided, per diem only
Non-financial incentive		
VHV kit	16	Common
Others materials	17	Dependent on financial availability (stationery, certificates, T-shirt, raincoat, backpack, torch light, solar light, watches, calendar, notebooks, guidelines, umbrella, bicycle)
Training and refresher training	3	Refresher training for 2-3 days

Source: (Cho *et al.,* 2015).

Annex 5. Overview of Kits and Supplies Provided to Different Types of VBHWs

5.1 Auxiliary Midwifery (MoHS, 2016)

Contents of AMW Kit

Sr. No	Item	Quantity
1.	Basin, Plastic 475 ml 10"	1 Pcs
2.	Brush, Hand, Scrubbing, Plastic	1 Pcs
3.	Soap Box, Plastic	2 Pcs
4.	Soap Toilet, 100 G Wrapped	2 Pcs
5.	Tower Huck, 430 X 500 mm	1 Pcs
6.	Bowl, SS 600 ml, 18 M	1 Pcs
7.	Forceps, Artery, Pean/Rock 160 mm	1 Pcs
8.	Scissor, Operating, 14 cm, STR, B/B	1 Pcs
9.	Stethoscope, Foetal Pinard (Trumpet)	1 Pcs
10.	Extractor, Mucus, 20 ml Sterile, Disposal	10 Pcs
11.	Apron, Protection, Plastics (Disposal) 10 Pcs/Box	1 Pcs
12.	Apron, Protection, Plastics, Washable	1 Pcs
13.	Thermometer, Clinical, C	1 Pcs
14.	Tape Measure, Vinyl Coated, 1.5-5'	1 Pcs
15.	Umbilical cord, Clamp	10 Pcs
16.	Cotton Wool, 100 G, Roll, Non Sterile	1 Pcs
17.	Draw Sheet, Plastic 90 x 180 cm	1 Pcs
18.	Sphygmomanometer Adult, Aneroid	1 Pcs
19.	Stethoscope, Adult	1 Pcs
20.	Compress, Gauge, 3" x 3" Sterile (100 Packs)	1 Pcs
21.	Glove Surgical 6.5 Sterile, Disposable	10 Pairs
22.	Metal Box	1 Pcs
23.	Birth room scale	1 Pcs
24.	Infant spring scale	1 Pcs

5.2 Community Health Worker (MoHS, 2016)

Contents of CHW Kit

Sr. No	Item	Quantity
1.	Soap, toilet, 113gm bar, unwrapped	12
2.	Antibiotic dermatological ointment, tube/20gm	6
3.	Paracetamol Tab, tin/1000	4
4.	Antibiotic ophthalmic ointment, tube /5gm	12
5.	Ferrous sulfate/ Folic acid tabs, tin/1000	2
6.	Lindane gamma benzene Hexachloride BP conc.	1
7.	Gentian Violet Powder medicinal BP. Bottle/25gm	1
8.	Iodine, Tincture BP, bottle/30ml	2
9.	Multivitamin, chewable tablets tin/1000	4
10.	Piperazine tab BP, 500mg Scored, tin/1000	1
11.	Salts rehydration powder/IL	200
12.	Phenoxymethyl penicillin tablets BP 250mg bottle/ 100	10
13.	Plastic, adhesive Zinc Oxide 25mm x 1M roll	3
14.	Bandage gauze unsterile 50mm x 9M	12
15.	Bandage gauze unsterile 75mm x 9M	12
16.	Cotton wool, absorbent non-sterile, 100gm	2
17.	Kidney Basin, biding 475ml, polypropylene	1
18.	Basin, wash shallow 4 liter auto-clavable polypropylene	1
19.	Thermometer, clinical oral, dual Cels/ Fahr Scale	4
20.	Forceps, dressings, spring type 140mm SS	1
21.	Scissors, Surgical straight 140 mm S/B SS	1
22.	Box with cover, 228 x 178 x 72 mm plastic	1
23.	Cutter Hi-lo Snake Bite Kit	1
24.	Instruction Booklet	1

5.3 Community Based Newborn Care (CBNBC)

When an AMW is trained in CBNBC, additional supplies are provided as follows (Hlaing, 2014):

Supplies

- CBNBC Counseling Cards;
- CBNBC Register;
- Spring scale;
- Thermometer;
- Respiratory timer.

5.4 Community Case Management of Diarrhea and Pneumonia (CCM DP)

When an AMW, CHW or other volunteer is trained in CCM DP, additional medicines and supplies are provided as follows (MoHS & UNICEF, 2012):

Medicines

- Paracetamol 500 mg/100 mg tablets (or) Pediatric oral solution 125 mg per 5 ml**;**
- Amoxicillin 250 mg tablets (or) Pediatric oral suspension 125 mg per 5 ml (or) 125 mg dispersible tablets**;**
- Cotrimoxazole 480 mg tablets (or) Pediatric oral suspension 240 mg per 5 ml**;**
- ORS (Oral Rehydration Salts) Low Osmolarity sachets**;**
- Zinc Sulphate 20 mg tablets

Supplies

- Respiratory Timers
- Digital Thermometers
- Plastic Drug Box for easy carriage of medicine
- Plastic Bags for dispensing medicine
- Standard Patient register book
- Standard Patient treatment record form
- Standard Medicine stock record book
- Standard Monthly reports forms
- Information, Education, Communication (IEC) materials

5.5 Malaria Volunteers

Contents of Malaria Kit (2017)

Sr.No	Item	Quantity
1.	Bag	1
2.	Plastic Box	1
3.	T-shirt	1
4.	Thermometer	1
5.	Rain Coat	1
6.	Cap	1
7.	Torch Light	1

Medicines & Supplies (2017)

- Anti-malarial drugs
- Rapid Diagnostic Tests
- Paracetomol

5.5. Integrated Community Case Management (iCCM)

When a volunteer is trained in iCCM, additional medicines and supplies are provided (complete list of medicines and supplies not found in available documentation on current pilot).

5.6 Integrated Community Malaria Volunteer Kit (2017)

When a Malaria Volunteer is trained in IMCI, additional medicines and supplies are provided as follows (MoHS, 2017):

Contents of Kit

Sr.No	Item	Quantity
1.	Bag	1
2.	Plastic Box	1
3.	T-shirt	1
4.	Thermometer	1
5.	Rain Coat	1
6.	Cap	1
7.	Torch Light	1

Mini First Aid Kit

Sr.No	Item	Quantity
1.	4" cotton bandage (roll)	2
2.	4" Elastic bandage (roll)	1
3.	triangular bandage (pcs)	1
4.	Povidone Iodine (15ml bot)	1
5.	Paper tape roll	1
6.	Spirit (250ml bot)	1
7.	Handiplast (pcs)	10
8.	Alcohol pad (pcs)	5
9.	Cotton wool (pack)	1
10.	CPR mask (pcs)	3
11.	Disposable glove (plastic)	25 pairs

Others

Sr.No	Item	Quantity
1.	Paracetamol	Case-based
2.	Multivitamin	Case-based
3.	Ferrous Sulphate	Case-based
4.	ORS (20.5g/L sachet)	20
5.	Safety Box	2
6.	ICMV guidelines book	1

Annex 6. Literature Reviewed on Village Based Health Workers in Myanmar

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