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One Million Community Health Workers Campaign

mPOWERING FRONTLINE HEALTH WORKERS

"What Do We Really Know?"

An Integrated Analysis of Current Research on Community Health Worker Training

May 2014

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Table of Contents

Preamble

Subsequent to dissemination of a draft of this analysis, the authors of the World Health Organization (WHO) Curricula Mapping Report, discussed below, published their findings in a new paper.[1] Their findings are in line with the conclusions and recommendations made in this integrated analysis. For this reason, there is a strong case for the international community to take the recommendations of this integrated analysis into serious consideration in the assessment of global human resources for health.

[1] Tran NT, Portela A, de Bernis L and Beek K. 2014. Developing Capacities of Community Health Workers in Sexual and Reproductive, Maternal, Newborn, Child, and Adolescent Health: A Mapping and Review of Training Resources. PLoS ONE 9(4): e94948. doi:10.1371/journal.pone.0094948.

Introduction

Community health workers (CHWs) have become an essential component of the global health strategy on the delivery of equitable health care in the developing world. In these regions, insufficiencies in the availability and quality of human resources for health lead to unnecessary death and disability. CHWs can provide essential health services to populations that face barriers to accessing services at health facilities. While well-trained and supplied CHWs can have positive impacts on health outcomes, such as Millennium Development Goals (MDGs) 4, 5, and 6, little is known about the adequacy, cost or effectiveness of training models to prepare CHWs for their work. This raises the question, "What do we *really* know about CHW training?"

In the context of renewed interest around CHWs, the expansion of CHW systems, such as the 544,000 CHW scale-up called for by the Global Investment Framework (Stenberg et al. 2014), this question has become increasingly pressing. The One Million Community Health Workers (1mCHW) Campaign, working in collaboration with the mPowering Frontline Health Workers partnership (mPowering), has started to explore this question. More specifically, the Campaign and mPowering aim to fill the information gap by producing an integrated analysis of the following three recent (unpublished at the time of writing) reports, with recommendations for next steps on how to improve current CHW training practices.

1. The Curricula Mapping Report – "Training resource packages for CHWs in sexual, reproductive, maternal, newborn, child, and adolescent health (SRMNCAH): taking stock and moving forward" – explores existing training materials for CHWs specifically regarding SRMNCAH. It was produced by the WHO and United Nations Population Fund (UNFPA) as a report of the technical consultation of the H4+ partners (UNAIDS, UNFPA, UNICEF, UN Women, WHO, and the World Bank), 5–6 February 2013.
2. The Content Survey – "Survey 2 Results" – provides a landscape analysis of frontline health worker training content regarding key global health priorities. It was produced by mPowering in late 2013 as an information-gathering exercise to assess the landscape of existing CHW training content (in digital and other media formats) on reproductive, maternal, newborn, and child health topics.
3. The Training Practices Literature Review – "The Current State of CHW Training Programs in sub-Saharan Africa & South Asia: What We Know, What We Don't Know, and What We Need to Know" – explores a range of literature regarding the content, pedagogy, frequency, and efficacy of CHW training programs in sub-Saharan African and South Asian countries with high utilization of CHWs. It was commissioned by mPowering and conducted by the 1mCHW Campaign in December 2013, to attempt to answer the question, "What are the current practices in CHW training in sub-Saharan Africa, India, Pakistan and Nepal?"

Each of these documents provides research and recommendations that contribute significantly to the knowledge base around CHW training.

This integrated analysis:

1. summarizes the three pieces of work listed above;
2. analyzes these pieces through discussion of commonalities and limitations; and

3. provides recommendations and next steps to further close the CHW training knowledge gap. This analysis demonstrates that there is a clear need for evidence-based guidance regarding content areas, content guidelines, pedagogical methods, and operational aspects (such as frequency and structure) of training programs for uptake and adaption by countries to promote the scale-up of effective CHW training programs and, ultimately, strengthen health systems.

Synthesis

Curricula Mapping Report (WHO and UNFPA)

CHWs have been essential in increasing access to SRMNCAH services. Recently, the H4+ and other key partners focusing on SRMNCAH published recommendations for evidence-based interventions that CHWs can deliver. To provide additional guidance to countries implementing CHW-based SRMNCAH services, a mapping of existing CHW training materials in these categories was carried out from October to December 2012. A subsequent technical consultation of 32 participants from nine countries was organized (February 2013) to review the results of the mapping exercise and to suggest next steps for the scope of guidance on CHW training in SRMNCAH. The report is a result of that technical consultation.

The report notes that there is a wealth of training resource packages for CHWs in SRMNCAH topics. The curricula mapping exercise reviewed 33 training packages ("curricula") created by H4+ and various partners. The assessed CHW training materials were divided into two categories: integrated and focused. Integrated training materials were composed of two or more health areas along the SRMNCAH continuum, while focused packages only addressed a single area. Eleven integrated packages were identified that addressed the spectrum of maternal, newborn, and child health. The remaining trainings in the focused category addressed one of the following:

- General family planning methods (e.g., injectable contraceptives, postpartum family planning, CycleBeads);
- Newborn, infant, and childhood care;
- HIV prevention, treatment, care, and support for community volunteers (not CHWs);
- Postpartum hemorrhage prevention; or
- Training on domestic violence for community activists (not CHWs).

This report shows that there is low fidelity to existing global recommendations, and identifies key gaps in the CHW training materials reviewed. It notes that none of the integrated or focused training packages addressed all of the relevant WHO/H4+ core-recommended interventions. The following training materials were missing from the assessed materials:

- Awareness of signs of domestic and sexual violence and referral;
- Support for women living with HIV during pregnancy and postpartum care;
- Recognition of postpartum depression and referral to appropriate services;
- Promotion of and support for the prevention of indoor air pollution in newborn care;
- Promotion of and support for birth registration, and maternal and perinatal death notification;
- Promotion of and support for child stimulation and play; and

- Safe abortion care, adolescent reproductive health, and gender-based violence.

The report also notes that many training curricula did not use competency-based assessments, nor did they contain effective supervision materials that would advance development of CHW skills after the initial training process. The report cites the need for implementing monitoring and evaluation (M&E) mechanisms to determine the effectiveness of training materials. While taking health system considerations and the diversity of local settings into account, the report additionally highlights the need for the following:

- A core training resource package that includes essential interventions that CHWs can deliver;
- Additional technical modules on specific SRMNCAH areas that can broaden the range of SRMNCAH interventions provided by CHWs; and
- Orientation materials to help district health management teams develop a system to improve CHW programs and integrate them as part of the district's health system strengthening.

Further, the report mentions the importance of equipping CHWs with essential competencies such as interpersonal communication, recordkeeping, and privacy/confidentiality.

Content Survey (mPowering)

mPowering conducted two surveys in 2013. First, a digital content survey was launched in August 2013 to perform a landscape analysis of existing content on maternal and child health, including family planning and reproductive health (FP/RH), water, sanitation, and hygiene (WASH) and nutrition, by reaching out to a sample of partner organizations. A second survey was conducted in November 2013 to reach a broader list of organizations and to accumulate further knowledge about what reproductive, maternal, newborn, and child health (RMNCH) content is available in frontline health worker trainings. This latter survey targeted 218 people in 116 organizations. At the end of the survey period, mPowering had received 86 responses from 73 organizations.

The key findings from this second survey, described in a report released in March 2014, related to content *availability* are:

- CHW training content is available regarding: FP/RH; antenatal, neonatal, and postnatal care; nutrition; HIV/AIDS; Integrated Management of Childhood Illness (IMCI); emergency obstetric care; and WASH.
- Content is aimed toward global, national, and local audiences and varies according to the organization.
- Organizations consult governments, WHO guidelines, and local NGOs to obtain data for tailoring content to local needs.

- Training content exists in various forms: some training resources are part of a broader package, some exist as independent pieces, and some are a component in larger integrated training packages.
- Some content is available in digital formats.

The report's key findings related to content *accessibility* are:

- 90% of respondents indicated that they are in favor sharing their content.
- Open access to content is prevalent, with 73% of respondents stating that parts of content are already publicly available.
- Concerns regarding sharing data included: proper attribution, access to data that are stored/centralized, and liability protection.
- Strong incentives exist for sharing content, including: better dissemination and standardization of content and approaches, M&E opportunities, increased reach and duplication of efforts, adding to the body of knowledge, and greater impact and scale-up of CHWs.
- Barriers to sharing content include: improper adaptation of training materials, lack of country participation in distribution efforts, liability, concerns about use without attribution, and lack of control regarding use of content.

Thus the report finds that a number of organizations provide health content on RMNCH topics for health workers or supervisors of health workers. It is important to note however that the survey results did not go into detail as to which specific topics within RMNCH were covered. The report concludes that some training content is available digitally, there appears to be high interest in sharing content, although there are some issues to overcome to increase content-sharing. Recommendations for next steps include: follow-up with survey respondents for more detailed discussion; create a system for attribution, liability protection, and content protection; and determine how to best aggregate and distribute content efficiently and effectively.

Training Practices Literature Review (1mCHW Campaign)

This literature review was commissioned in December 2013 of the 1mCHW Campaign by mPowering, with support from USAID, to understand current practices in CHW training in sub-Saharan Africa and South Asia. The purpose was to identify, synthesize, and analyze research studies, gray literature, and project reports related to both pre-service and in-service CHW training programs in these two regions; more than 100 articles were included in the review. The report, finalized in April 2014, found that there is a significant lack of formal research on CHW training.

For pre-service trainings, the literature review finds that there is great diversity and inconsistency among training programs regarding both training content and delivery of content. The duration could be as little as five days to as long as 12 months. These trainings are performed locally or away from communities. Pedagogical methods could be based on providing theoretical knowledge, technical skills, or a mix of both; and there is no consensus regarding the benefits of teaching CHWs theoretical

versus skills-based knowledge. Training content varies widely as well and contains a number of different intervention areas.

Furthermore, little rigorous evidence exists about CHW pre-service training programs. While pre- and post-training tests are sometimes used, there are few qualitative or quantitative analyses of these tests regarding CHW effectiveness after deployment. Few sources provided explicit details about methodology, circumstances, or effectiveness of CHW pre-service training. The review revealed many gaps, including: content gaps, inconsistency in training and training materials, variable definitions of CHW roles, and a lack of evidence on training program effectiveness.

The review of in-service training programs, either for refresher or for new content trainings, reaches similar findings. Curricula, duration, and frequencies of these trainings vary widely. The pedagogical methodology is diverse and usually consists of one or more of the following techniques: blended learning, lecture, simulations, role-playing, job aids, and question-and-answer sessions (as in pre-service training). Although it is widely acknowledged that in-service training is effective, there is little evidence on the effectiveness of current in-service trainings; the question of which types of training are most effective remains.

Overall, the review reveals many issues in CHW training implementation, including: lack of in-service training; lack of adaption to support local languages; inconsistent delivery methods; irregular and insufficient M&E practices; lack of coordination with other service providers; lack of emphasis on communication skills; and an overuse of rote techniques. The literature review identifies a number of recommendations for improving CHW training, including:

- Ensure coordination for curricula design and implementation among training providers (NGOs, civil society organizations, and governments);
- Make CHW training curricula more interactive to better prepare CHWs for the work setting;
- Integrate CHW feedback into training curricula to increase quality of training;
- Assess CHWs regularly via pre-tests, post-tests, and self-assessments to measure competency; and
- Ensure that HW training providers share training materials with the global health community to inform future development of CHW training programs.

Despite strong evidence indicating the efficacy of CHWs in provision of basic health services, actual CHW systems (specifically for training) remain ineffective or largely non-existent in many areas of sub-Saharan Africa or South Asia. This review identifies several factors that affect the current state of CHW training globally. First, there are few global guidelines regarding CHW training content, pedagogy, or delivery, which results in infrequent use of best practices. Additionally, there is a significant shortage of evidence demonstrating the effectiveness of the substance of current CHW trainings or teaching methodologies. This review found that few studies measured

whether actual training content and delivery mechanisms were effective in creating skilled CHWs. Guidelines for other aspects of CHW training, such as training assessment practices and refresher courses, are also lacking.

Analysis

Collective Findings

Through an integrated appraisal of the three pieces summarized above, a series of common findings can be extracted. The curricula mapping, the content survey, and the literature review all indicate that a wide variety of CHW training content exists. Training content varies considerably, and includes: FP/RH; antenatal, perinatal, neonatal, and postnatal care; nutrition; HIV/AIDS; integrated management of childhood illness; integrated community case management (iCCM), including malaria, diarrhea and pneumonia; WASH; other communicable diseases; and patient and record management. However, there are definite gaps in CHW training content areas. Key gaps identified in the SRMNCAH continuum include: domestic and sexual violence, HIV in pregnancy, and postpartum depression. While the other reports do not mention specific gaps within content categories, it can be inferred that key content areas are also missing from other types of CHW training. Taken together, all three reports articulate a need for a well-defined set of content areas for CHW interventions.

Based on the findings outlined above, all three reports conclude that it is necessary to measure the effectiveness of CHW training materials. Each report touches on the need for consistent M&E to determine whether the materials and delivery of CHW trainings are sufficient, and the literature review specifically notes the dearth of formal evidence on the effectiveness of CHW trainings. Each report also indicates that there is a strong need for increased testing to assess learning retention. The curricula mapping report and the literature review specifically state that there is a need to test the ability of CHWs to deliver specific health interventions, during and after training. All three reports conclude that evidence-based CHW training materials are essential for producing fully functional CHWs and therefore it is imperative to address this knowledge gap.

The last common finding across all three reports is that there would be immense advantages to share information globally about CHW trainings. All of the reports note the need to share data and content regarding CHW training to reduce fragmentation. The content survey report mentions specific key benefits of increased transparency, better dissemination and standardization of content and delivery, M&E opportunities, increased reach of efforts, decreased duplication of efforts, making additions to the global body of knowledge on CHW training, and greater impact and scale-up of CHWs.

Limitations and Gaps

Although there is a certain degree of consistency across all three reports, there are still several areas pertaining to CHW training that lack clarity. It is not apparent what types of content are included within the various training content areas, given that each study found that CHW training materials covered several content areas. It is likely that a given training on FP/RH teaches a different set of interventions than another, such that CHWs trained by different entities have differing usable skills as a

result. These three reports are limited, given that they do not specify what each content area consists of in terms of curricula content and recommended interventions, because the curricula themselves were not collated. Each study was limited to an analysis of the meta-data, which makes it unfeasible to compare different curricula and determine if there are critical gaps in content. The primary reasons for this limitation are due to a lack of content sharing and the fact that a publicly accessible repository of CHW training materials does not yet exist.

In addition to poor specificity on training content areas, each of these reports is based on a limited study of the substantive content of CHW trainings. It is necessary to examine the substance of each content area to see if the training is effective and to determine the amount of duplication and fragmentation that exists among CHW programs. It is also unclear whether the breadth and depth of gaps in CHW training content areas are due to limited sample sizes. This is a critical limitation because if any CHW training materials that were excluded from these reviews do cover the perceived gaps, then these materials could be leveraged for dissemination.

Another restriction of these reports is that there was little review of pedagogical methodologies for CHW trainings. The literature review and content survey report mention some teaching methods (such as blended learning, lectures, simulations, role-playing, job aids, and question-and-answer sessions), but their in-depth analysis of these methodologies is limited. Evidence-based pedagogies are imperative to delivering effective CHW training. As indicated by the literature review, trainings should be delivered in a way that utilizes proven teaching techniques to maximize learning retention and, ultimately, CHW performance. Currently, there are no global recommendations for developing CHW training pedagogy.

Upon analyzing all three reports, it is apparent that systematic assessment of training content areas beyond SRMNCAH is needed, particularly for “soft skills” content (e.g., confidentiality, sensitivity to cultural acceptance of FP). This relates to the largest limitation of these reports: the lack of an agreed-upon rubric for evaluating CHW training materials. In summary, training materials must be analyzed at multiple levels to understand whether they are: 1) comprehensive for the specific content area; 2) grounded in evidence-based practices; and 3) utilizing effective pedagogical techniques.

Recommendations

The evidence suggests a clear need for evidence-based CHW training recommendations with regard to content areas, actual content, and pedagogy. The creation of such recommendations at the global level could foster uptake of best training methodologies and promote adaptation of high quality, CHW content resources by countries. In addition to potentially raising the standards of CHW training and subsequent skills development, the benefits would include dissemination of best practices, reduced costs and duplicated effort (in relation to content development), rapid implementation, and global coordination.

Barriers to the creation of global guidelines exist; for example, each country has its own epidemiological and local context resulting in the need for some variation in health interventions and CHW practices. However, these barriers can be overcome.

A core set of common CHW training protocols and learning resources can be developed and adapted to local contexts, as well as supplemented with country-appropriate modifications. Evidence suggests that up to 80% of training content in basic RMNCH services is generic; the remainder pertains to names, references to specific foods, and other similar substitutions. For example, ASHA trainings in India (arguably, the world's largest producer of CHWs)[2] utilize the same core set of materials and methodologies despite state- and district-level variability in critical health needs. Thus, establishing core guidelines for CHW curricula is possible and would help address critical issues such as quality and relevance in current CHW training programs.

National and sub-national ownership of CHW training programs and curricula is critical. Governments should be involved in the creation of CHW training content for their country. Global guidelines for a core CHW curriculum would not detract from public-sector ownership, as ministries of health could use such guidelines to improve their own CHW training materials and incorporate missing elements, adapted for local variability as needed. This would introduce cost-savings, minimize implementation delays, and reduce duplicated efforts, while also ensuring national ownership over CHW training within overall human resources for health planning.

In conclusion, based on the analysis above, there is strong evidence to suggest the need for global recommendations for CHW training with regard to content areas, actual content, and pedagogy. Global recommendations would lead to adoption and diffusion of best practices, which would lead to increased numbers of skilled CHWs and, ultimately, stronger health systems.

The following ten topics represent recommendations for future action, stemming from a holistic view of the current information available on CHW trainings, represented by the three reports analyzed herein.

[2] Dalberg Global Development Advisors. 2012. *Preparing the Next Generation of Community Health Workers: The Power of Technology for Training.*

Suggestions for Future Research/Consultation:

1. Map the current range of CHW tasks in sub-Saharan Africa and South Asia to better understand the range of CHW roles and responsibilities.
2. Through consultation, make evidence-based recommendations on the core interventions that, at a minimum, should be provided by all CHWs globally.
3. Develop competency frameworks for all CHW tasks (existing and recommended), and define the learning outcomes and content needed to deliver those competencies.
4. Establish which core "soft" skills should be included within CHW training materials.
5. Determine gaps in training content that exist within and across CHW pre-service training programs.
6. Commission new content where gaps have been identified.
7. Examine the effectiveness, through assessments during and after trainings, of different training content and pedagogical methods used within CHW training programs to improve CHW performance.
8. Examine the effectiveness of refresher courses and additional professional development that is provided after initial CHW training.
9. Ascertain and document the most effective ways to adapt existing CHW training materials and tools to new local contexts.
10. Develop evidence-based guidelines regarding core CHW tasks, the actual content, and best training methodologies, which can cover the diverse range of tasks that CHWs undertake.

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