NO MORE MISSED MDG4 OPPORTUNITIES:
OPTIMIZING EXISTING HEALTH PLATFORMS FOR CHILD SURVIVAL

Community Health Workers & Community-Based Delivery

Summary

By investing in Community Health Workers (CHWs) and community-based delivery countries and international donors can scale up key health and nutrition interventions that together have the potential to save hundreds of thousands of additional lives each year and contribute significantly toward achievement of the MDG goals. Field studies have shown that one of the activities of CHWs, Integrated Community Case Management (iCCM), can reduce child mortality by up to 40 percent, while newborn interventions utilizing CHWs can lead to a 24 percent reduction in mortality.[1] CHWs are also effective at delivering some nutrition and maternal health interventions, including promotion of exclusive breast feeding and visits to pregnant women, and at distributing family planning commodities at the community level as well. CHWs can also be successful in the fight against HIV – as programs in Haiti and other countries have shown, CHWs can successfully supervise retroviral therapy and outreach to rural and marginalized populations.[2] Other studies have found that utilizing CHWs for HIV care can actually strengthen primary care more broadly. Henry Perry notes that, "CHWs have been integral in the fight against HIV/AIDS as a 'cornerstone' to the HIV response by international organizations and funding agencies".[3]

Generalizing across contexts, program formats,[4] and case fatality rates, effective CHWs are likely to save one to two lives per year. Since these programs typically cost between $500 and $2,000 per CHW per year (including medicines, as well as training, supervision, and project overhead),[5] investments in community-based delivery can be highly cost effective.

CHWs are a critical component of the health system where it can otherwise not reach, and complement high-quality health facilities. Significantly more funding is required to make the most of CHW interventions and build strong integrated community-based delivery systems, however. A number of countries have scale-up plans and are looking to their governments and donors for investment and support. Figure 1 identifies current funding needs identified by countries (for community case management of the sick child programs only[6]) and amounts potentially mobilized through the Global Fund and other donors as of June 2014.

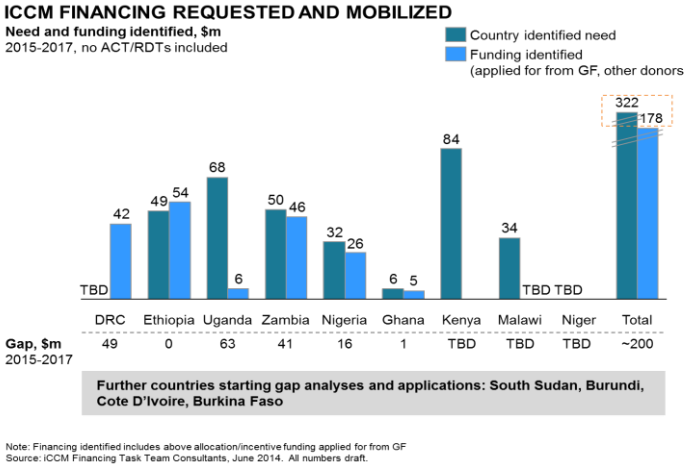

Figure 1: Funding for Integrated Community Case Management (iCCM)[7]

[1] Perry et al, "How Effective are CHWs?" September 2012
[2] JS Mukherjee and FE Eustache. "Community health workers as a cornerstone for integrating HIV and primary healthcare". AIDS, 2007.
[3] Perry et al, cite from Nsigaye R, Wringe A, Roura M, Kalluvya S, Urassa M, Busza J, et al. From HIV diagnosis to treatment: evaluation of a referral system to promote and monitor access to antiretroviral therapy in rural Tanzania. Journal of the International AIDS Society. 2009; 12(1): 31.
[4] That is, whether the full intervention 'package' of pneumonia, malaria, and diarrhea treatments are provided.
[5] The CCM Task Force and other groups are continuing operational research efforts to understand factors that affect utilization, mortality, and cost effectiveness.
[6] Programs that also include other interventions such as nutrition and maternal care as well as HIV would require additional resources.
[7] Note that Nigeria's identified need is for less than 1/3 of the total country (10 states only). A financing need for the entire country would likely exceed $100M over the horizon. Nigeria's iCCM Task Force decided to only cost ten states for the initial Global Fund Concept Note proposal. The country will undertake development of a full iCCM strategy in fall 2014.

Why Community-Based Delivery?

Studies have shown that the risk of death is almost twice as high for rural children compared with urban children, and data from contexts such as Kenya suggest that more than one third of families live more than a one hour travel time from the closest health center (see figure below). Since every minute counts when an infant, child, or mother is sick, it is critical that care can be quickly accessed. Community Health Workers, who typically live within the villages they serve and can be rapidly accessed, can promote health and provide high-quality care.[8]

Community-based delivery also can serve as an important indicator and conduit for broader investments in health systems. As noted in the findings around HIV, investments in CHWs can support integration of the health system, encouraging financing, supply chains, information technology, data capture – and attention from policy makers - to reach all the way to the last mile and back to higher levels of the health system.

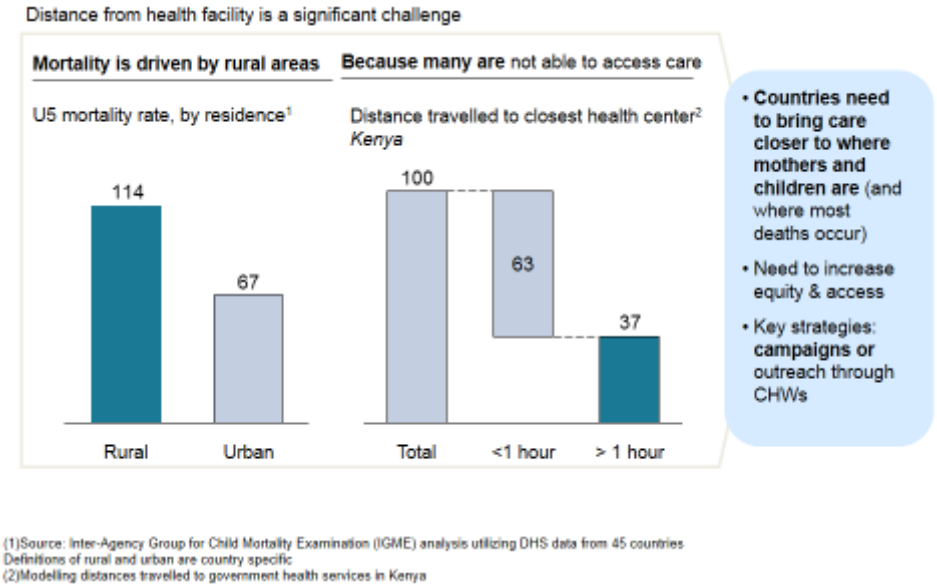

Figure 2: The Rural – Urban Divide: Community-Based Care Focuses on the Most Vulnerable.

Health Impact of Community-Based Interventions

A 2012 review[9] of CHW effectiveness found that CHW programs can substantially contribute to decreasing rates of child and newborn mortality and also effectively deliver nutrition programs, which are critical for reducing rates of infection and ensuring healthy growth and development. This study also reviewed evidence on the ability of CHWs to deliver family planning commodities.

Child: On child mortality, field trials have shown that iCCM can yield mortality reductions of up to 40 percent reducing the devastating impact of pneumonia, malaria, and diarrhea.[10] On pneumonia, specifically, Perry et al state, "Only one-quarter of children in the 68 highest mortality countries (where 97 percent of child deaths occur) currently receive antibiotics when they have symptoms suggestive of pneumonia. **The potential of CHWs to expand coverage for this critical intervention is enormous**, and it represents one of the priorities for accelerating progress in reducing under-five mortality."[11]

On malaria, meanwhile, CHWs can provide a rapid diagnostic test, give the child combination therapy (ACTs) and encourage the family to sleep under a bednet. Studies have shown that CHWs can have dramatic impact on malaria, reducing malaria specific mortality by up to 60 percent.[12]

CHWs can also teach caregivers how to mix and administer Oral Rehydration Solution and zinc to treat diarrhea.

[8] WHO/UNICEF Joint Statement, "Integrated Community Case Management," An Equity Focused Strategy to Improve Access to Essential Services for Children," 2012.
[9] Perry et al
[10] See documented sources in Perry et al, "How Effective Are Community Health Workers?" as well as findings from 2014 iCCM Evidence Symposium.
[11] Perry et al
[12] Perry et al

Newborn: Meanwhile, CHWs can also have strong impact on newborn deaths, which accounted for 44 percent of under five deaths globally last year.[13] Specifically, CHWs can locate pregnant women and counsel them on healthy practices during pregnancy, promote clean delivery and critical newborn care (such as breastfeeding and kangaroo care), prevent asphyxia, encourage use of chlorhexidine for newborn cord care, and diagnose and refer mothers and babies in need of urgent care for sepsis. [14] An analysis across many studies suggested that CHWs could help reduce newborn deaths by around 24 percent when effectively providing these interventions. Moreover, areas with a higher burden of neonatal mortality (greater than 50 per 1,000 live births) exhibited the greatest positive effect due to CHW intervention.[15]

Nutrition: In addition to their ability to deliver child and newborn care, CHWs can also help with key nutrition interventions – especially promotion of exclusive breast feeding, support for Community Based Management of Acute Malnutrition (CMAM), and encouragement for appropriate young child feeding. A comprehensive review found that the odds of exclusive breastfeeding was 5.6 times greater in a group exposed to CHWs over groups that were not[16] and there has been strong evidence that CHWs are effective at supporting therapeutic feeding programs in coordination with health facilities.

Family planning: a review of evidence suggests that CHWs are effective at community-based distribution of pills and condoms for family planning. According to Ahmed et al, without family planning interventions there would be 1.8 times as many maternal deaths as there are currently and further access to family planning would decrease maternal deaths even more significantly.[17]

HIV: The WHO has suggested that CHWs can support 115 of the 313 tasks essential for prevention and treatment of HIV, showing that CHWs are integral to the care of individuals afflicted by HIV.

Key Countries and Lives Saved

Many high-burden countries are looking to community based delivery strategies as an opportunity to close the MDG gap, following the leads of Bangladesh and Ethiopia, which have already demonstrated the potency of this model. Additional countries – including Nigeria, Uganda, Zambia, Malawi, DRC, Ghana, and Malawi – have completed gap analyses for iCCM and will be requesting funding from the Global Fund for integrated Community Case Management and over thirty countries attended a recent UNICEF Evidence Symposium around iCCM. Further, thirteen countries have requested support from the One Million Community Health Worker Campaign[18] to develop roadmaps and create comprehensive CHW programs. Countries that have developed iCCM gap analyses and expressed a need for additional resources for community-based delivery are shown in Figure 3.

More information on countries' CHW programs can be found in profiles[19] recently developed by the One Million Community Health Worker Campaign (1MCHW Campaign), American Red Cross, and UNICEF as well as on CCM Central (http://ccmcentral.com/).

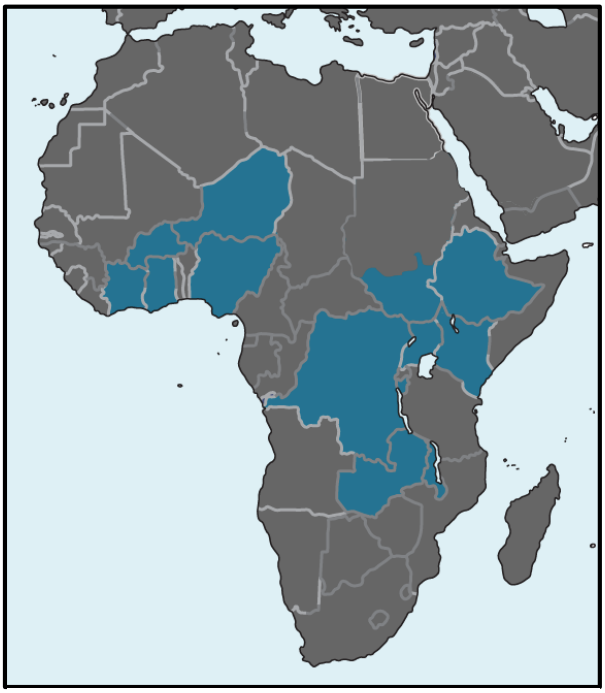

Figure 3. Key countries for iCCM scale-up and additional funding.

Need for Increased Funding and Better Harmonization

With all the increased interest in developing robust CHW programs – and acknowledgement that CHWs are critical for strengthening health systems - comes an increased need for resources. UNICEF and the Global Fund have just signed a Memorandum of Understanding[20] that includes strong support for iCCM. Under the terms of the MOU, UNICEF and the Global Fund are each likely to invest tens of millions of dollars into iCCM over the next few years –

[13] Mason et al, "Every Newborn: From evidence to action to deliver a healthy start for the next generation," The Lancet, Every Newborn Series, April 2014.
[14] Perry et al, "How Effective Are Community Health Workers?" September 2012
[15] Perry et al page 21 of 84
[16] Hall J. Effective community-based interventions to improve exclusive breast feeding at four to six months in low- and low-middle-income countries: a systematic review of randomised controlled trials. Midwifery. 2011; **27**(4): 497-502.
[17] Ahmed S, Li Q, Liu L, Tsui AO. Maternal deaths averted by contraceptive use: an analysis of 172 countries. Lancet. 2012. Cited in Perry et al.
[18] One Million Community Health Workers Campaign: http://1millionhealthworkers.org/operations-room-map/
[19] http://1millionhealthworkers.org/operations-room-map/chw-program-profiles/
[20] http://www.unicef.org/media/media_73153.html

including into the CHW 'platform', which includes training, supervising, and incentivizing CHWs. The RMNCH Trust Fund has also highlighted its eagerness to invest in iCCM as a key pathway for achieving MDG 4.[21]

While the Global Fund, UNICEF, and the RMNCH Trust Fund have all committed to supporting the costs of CHW programs since they are essential pathways to delivering malaria, diarrhea, and pneumonia interventions, the many other 'disease' programs which rely on CHWs to deliver their interventions – including newborn and nutrition programs, as well as family planning and maternal health programs – should continue to invest in the CHW platform to ensure CHWs are properly recruited, trained, supervised, and incentivized. In Ethiopia, for example, CHWs not only provide iCCM services but also deliver therapeutic foods for the treatment of severe acute malnutrition; as such, it is essential that donors interested in supporting nutrition interventions also invest in the CHW platform.

While additional resources from child health, nutrition, and newborn donors are required to support CHW programs, it is also important that donors work aggressively to better coordinate these investments.

Next Steps

Gap analyses recently prepared by consultants supporting the iCCM Financing Task Team – a group led by UNICEF – highlighted key shortfalls in funding for community-based care, as have country engagement plans now completed through the RMNCH country engagement process. The global community of partners interested in MDG achievement should work rapidly to close these gaps and ensure emerging iCCM programs can be aggressively and thoughtfully scaled. Alone the existing scale-up plans across the countries that recently prepared a submission to the Global Fund and require further co-investors are likely to result in another 150,000[22] lives saved by the end of 2015.

Community Health Workers are an essential platform for ensuring a range of life saving interventions reach newborns, children, and mothers in need. The time is 'now' to invest in these programs and ensure that CHWs have the skills, tools, and medicines to treat the most vulnerable patients living far from health facilities. No other delivery platform has the ability to provide these groups with routine, accessible care, which is critical for MDG achievement.

[21] UNICEF, RMNCH Strategy and Coordination Team, and the Global Fund, "Joint statement on a coordinated approach to Supporting Integrated Community Case Management," March 13, 2014
[22] Internal analysis using average case loads and case fatality rates across contexts.