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Lessons from two Child Survival and Health Grants Program projects on integrated Community Case Management (iCCM):

Save the Children Zambia and World Vision South Sudan (FY 2014)

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BACKGROUND

Integrated community case management (iCCM) is an equity-focused strategy to increase the provision of timely and effective treatment of malaria, pneumonia and diarrhea for children under five, in areas where access to health care is limited¹. Through USAID's Child Survival Health Grants Program (CSHGP), projects in Zambia and South Sudan utilized iCCM to increase coverage of health services for children. Both projects developed strategies to address two of the most important and common operational issues for existing community health worker (CHWs) programs: deployment and supervision. The project in Zambia tested whether teaming different cadres of health workers results in improved services coverage, which is an understudied operational issue. South Sudan focused on an innovative supervision program for CHWs.

ZAMBIA

Save the Children implemented the Lufwanyama Integrated Neonatal and Child Health Project (LINCHPIN) from October 2009 to September 2014 in Lufwanyama district, Zambia. The project was co-funded by USAID's CSHGP and ELMA Philanthropies, with matching funding from the Crown Family Philanthropies and Towers and Perrin. The project focused on improving delivery at community and first-level facility levels for mothers, newborns and children through four main components:

1. **Integrated community case management (iCCM):** CHWs were trained to assess, classify, treat and refer when necessary, sick children 2 to 59 months old with malaria, pneumonia and diarrhea² and to refer children and newborns with danger signs.
2. **Community based maternal and newborn care:** Traditional Birth Attendants (TBAs) were trained to make home visits to mothers and newborns starting at delivery. Postnatal care (PNC) home visits were then conducted at 24 hours, 2, 3 and 7 days and at 2, 6 and 8 weeks postpartum to identify and refer mothers and newborns with danger signs to the appropriate health facility.
3. **Teaming of CHWs and TBAs:** CHWs and TBAs were trained to work as teams. CHWs and TBAs conducted joint PNC home visits at 2, 6 and 8 weeks postpartum, conducted joint health education and promotion activities and to encourage mutual support and problem solving; and helped promote and facilitate referral of sick mothers, newborns and children. In addition, neighborhood health committee members were trained in the teaming approach to mobilize community resources.
4. **Creating an enabling environment for maternal, newborn and child health:** Neighbourhood Health Committees and Safe Motherhood Action Groups were trained in community mobilization for maternal newborn and child health (MNCH) and in CHW/TBA teaming.

The LINCHPIN project assessed the feasibility and effectiveness of teaming CHWs and TBAs supported by neighborhood health committees, to deliver high impact integrated newborn and child health interventions among children 0-59 months of age in Lufwanyama district. Teaming of CHWs and TBAs is an innovative approach that was tested for the first time in Zambia. The rationale for teaming was that it would increase the likelihood that the effect of the team would exceed the effects of the individuals working alone. The teaming approach was primarily designed to bridge the gap between care provided at delivery and the early newborn period (usually provided by the TBA) and care in infancy and childhood (usually provided by the CHW).

The assessment was conducted in partnership with Boston University Center for Global Health and Development in three phases: (1) group discussions and pile sorting exercises were used to explore and identify domains and factors for measuring teaming and joint taskwork, which informed the development of a teaming training guide and measurement tools (2) 47 CHW-TBA teams and two neighborhood

health committee members for each, were trained and certified and teaming was measured longitudinally to assess levels of teamwork, taskwork, and other factors that might influence those levels through a baseline survey and team measuring tools; and (3) the population based household survey, focus group discussions and in-depth interviews were conducted to measure effects (i.e., assess coverage, examine associations between levels of teaming and coverage, and assess community acceptability).

This assessment developed tools and methods to assess teaming, trained CHW TBA teams and neighborhood health committee supporters, achieved teamwork and joint taskwork, measured improvement in coverage of life-saving interventions in communities served by teams, found an association between levels of teaming and coverage, and confirmed widespread acceptance. Coverage of maternal and child health interventions improved at endline compared to baseline in the communities served by teams. For example, nearly twice as many women reported delivering their youngest child at a health facility (53.8% vs. 29.4%; $p < 0.0001$) and by skilled birth attendants (46.4% vs. 26.8%; $p < 0.0001$). Some indicators improved even over high baseline values, for example postnatal care utilization (84.1% vs. 76.4%; $p = 0.017$) and exclusive breastfeeding (87.2% vs. 76.6%; $p = 0.012$). Reported use of case management for sick children increased over baseline, for example, for fever or RDT-confirmed malaria: receipt of ACT (90.6% vs. 75.9%; $p < 0.0001$); receipt of ACT within 24 hours (60.5% vs. 29.3%; $p < 0.0001$); and receipt of ACT within 24 hours for three days (59.5% vs. 25.9%); for cough/difficult breathing: amoxicillin within 24 hours (63.0 vs. 36.4%; $p = 0.011$); for diarrhea: zinc and ORT (13.7% vs. 5.6%; $p = 0.03$) although still low; and for severe illness: care-seeking outside the home (92.7% vs. 78.8%; $p < 0.001$); receipt of referred by CHWs (65.0% vs. 37.2%; $p < 0.001$); compliance with referral (95.8% vs. 77.1%; $p = 0.04$); and compliance within 24 hours (95.7% vs. 74.1%, $p = 0.038$).

Below are results from the household survey conducted by LINCHPIN in Lufwanyama district, Zambia:

Figure I: Changes in coverage for treatment interventions for sick children - LINCHPIN

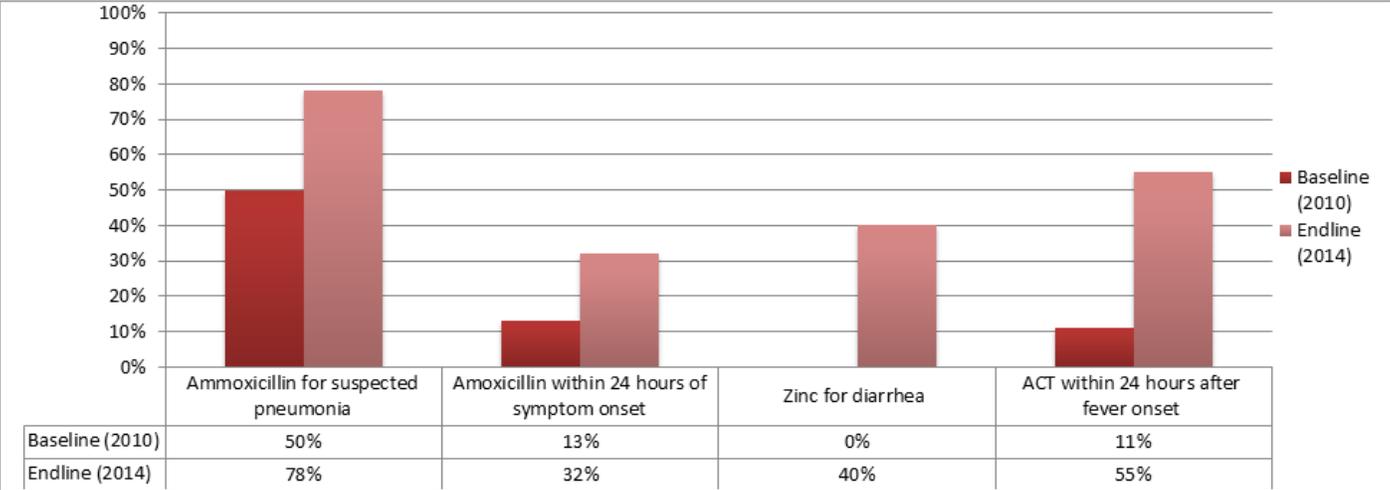
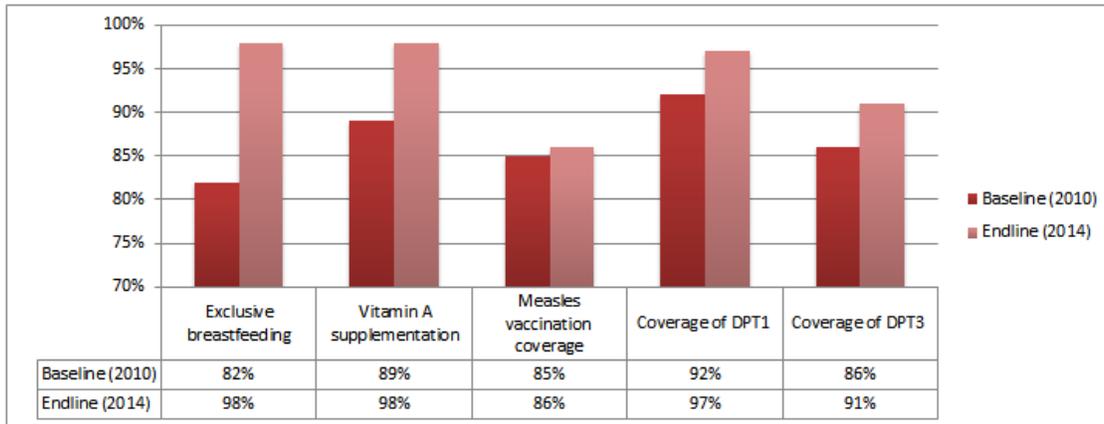


Figure 2: Changes in coverage for nutrition and immunization interventions - LINCHPIN



SOUTH SUDAN

World Vision implemented the Maternal and Child Health Transformation (MaCHT) project in South Sudan from September 2010 to 2014 in four administrative units across Gogrial East and Gogrial West counties in Warrap State. The goal of MaCHT was to reduce maternal, neonatal, infant, and child mortality in program areas. Strategic objectives were to: 1) increase use of high-impact, low-cost, and feasible interventions to achieve MNCH outcomes; 2) strengthen capacity of the health system to deliver essential services; and 3) build and strengthen local and national partnerships to sustain improvements in MNCH. The project sought to improve MNCH outcomes at the household/community level through the training of Home Health Promoters (HHPs), a newly approved cadre of CHW in South Sudan, supported by the health facility management committee and community groups.

The MaCHT project conducted a thirteen-month assessment on a community based supervision model for illiterate CHWs using a descriptive case study design. The supervision model was adapted from a clinical supervision approach based on a three-function interactive model in which the supervisor and supervisee were jointly responsible for completing supervision of formative (increasing skills and knowledge), normative (enhancing accountability and quality assurance) and restorative (facilitating collegial and supportive relationships) activities³⁴⁵.

Fifteen CHWs were trained, supervised, and studied to assess correct use of newborn and child health record forms; identification and classification of disease; treatment of sick children; referral to health facilities; and use and storage of tools and medical supplies. A field supervisor visited CHWs weekly for three months and then monthly for ten months. After the supervision period, 87 percent of CHWs were accredited as competent to deliver iCCM plus essential newborn care (ENC) services, with competency rated as excellent for 30 percent; only 7 percent of sick children showed discrepancy between classification of illness and drug administration; and all drugs were accounted for with complete stocks. CHWs were shown to be following the training protocols: they completed 95 percent of required registration forms. Over the full project of supportive supervision, there were a total of 2,552 children under age five visited by the CHWs, with a mean of 196 and a median of 162 child visits per month. The overall referral rate to the primary health care unit (PHCU) was 73 percent, with 92 percent effective referral rate. Results indicate that integrating weekly supervision for a three-month period immediately

following training and monthly thereafter ensures the transfer of competencies and skills to CHWs needed to provide health services related to the CCM strategy, especially when including newborn-related care. The study showed that all related clinical skills competency progressively increased over time among CHWs in the study, and also highlighted the importance of establishing an effective supervisor-supervisee ratio based on contextual variables, such as population density, transport availability, and roads.

Some of the limitations of the assessment were related to the resources required to implement this type of supervision such as fuel, transport, communication, geographical barriers, and high turnover of staff. Due to the small sample size, extrapolations external to the project area are not feasible.

Below are results from the household survey conducted by MaCHT in Gogrial West and Gogrial East counties of South Sudan:

Figure 3: Changes in coverage for prevention and treatment interventions for sick children –MaCHT

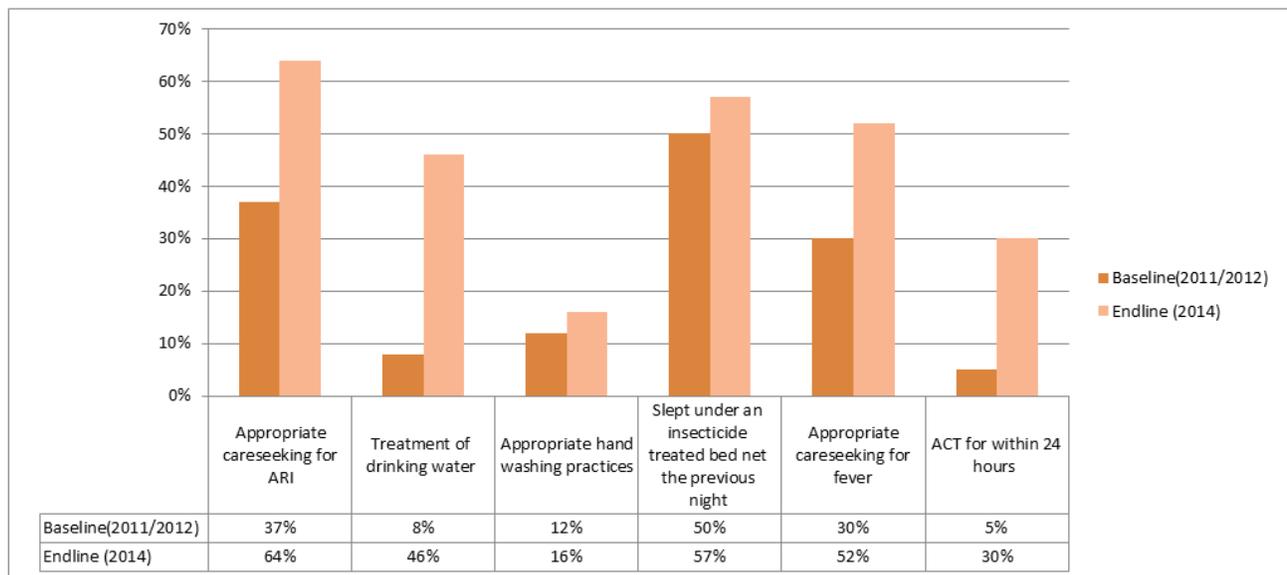
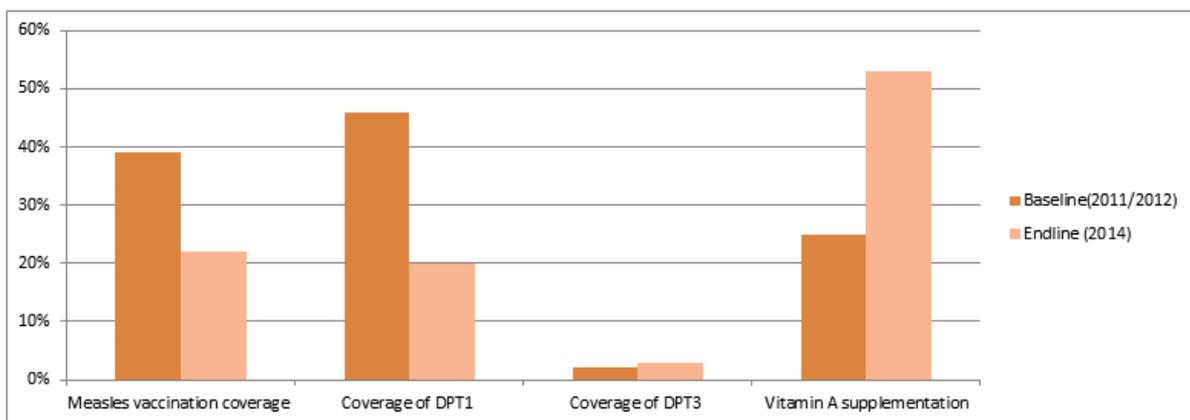


Figure 4: Changes in coverage for immunization and Vitamin A supplementation – MaCHT



CONCLUSION AND RECOMMENDATIONS

- The community based providers (CHWs, TBAs, and HHPs) in both projects were able to provide care and treatment for childhood illnesses and maternal and newborn care in ways that were accepted by and met the needs of the community. In the LINCHPIN project for example, both teaming between CHWs and TBAs and community mobilization activities were reported to have improved demand and acceptance for iCCM. Results from the final evaluations indicate positive effects of the LINCHPIN and MaCHT projects to provide high impact interventions proven to reduce maternal, newborn and child mortality, and call for a continuation and strengthening of the programs.
- Teaming: The LINCHPIN project showed that CHW/TBA teams were associated with increased population coverage of key newborn and child health interventions. Teaming approaches with CHW/TBA teams were well accepted by communities, show promise for wider use, and should be considered as a means to better integrate community based MNCH interventions, increase coverage, and provide ways for health workers to support one another. Participatory methods used to train neighborhood health committee members in teaming helped to support teams in a variety of ways, including mobilization of community resources and improved community support.
- Supervision: The MaCHT project showed that close supportive supervision immediately after training might be a key step to ensure skills and competency acquisition among CHWs. While the group was small, the findings suggest that this model of supervision of CHWs in iCCM promotes the transference and maintenance of competencies and skills needed to provide health services related to the iCCM strategy. However, a number of challenges in implementing supervision were noted such as resources (fuel, transportation, communication at field level), geographic and environmental challenges (river, distance, rainy season), and institutional limitations (unclear lines of communication between field and headquarters). These factors impacted the frequency and quality of supervision.
- Problems with transport, supply chain and commodities availability affected vaccine coverage rates, and need to be addressed especially in the context of fragile states.
- Both project models show promising results, but need further testing before widespread adoption, and require additional study on the sustainability of the approaches.

GLOBAL RECOMMENDATIONS

1. Continued investments in iCCM and community MNCH care should be made to scale up improved care seeking and treatment practices for pneumonia, malaria and diarrhea and improved coverage of ANC, skilled delivery care, and PNC. Similarly, focused investments in community mobilization activities should continue to support CHWs to sustain programming.
2. Ensuring high quality of care is critical to the effectiveness of iCCM programs and is dependent on the quality of training, continued attention to health worker performance through regular supervision at community and facility levels (routine and clinical), development and use of simplified tools (particularly in fragile contexts) and development of strategies to address supply chain and infrastructure shortcomings to ensure timely provision of iCCM drugs and commodities.
3. CHW attrition is an important problem that limits program effectiveness in the long term. Therefore, developing approaches for adequate retention, deployment and incentives for CHWs needs ongoing refinement and testing.

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¹ Young M, Wolfheim C, Marsh D, Hammamy D. (2012). World Health Organization/United Nations Children's Fund Joint Statement on Integrated Community Case Management: An Equity-Focused Strategy to Improve Access to Essential Treatment Services for Children. *Am J Trop Med Hyg.* 2012, 87(Suppl 5), pp. 6-10

² Artemisinin combination therapy (ACT) for malaria, amoxicillin for pneumonia, and ORS and Zinc for diarrhea.

³ Proctor B. (1987). Supervision: a co-operative exercise in accountability. Enabling and Ensuring: Supervision in practice. MM and PM Leicester, National Youth Bureau and the Council for Education and Training in Youth and Community work.

⁴ Jones A. (1996). Clinical Supervision: a framework for practice. *The International Journal of Psychiatric Nursing Research.* 3, 1, 290-307

⁵ Cutcliffe J, Proctor B. (1998). An alternative training approach to clinical supervision: I. *British Journal of Nursing.* 7:280-285