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ANGOLA: How MCH Handbook was used in Angola: an implementation study

Maternal and Child Health Handbook, Angola, 2020

Introduction

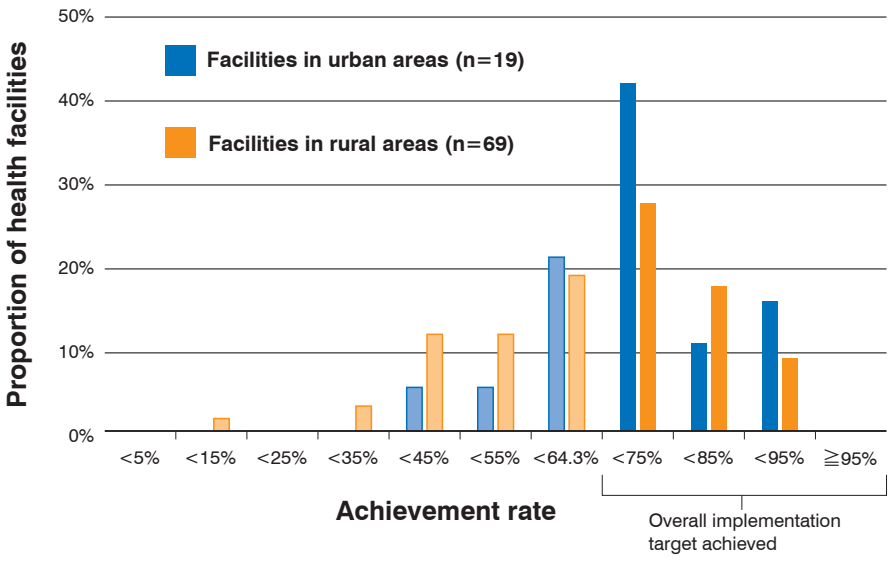
The Maternal and Child Health (MCH) Handbook was introduced as a national policy in Angola in 2014, to improve the Continuum of Care (CoC) among pregnant women and mothers. The Angolan version of the MCH Handbook was developed to reflect the local health needs. To understand the MCH Handbook's effectiveness on the CoC, a large cluster randomized controlled trial (RCT) was conducted in one province, Benguela, between 2019 and 2020. On the way, various efforts were made to improve the way the MCH Handbook was used in health facilities (the MCH Handbook's implementation) to realize its optimal usage. As the implementation modifies the effectiveness of the MCH Handbook, the importance of its implementation gained greater attention. Employing the implementation science framework "RE-AIM" framework (reach, efficacy/effectiveness, adoption, implementation, maintenance), we evaluated the MCH Handbook's implementation. We assessed 88 health facilities (99% of the entire enrolled facilities), and 216 health workers from 87 facilities to evaluate the MCH Handbook's implementation status. In addition, we conducted 155 semi-structured interviews among health workers from 85 facilities to understand the barriers and facilitators of the implementation of the MCH Handbook.

How MCH Handbook was used in health facilities – implementation status

To evaluate the implementation status, the RE-AIM framework was used. The full list of the indicators was presented in Table 1. In our study, "reach" refers to the extent that the target population was reached. "Efficacy/effectiveness" refers to the effectiveness of the MCH Handbook on the CoC among pregnant women and mothers, which was being evaluated by the RCT. "Adoption" refers to health facilities' adoption of the core components of the MCH Handbook. The core components are distribution of the MCH Handbook, training of health workers on the operation of the MCH Handbook, and community sensitization. "Implementation" refers to health facilities' implementation fidelity of the core components. "Maintenance" refers to the extent that the MCH Handbook was integrated into facilities' routine tasks after the RCT. A total of 14 facility-level indicators and their targets were predefined under the 4 RE-AIM dimensions other than the effectiveness dimension. The target for the health facilities' overall implementation was also predefined, which was the achievement of 9 and more out of 14 indicators (achievement rate 64.3% and higher). A total of 50 health facilities (56.8%) achieved the overall implementation target. The achievement rate was higher among urban than rural facilities (Figure 1), and among secondary and tertiary facilities than primary facilities. The achievement of indicators in the reach and adoption dimensions were generally high, while the implementation and maintenance dimensions had still room to improve. For example, the achievement of implementation fidelity indicators such as MCH Handbook retention, MCH Handbook filling, and mothers' class theme rotation, and health workers' subjective use burden were low.

What are the barriers and facilitators of MCH Handbook

From the interviews with health facilities that failed to achieve the implementation targets, barriers of the MCH Handbook were summarized. There were 4 major categories for the barriers; (1) the MCH Handbook complexity: (2) inadequate management and supervision of the MCH Handbook in health facilities: (3) health facilities' environment: and (4) users' adherence and factors influencing healthcare use. The most prevalent code was "inadequate training for health workers (shown in 65.7% of the interviews)" followed by "complexity of the MCH Handbook for health workers (62.7%)." From health facilities that achieved the implementation targets, facilitators were summarized. There were 4 major categories for the facilitators; (1) the MCH Handbook advantages: (2) the appropriate MCH Handbook management and supervision at health facilities: (3) health facilities' and health workers' positive attitudes toward work: and (4) users' acceptance and community



▲ Figure 1. Distribution of the overall implementation score

Visiting a health facility and guiding how to record information on MCH Handbook

involvement. The most prevalent code was "the MCH Handbook content advantage (96.6%)", followed by "high competency of health workers (90.9%)", and "health workers' acceptance toward the MCH Handbook (85.2%)".

How to better implement MCH Handbook

From the results of the implementation status, barriers and facilitators, a few possible strategies are suggested to further strengthen the implementation of the MCH Handbook. First, provision of training for health workers is essential. In Angola, mere adoption of the core MCH Handbook components was achieved but their implementation fidelity was not at an optimal level in considerable proportion of health facilities. Furthermore, the interview results reinforced the importance of training and supervision. Second, gaining users' acceptance to the MCH Handbook and their adherence to maternal, neonatal and child health services is important. These factors were identified in both barriers and facilitators. For example, delivery of community sensitization events, involvement of community stakeholders (i.e., religious leaders and village leaders), and coordination with other health promotion activities were suggested in the interviews. Third, systematic disparities in the implementation of the MCH Handbook between urban and rural facilities and between tertiary, secondary and primary facilities were demonstrated. These facilities need intensive support.

Conclusion

This study evaluated the implementation status of the MCH Handbook and its barriers and facilitators. The results demonstrated that the implementation status of the MCH Handbook varied. To get the full benefits of the MCH Handbook, the implementation of the MCH Handbook needs to be further strengthened, especially in primary facilities and rural facilities. For this purpose, training of health workers, supervision, and community sensitization and mobilization would be the key.

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Further readings:

1. Aoki, A. et al. The RE-AIM framework-based evaluation of the implementation of the Maternal and Child Health Handbook program in Angola: a mixed methods study. *BMC Health Serv Res.* 2022; **22**:1071.
2. Balogun O. et al. Impact of the Maternal and Child Health handbook in Angola for improving continuum of care and other maternal and child health indicators: study protocol for a cluster randomised controlled trial. *Trials*. 2020; **21**(1):737.
3. Glasgow R. et al. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *Am J Public Health*. 1999; **89**(9):1322-1327.

▼ Table 1. Facility-based implementation indicators

Indicator	Definition	Target	Achieved	Not achieved	NA	Achievement rate	Data source
Reach **The extent that the target population was reached**							
MCH-HB coverage	% MCH-HB distribution among new visitors to antenatal/ delivery/ postnatal care services	95.0%	71	15	3	82.6%	Health facility survey
Adoption **Health facilities' adoption of the core components of the MCH Handbook**							
Training	Participation in the training of trainers	Yes	84	5	0	94.4%	Project operational records
	Holding an intra-facility training	Yes	78	10	1	88.6%	Health facility survey
Inventory management	Use of inventory management logbook	Yes	75	13	1	85.2%	Health facility survey
Mothers' class	Holding mothers' classes every week	Yes	53	35	1	60.2%	Health facility survey
Implementation **Health facilities' implementation fidelity of the core components**							
MCH-HB retention	% MCH-HB holders at the end of trial among MCH-HB receivers	90.0%	41	43	5	48.8%	Baseline survey, endline survey
MCH-HB utilization	% Appropriate birth weight description among MCH-HB receivers	80.0%	26	54	9	32.5%	Endline survey
Inventory management	Stock-out	No	77	11	1	87.5%	Health facility survey
Mothers' class	Holding mothers' class according to the instruction on themes	Yes	45	43	1	51.1%	Health facility survey
Maintenance **The extent that the MCH Handbook was integrated into facilities' routine tasks after the RCT**							
Intra-facility training	Definite person in charge of intra-facility training after the trial	Yes	67	21	1	76.1%	Health facility survey
Skills and knowledge	A score of a responsible staff member above the required level	70/100	61	25	3	70.9%	Health facility survey
	A median score of staff members above the required level	60/100	50	12	27	80.6%	Health facility survey
Subjective burden	Subjective burden of a responsible staff member being "low" or "very low"	Yes	2	84	3	2.3%	Health facility survey
	% Subjective burden of staff members being "low" or "very low"	50.0%	5	57	27	8.1%	Health facility survey