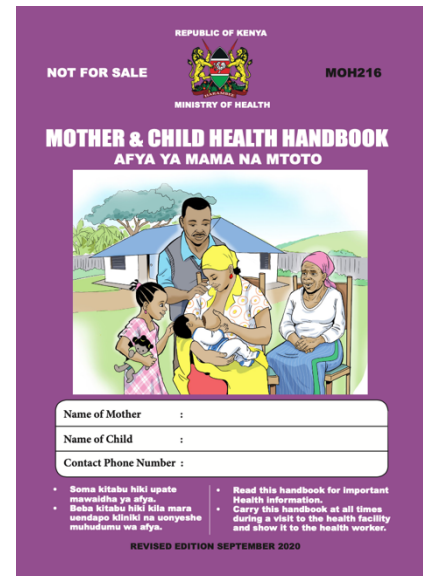


Using the Mother & Child Health Handbook for promoting developmental monitoring and counseling through primary health care in Kenya



Background

Home-based health records are used across the world to complement facility-based registers in registering and storing client health data. While their primary purpose is to keep track of essential primary health care (PHC) services received by pregnant women and young children under five years of age, they are also meant to support both preventive and curative health education through the inclusion of important counseling messages. In fact, the World Health Organization (WHO) recommends the use of home-based health records to facilitate communication between health workers and families and to improve care-seeking behaviors.¹ In Kenya, the national home-based health record is called the **Mother & Child Health (MCH) Handbook**, and it is provided to every pregnant woman during her first antenatal care (ANC) visit. The Handbook was first launched in 2010 and has been revised multiple times since then. In 2020, a **section on early childhood development (ECD)** was expanded to better align with the recommendations of the WHO's Nurturing Care Framework (2018) to promote responsive care and early learning and to strengthen monitoring of developmental milestones.



Kenya Mother Child Health Handbook.

Until 2021, PATH had primarily relied on the use of a small number of carefully designed and adapted job aids to build service provider capacity at both community and facility levels to integrate developmental monitoring and counseling into primary health care in Siaya County, Kenya. However, assessment data suggested that only 20 percent of caregivers had been provided counseling on child development by a community health promoter (CHP). Observations of service delivery also showed that facility-level service providers did not consistently refer to the visual job aids when monitoring for developmental milestones or counseling caregivers on responsive care and early learning. Furthermore, the job aids were occasionally not present in the consultation rooms because they were either lost or had been covered by newer job aids. With this in mind, PATH used a process of human-centered design (HCD) to identify barriers and opportunities for promoting ECD services through PHC. Subsequently, we used these insights to co-create solutions with service providers and government managers that had the potential to improve the quality of ECD service delivery and enhance the uptake of key messages.

| Recommendations for - Care for Child Development | | | | | | |
|---|---|---|--|---|---|--|
| CONCEPTION TO BIRTH | NEWBORN, BIRTH TO 1 WEEK | 1 WEEK UP TO 6 MONTHS | 6 MONTHS UP TO 9 MONTHS | 9 MONTHS UP TO 12 MONTHS | 12 MONTHS UP TO 2 YEARS | 2 YEARS AND OLDER |
| PLAY Your baby begins learning in the world. You can bond with the unborn baby when you gently rub your belly. Put the baby when your unborn baby kicks. | Your baby can see and hear you at birth. Start using the baby's name. Skin-to-skin contact promotes bonding and attachment. Possible ways for your baby to see, hear, feel, taste and touch you. Gently soothe, stroke and hold your baby. | Provide ways for your child to see, hear, feel, taste and touch you. Slowly move colorful things for your child to see and reach for. Examples of play items: Shaker rattle, hanging on a string. | Give your child clean, safe household things to handle, bang and drop. Examples of play items: Containers with lids, metal pot and spoon. | Hide an attractive item for the child under a cloth or box. See if the child can look for it. Play peek-a-boo. | Give your child things to stack up and to put into containers and take out. Examples of play items: Nesting and stacking objects, containers and pegs. | Help your child count, name and compare things. Help your child to make simple play items. Examples of play items: Balls and dolls and cars. |
| COMMUNICATE Both you and partner can gently rub your belly and talk to your unborn baby. Take time for intentional related knowledge. Sing soothing songs as you rub your belly. | Look into baby's eyes and talk to your baby. Breastfeeding time is a good time to talk to your baby. | Smile, laugh and talk with your child. Respond to your child by copying your baby's sounds and gestures. | Respond to your child's sounds and gestures. Call the child's name and see how your child responds. | Tell your child the names of things in the environment. Respond to your child's attempts to talk. Show and talk about names, people and things with your child. | Ask your child simple questions. Respond to your child's questions. Tell your child stories, sing songs and play games together. Examples of play items: Simple books with pictures, dolls, blocks and toy cars. | Encourage your child to talk and answer your child's questions. Tell your child stories, sing songs and play games together. |
| THINKING HEALTHY <ul style="list-style-type: none"> Your health is your responsibility. Positive feelings towards your baby promotes bonding. Play with your baby all the time. Give your child affection and show your love. Be aware of your child's interests and respond to them. A baby develops well in a loving peaceful home. Other trusted persons can also play with the child. Seek advice from a health care provider when you have challenges. Praise your child for trying to learn new skills. | | | | | | |

Age-appropriate counseling content on responsive caregiving and early learning in the Kenya MCH Handbook.

¹ WHO recommendations on home-based records for maternal, newborn and child health. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO.

MOTHER & CHILD HEALTH HANDBOOK - 2020

H. Developmental Milestones

| Milestones | Age Achieved | Normal Limits | Within time | Delayed |
|--|--------------|---------------------|-------------|---------|
| Social smile/follows a colourful object dangled before their eyes | | 0 - 2 months | | |
| Holds the head upright / follows the object or face with their eyes / turns the head or responds in any other way to sound / smiles when you speak | | 2 - 4 months | | |
| Rolls over / reaches for and grasps objects with hand / takes objects to her mouth / babbles (makes sounds) | | 4 - 6 months | | |
| Sits without support / moves object from one hand to the other repeats syllables (bababa, mamama) | | 6 - 9 months | | |
| Takes steps with support / picks up small object or string with 2 fingers / says 2-3 words / imitates simple gestures (claps hands, bye) | | 9 - 12 months | | |
| Walks without support / drinks from a cup / says 7-10 words / points to some body parts on request | | 12-18 months | | |
| Kicks a ball / builds tower with 3 blocks or small boxes / points at pictures on request / speaks in short sentences | | 18 - 24 months | | |
| Jumps/ undresses and dresses themselves / says name, tells short story/ interested in playing with other children | | 24 months and older | | |

Refer for further assessment if a milestone delays beyond the normal age limit as indicated above

Developmental milestones for monitoring in the Kenya MCH Handbook.

Similarly, during well-baby visits at the child welfare clinic (CWC) service delivery touchpoint, while 96 percent of the caregivers surveyed before implementation reported being asked for the Handbook by a service provider, more than half mentioned that the service provider attending them simply updated growth monitoring or immunization records without providing any further information. Similarly, during CHP home visits, while three-quarters of the surveyed families reported CHPs wanting to check the Handbook, half of the time, this was just to check the date of the next health facility appointment.

The solution: An SOP to guide the use of the Mother & Child Health Handbook

To ensure that facility- and community-level service providers consistently use the ECD content in the MCH Handbook, we co-created a training session on the Handbook and a standard operating procedure (SOP) for providing age-appropriate developmental monitoring and counseling. The training session was designed to help health service providers become familiar with the content of the Handbook and appreciate its utility as an overall tool for counseling and decision-making for a constellation of maternal and child health, nutrition, and reproductive health topics. The SOP is a visual tool covering the period from pregnancy to the child's fifth birthday, which guides a health service provider to the specific page of the Handbook that contains the appropriate ECD content corresponding to a child's age. The SOP has been modeled on the format of the Integrated Management of Childhood Illness flipchart. However, instead of treatment options, the SOP recommends key messages and practices.

The SOP differentiates between how facility- and community-level service providers are expected to deliver these services. For example, it does not ask facility-level providers to practice play activities with caregivers and their children at the CWC service delivery touchpoint, since the consultation time is short. However, it encourages this to be done during CHP household visits, where CHPs have greater contact time with families. Additionally, the SOP indicates the recommended frequency of household visits and emphasizes counseling on nutrition and maternal mental health.

Results

Following co-creation, PATH worked with the government to train service providers to implement the solution in four health facilities and linked community health units in Siaya and Homabay counties of western Kenya. Implementation took place over a period of three months.

One of the solutions that emerged from the co-creation process was to prioritize the use of the ECD content in the MCH Handbook as the primary vehicle for delivering developmental monitoring and counseling through facility- and community-level PHC, while also relying on the other existing job aids as needed. However, there was a catch—namely, the MCH Handbook was very rarely used as a counseling tool by service providers and was mostly used to record immunizations, note height and weight, and book appointments. For example, while 98 percent of pregnant women surveyed before implementation received the handbook at their first ANC visit, 41 percent were not provided any information about the Handbook and 35 percent were simply advised to bring the handbook to every visit.

**EARLY CHILDHOOD DEVELOPMENT
STANDARDS FOR COMMUNITY HEALTH PROMOTERS AND HEALTHCARE WORKERS**

| WHEN/ AGE | ASK & OBSERVE | TELL | PRACTICE |
|---------------------------------------|--|--|--|
| DURING PREGNANCY | Check the mother for signs of depression: In the last 2 weeks, have you felt... o that you have no interest in doing things? o down, depressed or hopeless? | Tell: Your baby can hear you from six months. She can recognize your voice and her heart beats faster when you speak. | MCHH, page 42, column 1 1. Practice with mother and father how to talk to the baby in utero. 2. Pat or gently rub the belly when the baby kicks. |
| AFTER DELIVERY | MCHH, page 17 & 25 Check the newborn for: o Congenital abnormalities o Eye problems | Tell: Your baby can already hear and see you. She is learning from birth! | 1. Put the baby skin-to-skin and help the mother greet the baby. 2. Help the mother with position & attachment to the breast. Ask to talk to the baby when breastfeeding. |
| IN THE FIRST WEEKS AFTER BIRTH | Check the mother for signs of depression: In the last 2 weeks, have you felt... o that you have no interest in doing things? o down, depressed or hopeless? | MCHH, page 42 (birth to 1 week) Tell: o Your baby can see & hear at birth. She will respond with looks, gestures and sounds. o Massage will make the baby gain weight, sleep better and reduce stomachache. | MCHH, page 42 (birth to 1 week) 1. Help the mother with position & attachment to the breast. Ask to talk to the baby when breastfeeding. 2. Ask the father to hold and talk to the baby. 3. Practice how to massage the baby (Massage card) |

* CHP: CONDUCT 4 TO 8 HOME VISITS TO FAMILIES WITH PREGNANT WOMEN AND 3-4 HOME VISITS TO FAMILIES WITH NEWBORNS.
* AT EVERY VISIT CHECK ON MATERNAL NUTRITION AND COUNSEL THE FAMILY ON MATERNAL NUTRITION USING PAGE 18 OF MOTHER CHILD HEALTH BOOKLET.
* IF THE MOTHER IS SO DEPRESSED THAT IT AFFECTS HER CARE FOR HERSELF OR FOR THE CHILD, ACCOMPANY THE MOTHER TO THE HEALTH CENTER TO SEEK HELP.

SOP for ECD in Kenya MCH Handbook (page 1 out of 2).

As part of the assessment, semi-structured interviews were conducted with a convenience sample of caregivers exiting ANC and CWC services before and after implementation to probe their experience of how service providers were using the MCH Handbook to provide counseling on relevant topics. The number of caregivers interviewed before and after implementation at ANC were 35 and 18, respectively. The corresponding numbers for CWC were 48 at both time points. Additionally, 62 and 48 CHP household visits were observed before and after implementation, respectively.

Solution introduction was associated with a **35 percentage-point increase in facility-level service providers explaining the content of the MCH Handbook to pregnant women and a 24 percentage-point increase in facility-level service providers asking pregnant women to read the Handbook during ANC visits** (Figure 1). While the intervention ultimately only resulted in less than half of interviewed ANC clients receiving counseling on relevant topics, this still represented a significant increase from the baseline, where ANC clients rarely interacted with the Handbook.

The situation was similar at CWC, where prior to solution implementation, there was little to no use of the Handbook by facility-level service providers. Implementation of the solution was associated with a **10 percentage-point increase in providers checking and discussing children’s growth and/or developmental milestones, a 26 percentage-point increase in counseling on infant feeding, and a 21 percentage-point increase in counseling on responsive caregiving and early learning** (Figure 2). However, even after solution implementation, the promoted actions were being carried out in only about one-quarter of observed CWC service provider–client interactions. This suggests that considerable capacity-building is still needed to emphasize the importance of using the Handbook as a counseling and decision-making tool during CWC.

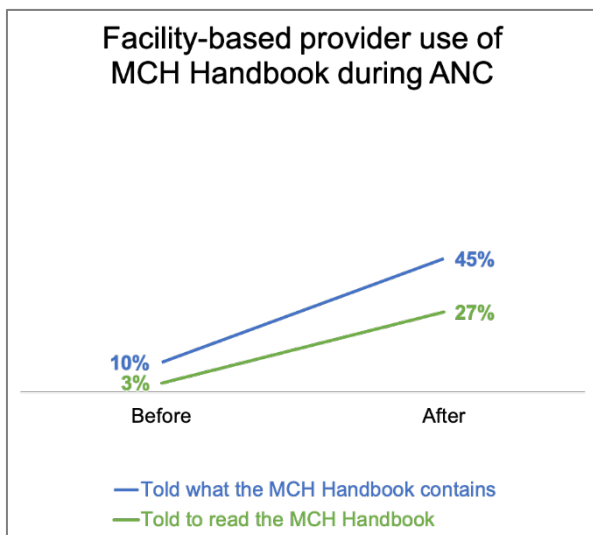


Figure 1. Facility-based provider use of MCH Handbook during ANC.

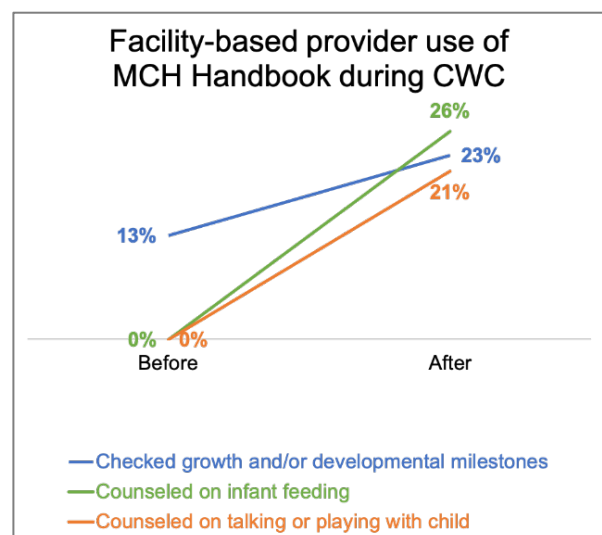


Figure 2. Facility-based provider use of MCH Handbook during CWC.

Positive changes were also observed with CHP use of the MCH Handbook during household visits. Solution implementation was associated with a **27 percentage-point increase in the likelihood of a household visit taking place in the last three months**, as well as a **25 percentage-point increase in the use of the Handbook during household visits** (Figure 3). The former statistic may be ascribed to content in the SOP that reminds CHPs to conduct regular household visits to families with pregnant women and newborn babies and monthly visits to all households with under-five children.

Additionally, solution implementation by CHPs was associated with a **37 percentage-point increase in sharing of age-appropriate ECD messages, a 30 percentage-point increase in practice of age-appropriate early learning activities, and an 18 percentage-point increase in developmental monitoring** (Figure 4). Nonetheless, even after solution implementation, only 38 percent of caregivers were encouraged by CHPs to practice age-appropriate play and communication during home visits and only 31 percent had their children’s milestones checked during household visit.

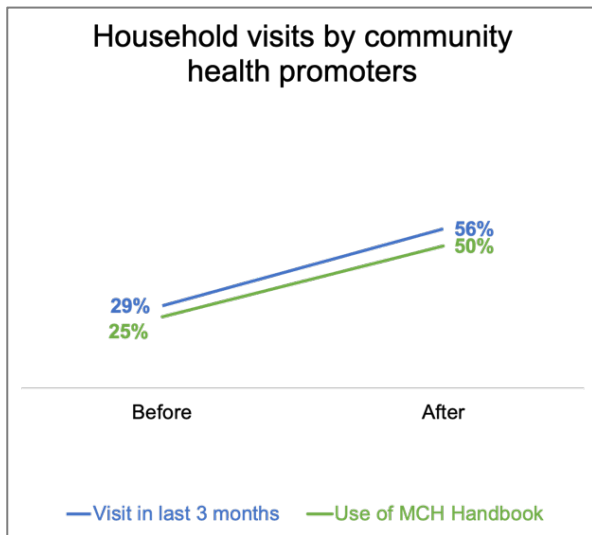


Figure 3. Household visits by community health promoters.

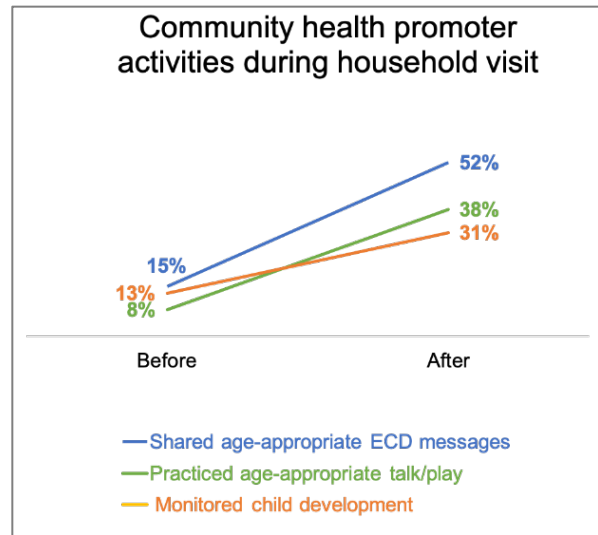


Figure 4. Community health promoter activities during household visit.

In general, most service providers perceived the use of the Mother & Child Handbook and ECD SOP as the primary tool for providing developmental monitoring and counseling services to be **acceptable and feasible to sustainably integrate into their usual routines**. They felt that the SOP was easy to use and helped navigate the relevant content in the Handbook.

“The SOP is easy to use, the language is simple to understand... I love it with all my heart.”—CHP

“The fact that I have all the information here... It is helpful and everything is recorded. I don’t have to crack my head for this. The SOP is always here and therefore I use it more because every mother has the [Mother & Child Handbook].”—Facility-level service provider

Service providers also described how the SOP provided structure to the delivery of developmental monitoring and counseling and shared their intent to continue using the SOP.

“The [SOP] and Handbook are both guiding us and giving us the scope on what to share.”—Facility-level service provider

“The SOP has become part of my daily routine.”—Facility-level service provider

Next steps

The ECD SOP and the associated training curriculum have been approved for use by the Siaya County Health Management Team. Furthermore, the SOP and results from the assessment have been disseminated to an additional seven counties of the Lake Region Economic Bloc of western Kenya. Nationally, there is immense interest within the Ministry of Health to promote the MCH Handbook as a tool for family health education that is “owned” by the family.

“The Handbook doesn’t become a book that the mother just takes to the facility. It becomes something that the mother actually uses herself.”—Dr. Janette Karimi, Head of the Division of Newborn and Child Health, National Ministry of Health

As next steps, we recommend including the ECD SOP and the training curriculum in both pre-service and continuing medical education trainings targeting facility- and community-based service providers. At the same time, we wish to note that even after implementation, less than half of caregivers were found to be adequately guided through the MCH Handbook. Furthermore, CHP household visits did not feature adequate levels of practice and little developmental monitoring. Therefore, we propose an additional round of HCD to specifically identify the barriers toward more consistent use of the Handbook during ANC, CWC, and CHP household visits; followed by the co-creation of solutions that can address these barriers. This HCD can take place through systematic mentoring as well, through ongoing problem-solving with service providers.