



Capacity-based selection of optimal home-based records



A mother taking MCH Handbook to Posyandu, Indonesia

Background

In September 2018, WHO launched WHO Recommendations on Home-based Records for Maternal, Newborn and Child Health, the international guidelines on home-based records (HBRs). The guidelines reconfirmed the effectiveness of HBRs in increasing utilizations of services related to maternal and child health (MCH). The WHO's efforts to re-highlight the importance of HBRs provides the global health community with an invaluable opportunity to revisit what HBRs are and how they should be designed and implemented.

Typologies of functions of HBRs

Earlier studies on the operations of different types of HBRs were reviewed, to explore diversities and commonalities of their expected functions. Expected functions of HBRs are categorized into three levels (Table 1), i.e. data recording and storing function (Level-1), behavior change communication function (Level-2), and monitoring and referral function (Level-3). It is reported that both types of HBR users (i.e. service users such as mothers and other caregivers, and service providers such as health workers) benefit from all these three levels of functions of HBRs.

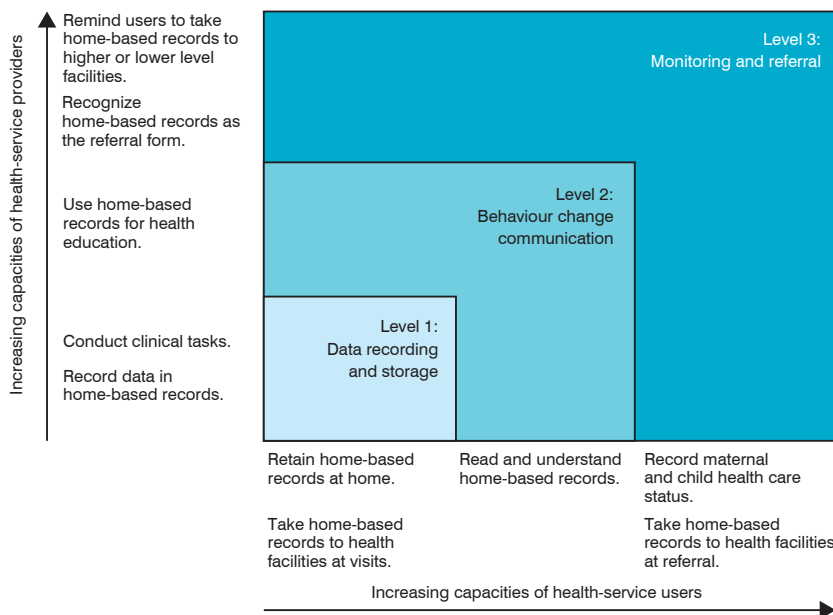
Categorization of a variety of HBR functions makes us wonder whether and to what extent HBR users are knowledgeable and skillful enough to make

those expected functions really happen. More importantly, what capacities are those HBR users required to have for realizing these HBR functions as expected? This fundamental question has been rarely raised, despite its importance. We assume that respective levels of HBR functions require HBR users to be equipped with different levels of capacities. Figure 1 presents hypothesized HBRs users' capacity requirements in accordance with three levels of HBR functions.

Function-Capacity conceptual framework for HBRs

First, to keep an HBR functioning as the data recording and storing tool (Level-1 in Table 1 and Figure 1), HBR users are probably required to be equipped with minimum capacities. Health workers need to be capable of recording the results of health services in HBRs. Mothers and caregivers need to be capable of retaining HBRs at home without damaging, misplacing or losing them and taking them to the point of services. The contents of HBRs need not to be fully understood by mothers and caregivers at this level of HBR function. Yet, it is not clear to what extent HBRs are actually functioning as the data recording and storing tools in low literacy settings. Poor retention of HBRs by mothers and caregivers needs to be generally addressed, while acknowledging good practices for HBR retention in some countries. Loss of HBRs was reported as the critical issue by several earlier studies.

Second, to keep an HBR functioning as the behavior change communication tool (Level-2 in Table 1 and Figure 1), further capacities in addition to and beyond literacy would be required among mothers and caregivers. To enable an HBR to trigger behavior changes through self-learning and peer-education, mothers and caregivers should be able not simply to read and understand the contents of guidance pages, but also to take them into practices, when needed, with the help from other family members. Health workers should be not simply literate but also technically skilled enough to translate them into local MCH contexts. Therefore, HBR operation guide should be readily available, to enable health workers to digest the contents of HBRs for more effective communication between mothers, caregivers, and themselves.



▲ Figure 1. Hypothetical progression of users' capacities that enable home-based records to function as designed



A health worker plotting record in MCH Handbook, Palestine

Third, to keep an HBR functioning as the monitoring and referral tool (Level-3 in Table 1 and Figure 1), health workers at all levels of health facilities (i.e. primary, secondary and tertiary) in both public and private sectors need to be commonly equipped with knowledge and skills to use HBRs for appropriate comprehensive clinical decisions across MCH-related programs. Mothers and caregivers are required to take and present an HBR to health workers at different facilities to have data referred to and updated in it, by leveraging inter-facility mobility of HBRs. To enable data on child development to be recorded in HBRs, mothers and caregivers should be able to objectively observe their children's behavioral and cognitive responses against child development milestones described in HBRs, in their daily routine.

Practical ways of filling the capacity gap

Figure 1 assists health policy makers in identifying the discrepancy between HBR functions a health system demands and HBR functions actually expectable with the current users' capacities. When an HBR designed for lower-level function is employed despite higher users' capacities, health policy makers can ambitiously expand the HBR functions to a higher-level, in theory. On the other hand, when an HBR designed for higher-level function is employed despite lower users' capacities, they should either admit need for downgrading the HBR functions or consider adding supplementary elements to the HBR. Typical supplementary elements include increased user-friendliness (e.g. easy-recording

format, employment of illustrations, and addition of bouchers) and supportive interventions for increasing HBR users' capacities (e.g. training for health workers, recognition by professional organizations, and supportive supervisions).

Conclusion

To accommodate the growing demands of national health policies and health systems, policy-makers tend to make overambitious plans for HBRs. As a result, important HBR functions often remain underused, leading to loss of its confidence as a public health tool and to a waste of resources and opportunities for care. The more functions an HBR is equipped with, the higher capacities HBR users would be required to have. When designing an HBR, the aforementioned capacities of both types of HBR users must be assessed and considered. An optimal HBR type and its functions should be strategically selected based not only on health system's demands but also on HBR users' capacities.

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Further readings

- Osaki K, Aiga H. Adapting home-based records for maternal and child health to users' capacities. *Bull WHO*, April 2019.
- World Health Organization. *WHO recommendations on home-based records for maternal, newborn and child health*, Geneva 2018.

▼ Table 1. Characteristics and functions of HBRs for maternal and child health

handbook	Type of HBRs			
	Maternal health card	Child vaccination card	Growth chart card	MCH Handbook
	Characteristics of HBRs			
Type of record	Stand-alone HBR for reproductive and maternal health programme	Stand-alone HBR for expanded programs on immunization	Stand-alone HBR for child nutrition programme	Integrated HBR for all MCH stages
Document style	One-page card, foldable; or 20-30 page booklet	One-page card, foldable	One-page card, foldable	40-60-page booklet
Target beneficiary	Pregnant women and mothers	Children	Children	Pregnant women, mothers and children
	Functions of HBRs by level and user			
Level 1: data recording and storage	For beneficiaries	Makes personal data available and accessible at home, and mobile.	Makes personal data available and accessible at home, and mobile.	Makes personal data at all MCH stages available and accessible at home, and mobile. Serves as the document for eligibility for subsidized services, and for assessing performance of care.
	For HWs	Serves as the reliable data source for appropriate clinical decisions.	Serves as the reliable data source for clinical decisions and for health statistics. Saves unnecessary vaccine costs.	Assists HWs to detect child malnutrition and intervene. Increases clinical efficiency to check records and avoid unnecessary MCH care. Serves as the reliable and comprehensive source of individuals' MCH data for health statistics.
Level 2: behaviour change communication	For beneficiaries	Serves as the knowledge source to promote self-management from pre- to post-delivery and between pregnancies. Guides women on upcoming care appointments.	Guides mothers on the timing of upcoming vaccinations	Serves as the knowledge source about danger signs, health services and home-based care for MCH. Triggers positive behaviour changes among family members to ensure MCH. Serves as guides on upcoming care appointments.
	For HWs	Serves as key health education material.	Facilitates communication between mothers, caregivers and HWs on past/future immunization.	NA
Level 3: monitoring and referral	For beneficiaries	Promotes self-monitoring of maternal health status from pre- to post-delivery and between pregnancies. Increases women's self-control over pregnancy. Empowers pregnant women to recognize risks and to self-refer to relevant facility.	Promotes self-monitoring of children's vaccination status by mothers or other caregivers, for better self-planning for upcoming child immunization visits. Increases mothers' or other caregivers' sense of ownership over their children's health.	Provides mothers/caregivers with opportunities to self-monitor their children's nutritional status. Promotes overall/continuous self-monitoring of MCH status by mothers. Increases women's/mothers' self-control over MCH that leads to satisfaction and decision-making. Empowers mothers to recognize risks and to self-refer to relevant facility. Promotes attachment between mothers and their children through self-monitoring child development.
	For HWs	Serves to promote care continuity. Empowers CHWs to recognize risks and refer mothers in need to a higher level facility. Serves as the referral form.	Serves as the reliable source of data to be shared across facilities.	NA

HW: health worker; CHW: community health worker