

## Commentary



# Additional considerations for maternal and child health handbooks in light of WHO's recommendations on home-based records for maternal, newborn and child health: a commentary in response to Nakamura

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No potential conflict of interest relevant to this article was reported.

► See the article “The role of maternal and child health (MCH) handbook in the era of sustainable development goals (SDGs)” in volume 1, e24.

Until research demonstrates that maternal and child health (MCH) handbooks are superior to other forms of home-based records in all situations or in select circumstances, we should use greater discretion in sanctioning MCH handbooks or endorsing one form of home-based record over any other. In this journal's inaugural issue,<sup>1</sup> Nakamura discussed the successful introduction and use of MCH handbooks in Japan and described the handbook's intended function as a record of health information for mothers during pregnancy (antenatal and postnatal care) and children from birth through adolescence. He also described Japan's support for the introduction of MCH handbooks in other countries<sup>2</sup> through the Japan International Cooperation Agency (JICA) and the theoretical role of MCH handbooks within the framework of the Sustainable Development Goals. In his thesis, Nakamura extolled the perceived benefits of MCH handbooks without providing appropriate context—context that might cause readers to hesitate and consider whether health handbooks are in fact superior to other forms of home-based personal health records such as vaccination only cards or vaccination plus growth monitoring cards.

In September 2018, the World Health Organization (WHO) recommendations on home-based records for maternal, newborn and child health<sup>3</sup> provided the most up-to-date information on the functional role of home-based records and their impact on health outcomes. The WHO recommendations also highlighted knowledge gaps that Nakamura failed to address. Along with several colleagues from the WHO home-based record guideline development group, I have previously highlighted these knowledge gaps and opportunities for future research.<sup>4</sup> Two themes that I would like to examine here are related to Nakamura's assertion that handbooks are successful communication tools and more cost-effective relative to other types of home-based records.

First, the use of home-based records as a mechanism for successfully communicating health education and health promotion messages remains unresolved. Since its introduction in the 1800s, the home-based record has been used to document childhood vaccinations and

note growth and development.<sup>57</sup> More recently, interest has shifted towards leveraging home-based records as a mechanism for delivering public health education material (for example, delivering messages about the appropriate use of bed nets, importance of handwashing, management of diarrhoea and preparation of oral rehydration salts). Under this theoretical framework, including health education messages in home-based records provides a backstop when frontline health workers fall short in counselling and a practical reference for caregivers. However, care should be taken when including health education messages in home-based records. Assessments have yet to show the added value of providing health messages via this route and evidence suggests that messages are often not clearly communicated or written to the appropriate reading level for caregivers and health workers.

During a field assessment in December 2016, a team visited several clinics in different settings across Liberia. Images of public health messages were abstracted from Liberia's child health booklet and presented to caregivers attending primary care clinics.<sup>8</sup> Some caregivers had difficulty deciphering the images and identifying the health messages; some reported never having seen the images before, admitting that they only looked at the vaccination page in the booklet. My informal review of child health handbooks posted online (<http://www.homebasedrecords.org>) also found that health messages contained in child health handbooks were misaligned with national literacy levels.

Further discussion about what types of clinical and public health information are most appropriately recorded and maintained within a home-based record is also needed. In some instances, recording areas within MCH handbooks have expanded to include what I believe to be specialized clinical information such as partograms which are perhaps best maintained in a facility-based record. The limitations of facility-based record systems in many countries are recognized, but it remains unclear whether these limitations sufficiently justify the placement of information appropriate for a clinical record in a home-based record. Concern about the placement of clinical information in home-based records is relevant to all types of home-based records; however, given their length, MCH handbooks are perhaps at greater risk of including information better placed elsewhere.

Consistent with the findings of Young et al.,<sup>9</sup> Nakamura appropriately notes that printing MCH handbooks tends to be more expensive than printing other forms of home-based records such as immunization cards. Nakamura further posits that MCH handbooks become cost-effective when multiple, narrow, domain specific maternal (e.g., tetanus toxoid vaccination card) and child (e.g., vaccination only card, vaccination plus growth monitoring card) health cards are used. However, evidence that a “book of all in one” is more cost-effective is weak, originating from a single study<sup>10</sup> conducted in Viet Nam as part of a JICA handbook project. The study did not conduct an appropriate economic evaluation,<sup>11</sup> comparing the handbooks to the health cards used in Viet Nam prior to introduction of the handbook, but rather considered a limited review of direct costs related to record production and distribution. Additionally, printing cost was not fully addressed. Colour printing, higher quality paper and durable binding introduce additional costs and are more commonly associated with printing handbooks compared with other formats. While a business case for the general use of home-based records may exist,<sup>12</sup> the cost-effectiveness evidence needed to inform programmes in choosing one record format over another does not.

I firmly believe home-based records are a critical tool that, when appropriately designed and utilized,<sup>4</sup> can improve the health and well-being of all persons, particularly women

and children. While I recognize and applaud the success of the MCH handbook in Japan, I question the universal promotion of MCH handbooks and strongly caution against prematurely endorsing one form of home-based record over any other as the World Medical Association<sup>13</sup> and Nakamura have done in elevating MCH handbooks over other home-based child health records. I hope readers take away that the evidence needed to make such a recommendation remains outstanding. I agree with Nakamura that each country is unique with its own culture and customs. Rather than applying a one-size-fits-all approach based on limited evidence, we should work to fill existing knowledge gaps and share good practices and lessons learned across countries in order to tailor home-based record strategies to the particular challenges and opportunities identified and prioritized by countries.

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