ASSESSMENT OF THE SCALE UP OF EMOTIONAL DEMONSTRATIONS IN INDONESIA

AN INNOVATIVE APPROACH TO NUTRITION SOCIAL AND BEHAVIOUR CHANGE COMMUNICATION

GAIN Working Paper n°35

July 2023

Lauren S Blum, Cut Novianti Rachmi, Flaminia Ortenzi, Wendy Gonzalez, Agnes Mallipu, Aang Sutrisna, and Ardhiani Dyah Priamsari

gain
Global Alliance for
Improved Nutrition

ABOUT GAIN

The Global Alliance for Improved Nutrition (GAIN) is a Swiss-based foundation launched at the UN in 2002 to tackle the human suffering caused by malnutrition. Working with governments, businesses and civil society, we aim to transform food systems so that they deliver more nutritious food for all people, especially the most vulnerable.

GAIN WORKING PAPER SERIES

The GAIN Working Paper Series provides informative updates on programme approaches and evaluations, research, and other topics relevant to helping reshape the food system to improve the consumption of nutritious, safe food for all people, especially the most vulnerable.

The Global Alliance for Improved Nutrition
(GAIN)
Rue de Varembé 7
1202 Geneva
Switzerland
T: +41 22 749 18 50
E: info@gainhealth.org

www.gainhealth.org

SUMMARY

Currently, almost 32% of children under five in Indonesia are stunted. To support national stunting-reduction efforts, in 2014 the Global Alliance for Improved Nutrition (GAIN) launched the 'Baduta' programme (Baduta 1) to improve child growth outcomes during the first 1,000 days. The programme's behaviour change communication component was centred around emotional demonstrations ('emo demos'). A 2017 evaluation of the programme found promising results, which encouraged various district governments to implement and scale up emo demos with GAIN's support. The objective of this paper is to describe the initial emo demo scaling-up phase (Baduta 2), reflecting on the challenges faced and ensuing lessons learned.

Overall, when well implemented, emo demos were engaging and appreciated by both participants and facilitators. A major strength of Baduta 2 was the extensive advocacy and outreach activities led by GAIN in collaboration with partners, which resulted in large buy-in from the government, leading to the widespread adoption of emo demos across Indonesia. However, several implementation challenges were faced, the most significant ones being insufficient allocation of resources for scale up and limited capacity of local community health volunteers ('cadres') to lead emo demo sessions effectively.

These findings have implications for future emo demo scale-up efforts, including the need to: (i) ensure sufficient and consistent funding; (ii) select better-qualified cadres and provide higher-quality training and mentoring; and (iii) set up efficient procurement and distribution systems for emo demo materials. Further research is needed to assess emo demos' impact on caregivers' infant and young child feeding practices and understand the transferability of the approach to other geographic and cultural contexts.

KEY MESSAGES

- When well implemented, emo demos were engaging and appreciated by both participants and facilitators.

- The greatest implementation challenges were insufficient allocation of resources for scale up and the limited capacity of cadres to lead emo demo sessions effectively.

- Future emo demo scale-up efforts should (i) ensure consistent funding; (ii) select better-qualified cadres and provide higher-quality training; and (iii) set up efficient procurement and distribution systems for emo demo materials.

- Further research is needed to assess emo demos' impact on caregivers' infant and young child feeding practices and understand the transferability of the approach to other geographic and cultural contexts.

BACKGROUND AND OBJECTIVE

The first two years of a child's life offer a 'critical window' for achieving optimal growth and development, for which adequate nutrition is an essential prerequisite. This is also the age when growth impairments are most likely to happen and when it is most feasible to slow or stop them. For instance, the reversion of stunting (i.e., low height for age) becomes difficult after a child reaches two years of age, which demonstrates the importance of intervening before that age (1). If not promptly addressed, malnutrition during infancy and early childhood often results in severe, long-lasting consequences due to impaired physical and neurocognitive development, such as delayed school entry, early school termination, and poor performance; reduced job opportunities and work capacity; and poor adult health outcomes (2, 3).

Infants and young children (IYC) under two years of age have very high nutritional requirements because of their rapid growth and development rates, but they also have limited gastric capacity and can only consume small quantities of food. Therefore, they should exclusively be fed breastmilk up to six months of age, and a combination of breastmilk and highly nutrient-dense complementary foods beyond that (1, 4). In many low- and middle-income countries (LMICs), this is rarely the case, with IYC diets lacking nutrient density and diversity, resulting in energy, protein, and micronutrient deficiencies (5).

Indonesia is among these countries. Despite some recent progress, stunting remains a significant challenge: currently, 31.8% of Indonesian children under age five are stunted—above the regional average for Southeast Asia (6). Among the main drivers of IYC malnutrition in Indonesia (and South and Southeast Asia more broadly) are the low nutrient density and lack of diversity of complementary foods, with most children under two having a primarily cereal-based diet; the inappropriate marketing of infant formula and nutritionally inadequate complementary foods; and local food believes and taboos (7, 8).

To support national stunting-reduction efforts in Indonesia, the Global Alliance for Improved Nutrition (GAIN), together with partners and in coordination with the Ministry of Health, launched the 'Baduta' ('infant' or 'young child' in Bahasa Indonesia) programme in the districts of Malang and Sidoarjo in East Java. The programme (later identified as Baduta 1) ran from 2015 to 2017 and comprised a package of interventions aimed at improving child growth outcomes during the first 1,000 days of child's life (i.e., pregnancy up to age two). This included: (i) a mass media campaign and household visits to promote appropriate infant and young child feeding (IYCF) practices; (ii) most significant change stories (i.e., stories selected for their ability to showcase the impact of a programme or project) collected from participants; (iii) a clean water and handwashing intervention; (iv) the Baby Friendly Hospital Initiative, through which midwives provided counselling on breastfeeding and complementary feeding in health facilities; and (v) 'emotional demonstrations,' or 'emo demos' (9, 10).

The Baduta programme's social and behaviour change communication (SBCC) component was based on 'Behaviour-Centred Design' (BCD), an approach designed by the London School of Hygiene and Tropical Medicine (LSHTM) (11). The BCD

framework was built on the assumption that traditional, knowledge-based educational approaches are insufficient to motivate behaviour change, while SBCC strategies that trigger emotions (such as fear, disgust, or love) and generate surprise can be powerful drivers of human behaviour. For example, IYCF practices are highly influenced by local socio-cultural norms (7). Therefore, SBCC approaches focusing on psychosocial and emotional drivers might be more effective at improving IYCF practices; this proved to be the case for handwashing practices in LMIC settings (12, 13).

Emotional demonstrations or 'emo demos' are based on BCD theory. They are innovative, participatory group activities that aim to generate emotional responses to improve message recall, promote the adoption of desirable behaviours, and discourage undesirable ones (10). Emo demo sessions usually last 20-30 minutes, use standard sets of materials (props) for each session, and apply a semi-structured, easy-to-follow guide. They are highly interactive and specifically designed to be surprising, provocative, fun, and memorable. Sessions typically begin with open-ended questions, songs, or dances, followed by a game-like activity and a post-activity discussion, during which participants can share personal experiences, emotions, and learnings.

Figure 1. Example of an emo demo guide for the module 'Breastmilk is sufficient'

Each emo demo session is centred around a key message. In the case of Baduta 1, messages were related to promoting one of the following: exclusive breastfeeding until 6 months of age (encourage breastfeeding and discourage the introduction and use of infant formula); complementary feeding practices (increase the dietary diversity of children's meals, reduce the proportion of rice per meal, and feed children adequate portion sizes for their age); healthy snacking (feed children healthy snacks only and not close to mealtimes); and nutrient-dense diets for pregnant women (consume one portion of nutrient-rich foods, such as liver, eggs, and fish, every day) (Figure 1) (9).

The Baduta 1 evaluation, conducted in 2017, found positive results in terms of acceptability of emo demos among facilitators and participants; message recall

levels; caregivers' knowledge and behaviours related to breastfeeding and complementary feeding; and levels of attendance at monthly child growth monitoring sessions and antenatal care sessions (14). These promising results sparked the interest of district governments in East Java to implement and scale up selected interventions of the Baduta 1 package. Recognising the complexity of scaling up interventions in the public/global health sector (15-18), the local governments adopted a stepwise scaling up strategy and sought GAIN's assistance for its initial phase.

The objective of this working paper is to describe this initial scaling up phase (hereafter referred to as Baduta 2) and to reflect on the challenges faced during the process and the lessons learned from them. With growing interest and attention towards innovative SBCC approaches like emo demos in Indonesia and beyond, this working paper's insights can help inform future scale up efforts, including in other settings.

METHODOLOGY

In 2020-2021, a team of independent researchers designed and conducted a qualitative assessment to examine the strategies and modalities employed to scale up emo demos as part of Baduta 2 (19). The study aimed to identify the barriers to and enablers of implementation, along with the factors influencing the overall quality of emo demo sessions. Three different modalities of implementation of Baduta 2 were assessed:

- GAIN-led intensive intervention areas, complete Baduta 2 package: in designated areas within the districts of Bondowoso, Jember, Probolinggo, Trenggalek, and Surabaya (East Java province), GAIN funded and directly implemented selected interventions of the Baduta 1 package, including the Baby Friendly Hospital Initiative, the most significant change stories approach, and emo demos. These activities formed the Baduta 2 package.
- Government-led scale up areas, complete Baduta 2 package: in the remaining areas of the above districts in East Java province, GAIN provided training and technical support only, while local governments were responsible for funding and implementing the full intervention package, which was the same as that used in the GAIN-led intensive areas.
- Government-led scale up areas, emo demos only: in Malang City (East Java province) and Sigi (Central Sulawesi province) districts, GAIN provided training and technical assistance to implement emo demos only, and the respective district governments led the emo demo rollout, with additional support from Save the Children in Sigi district.

Baduta 2 was launched in April 2018. The activities administered in GAIN-led intensive intervention areas were completed in December 2019, while government-led scale up efforts were intensified from early 2020 through November of that year. Baduta 2 managed to successfully integrate the routine implementation of emo demos into approximately 4,500 Child Health Posts (Posyandus) across 525 villages, reaching almost five million pregnant women and children under two years of age. In all

implementation modalities, emo demos sessions were led by local community health volunteers, known as 'cadres'.

Study methods included a desk review of programme reports and publications on Baduta 1 and 2; key informant interviews (KIIs) with experts and stakeholders involved in the design and implementation of Baduta 1 and/or 2; and in-depth interviews (IDIs) with personnel responsible for implementation of Baduta 2 at different administrative levels (national, provincial, district, and Posyandu) and with mothers of young children who participated in emo demo sessions (Table 1). While the Baduta 2 package included other interventions in some areas, this working paper focuses specifically on emo demos.

Table 1. Summary of research methods and study participants

Implement-ation level	Research methods used	Implementation modality			Total no. of informants
		GAIN-led intensive intervention areas, complete Baduta 2 package	**Government-led scale up areas, complete Baduta 2 package**	**Government-led scale up areas, emo demos only**	
National	KIIs	4 GAIN Indonesia staff 3 GAIN headquarter staff and consultants 2 Ministry of Health officials 1 LSTMH faculty 2 NGO personnel involved in the implementation of Baduta 1			12
Provincial	IDIs	1 Provincial health officer (PHO) –East Java		2 PHOs –Central Sulawesi 2 PHOs – East Java	5
District	IDIs	1 GAIN district coordinator 1 GAIN training coordinator 1 District health officer (DHO) 1 Master-of-Trainers	1 GAIN district coordinator 1 GAIN training coordinator 1 DHO 1 Master trainer	1 DHO – Sigi 2 DHOs – Malang City	11
Posyandu	IDIs	N/A[1]	N/A[1]	4 cadres – Sigi 4 cadres – Malang City	8
Village	IDIs	N/A[1]	N/A[1]	4 mothers – Sigi 4 mothers – Malang City	8

[1]Due to the COVID-19 pandemic, interviews with cadres and mothers attending emo demo sessions could not be conducted in Jember and Bondowoso districts.

KEY INFORMANT INTERVIEWS

KIIs were carried out with experts and stakeholders engaged in the development, implementation, and/or monitoring and evaluation of Baduta 1 and/or 2. Key informants were purposively selected from amongst GAIN staff, Indonesia Ministry of Health officials, LSHTM staff who guided the design of the emo demo approach, and NGO personnel involved in the implementation of Baduta 1.

Topics covered during the interviews were adapted to different types of informants and included: the rationale for choosing the BCD approach over other SBCC strategies; the various steps in the development and implementation of Baduta 1 and 2; key actors involved at different administrative levels and their roles; perceived quality of the training on emo demos; perceived quality of the monitoring, evaluation, and reporting process; and programmatic evidence generated. In addition, informants' perceptions of the acceptability of emo demos for facilitators and caregivers were explored, as were their views on factors affecting the quality of emo demo sessions. Finally, informants were asked about the strengths and weaknesses of Baduta 1 and 2, with a focus on emo demos.

IN-DEPTH INTERVIEWS

In-depth interviews were conducted with personnel involved in the implementation of emo demos during Baduta 2. In Malang City and Sigi districts, interviews were also carried out with caregivers who had recently attended emo demo sessions. All interviewees were purposively selected. The interview guides were adapted to different types of participants and centred around the following subjects: perceived quality of training approaches and schedules; perceived quality of supervision and mentoring, information sharing and learning, and monitoring and evaluation; key actors and their roles; time devoted to interventions; and collaboration with partners. Interviewees' theoretical and practical understanding of the emo demo approach was also assessed, as were their perceptions of strengths and weaknesses of emo demos. Finally, interviewees were asked about implementation challenges encountered and were encouraged to provide recommendations for improvement.

DATA COLLECTION PROCESS

The research team included a principal investigator, a senior Indonesian qualitative researcher, and three research assistants with previous experience using qualitative methods. The three research assistants participated in a five-day training workshop prior to the study.

The KIIs were open-ended and conducted remotely, with each session lasting approximately 1–1.5 hours. The data collection process was iterative, meaning that the information gathered as part of the first few KIIs informed the content of subsequent KIIs, as well as the IDIs that were conducted at a later stage. Moreover, some informants were interviewed multiple times to build a relationship of trust and achieve data saturation.

The IDIs were semi-structured and were also conducted remotely, with a maximum duration of 1.25 hours. The interviewees, including both implementers and caregivers, could choose an interview setting of their preference, and the research team ensured that privacy was maintained during the interviews. If a researcher was unable to cover all questions within the given timeframe, a follow-up session was scheduled.

KIIs were carried out in English or Bahasa Indonesia, whereas all IDIs were conducted in Bahasa Indonesia. All interviews were audio-recorded and transcribed verbatim. After transcription, interviews in Bahasa Indonesia were translated to English. The research team also took handwritten notes of observations that could bring additional insights into the data.

DATA ANALYSIS AND REPORTING

The research team reviewed all interview transcripts and jointly developed a coding system that combined both deductive and inductive approaches. Indeed, coding categories were established using a combination of pre-defined research themes and questions (deductive approach) and new concepts that emerged during the interviews (inductive approach) (20). Coding was carried out using ATLAS.ti and NVivo software, followed by content analysis to identify common themes and trends across individual codes. In addition, the research team used data, environmental, and methodological triangulation to enable comparison of data collected through different research methods (KIIs and IDIs), across locations, and from a diverse range of study participants. Findings are described in detail in a research report (19) and are summarised in this working paper, which also discusses programmatic implications, research gaps, and priorities.

ETHICAL APPROVAL

The study protocol received ethical approval from the institutional review board of Atmajaya University, Jakarta, Indonesia. Signed informed consent was obtained from all study participants prior to data collection.

CONCEPTUAL FRAMEWORK

The results of the qualitative assessment are presented according to the WHO framework for scaling up health service innovations (21). This conceptual framework and the related practical guidance were designed to help countries and organisations bring evidence-based innovative healthcare solutions to scale in a systematic and effective way. The framework conceptualises intervention scale up as a system of five interlinked elements, with the scaling up strategy as the centrepiece (Figure 2).
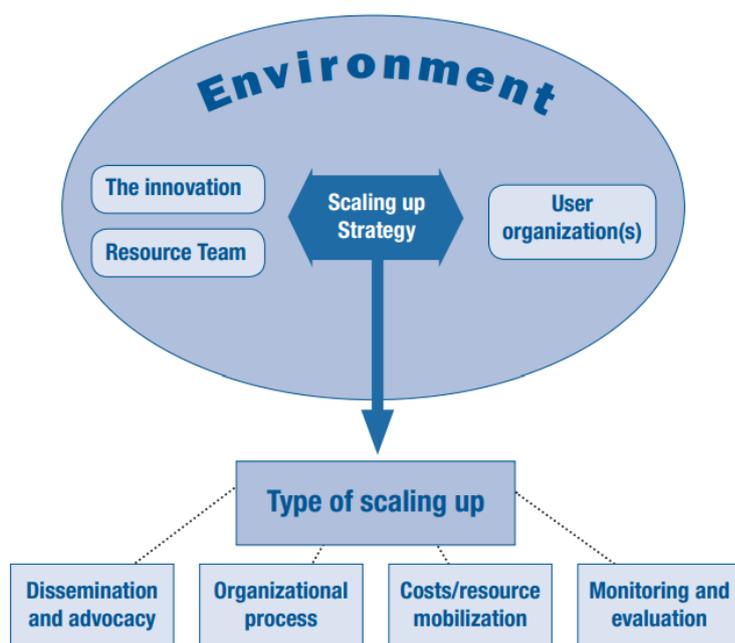

Figure 2. WHO framework for scaling up health service innovations (Reproduced from (21). Reproduction permission not required.)

The **innovation** is the set of interventions to be scaled up, comprising not only the intervention itself (tested in pilot or experimental projects), but also the organisational and managerial processes indispensable to its successful implementation.

The **resource team (or organisation)** refers to the organisation(s) and/or individuals who have been responsible for developing and testing the intervention and/or are responsible for facilitating its scale up.

The **scaling up strategy** refers to the approach used to bring the innovation to scale, which includes determining (i) the style and pace of scaling up, (ii) the components of the intervention package that will be scaled up, (iii) the dissemination techniques to be used, (iv) how to address various environmental challenges, and (v) the role of research.

The **user organisation(s)** is the organisation(s) or institution(s) by which the innovation is expected to be adopted and implemented at scale.

Finally, the **environment** refers to the context in which the scale up process takes place, comprising both the beneficiaries of the innovation (e.g., the people and communities who require health services), as well as the policy and legal setting, the political system, socioeconomic conditions, local traditions and cultures, and the healthcare system.

When developing the scaling up strategy, the resource team first need to define the **type (or style) of scaling up** to be adopted: vertical or horizontal; diversification-oriented; deliberate, or spontaneous (21). Once this has been determined, related strategic choices have to be made in the following four key areas: (i) **dissemination and advocacy**, including training of the user organisation(s); (ii) **organisational and managerial aspects** of implementation; (iii) **cost assessment and resource mobilisation** and allocation; and (iv) **monitoring and evaluation** of the process (Figure 2). When making decisions about these key aspects, due consideration has to be given to the environment in which the scaling up process took place.

KEY FINDINGS

This section discusses findings from the assessment of Baduta 2, which are presented according to the WHO framework for scaling up health service innovations. For reference and contextualisation (though out of the specific scope of this paper), key findings from Baduta 1 are briefly summarised in Box 1, below.

BOX 1. KEY FINDINGS AND RECOMMENDATIONS FROM BADUTA 1

Baduta 1 was a multistakeholder partnership involving GAIN, the Indonesia Ministry of Health, the Ministry of Foreign Affairs of the Netherlands, Save the Children, Paramitra Foundation, the LSHTM, and PT Holland for Water (Nazava). It greatly benefited from strong collaboration among all partners and the availability of appropriate resources (including funding and time) for piloting and implementation.

The programme developed, tested, and refined a series of strategies, processes, support systems, and tools for the implementation and scale up of emo demos, including a cascade training approach (training curriculum and toolkit); emo demo manuals, guides, videos tutorials, and materials; and monitoring, evaluation, and reporting systems.

All informants considered Baduta 1 as being strong in terms of programme design, planning, and implementation, with evidence-driven adaptations and course correction guided by continuous formative research and monitoring. However, the implementation of Baduta 1 also faced challenges, the most significant one being the limited capacity of cadres (community health volunteers) responsible for conducting emo demos. As a result, some sessions were deemed excessively long, dull, and lecture-like. Another important constraint was the repetition of the same

---

emo demo sessions, which reduced their potential to elicit emotions and surprise. In addition, Posyandus often failed to accommodate all participants, and the environment was typically noisy and chaotic, with crying or loud children.

Based on the assessment of Baduta 1, the following recommendations were made for further implementation of emo demos:

- Better-qualified cadres should be selected to receive training and lead emo demo sessions.
- Training should be conducted gradually, with modules introduced one at a time.
- Cadres should be given the chance to practice modules prior to sessions, to refresh their memory and increase their confidence levels.
- Cadres should have access to continuous mentoring and supervision.
- The physical space where emo demo sessions are delivered should be improved, including by providing recreational activities for children accompanying caregivers.
- Full sets of props should always be available to ensure effective message delivery.

THE INNOVATION

As mentioned in the introduction, emo demos aim to stimulate the senses, trigger emotions, and generate surprise. They create a game-like, fun, and participatory atmosphere that facilitates learning (as shown in Figures 3 and 4). By allowing participants to learn through hands-on experience, emo demos enable caregivers to recognise and correct their own practices. These features give emo demos a relative advantage over traditional lecture-like nutrition education, which all informants described as 'boring' and showing little evidence of behavioural change in IYCF practices in Indonesia.

Emo demo sessions are designed to be easy for participants to follow and highly relevant to their needs. They are built around a few relatable messages that focus on common issues and practices and are delivered using simple language and props to enhance caregivers' understanding and encourage active participation. The sessions are also compatible with the local context: they are aligned with national programmes aimed at addressing infant and young child malnutrition, reflect Ministry of Health priorities, and make use of existing resources, such as Posyandus and cadres (who are highly respected women in their communities).

Testing the emo demo approach during Baduta 1 increased its credibility among local decision-makers and implementers, as promising results were observed. These included increased caregiver engagement and attendance at Posyandu sessions, improved knowledge of good IYCF practices, and better recall of key messages (14). Piloting emo demos as part of Baduta 1 also allowed for defining key elements and support systems crucial to successful implementation, such as the cascade training approach, support materials, and continuous monitoring, evaluation, and reporting

systems. However, the results of the Baduta 1 evaluation, presenting its impact on IYCF practices and nutrition outcomes, were not readily available to support GAIN's and local authorities' advocacy efforts due to its relatively late timing, which was an important limitation.

Figure 3. Example of an emo demo session

Figure 4. Example of an emo demo session

THE RESOURCE TEAM

GAIN, in collaboration with partners, led the design and implementation of Baduta 1 and provided continued support throughout Baduta 2, mainly via funding, training, and technical assistance across all different modalities of implementation. According to key informants, the large buy-in and interest of national and local governments in

scaling up emo demos (either as part of Baduta 2 or as a stand-alone intervention) was one of GAIN's most significant accomplishments, resulting from the close collaboration and relationship of trust developed between the resource team and local government officials during the implementation of Baduta 1. Such large buy-in and interest facilitated local ownership of Baduta 2.

THE SCALING-UP STRATEGY

During the Baduta 2 programme, a deliberate (or guided), gradual scaling up approach was adopted to promote the expansion and replication of emo demos through horizontal scale up **(i.e., the type of scale up)**. The scaling-up strategy was co-developed by several partners, including local governments, and was implemented in a stepwise fashion, allowing for continuous learning and course correction. Interviewees acknowledged the value of a participatory approach to scale up, reporting that involving all relevant stakeholders helped ensure that local needs and constraints were appropriately addressed.

When defining the scaling-up strategy, strategic choices had to be made with regards to:

- The innovation itself: a completely new set of 12 emo demo modules was developed for the Baduta 2 programme. Caregiver engagement and interest had decreased towards the end of Baduta 1, as the novelty of the emo demo approach and the memorability of messages waned over time. Thus, to ensure the continued ability of emo demos to generate surprise and evoke emotions, a new set of modules was created.
- The resource team and user organisation: three different modalities of implementation (as described in the methods section) were defined, to accommodate the limited human and financial resources of both the resource and user organisations and build implementation capacity of the latter.
- The environment: to maximise opportunities for expansion within the local environment and increase the potential for success of scale-up efforts, various actions were taken. First, emo demos sessions were held in other venues (in addition to Posyandus) to reach diverse audiences, such as parenting classes, sessions for mothers of malnourished children, and schools. Second, emo demo modules were integrated into the nutrition curriculum of 15 Indonesian universities and the official book for Posyandus in East Java province (the 'Tapos book'). Finally, emo demos led to the development of context-specific food-based dietary recommendations for children under two years of age in 17 districts across Indonesia.

Developing the scaling up strategy also involved making strategic decisions in the four key areas identified in the WHO framework: (i) dissemination and advocacy, (ii) organisational processes, (iii) costs and resource mobilisation, and (iv) programme monitoring and evaluation (Figure 2) (21).

As part of the **dissemination and advocacy** efforts, extensive outreach activities were conducted to raise awareness of emo demos and other Baduta 2 components and their potential impact on caregivers' and children's nutrition ('impersonal' dissemination). This resulted in considerable buy-in from central and local governments to scale up emo demos, with GAIN receiving requests to provide emo demo training from a rapidly growing number of districts across the country.

Dissemination efforts also included training and preparation of the user organisation to adopt the innovation and bring it to scale ('personal' dissemination). One of the main strengths of GAIN-led intensive intervention areas was the consistent implementation of cascade training, considering the lessons learned and recommendations from Baduta 1. These included the gradual introduction of training sessions, held every 2-3 months, and the importance of giving cadres the opportunity to practise modules prior to emo demo sessions through refresher trainings. Despite the provision of quality training, cadres' limited public-speaking skills and ability to effectively conduct emo demo sessions were still an important limitation in GAIN-led areas. This shows that adequate preparation alone might not be enough and other factors, such as education level, age, and character, may influence cadres' performance.

The training, mentoring, and supervision carried out by midwives and Puskesmas (government medical centres) workers in government-led scale up areas often proved ineffective and inconsistent. Indeed, training in the assessed government-led areas (where the full Baduta 2 package was implemented) consisted of a single four-day workshop with little-to-no follow up or opportunities for practicing emo demo modules, and with video tutorials of each module being used as a substitute for refresher training sessions. Similarly, in Malang City and Sigi districts (where only emo demos were implemented), the number of training days was significantly reduced, and cadres were not consistently trained on all 12 emo demo modules. Some sessions were introduced through video tutorials, printed materials, or by other trained cadres. As a result, the training approach in in these two districts failed to position emo demos as relevant for local health staff and community health workers, who ended up feeling demotivated and considering emo demos as an additional burden to their regular work schedules.

In addition to in-person training, several tools were developed to promote the systematic dissemination and implementation of emo demos, including an app with emo demo materials and training guides, an emo demo facilitator association, and a platform to promote widespread coverage.

A significant limitation common to all three implementation modalities of Baduta 2 was the high turnover of trained government officials and health staff, which disrupted activities and required the repetition of training sessions and outreach events.

In terms of **organisational processes**, three different modalities of implementation were established, aiming to build national and local implementation and monitoring capacity within the boundaries of limited available resources and time. Both centralised (top-down) and decentralised (bottom-up) approaches to scale up were

adopted. While the central government (the Ministry of Health) played a key role in co-designing the scaling-up strategy and plan, allocation of funds and planning of field activities were mostly led by local authorities (provincial, district, and Posyandu), allowing for local initiative and autonomy, strengthening local ownership, and enhancing future sustainability.

On the other hand, the freedom given to local governments to adjust the scaling up strategy and plan based on their resources and capacities often resulted in key elements/activities of the original intervention package being omitted.

With regards to **costs and resource mobilisation**, GAIN-led intensive intervention areas benefited from the effective procurement and distribution of props, with a complete set of props accessible to all at all times. In contrast, in the assessed government-led areas, inconsistent funding resulted in the inadequate provision of emo demo materials, forcing cadres to use partial sets of props, to make props out of paper, or to replace them with other items.

Finally, in GAIN-led intensive intervention areas, strong systems for **supervision, monitoring, and evaluation** were established, including continuous mentoring of cadres provided by village midwives; regular supervision of activities led by master trainers; and systematic monitoring, evaluation, and reporting. This was not the case for the other two implementation modalities, where mentoring, supervision, monitoring, and evaluation mechanisms were either inefficient or absent due to scarce resources.

THE USER ORGANISATION

Agents of the local health system, specifically Posyandus, midwives, Puskesmas workers, and cadres, were expected to adopt and implement emo demos on a large-scale basis. Most interviewees from the user organisation believed stunting reduction to be the primary objective of emo demos. At the time of implementation of Baduta 1 and 2, stunting was a deeply felt problem in Indonesia and a national priority; hence, interviewees recognised the importance of SBCC approaches to reduce the prevalence of stunting, including emo demos, of which they appreciated the innovative and refreshing nature.

Informants from GAIN-led intensive intervention areas reported that cadres were motivated by the opportunity to speak publicly, the special recognition they received for leading emo demo sessions, the opportunity to acquire new knowledge and skills, and the positive contribution they made to their communities. However, motivation could not make up for their lack of public-speaking skills and was not sufficient for them to be able to effectively present emo demos modules. As for the assessed government-led areas, informants highlighted difficulties in keeping cadres engaged and motivated, mostly because of inadequate training and supervision and lack of incentives, which represent key areas for improvement.

Overall, across all implementation modalities, the limited capacity of cadres, especially older and/or less educated ones, posed a significant challenge to

conducting emo demos effectively and ensuring minimum quality standards of sessions. Cadres were often shy, lacked spontaneity, and relied heavily on emo demo guides, resulting in low fidelity of implementation and less engaging and interactive sessions.

The physical environments in which emo demo sessions were held also presented challenges. Posyandus were often overcrowded and chaotic, especially due to children crying and being noisy. This created significant distractions for mothers. Additionally, long waiting times before the start of emo demo sessions were common, and Posyandus lacked waiting rooms for caregivers and playrooms for children.

THE ENVIRONMENT

The external context posed several barriers to the scale up of emo demos as part of Baduta 2. The COVID-19 pandemic led to the closure of Posyandus and, consequently, the interruption of emo demo sessions. In addition, government funds that could have been allocated to Baduta 2 were often redirected to pandemic prevention and control measures. Moreover, although emo demos were designed to be context-appropriate and to consider local socio-cultural norms, sometimes traditions and beliefs impeded adequate uptake of the messages and behaviours being promoted. For example, caregivers' family members (e.g., parents, in-laws, grandparents, husbands) often opposed exclusive breastfeeding, arguing that breastmilk is insufficient to satisfy children's hunger and nutritional needs.

DISCUSSION AND CONCLUSIONS

Decision-makers worldwide are increasingly shifting their focus toward scaling up evidence-based interventions to achieve broader geographic coverage and reach larger populations (17). However, scale up is challenging and does not always produce the expected results (18). This working paper described the initial scale up of emo demos, an innovative approach to nutrition SBCC, reflecting on implementation challenges. Here, we draw lessons that may be applicable within and beyond the context of Indonesia.

Overall, the results of the Baduta 2 assessment showed that, when well implemented, emo demos were engaging and appreciated by both participants and facilitators, thanks to their interactive, fun, and game-like nature. In addition to the innovation itself, another major strength was the extensive advocacy and dissemination activities led by GAIN in collaboration with partners, which proved successful in obtaining large buy-in from the central and local governments, leading to the widespread adoption of emo demos across Indonesia. However, the research study also highlighted several implementation barriers and limitations, the most significant ones being insufficient allocation of resources for scale up and the low capacity of cadres to lead emo demo sessions effectively.

One of the key recommendations from Baduta 1 was the need to provide cadres with gradual training, opportunities for regular practice, and continuous mentoring and

supervision. While these recommendations were followed in GAIN-led intensive intervention areas, this was not the case in government-led areas. Indeed, the latter faced important challenges in ensuring quality and consistency of training, mentoring and supervision.

These findings are consistent with the broader literature on scale up of public/global health interventions. Implementation science shows that among the main factors hindering successful scale up are shortages of qualified human resources for health (including community health workers and volunteers) (22, 23) and insufficient or discontinuous training and supervision of local scale-up leaders and implementers (15, 18).

Another well-documented challenge in the literature is financial and material resource constraints, including inadequate infrastructure, unreliable supply chains, and lack of sustainable funding streams (15, 18, 24, 25). This was particularly evident in government-led scale up areas, and even more so in emo demo-only areas. At the time of the Baduta 2 implementation, emo demos were not linked to a specific Ministry of Health programme. Hence, there was no dedicated budget line to support scale up expenses and the roll-out of emo demos mostly relied on inconsistent village development funds. This led to inadequate procurement and distribution of props and insufficient support systems for the scale up of emo demos. However, since April 2023 the Ministry of Health has allocated central funds to all Posyandus in Indonesia to support the nation-wide implementation of emo demos. This represents a major improvement over the initial scale up phase of Baduta 2 and highlights the importance of time and patience when it comes to scaling up public/global health interventions.

Overall, the implementation challenges, inefficiency of support systems, and lack of incentives made it difficult to keep midwives and cadres motivated and engaged. Although local programme ownership and engagement of local leaders – which are often mentioned in the literature as crucial factors for successful scale up (16, 18, 26, 27) – were high, the inadequate skills and competencies of local leaders and managers represented a significant barrier, in alignment with existing evidence (16, 18, 24, 25, 28-30). Recommendations for strengthening emo demos include ensuring good governance and developing a policy framework to enhance implementation across the country. It will be crucial to involve local governments and leaders (at the provincial, district, and village levels) in the development process of such framework, so that they can agree on and commit to some standard implementation principles to be followed in future emo demo roll-outs and avoid neglecting key elements of the original intervention package.

However, it is worth mentioning that the scale up of Baduta 2 took place during the challenging context of the COVID-19 pandemic and that government-led areas were asked to commit to keeping the same scale up timeline as GAIN-led areas, while having more limited resources and expertise. In addition, the qualitative assessment was only conducted in a handful of government-led areas; thus, results may not be generalisable to districts not directly included in this study. For example, a few

government-led districts that were not assessed, such as Nganjuk and Mamberamo, were more successful in positioning emo demos as relevant for local health staff and cadres and in obtaining consistent funding and commitment from local leaders.

Although not entirely generalisable, findings from this qualitative assessment still provide important considerations for future emo demo scale up efforts. First, ensuring consistent funding is essential to establishing and maintaining adequate implementation processes and support systems, which are indispensable to successful scale up. This can be achieved by setting up dedicated central funding streams at the national level, as has recently been done by the Indonesia Ministry of Health. Second, selecting better qualified implementing staff, and providing gradual training, regular practice, and continued mentoring are critical to achieving adequate standards of emo demo sessions. Given budgetary and time constraints, alternatives to in-person training, such as video tutorials or remote live training, should be tested and their efficacy assessed against traditional training methods. Finally, districts planning to adopt the emo demo approach must set up efficient supply chains for props and support systems (i.e., mentoring and supervision of cadres, and monitoring and evaluation) to ensure quality implementation, for which adequate funding and know-how are essential pre-requisites.

In terms of knowledge gaps and future research directions, further evidence is needed to assess whether emo demos can promote and sustain behaviour change among caregivers. Future research should also investigate the transferability of the emo demo approach and modules to other geographic and cultural contexts; such work has already been undertaken in Mozambique (Box 2). For instance, caregivers in other settings may lack the minimum health literacy to understand emo demo messages, or a game-like approach may be inappropriate, or there might not be a consolidated system of community health volunteers available to deliver emo demo sessions. Adequate consideration of local cultural, socioeconomic, and security contexts, as well as political ideologies, governance, and regulatory systems, is essential for successful scale up (15-18).

BOX 2. KEY INSIGHTS FROM THE EMO DEMO IMPLEMENTATION IN MOZAMBIQUE

In Mozambique, emo demos were implemented as part of the USAID-funded, consortium-implemented 'Transform Nutrition' project. The emo demo approach used in Indonesia was carefully adapted to Mozambique and the specific project context, based on both formative research and piloting. This included a desk review to identify key behavioural determinants and barriers, interviews and observations with caregivers, pre-testing of emo demos with the same caregivers, and piloting supported by a local NGO. The pilot testing assessed eight emo demos modules that were presented to over 20,000 women during a 14-week period. The revised, final emo demo modules were then rolled out as part of the USAID Transform Nutrition project, using local volunteers.

An implementation research study was conducted on the first three emo demos implemented under USAID Transform Nutrition, with the aim to understand whether

---

they were feasible, acceptable, and appropriate in the eyes of both participants and facilitators (31). The methodology consisted of observations and in-depth interviews with caregivers and implementers.

The results of the study showed that the emo demo sessions were generally conducted as planned, with some strong facilitation skills on display and most facilitators clearly understanding and agreeing with the emo demos' messages. However, volunteers sometimes struggled to make the sessions fully interactive and to correctly follow the steps of each emo demo module. For example, it was common for multiple modules to be delivered in a single session, counter to the planned approach, leading to confusion among participants and mixing of messages.

Emo demos were generally positively received by the facilitators, who found them appropriate and enjoyable for caregivers. At the same time, understanding of the theory behind the method was limited among volunteers, and few participants reported having an actual 'emotional' response to emo demos. Caregivers were motivated to attend the sessions to learn more about child health and universally reported enjoying emo demos, but not all participated actively. While there were some misunderstandings, most participants were able to understand the key messages underlying each emo demo module and to translate them into potential ways in which they might change their behaviours. Some even reported having made such changes already.

Based on the results of the study, several suggestions were made to improve the approach over the remainder of the project, including bolstering training of volunteers, providing them with additional simplified job aids and incentives, and revising the content of the least-understood module.

REFERENCES

1. Pan American Health Organization. Guiding Principles for Complementary Feeding of the Breastfed Child. Washington DC, Pan American Health Organization, 2003. Available at: https://iris.paho.org/handle/10665.2/752?locale-attribute=en.

2. Leroy JL, Frongillo EA, Dewan P, Black MM, Waterland RA. Can Children Catch up from the Consequences of Undernourishment? Evidence from Child Linear Growth, Developmental Epigenetics, and Brain and Neurocognitive Development. Adv Nutr. 2020;11(4):1032-1041.

3. Martins VJ, Toledo Florêncio TM, Grillo LP, do Carmo P Franco M, Martins PA, Clemente AP, et al. Long-lasting effects of undernutrition. Int J Environ Res Public Health. 2011;8(6):1817-46.

4. Aguayo VM. Complementary feeding practices for infants and young children in South Asia. A review of evidence for action post-2015. Matern Child Nutr. 2017;13(Suppl 2):e12439.

5. Beal T, White JM, Arsenault JE, Okronipa H, Hinnouho GM, Torlesse H, et al. Micronutrient gaps during the complementary feeding period in South Asia: a comprehensive nutrient gap assessment. Nutr Rev. 2021;79(Suppl 1):26-34.

6. FAO, IFAD, UNICEF, WFP and WHO. The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable. Rome, FAO, 2022. Available at: https://doi.org/10.4060/cc0639en.

7. Beal T, Tumilowicz A, Sutrisna A, Izwardy D, Neufeld LM. A review of child stunting determinants in Indonesia. Matern Child Nutr. 2018;14(4):e12617.

8. Torlesse H, Raju D. Feeding of Infants and Young Children in South Asia. Policy Research Working Paper; No. 8655. Washington, DC, World Bank, 2018. Available at: https://socialprotection.org/discover/publications/feeding-infants-and-young-children-south-asia.

9. The Global Alliance for Improve Nutrition (GAIN). Baduta: Improving Infant Feeding Practices in East-Java, Indonesia. Designing the Future of Nutrition Social and Behaviour Change Communication. How to Achieve Impact at Scale: Strengthening Partnerships. Results and Innovations in Nutrition Globally (SPRiNG), 2014.

10. Keats S, Malipu A, Menon R, Poonawala A, Sutrisna A, and Tumilowicz A. The Baduta Programme in East Java, Indonesia: what works in communication for better nutrition? Geneva, Switzerland, the Global Alliance for Improved Nutrition (GAIN), 2019.

11. London School of Hygiene and Tropical Medicine (LSHTM). Behaviour Centred Design (BCD). Available at: https://www.lshtm.ac.uk/research/centres-projects-groups/bcd.

12. Curtis V, Kanki B, Cousens S, Diallo I, Kpozehouen A, Sangare M, et al. Evidence of behaviour change following a hygiene promotion programme in Burkina Faso. Bull World Heal Organ. 2001;79(6):518–27.

13. Biran A, Schmidt W, Varadharajan KS, Rajaraman D, Kumar R, Gopalan B, et al. Effect of a behaviour-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial. Lancet Glob Heal. 2014;2(3):e145–54.

14. White S, Schmidt W, Sahanggamu D, Fatmaningrum D, van Liere M, Curtis V. Can gossip change nutrition behaviour? Results of a mass media and community-based intervention trial in East Java, Indonesia. Trop Med Int Health. 2016;21(3):348-64.

15. Yamey G. What are the barriers to scaling up health interventions in low- and middle-income countries? A qualitative study of academic leaders in implementation science. Global Health. 2012;8(1):1-11.

16. Yamey G. Scaling Up Global Health Interventions: A Proposed Framework for Success. PLoS Med. 2011;8(6):e1001049.

17. Zomahoun HTV, Ben Charif A, Freitas A, Garvelink MM, Menear M, Dugas M, Adekpedjou R, Légaré F. The pitfalls of scaling up evidence-based interventions in health. Glob Health Action. 2019;12(1):1670449.

18. Bulthuis SE, Kok MC, Raven J, Dieleman MA. Factors influencing the scale-up of public health interventions in low- and middle-income countries: a qualitative systematic literature review. Health Policy Plan. 2020;35(2):219-234.

19. The Global Alliance for Improved Nutrition (GAIN), Ministry of Foreign Affairs of the Netherlands, National Ministry of Health of Indonesia, Save the Children, Paramitra Foundation, PT, Holland for Water. Assessment of the Scale-up of Emotional Demonstrations in East Java Districts and Sigi District. Nutrition Connect, 2021. Available at: https://nutritionconnect.org/media/93.

20. Miles MB, Huberman AM, Saldaña J. Qualitative Data Analysis: A Methods Sourcebook and The Coding Manual for Qualitative Researchers. Thousand Oaks, CA, SAGE, 2014. Available at: https://us.sagepub.com/en-us/nam/qualitative-data-analysis/book246128.

21. World Health Organization (WHO), ExpandNet. Nine steps for developing a scaling-up strategy. Simmons R, Ghiron L, Fajans P, (ed.). Geneva, Switzerland, WHO, 2010.

22. Haakenstad A, Irvine CMS, Knight M, Bintz C, Aravkin AY, Zheng P, et al. Measuring the availability of human resources for health and its relationship to universal health coverage for 204 countries and territories from 1990 to 2019: a systematic analysis for the Global Burden of Disease Study 2019. The Lancet. 2022;399(10341):2129–54.

23. World Health Organization (WHO). Global strategy on human resources for health: Workforce 2030. Geneva, Switzerland, WHO, 2016.

24. Mangham LJ, Hanson K. Scaling up in international health: what are the key issues? Health policy and planning. 2010;25(2):85-96.

25. Hanson K, Ranson MK, Oliveira-Cruz V, Mills A. Expanding access to priority health interventions: a framework for understanding the constraints to scaling-up. Journal of International Development: The Journal of the Development Studies Association. 2003;15(1):1-14.

26. Gwatkin DR. IMCI: what can we learn from an innovation that didn't reach the poor? Bulletin of the World Health Organization. 2006;84:768.

27. Management Systems International (MSI). Scaling up: from vision to large scale change. A management framework for practitioners. Washington, DC, MSI, 2006.
28. McCannon CJ, Berwick D, Massoud MR. The science of large-scale change in global health. JAMA. 2007;298(16):1937-39.
29. World Health Organization (WHO). Managing the health millennium development goals: the challenge of management strengthening: lessons from three countries. Egger D, Ollier E (ed.). Geneva, Switzerland, WHO, 2007.
30. Mansour M, Mansour JB, El Swesy AH. Scaling up proven public health interventions through a locally owned and sustained leadership development programme in rural Upper Egypt. Human Resources for Health. 2010;8:1-6.
31. Costa S, Guambe B, Boaventura C, Nordhagen S. Leveraging Emotion for Behavior Change: Lessons from Implementation of the 'Emo-Demo' Behavior Change Technique in Rural Mozambique. Under review at Journal of Health Communication.