MCC Indonesia Nutrition Project Impact Evaluation Interim Report

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GLOSSARY

Akademi bidan	Midwife training college
Bahirak	Slang Indonesian term for open defecation
Bantuan langsung masyarakat (BLM)	Direct community assistance grants provided by Generasi
Bidan	Midwife/midwives
BCG	Bacillus Calmette-Guérin
Biaya operasional kesahatan (*BOK*)	Puskesmas' health operational fund
BLM	*Bantuan langsung masyarakat*
BMI	Body mass index
Bubur instan	Instant porridge
Buku kesehatan ibu dan anak (KIA)	Mother and child health handbook
Buku kartu menuju sehat (KMS)	Growth tracking chart
CAPI	Computer assisted personal interviewing
CDD	Community-driven development
CI	Confidence interval
CLTS	Community-led total sanitation
CPM	Certified Professional Midwife
Desa	Village
Desa Facilitator/Kader Pemberdayaan Masyarakat Desa (FD/KPMD)	Village facilitator
DHO	District health office
DHS	Demographic and Health Survey
Dinas kesehatan kabupaten	District health office
Dinas kesehatan provinsi	Province health office
DPT	Diphtheria, pertussis, and tetanus
Dusun	Subvillage (smallest administrative level)
EBF	Exclusive breastfeeding
ERR	Economic rate of return
FGD	Focus group discussion
GoI	Government of Indonesia
HFIAS	Household Food Insecurity Access Scale
ICC	Inter-cluster correlation
IDI	In-depth interview
IFA	Iron folic acid
IFLS	Indonesian Family Life Survey
IRB	Institutional review board
IYCF	Infant and young child feeding
Kabupaten	District
Kader desa	Village volunteer
Kader posyandu	Integrated health service post volunteer
Kartu menuju sehat (KMS)	Healthy growth chart
Kecamatan	Subdistrict
Kelas balita	Class for caregivers of young children

Kelas ibu hamil	Maternal health class
Kepala desa	Village head
Kesling	Environmental health
KPI	Generasi key performance indicator
LBW	Low birth weight
Makanan umpat bintang	"Four-star" diet
MCA-I	Millennium Challenge Account-Indonesia
MCC	Millennium Challenge Corporation
MDD	Minimum detectable difference
MDI	Minimum detectable impact
M&E	Monitoring and evaluation
MIYCF	Mother, infant, and young child feeding
MNP	Micronutrient powder
MoH	Ministry of Health
MUAC	Middle-upper arm circumference
Musyawarah Antar Desa (MAD)	Inter-desa meeting
Najis	Ritually unclean
NGO	Non-governmental organization
OD	Open defecation
ODF	Open defecation free
OLS	Ordinary least squares
PHO	Provincial health office
Program Air Minum dan Sanitasi Berbasis Masyarakat (*PAMSIMAS*)	Third Water Supply and Sanitation for Low Income Communities Project
Pedoman Teknis Operasi (PTO)	Technical Operations Manual
Pemberian Makanan Tambahan (PMT)	Nutritional supplements provided by the government
Pendidikan Anak Usia Dini (PAUD)	Early childhood education and development
Polindes	Village birthing post/clinic
Pos pelayanan terpadu (Posyandu)	Monthly integrated maternal and child health service post
Poskesdes/ponkesdes	Village health post
Program Nasional Pemberdayaan Masyarakat —Generasi Sehat dan Cerdas (PNPM-Generasi)	National Community Empowerment Program: A Healthy and Smart Generation
Promkes	Health promotion
Provinsi	Province
Pusat kesehatan masyarakat (Puskesmas)	Subdistrict health center
RCT	Randomized control trial
Rukun tetangga (RT)/rukun warga (RW)	Subvillage or neighborhood (smallest administrative level)
Sanitasi Total Berbasis Masyarakat (STBM)	Indonesian National Strategy for Community-Based Total Sanitation and Hygiene
Taburia	Micronutrient brand distributed in Indonesia
Tim Dusun Pemberantas BABS	Subvillage sanitation committee
Tim Desa Pemberantas BABS	Village sanitation committee

ToT	Training of trainers
UNICEF	United Nations Children's Fund
WHO	World Health Organization

1. EXECUTIVE SUMMARY

Child stunting affected an estimated 36 percent of children under age 5 in Indonesia in 2013, despite decades of reducing poverty, child mortality, and the fraction of children who were underweight (World Health Organization 2013). To address Indonesia's undernutrition challenges, the Millennium Challenge Corporation (MCC) and Millennium Challenge Account-Indonesia (MCA-I) partnered with the Government of Indonesia (GoI) and other key stakeholders such as the Ministry of Health and the Ministry of Villages to fund and implement the Community-Based Health and Nutrition to Reduce Stunting Project, also known as the Nutrition Project, in 11 of Indonesia's 34 provinces from 2013 to 2018.

MCC contracted with Mathematica Policy Research to conduct a rigorous randomized evaluation of the Nutrition Project to understand the project's effects on stunting and related key maternal and child health outcomes. The evaluation takes place in 3 of the 11 Nutrition Project provinces. The evaluation seeks to answer three key questions about the Nutrition Project: (1) How were the various components of the Nutrition Project implemented? (2) What is the impact of the Nutrition Project's package of supply- and demand-side activities on key outcomes, including outcomes in maternal health, child health, behavioral practices, and receipt of health services? (3) What is the impact of the Nutrition Project on key subgroups, such as those defined by socioeconomic status, mothers' level of schooling, children's gender, geographic location (peripheral versus more connected areas), and service availability?

This report presents the findings from interim data collection for the Nutrition Project that took place between October and December 2017. The objective of the interim study is to examine project implementation progress and assess impacts on short- and medium-term outcomes that are hypothesized to lead to the project's long-term goals, such as improvements in maternal and child health.

1.1. Overview of the Nutrition Project

The Nutrition Project focused on improving the health and nutrition of pregnant women as well as children under age 5, with an emphasis on children under age 2. MCC and MCA-I envisioned that different activities would occur simultaneously and thus have the maximum impact on a cohort of children who would benefit from various activities from gestation through the first 1000 days of life. Project activities consisted of multiple supply and demand-side interventions, which MCC divided into three major components:

1. The community project activity known as PNPM-*Generasi* or just Generasi

2. A set of supply-side activities like infant and young child feeding (IYCF) training, nutritional group counseling sessions called *kelas ibu hamil* for pregnant women and *kelas balita* for caregivers of children ages under age 5, one-on-one counseling sessions (which occur mostly through prenatal and postnatal appointments and interactions with health service providers), growth monitoring training (which focused on assessing child growth and treating stunting, wasting, and underweight), and community-led total sanitation (CLTS) training and triggering (which aims to mobilize communities to take collective action around open defecation [OD]), that target primarily health providers

3. A national and sub-national communications campaign to promote awareness about stunting

MCA-I implemented the Nutrition Project over the course of five years, from 2013 to 2018.

1.2 Objectives of the interim study

The interim study seeks to highlight implementation accomplishments and shortcomings, assess whether the project caused conditions in treatment areas to improve above and beyond conditions in control areas (i.e., assess some interim impacts), and better understand progress toward achieving short- and medium-term outcomes related to service provider training and Generasi. We further detail these objectives in Table 1.1 below and discuss how they relate to various levels of the program logic.

TABLE 1.1. INDICATORS STUDIED AND CORRESPONDING STUDY OBJECTIVES FOR THE INTERIM STUDY

Outcome level	Indicator area	Interim study objective
Output	IYCF, growth monitoring, and CLTS training	Observe and assess the quality of implementation of the IYCF, growth monitoring, and CLTS training
Short-term outcome	Service provider knowledge	Assess changes in knowledge of key concepts included in IYCF, growth monitoring, and sanitation training among targeted health service providers at the puskesmas and desa (village) levels
Short-term outcome	Community-level implementation: nutritional counseling sessions	Observe and assess nutritional counseling sessions implementation quality and quantity delivered by providers at the desa level
Short-term outcome	Community-level implementation: one-on-one counseling and supportive supervision	Assess the frequency with which puskesmas and desa-level service providers are serving household beneficiaries through one-on-one counseling
Short-term outcome	Community-level implementation: CLTS triggering	Observe and assess the CLTS triggering implementation quality
Short-term outcome	Community-level implementation: Generasi activities	Analyze trends in use of Generasi block grants by desa
Medium-term outcome	Community-level behavior change results	Assess changes in open defecation-free (ODF) status across targeted areas

1.3. Data sources and analysis

We utilize three main data sources for the interim analysis covered in this report. The first data source is quantitative phone surveys with desa- and puskesmas-level health service providers (kader posyandu, bidan, bidan coordinators, nutritionists, sanitarians) whom we surveyed at baseline. We used these data to compare outcomes measured at baseline or at interim between service providers in treatment and control areas.

Second, we utilized qualitative data from focus group discussions and in-depth interviews with stakeholders involved in and targeted by IYCF and CLTS project activities, including health service providers and participants of nutritional group counseling sessions and triggering events. These data also include direct observations of IYCF trainings for desa-level stakeholders,

nutritional group counseling sessions, and sanitation triggering events. We used triangulation techniques, which involve testing for consistency in findings across multiple methods of inquiry and data sources (Patton 2002), to confirm patterns and identify inconsistencies across data sources.

Third, we analyzed data from a Ministry of Villages, Disadvantaged Regions, and Transmigration database that includes detailed information about which Generasi activities every desa implemented and the cost of each activity from 2012 to 2017 across the 11 MCC-supported provinces. Our descriptive analysis focused on the types and cost of activities that Generasi funded in project desa.

1.4. Key interim findings

The highlights from each of the main areas we explored in this study are as follows:

Infant and young child feeding (IYCF) and growth monitoring training. Two core components of the Nutrition Project were nutrition-focused trainings for service providers that included (1) a comprehensive training on IYCF topics and (2) a training on how to measure and monitor the growth of infants and young children. MCA-I worked with the Ministry of Health to cascade these trainings from the national level through multiple intermediate administrative levels to ultimately train primary care providers and volunteer health workers who reach the target beneficiaries. The IYCF training was implemented; our analysis shows that significantly higher fractions of service providers (kader posyandu, bidan, bidan coordinators, and nutritionists) were trained in treatment compared to control areas.

MCA-I's cascade model for delivering IYCF training in which more senior staff in Ministry of Health's administrative hierarchy trained staff at the lower levels was relatively successful. Although we only found occasional, modest improvements in service provider knowledge on basic questions from the quantitative survey, for example about the recommended length of breastfeeding and when to initiate complementary feeding, the qualitative work revealed that training participants at all levels gained new and in-depth knowledge in these topics. For example, bidan learned more about latching techniques, expressing breastmilk, and how to adjust the texture and portion size of food based on an infant's age.

For bidan and kader posyandu, the IYCF training focused heavily on one-on-one counseling, or how the service providers could improve methods of advising women during patient appointments or informal interactions about for example a healthy pregnancy, troubleshooting breastfeeding challenges, or appropriate complementary feeding strategies. However, these providers do not receive much guidance about how to conduct nutritional group counseling sessions (kelas ibu hamil and kelas balita), a critical mechanism for delivering messages covered in the training.

As with the IYCF training, growth monitoring training was implemented and higher fractions of bidan coordinators and nutritionists were trained in treatment compared to control areas. We did not carry out any qualitative data collection on this topic. We have some indication that provider knowledge improved in this area. For example, bidan coordinators were significantly more likely

to be knowledgeable about how to measure child length in treatment areas compared to control areas. Although nutritionists were no more likely to be knowledgeable about this topic, even though they were trained along with bidan coordinators.

Nutritional group counseling sessions, one-on-one counseling, and supportive supervision. Nutritional group counseling sessions – existing Ministry of Health platforms for reaching and serving pregnant women and mothers of young children – are a critical link in the Nutrition Project program logic because the sessions are expected to enable newly trained bidan and kader posyandu to have more frequent, higher quality interactions with women. These sessions emphasize the importance of critical IYCF practices during pregnancy and after childbirth, and include topics such as diet during pregnancy, breastfeeding, complementary feeding, sanitation, immunization, and the importance of giving birth with a trained midwife.

We found that kader posyandu and bidan were leading or helping to lead many more group counseling sessions at interim than they had at baseline. These providers report that group counseling sessions are taking place around 7-9 times a year, so nearly monthly in some areas. However, this improvement was equal across treatment and comparison groups, indicating that it cannot be attributed to the project.

Our findings about group counseling session quality are mixed. On the positive side, we found bidan in treatment areas were slightly more likely (10 percentage points) to report holding a kelas balita in the month before the interim survey than bidan in control areas. We found a similar theme from the qualitative analysis, which showed that bidan or puskesmas staff generally took the lead role in both types of group counseling sessions and were typically assisted by kader posyandu. Having more highly-trained staff in the lead is potentially promising for the quality of the counseling sessions, especially given that some kader posyandu indicated that they did not feel they had a strong enough grasp of the material to facilitate the sessions independently. However, there is a lot of room for improvement in terms of group counseling session content and presentation. The sessions did not always cover key IYCF messages in depth. For example, many of the kelas ibu hamil discussed exclusive breastfeeding, the benefits of colostrum, and the importance of keeping the breasts clean when breastfeeding. However, it was rare that they covered recommended breastfeeding frequency, proper breastfeeding positions, or breastfeeding attachment strategies.

Another significant challenge to delivering content was the chaotic nature of the classes. Especially the kelas ibu hamil were often held before or after the posyandu, when many community members and service providers were arriving or departing. Mothers universally attended these sessions with their children, and dividing their attention between caregiving and listening to instruction made it difficult for them to absorb the material.

We only measured the frequency with which service providers reported delivering one-on-one counseling and supportive supervision quantitatively. We found that while one-on-one counseling, such as prenatal visits, improved between baseline and interim, this change is not attributable to the project. There was little difference in one-on-one counseling across treatment and control groups, with the exception that bidan coordinators in treatment areas were more likely to identify stunted children as part of their jobs. Similarly, in the area of supportive

supervision, a mechanism for puskesmas staff to support and oversee bidan's and kader posyandu's work, bidan coordinators and nutritionists carried out these tasks with similar frequency across treatment and control areas.

Community-led total sanitation (CLTS), sanitation triggering, and achieving open-defecation free (ODF) status. In addition to improving IYCF practices, the Nutrition Project sought to also improve sanitation behaviors by leveraging the CLTS approach, which entails mobilizing communities to address open defecation. A key element of CLTS is triggering, which are community gatherings that include interactive activities to help individuals confront the impact of open defecation and begin working on joint solutions.

Like IYCF training, MCA-I also implemented a cascade approach for service providers. A higher fraction of sanitarians were trained on CLTS in treatment areas compared to control areas. However, training implementation faced some challenges. Sanitarians and kader desa (village volunteers who help implement CLTS) noted that the training consistently covered the core CLTS pillars, the multifaceted nature of CLTS, and the importance of effective communication. But they felt that the training did not sufficiently cover the triggering steps, specifically how to interact with the community and persuade them to participate in the triggering and to carry out triggering steps like the transect walk or explain disease contamination pathways. We hypothesize that training at this level was affected by weaknesses and quality at the kabupaten (district) level.

The project supported triggering events in treatment communities, and indeed we find that the project had an impact on triggering coverage: the proportion of desa and dusun (villages and sub-villages) triggered was significantly higher in treatment areas compared to control areas. And despite sanitarians' and kader desa's concerns about being able to carry out all of the triggering steps, our observations were that at least teams largely followed triggering steps. However, one of the key steps – that the community develops an action plan around how the community will change behavior and eliminate open defecation – was rarely implemented.

If communities seldom took action as a result of the triggering, it's not surprising that we find no difference across treatment and control communities in terms of ODF status. We also explain this result by the fact that communities lack funding for latrine construction. Sanitation entrepreneurs, supported by the project, were expected to build low-cost latrines and connect households to financing resources for latrines but were largely inactive in project areas.

PNPM-Generasi funding and interaction with health service providers. In the evaluation provinces, MCC and MCA-I supported Generasi from 2014-2017. The average block grant size from 2014-2016, the three years that the project was fully operational, across the evaluation provinces was approximately (RPS 74.4 million or ~US$5,400). Villages primarily chose to allocate their block grants – more than two-thirds of the grants – specifically to health-related activities, which is not surprising given that 10 out of the 12 indicators communities work toward improving under Generasi are health-related. Most of the health funding went to activities related to PMT (*Pemberian Makanan Tambahan*, or food support), group counseling sessions, and health services. (Health services mainly include the cost of health appointments and delivery for pregnant women and women with children under age 5.)

Because health activities are central to Generasi, involving desa-level service providers in the planning and implementation of these activities may have been important to their success. By the time of the interim survey, nearly all bidan and kader posyandu in treatment areas knew about Generasi and more than half had participated in planning meetings about how to allocate Generasi block grants. However, bidan's and kader posyandu's role in Generasi seemed largely limited to reporting on Generasi indicators or distributing PMT funded through Generasi.

1.5. Conclusion

Overall we find that many of the key pathways from outputs to short-term and medium-term outcomes that MCC and MCA-I envisioned were not fully realized at interim. For example, at the output level, we know that more service providers in treatment areas were trained on IYCF than in control areas. At the short-term outcome level, it is possible that the training improved their ability to diagnose, counsel, and treat nutrition and stunting. We see some indications that the training was beneficial for many service providers. However, the training alone might not have improved the medium-term level outcome community behaviors, since we know that the quality of the nutritional counseling sessions was often poor and that nutritional counseling sessions were implemented with equal frequency in control areas. We also know that one-on-one counseling and supportive supervision did not happen with greater frequency in treatment compared to control areas.

Similarly, at the output level for sanitation, we find that service providers in treatment areas were trained on sanitation; and at the short-term outcome level, triggering events happened more frequently in treatment areas than in control areas. But it seems unlikely that the training and triggering improved the medium-term outcome hygiene practices and sanitation behavior given the high fraction of sanitarians also trained on CLTS in control areas and challenges with the quality of training and triggering implementation. Triggering was implemented, but there was very little follow-up by communities to take action towards ODF.

In addition, while the IYCF and CLTS training rolled out at a slower pace than expected, Generasi largely began on schedule, limiting the synchronicity between these two activities that MCC initially envisioned. The limited interaction between IYCF and Generasi could account for the lack of subsequent downstream effects on nutritional counseling sessions, one-on-one counseling, and supportive supervision. In addition, the Ministry of Villages ended Generasi block grants by mid-2017 in preparation for Generasi being replaced with Village Law funding. Since Generasi ended earlier than anticipated, the long-term impacts of that activity might not be achieved.

Overall, our assessment from the interim study is that few of the outputs and short- and medium-term outcomes that we examined had improved beyond conditions in control areas. Therefore, it might be difficult for the project to achieve its envisaged long-term outcomes; it will be important for us to take this into account in finalizing our plans for the endline data collection.

2. INTRODUCTION

Child stunting affected an estimated 36 percent of children under age 5 in Indonesia in 2013, despite decades of reduction in poverty, child mortality, and the percentage of underweight children (World Health Organization 2013).[1] To address Indonesia's undernutrition challenges, the Millennium Challenge Corporation (MCC) and Millennium Challenge Account-Indonesia (MCA-I) partnered with the Government of Indonesia (GoI) and other key stakeholders such as the Ministry of Health and the Ministry of Villages to fund and implement the Community-Based Health and Nutrition to Reduce Stunting Project, also known as the Nutrition Project, in 11 of Indonesia's 34 provinces from 2013-2018.[2] MCA-I estimated at the outset that approximately 1.7 million children would benefit from the project (MCA-I 2017).

MCC contracted with Mathematica Policy Research to conduct a rigorous randomized impact evaluation of the Nutrition Project to understand the project's impacts on stunting and on related maternal and child health outcomes. The evaluation investigates project impacts in 3 of the 11 provinces and will compare outcomes in 95 treatment kecamatan to 95 control kecamatan across those three provinces. This report presents the findings of an interim data collection effort conducted between October and December 2017 as part of the evaluation. The interim study draws on qualitative and quantitative data sources to study project implementation and short- and medium-term outcomes hypothesized to lead to the long-term outcomes such as reductions in stunting.

We organize this report into eight chapters. In the remainder of Chapter 2, we provide background on the Nutrition Project, briefly describe the impact evaluation, and discuss the purpose of the interim study. Chapter 3 reviews the data sources and analysis methods we used for the interim study. Subsequent chapters present findings related to various components of the Nutrition Project. Chapter 4 presents findings related to infant and young child feeding (IYCF) and growth monitoring training. Chapter 5 presents findings from nutritional group counseling sessions and one-on-one counseling by service providers. Chapter 6 presents findings from community-led total sanitation (CLTS) training and triggering. Chapter 7 presents findings from PNPM-Generasi implementation. The final chapter, Chapter 8, concludes.

[1] The World Health Organization (WHO) defines stunting as having a height or length for age of more than two standard deviations below the median of a healthy reference population. In addition to stunting, the other standard anthropometric indicators of undernutrition are underweight and wasting. These are defined as having a weight-for-age and weight-for-height, respectively, more than two standard deviations below the median of a healthy reference population. Because the term malnutrition includes the overweight (high weight-for-height) indicator, we use the term undernutrition in this report to refer to the outcome of insufficient food intake and repeated infectious diseases as manifested by stunting, underweight, and wasting (WHO 2010).

[2] The 11 provinces in the Nutrition Project are West Java (*Jawa Barat*), East Java (*Jawa Timur*), East Nusa Tenggara (*Nusa Tenggara Timur*), West Nusa Tenggara (*Nusa Tenggara Barat*), West Sulawesi (*Sulawesi Barat*), North Sulawesi (*Sulawesi Utara*), Gorontalo, Maluku, West Kalimantan (*Kalimantan Barat*), Central Kalimantan (*Kalimantan Tengah*), and South Sumatra (*Sumatera Selatan*).

2.1. Nutrition Project background

In this section, we provide an overview of the Nutrition Project's structure and timeline, as well as the project's logic model.

2.1.1. Nutrition Project activities and implementation timeline

The Nutrition Project focused on the health and nutrition of pregnant women as well as children under age 5, with an emphasis on children under age 2. Project activities consisted of multiple supply and demand-side interventions, which MCC divided into three major components: (1) the community project activity, (2) a set of supply-side activities that target primarily health providers, and (3) a national communications campaign to promote awareness about stunting. The project totaled US$131.5 million: $81.6 million for the community project activity; $36 million for the supply-side activities; and $13.9 million for national communications campaign, project management, and monitoring and evaluation.

MCA-I and partners implemented these activities in the context of a decentralized health system. Table 2.1 outlines the structures of the Indonesian administrative and health systems that are relevant to the Nutrition Project and that we refer to throughout this report. As we describe below, most project activities involved health facilities and workers at the *kecamatan* (subdistrict) and/or *desa* (village) levels.

TABLE 2.1. STRUCTURE OF THE RURAL INDONESIAN HEALTH SYSTEM

Administrative level	Health facilities relevant to the Nutrition Project	Key health workers relevant to the Nutrition Project
Provinsi (province)	Dinas kesehatan provinsi (province health office)	Dinas kesehatan provinsi staff, for example, those involved in training
Kabupaten (district)	Dinas kesehatan kabupaten (district health office)	Dinas kesehatan staff, for example, those involved in training
Kecamatan (subdistrict)	Puskesmas (health center)	Bidan (midwife), nutritionist, sanitarian, health outreach workers
Desa (village)	Poskesdes/ponkesdes (village health post) Polindes (village birthing post/clinic)	Bidan, village nurses Desa facilitator/Kader Pemberdayaan Masyarakat Desa or FD/KPMD (Generasi village facilitators and volunteers)
Dusun, rukun tetangga (RT), or rukun warga (RW) (subvillage)	Posyandu (monthly integrated maternal and child health service post)[1]	Bidan, kader posyandu (posyandu volunteers)[2]

[1]Posayndu are monthly health meetings that provide weighing and immunizations for children 0–5. Kader posyandu, who are volunteers, run the posyandu and provide weighing. Children 0–5 should be weighed monthly. If their weight drops below a critical threshold, the child's parents are referred to the puskesmas for services. Bidan desa, and occasionally staff from the puskesmas, attend the posyandu and provide immunizations and sometimes other health counseling. For many people in rural desa, posyandu are the main point of contact with the formal health system, especially during pregnancy and infancy (McLaughlin 2007).

[2]Kader posyandu are primarily responsible for improving attendance and facilitation at the posyandu and educating the community about the importance of antenatal care and the importance of using a skilled birth attendant.

The **community project activity** provided block grants and facilitation to desa for activities related to health and education (also known as *Program Nasional Pemberdayaan Masyarakat—Generasi Sehat dan Cerdas*, the National Community Empowerment Program: A Healthy and Smart Generation [PNPM-*Generasi* or Generasi]). Kecamatan allocated Generasi block grants to desa based on the number of target beneficiaries in each desa (focusing on pregnant women and children), the difficulty of accessing education and maternal and child health services in the desa and, after the first year, the progress each desa made on 12 health and education indicators.

The set of **supply-side activities** primarily targeted health providers including *puskesmas* (kecamatan-level health centers), *bidan* (midwives), and *posyandu* (desa-level child health service posts). These activities at the project design stage consisted of IYCF training, growth monitoring training (focused on assessing child growth and treating stunting, wasting, and underweight), providing anthropometric kits (length- and height-taking equipment, scales and measuring tapes to measure middle-upper arm circumference [MUAC] for pregnant women), distributing micronutrients for children (marketed under the Indonesian brand name Taburia), supporting CLTS implementation, an activity designed to encourage private sector participation in improving child health, and a service provider incentives activity. However, micronutrient distribution for children and the service provider incentives activity were not implemented. MCC supported these activities across the provinces where GoI was implementing Generasi, so that each participating kecamatan received a package of both demand- and supply-side interventions.

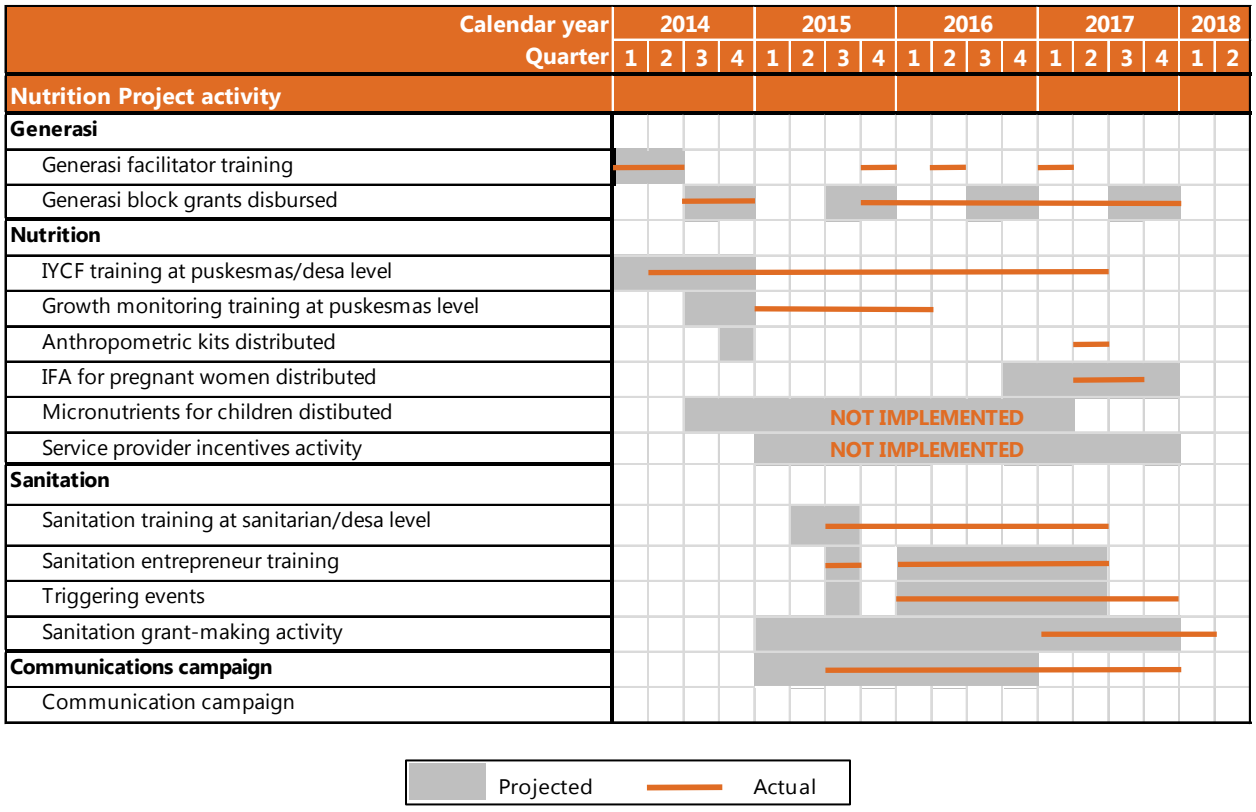
The **national communications campaign** aimed to promote increased awareness about stunting by disseminating to policymakers and caretakers of young children messages about infant and young child feeding, hygiene, and health care practices. The messaging also emphasized the role of all household members, including mothers and fathers, in improving child health and nutrition. At the national level, the campaign used mass media, including videos, a jingle, posters, and banners, to reinforce and popularize key nutrition messages. In addition, in three evaluation kabupaten, (out of 22 total included in the evaluation), yet not in control kecamatan in those three kabupaten, the campaign relied on *kader posyandu* (volunteers who run the posyandu) to implement kabupaten- and desa-level activities consisting of interpersonal communication training, advocacy, and community events at a local level. This approach reinforced the messaging around stunting at various social levels.

MCA-I implemented the Nutrition Project over the course of five years, from 2013 to 2018. The Figure 2.1 timeline begins in 2014 because that is when activity implementation started; preparatory activities took place in 2013. Figure 2.1 shows when each activity was intended to be implemented in September 2014, at the time of the evaluation design report (Beatty et al. 2014) and when implementation actually occurred over the life of the Compact. The project was planned such that different activities would be synchronized to have the maximum impact on a cohort of children who would benefit from various activities during gestation and the first 1000 days of life. However, that synchronicity was not possible due to several activity delays, described below.

Generasi facilitators received training on IYCF as part of their overall training; and the project was largely implemented according to schedule. MCC anticipated that Generasi would continue indefinitely in treatment kecamatan and be phased into control kecamatan in 2018, but the

project was phased out of the evaluation provinces in 2017 and replaced by one consolidated community-driven development (CDD) program at the village level. As we show in Chapter 7, the size of Generasi block grants in evaluation districts ended up being lower in 2017 due to this phase-out.

FIGURE 2.1. NUTRITION PROJECT TIMELINE THROUGH 2018



On the supply side, the majority of activities—puskesmas and desa-level IYCF training, growth monitoring training, anthropometric kit distribution, iron folic acid (IFA) tablet distribution, sanitation training at the kecamatan and desa levels, triggering, and sanitation grant-making activity (formerly the private sector response activity, which changed from an activity that could support nutrition and sanitation-related interventions, to one that focused solely on sanitation)—were implemented later than planned. MCA-I did not distribute Taburia or implement the service provider incentives activity.

The national communications campaign experienced delays of two calendar quarters and thereafter was largely implemented as planned. However, the sub-national campaign in the three evaluation kabupaten was delayed by three calendar quarters. Dosage was lower than anticipated, with the sub-national communications campaign only occurring in 11 districts. In addition, activities consisted of desa level advocacy and training of kader in communications, rather than the direct communication work at the desa level that was originally planned.

The implication of the delays or activity cancellation is that the project could not fully realize the synchronicity across activities anticipated at the design stage. The project economic rate of return (ERR) model assumed that two cohorts of children would have full exposure over the full window of activities and four cohorts would have partial exposure either in the early or late part of the window. However, due to the lack of activity synchronization, these assumptions might not hold in practice. For example, the project was designed so that the benefits of IYCF training would synchronize with Generasi. That is, Generasi would enable communities to use block grants to improve the frequency of one-on-one services and the frequency of nutritional counseling sessions. At the same time, the training would allow providers to deliver higher quality one-on-one services and nutritional counseling sessions. Because of delays in IYCF implementation, these complementary programs might not have had the intended effect.

2.1.2. Nutrition Project logic model

The logic model in Figure 2.2 shows the pathways between the activities we describe in Figure 2.1 and ultimate outcomes such as stunting, wasting, and underweight. The white boxes represent outcomes that the impact evaluation planned to measure, while the grey boxes represent outcomes not measured by the impact evaluation. Taken together, Generasi, IYCF training, growth monitoring training, and CLTS training would lead to improved health and nutritional status among pregnant women and children.

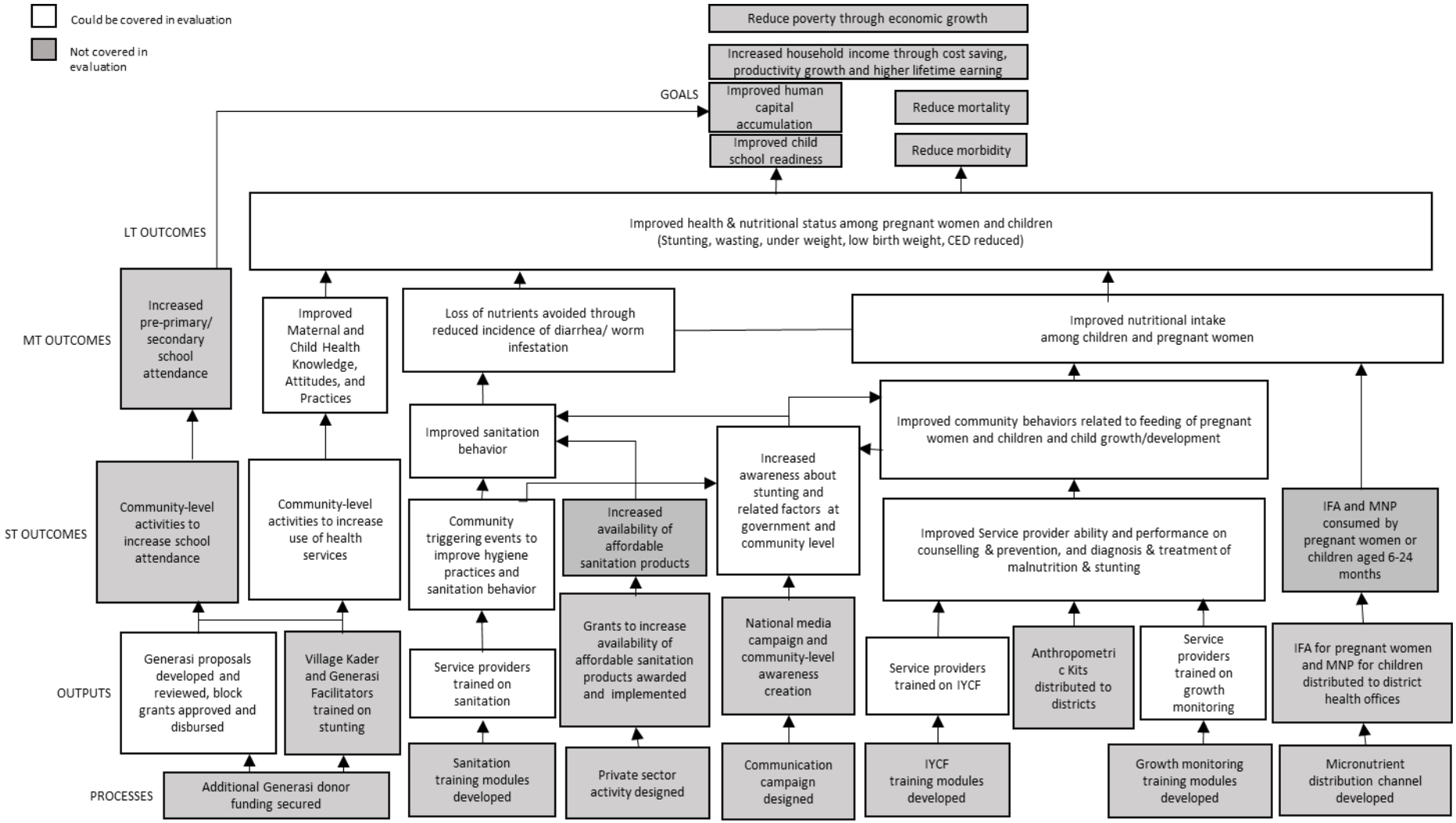
Generasi, by providing communities with funding to better access services, would help meet their demand-side needs. Generasi facilitators would possess greater awareness of IYCF and nutrition projects because modules on these topics were included in the standard Generasi training, and thus they could better support communities in realizing health improvements. Communities would be incentivized to focus on health improvements because the majority of Generasi indicators are health-related. The project also provided funding to access services, such as transport funds for pregnant women and bidan to attend prenatal appointments or deliver with trained health provider assistance. It also provided food assistance, such as in-kind support to poor families, families with children under age 5, or families with stunted children. Taken together, improved access to services and in-kind assistance would lead to improved maternal and child health outcomes.

MCC and MCA-I anticipated that service providers would be trained on IYCF and apply what they learned in the training to nutritional counseling sessions (kelas ibu hamil and kelas balita) and one-on-one counseling and services. This, along with growth monitoring training, would improve community behavior related to pregnant women and child nutrition, and child growth and development. These positive changes in community behavior would yield more exclusive breastfeeding, the introduction of complementary foods to children at the appropriate ages, and children receiving adequate health services such as immunizations, vitamin A, and micronutrients—all factors that would ultimately result in the improved health and nutritional status among pregnant women and children.

As for sanitation, the theory of change expects that sanitarians and kader desa (village volunteers) would receive CLTS training, and would then apply what they learned by triggering desa to improve sanitation behavior and hygiene practices. These sanitation and hygiene

improvements—for example, purchasing a latrine and no longer practicing open defecation (OD)—would lead to a reduced incidence of diarrhea and associated loss of nutrients and worm infestation.

FIGURE 2.2. MCC'S AND MCA-I'S LOGIC MODEL SHOWS THE PATHWAYS BETWEEN PROJECT ACTIVITIES AND OUTCOMES



Source: MCA-I Monitoring and Evaluation Plan (2017). https://assets.mcc.gov/content/uploads/Indonesia-Compact-ME-Plan.pdf

2.2. Overview of the impact evaluation

In order to determine whether the project improved health and nutritional status among pregnant women and children as envisaged in the program logic, MCC contracted Mathematica to conduct an impact evaluation. The Nutrition Project impact evaluation addresses the following three key research questions that focus on implementation and impacts:

1. How were the various components of the Nutrition Project implemented? For example, how did actual implementation compare to planned implementation, what were the main challenges to implementation, and which demand-side or supply-side elements were key drivers of impacts?
2. What is the impact of the Nutrition Project's package of supply and demand-side activities on key outcomes, including outcomes in maternal health, child health, behavioral practices, and receipt of health services?
3. What is the impact of the Nutrition Project on key subgroups, such as those defined by socioeconomic status, mothers' level of schooling, children's gender, geographic location (peripheral versus more connected areas), and service availability?

To answer these questions, we are implementing a randomized impact evaluation that utilizes quantitative and qualitative data. MCC conducted random assignment at the kecamatan level (95 treatment and 95 control) in 3 of the 11 provinces in which the project was implemented: West Kalimantan, Central Kalimantan, and South Sumatra. Because of random assignment, any differences between the treatment and control group that we observe after random assignment will be attributed to the project activities. In Chapter 3, we discuss in detail the quantitative baseline data collection (conducted from November 2014 to February 2015), quantitative and qualitative interim data collection (conducted from September 2017 to January 2018), and the interim study's analytical methods.

2.3. Interim study objectives

At the design report stage, Mathematica had planned to potentially conduct an endline survey in late 2018; but by early 2017, MCC and Mathematica had observed the significant project delays we discussed in Section 2.1.1. Thus we shifted to an interim study that focused more on the content and quality of Nutrition Project implementation to date, particularly at the output, short-term outcome, and medium-term outcome levels of the program logic. With this study we sought to highlight implementation accomplishments and shortcomings, assess whether the project caused conditions in treatment areas to improve above and beyond conditions in control areas (assess some interim impacts), and better understand progress toward achieving intermediate outcomes related to service provider training and Generasi.[3] We further detail these objectives in Table 2.2 below and discuss how they relate to various levels of the program logic.

[3] With the interim study, we are also seeking to inform MCC's decision about the timing and scope of endline data collection that balances MCC's accountability and learning objectives. We did not discuss this objective in this report because at the time of writing MCC was still making a decision about how to proceed.

TABLE 2.2. INDICATORS STUDIED AND CORRESPONDING STUDY OBJECTIVES FOR THE INTERIM STUDY

Outcome level	Indicator area	Interim study objective
Output	IYCF, growth monitoring, and CLTS training	Observe and assess the quality of implementation of the IYCF, growth monitoring, and CLTS training
Short-term outcome	Service provider knowledge	Assess changes in knowledge of key concepts included in IYCF, growth monitoring, and sanitation training among targeted health service providers at the puskesmas and desa levels
Short-term outcome	Community-level implementation: nutritional counseling sessions	Observe and assess nutritional counseling sessions implementation quality and quantity delivered by providers at the desa level
Short-term outcome	Community-level implementation: one-on-one counseling and supportive supervision	Asses the frequency with which puskesmas and village-level service providers are serving household beneficiaries through one-on-one counseling
Short-term outcome	Community-level implementation: CLTS triggering	Observe and assess the CLTS triggering implementation quality
Short-term outcome	Community-level implementation: Generasi activities	Analyze trends in use of Generasi block grants by desa
Medium-term outcome	Community-level behavior change results	Assess changes in open defecation-free (ODF) status across targeted areas

3. DATA SOURCES AND ANALYSIS METHODS

We utilize three main data sources for the interim analysis covered in this report: (1) quantitative phone surveys; (2) qualitative data generated from field-based data collection; and (3) a database of desa-level Generasi activities and spending from the Ministry of Villages, Disadvantaged Regions, and Transmigration. This section describes these interim data sources and the related analyses that we conducted for this report.

3.1. Data sources

Table 3.1 summarizes the three data sources used in this report. The first data source comprises **quantitative phone surveys** of health service providers whom we surveyed at baseline. We used the phone survey data to estimate differences in health service provision, service provider knowledge, and interactions between service providers and the Generasi project across treatment and control areas. We describe the analyses we used to estimate the treatment and control differences in more detail in Section 3.2.

TABLE 3.1. INTERIM DATA SOURCES

Data sources	Types of data	Respondents	Purpose
Quantitative phone surveys	Phone surveys with phone survey follow-up	Health and sanitation service providers interviewed in baseline survey (bidan, kader posyandu, bidan coordinators, nutritionists, sanitarians)	Estimate treatment-control differences in: Health service provision Service provider knowledge Interactions between providers and Generasi
Qualitative data	Focus group discussions (FGDs) In-depth interviews (IDIs) Direct observations Desa health service provider training Nutritional group counseling sessions Sanitation triggering events	Ministry of Health, District Health Office, and puskesmas staff Desa health and sanitation service providers Participants (and nonparticipants) in nutritional group counseling sessions Participants in triggering events	Learn about how project activities were implemented Assess their reach and quality Gain insight into factors facilitating or hindering successful implementation
Ministry of Villages database	Database of desa-level activities funded by Generasi	Generasi FD/KPMD	Examine types of desa-level activities funded through Generasi Examine allocation of Generasi funds to desa-level activities

The second data source comprises **qualitative data** from focus group discussions (FGDs) and in-depth interviews (IDIs) conducted with stakeholders involved in and targeted by project IYCF and CLTS activities. These data also include direct observations of IYCF trainings for desa-level stakeholders, nutritional group counseling sessions, and sanitation triggering events.

The third data source is a **Generasi database** from the Ministry of Villages, Disadvantaged Regions, and Transmigration that provided detailed information about how Generasi funds were spent in project desa from 2012 to 2017. The database consists of descriptions of all desa-level

Generasi-funded activities and the amount of annual funding allocated to each activity. We used the Ministry of Villages database to examine the types of activities that Generasi funded in project desa and the amount of funding that desa allocated to those activities.

3.1.1. Phone surveys

RTI International, our interim quantitative data collection partner, conducted quantitative phone surveys with health service providers whom SurveyMETER, our baseline data collection partner, had interviewed in person between November 2014 and February 2015. RTI conducted interim phone surveys between November 2017 and February 2018 and interviewed five types of service providers: bidan, kader posyandu, bidan coordinators, nutritionists, and sanitarians. Interim data collection was originally designed as a Short Message Service (SMS) survey with a telephone follow-up. However, the survey pilot resulted in concerns about the quality of the SMS responses, so RTI replaced the SMS survey with a phone survey, which it attempted to administer to all respondents who were eligible for an interim interview.

Table 3.2 shows the numbers of service providers targeted for interview in the interim phone surveys. We targeted all service providers interviewed at baseline for whom we had phone numbers. (Some respondents did not provide phone numbers during the baseline survey.) We also excluded service providers who had left the position they were interviewed about at baseline. Appendix Table A.1 shows the distribution of bidan and kader posyandu respondents across the treatment and control kecamatan. The distribution of respondents across kecamatan was broadly similar in the treatment and control groups and covered most of the sample kecamtan. We do not show such a table for the kecamatan-level respondents because most puskemas have one service provider type per kecamatan.

TABLE 3.2. SAMPLE SIZES AND RESPONSE RATES FOR INTERIM PHONE SURVEY

	Bidan	Kader posyandu	Bidan coordinators	Nutritionists	Sanitarians
Interviewed at baseline	560	774	245	214	203
No longer in baseline role	45	129	95	41	44
No phone number available	11	125	3	0	1
Eligible for interim interview	504	520	147	173	158
Completed interim phone interview	409	253	118	143	138
Percentage of eligible interim sample interviewed	81%	49%	80%	83%	87%
Percentage of baseline sample interviewed	73%	33%	48%	67%	68%

RTI employed a number of strategies to encourage respondents to participate in the phone survey. First, it conducted a prenotification call with all eligible respondents to verify their identity, inform the respondents that the survey was coming, and update their phone numbers (if necessary). For respondents with nonworking or missing phone numbers, RTI reached out to the head of their puskesmas, colleagues, and MCA-I facilitators to attempt to obtain a telephone number. In addition, RTI contacted every District Health Office, puskesmas, and MCA-I facilitators in the sample area with a letter and follow-up phone calls to ask for their support in encouraging staff to participate in the survey. MCA-I staff in Jakarta also distributed

prenotification letters to their local staff through WhatsApp and supported the outreach attempts to local health facilities and facilitators. Finally, RTI offered respondents financial incentives to participate in the phone survey: Rp 5,000 (37 cents) for agreeing to participate, and Rp 20,000 ($1.46) for completing the survey.

For most of the service providers, RTI was able to conduct complete interviews with at least 80 percent of respondents who were eligible for phone interviews (and close to or more than 70 percent of the respondents interviewed at baseline). Note that the bidan coordinator response rate is relatively low when taken as percentage of baseline. This is because many bidan coordinators shifted to working as bidan desa. Because their roles had changed, they were no longer eligible for interview.

Also note that RTI was only able to achieve a response rate of 49 percent of eligible respondents (or 33 percent of the baseline sample) for kader posyandu. We hypothesize this is due to two reasons. First, as shown in Table 3.2, kader posyandu were less likely than all the other providers to provide a phone number at baseline. Because the kader posyandu were volunteers rather than formal health providers, kader posyandu were probably less likely to have access to phones than other providers, although we cannot rule out the possibility that they were also less willing to provide a phone number to enumerators. Second, kader posyandu were also much more likely than the other providers to permanently be in areas of the desa with weaker cellular phone reception. Bidan coordinators, nutritionists, and sanitarians were based at the puskesmas, which were generally in more developed areas in the center of the kecamatan, and bidan are more likely to travel around the desa and spend at least some time in areas with better cellular phone reception. Below, we discuss how we made adjustments for nonresponse among kader posyandu—and other types of respondents—in the analysis.

Because the interim surveys were originally designed to be administered through SMS, the questionnaires focused on a few key measures from the baseline survey that could be administered in a simple SMS format. The questionnaires focused on three broad topics: (1) service provision, (2) knowledge, and (3) interaction with Generasi. Table 3.3 includes examples of questions in these three topics in each of the four questionnaires that we developed. (We developed a single questionnaire for both bidan coordinators and nutritionists because they carry out similar roles at the puskesmas and received the same training.)

TABLE 3.3. TOPICS OF QUESTIONS INCLUDED IN PHONE SURVEY QUESTIONNAIRES

Questionnaire	Question topics		
	Service provision	Knowledge	Interaction with Generasi
Bidan	Nutritional group counseling sessions (kelas balita, kelas ibu hamil) Posyandu support Prenatal and postnatal visits Breastfeeding counseling IFA distribution	Early initiation of breastfeeding Prelacteal feeding Exclusive breastfeeding Complementary feeding Developmental impacts of stunting	Generasi staff Desa planning meetings Support for nutritional group counseling sessions
Kader posyandu	Support from puskesmas Height/length measurement Nutritional group counseling sessions Breastfeeding counseling	Complementary feeding Developmental impacts of stunting	Generasi staff Desa planning meetings Support for nutritional group counseling sessions
Bidan coordinator/ Nutritionist	Supervision of bidan Posyandu support IFA distribution Breastfeeding counseling Care for stunted children	Height/length measurement Developmental impacts of stunting	NA
Sanitarian	Supervision of sanitation in desa/dusun Triggering Open Defecation Free (ODF) status STBM activities and monitoring Training kaders/promkes Sanitation entrepreneurs	Developmental impacts of stunting Role of sanitation in stunting Transect walks	NA

Source: Bidan, kader posyandu, bidan coordinator/nutritionist, and sanitarian interim (2017) surveys.

Note: The survey instruments for bidan coordinators/nutritionists and sanitarians did not include questions related to their interactions with the Generasi project because the focus of the project was desa-level health service implementation (bidan and kader posyandu) rather than kecamatan-level providers.

NA = not available.

3.1.2. Qualitative data collection

SurveyMETER led the qualitative data collection effort, which focused on the following components of the Nutrition Project: (1) IYCF training; (2) nutritional group counseling sessions, including kelas ibu hamil and kelas balita; (3) CLTS training; (4) triggering; and (5) Generasi. The goal was to learn about the reach and quality of these activities, and factors facilitating or hindering their implementation. To help achieve these learning objectives, SurveyMETER collected interim qualitative data between October and December 2017. They conducted observations of project activities as well as FGDs and IDIs with a variety of respondents. Below, we provide details on how SurveyMETER selected kabupaten and kecamatan for the data collection, and then identified respondents within the selected areas.

Kabupaten and kecamatan selection

SurveyMETER sought to speak with stakeholders involved in all levels of the project as well as stakeholders the project may have influenced. That is, they aimed to conduct FGDs or IDIs with (1) government staff and service providers who recently participated in trainings supported by the project, and (2) stakeholders who participated in community-level activities through which the project sought to effect change—kelas ibu hamil, kelas balita, and triggering events. In addition to conducting FGDs and IDIs, SurveyMETER also hoped to observe the project- and community-level activities that are the focus of this interim study. Specifically, they hoped to observe IYCF trainings at the bottom of the cascade (that is, the trainings for bidan and kader posyandu), kelas ibu hamil, kelas balita, and triggering events. (CLTS training had wound down before data collection began.)

FIGURE 3.1. SELECTED KABUPATEN, BY PROVINCE

Kalimantan Barat
Landak
Melawi
Sekadau
Kalimantan Tengah
Kapuas
Pulang Pisau
Seruyan
Sumatera Selatan
Empat Lawang
Ogan Komering Ilir
Ogan Komering Ulu Selatan

To achieve their multiple data collection objectives, SurveyMETER selected nine kabupaten (Figure 3.1) that met as many of the following criteria as possible: (1) received IYCF training in 2016–17,[4] (2) had refresher IYCF training for bidan and kader posyandu scheduled for October 2017,[5] (3) had ongoing kelas ibu hamil and kelas balita, and (4) had triggering events scheduled for October–November 2017.

Within these nine kabupaten, SurveyMETER went to 18 kecamatan, which they selected based on where IYCF trainings, kelas ibu hamil, kelas balita, and triggering events were ongoing. Typically, each kecamatan had one or two of these activities ongoing at the time of data collection. Of these 18 kecamatan, four were not included in the evaluation, but do appear to have received the MCA-I intervention.

Key data sources and respondent selection

Within selected kabupaten, SurveyMETER developed a detailed selection strategy for each data source, summarized below in Table 3.4. As mentioned, SurveyMETER observed project and community-level activities wherever possible. They also spoke with stakeholders at different levels who were involved in or influenced by project implementation (other than those they observed—to minimize burden). Finally, they spoke with women who did not participate in nutritional group counseling sessions in order to gain insight into potential barriers to access. Ultimately, SurveyMETER conducted 72 FGDs, 22 IDIs, and 25 observations. The FGDs and IDIs included a total of 565 respondents.

[4] All selected kabupaten met this criterion.

[5] Refresher trainings were identical to the original trainings.

TABLE 3.4. QUALITATIVE DATA SOURCES AND SELECTION APPROACH

Data source	Data collection method	Number	Selection approach
Nutrition			
MoH staff	IDI	1	Interviewed officials within the MoH's nutrition improvement and provision (PMKG) subdirectorate.
DHO staff	IDI	4	Randomly selected 4 of the 9 study kabupaten; interviewed DHO staff who had received IYCF training and provided training to puskesmas staff.
Puskesmas staff	IDI	3	In 3 of the kecamatan where the nutritional group counseling session observations were taking place, interviewed nutritionist and/or bidan coordinator.
IYCF training	Observation	4	Observed refreshment trainings for kader posyandu where they were ongoing during the time of data collection.
Bidan	FGD	9	Selected 9 kecamatan based on where counseling session observations were taking place. In each kecamatan, invited trained bidan from 9 randomly selected desa (typically 8 that were conducting counseling sessions and one that was not) to participate in FGD. The goal was to learn about on-the-ground implementation of the sessions and potential reasons why they were not being held.
Kader Posyandu	FGD	9	Selected 9 kecamatan based on where counseling session observations were taking place. In each kecamatan, invited 2 trained kader posyandu from each of 5 randomly selected desa (typically 4 that were conducting counseling sessions and one that was not) to participate in FGD.
Kelas ibu hamil	Observation	8	Observed kelas ibu hamil ongoing at the time of data collection conducted by trained facilitator (bidan, bidan coordinator, or nutritionist).
Kelas ibu hamil participant	FGD	9	Selected 9 kecamatan based on where counseling session observations were taking place. In each kecamatan, randomly selected desa where trained facilitators were conducting kelas ibu hamil. In that desa, randomly selected and invited to FGD 10 women from attendance list of trained facilitator.
Kelas ibu hamil nonparticipant	IDI	9	In the desa where participant FGDs were conducted, and a few neighboring desa (to meet targets), identified respondents by (1) asking bidan to compare kelas ibu hamil attendance list with pregnancy register, (2) asking bidan to recall who did not attend, (3) door-to-door searches by the data collection team, and (4) snowball sampling. Note that SurveyMETER originally planned to conduct FGDs with these respondents. However, this was logistically difficult to accomplish, so the data collection team conducted about 7 IDIs in each desa and summarized that data.
Kelas balita	Observation	9	Observed kelas balita ongoing at the time of data collection conducted by trained facilitator; data collectors observed the kelas balita for its entire duration.
Kelas balita participant	FGD	9	Same method as kelas ibu hamil participant.
Kelas balita nonparticipant	FGD	9	Same method as kelas ibu hamil nonparticipant.
Sanitation			
MoH staff	IDI	1	Interviewed officials within the MoH's environmental health directorate and water and basic sanitation subdirectorate (*Sanitasi Air dan Sanitasi Dasar*).
DHO staff	IDI	3	Interviewed staff who attended IYCF training and provided training to Puskesmas- and desa-level staff.
Puskesmas staff	IDI	9	Selected 9 kecamatan based on where nutritional group counseling session observations were taking place. In each kecamatan, interviewed staff—typically the sanitarian or health promotion staff person—who had received MCA-I's CLTS training.
Sanitation kader	FGD	9	Selected 9 kecamatan based on where counseling session observations were taking place. In each kecamatan, invited kader from the 2 to 3 desa that received CLTS training through MCA-I.

Data source	Data collection method	Number	Selection approach
Triggering event	Observation	4	Observed triggering events ongoing at the time of data collection conducted by trained facilitator.
Triggering participant	FGD	9	Selected 9 kecamatan based on where counseling session observations were taking place. In each kecamatan, randomly selected desa where triggering had been conducted by trained facilitators. In each desa, invited 10 participants randomly from 2–3 different dusun.
Cross-cutting			
MCA-I	IDI	1	Interviewed MCA-I staff working on the Nutrition Project.

Notes: MoH = Ministry of Health, DHO = District Health Office, FGD = focus group discussion, IDI = in-depth interview.

3.1.3. Ministry of Villages database

MCA-I shared with us a database from the Ministry of Villages, Disadvantaged Regions, and Transmigration, which includes spending data on Generasi activities in 11 provinces over six years: 2012 to 2017. The database includes information on activities conducted in the 8 non-evaluation provinces for 2012 to 2016 and in the 3 evaluation provinces for 2014 to 2017. The data set consists of a total of 66 kabupaten, 499 kecamatan, and 5,890 desa. These are essentially the monitoring data from the Generasi project. Funding for the 195,245 activities listed in the data set totaled Rp 1.8 trillion ($130,860,000), with an average annual cost of Rp 9,219,186 ($670) for each activity in each desa.

3.2. Analyses

Below, we describe the types of analyses we conducted to create the findings for this report using our three types of data sources presented in the previous section. We also discuss our approach to addressing the sampling design and phone survey nonresponse in our quantitative analyses.

3.2.1. Quantitative analyses

We used the following methods to compare quantitative outcomes across treatment and control areas to present the results of those comparisons and to address sampling in the baseline survey and nonresponse in the interim phone surveys.

Treatment and control comparisons

We based the analyses of quantitative outcomes from the survey data presented in this report on weighted multivariate analyses of service providers interviewed in both baseline and interim surveys. We restricted the analyses to service providers interviewed in both survey rounds to ensure that our estimates were not affected by changes in sample composition across different outcomes or survey rounds. We estimated all of our multivariate models using ordinary least squares regressions with standard errors clustered at the kecamatan level, the unit of randomization for the evaluation.

We compared outcomes measured at baseline or at interim between service providers in treatment and control areas by estimating the following multivariate model:

$$Y_{isdr} = \alpha_r + \beta_r * treatment_s + X_d + \varepsilon_{isdr} \quad [1]$$

where Y_{isdr} is the outcome of interest for individual i in kecamatan s in kabupaten d measured in survey round r (baseline or interim); $treatment_s$ is a binary indicator of whether kecamatan s was in the treatment group; X_d is a set of binary kabupaten indicators, which account for the kabupaten-level stratified randomization; and ε_{isdr} is a random error term. The coefficient β_r captures the average difference in outcome Y between treatment and control groups in survey round r.

In addition, because we collected data at two points in time for all of the service providers in our analytic sample, we also compared interim outcomes across treatment and control areas using the following model:

$$Y_{isd,interim} = \delta + \gamma_{interim} * treatment_s + \delta * Y_{isd,baseline} + X_d + \varepsilon_{isd,interim} \quad [2]$$

This model is the same as model [1] for the interim round, except that it also includes a control for $Y_{isd,baseline}$, the baseline value of outcome Y for individual i. By design, we can only estimate this model for measures captured in both baseline and interim. Like in model [1], the coefficient $\gamma_{interim}$ is our primary estimate of interest and captures the average difference in outcome Y at interim between treatment and control groups, only after accounting for baseline differences in the values of Y. However, because random assignment meant that most baseline treatment-control differences were small, the interim findings were typically similar with or without the additional control for baseline differences in model [2].

How we present quantitative results in the report

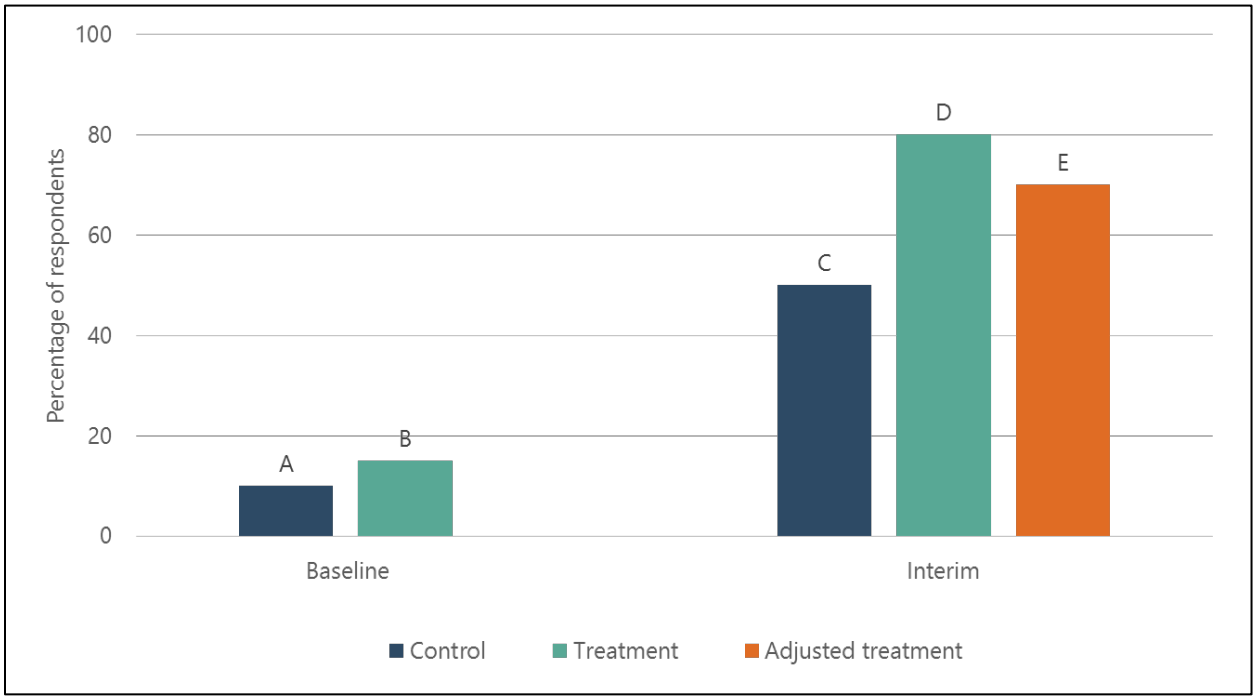
In subsequent chapters, we present most treatment and control differences graphically. Figure 3.2 presents an example of a figure used in this report. In the example, vertical bars A and C represent the control means at baseline and interim, respectively. Vertical bars B and D represent the equivalent treatment means, which are regression-adjusted for kabupaten fixed effects using model [1].[6] The difference between bars A and B can be interpreted as the baseline treatment-control difference, and the difference between bars C and D can be interpreted as the interim treatment-control difference (regression coefficient β_r in model [1]).

For outcomes measured at both baseline and interim, we include an additional bar, E, which represents the regression-adjusted treatment mean for a regression that includes the baseline value of the outcome using model [2]. The difference between bars C and E can be interpreted as the interim treatment-control difference with an adjustment for baseline differences (regression

[6] Intuitively this regression adjustment involves estimating the treatment-control difference within each kabupaten and then aggregating over all kabupaten.

coefficient $\gamma_{interim}$ in model [2]). Ultimately this is our best estimate of the interim treatment-control difference that is attributable to the Nutrition Project.

FIGURE 3.2. EXAMPLE OF INTERIM REPORT FIGURE SHOWING QUANTITATIVE RESULTS



Note: Treatment means B and D are regression adjusted for kabupaten fixed effects (teal bars), and treatment mean E is regression adjusted for kabupaten fixed effects and the baseline value of the outcome (orange bars).

Although the body of this report focuses on a graphical presentation of treatment and control comparisons for selected outcomes, we present the comparisons for *all* outcomes collected in the interim phone survey in table form in Appendix B. This includes comparisons of baseline outcomes and comparisons of interim outcomes adjusted for baseline differences for interim outcomes measured at baseline.

Weights and nonresponse in quantitative analyses

For estimates of baseline outcomes, we weighted the control mean and regression analyses using baseline sampling weights that we created for the Nutrition Project evaluation baseline report (Null et al. 2016). We designed these weights to ensure that: (1) the sample of service providers was representative of the relevant population in all kecamatan included in the evaluation and (2) the comparison of average outcomes between respondents in the treatment and control kecamatan was valid.

For estimates of interim outcomes, we weighted the control mean and regression analyses using a combination of these baseline sampling weights and a new set of weights that address potential nonresponse bias in the interim survey. The nonresponse weights were designed to make the sample of respondents who responded to the interim survey representative of the full sample of baseline respondents in terms of characteristics that were available in the data and might be correlated with outcomes. For example, if more-educated respondents were more likely to

respond to the interim survey (relative to their share of the sample) and also likely to have better outcomes than less-educated respondents, then the estimated level of outcomes at interim could be biased upward. In this example, nonresponse weights would correct for this by placing more weight on the responses of less-educated respondents.

To estimate the nonresponse weights, we conducted the following set of analyses that examined the relationship between baseline characteristics of baseline survey respondents and whether they responded to the interim survey:

- First, we identified baseline characteristics that were potentially correlated to the outcomes of interest and tested whether they were correlated with nonresponse using chi-squared tests. These measures include province, kabupaten, treatment status, age, percentage of knowledge questions answered correctly at baseline, time in current job, highest grade completed, type of certification, baseline position, whether the respondent lives in the desa where he or she works, and distance from respondent's home to work.
- We then constructed a stepwise logit model to identify a final set of characteristics that explained substantial variation in nonresponse for each service provider.
- Lastly, we used the final logit models to estimate the probability of nonresponse for each individual and adopted the inverse of the predicted probability as the nonresponse weight.

We estimated nonresponse weights for bidan, kader posyandu, and sanitarians, but we could not estimate nonresponse weights for bidan coordinators and nutritionists because we could not identify baseline characteristics that were significantly correlated with nonresponse (in the first step described above). This suggests that, at least based on the available baseline characteristics, the pattern of nonresponse for bidan coordinators and nutritionists was effectively random and unlikely to bias our findings.

Finally, we estimated final survey weights for all five types of providers by multiplying the nonresponse weights by the baseline sampling weights. By combining the nonresponse and baseline sampling weights, we created final survey weights that ensured that the interim respondents were representative of the sample frame and that our treatment and control comparisons were valid. (Appendix C presents more details related to the construction of the final survey weights).

An important caveat to the nonresponse weighting scheme is that it is based only on respondent characteristics that were available in the baseline survey data. We cannot entirely rule out the existence of unobserved respondent characteristics that are correlated with nonresponse and outcomes, which could still bias the findings. However, the findings were very similar with and without nonresponse weights based on a broad range of respondent characteristics, suggesting that such bias is unlikely. In addition, the scope for such bias is limited because the response rates for most respondent types exceeded 70 percent (as a percentage of baseline respondents), except for the kader posyandu sample (response rate of 35 percent).

3.2.2. Qualitative analyses

We used the following analytic methods to synthesize and analyze information generated through the qualitative data sources.

- **Distilling information into synthesis forms.** SurveyMETER staff took notes during the FGDs, interviews, and observations, and then supplemented and refined these notes based on recordings. Finally, they synthesized these notes using pre-prepared "forms," which had summary questions that each covered individual questions within the data collection protocols. These were the data we used for the following analysis steps.
- **Thematic framing and coding.** We coded the FGD, IDI, and observation data from the synthesis forms using a detailed coding scheme based on the research questions. Once coded, we examined the data for key themes related to project implementation and developed three thematic memos—focused on IYCF training, nutritional group counseling sessions, and CLTS training and triggering. These summarized findings by code, compiling both affirming and contradictory evidence related to each research question.
- **Use of checklists.** In addition to the narrative data captured in forms and analyzed using our coding scheme, SurveyMETER also captured some information using checklists. Specifically, they used checklists to track (1) topics covered during IYCF trainings, (2) topics covered during kelas ibu hamil and kelas balita, (3) how kelas ibu hamil and kelas balita were facilitated, (4) the steps covered during triggering events, and (5) the facilitation of triggering events. SurveyMETER integrated these checklists into protocols for the relevant FGDs, IDIs, and observations.
- **Triangulation.** Triangulation involves testing for consistency in results or findings across multiple methods of inquiry and data sources (Patton 2002). We used triangulation techniques to confirm patterns or findings and identify any inconsistencies across the data sources, including both the narrative and checklist data. The use of a systematic coding scheme (organized around the research questions) to analyze the data allowed us to triangulate efficiently across all data sources.

3.2.3. Analyses of Ministry of Villages database

Each desa-level activity implemented using Generasi funds listed in the Ministry of Villages data was categorized into one of three categories: health, education, or early childhood education and development (*Pendidikan Anak Usia Dini*, or PAUD). Within these sector categories, the database broke activities down into over 100 activity categories, which we aggregated into 36. For our descriptive analysis of the database, we examined on how Generasi funds were allocated to desa in different provinces at different years and how desa allocated their Generasi funds across different types of activities.

4. IYCF AND GROWTH MONITORING TRAINING

Two core components of the Nutrition Project were nutrition-focused trainings for service providers that included (1) a comprehensive training on IYCF topics and (2) a training on how to measure and monitor the growth of infants and young children. MCA-I worked with the Ministry of Health to cascade these trainings from the national level through multiple intermediate administrative levels to ultimately train primary care providers and volunteer health workers who serve the target beneficiaries. In this chapter, we provide background on the trainings, and summarize findings from our interim quantitative and qualitative data collection efforts. We begin with the IYCF training and follow with the growth monitoring training.

KEY FINDINGS ON IYCF AND GROWTH MONITORING TRAINING

IYCF training

- Service providers at the kecamatan and desa levels were significantly more likely to have received training than providers in control areas.
- Training participants at all levels reported gaining new and more detailed knowledge around key IYCF topics. There were modest improvements in service provider knowledge around IYCF and stunting, but not across the board; the improvements varied by topic and provider.
- Bidan and kader posyandu appreciated and internalized the guidance they received on one-on-one counseling guidance; however, they did not receive much guidance on how to conduct group counseling during the kelas ibu hamil and kelas balita.

Growth monitoring training

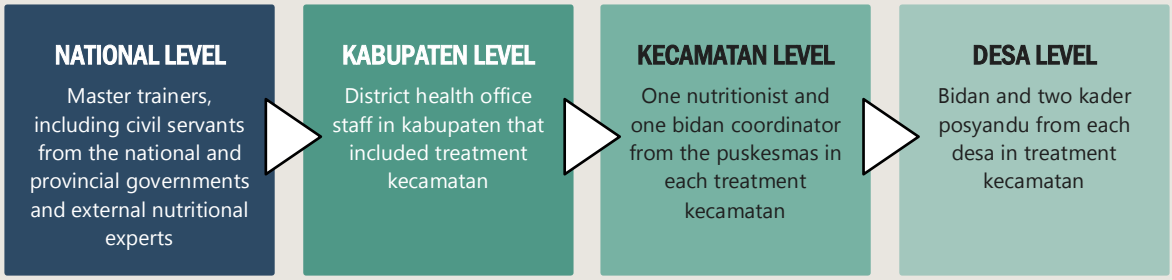
- Training was significantly more common in treatment areas than control areas, but as with IYCF, there were also high levels of training in control areas.

4.1. IYCF training

MCA-I supported IYCF training for health staff at the national, provincial, kabupaten, kecamatan, and desa levels through a cascade model (Figure 4.1). At the lower levels of the cascade, kabupaten health staff trained one nutritionist and one bidan coordinator per puskesmas. They, in turn, trained in each desa the one civil servant designated as the bidan (the bidan desa) as well as two out of several kader posyandu.[7] In the three evaluation provinces, MCA-I supported training for all kabupaten staff in kabupaten that included treatment kecamatan but only conducted training for kecamatan- and desa-level providers in treatment kecamatan. In total,

[7] Each desa comprises multiple dusun, each of which has a posyandu. There are two kader per posyandu, and therefore many kader in each village. The Nutrition Project trained two kader posyandu per village.

FIGURE 4.1. IYCF TRAINING CASCADE



the target was to train approximately 1,400 puskesmas staff and 17,000 bidan and kader posyandu per desa across all 11 provinces, according to the Nutrition Technical Operations Manual.

MCA-I adapted the content for the six-day IYCF training that was cascaded through these four levels from a United Nations Children's Fund (UNICEF) manual (see Figure 4.2 for a detailed list of modules). The training covered a variety of technical topics related to breastfeeding, complementary feeding, growth monitoring, and women's nutrition. It covered the first two topics in particular detail. On breastfeeding, the training provided information on breastfeeding techniques, common breastfeeding problems and how to address them, the risks of *not* breastfeeding for the mother and child, and breastfeeding when the mother or child is sick. On complementary feeding, the training provided detailed guidance on frequency, amount, texture, and variety, and how to adapt these with the child's age. Over and above sharing technical information, the training also sought to increase counseling capabilities. It included modules on counseling clients individually and on two types of group counseling.

The training manual provided guidance on how to use interactive methods to ensure participants understood and internalized the above information. Recommended interactive methods included group work, role play, discussions, demonstrations, and practice. The training provided several job aids, which MCA-I adapted slightly from the UNICEF materials for the Indonesian context. These included counseling cards to explain vital IYCF practices to beneficiaries, key messages booklets with guidance on what information providers should share when using counseling cards, and take home brochures for beneficiaries to use as a reference when needed.

Below we (1) provide details on how the training was rolled at the multiple levels of the cascade, (2) summarize findings on training participation at different levels, and (3) provide detailed findings on training content and facilitation by administrative level—kabupaten, kecamatan, and desa.

FIGURE 4.2. IYCF TRAINING TOPICS

Session 2: Why IYCF matters
- Definition of IYCF
- Ideal environment for healthy, well-nourished children
- IYCF data (showing nutritional status of country)

Session 3: Common situations that can affect breastfeeding
- Importance of colostrum
- Underweight or premature baby
- Kangaroo mother care
- Breastfeeding twins
- Baby refusing to breastfeed
- Breastfeeding while pregnant
- What to do about breastfeeding if mother is away from baby
- Reasons for baby crying
- Whether mother's stress influences breastfeeding
- Whether mother should breastfeed when she is sick
- Breastfeeding when the baby is sick
- Inverted nipple
- Diet during pregnancy
- Diet during breastfeeding

Session 4: How to counsel (Part 1)
- How to listen to and analyze what client is sharing
- Phases of behavioral change
- Father's role before, during, and after child's birth

Session 5: Recommended IYCF practices - Breastfeeding
- Risks of not breastfeeding for children and mothers
- Scheduling counseling sessions

Session 6: How to breastfeed
- Anatomy of breast and production of breastmilk
- Proper breastfeeding position
- How to pump breastmilk

Session 7: Recommended IYCF practices - Complementary feeding
- Importance of continuing breastfeeding after six months
- Frequency, amount, texture, and variety, by age

Session 8: Complementary foods
- 4-star diet, iodized salt, no sugary drinks

Session 9: Growth monitoring
- Growth measurement instructions
- How to fill out the Kartu menuju sehat (KMS) card, a growth tracking chart for children

Session 10: How to counsel (Part 2)
- Skills to build self-esteem and provide encouragement
- 3 steps of IYCF counseling

Session 11: Common breastfeeding difficulties
- Identifying common problems
- Symptoms and prevention
- How to address problems
- Re-lactation

Session 12: Field practice 1 and feedback
- Practice counseling individual clients

Session 13: Group counseling and home visits
- How to conduct action-oriented groups [a]
- How to lead IYCF support groups [b]

Session 14: 2nd field practice and feedback
- Practice conducting action-oriented groups
- Practice conducting IYCF support groups

Session 15: Women's nutrition
- Malnutrition cycle
- How to prevent malnutrition
- Birth spacing and Lactational Amenorrhea Method (LAM) family planning method

Session 16: Feeding the sick child
- Correlation between child feeding and sickness
- Breastfeeding when child is sick
- When to take child to health facility

Session 18: Integrating IYCF support into community health services
- How to integrate IYCF support into community health services such as CHNP

Session 20: Post-assessment and evaluation
- Written assessment
- Non-written assessment

Source: UNICEF's IYCF training manual

Notes: Not listed above are two modules—one that was only for the master trainers kicking off the cascade, and another focused on IYCF in the context of HIV (which the Indonesian version of the manual did not include).

[a] Action-oriented groups begin by the facilitator sharing a story, conducting a mini-drama or role play, or using a visual. Then she asks group participants what they **observed**, asks them to share what they **think**, asks them if they would be willing to **try** the practice, and asks them if they could **act** the same way.

[b] IYCF support groups provide a setting for new mothers to share their infant feeding experiences, and support one other.

4.1.1. Training rollout

In assessing the implementation of the IYCF training, we first sought to obtain a snapshot of how the sessions were rolled out at each level of the cascade—kabupaten, kecamatan, and desa. Our qualitative data indicate that training rollout at the three levels took place largely as planned. Figure 4.3 summarizes training length, location, facilitation, and participation at different levels. Trainings varied in length across administrative levels, typically took place in locations that were as central as possible, and were generally facilitated by the expected staff. The composition of training cohorts at the different levels was largely as anticipated, with a few exceptions. Below we detail a few key findings regarding training implementation.

FIGURE 4.3. IYCF TRAINING ROLLOUT

	Training for kabupaten staff (from district health offices)	Training for kecamatan staff (from puskesmas)	Training for desa staff (bidan and kader posyandu)
Length	6 full days of classroom training and one week of on-the-job training	3-8 full days	3 days (8-11 hours each day)
Location	Hotel conference room	Hotel conference room	Room at or close to Puskesmas
Facilitator	2 facilitators (both civil servants and external nutrition experts)	2 or more facilitators (from DHO)	2-3 facilitators (DHO and puskesmas staff for bidan trainings and Puskesmas staff for kader posyandu trainings)

Source: DHO and Puskesmas IDIs, observations of trainings for kader posyandu, and bidan and kader posyandu FGDs

Length: **Trainings became shorter as the cascade proceeded.** At the kabupaten level, district health office (DHO) staff received a six-day training, followed by one week of "on-the-job training," during which they practiced what they had learned by conducting a training for puskesmas staff. At the kecamatan level, puskesmas staff reported receiving trainings that were six to eight days long (though one reported a short training of three days). By contrast, trainings at the desa level were consistently three full days long.[8] As we discuss below, this may have influenced the comprehensiveness of the desa-level trainings.

Location: **Training venues were centrally located, but at the desa level were often smaller than ideal.** The trainings for desa-level staff, bidan and kader posyandu, took place at a room in or close to the puskesmas (often the official residence of the doctor at the puskesmas). Several complained that the rooms were cramped, especially for engaging in the practical segments of the training, which entailed preparing complementary food or practicing how to counsel patients.

[8] Although our observation and FGD data indicate that desa-level trainings were three full days long, we learned through key informants that trainings were sometimes conducted over six half-days.

Facilitator: **Trainings at each administrative level were generally conducted by facilitators from the level above, but bidan occasionally received training from more senior health staff than planned.** The cascade is structured such that bidan should receive trainings from puskesmas staff. However, we found that some bidan received training from joint pairs of DHO and puskesmas staff. This may have strengthened the quality of the training they received.

4.1.2. Training participation

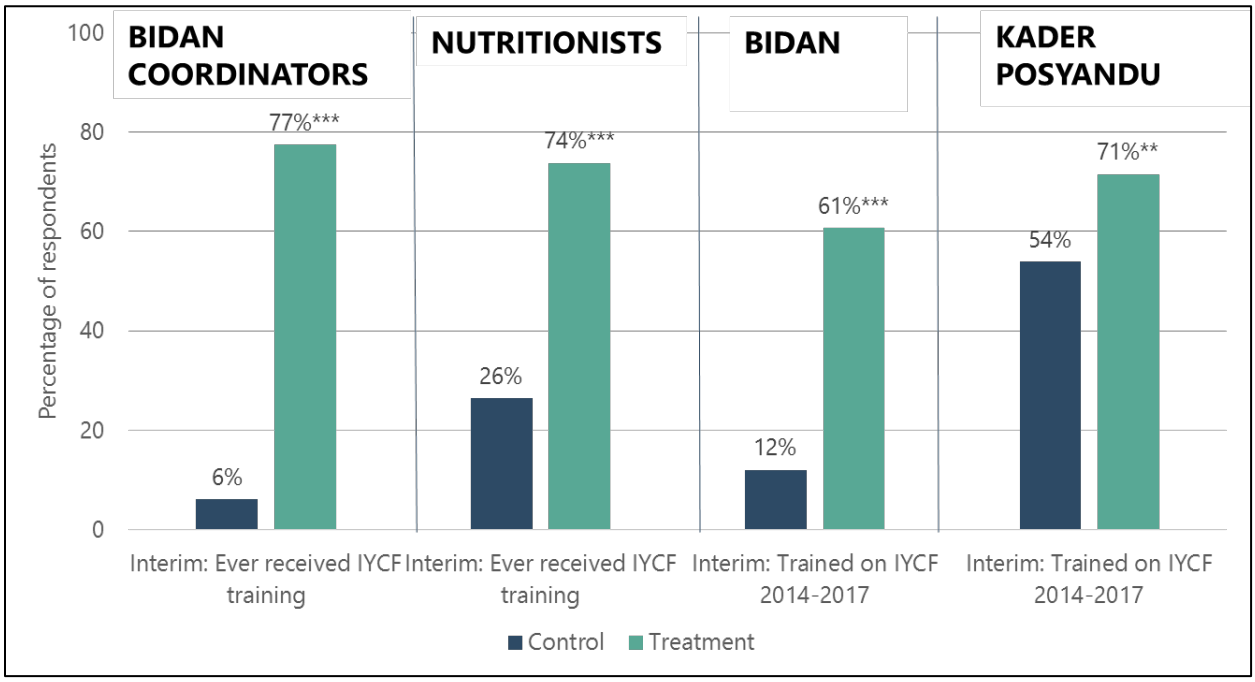
Next, we examined the extent to which the training was reaching target stakeholders to improve their knowledge. We drew on the phone survey data to measure training coverage among kecamatan- and desa-level service providers, and used qualitative data to gain insight into factors influencing training participation.

Kabupaten authorities occasionally sent staff to participate in the trainings who were not training targets, which had mixed results. Trainings generally targeted appropriate staff (from the DHO). However, sometimes puskesmas staff were sent to the training for kabupaten staff if the latter were particularly busy (for example, with preparing year-end reports). MCA-I initially resisted including these more junior staff in the training at the kabupaten level, but ultimately allowed them to participate. It is possible this may not have been a uniformly successful approach—one out of the four trainees we interviewed at this level of the cascade was from a puskesmas and reported feeling out of place and "inferior" at the kabupaten-level training. He also seemed under-confident, noting that he did not feel he had the same ability to conduct the trainings that others in the room did. That said, we heard this from only one respondent. The trainings for puskesmas staff also occasionally received replacements (nurses and bidan), and we did not hear about these stakeholders experiencing any challenges.

The majority of service providers at the kecamatan and desa levels in treatment areas reported receiving IYCF training; they were significantly more likely to have received training than providers in control areas. Through our phone survey, we found that 77 percent of bidan coordinators and 74 percent of nutritionists in treatment areas reported *ever* receiving IYCF training at interim (Figure 4.4). These rates were significantly higher than in control areas (6 percent and 26 percent, respectively). (We do not have interim measures of *recent* IYCF training for bidan coordinators and nutritionists, which would be more closely linked to the MCA-I trainings.)

At interim, we found that most bidan in treatment areas had received training in IYCF between 2014 and 2017 (61 percent), compared to very few in control areas (12 percent). For kader posyandu, the training rate was high in both treatment areas (71 percent) and control areas (54 percent), but the difference between the two was still statistically significant. The smaller difference between treatment and control areas for kader posyandu is likely due to the fact that the training focused on only two kader posyandu per village (that is, MCA-I trained a smaller fraction of kader posyandu than other service providers).

FIGURE 4.4. PERCENTAGE OF KABUPATEN- AND DESA-LEVEL SERVICE PROVIDERS WHO RECEIVED IYCF TRAININGS



Source: Bidan coordinators, nutritionist, bidan, and kader posyandu interim (2017) surveys.

Sample size: 118 bidan coordinators, 143 nutritionist, 407 bidan, and 253 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

Many bidan and kader posyandu felt the travel allowance they received to attend the training was inadequate. Participants received an allowance to cover transportation costs, which was usually commensurate with the distance they had traveled to attend the training. However, several complained that the allowance was too small, especially given the distance they traveled, the risk of traveling on unsafe roads, and the earnings they lost on the days they attended the training. One bidan suggested increasing the number of days of training and making individual days shorter, so they could attend to their independent practice in the evenings and minimize losses to their income during the training. (Bidan receive a base salary with a per-patient incentive for visits and delivery.)

> ***"Because we come from the furthest origin, we leave our practice at home, we also lost (earnings) from patients because we have to follow training from morning to evening."***
>
> *– Bidan*

4.1.3. Training content and facilitation at the kabupaten level

Next we sought to learn more about training quality, which is a key determinant of provider knowledge as well as provider capacity to deliver high-quality IYCF information to beneficiaries. We sought to learn about training quality at each stage of the cascade in order to contextualize our findings about the trainings ultimately received by frontline providers serving target beneficiaries. We begin by exploring the content and facilitation of the trainings received by DHO staff. Below, we summarize the perceptions of DHO staff around the topics covered during the training, and how that information was shared.

DHO participants reported receiving new information around training topics, particularly complementary feeding. To gain participant perspectives on the value of the information shared during the training, SurveyMETER asked DHO respondents what they knew already and what was new to them in the training. In response, some participants noted they were familiar with key breastfeeding practices such as exclusive breastfeeding, but noted the training helped them review and internalize this information. In addition, several participants noted that the specifics provided on complementary feeding were new to them. These included the appropriate texture or consistency of food for infants, portion size, the use of local foods for complementary feeding, and the "four-star" (*makanan umpat bintang*) diet—which includes carbohydrates, animal protein (meat and dairy), plant protein (which the UNICEF manual calls "legumes"), and vitamin-rich fruits and vegetables.

> ***"We received new information related to complementary feeding—food textures and portions. At first, we only knew about balanced nutrition. Now we know that texture, ingredients, and portion have to be adjusted to the child's age."***
>
> *– DHO staff member*

DHO participants felt it would have been helpful to receive more guidance around counseling. In order to be able to train lower-level staff on one-to-one counseling, DHO participants received first-hand exposure to potential patients and had the opportunity to practice counseling them. Specifically, the training included role play and interactions with "live respondents" (women with young children invited to the training). DHO respondents also said they learned how to set information in local context and illustrate theory and best practice through real-life examples. However, participants felt they needed more targeted guidance on how to counsel, and how to address key challenges they foresaw in counseling—such as simplifying technical language around feeding topics, and overcoming beneficiaries' embarrassment or discomfort around discussing these issues.

Facilitators communicated clearly during the classroom trainings, using interactive aids as needed. DHO respondents reported that facilitators seemed knowledgeable and delivered material confidently. They adopted a straightforward communication style, and as a result, participants found the information easy to understand. Facilitators were also adept at identifying and clarifying areas of confusion.

On-the-job training gave participants the opportunity to internalize training content and obtain guidance where needed. On-the-job training entailed having participants conduct an entire training session for staff at lower administrative levels with an observer supervising and providing feedback. Participants found this to be a useful opportunity—one respondent noted, for instance, that at the classroom training he and other participants felt as though the onus was on them to internalize the material, determine what they were confused about, and seek help if needed. It was during on-the-job training that they felt they could test out what they had learned, hone in on what they still did not understand, and receive guidance where required from the facilitator.

4.1.4. Training content and facilitation at the kecamatan level

Next, we examined training quality at the subsequent stage of the training cascade—at the kecamatan level. We drew on interviews with DHO and puskesmas staff to assess the content and facilitation of trainings for puskesmas staff.

Like DHO participants, puskesmas staff reported receiving new information about breastfeeding and complementary feeding through the training. Although puskesmas respondents were familiar with critical breastfeeding practices, such as exclusive breastfeeding for the first 6 months, and knew how frequently infants should be breastfed each day, they knew less about other details prior to the training. For example, they said the information provided about breast hygiene and breast milk storage was new to them. Some were already knowledgeable about different breastfeeding positions; others learned about these during the training. Similar to the DHO trainees, puskesmas respondents also reported learning more about complementary feeding through the training. Specifically, they gained new information about food texture, portion size, and the variety of foods one could feed children above 6 months.

Puskesmas staff appreciated the direction they received on one-on-one counseling; they internalized some, but not all aspects of this guidance. The information provided on one-on-one counseling appears to have made a strong impression on puskesmas trainees. In describing the training, they frequently highlighted the guidance they received on how to communicate with and serve beneficiaries—particularly the emphasis on not blaming clients for implementing faulty IYCF practices. Although this is a positive step, and bodes well for potential take-up of more patient-centric counseling practices, DHO staff conducting the trainings noted that some participants struggled with this topic. They reported that puskesmas staff had trouble shifting away from their view of counseling as one-way transmission of advice, and did not fully understand how to integrate into these interactions strong listening skills and careful information-gathering (which are needed for more tailored guidance). One DHO respondent sought to address this limitation by encouraging puskesmas staff to rely on the MCA-I counseling cards, since they provide a structure for counseling that is easy to follow.

> ***"In counseling, we can't judge the patients. If the patients did something wrong, don't blame them, but remind them and show the correct ways. If they did something great, we should appreciate them."***
>
> *– Puskesmas respondent*

Bidan coordinators found the training more aligned with their learning needs than nutritionists did. Bidan coordinators reported already being familiar with the information provided on pregnancy and delivery, and therefore appreciated receiving detailed information on nutrition for the mother and child, which was the focus of the training. In contrast, nutritionists felt that the trainings focused too heavily on the post-delivery phase, and that additional information could have been provided on how to serve pregnant women.

> ***"Of course, it's different, if the bidan coordinator is active and frequently provides counseling, and frequently interacts with kader or pregnant women, it would be easier for them to provide counseling, compared to those who mostly sit in the puskesmas to receive patients. It would be hard for them to give counseling."***
>
> *– DHO respondent*

According to DHO staff, bidan coordinators grasped information more quickly than nutritionists did. DHO

staff felt that given bidan coordinators are accustomed to interacting with women and children in the field, they have a greater understanding of the day-to-day experiences and concerns of pregnant women and new mothers. As a result, they were also more engaged during the training and able to grasp the guidance on counseling more quickly.

The trainings for puskesmas staff were well-facilitated and incorporated many interactive methods. DHO facilitators used the entire suite of interactive methods that puskemas staff would eventually have to utilize to train bidan and kader posyandu. They included question and answer sessions, group work, complementary food preparation, games, and a variety of visual aids. (We provide more detail on each of these methods below.) Overall, facilitators were thoughtful about how to make the classroom environment a comfortable and engaging one. One DHO respondent said that shyer participants often hesitated to speak in class and were afraid of making mistakes, so he sought to introduce some noise into the class—through games and songs—to put these participants at ease and encourage them to speak up. Another noted that she adjusted the order of the training modules such that theoretical sessions were interspersed with practical sessions and participants remained engaged throughout. The trainings generally had an informal "feel" (for example, participants were allowed to sit on the floor), which also contributed to building a friendly, judgment-free atmosphere.

4.1.5. Training content and facilitation at the desa level

Finally, we assessed the content and facilitation of trainings at the last stage of the cascade, which was for desa staff directly interacting with and serving beneficiaries. Under the program logic, the quality of this training is a key determinant of the extent to which providers are able to share accurate, comprehensive IYCF information with beneficiaries during group counseling sessions (which are covered in Chapter 5). Below, we first explore the quality of the training content through data from SurveyMETER's four observations of these trainings.[9] We then use data from both training observations and FGDs with bidan and kader posyandu to document common training facilitation methods. Finally, we summarize participant perceptions of training content and facilitation from FGD data.

Facilitators provided relatively detailed IYCF information and generally followed the training manual appropriately. In the four trainings we observed, facilitators often followed the UNICEF manual quite closely and provided all or most of the detail they were supposed to under a given topic. For example, they specified all seven aspects of complementary feeding that bidan and kader posyandu should be familiar with and share with beneficiaries—age, frequency, amount of food, variety of foods, responsive feeding, and cleanliness/hygiene. Facilitators also closely followed instructions on how to integrate interactive methods into the training. For example, one used glasses with different amounts of water to demonstrate how the amount of energy provided by breast milk varies by the age of the child. It was rare that trainings provided

[9] SurveyMETER was able to observe only trainings for kader posyandu, given trainings were almost complete by the time data collection began. Trainings for bidan may have been of slightly higher quality; they appear to have been facilitated by joint pairs of DHO and puskesmas staff, whereas trainings for kader posyandu were mostly facilitated by only puskesmas staff.

entirely incorrect information. Rather, they provided some, but not all details when discussing some of the topics.

Facilitators made extensive use of interactive methods to ensure participants understood and retained IYCF information. The methods they used more often were question and answer sessions, group work, demonstration of breastfeeding techniques using dolls and breast models, preparation of complementary foods, and counseling practice with pregnant women and new mothers (see Table 4.1 for more detail). In a few cases, facilitators had participants practice weighing children and take anthropometric measurements, participate in interactive games, sing songs or jingles, or create posters.

TABLE 4.1. COMMON IYCF TRAINING FACILITATION METHODS AT THE DESA LEVEL

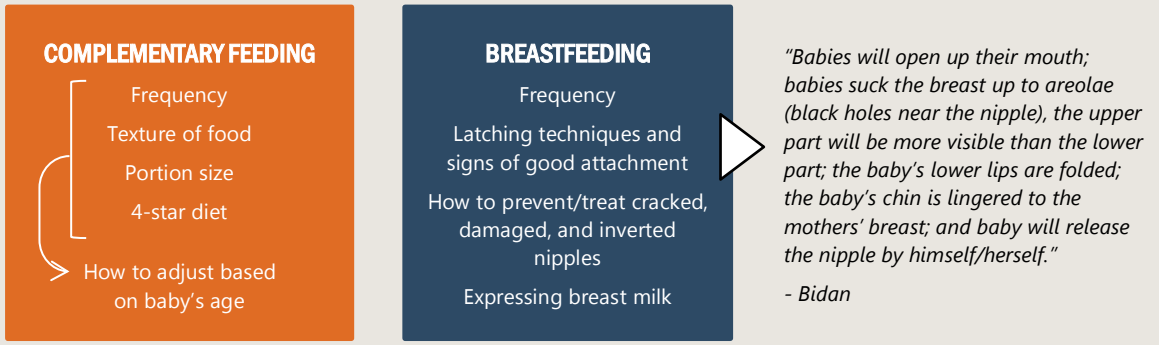
Training method	Description
Question and answer sessions	These appeared to form a critical component of each session. Facilitators asked participants open-ended questions to elicit their knowledge regarding a given IYCF topic. They then used participant responses to facilitate a discussion, and in this interactive way, build on existing understanding, correct mistakes and misconceptions, and layer general knowledge with details. In one of the trainings we observed, facilitators discussed what counseling should be provided to mothers close to giving birth on feeding the newborn. They asked, "Before breastfeeding, what is the yellow thing called?" Participants answered, "Colostrum!" They then asked participants to indicate which counseling card they would use to provide this information.
Group work	Generally, this entailed the facilitator dividing participants into groups and asking the groups to answer a question or discuss an IYCF problem (e.g., How would you counsel a mother who is not exclusively breastfeeding? Or how would you counsel a mother whose child is underweight?). Groups either presented what they discussed or wrote their answers on posters on the wall, and the facilitator shared information on the given topic using participants' answers.
Breastfeeding practice	Almost all bidan and some kader posyandu reported making models of infants with towels and models of breasts with socks. Generally, the facilitator demonstrated critical breastfeeding practices, such as proper positioning, good attachment, and how to express breast milk, using the model. Then participants used the models to practice.
Preparation of complementary food	Almost all bidan and kader posyandu participating in our FGDs reported that there was demonstration and practice around how to make foods for infants. In some cases, the facilitator demonstrated how to make the food using real ingredients and offered guidance in the process (e.g., how thick the food should be, texture, and portion size). In other cases, the facilitator had participants prepare the food and in the process implement what they had learned (such as determining portion size based on a child's age). In a few cases, participants were divided into groups and each group made food for a different age group (6–9 months, 9–12 months, 12–24 months). Facilitators generally provided the ingredients, but in a few cases, they gave participants a small amount to purchase ingredients from the market and then put together a meal (thereby testing their knowledge not only of recommended texture and amount, but also of the ideal composition of meals). Note that there was sometimes both demonstration and practice.
Counseling practice	All bidan and kader posyandu participants reported practicing counseling during the trainings. First they practiced in pairs. Then, typically, facilitators invited patients (usually mothers with young children, but sometimes also pregnant women) to attend the training. Participants broke up into pairs and practiced counseling these women, with one participant leading counseling and the other observing and filling out an observation checklist. The guidance provided on how to counsel prior to practice varied in complexity across kabupaten. Some participants said merely that these "live respondents" visited the training and that they practiced counseling these patients. Others also weighed the child and filled out the KMS card (*kartu menuju sehat),* or healthy growth chart used for growth monitoring, in addition to providing some basic counseling. Finally, some seemed to have received specific steps to follow during counseling, among them: ask for the baby's birth weight, weigh the baby, ask questions to learn more about the child's health, explain relevant information, use counseling cards to facilitate explanation, and, if relevant, show mothers how to breastfeed and get their child to latch (using their doll and breast models).

Source: Training observations and bidan and kader posyandu FGDs.

Participants were very engaged in the training. In FGDs, bidan and kader posyandu uniformly said the training was engaging and not monotonous or boring. It was "relaxed but also serious and focused." Participants also appreciated the facilitators' efforts to set them at ease and create a comfortable atmosphere (for example, facilitators made jokes and integrated a lot of singing into classroom activities). Indeed, many respondents noted that there were "no walls" between facilitators and participants and that the tone of the training was a very friendly one. Participants also took advantage of the many opportunities facilitators gave them to ask questions. Many of the questions related to their experiences in the field (for example, whether it was acceptable that a child that was over two was being breastfed) and barriers they had faced (for example, how to eliminate the community practice of giving a child honey at a young age).

Bidan felt the training deepened and expanded their knowledge. Bidan participating in our FGDs said they were familiar with all the topics covered prior to the training, but reported gaining more detailed information through the training, particularly around complementary feeding and breastfeeding. Figure 4.5 summarizes the details bidan reported learning through the training. Some bidan wanted more information on nutrition during pregnancy.

FIGURE 4.5. DETAILS BIDAN REPORTED LEARNING THROUGH IYCF TRAINING



Kader posyandu reported that the training introduced them to several key IYCF practices and helped correct several misconceptions. Learning gains were especially high among kader posyandu, who are volunteers and had lower initial knowledge around IYCF topics than bidan. (Our survey showed that most kader had a senior secondary school education.) Kader posyandu learned that several of their longstanding beliefs regarding nutrition were incorrect—for instance, that stunting was hereditary and not related to one's diet, that colostrum was stale milk and should be discarded, and that it was not problematic for children to consume water or honey in the first 6 months of life. Kader posyandu also gained an overarching understanding of what foods were nutritious and reported, like bidan did, that the details provided by the training around IYCF best practices were very useful. These included details on complementary feeding (portions and texture based on age and how to assemble a 4-star diet) and on breastfeeding (latching techniques and how to express breast milk). Nevertheless, kader posyandu may have some remaining information gaps—both self-reported and reported by Puskesmas staff—around diet during pregnancy and contraceptive methods.

Bidan and kader posyandu greatly appreciated the guidance they received on one-to-one counseling their patients, but anticipated challenges in implementing the recommended approach. Respondents noted that the counseling guidance and practice was one of the most useful components of the training. It made a strong impression on participants, many of whom echoed the guidance they received in particular around listening to the patient and responding to their specific concerns, rather than "lecturing" them. That said, FGD respondents foresaw difficulties in getting community members to change their minds about longstanding practices. For example, one bidan noted that many in her community believe that children under 6 months should be given food in addition to breast milk (such as rice, bananas, and even condensed milk). Another bidan reported that there was a strong preference in her community for feeding babies instant porridge (*bubur instan*) and that encouraging these families to implement complementary feeding practices would be difficult. Bidan and kader posyandu also felt they would have trouble not using "judgmental" words such as "don't" when counseling their patients, and some felt that a "softer" approach would lead women/caregivers to not heed their advice. Finally, FGD respondents had some difficulty understanding the specific behavior change steps a patient would ideally undergo as a result of one-on-one counseling.[10]

> *"Related to kelas ibu hamil and kelas balita, we never received training about the class. The handout of materials was provided but there was no flipchart for kelas balita. We only got a flipchart for kelas ibu hamil but did not get training about it. We only received training about IYCF."*
>
> – Bidan

Bidan and kader posyandu did not report receiving much information on how to conduct the nutritional counseling sessions. The training was not intended to cover facilitation of kelas ibu hamil and kelas balita, but some bidan and kader posyandu identified this as a gap in the training. This is potentially important because the nutritional counseling sessions were a critical link in the Nutrition Project program logic, enabling transmission of high quality training information to beneficiaries and thereby potentially effecting behavior change.

4.1.6. Service provider knowledge about IYCF and stunting

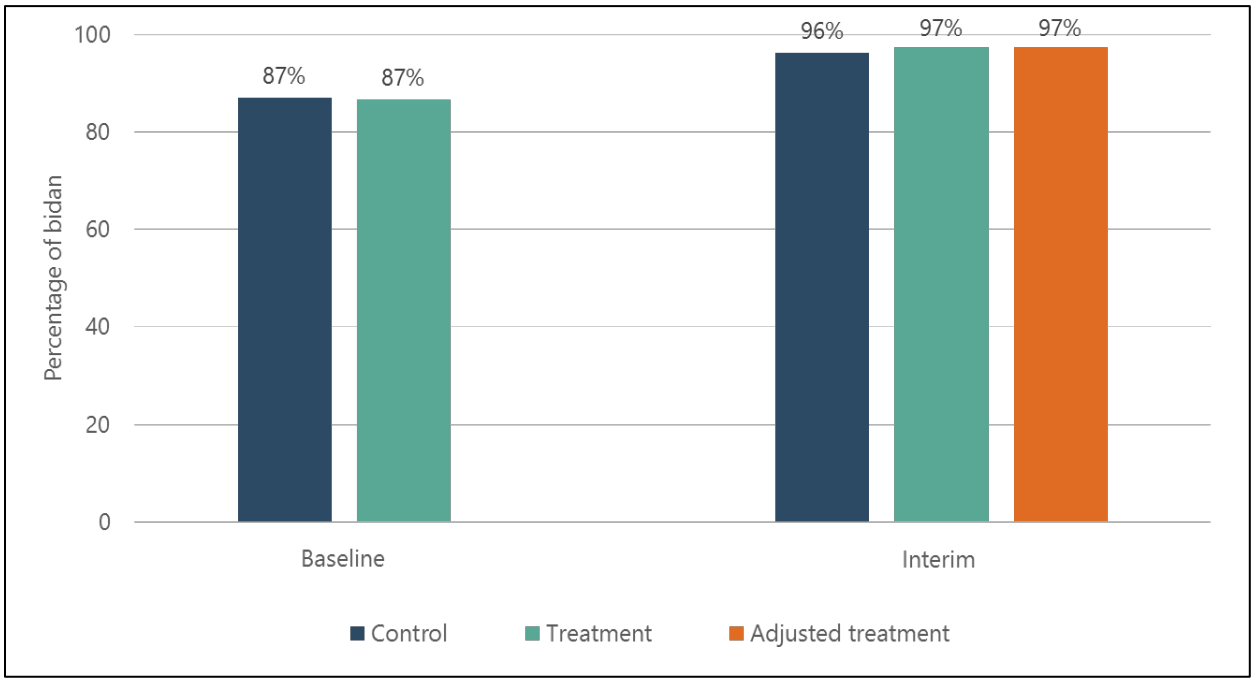
Under the program logic, successful implementation of the training will improve service provider knowledge around several nutrition topics. By improving knowledge, the Nutrition Project aimed to improve counseling quality and strengthen provider performance related to overall maternal and child health, especially around stunting. We use phone survey data to assess gains in provider knowledge.

Almost all bidan in treatment and control areas were knowledgeable about recommended breastfeeding practices, reflecting very high levels of knowledge at baseline. At interim, almost all bidan in treatment and control areas knew that children should not be fed liquids other than breast milk for the first 6 months of life (Figure 4.6). However, this knowledge was already very common among bidan at baseline (87 percent in treatment and control areas). At interim, bidan also demonstrated high levels of knowledge around the importance of initiating breastfeeding in the first hour after birth (over 85 percent) and of not conducting prelacteal

[10] These steps are: the beneficiary learns about the recommended practice, intends to try it, tests it out, and then tells others about it.

feeding immediately after birth (over 97 percent), again reflecting similarly high levels of knowledge regarding these practices at baseline (not shown).

FIGURE 4.6. PERCENTAGE OF BIDAN WHO KNEW THAT CHILDREN SHOULD NOT BE FED LIQUIDS OTHER THAN BREAST MILK FOR THE FIRST 6 MONTHS



Source: Bidan baseline (2015) and interim (2017) surveys.

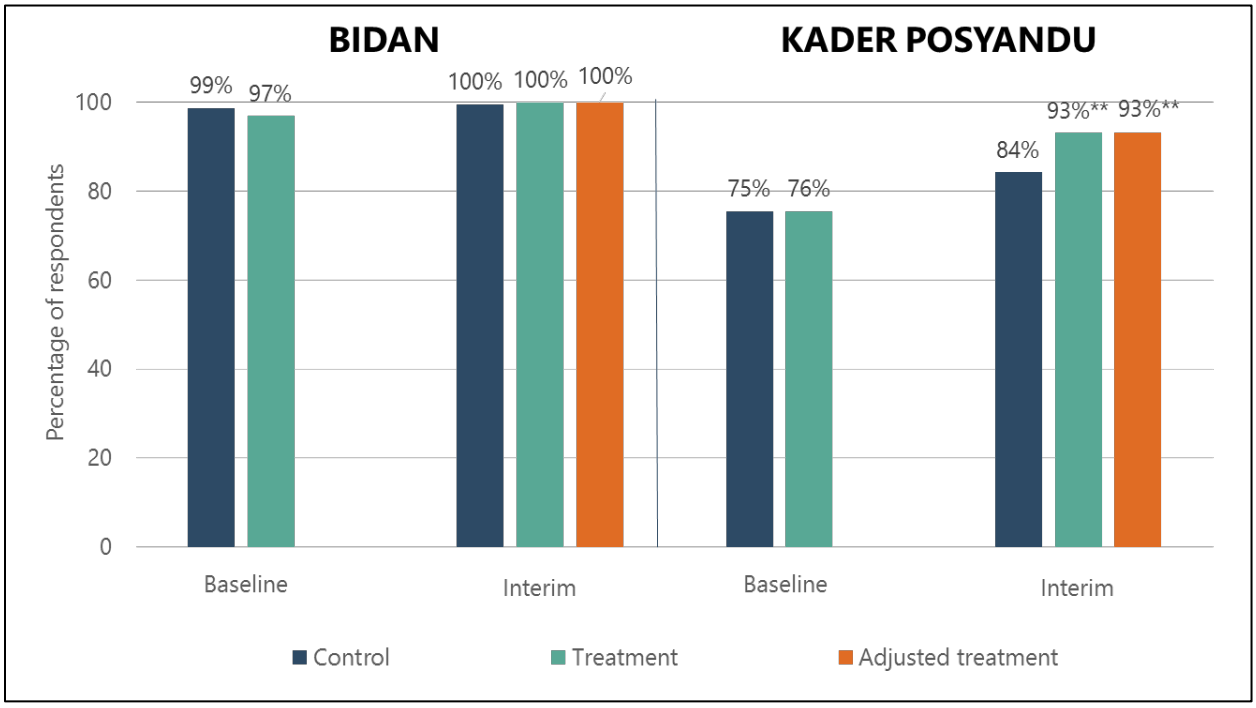
Sample size: 407 bidan.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

At interim, levels of knowledge around complementary feeding were high among both bidan and kader posyandu and higher among kader posyandu in treatment areas than in control areas. All bidan interviewed in treatment and control areas at interim knew that children should not receive solid foods until after 6 months, similar to the situation at baseline (Figure 4.7). For kader posyandu, the level of knowledge in treatment areas was also very high at interim (93 percent) and 9 percentage points higher than in control areas after accounting for baseline knowledge—a statistically significant difference. This suggests that the project increased knowledge around complementary feeding for kader posyandu in treatment areas.

FIGURE 4.7. PERCENTAGE OF BIDAN AND KADER POSYANDU WHO KNOW TO WAIT UNTIL 6 MONTHS TO INTRODUCE SOLID FOODS TO A CHILD'S DIET



Source: Bidan and kader posyandu baseline (2015) and interim (2017) surveys.

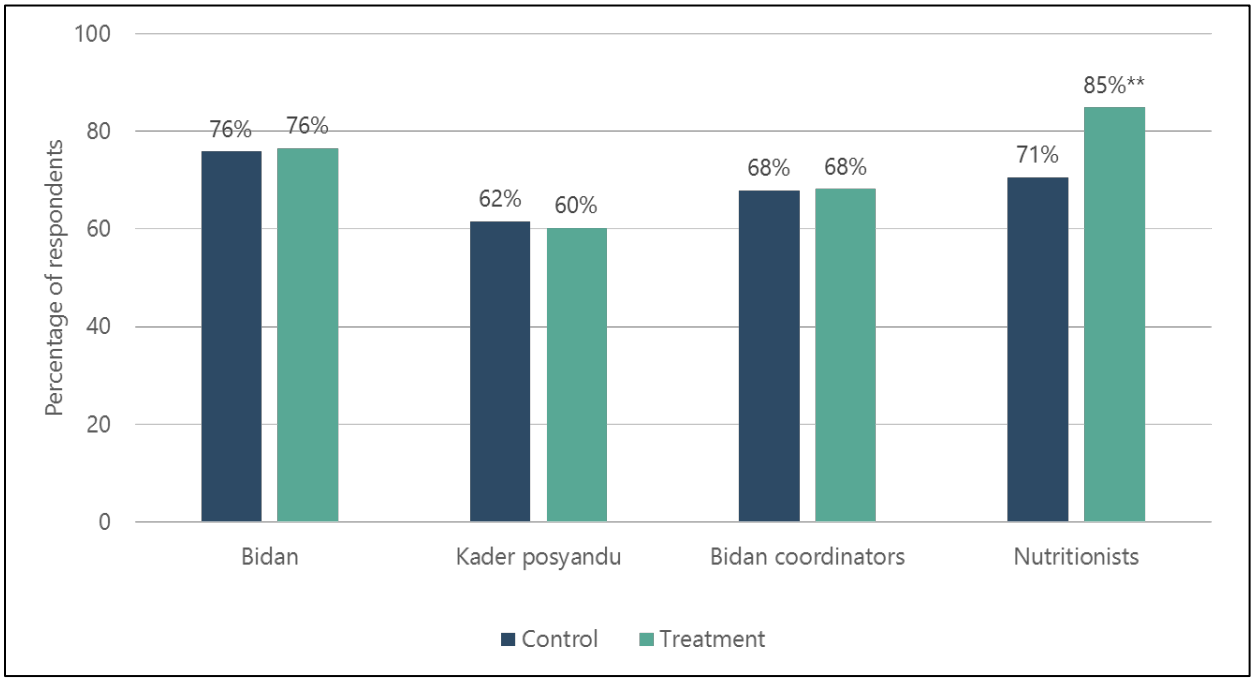
Sample size: 407 bidan and 252 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

Nutritionists in treatment areas were significantly more knowledgeable about the developmental impacts of stunting. At interim, all five types of service providers were asked whether stunting affected physical development, mental development, or both (the correct answer). Nutritionists in treatment areas were 14 percentage points more likely to know that stunting affects both mental and physical development than in control areas (Figure 4.8). There was no statistically significant difference in this knowledge between bidan, kader posyandu, or bidan coordinators in treatment and control areas. We do not have an explanation for this difference, but hypothesize that it is because one of the core functions of nutritionists is identifying and treating stunting, on which this IYCF and growth monitoring training focused heavily. Thus, the MCA-I IYCF training had a large impact on nutritionists relative to the control. Also, bidan and bidan coordinators have a broader focus (providing antenatal and delivery care in addition to nutritional guidance post-delivery), and kader posyandu have less training as volunteers than the other service providers, so these providers may not have focused as much on stunting, even if the training covered it.

FIGURE 4.8. PERCENTAGE OF SERVICE PROVIDERS WHO KNOW THAT STUNTING AFFECTS BOTH MENTAL AND PHYSICAL DEVELOPMENT



Source: Bidan, kader posyandu, bidan coordinator, and nutritionist interim (2017) surveys.

Sample size: 409 bidan, 253 kader posyandu, 118 bidan coordinators, and 143 nutritionists.

Note: Respondents were asked "Which of the following does stunting affect?" and could choose one of the following responses: (1) Physical development, (2) Mental development, (3) Both, or (4) Don't know. Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

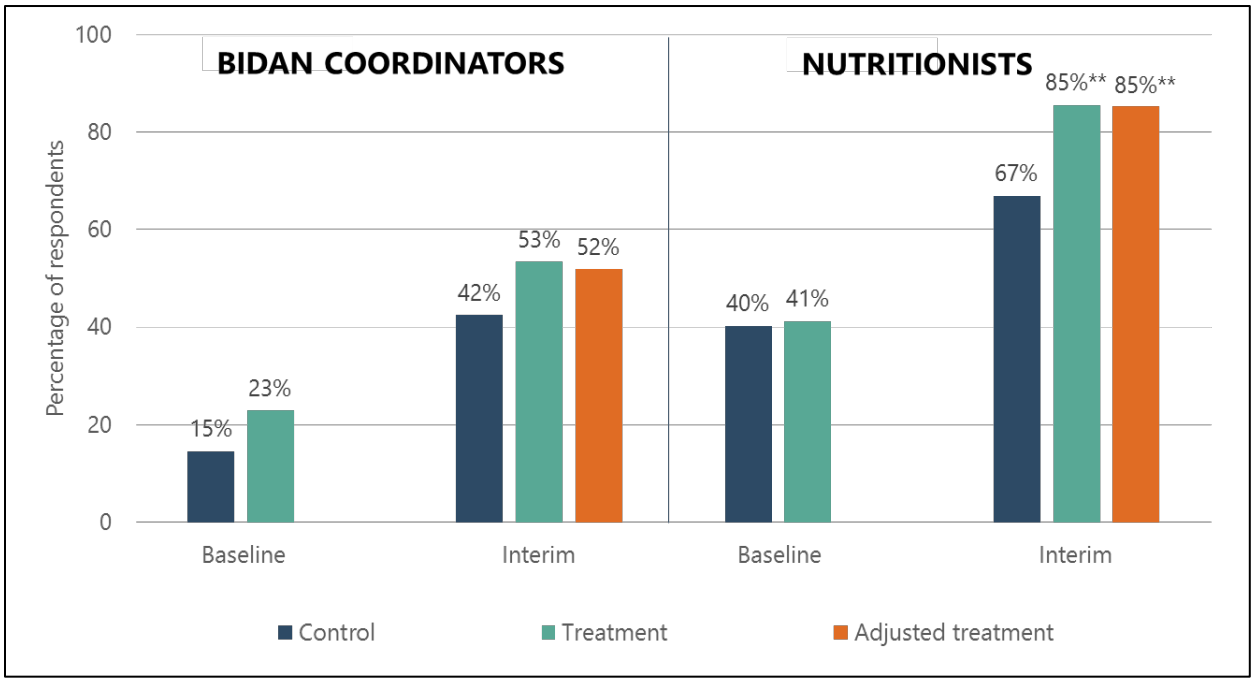
4.2. Growth monitoring training

Another critical supply-side activity under the Nutrition Project was growth monitoring training. The project revised the current Ministry of Health (MoH) growth monitoring training curriculum, which had been used to train health workers since 2007. The revisions integrated the previous modules developed by the World Health Organization (WHO) into a single module on growth monitoring, with a focus on technical growth assessment, interpreting the results, and follow-up counseling. The revisions also added two modules on case management of severe acute malnutrition, and case management of moderate malnutrition, with a focus on growth assessment and nutrition rehabilitation by preparing healthy food. The intended recipients of this five-day training included health educators, pediatricians, general practitioners, nurses, bidan, and nutritionists at the puskesmas level. The training intended to reach 1,388 health workers across the 11 project provinces.

Below, we summarize our findings related to the coverage of growth monitoring training and its effect on service provider knowledge. These are drawn only from the phone survey; our qualitative data collection did not cover growth monitoring training.

Growth monitoring training was more common in treatment areas than in control areas among both bidan coordinators and nutritionists, but this difference is larger and only statistically significant for nutritionists. Around half of bidan coordinators in treatment (53 percent) and control areas (42 percent) reported ever receiving growth monitoring training at interim, and these proportions were 27 and 30 percentage points higher than they reported at baseline, respectively (Figure 4.9). This means that the project did not have a significant impact on the proportion of bidan coordinators trained in growth monitoring. Growth monitoring training among nutritionists at interim was substantially higher in treatment areas (85 percent) than in control areas (67 percent). This difference remains statistically significant when we control for baseline responses, and suggests that the project caused the higher rate of growth monitoring training among nutritionists in treatment areas.

FIGURE 4.9. PERCENTAGE OF BIDAN COORDINATORS AND NUTRITIONISTS EVER TRAINED IN GROWTH MONITORING



Source: Bidan coordinators and nutritionist interim (2017) surveys.

Sample size: 117 bidan coordinators and 143 nutritionists.

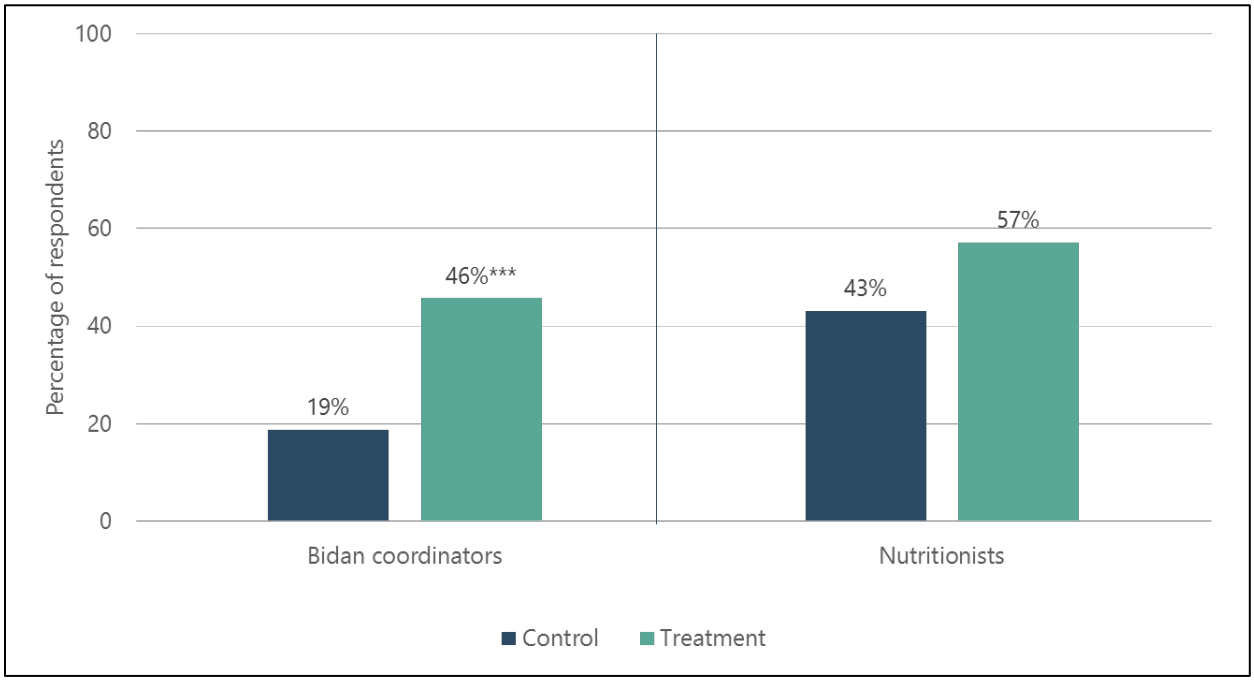
Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

The project had an impact on bidan coordinators' knowledge of how to measure child height but not nutritionists' knowledge, despite the fact they were trained together. At interim, bidan coordinators in treatment areas were 27 percentage points more likely than those in control areas to know that the length of children under age 24 months should be measured when the children are lying down (Figure 4.10). Nutritionists in treatment areas were also more likely to correctly report knowing how to measure length than those in control areas (a difference

of 14 percentage points), but the difference was not statistically significant.[11] We hypothesize that this difference is statistically significant for bidan coordinators and not nutritionists because, as mentioned above, nutritionists routinely measure children as part of their jobs. Bidan coordinators carry out this function less than nutritionists do. Perhaps this guideline about when to measure children upright versus lying down was new information to more bidan coordinators than nutritionists.

FIGURE 4.10. PERCENTAGE OF SERVICE PROVIDERS WHO KNOW THAT LENGTH SHOULD BE MEASURED LYING DOWN FOR CHILDREN UNDER 24 MONTHS



Source: Bidan coordinator and nutritionist interim (2017) surveys.

Sample size: 112 bidan coordinators and 143 nutritionists.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

4.3. Conclusion

Overall, we found that there was large-scale implementation of the IYCF training in treatment areas. At interim, our survey found that most bidan in treatment areas had received training in IYCF between 2014 and 2017, compared to very few in control areas. For kader posyandu, although training rates were high in both treatment and control areas, the difference between the

[11] We also examined correct knowledge of length measurement by training status. Thirty-five percent of bidan coordinators across treatment and control groups who received growth monitoring training correctly reported that child length/height should be measured lying down until the age of 24 months, compared with 16 percent of those who did not receive training. This figure was 52 percent for nutritionists across treatment and control groups who received growth monitoring training, compared with 32 percent of nutritionists who did not receive training.

two was still statistically significant. These differences can be interpreted as a direct impact of the project.

Our qualitative data showed that the quality of the training—even after it was cascaded from the national level to kabupaten to kecamatan to desa—was still relatively high. Our observations indicated that trainings for desa-level providers provided a good amount of detail, and both bidan and kader posyandu FGD respondents reported gaining new and useful information. Our survey results support this finding to some extent—indicating, for instance, that the project may have increased knowledge around complementary feeding among kader posyandu. (In general, survey results showed modest improvements in service provider knowledge around IYCF and stunting, but levels of knowledge varied by topic and provider.)

In addition to receiving training on technical topics, bidan and kader posyandu also received training on one-on-one counseling, which they greatly appreciated. They had internalized several aspects of the recommended approach, but were still apprehensive about implementing it—mainly because it was so new to them. Finally, bidan and kader posyandu did not report receiving much information on how to conduct the group counseling sessions for pregnant women and new mothers, the project's key levers for change in community-level nutritional practices. This has implications for how well training-driven improvements in service provider knowledge can translate into improvements in knowledge and practice at the community level.

We triangulated these findings with the information SurveyMETER gathered through interviews with MoH officials. Largely, these nutrition-focused staff had positive perceptions of the IYCF training. They appreciated that the IYCF training was comprehensive, with detailed protocols for all modules, pre- and post-tests, and checklists for training implementation. By observing training sessions, they also perceived the benefits of interactive training methods and engaging participants in the material through discussion. They noted they would like to see similar methods implemented in other interventions—"We learned from this method and want other programs that are made like this." MoH interviewees also offered considerations for the scale-up of the IYCF training model. Specifically, they felt a six-day training might be too costly and logistically challenging to scale, and suggest shrinking the training to two days instead.

5. NUTRITIONAL GROUP COUNSELING SESSIONS, ONE-ON-ONE COUNSELING AND SERVICES, AND SUPPORTIVE SUPERVISION

After completing IYCF training, MCA-I envisioned that bidan and kader posyandu would pass on the knowledge they gained to caregivers of young children and pregnant women in their communities. MCA-I identified two main mechanisms for knowledge transfer: (1) nutritional counseling sessions, called kelas ibu hamil for pregnant women and kelas balita for caregivers of children ages 0-5, held in a group setting (hereafter referred to as group counseling sessions); and (2) one-on-one counseling sessions, which would occur mainly through prenatal and postnatal appointments and interactions with health service providers at the posyandu.

In this chapter we summarize key findings on group counseling session implementation (length, location, frequency, leadership), factors that influenced group counseling attendance, group counseling content, and participants' impressions of these sessions. We also discuss mainly quantitative findings related to the frequency with which desa- and puskesmas-level staff provide one-on-one counseling and health services to pregnant women and mothers of young children; and we examine how frequently puskesmas staff support and oversee bidan's and kader posyandu's work, also known as supportive supervision.

5.1. Nutritional group counseling sessions

Nutritional group counseling sessions, which are existing MoH platforms for reaching and serving pregnant women and mothers of young children, are a critical link in the Nutrition Project program logic because the sessions are expected to enable newly trained bidan and kader posyandu to have more frequent, higher quality interactions with pregnant women and caregivers

KEY FINDINGS ON GROUP COUNSELING, ONE-ON-ONE COUNSELING, AND SUPPORTIVE SUPERVISION

Group counseling sessions

- The frequency of group counseling sessions increased markedly between baseline and interim; however, these increases were similar in treatment and control areas and cannot be attributed to the project.
- The project may have had some effects on kelas balita quality, as these sessions were more likely to have been led or assisted by bidan in treatment areas.
- Counseling sessions did not always cover key IYCF topics in depth. Even if service providers were capable of delivering appropriate messages, it was challenging to do so in kelas balita because of the chaotic class environment.

One-on-one counseling and supportive supervision

- The project had little impact on the provision of one-on-one services (such as prenatal and postnatal visits) at interim, except that bidan coordinators were more likely to identify stunted children as part of their jobs.
- Bidan coordinators and nutritionists supported bidan and kader posyandu with similar frequency across treatment and control areas, indicating that the project had little impact on supportive supervision at interim.

of young children . These sessions emphasize the importance of critical IYCF practices during pregnancy and after childbirth, and include topics such as diet during pregnancy, breastfeeding, complementary feeding, sanitation, immunization, and the importance of giving birth with a trained midwife. The Nutrition Project envisioned that the training and Generasi would interact to provide a mechanism for women to receive more frequent and reliable information about maternal, infant, and young child nutrition, since one goal of Generasi was to provide financial support to communities for holding kelas ibu hamil and kelas balita.

5.1.1. Nutritional group counseling session implementation

In this section we draw on phone surveys and qualitative FGDs of bidan and kader posyandu along with qualitative FGDs of session participants to summarize findings on counseling session frequency, facilitators, timing, location, length, and financing. Figure 5.1 provides an overview of some of these attributes.

In general, sessions took place seven to nine times a year, depending on the type of session. Bidan typically facilitated the sessions with assistance from kader posyandu. They lasted between 30 minutes and 2 hours and occurred either in conjunction with the posyandu or at another agreed upon time. Sessions were often held at the same location as the posyandu.

FIGURE 5.1. COUNSELING SESSION IMPLEMENTATION

	Kelas ibu hamil	Kelas balita
Frequency	Approximately 9 times/year	Approximately 7 times/year
Facilitator	Bidan supported by kader posyandu	Bidan supported by kader posyandu or puskesmas staff
Timing	Either after posyandu or at mutually agreed upon time	Before, during, or after posyandu
Location	At posyandu or other designated venue including multipurpose desa buildings, kader or bidan's houses, kepala desa's houses, pustu, or polindes	Posyandu venue
Length	1-2 hours	30-45 minutes; some as short as 10-15 minutes

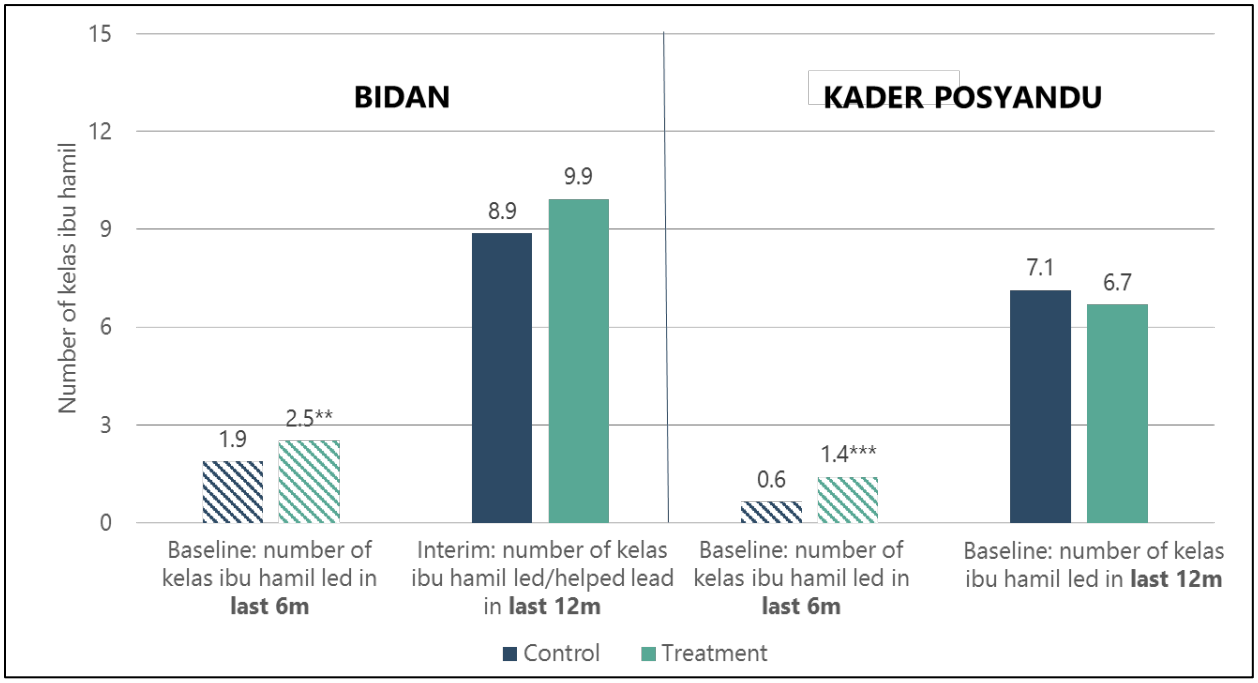
Source: Bidan and kader posyandu interim (2017) survey; bidan, kader posyandu, counseling session participant interim (2017) FGDs; counseling session observations (2017)

Frequency

Kelas ibu hamil and kelas balita should ideally be held once a month. The rationale for this goal is that monthly sessions allow women to receive timely information on pregnancy and early childhood. For instance, it is important for new mothers to receive information on breastfeeding techniques in the early weeks and months of their child's infancy.

Over the course of a year, bidan and kader posyandu reported holding approximately nine kelas ibu hamil and seven kelas balita. In the 12 months before the interim phone survey, bidan reported leading 9.9 kelas ibu hamil in treatment areas and 8.9 kelas ibu hamil in control areas on average, whereas kader posyandu reported leading 6.7 sessions in treatment areas and 7.1 sessions in control areas on average (Figure 5.2). The respondents also reported holding between 6.2 and 7.5 kelas balita during this period, on average, depending on the type of respondent and area. None of the differences we observed across treatment and control areas were statistically significant. The baseline (6 months) recall timeframe was half of the interim recall timeframe (12 months), so we can't make direct comparisons or attribute an increase in class frequency to the project; but if one were to roughly double the baseline values to approximate the number of sessions in the last year, we would infer that that the average number of sessions bidan and kader posyandu held increased between the baseline and interim surveys. For example, the number of kelas ibu hamil bidan led or helped lead in the last year increased from 4 to 5 at baseline to 9 to 10 at interim; or the number of kelas balita that kader posyandu led or helped lead increased from approximately 2 at baseline to 6 to 7 at interim. (The cross-hatching in the baseline bars in Figure 5.2 indicate the different time periods covered by the baseline measures.)

FIGURE 5.2. AVERAGE NUMBER OF KELAS IBU HAMIL BIDAN AND KADER POSYANDU LED OR HELPED LEAD IN THE PAST 6 OR 12 MONTHS



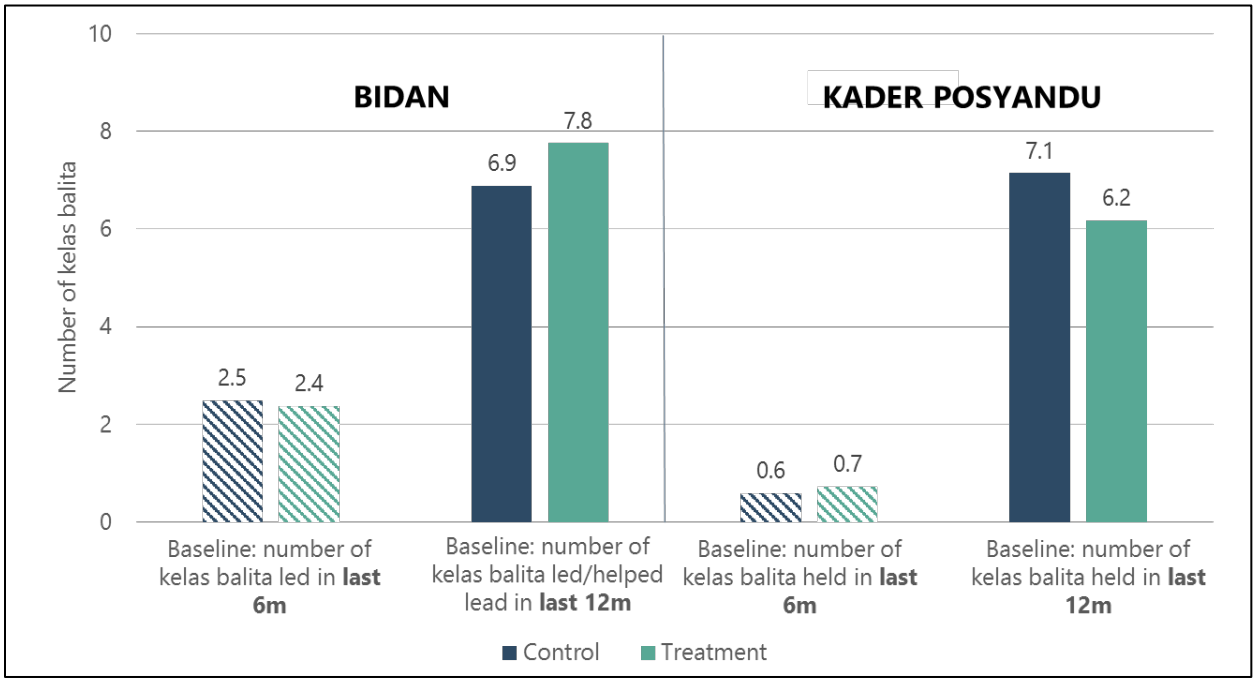
Source: Bidan and kader posyandu baseline (2015) and interim (2017) surveys.

Sample size: 258 bidan and 250 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

FIGURE 5.3. AVERAGE NUMBER OF KELAS BALITA BIDAN AND KADER POSYANDU LED OR HELPED LEAD IN THE PAST 6 OR 12 MONTHS



Source: Bidan and kader posyandu interim (2017) surveys.

Sample size: 258 bidan and 252 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

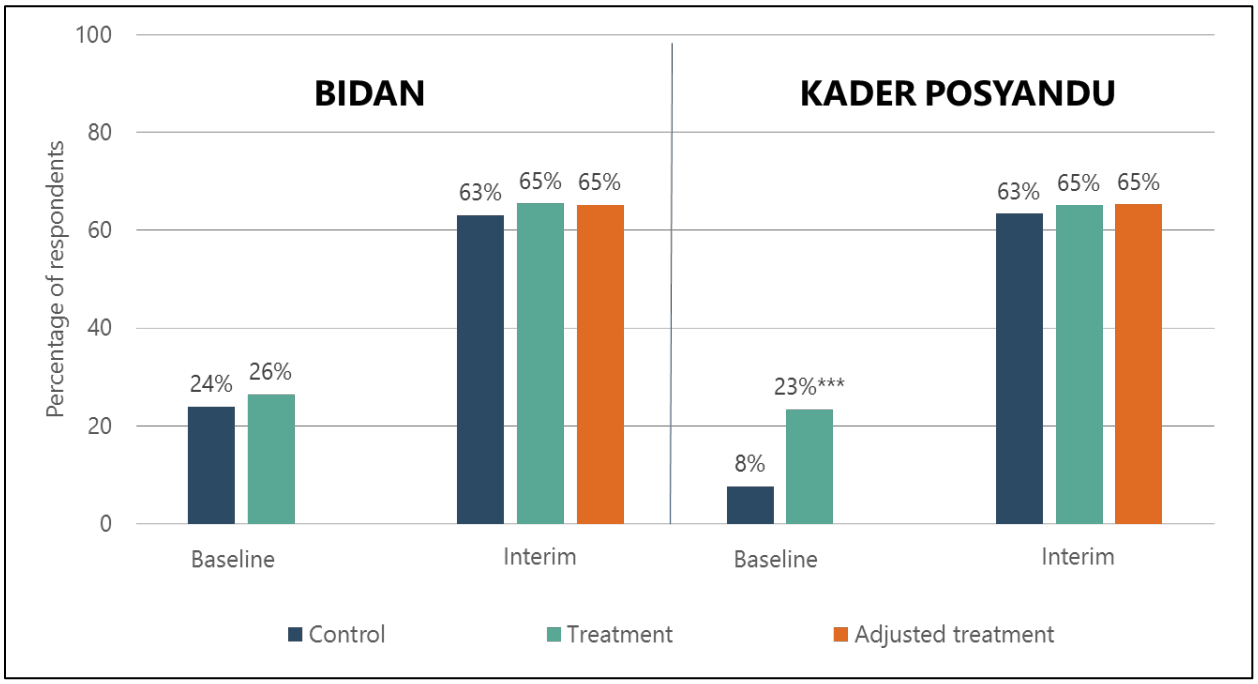
Facilitator

The group counseling sessions were designed such that bidan were expected to lead kelas ibu hamil, and kader posyandu were expected to lead kelas balita.

However, we found that both providers led or helped lead kelas ibu hamil. At interim, approximately 65 percent of both bidan and kader posyandu reported holding kelas ibu hamil within the last month (Figure 5.4). The differences across treatment and control areas at interim were small (2 percentage points) and not statistically significant. This fraction grew substantially between baseline and interim in both treatment and control areas.

In qualitative interviews, in addition to working with the kader posyandu, bidan reported receiving assistance from their husbands, bidan from neighboring desa, and the kepala desa for the kelas ibu hamil. In a few kelas ibu hamil (specifically, about half of the nine sessions that SurveyMETER observed), puskesmas staff led the instruction in lieu of bidan.

FIGURE 5.4. PERCENTAGE OF BIDAN AND KADER POSYANDU WHO HELD A KELAS IBU HAMIL IN THE LAST MONTH



Source: Bidan and kader posyandu baseline (2015) and interim (2017) surveys.

Sample size: 407 bidan and 252 kader posyandu.

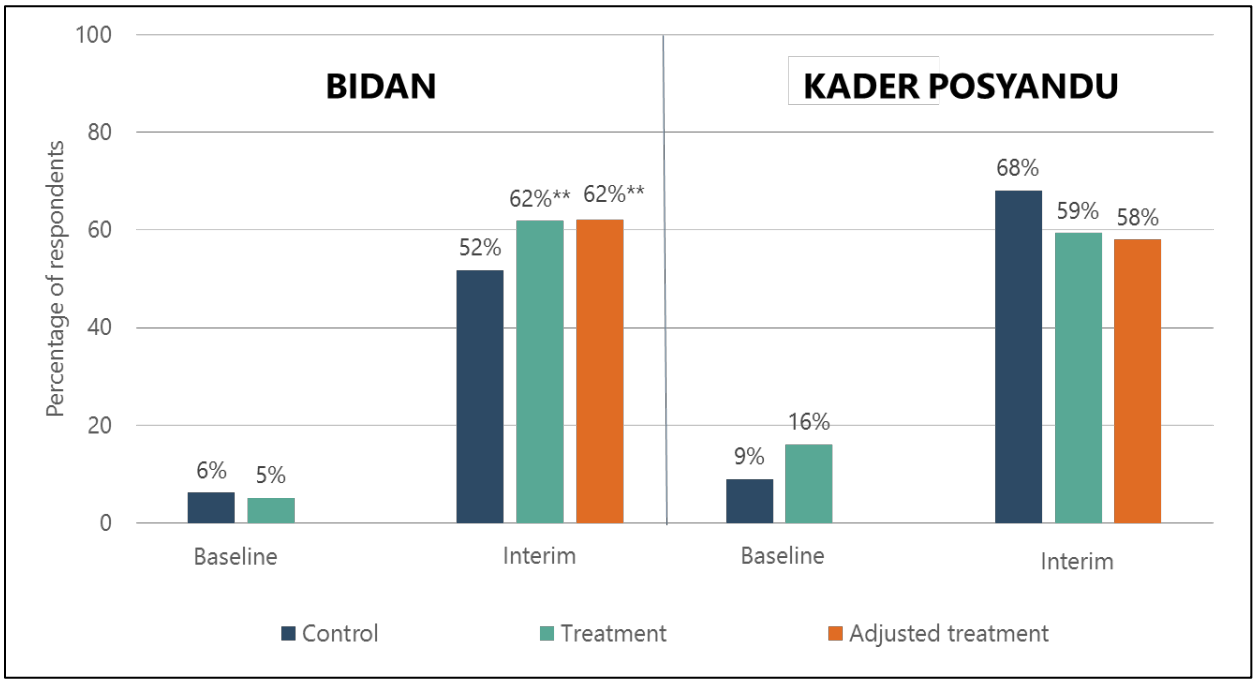
Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

For kelas balita, we found that bidan in treatment areas were more likely to hold these counseling sessions. Bidan in treatment areas were 10 percentage points more likely to report holding a kelas balita in the month before the interim survey than bidan in control areas, both with and without controlling for baseline differences, which suggests that the Nutrition Project increased the number of bidan who held kelas balita above the substantial increase we observed in control areas (Figure 5.5). There was also a substantial increase between baseline and interim in the percentage of kader posyandu in treatment areas that reported holding a kelas balita in the month before the interim survey. However, there was a similar increase in control areas, suggesting that these changes for kader posyandu are not attributable to the project.

The interim levels of these outcomes are consistent with the qualitative findings, which showed that bidan or puskesmas staff generally took the lead role in both types of group counseling sessions and were typically assisted by kader posyandu. Having more highly-trained staff in the lead is promising for the quality of the counseling sessions, especially given that some kader posyandu indicated that they did not feel they had a strong enough grasp of the material to facilitate the sessions independently.

FIGURE 5.5. PERCENTAGE OF BIDAN AND KADER POSYANDU WHO HELD A KELAS BALITA IN THE LAST MONTH



Source: Bidan and kader posyandu baseline (2015) and interim (2017) surveys.

Sample size: 407 bidan and 253 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

By interim, nearly all providers were involved in counseling sessions. We also considered the fraction of providers *never* having held a session. By interim, the percentages of providers who have never held a kelas ibu hamil were very low (between 6 and 11 percent) and were similar across treatment and controls areas. In addition, relatively few kader posyandu had never held a kelas balita (between 15 and 17 percent), and we found no significant differences between treatment and control areas (not shown).

Timing, venue, and length

We examine the timing and venue of the counseling sessions because when and where the sessions are held could affect accessibility and who is able to attend them. Similarly, we look at length because of the time commitment sessions may require of participants could influence their attendance; and to better understand how much exposure participants received to counseling session material.

Counseling sessions, especially kelas balita, were often shorter than ideal, and were chaotic due to competing activities at the posyandu and the presence of many small children. According to qualitative focus groups with bidan, kader posyandu and counseling participants, counseling sessions often took place before, during, or after a posyandu and were often held in the same room as posyandu activities (or an adjacent room). (Venues included multipurpose buildings, kader posyandu's or bidan's houses, kepala desa's houses, pustu, or polindes.) As a

> ***"Because of the children's noise and crying, the facilitators could not concentrate. So, it (the complementary food) was distributed; [the facilitator] was afraid that the children could not stay any longer."***
>
> *– Kelas balita participant*

result, competing noise was a distraction and there were many young children present during the counseling sessions (because mothers brought them for posyandu). Mothers understandably became distracted when children were impatient or cried. Some mothers even left early to take their children home. These factors often led sessions to be cut short from the scheduled 1-2 hours to around 30-45 minutes. These issues were less severe for kelas ibu hamil, which had fewer children present due to the nature of the session and were held separately from posyandu about half of the time.

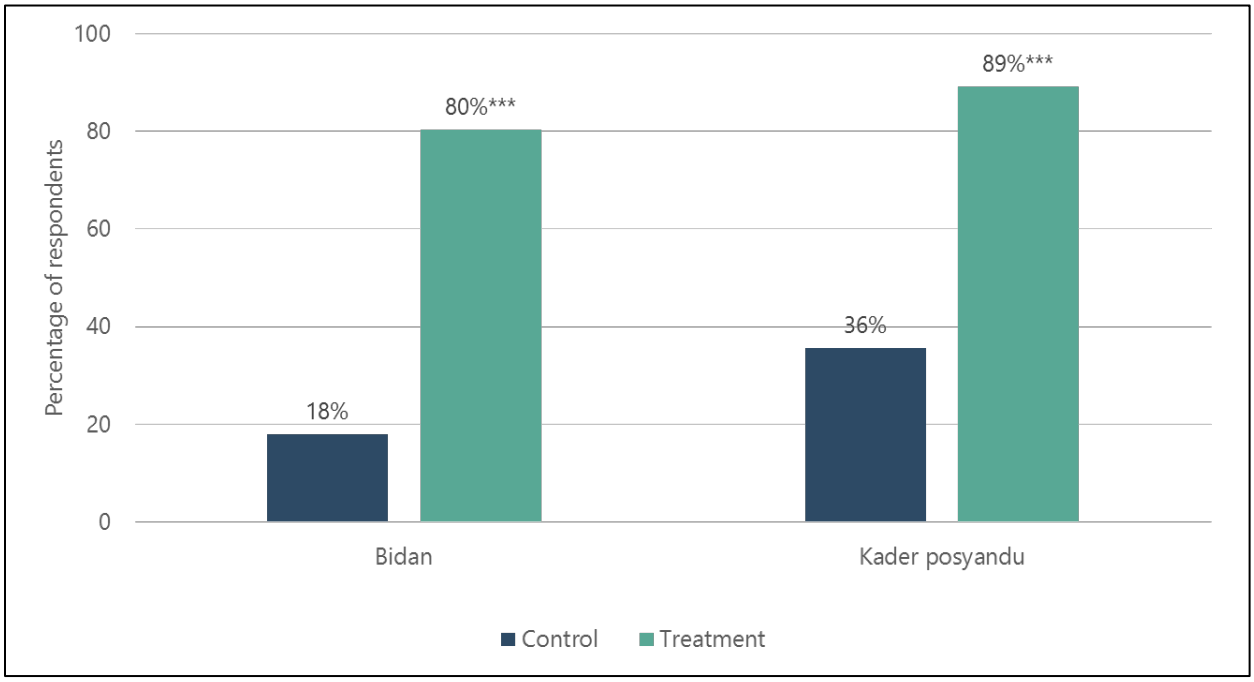
Funding for group counseling sessions

While the training sought to improve counseling session quality, Generasi was supposed to improve counseling session frequency and accessibility by offering funding for the counseling sessions. Bidan and kader posyandu were not compensated for their time holding counseling sessions (as this is part of their jobs), but they might have used funding for snacks or meals for participants, for cooking demonstrations they held during the sessions, or for their own transport or participants' transport to and from the sessions.

In treatment areas, bidan and kader posyandu commonly reported using Generasi funding for kelas balita or kelas ibu hamil; however this funding was according to bidan and kader posyandu often insufficient or delayed. A much larger percentage of bidan in treatment areas reported having received Generasi funds for kelas balita or kelas ibu hamil between 2014 and 2017 than reported in control areas (80 and 18 percent, respectively) (Figure 5.6). Similarly, 89 percent of kader posyandu in treatment areas reported receiving Generasi funding for kelas balita or kelas ibu hamil, compared to 36 percent of kader posyandu in control areas. (We do not have an explanation for why this fraction is so high in control areas that by definition did not receive any Generasi funding.)

Although receipt of Generasi funds for group counseling sessions was common, in the qualitative interviews conducted in treatment areas, bidan reported that the funding was often insufficient or delayed. In particular, most bidan reported that they have access to funding for the group counseling sessions both from Generasi and *biaya operasional kesahatan* (BOK, or the Puskesmas' health operational fund). However, they indicated that even if they received Generasi or BOK funding, the funds were insufficient for session costs, were not consistent from year to year, or did not arrive until after the counseling sessions. As a result, they often needed to cover session costs themselves, including food and travel allowances for participants. Bidan predicted that if they had more (or more reliable) funding available, the counseling sessions would occur more often and be more successful. This finding is surprising because our analysis of the Ministry of Villages database shows that the average village-level spending for the group counseling sessions (either kelas ibu hamil or kelas balita or both) ranged 9 million -16.5 million RPS (US$650-$1200), depending on year. It's possible that this funding could be sufficient to hold group counseling sessions monthly.

FIGURE 5.6. PERCENTAGE OF BIDAN AND KADER POSYANDU WHO RECEIVED GENERASI FUNDING FOR KELAS BALITA OR KELAS IBU HAMIL



Source: Bidan and kader posyandu interim (2017) surveys.

Sample size: 251 bidan and 409 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

5.1.2. Attendance

In this section we explore barriers and incentives to group counseling session attendance and who, beyond pregnant women and mothers of young children, attended the sessions. We drew on the interim qualitative data from group counseling session participants, women who were eligible to but did not attend sessions, and bidan and kader posyandu focus groups.

Participants noted that they often received invitations to the counseling sessions at the last minute, which made it difficult to attend. Bidan and kader posyandu commonly reported reminding women about the group counseling sessions during the posyandu or through calls, texts, and house visits. Alternately, they discussed the schedule for the next session at the end of a given session, designated "session leaders" (participant volunteers) to remind fellow participants, and held meetings with puskesmas staff and the wife of the kepala desa to ensure that all eligible participants were reached. Participants acknowledged they were familiar with these strategies, but they felt that bidan and kader posyandu did not communicate schedules in a timely or efficient manner. Participants often complained that it was difficult to attend counseling sessions because facilitators invited or reminded participants on the day of the sessions (often when women were at the posyandu already). This issue was exacerbated by the fact that counseling sessions were not held on a regular basis, so women could not count on a session being held on the same day or time as the previous month.

Participants noted that they often had competing responsibilities during scheduled counseling session times or had to travel long distances to attend sessions. They indicated that work, household chores, and childcare sometimes prevented them from attending kelas ibu hamil and kelas balita. Additionally, distance and travel conditions reduced participation. Some eligible women were never invited to attend—either because their house was too far away for the kader posyandu to visit or because they did not attend the posyandu (where most hear about the counseling sessions). Among those who received an invitation, some reported that they lived far from session locations and did not want to pay for travel expenses. Others indicated that roads during the rainy season were too difficult to travel on. Many participants agreed that travel stipends would increase their willingness to attend, because they often need to take motor bikes to reach the counseling sessions.

Counseling session attendance depended largely on whether and how effectively incentives were offered. Bidan and kader posyandu provided various incentives for attending and participating in the counseling sessions, including nutritional supplements, meals, and snacks. They credit these for increasing participation. For instance, some noted that when they did not distribute *Pemberian Makanan Tambahan (*PMT), in-kind food supplements for poor families or families with children under five identified as stunted or underweight, or offer snacks, fewer people attended sessions. One kader posyandu even estimated that attendance increased from 20 to 100 percent when bread and milk were provided. Facilitators used incentives not only to motivate attendance, but also to ensure that participants stayed through the entirety of the session—for example, by providing food *after* the counseling session. Facilitators also used incentives to engage participants in the material and ensure they were retaining vital information. Several offered door prizes (such as milk and biscuits) to participants who could correctly answer questions about topics covered in counseling sessions.

Family members rarely attended group counseling sessions despite the fact that increasing family members' attendance was a goal of the project. MCC and MCA-I included husbands and other caregivers, such as parents and parents-in-law, in the project's M&E Plan as target beneficiaries because they argued that men, parents, and parents-in-law play an important role in household decision-making, especially around nutrition, and that improving their knowledge was also important to improving household nutrition. However, we found that parents and in-laws rarely accompanied women to the counseling sessions; rather, the majority of women attended either alone or with their children. Participants and facilitators noted that husbands were often busy with work and that there was a perceived stigma against men attending sessions that are considered to be intended for women. Most participants wished that their husbands had attended sessions with them and thought that participation among husbands would increase if facilitators had provided husbands with targeted invitations, and if multiple men started to attend at the same time, thereby creating a "snowball effect." Session participants also felt that it was important to have more parents and in-laws attend because they play a critical role in decision-making around IYCF and often have misconceptions about what is best practice.

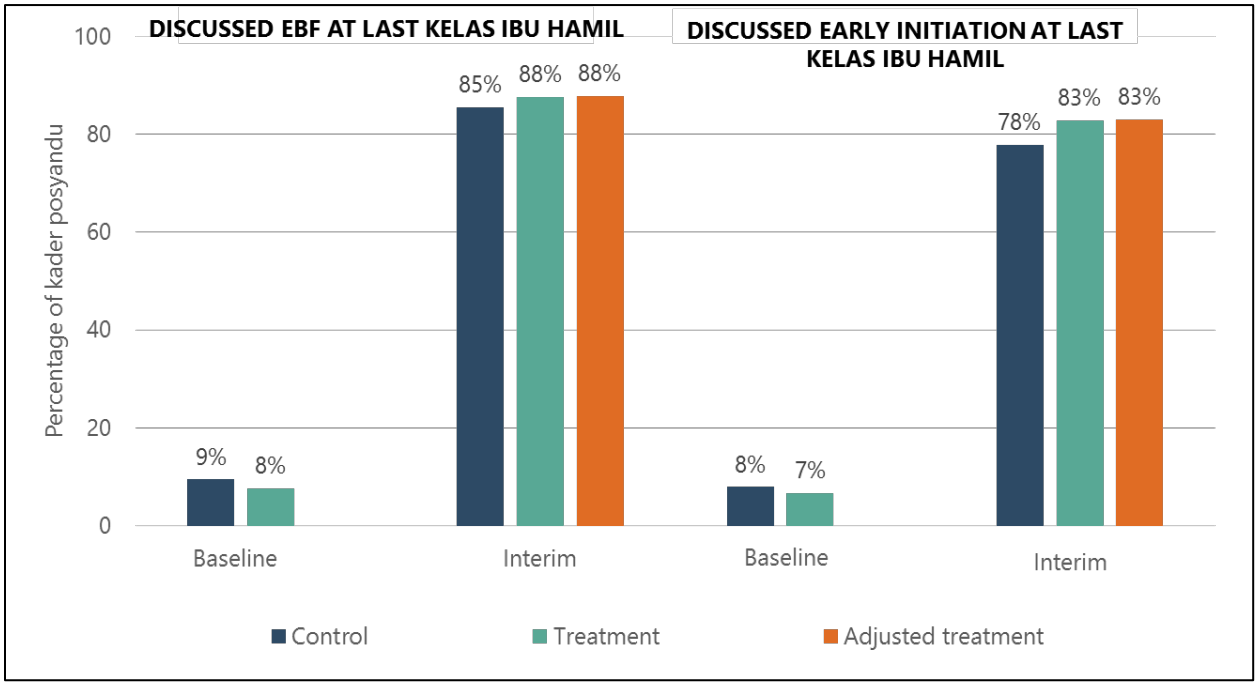
> ***"It is weird if people see there is a man (husband) in the class. People will say that we (pregnant mothers) are spoiled if our husbands join the class. I am also shy if only my husband joins the class while other pregnant mothers do not invite their husbands. If all husbands are invited, maybe they will come and join the class.***
>
> *– Kelas ibu hamil participant*

5.1.3. Session content

Understanding what content the sessions covered helps us assess if bidan and kader posyandu are conveying messages and lessons they learned in the training and elsewhere accurately and effectively to pregnant women and new mothers. In order to assess session content, we used data from SurveyMETER's counseling session observations, in which they used a checklist including topics from a schedule for kelas ibu hamil that MCA-I and the UNICEF IYCF Facilitator Guide used in the IYCF training discussed in Chapter 4. We also utilized kader posyandu phone interview data about topics covered in group counseling sessions.

Most kader posyandu discussed breastfeeding topics in kelas ibu hamil at interim and at much higher rates than we observed at baseline. At interim, between 85 and 88 percent kader posyandu in treatment and control areas reported discussing EBF in the most recent kelas ibu hamil they held, and between 78 and 83 percent reported discussing early initiation of breastfeeding (Figure 5.7). This means that nearly all kader posyandu were conveying the basics of breastfeeding, as they were taught to. However, these differences were not significantly different across treatment and control areas. The fraction of kader posyandu discussing breastfeeding topics at interim was much higher than that at baseline in both treatment and control areas (between 7 and 9 percent).

FIGURE 5.7. PERCENTAGE OF KADER POSYANDU WHO DISCUSSED EXCLUSIVE BREASTFEEDING OR EARLY INITIATION OF BREASTFEEDING IN THE LAST KELAS IBU HAMIL THEY HELD



Source: Kader posyandu baseline (2015) and interim (2017) surveys.

Sample size: 253 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

Although the quantitative results showed that the kelas ibu hamil covered breastfeeding topics, the qualitative results showed that these topics were not always covered in-depth. Four out of nine kelas ibu hamil that SurveyMETER observed discussed EBF, the benefits of colostrum, and the importance of keeping the breasts clean when breastfeeding. However, it was rare for kelas ibu hamil sessions to cover recommended breastfeeding frequency, proper breastfeeding positions, or breastfeeding attachment strategies.

Kelas ibu hamil covered pregnancy topics with varying degrees of depth and accuracy. About half of the sessions that SurveyMETER observed provided a detailed overview of common types of discomfort that women experience early in the pregnancy (nausea, vomiting, dizziness) and later in the pregnancy (back pain, swollen legs). However, the other half simply noted generalities, for example that women would experience bodily and emotional changes during pregnancy. Three out of nine explained that "pregnancy is when there is a fetus inside a woman's womb." In a few cases, counseling sessions provided misleading or incorrect information. For example, in one session the facilitator recommended that pregnant women eat candy or drink sweet beverages to increase energy in the morning if feeling ill.

In kelas balita, facilitators provided some key details on breastfeeding and complementary feeding, but it was not comprehensive. About half the counseling sessions SurveyMETER observed included discussions of key aspects of breastfeeding, such as breastfeeding frequency and latching methods (for example, positioning fingers in a C shape under the breast). However, few counseling sessions included all recommended practices including breastfeeding the baby 8-12 times a day, the four signs of good breastfeeding positioning (baby is straight, facing the breast, close to mother, and supported), and the four signs of good attachment (mouth open wide, lower lip turned out; baby's chin touching breast, and more areola showing above than below nipple). Similarly, half of the observed kelas balita covered aspects of complementary feeding (when to start complementary feeding and what types of complementary foods to give the child), but they provided only a portion of the full set of recommendations such as continuing to breastfeed until 2 years, providing sufficient iron intake either through iron rich food or Taburia, and using the five criteria for healthy food (keep hands, working surfaces, and utensils clean; separate raw from cooked foods; use fresh foods and cook thoroughly; keep food at safe temperature; use clean and safe water). Overall, facilitators provided much less detail than what they were trained on.

5.1.4. Facilitation and group counseling session environment

Bidan's and kader posyandu's presentation style, rapport with women, ability to engage participants, and skill at making content accessible all influence the success of the counseling sessions. Here we discuss facilitators' teaching ability. These findings draw on session observations and FGDs that SurveyMETER conducted with bidan, kader posyandu, and session participants.

Facilitators were confident in their delivery of the material and created an open, respectful atmosphere. As mentioned, the group counseling sessions did not provide an optimal learning environment, with mothers distracted by their children and sessions being cut short. That said, participants had largely positive impressions of the session's facilitation. They reported that

facilitators explained most topics by providing good examples. Facilitators were able to lead counseling sessions without looking at their teaching prompts and delivered the material in language that participants found easy to understand. Additionally, facilitators confidently and clearly provided suggestions for difficulties that participants expressed and never made participants feel as though they had asked "stupid" questions.

Participants felt welcome and comfortable in counseling sessions because facilitators used a friendly and participatory approach. According to participants, facilitators were able to elicit good questions and create a collaborative environment by using effective communication skills. Participants often mentioned that because they had an existing relationship with the facilitators in their desa, they trusted them and felt comfortable discussing potentially taboo issues such as sex during pregnancy. Facilitators also made sure that participants fully understood the material by using a combination of Indonesian and the local language.

Facilitators frequently used flipcharts and *buku kesehatan ibu dan anak (*KIA) and *buku kartu menuju sehat (*KMS) (mother and child handbooks given to women at the posyandu), but rarely other facilitation methods covered in training. During the IYCF training, bidan and kader posyandu were exposed to a range of different facilitation methods including group work, question and answer sessions, demonstrations, and practice. However, according to participants and session observations, facilitators only used a few of the methods and job aids taught in the training. About half used the flipcharts with visuals explaining key IYCF practices that MCA-I had provided during training. Half the counseling sessions also referenced buku KIA and KMS and actively asked participants questions. Other than those tools, however, facilitators typically adopted a lecture style, which entailed a lot of one-way transmission of information.

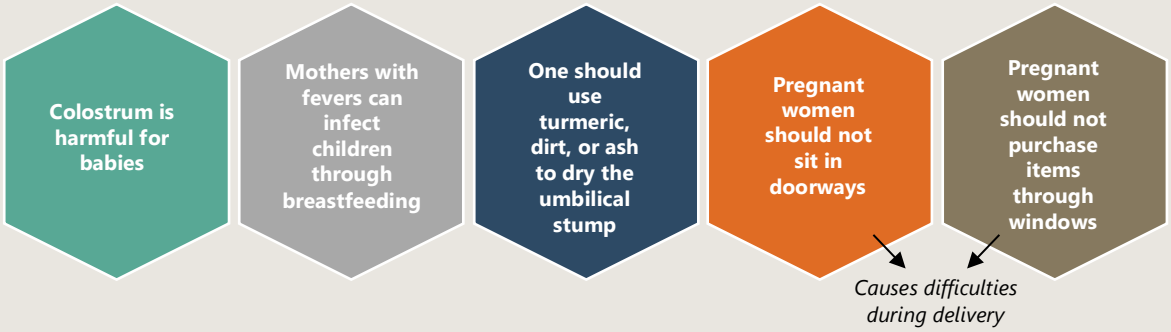
5.1.5. Participant impressions and recollections of group counseling session content

We examined what participants took away from the group counseling sessions. The findings do not represent an exhaustive list of the topics covered by bidan and kader posyandu, but they shed light on the lessons and recommended practices that participants retained over time. SurveyMETER collected the information through FGDs with session participants.

Participants appreciated the group counseling session content, especially the pregnancy exercises and information related to common IYCF misconceptions. Although counseling sessions were often fairly chaotic, especially kelas balita, participants demonstrated their interest in counseling sessions by calling facilitators after the sessions to follow up on subjects covered, asking when the next session would take place, and taking notes during the sessions. Participants were noticeably most engaged during pregnancy exercises and during sessions that described other safe exercises such as morning walks and stretches to be carried out at home. Women in their third trimester often asked facilitators to carry out the pregnancy exercises more frequently.

Additionally, due to the participatory approach used by facilitators, participants often shared misconceptions commonly held by many community members (Figure 5.8). These included the belief that colostrum is harmful for babies and that mothers with fevers can infect children through breastfeeding, along with other misinformed beliefs.

FIGURE 5.8. COMMON MATERNAL AND NEWBORN HEALTH MISCONCEPTIONS AND SUPERSTITIONS



Kelas ibu hamil participants most frequently recalled counseling session information on breastfeeding, nutrition, and labor. All kelas ibu hamil participants in FGDs that discussed breastfeeding recalled the ages at which children should be exclusively breastfed and receive complementary foods. Most demonstrated the ability to describe examples of specific foods within the recommended complementary food groups as well as describe signs of labor. Although many participants were able to recall high-level best practices, few reiterated detailed lessons learned such as the benefits of colostrum or strategies for breastfeeding initiation within the first hour of birth.

Kelas balita participants often recalled only a targeted set of breastfeeding and complementary feeding practices. The majority of FGD participants recalled some recommended breastfeeding techniques such as how to hold breasts by configuring fingers into a C shape when encouraging latching. However, fewer mentioned learning the importance of exclusive breastfeeding or breastfeeding frequency. With regard to complementary feeding, most participants recalled recommendations such as the proper age to initiate complementary feeding, recommended food groups, and porridge preparation. Some participants were able to recall recommended food groups for babies at 6-9 months and at least 9 months, although others simply recalled that complementary feeding can begin after a child is 6 months old. Participants rarely recalled additional nutrition topics, such as troubleshooting breastfeeding or complementary feeding problems or the importance of growth monitoring.

5.2. One-on-one counseling and services

As mentioned in the introduction to this chapter, MCA-I and MCC expected that the IYCF training and Generasi would work together to support more frequent and higher quality one-on-one interactions between health service providers—such as kader posyandu and bidan—and pregnant women and caregivers of young children through patient appointments, visits to the posyandu, and more informal interactions. The IYCF training was designed to better equip kader posyandu and bidan to provide one-on-one services, while Generasi was designed to allow communities to use block grants to improve the frequency of these services, such as providing bidan and pregnant women with transportation funds to attend pre- and postnatal appointments or to deliver with a skilled health service provider, such as the bidan or bidan coordinator. We collected telephone survey data on the frequency with which desa-level service providers served

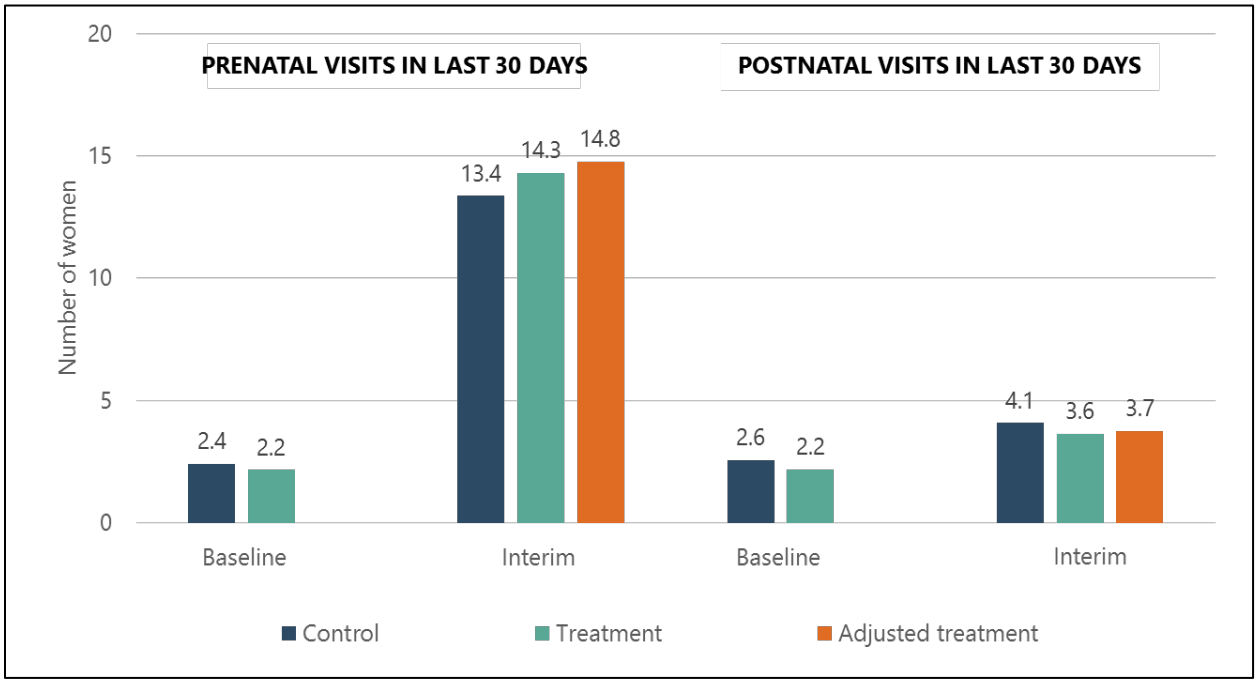
pregnant women and caregivers in their communities, content of these interactions, and the frequency with which puskesmas-level providers identified and treated stunted children. We discuss findings related to these measures below.

5.2.1. Prenatal and postnatal visits

Because Generasi incentivized pre- and postnatal visit frequency, it was important for us to measure whether this basic indicator changed. Because we did not collect household reports about visits, we have data only on the frequency of visits from the providers' perspective (number of patients they saw), which may be biased upward in favor of more desirable responses. Even if such bias exists, we can use provider responses as an indicator of whether frequency differs across treatment and control groups and whether behavior has changed over time if we assume that the extent of such bias is similar across treatment and control areas and over time.

There was no difference at interim between treatment and control areas in the average number of women whom bidan saw for prenatal visits in the past month, yet there were large increases since baseline. At interim, the difference between the average number of women served by bidan for prenatal visits in treatment and control areas was only 0.9 women and was not statistically significant (Figure 5.9). However, the average number of women bidan served in the last 30 days increased substantially between baseline and interim—from 2.2 women in treatment areas and 2.4 women in control areas at baseline to 14.3 and 13.4 women at interim, respectively. This means that prenatal visits increased substantially over time across the 190 kecamatan in the impact evaluation sample, but we cannot attribute the increase to the effects of the project. The average number of women whom bidan saw for postnatal visits in the 30 days before the interim survey were also similar across treatment and control areas, but with much smaller increases between baseline and interim relative to prenatal visits.

FIGURE 5.9. AVERAGE NUMBER OF WOMEN BIDAN SAW FOR PRENATAL AND POSTNATAL VISITS IN THE PAST 30 DAYS



Source: Bidan baseline (2015) and interim (2017) surveys.

Sample size: 407 bidan.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

5.2.2. Counseling on exclusive breastfeeding and early initiation of breastfeeding

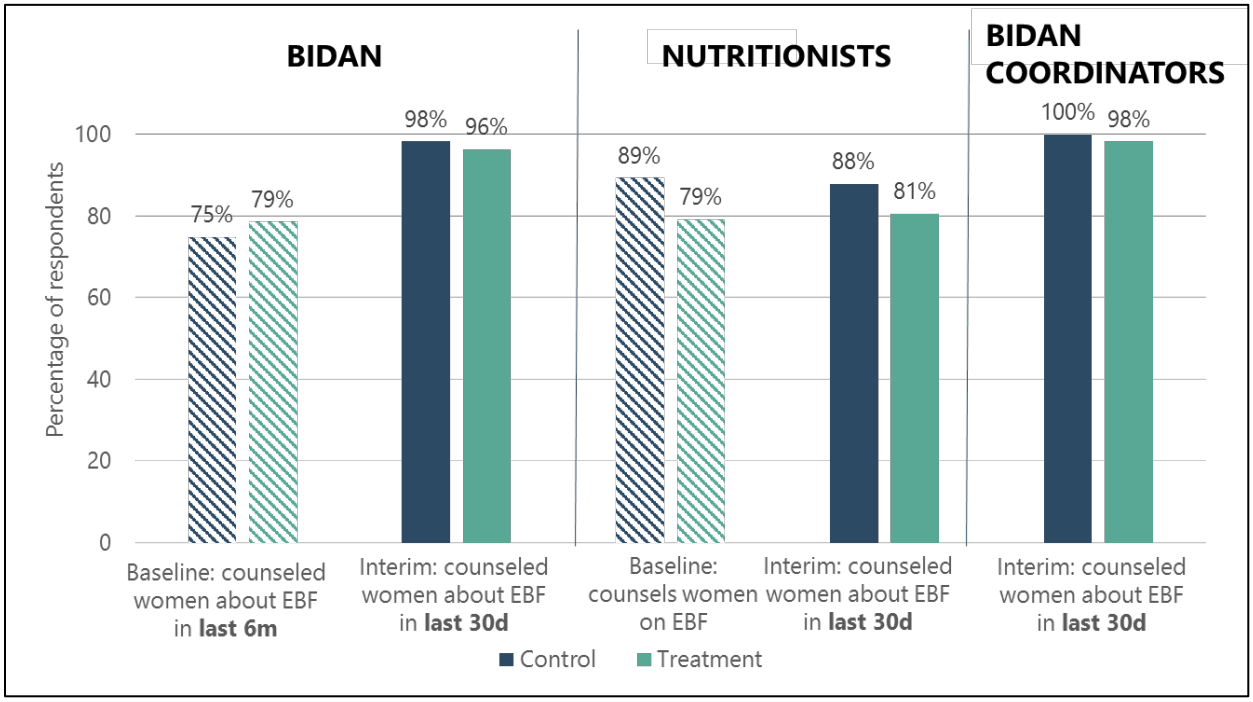
Improving rates of EBF and early initiation are critical markers of behavior change in the Nutrition Project program logic. One important intermediate step towards behavior change is bidan, kader posyandu, bidan coordinators, and nutritionists providing more counseling on these topics. This counseling can take place though pre-and postnatal appointments, posyandu meetings, or informal interactions.

Nearly all bidan and bidan coordinators, as well as the vast majority of nutritionists across both treatment and control areas, counseled women about breastfeeding practices in the last month. At interim, almost all bidan and bidan coordinators and more than 80 percent of nutritionists in both treatment and control areas reported that they counseled women on EBF in the last 30 days, with no significant differences between the two types of areas (Figure 5.10). A large percentage of bidan and nutritionists had provided EBF counseling at baseline, but the time periods covered in the baseline question were much longer than those at interim (6 months for bidan and ever for nutritionists), suggesting improvement in counseling rates over time (Figure 5.10).

The findings for whether providers counseled women about early initiation of breastfeeding or about common breastfeeding problems are similar to our EBF findings, but the reported

prevalence at baseline were much lower. At interim, the percentage of providers (bidan, nutritionists, bidan coordinators) who reported that they counseled women ranged from 74 to 100 percent for early initiation and from 84 to 94 percent for common breastfeeding problems. However, unlike the case of EBF, fewer than 30 percent of bidan and nutritionists reported that they counseled women on those topics at baseline, providing even stronger evidence of improvements in counseling rates over time (not shown). (We do not have a baseline measure for bidan coordinators.)

FIGURE 5.10. PERCENTAGE OF SERVICE PROVIDERS WHO COUNSELED WOMEN ABOUT EBF IN THE LAST MONTH



Source: Bidan, nutritionist, and bidan coordinator baseline (2015) and interim (2017) surveys.

Sample size: 407 bidan, 140 nutritionists, and 117 bidan coordinators.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

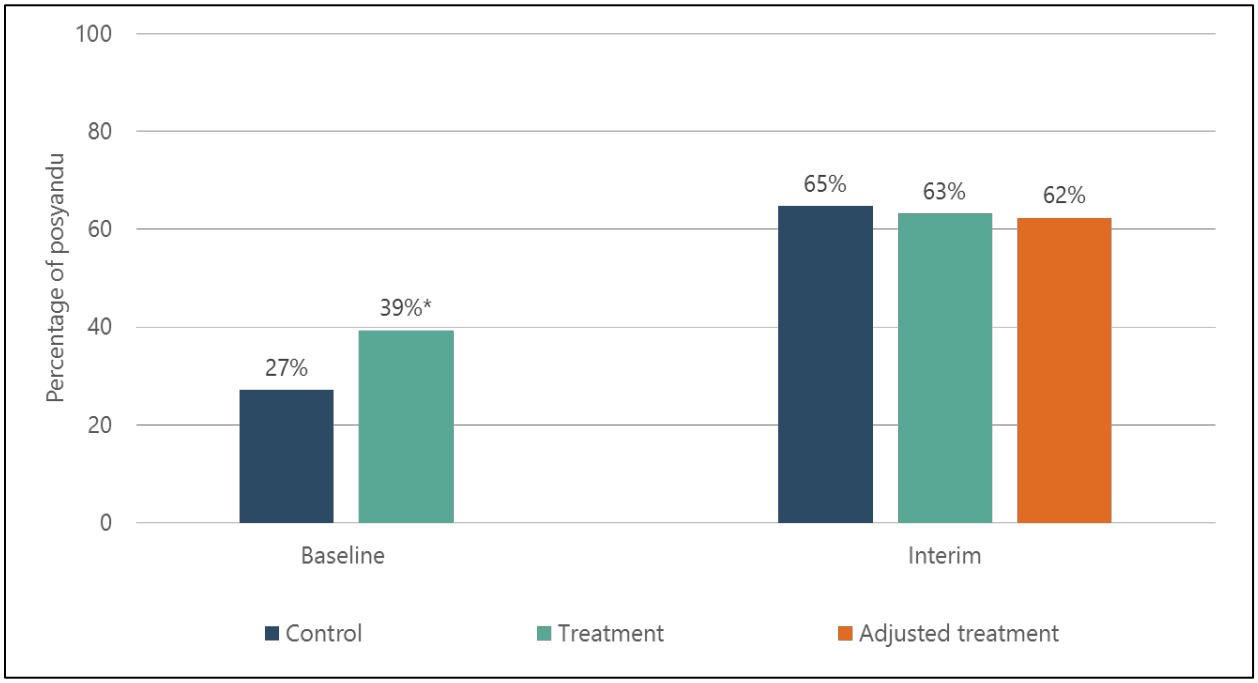
5.2.4. Identifying and treating stunted children

In addition to improving the quality of nutritional counseling provided in project desa, the IYCF and growth monitoring training was designed to reduce stunting by better equipping service providers with knowledge to accurately identify stunted infants and young children and provide them with targeted care. Training also worked in tandem with Generasi funding, which could help ensure that parents of stunted children could access care and receive food supplementation.

Posyandu in treatment and control areas were equally likely to have length-taking devices such as a Stadiometer or Microtoise. At interim, 63 percent of kader posyandu in treatment areas and 65 percent in control areas reported that their posyandu had one of the devices; the difference between the two was not statistically significant (Figure 5.11). By interim, over a third of posyandu still lacked measuring devices, probably because posyandu only recently or started

offering length taking. The Nutrition Project expected that all length taking would take place at the puskesmas or be conducted by puskesmas staff. The project supplied puskesmas with portable anthropometric kits (including high quality measurement devices) that bidan coordinators and nutritionists could bring with them to posyandu meetings. Despite this intervention in treatment areas, control areas also seem to have also received access to length taking devices.

FIGURE 5.11. PERCENTAGE OF KADER POSYANDU WHO REPORTED THAT THEIR POSYANDU HAD A STADIOMETER OR MICROTOISE



Source: Kader posyandu baseline (2015) and interim (2017) surveys.

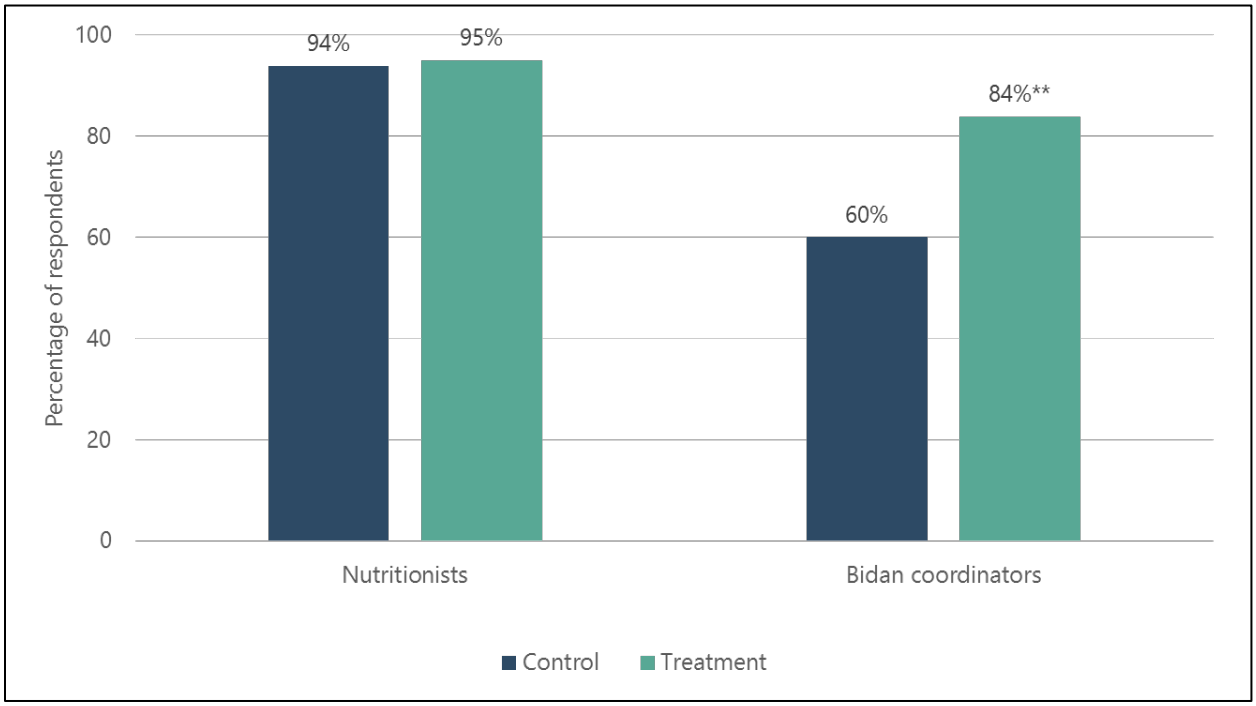
Sample size: 253 kader posyandu.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

Bidan coordinators in treatment areas were significantly more likely to identify stunted children as part of their jobs. Most bidan coordinators in treatment areas (84 percent) reported that they identified stunted children as part of their jobs, at a rate 24 percentage points higher than in control areas (Figure 5.12). There was no significant difference between the percentage of nutritionists who identified stunted children across treatment and control areas; nearly all nutritionists (between 94 and 95 percent) reported that they identified stunted children. We expect that the difference is large for bidan coordinators and not for nutritionists because the latter have traditionally diagnosed and treated stunting as part of their job, as demonstrated by the high fraction of nutritionists reporting this at baseline. In recent years, the growth monitoring training and other efforts to combat stunting have also oriented bidan coordinators to this task.

FIGURE 5.12. PERCENTAGE OF NUTRITIONISTS AND BIDAN COORDINATORS WHO REPORTED THAT IDENTIFYING STUNTED CHILDREN WAS PART OF THEIR JOB



Source: Nutritionists and bidan coordinators baseline (2015) and interim (2017) surveys.

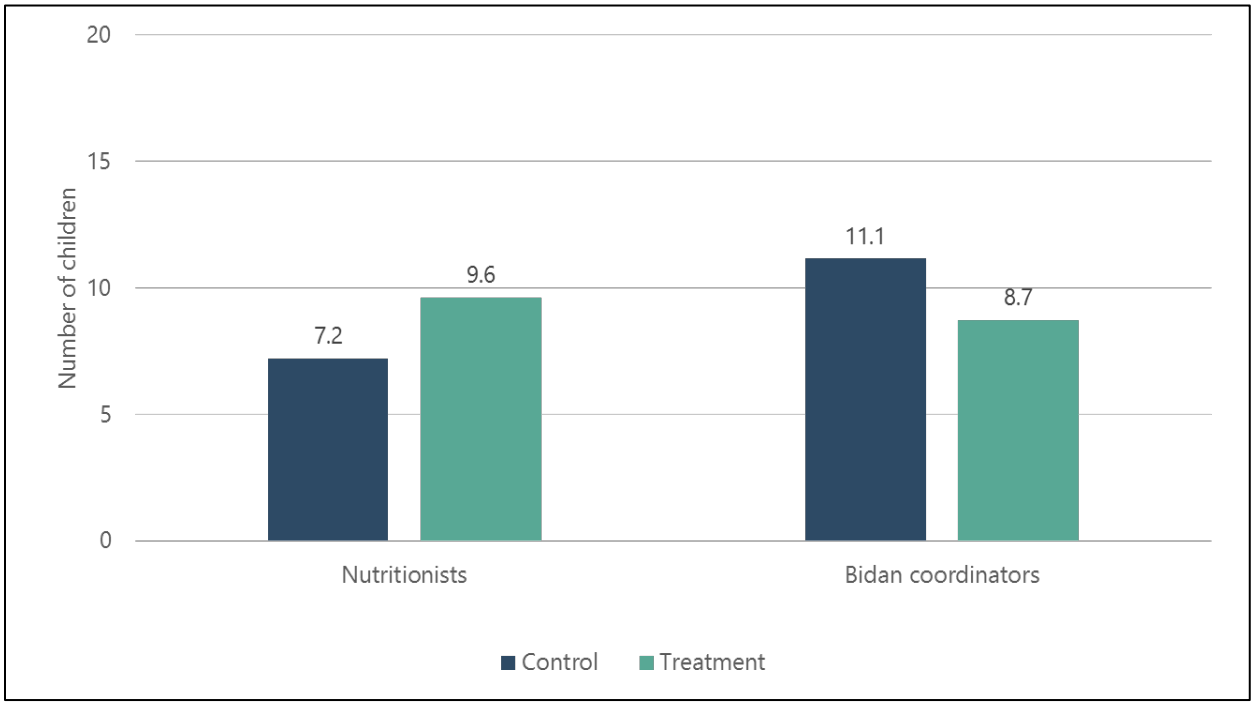
Sample size: 143 nutritionists and 116 bidan coordinators.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

Nonetheless, the number of young children who received services related to stunting at the puskesmas did not differ across treatment and control areas. At interim, nutritionists reported that they provided services related to stunting to 9.6 children on average in the last month in treatment areas and 7.2 children in control areas, and bidan coordinators reported serving 8.7 children on average in treatment areas and 11.1 children in control areas (Figure 5.13). The differences for each type of provider appear substantive (2.4 children higher in treatment areas for nutritionists, and 2.4 children lower in treatment areas for bidan coordinators) but are not statistically significant.

FIGURE 5.13. AVERAGE NUMBER OF CHILDREN AGED 0-5 YEARS WHO RECEIVED SERVICES RELATED TO STUNTING AT THE PUSKESMAS IN THE LAST 30 DAYS



Source: Nutritionists and bidan coordinators baseline (2015) and interim (2017) surveys.

Sample size: 129 nutritionists and 85 bidan coordinators.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

5.3. Supportive supervision of desa-level staff by puskesmas staff

In addition to training desa-level staff directly in IYCF and growth monitoring topics, the project envisioned that bidan and kader posyandu would improve the quality of nutrition counseling and health services when puskesmas staff oversee and coach bidan and kader posyandu in their jobs. One component of the bidan coordinators' and nutritionists' IYCF training involved training them on "supportive supervision." This task simply means that bidan coordinators and nutritionists observe bidan and kader posyandu during pre- and postnatal visits, during nutritional counseling sessions, or the posyandu and then provided coaching and feedback on their performance. Communities could use Generasi funds to facilitate this supervision, such as transport for puskesmas staff to visit bidan and kader posyandu during either the posyandu or one-on-one counseling.

Puskesmas staff visited posyandu with similar frequency across treatment and control areas, but more often at interim than at baseline. As expected, posyandu were open for approximately 6 days in the last 6 months (or roughly one day per month) (not shown). At interim, kader posyandu reported that the posyandu received visits from puskesmas staff on about three-quarters of these days, on average, in both treatment and control areas (4.5 days in treatment areas and 4.4 days in control areas) (Table 5.2). This was an increase relative to

baseline, at which time visits occurred on fewer than half of these days (2.5 and 2.6 days in treatment and control areas, respectively).

Looking at similar measures from the perspective of bidan coordinators and nutritionists—specifically, the fraction of posyandu under their supervision that they visited in the last month—the result was also quite similar across treatment and control areas (Table 5.2). (We do not have baseline measures for this outcome.) On average, both bidan coordinators and nutritionists had visited less than half of the posyandu affiliated with their puskesmas in the 30 days before the interim survey. Respondents also reported that they visited 22 to 29 percent of posyandu to vaccinate children and 24 to 36 percent of posyandu to measure children's length. We also found no significant differences across interim and control areas for these types of visits.

We also considered how frequently bidan visited the posyandu they supervise. We found no significant difference at interim between treatment and control areas in the number of hours that bidan reported working at posyandu in their desa in the last month (on average six hours per month, not shown).

Bidan coordinators reported that they met with similar numbers of their bidan supervisees in the last month across treatment and control areas, but we observed a large increase in the number of bidan they met with in both areas between baseline and interim. Bidan coordinators in treatment and controls areas reported that they met with a similar number of bidan in the past 30 days: 6.9 and 6.8 bidan on average in treatment and control areas, respectively (Table 5.2). This was a large change from baseline. Bidan coordinators in treatment and control areas conducted 4.2 and 4.6 more meetings in the last month on average, respectively. These changes do not appear to be driven by changes in the average number of bidan that bidan coordinators supervised, which was more modest. We also found that bidan coordinators in treatment areas supervised 2.1 fewer bidan than bidan coordinators in control areas at interim when we controlled for baseline values, but the difference at interim was only marginally statistically significant. Together, the findings suggest that supportive supervision is increasing, albeit not in response to the project.

TABLE 5.2. RESULTS FOR SUPPORTIVE SUPERVISION OF DESA-LEVEL STAFF BY PUSKESMAS STAFF

	Baseline		Interim		
	Control mean	Treatment mean	Control mean	Treatment mean	Treatment mean with baseline control
Kader posyandu					
Average number of days puskesmas staff visited the posyandu in the last sixth months	2.6	2.5	4.4	4.5	4.5
Bidan coordinators					
Percentage of posyandu under supervision visited in past month			35	43	
Percentage of posyandu under supervision visited in past month to vaccinate children			22	23	

	Baseline		Interim		
	Control mean	Treatment mean	Control mean	Treatment mean	Treatment mean with baseline control
Percentage of posyandu under supervision visited in past month to measure children's length			29	36	
Average number of bidan supervised	7.7	8.8	10.2	9.5	8.1*
Average number of bidan met with in the past month	2.1	2.8	6.8	6.9	7.0
Nutritionists					
Percentage of posyandu under supervision visited in past month			35	39	
Percentage of posyandu under supervision visited in past month to vaccinate children			29	24	
Percentage of posyandu under supervision visited in past month to measure children's length			24	30	

Source: Kader posyandu and bidan coordinator baseline (2015) surveys and kader posyandu, bidan coordinator, and nutritionist interim (2017) surveys.

Sample size: 248 kader posyandu, 116 to 118 bidan coordinators, and 141 nutritionists.

Note: Treatment means are regression-adjusted for kabupaten fixed effects.

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

5.4. Conclusion

Overall, group counseling sessions, one-on-one service provision, and supportive supervision activities were implemented at relatively high rates at interim, but there were no significant differences between frequency of activities in treatment and control areas. These activities have increased in frequency between baseline and interim, but the changes are not attributable to the project.

Our qualitative data show that several factors hindered group counseling session attendance, participation, and learning. Participants often had a difficult time planning for and attending classes due to receiving last-minute invitations to sessions, the absence of a formal schedule, and the demands of household responsibilities. When attending sessions, especially kelas balita, participants had difficulty paying attention and retaining material because of the distractions associated with the presence of children and distracting noises from posyandu activities occurring at the same time. The disruptions and abbreviated sessions interfered with participants' exposure to and retention of the intended session material. Furthermore, facilitators did not integrate many of the interactive teaching methods covered in their training, often resorting to basic lecture methods.

The content covered in group counseling sessions was of mixed quality, and there were few differences between one-on-one counseling activities in treatment and control areas. Group counseling sessions covered key topics related to pregnancy, breastfeeding, and complementary feeding relatively frequently, but the level of detail varied, and sessions often presented ad hoc

recommendations. Both the quantitative and qualitative data suggest that more experienced staff than kader posyandu, including bidan and puskesmas staff, facilitated group sessions; however the content delivered could still be improved. The quantitative findings suggested that one-on-one counseling was largely carried out the same across treatment and control areas. There were no statistically significant differences in the percentage of bidan or kader posyandu that counsel their patients on exclusive breastfeeding, early initiation of breastfeeding, or common breastfeeding problems. Similarly, kader posyandu in treatment areas were not found to have had better access to stunting measurement equipment and the difference in number of children aged 0-5 who received stunting services were not statistically significant. The only quantitative finding that suggests a difference in one-on-one counseling across treatment and control areas is that the bidan coordinators in treatment areas were significantly more likely to identify stunted children as part of their jobs. Ultimately, the project appears to have had few impacts on the quantity or content of group counseling sessions, one-on-one service counseling, or supportive supervision at interim. The lack of impact between treatment and control areas on frequency and quality of sessions suggests that the project may not yield positive impacts in the next stage of the program logic, on outcomes such as community behavior around nutrition.

6. CLTS TRAINING AND IMPLEMENTATION

To decrease the prevalence of stunting, wasting, and underweight, the Nutrition Project sought to improve not only IYCF practices, but also sanitation behaviors. To shift these outcomes, the Nutrition Project leveraged the CLTS approach, which entails mobilizing communities to take collective action around open defecation. CLTS seeks to build awareness about the health and safety risks inherent in open defecation (OD), invoke a sense of disgust and shame among community members, and help communities engage in joint decision-making and planning to become open defecation free (ODF).

To operationalize CLTS, the Nutrition Project supported trainings for government staff and service providers on how to implement the approach. The project also provided funding for triggering events, which are community meetings that implement interactive activities to help individuals confront the impact of open defecation and begin working on joint solutions. Ultimately, the project sought to eliminate OD in 1,600 of the roughly 5,700 project desa. In this chapter, we present an overview of the CLTS model and interim findings related to CLTS training and triggering implementation.

KEY FINDINGS ON CLTS TRAINING, TRIGGERING, AND ACHIEVING ODF

- The project had an impact on receipt of CLTS training: sanitarians in treatment areas were significantly more likely to have received training than those in control areas.
- However, trainings for kecamatan and desa stakeholders were of mixed quality, with participants left wanting more guidance about several triggering steps—likely because their kabupaten-level trainers were not sufficiently trained on these steps.
- The project had an impact on triggering coverage: the proportion of communities triggered was significantly higher in treatment areas than control areas.
- Triggering teams largely followed prescribed triggering steps, but there was limited action planning and follow-up to ensure that nascent shifts in attitudes translated into household behavior change.
- There were minimal project impacts on the number of ODF dusun/desa; a lack of funding for latrine construction was a critical barrier to becoming ODF, and sanitation entrepreneurs (who were expected to build low-cost latrines and connect households to financing resources) were largely inactive.

6.1. Background on CLTS

The Indonesian Ministry of Health has been promoting the CLTS model since 2008, when it launched the Indonesian National Strategy for Community-Based Total Sanitation and Hygiene (or *Sanitasi Total Berbasis Masyarakat* [STBM]). Implementation of the model is highly decentralized. Indonesian provinces assume responsibility for financing and implementing the strategy, though a secretariat within the MoH exists at the central government level to provide implementation oversight. A variety of donors provide technical assistance related to CLTS and

implement their own programs to support it. Below we provide additional detail on CLTS goals and activities in Indonesia, and MCA-I's approach for training government stakeholders to roll out the CLTS approach in its intervention areas.

6.1.1. CLTS goals and activities

The CLTS approach in Indonesia has five pillars: (1) human feces disposal (achieving ODF), (2) handwashing with soap, (3) treatment of drinking water at point of use, (4) solid waste management, and (5) liquid waste (household wastewater) management. Of these, the first—helping communities become ODF—is a particular focus of this project. ODF communities use dedicated sanitation facilities that dispose of feces in an environmentally benign manner rather than directly on the ground or into or near a body of water.

To empower communities to become ODF, CLTS specifies a detailed process, which entails strategic selection of target areas for implementing the model (pre-triggering), community gatherings to shift attitudes and motivate collective action (triggering), follow-up to ensure communities are working towards becoming ODF (post-triggering), a process to determine whether a community is ODF (ODF verification), and community-led triggering of other dusun (scale-up). We provide more detail below on each of these steps.

Pre-triggering

This stage focuses on selecting dusun for CLTS implementation. Kecamatan-level stakeholders trained in CLTS (usually sanitarians) target desa and dusun based on their sanitation profile and general willingness to participate. They make their selection using data on sanitation and hygiene history, whether community members have experience owning and operating private businesses, the presence of strong local leaders, the presence of microcredit providers, and technology suitability.

Triggering

Trained kecamatan- and desa-level stakeholders then conduct triggering in the selected dusun. Triggering is a half-day event that uses participatory approaches to illustrate the scale of the OD problem in a given community, increase awareness of its negative effects on health, and kindle feelings of shame and disgust among community members. Triggering underlines, furthermore, that it is not enough that *some* households cease to engage in OD. It illustrates that the risk of disease is high even if a minority defecates in the open, and makes the case for communities to *entirely* eliminate open defecation. Ultimately, triggering seeks to encourage communities to take ownership of this problem, and collectively develop a work plan to become ODF within one year.

A triggering team leads the triggering event. It consists of the puskesmas staff person, usually the sanitarian, plus three kader desa and someone from the kepala desa's office. Each member of the triggering team assumes a role: lead facilitator, cofacilitator, content recorder, process facilitator, and environment setter. The content recorder is responsible for taking notes. The process facilitator ensures all triggering steps are carried out. The environment setter tries to make participants feel comfortable. Table 6.1 specifies the triggering steps that these stakeholders are

expected to conduct (as specified by the technical operations manual designed by MoH and MCA-I).

TABLE 6.1. TRIGGERING STEPS ACCORDING TO TECHNICAL OPERATIONS MANUAL

Triggering step	Description
1. Invitation	The triggering team initiates triggering in one desa/dusun, with support from the sanitarian. Someone from the puskesmas, usually the sanitarian, sends an invitation to kepala desa, informal leaders, and the head of the dusun, up to a week in advance.
2. Mapping	The sanitarian leads participants through a sanitation mapping exercise. The map should indicate RW/dusun borders, latrine presence in households, roads, and water resources for a particular use (e.g., drinking, bathing/washing, handwashing, sanitary purposes). Based on participants' feedback, sanitarians should indicate on the map where OD occurs and where garbage, liquid, and solid waste are improperly disposed. The sanitarian may ask participants to step forward if they commit OD, one way of making them feel shame. Another goal is to strengthen community understanding of the scope the OD problem within the given dusun, which is needed for subsequent steps.
3. Ranking RTs	The triggering team then discusses the map and asks the community to rank order the neighborhood association (*RT*) /hamlet according to hygiene practices. The primary goal of this is to highlight regions where OD is the greatest challenge, and where latrines are needed most.
4. Feces calculation exercise	The triggering team instructs participants to calculate the volume of feces they produce in a given week, month, and year. The goal is to make participants aware of the large quantity of feces and contaminants that are not being properly disposed of within their community, and stimulate feelings of disgust.
5. Transect walk	The triggering team then leads a transect walk through the desa/dusun while observing, asking questions, marking locations with OD on the map, and visiting houses that already have latrines. The goal is to understand the prevalence of OD within a given community and in the process make participants feel shame and disgust. The transect walk is also an opportunity to recognize households that are already practicing healthy sanitation practices, if any.
6. Discussion of fecal-oral contamination	The triggering team leads a discussion on how fecal matter can contaminate water and lead to illness, the importance of safe drinking water, and methods for ensuring safe drinking water. The goal is to motivate participants to properly treat their water in order to avoid ingesting harmful bacteria.
7. Water contamination demonstration	In an effort to show participants how easily drinking water can be contaminated, the triggering team presents two clean glasses of water. They then take a piece of hair or string, dip it in a liquid that is supposed to represent feces, and then dip it in one of the glasses of clean water. They then take another hair or string, dip it in the now unclean glass of water, and then transfer it to the second glass of water. The goal is to show how water at multiple sources can be contaminated by even just a few people practicing OD.
8. Additional discussion on benefits of latrine use and dangers of OD	The triggering team leads a discussion on the non-health benefits of latrines. For example, triggering teams may discuss how having a latrine can yield improved privacy, safety, and convenience. The goal is to frame the benefits of latrine use in a positive light (i.e., if you use a latrine in your home, you do not have to travel alone at night to the river) rather than negative (i.e., if you do not use a latrine, you and your neighbors will get sick). As mentioned, discussions during triggering also include some admonishment of participants; facilitators try to make participants feel ashamed about their behavior. A parallel technique they can use is to argue that OD is "sinful".
9. Identification of leaders	The triggering team appoints "natural leaders", also called informal leaders—individuals from the desa/dusun who show a willingness and commitment to ODF—to influence their surrounding community.
10. Work plan development	Natural leaders work with the community to draft a work plan for becoming ODF, with support from kader desa and sanitarians.

Post-triggering

Once triggering is complete, triggering team members seek to ensure that communities are on the pathway to becoming ODF. This process, known as "post-triggering," focuses on ensuring successful implementation of and adherence to the community work plan developed during triggering. Post-triggering follow-up visits are conducted by the triggering team members at the desa level, with support from puskesmas staff, such as the sanitarian or nutritionist. They can include visiting households that pledged to build a latrine and/or a handwashing station and encouraging other community members to join; updating the dusun map to show newly constructed latrines and/or handwashing stations; encouraging visits between recent ODF hamlets and those just triggered; and connecting sanitation entrepreneurs (for example, stone masons, store owners) with households.

MCA-I and MoH created the role of sanitation entrepreneur to act as the supply-side bridge for CLTS—sourcing affordable, local materials; building simple latrines; and connecting households to loan and other financing resources. Sanitation entrepreneurs are trained by CLTS master trainers using an MoH-established curriculum that covers topics like CLTS motivation, basic marketing concepts, latrine construction, and business planning. At least one sanitation entrepreneur should be active in each kecamatan. Triggering facilitators are supposed to discuss the role of sanitation entrepreneurs with community members during triggering events.

ODF verification

Following post-triggering, community members from the desa must ensure that all households have access to sanitary latrines and no one is defecating openly in order to achieve ODF status. Once no human feces are present in the environment, kader desa and informal leaders notify the puskesmas sanitarian that their area has become ODF. Next, a verification team comprised of community members from the nearest neighboring desa, kader from the neighboring desa, and sanitarians from neighboring puskesmas begin the verification process.

Verification begins by visiting five households that committed to becoming ODF according to the action plan and confirming the presence of a latrine. The team then proceeds to interview other community members and desa officials and conducts site visits to check for feces in the environment. If verification teams confirm that a given desa is ODF, the sanitarian then organizes an ODF declaration ceremony with desa and government leaders.

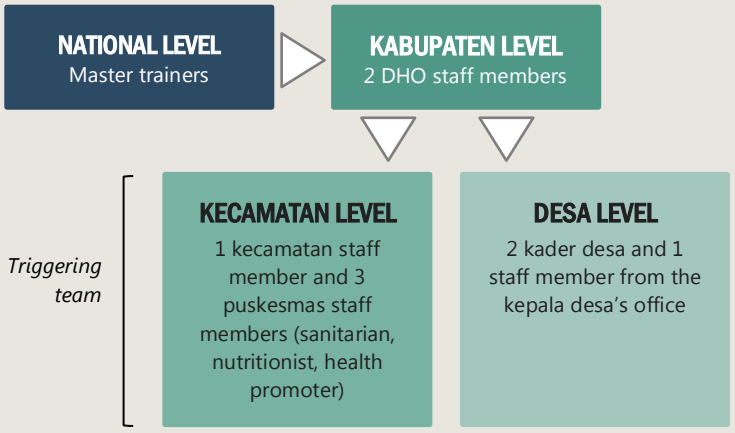
Scale-up

After the triggering team has triggered one dusun in a desa, the desa-level members of the team then trigger another three dusun. They then convene a meeting at the desa office among stakeholders from triggered dusun, the kepala desa, and the informal leaders identified by triggering to present the triggering results. The objective of the meeting is to make an action plan and establish community committees (Tim Dusun Pemberantas BABS at the dusun level, and Tim Desa Pemberantas BABS at the desa level). The desa triggering team and Tim Desa Pemberantas BABS retrigger non-ODF dusun if needed to become ODF by sharing experiences and demonstrating the benefit of living ODF.

The triggering team triggers four dusun per desa (out of approximately 10 to 15 dusun total per desa). The remaining dusun are supposed to implement triggering on their own, with or without triggering team support. As mentioned, the target goal is for a triggered desa to achieve ODF status within one year.

6.1.2. Envisioned approach to CLTS Training

FIGURE 6.1. CLTS TRAINING CASCADE PLAN



The CLTS training is supposed to follow a cascade model, as shown in Figure 6.1. National trainers conduct training of trainers for DHO staff. In turn, DHO staff train one staff member from kecamatan administration and three puskesmas staff—usually the sanitarian if one exists, the nutritionist, and the health promoter. Then, DHO staff train desa staff: two kader desa and one person from the kepala desa's office. The training covers the underlying motivation for CLTS and how to change participants' behavior, with a particular emphasis on triggering and effectively communicating with participants. Each level of the cascade is supposed to include field practice, which gives training participants a chance to hold triggering simulations with community members. The Nutrition Project sought to support CLTS training at the kabupaten, kecamatan, and desa levels and triggering in 1,600 desa. Through this process, 800 desa, or 50 percent of those triggered, are expected to become ODF. According to MCA-I's Monitoring and Evaluation unit, 1,124 villages have been triggered to date and 857 villages were visited for post-triggering activities.

6.2. CLTS training implementation

In the program logic, the first step in improving sanitation behavior is training service providers on CLTS. This section describes the rollout of CLTS training at the kabupaten, kecamatan, and desa levels; training attendee composition; barriers to attending; impressions of training content; and suggestions for improving trainings.

6.2.1. Training rollout

Our first exercise was to learn whether the CLTS training was implemented as planned. Figure 6.2 summarizes our findings, and shows that the rollout proceeded largely as intended, with a few exceptions (detailed below).

FIGURE 6.2. CLTS TRAINING IMPLEMENTATION

	Training for kabupaten staff	Training for kecamatan staff	Training for desa staff
Length	8-9 days	3-5 days	3-4 days
Location	Hotel conference room	Hotel conference room	Hotel conference room
Facilitator	2-3 master trainers	2 DHO staff	1-2 DHO staff, 1 sanitarian
Participants	20 on average 1 from kesling division + 1 from nutrition division + 1 from sanitation division *per kabupaten*	20 on average 1 from kecamatan staff + 3 from puskesmas *per kecamatan*	20 on average 2 sanitation kader + 1 desa representative *per desa*

Source: DHO IDIs, and sanitarian and kader desa FGDs

Rollout of trainings for kabupaten staff

According to the DHO staff we interviewed, their CLTS training lasted eight to nine days, on average: nearly twice as long as the recommended five days. The trainers were from MCA-I, MoH, or PAMSIMAS, a World Bank-funded project that provides technical assistance to MoH on CLTS. There were approximately 20 to 25 participants per training—from multiple DHOs across the intervention provinces. Each DHO sent one representative from the environmental health (*kesling)* division, one from the nutrition division, and one from the sanitation division. In the event that DHO staff were unable to attend the training, puskesmas staff (typically the sanitarian) attended the training in their place.

Rollout of training for kecamatan-level staff

CLTS trainings for kecamatan staff lasted three to five days, on average, and were mostly facilitated by two DHO staff, according to qualitative IDIs with DHO, sanitarians, and kader desa. There were approximately 20 participants per training, including one kecamatan administration staff member and three puskesmas staff members per kecamatan.

Rollout of training for desa-level staff

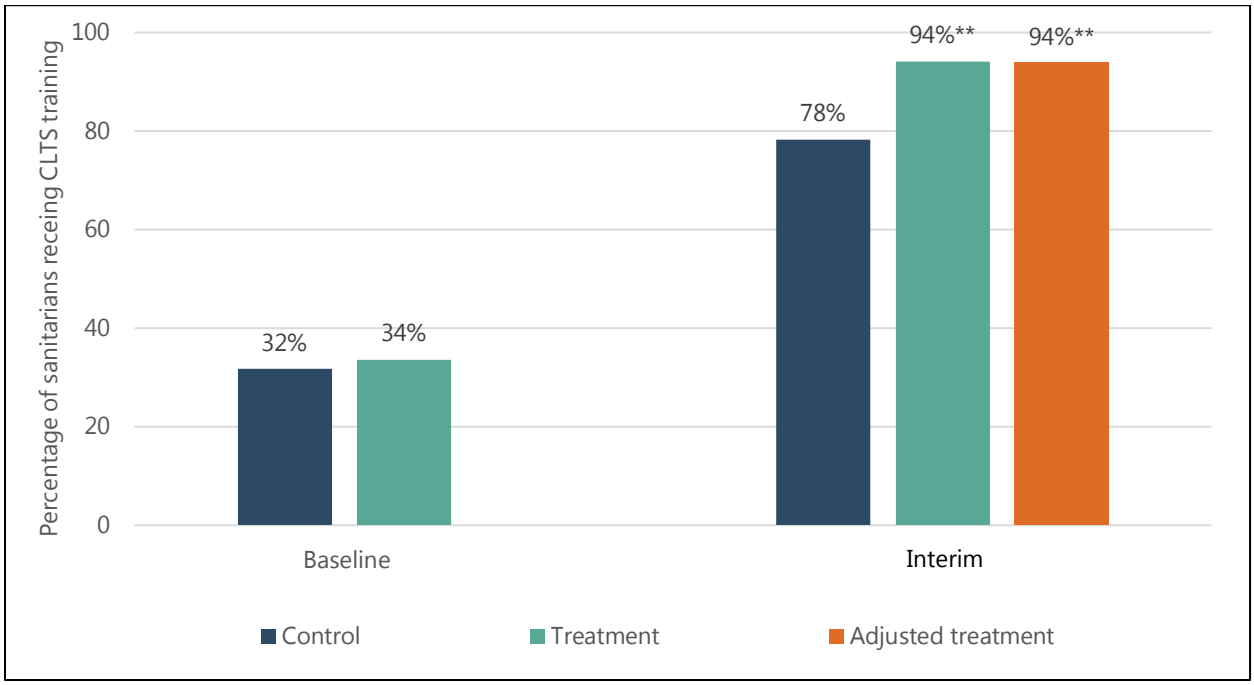
CLTS trainings for desa staff lasted three to four days, on average, and were typically facilitated by one or two DHO staff and a sanitarian. Occasionally, someone from the province health office would join as a cofacilitator, but the majority of classes were led by sanitarians with DHO staff as cofacilitators or observers. This differs from MCA-I's plan, which was to have only DHO staff lead the trainings for desa staff. Approximately 20 participants attended each training, with 2 sanitation kader and one desa representative attending from each desa, typically from the kepala desa's office.

6.2.2. Training attendance

Next, we examined the extent to which the training was reaching target stakeholders to improve their knowledge. In addition, we explored the factors influencing training reach, such as barriers to attendance. In this section, we focused on training at the kecamatan and desa levels—with particular attention to the kecamatan level—given sanitarians are expected to lead triggering and motivate behavior change with assistance from their desa-level team members.

Only about one-third of sanitarians had been trained in CLTS at baseline, but most had been trained by the time of the interim survey, with a significantly higher proportion trained in treatment areas than in control areas. At interim, 94 percent of sanitarians in treatment areas reported ever receiving training in CLTS (after controlling for baseline training), significantly higher than the 78 percent who had received training in control areas (Figure 6.3). These percentages represented substantial increases in the proportion of sanitarians trained in CLTS between baseline and interim in both treatment and control areas because fewer than 35 percent of sanitarians had been trained at baseline. This suggests that the Nutrition Project added value in increasing training, even though training was increasing more broadly.

FIGURE 6.3. PERCENTAGE OF SANITARIANS EVER TRAINED IN CLTS



Source: Sanitarian baseline (2015) and interim (2017) surveys.

Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Sample size: 138 sanitarians.

Some puskesmas and desa staff indicated that the training interfered with their other obligations and was difficult to reach. The training coincided with rice harvest season, so a few kader had to forgo income to attend the training. Other kader noted it was difficult to arrange

childcare or have someone else take over their household responsibilities, particularly given they did not receive much notice about the trainings. Sanitarians and kader also cited long-distance travel to the training venue, sometimes as much as five to seven hours by bus, as an inconvenience. Distance was a particular challenge during the rainy season, when roads were poor. Finally, when asked about constraints to attendance, kader reported feeling unsure about attending the training because they were insecure about their lack of sanitation knowledge compared to other attendees.

6.2.3. Training content

We then explored the quality of the training content and activities, key determinants of (1) provider knowledge around sanitation, and (2) provider capacity to conduct high-quality triggerings to foster behavior change. We drew on perceptions of FGD participants to develop these findings; as mentioned, we were unable to observe CLTS trainings, which were complete at the time of data collection.

In this section, as with the previous one, we focus on the kecamatan and desa levels, where providers are directly influencing and shaping beneficiaries' sanitation practices. However, we do explore the quality of kecamatan- and desa-level training content using what we learned about the DHO trainings.

Three main topics resonated most with sanitarians and kader desa: core CLTS pillars, the multifaceted nature of CLTS, and the importance of effective communication. When asked to describe what they learned during training, participants generally brought up the following topics. First, they recalled the five core CLTS pillars: eliminating OD, handwashing with soap, treating drinking water at point of use, and liquid and solid household waste management, indicating a grasp of the main foci of CLTS. Second, participants also seem to have retained information shared about the relationship between sanitation, nutrition, and stunting and the importance of involving practitioners from multiple fields to reduce stunting. Participants indicated that the trainings should always include one member from each of the three puskesmas divisions (environmental health, nutrition, and sanitation) and clearly articulated the connections between the three training participants. Third, participants appreciated learning about effective communication strategies that would shift attitudes and motivate behavior change. This was particularly useful to deploy in triggering sessions in desa with minimal latrine presence. DHO facilitators taught sanitarians and kader desa to "persuade, not preach" by using subtle language that does not come across as condescending. Sanitarians and kader desa learned how to persuade desa officials as well as triggering participants, which is important in appeals to different audiences.

> ***"That's why, there should be health promotion staff, nutrition staff, and sanitarian in the training, since there is a relationship with diseases. There was also knowledge about how these three people from different sections can unite on how to trigger, how to persuade the community so behavior change can be achieved slowly."***
>
> *–Sanitarian*

Sanitarians and kader desa gained hands-on triggering practice, which was helpful in learning effective communication strategies. The trainings incorporated two hands-on

components: classroom practice and field practice. The majority of facilitators (DHO staff and sanitarians) carried out both types of practice sessions. During classroom practice, half the group would facilitate triggering, and the other half would adopt the role of triggering participants. Field practice differed in that it incorporated participants from the community. That is, trainees conducted triggering on the ground with villagers who had each been asked to play a certain role. One such role was that of "provocateur"—someone who resisted triggering and wanted to continue defecating in the open. Sanitarians and kader desa received guidance during field practice on how to interact with these individuals and change their minds. This guidance was greatly appreciated. Sanitarians and kader desa reported that field practice allowed them to feel more confident when faced with difficult participants in real triggering sessions.

However, sanitarians and kader desa felt that the training did not sufficiently cover triggering steps. Participants wanted more detail on specific aspects of triggering. They wanted more coaching on process, specifically how to generate community interest and recruit participants for triggering, and how to ensure that community members were actually persuaded by triggering steps. They also wanted more guidance on how to conduct specific triggering steps, for example how to lead a transect walk and how to explain disease contamination pathways. Finally, they appeared to have gaps in their knowledge or differing opinions around post-triggering activities. For example, the Technical Operations Manual says that six months after triggering is the ideal time for starting post-triggering activities; however, sanitarians felt that one to three months was more effective, and some kader desa did not know what the right time was to carry out post-triggering activities and waited for instruction from the sanitarians.

"Yes, I think we need to explore more on how to approach the community. How to make people interested so we can approach them."

– Kader desa

Participants' overall comprehension varied significantly by occupation and age. Puskesmas staff were more likely to understand the training materials than kader desa. Sanitarians were already familiar with health and environment topics, and DHO trainers said they processed the training information faster than their kader desa counterparts. Engagement, which plays a role in comprehension, also varied by age: younger staff tended to be more enthusiastic and creative than older staff. For example, DHO and sanitarians said that younger participants were more likely to ask questions and challenge the facilitator's perspective.

DHO staff training quality may have affected the level of detail puskesmas staff and kader desa receiving in trainings. DHO staff did not receive much hands-on training, which may have limited their understanding of how triggering steps would be implemented on the ground. Indeed, only one of five DHO staff we interviewed reported undertaking field practice, with most others noting they learned about triggering steps through classroom instruction and/or watching a video of triggering implementation in the field. There may also have been gaps in the content of the training provided to DHO staff. Our DHO respondents reported, for instance, that they wanted more information on the supply side, particularly the role of sanitation entrepreneurs and where to obtain materials to build latrines.

These training limitations may have constrained DHO staff's understanding of how to implement triggering, and in turn, diluted the information they shared with kecamatan and desa staff. Indeed, kecamatan and desa respondents felt that the DHO staff leading their trainings were not always well-versed in triggering steps. They also felt that facilitators for future CLTS trainings should be more senior, potentially at the PHO level, and have more expertise in the subject matter and facilitation techniques.

6.2.4. Suggestions for improving training at the kecamatan and desa levels

Sanitarians and kader desa suggested four main improvements for CLTS training at the kecamatan and desa levels:

1. **Improve description of what a healthy latrine looks like and how to build one**, such as by fitting latrines with a wall and floor and distinguishing between permanent or semipermanent latrines. Participants would also have liked facilitators to walk them through how to estimate a budget for the materials they would need to construct a latrine.
2. **Reduce trainer/trainee ratio.** Participants felt that one trainer per 20 attendees was insufficient and that increasing the number of trainers would encourage active participation among participants.
3. **Extend desa training to five to six days** to account for varying levels of baseline sanitation knowledge, particularly among those without science or health backgrounds. Kader desa felt that they were not given sufficient time to absorb the new concepts and practice what they are learning. However, the tradeoff is that all participants at the desa level were volunteers, and without any compensation, this would take away from their income-earning opportunities.
4. **Provide trainees with tangible certifications upon completion** that include their names and details on the coursework covered. Some kader desa said they received certificates; however, the certificates did not include any personal information or details about the training they completed. Personalized certificates are low-cost incentives that provide participants with a tangible record of their accomplishment.

> ***"I think there should be more facilitators so respondents will be more active. One facilitator is explaining while the other one should show the pictures. If it goes this way, it will be more interesting and smoother. Last time, there was only one facilitator and he had some difficulties managing all the materials so we wasted some of the time."***
>
> *– Kader desa*

6.3 Knowledge about CLTS, sanitation, and stunting

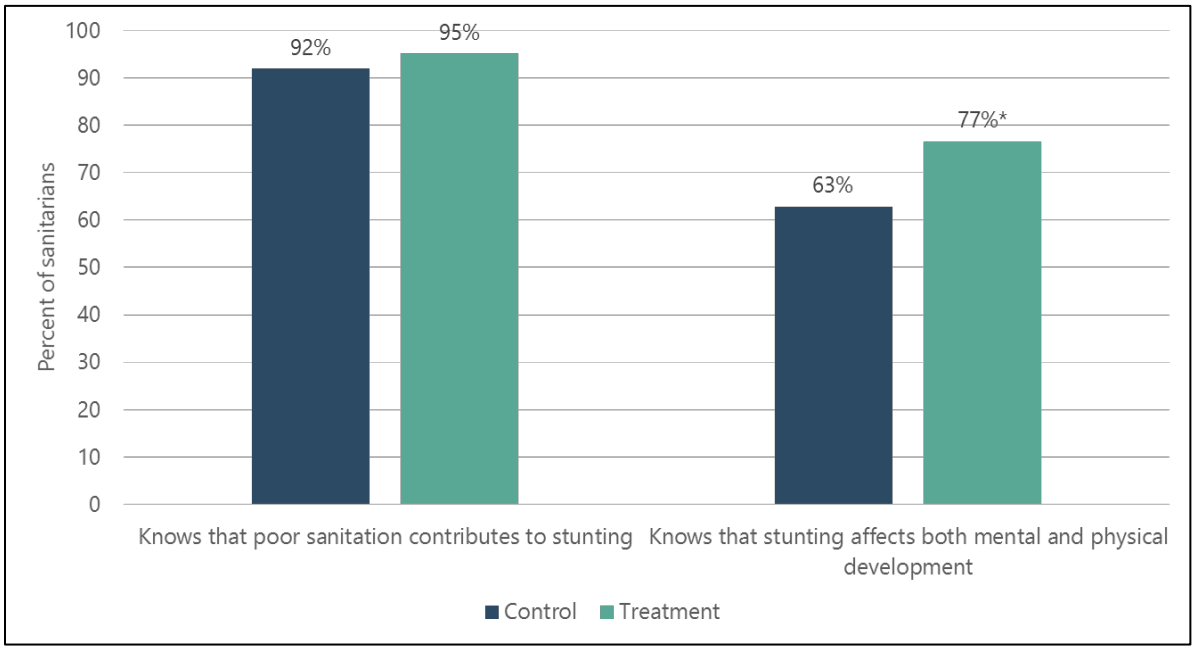
The program logic dictates that successful implementation of CLTS training will yield knowledge gains in providers at the puskesmas and desa levels. These providers would then apply this sanitation knowledge in triggering sessions, where they disseminate this information throughout their communities, and foster behavior change at the individual level.

Having discussed CLTS training implementation above, we focus this section on sanitarians' knowledge of CLTS and sanitation more broadly as well as on stunting, from the interim phone

survey. We interviewed sanitarians rather than kader desa because kader desa were not in place at baseline since triggering had not yet occurred, and the survey was designed to follow baseline respondents. We asked sanitarians about emotions triggered by transect walks, stunting's effect on physical and mental development, and whether poor sanitation contributes to stunting.

Most sanitarians were knowledgeable about the relationship between sanitation, stunting, and child development. At interim, almost all sanitarians in treatment and control areas could identify poor sanitation as a contributing factor to stunting (Figure 6.4). In addition, most sanitarians in both treatment (77 percent) and control (63 percent) areas knew that stunting affects both mental and physical development (the treatment-control difference was only marginally statistically significant). This widespread knowledge about these issues lends support to our qualitative findings, which found that sanitarians and kader desa understood how multifaceted the issue of stunting was and the importance of involving practitioners from multiple fields in addressing stunting.

FIGURE 6.4. PERCENTAGE OF SANITARIANS WHO KNEW THAT POOR SANITATION CONTRIBUTES TO STUNTING AND THAT STUNTING AFFECTS BOTH MENTAL AND PHYSICAL DEVELOPMENT



Source: Sanitarian interim (2017) survey.

Sample size: 138 sanitarians.

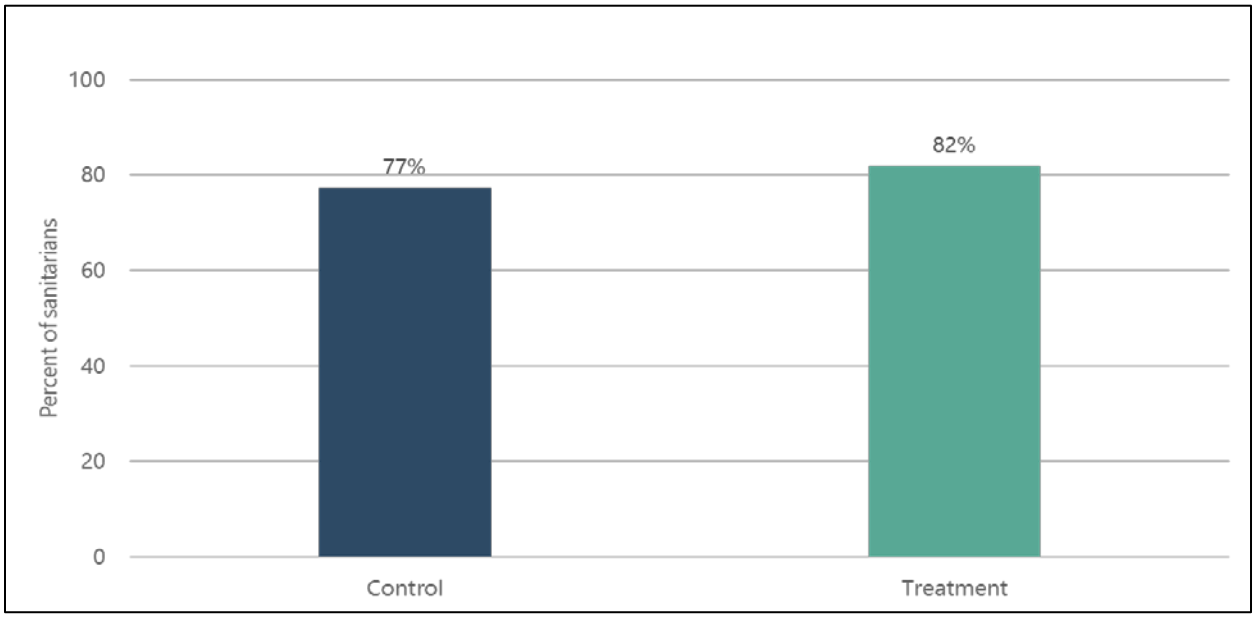
Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars).

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Most sanitarians could demonstrate basic knowledge about transect walks, a critical component of triggering activities. As referenced in Table 6.1, after triggering a community, triggering teams conducted transect walks, which involved observing and pointing out poor sanitation habits to make the scope of the community's open defecation problem salient to its residents. At interim, 82 percent of sanitarians in treatment areas and 77 percent of sanitarians in control areas knew that the CLTS model uses transect walks to evoke shame in community residents (in the survey, we asked respondents to select from among a list of four emotions:

pride, shame, happiness, and jealousy) in order to encourage change in community sanitation behavior (Figure 6.5). The difference in knowledge between treatment and control areas was not statistically significant, so the role of the Nutrition Project in attaining these high levels of knowledge is unclear without additional evidence.

FIGURE 6.5. PERCENTAGE OF SANITARIANS WHO KNEW THAT THE TRANSECT WALK STEP IN CLTS IS MEANT TO EVOKE SHAME



Source: Sanitarian interim (2017) survey.

Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars).

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Sample size: 138 sanitarians.

6.4 Triggering implementation

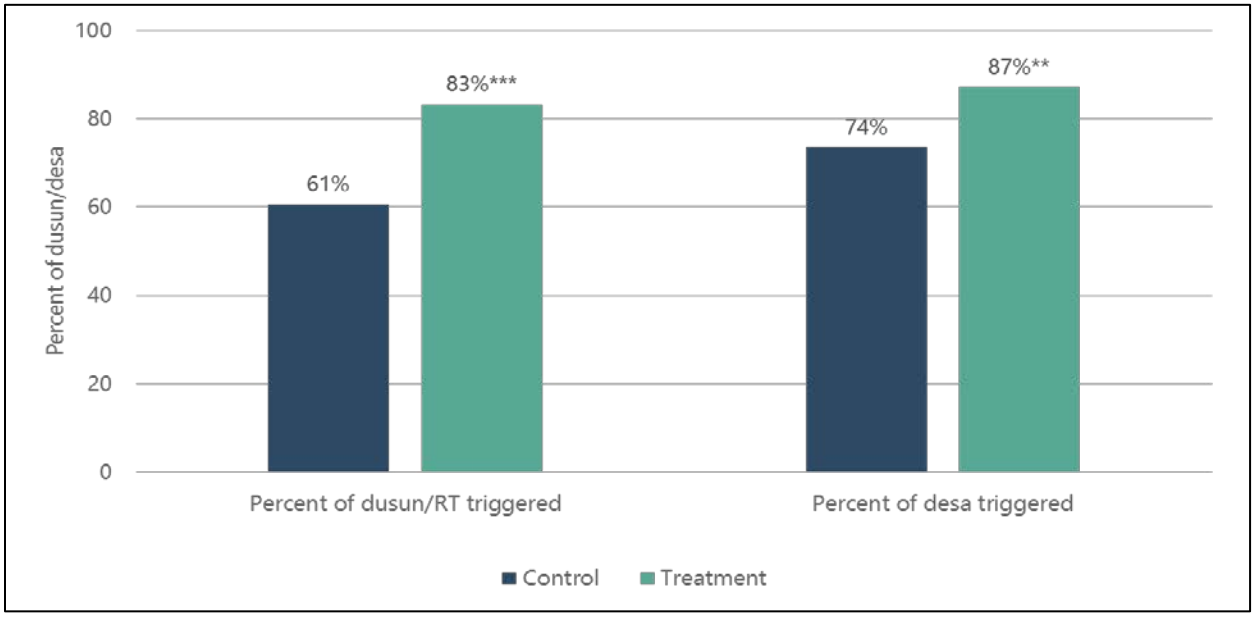
After service providers are trained on sanitation topics, the next step in the program logic is to hold community triggering events to improve community members' hygiene practices and sanitation behavior. This section discusses triggering implementation, including details on triggering logistics, implementation fidelity, factors affecting attendance, and the quality of triggering.

6.4.1. Triggering implementation

According to sanitarians, kader desa, and triggering participants who participated in qualitative interviews and FGDs, triggering typically occurred at the RT/dusun head's house for approximately two to four hours (the Technical Operations Manual recommends four hours). The composition of triggering teams varied significantly across regions; however, they most often included the sanitarian (as facilitator or cofacilitator), kader desa, bidan, and kepala desa. Occasionally, another puskesmas staff member, such as kesling (environmental health) or *promkes* (health promotion), would join the team in a cofacilitator capacity. There were anywhere from 11 to 80 participants per RT/dusun.

Sanitarians had triggered most of the communities under their supervision by the time of the interim data collection, and the proportion of communities triggered was significantly higher in treatment areas. By interim, sanitarians in treatment areas reported that they had triggered 87 percent of desa and 83 percent of dusun/RT under their supervision, on average (Figure 6.6). The proportion of communities triggered was significantly higher in treatment areas than in control areas (13 and 22 percentage points higher for dusun/RT and desa, respectively). Sanitarians in treatment areas had also conducted twice as many triggering events in the last year than sanitarians in control areas (9.9 events in treatment areas compared to 5.1 events in control areas) (not shown). These results suggest that the CLTS training, which paid for triggering activities, substantively increased the number of triggering events sanitarians conducted in treatment areas relative to control areas. This was anticipated given that triggering events were a direct output of the project.

FIGURE 6.6. PERCENTAGE OF DUSUN/RT AND DESA TRIGGERED UNDER SANITARIAN SUPERVISION



Source: Sanitarian interim (2017) survey.

Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars).

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Sample size: 122 sanitarians (dusun); 129 sanitarians (desa).

6.4.2. Participants and factors affecting attendance

In the program logic, if triggering events are well-attended and have the right attendee mix, they can ensure widespread dissemination of CLTS messages and drive change in household practices. We use data from qualitative interviews with sanitarians, kader desa, and triggering participants to learn more about the triggering participant profile and barriers to attendance.

The majority of triggering participants were women, which could ultimately impede latrine construction given they do not always have control over household financial decisions. Triggering teams and desa leadership attempted to include more men by holding triggering at times that did not interfere with work schedules; however, men still did not join because they

received insufficient notice or because they did not consider this a priority. It is important that men receive CLTS messages and change their minds about OD because they often control household financial decisions and would ultimately decide whether to invest in an improved latrine. Women, who attended triggering in larger numbers, may have learned the risks of OD and be ready to work towards making their community ODF, but may also be limited in how much they can do without substantial household decision-making power.

The lack of advanced scheduling and limited use of reminders reduced attendance. Triggering was typically announced one to three days in advance by word of mouth, either by desa secretaries going door to door or occasional announcements during Jumat or Sunday prayers. However, triggering participants indicated that they sometimes learned about triggering the day it was conducted, leaving them little time to make arrangements for work or childcare. Desa secretaries did not follow up or remind community members about upcoming triggering sessions, which minimized the potential for social pressure to drive attendance. In some cases, kader desa would go house to house on the day of the triggering event to boost participation, but this was laborious and still did not yield high attendance rates.

Possible recruitment tactics to boost participation are offering nonfinancial incentives and having senior officials attend triggering sessions. Triggering was not a top priority for most desa residents. Indeed, most desa residents tended to ignore invitations from the kecamatan level and below. To address this issue, respondents suggested it may be useful to include senior officials in triggering events. They noted that PHO or DHO staff presence motivated other participants to join, increasing overall attendance. Sanitarians also used nonfinancial incentives to drive up participation. They provided snacks and refreshments to desa participants, which were greatly appreciated. Sanitarians did not feel it was necessary to provide financial remuneration.

6.4.3. Triggering quality

Carrying out triggering comprehensively and skillfully facilitating each step can shift participant attitudes regarding OD and trigger their desire to work towards a solution. Below we assess the comprehensiveness and quality of triggering facilitation.

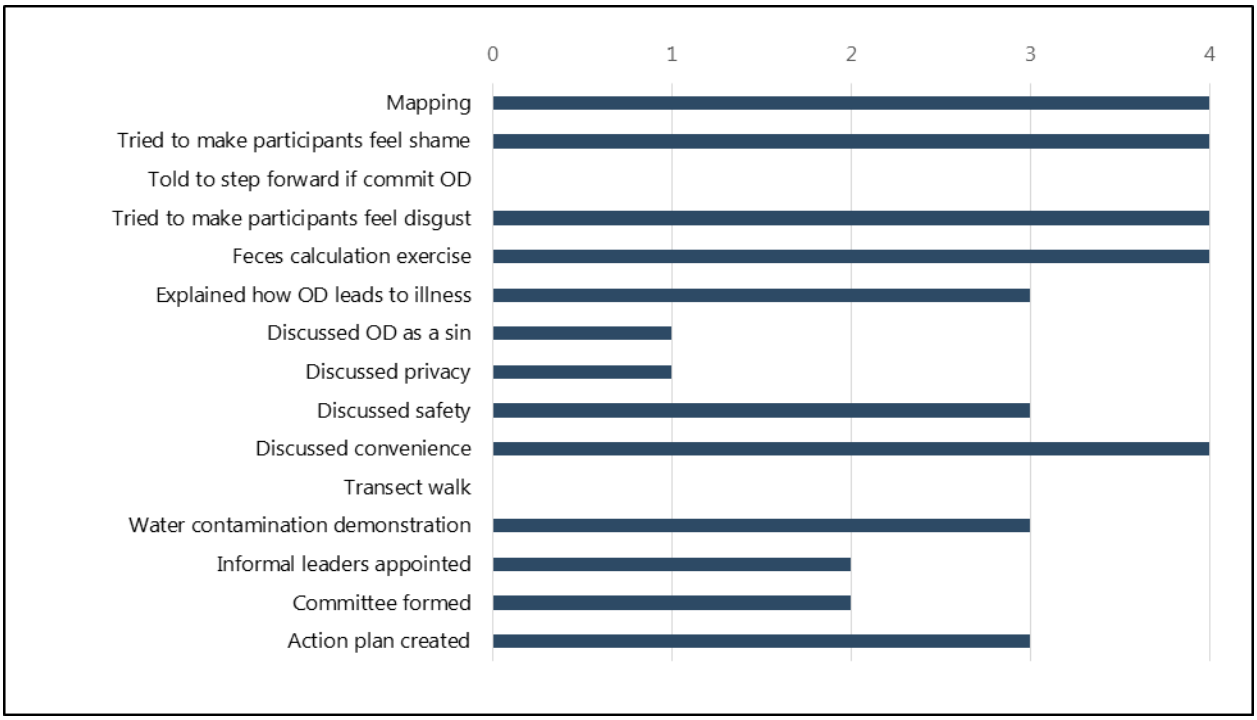
Triggering facilitators implemented several core elements of CLTS across triggering sessions we observed; however, they did not carry out all of the triggering steps they learned in the training. SurveyMETER was able to observe four triggering sessions, and we used these observations to assess triggering comprehensiveness and quality. In Figure 6.7, we show how many of these sessions included each key triggering step. Facilitators consistently engaged in the following steps, all critical elements in making salient the magnitude of the sanitation problem and inspiring behavior change:

- Conducted mapping, whereby they had community members draw up a map of the community and indicate latrine presence
- Conducted the feces calculation exercise, during which participants calculate the total volume of feces the dusun produces in a given week/month/year), a vehicle for evoking disgust

- Conducted other activities to make participants feel disgust, such as describing or illustrating how fecal matter can contaminate food and drinking water. (For example, one facilitator asked participants to imagine a puddle of water contained fecal matter. She used a straw to simulate a fly's foot, touched that straw to the puddle, and then dipped it into a bottle of mineral water. She asked a few participants to drink that water and they refused, disgusted.)
- Evoked shame in a variety of ways—noting that not having latrines was embarrassing and would lead to participants' daughters not receiving offers of marriage, that it was unacceptable to spend money on items like cigarettes but not save up funds for a latrine, and more.
- Discussed the convenience of using a latrine in or near one's home

By contrast, only one triggering session described the motivation behind triggering, which is important for framing the problem of poor sanitation. Additionally, none of the facilitators discussed OD as a "sin" or led the transect walk. Triggering participants said appealing to religious beliefs made less of an impression on them, so omitting discussion of OD as a sin may not have had an adverse effect on sanitation behavior. However, the transect walk is important for showing the extent to which OD occurs within a given community. Though these findings are based on a small sample size of four observations, they are consistent with what we found with regard to CLTS trainings, in particular that sanitarians and village kader leading the triggerings wanted more information on how to conduct a transect walk.

FIGURE 6.7. NUMBER OF OBSERVED TRIGGERING SESSIONS IN WHICH EACH TRIGGERING STEP WAS CONDUCTED



Source: Triggering observations.

Sample size: 4.

Making participants feel shame, and including local leaders in the triggering events, were found to be particularly successful strategies in shifting attitudes toward OD. According to triggering participants and kader desa, shaming participants by appealing to health and child safety concerns worked well in communicating to participants the importance of stopping OD. In multiple cases, facilitators showed samples of contaminated water and discussed the implications of drinking fecal matter on health. Though not a distinct element of triggering, DHO staff sometimes joined triggering sessions in a speaker capacity and motivated participants more than puskesmas staff since they were perceived as having more authority and knowledge, according to triggering participants. Their presence made participants take these messages more seriously.

Certain elements of triggering did not solicit any response from participants. For example, sanitarians discussed OD as a sin within the context of explaining how flies can transfer feces to prayer rugs, which can cause *najis*, meaning ritually unclean. As for icebreakers, participants felt that they already knew everyone in the triggering group and were eager to get to the main activities.

The quality of triggering facilitation was mixed: facilitators tailored materials for their audience in certain instances but struggled with simple implementation issues like remembering to bring materials and overcoming background noise. According to triggering participants, facilitators used plain language and local terms to describe sanitation topics. Observations showed that facilitators clearly explained the health problems that result from poor sanitation practices in desa and how an unsanitary home environment can exacerbate this problem. They also used words like *bahirak*, a slang word for open defecation, which participants recognized, and incorporated real-world examples based on the local context. For example, for triggering sessions in desa or dusun near a river, facilitators would discuss the challenge of building a permanent latrine in houses on the water.

However, kader desa occasionally forgot materials or were not confident in their knowledge of the materials and subsequently relied on the sanitarian. This has implications for triggering scale-up to other dusun in the village, which the kader desa are supposed to lead.

Lastly, triggering participants could not always hear the facilitators because of background noise, loud children, and lack of a microphone, and became distracted as a result. Triggering participants indicated that facilitators could not always refocus participants and that a few distracted participants would eventually disrupt the entire class.

6.5 Post-triggering implementation

Following triggering, the triggering team is expected to track the implementation of the work plan developed during triggering, and take steps to help the community make progress toward becoming ODF. Through follow-up visits, the team is supposed to both continue shifting attitudes around OD and help address supply side constraints. Below we assess the extent to which these “post-triggering” activities are taking place, and provide insights around the quality of those activities.

Weak commitment by triggering participants and facilitators to taking action on sanitation limited the potential for triggering follow-up. Triggering team members at the desa level

(typically kader desa), with support from sanitarians and occasionally other puskesmas staff such as nutritionists, were supposed to lead follow-up visits post-triggering to monitor progress on work plans. However, though the majority of facilitators ensured that desa or dusun completed work plans, triggering participants noted that these were often nothing more than vague, noncommittal agreements to hold some sort of post-triggering activity in the future. For example, some triggering participants agreed to improve their sanitation practices but did not commit to building a latrine. Others indicated that they would build a latrine eventually but did not commit to a specific time. A few participants did not commit to a work plan at all. Some kader desa visited communities without work plans in an attempt to re-trigger them, but other kader desa did not. This lack of accountability reduces any individual or collective pressure to follow through on those feelings of disgust and shame around OD and develop and implement a feasible sanitation solution.

Lack of sanitation entrepreneur presence further reduced household ability to construct latrines. Sanitation entrepreneurs were responsible for building latrines at low cost (using molds made available free of cost by MCA-I). They are also responsible for connecting households with financing options for latrines. Sanitarians reported that relatively few sanitation entrepreneurs were operating in areas under their supervision (0.6 entrepreneurs in treatment areas and 0.3 in control areas, on average, not shown), which include about seven desa, on average. Some sanitarians felt that the lack of activity was because sanitation entrepreneurs were not trained as intended in the business of latrine sales or procurement but rather only in the mechanics of building one. Possibly for this reason, facilitators did not mention sanitation entrepreneurs during triggering. Without active sanitation entrepreneurs, project beneficiaries had limited ability to build affordable latrines and access the required funds.

Though some type of post-triggering activities occurred in the majority of desa, puskesmas staff and kader desa were not always clear on what post-triggering activities should occur and when. According to sanitarians and kader desa in qualitative interviews, post-triggering activities occurred in most desa, typically between two and five months after completing triggering and were led by the puskesmas with support from the kader desa. However, triggering participants said these activities were minimal and that most post-triggering activities centered on kader desa checking the status of latrine construction and monitoring implementation of work plans, which were weak to begin with. For households that did not commit to the work plan, some kader said they visited their homes and attempted to “re-trigger” them and draw out a commitment to building a latrine. Other post-triggering activities in Indonesia’s CLTS approach include updating the map drawn during the triggering section and bringing in speakers from ODF desa to highlight best practices in achieving ODF; however, these occurred inconsistently throughout desa. Some kader said that they did not know the right time to carry out post-triggering activities and waited for instructions from the sanitarians.

6.6 Verifying and achieving ODF status

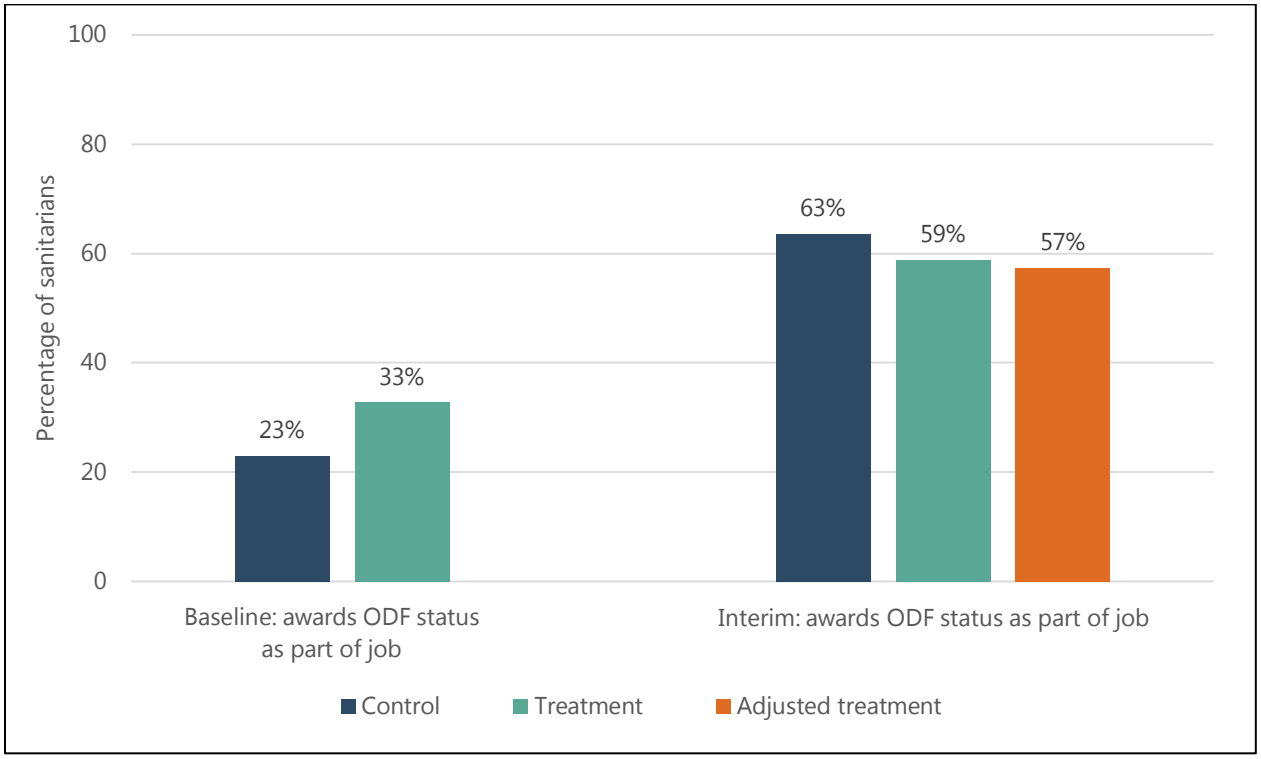
Achieving ODF status is a necessary precondition in the Nutrition Project’s theory of change because it signals improved sanitation behavior at the desa level, which could lead to reduced incidence of diarrheal disease and worm infestation and, ultimately, improved health and nutrition among women and children. As described in Section 6.1, ODF status ensures that

everyone within a desa/dusun has access to sanitary latrines and no one is defecating openly. After monitoring their respective desa's progress toward ODF, kader desa and informal leaders within the desa were supposed to notify the puskesmas sanitarian that their desa had achieved ODF. Then, the verification process would begin. A verification team should consist of community members from the nearest neighboring desa, kader from neighboring desa, and sanitarians from neighboring puskesmas. The team should then visit five households that committed to becoming ODF, confirm the presence of a latrine, and interview additional community members, desa officials, and triggering participants. Once the team confirms that a desa is ODF, the sanitarian is expected to organize an ODF declaration ceremony with desa and government leaders.

The following findings discuss the process of awarding ODF status, the number of ODF communities, the main factors constraining ODF verification efforts, and barriers to the uptake of healthy latrines:

More sanitarians awarded ODF status at interim compared to baseline, and sanitarians in treatment and control areas were equally likely to award ODF status as part of their job. At interim, the proportion of sanitarians who reported awarding ODF status as part of their jobs was much higher than at baseline (by 26 percentage points in treatment areas and 40 percentage points in control areas) (Figure 6.8). The differences between treatment and control areas were not statistically significant at interim with controls for baseline status.

FIGURE 6.8. PERCENTAGE OF SANITARIANS WHO AWARDED ODF STATUS



Source: Sanitarian baseline (2015) and interim (2017) surveys.

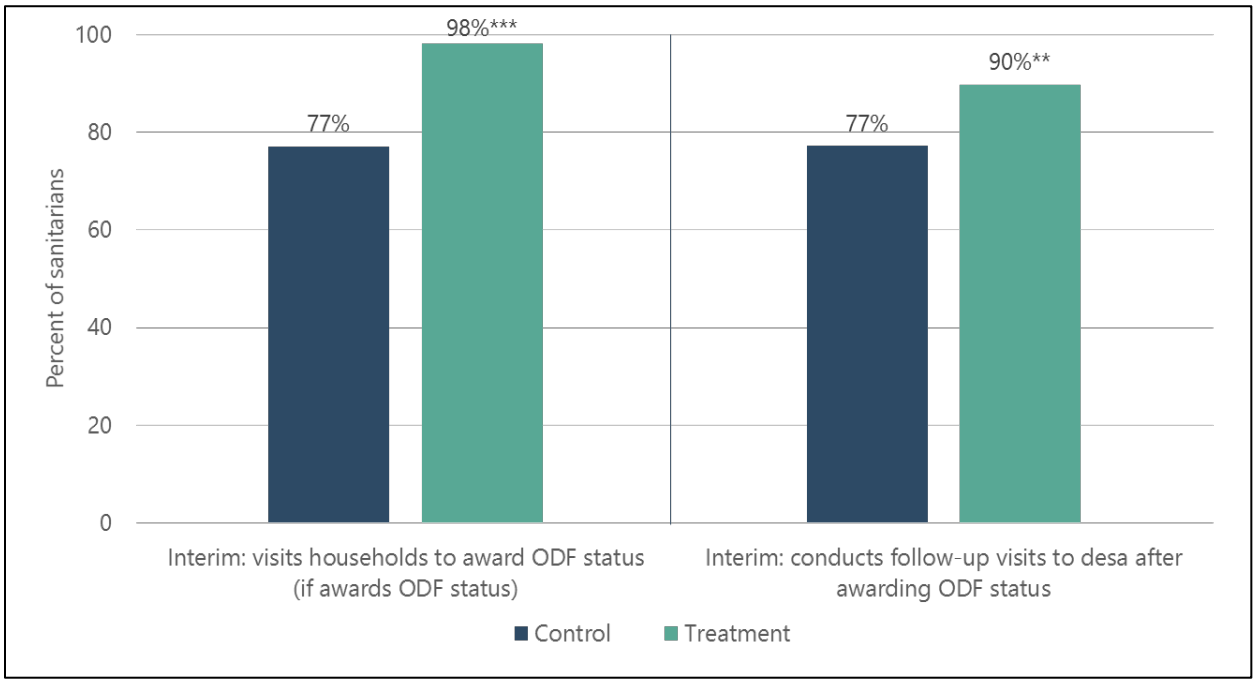
Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Sample size: 87 to 102 sanitarians.

However, when we asked sanitarians about *how* they awarded ODF status, sanitarians in treatment areas were significantly more likely to follow best practice and visit households to award ODF status than those in control areas. At interim, almost all sanitarians in treatment areas who actually awarded ODF status as part of their job reported that they visited households to award ODF status rather than relying on kader reports (98 percent). This reflects project best practice since kader reports are more prone to error. This proportion was significantly higher than that in control areas at interim (77 percent) (Figure 6.9). In addition, the vast majority of sanitarians in treatment areas reported conducting follow-up visits to desa after awarding ODF status at interim (90 percent), and this was significantly higher (by 13 percentage points) than the percentage reported by sanitarians in control areas.

FIGURE 6.9. PERCENTAGE OF SANITARIANS WHO VISITED HOUSEHOLDS TO AWARD ODF STATUS (IF AWARDED ODF STATUS AT INTERIM) AND VISITED DESA AFTER AWARDING ODF STATUS



Source: Sanitarian baseline (2015) and interim (2017) surveys.

Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars). The sample in the left panel (for whether sanitarians awarded ODF status by visiting households) is restricted to the 87 sanitarians who reported awarding ODF status as part of their job at interim. This includes sanitarians who both did and did not award ODF status at baseline.

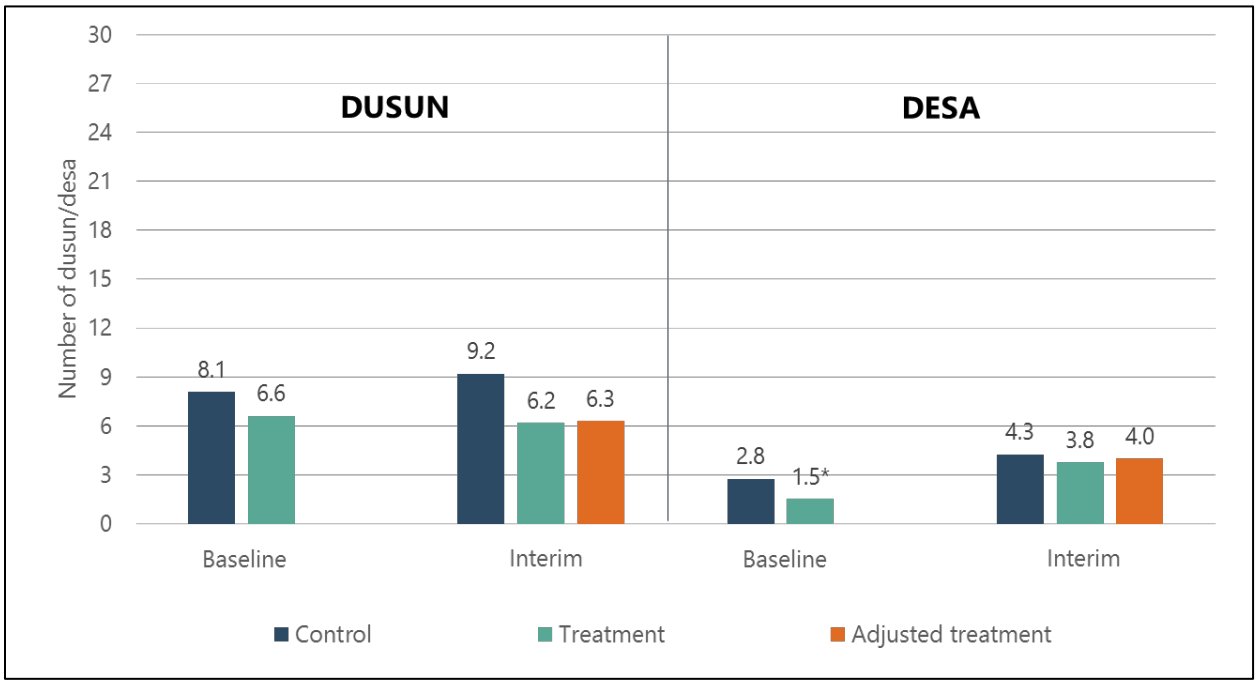
*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Sample size: 87 sanitarians who awarded ODF status at interim (left panel) and 138 sanitarians (right panel).

We found no difference in the number of ODF communities in treatment and control areas; the main factors constraining ODF verification efforts were desa lack of initiative, puskesmas' limited capacity, and limited accessibility to reach desa. At interim, sanitarians in treatment areas reported that 3.8 of the desa and 6.2 of the dusun that they supervise were ODF, on average (Figure 6.10). This was similar to the average number of ODF desa and dusun reported by sanitarians in control areas (4.3 and 9.2, respectively). Of the nine triggering

participant FGDs, only one indicated that their respective desa was ODF. Regarding initiative, the majority of desa leaders and kader did not make an effort to be verified; they did not submit ODF verification request letters to the puskesmas, which is the necessary first step in the verification process. Limited human resource capacity at the puskesmas level also constrained their ability to travel or follow up on verification requests. Some puskesmas staff felt overworked and unable to execute the ODF verification steps required, including the ongoing monitoring of desa latrine penetration rates. Finally, long distances between puskesmas and desa, combined with poor road quality and access during rainy season, resulted in limited interaction and verification visits.

FIGURE 6.10. AVERAGE NUMBER OF ODF DUSUN AND DESA IN AREAS SUPERVISED BY SANITARIANS



Source: Sanitarian baseline (2015) and interim (2017) surveys.

Note: Treatment means are regression-adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

*/**/*** Significantly different from zero at the .10/.05/.01 level, two-tailed test.

Sample size: 102 sanitarians (dusun); 138 sanitarians (desa).

Economic constraints were a barrier to latrine uptake. Sanitarians and kader desa said that a substantial fraction of households in their RW/dusun practiced OD post-triggering, despite their deeper and newfound understanding of the dangers of poor sanitation. The reasons they cited were economic constraints and lack of external funding to cover latrine construction costs, which participants quoted at 1 to 2 million rupiah (73 to 145 USD) for permanent latrines and 600,000 rupiah (44 USD) for pit latrines.

> ***"So we came to the desa. In an event with a kader, Pak RT was asked a question by the kader, 'Have people here changed?' and he said, 'No.' 'What's the reason?' and he said, 'It's all about the money.'"***
>
> *– (Sanitarian)*

Even when households could afford to build a latrine, the quality was often poor. If triggering participants could afford latrines, they paid for simple pit latrines that lacked septic tanks and were therefore not in accordance with health standards. One participant recognized that his household latrine was of subpar quality but maintained that "it is better than nothing."

Poor sanitation habits were also difficult to overcome, particularly in older participants. Facilitators and participants perceived older community members as stuck in their ways and unwilling to change their deeply ingrained sanitation practices. One triggering participant said that he defected in the open because he is accustomed to it and it is more convenient to walk to the river than investing in latrine infrastructure. Another participant said he has a latrine but defecates in the open occasionally on his walk to work. Triggering facilitators felt that younger people were more impressionable since, by virtue of being young, they have had less time to grow accustomed to a particular habit.

6.7 Conclusion

Overall, the project expanded the coverage of CLTS training and triggering, but the quality of these activities was mixed. The project had an impact on receipt of CLTS training—at interim, our survey found that sanitarians in treatment areas were significantly more likely to have received training than those in control areas. These trainings were relatively well-received, with kecamatan- and desa-level stakeholders indicating interest in the topics covered and expressing appreciation for guidance on effective communication during triggering. That said, they felt the trainings did not go into adequate depth on triggering steps, several of which they wanted more detailed guidance on. The root cause of this limitation may be that their kabupaten-level trainers were not sufficiently trained on these steps. Our data indicate that DHO staff did not receive much hands-on training, which may have limited their understanding of how triggering steps would be implemented on the ground.

Once trained, kecamatan- and desa-level stakeholders are expected to implement triggering events in their areas. The project had an impact on triggering coverage: the proportion of communities triggered was significantly higher in treatment areas than control areas. This is a logical conclusion given that triggering was a direct output of the project, and MCA-I-funded CLTS training covered a portion of the costs of triggering. As for quality of triggering, the teams conducting triggering largely followed the prescribed steps. However, some key steps, such as the transect walk were often skipped, likely because they were not adequately covered during training. Importantly, follow-up to triggering was frequently weak. Work plans were often noncommittal agreements to hold some sort of post-triggering activity in the future, and kecamatan- and desa stakeholders were often unclear on what post-triggering activities should happen and when.

There were minimal project impacts on the number of ODF dusun/desa. Lack of funding was the most frequently cited barrier to becoming ODF, and the project's solution to this challenge had not been fully operationalized. Sanitation entrepreneurs, who were trained by the project to build low-cost latrines and also connect households to financing resources, were largely inactive.

We triangulated these findings with the information SurveyMETER gathered through interviews with MoH officials, who echoed several of the key themes discussed above. For instance, they underlined the importance of the hands-on component of the sanitation trainings. They felt it was important for training participants to practice triggering on the ground, noting that "[trainees] learn even more by practice, by doing simulation" and that "they must have field practice to see the sanitation problem and its impact on nutrition". MoH interviewees also flagged key limitations of the CLTS model that could benefit from further attention and action. Specifically, they underlined the importance of (1) addressing supply side challenges and helping communities build latrines once they are triggered, and (2) strengthening post-ODF monitoring to ensure that triggered households do not revert to OD.

7. PNPM-GENERASI

The GoI implemented PNPM-Generasi from 2007 to 2017. The project utilized a CDD model, whereby Generasi provided facilitation and annual block grants, also called BLM or *bantuan langsung masyarakat*, to desa to be used for activities that could lead to improvements in child and maternal health and education in rural communities. Kecamatan allocated Generasi block grants to each desa based on the number of target beneficiaries in each desa (focusing on pregnant women and children), the difficulty of accessing education and maternal and child health services in the desa, and, after the first year, the progress each desa made on 12 health and education indicators during the previous calendar year (PNPM PKK Central Coordination Team 2008). As part of the Generasi planning process, communities set targets for each indicator and make decisions about how to spend block grant funds with the objective of making progress on the indicators they prioritize. The indicators included the fraction of recommended prenatal and postnatal visits women received, IFA consumption by pregnant women, the fraction of pregnant women delivering with a trained health professional, the fraction of children immunized and consuming vitamin A, the fraction of children participating in monthly weighing of infants and young children at the posyandu, the fraction of women attending kelas ibu hamil and kelas balita, and primary and junior secondary school enrollment (PNPM-Support Facility, August 2015).

As part of the Nutrition Project, MCC provided financial support to Generasi in 11 provinces. In 8 of these provinces, Generasi was already operational before MCC began providing funding in 2014. (MCC funded Generasi in these provinces until 2016, when the project was eventually

KEY FINDINGS ON GENERASI

Generasi funding and activities

- The average size of a village-level Generasi block grant (RPS 74.4 million or ~US$5,400) was fairly stable across the three evaluation provinces during three full years that the program operated there (2014 to 2016).
- Program desa allocated most Generasi funding (over two-thirds) to health-related activities, which is not surprising given that 10 out of 12 Generasi indicators are health-related. Most of that funding went toward activities related to PMT (*Pemberian Makanan Tambahan*, or in-kind food support), nutritional group counseling sessions, and health services.
- Roughly three out of every five Generasi-funded activities were related to nutritional group counseling sessions (kelas ibu hamil and kelas balita), although those activities made up only 14 percent of all Generasi funding.

Interaction between service providers and Generasi staff

- By the time of the interim survey, more than half of bidan and kader posyandu in treatment areas had participated in Generasi desa-level budget planning meetings. However, bidan's and kader posyandu's role in Generasi seemed largely limited to reporting on Generasi indicators or distributing PMT funded through Generasi.

phased out.) In the 3 evaluation provinces, which received Generasi for the first time in 2014, MCC supported Generasi from 2014 to 2017.[12]

In this chapter, we use the Ministry of Villages database (described in Section 3.1.3), which includes data on spending by desa and activity between 2012 and 2017 across all 11 provinces that MCC invested in, to understand what types of Generasi-funded activities were implemented at the desa-level and the spending levels associated with these activities. We also use phone survey data from bidan and kader posyandu to examine their awareness of Generasi and involvement in Generasi desa-level planning activities.

7.1. Generasi funding and activities

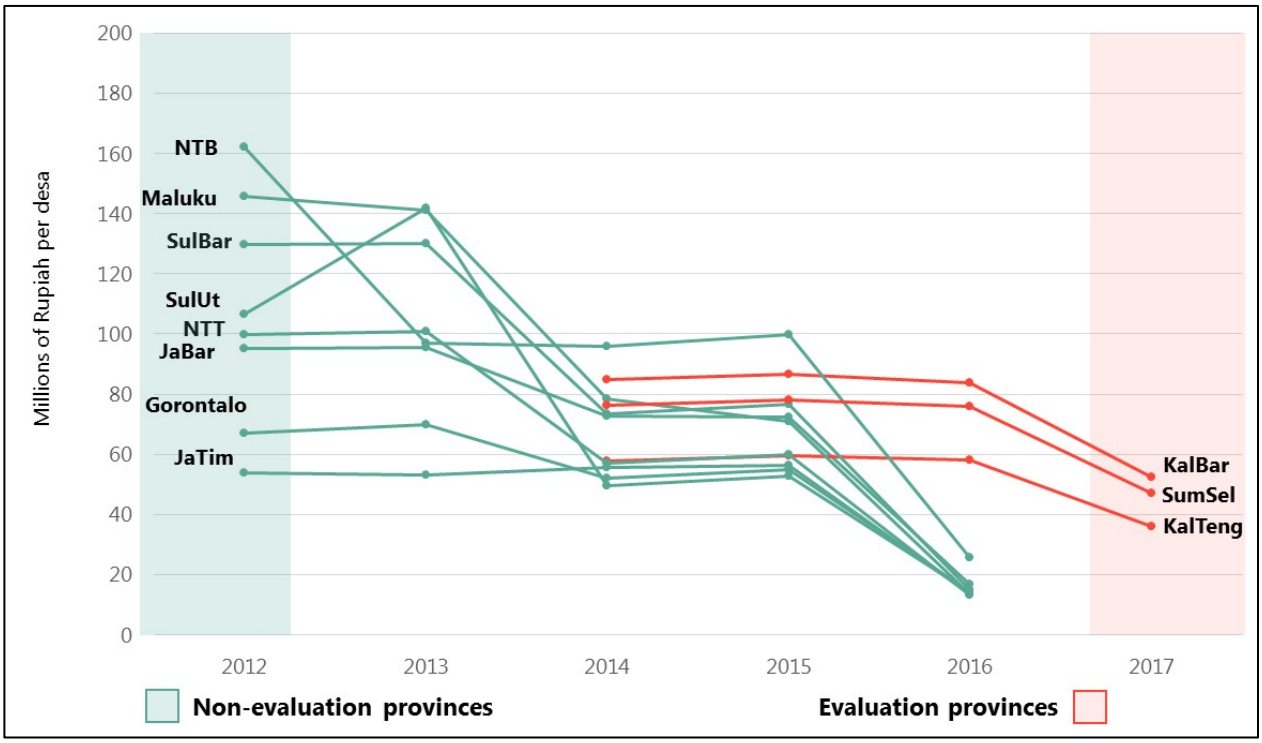
We used the Ministry of Villages database to examine the size of Generasi block grants by desa, the types of activities that desa implemented with the block grants, and how the desa allocated their block grants across those activities. Each Generasi-funded activity in the Ministry of Villages database included three broad sector categories: health, education, and early childhood education and development (*Pendidikan Anak Usia Dini* or PAUD). Within these sector categories, the database broke activities down into over 100 activity categories, which we aggregated into 36. Our key findings are as follows:

From 2014 to 2016, the years for which the evaluation provinces implemented Generasi over the full year, the average block grant amount per desa was (RPS 74.4 million or ~US$5,400). In 2014, the first year in which Generasi was implemented in the three evaluation provinces, desa in these provinces received similar levels of funding as desa in the other eight non-evaluation provinces (Figure 7.1). The funding in the evaluation provinces remained stable in 2015 and 2016. On average Kalimantan Barat received RPS 85.1 million RPS per desa, Sumatra Selatan received 76.8 million per desa, and Kalimantan Tengah received 58.6 million RPS per desa. The funding declined to between Rp 36 and 52 million ($2,600 and $3,800) per desa, depending on the province, in 2017 as the program was phased out part way through the year. Total funding in evaluation provinces decreased about 40 percent, from over Rp 134 billion ($9.7 million) in 2014 to Rp 83 billion ($6 million) in 2017.

The average block grant received by desa in outside evaluation provinces between 2014 and 2015 was Rp 67 million ($4,900) and the province-level average ranged from Rp 50 million ($3,650) to Rp 100 million ($7,300) across the eight provinces. This was similar to the range of average block grants received in the evaluation provinces over this time period. The average block grant in non-evaluation provinces decreased in 2016 as Generasi was phased out that year.

[12] Generasi, which was implemented by the Ministry of Villages, was phased out of most provinces in 2016 and out of evaluation provinces by mid-2017. All villages now receive CDD funding directly from the Ministry of Villages, and the funding is not tied to a specific project.

FIGURE 7.1. AVERAGE DESA-LEVEL FUNDING FOR GENERASI IN EVALUATION AND NON-EVALUATION PROVINCES



Source: Ministry of Villages Database (2012–2017).

Note: The non-evaluation (green) provinces included West Nusa Tenggara (NTB or Nusa Tenggara Barat), Maluku, West Sulawesi (SulBar or Sulawesi Barat), North Sulawesi (SulUt or Sulawesi Utara), East Nusa Tenggara (NTT or Nusa Tenggara Timur), West Java (JaBar or Java Barat), Gorontalo, and East Java (JaTim or Java Timur). The evaluation (red) provinces included West Kalimantan (KalBar or Kalimantan Barat), South Sumatra (SumSel or Sumatera Selatan), and Central Kalimantan (KalTeng or Kalimantan Tengah).

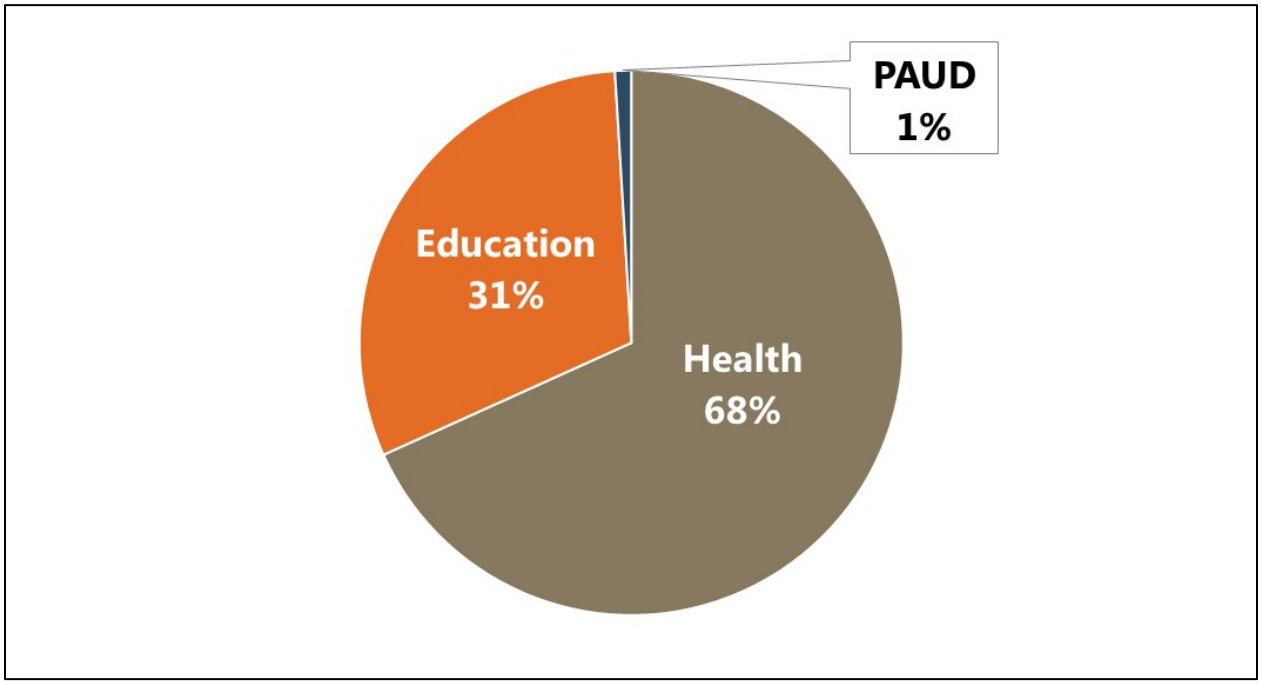
Sample size: 5,890 desa.

More than two-thirds of Generasi block-grant funds went to health-related activities. Altogether, desa across all MCC-funded Generasi provinces allocated 68 percent of Generasi funds to activities related to health, 31 percent of the funds to activities related to education, and 1 percent of the funds to activities related to PAUD (Figure 7.2). The allocation of most Generasi funding to health-related activities likely reflects the fact that 10 of the 12 Generasi indicators related to health outcomes and only 2 indicators directly related to schooling outcomes.

Nearly half of the Generasi funds allocated to health-related activities went toward funding *Pemberian Makanan Tambahan* (PMT), or food support, kelas balita, and kelas ibu hamil. PMT is usually defined as in-kind food supplements for children under 5 identified as stunted or underweight (this could be either fortified or unfortified food). However, in the Generasi database, a broader range of activities were categorized as PMT. For example, if bidan or kader posyandu supplied food at the posyandu or nutritional counseling sessions, the spending would be categorized as PMT. Food support for poor households, which may or may not have a child under 5, could also be categorized as PMT in the database.

FIGURE 7.2. ALLOCATION OF TOTAL GENERASI BLOCK-GRANT FUNDING IN ALL MCC-FUNDED GENERASI PROVINCES

Source: Ministry of Villages Database (2012–2017).



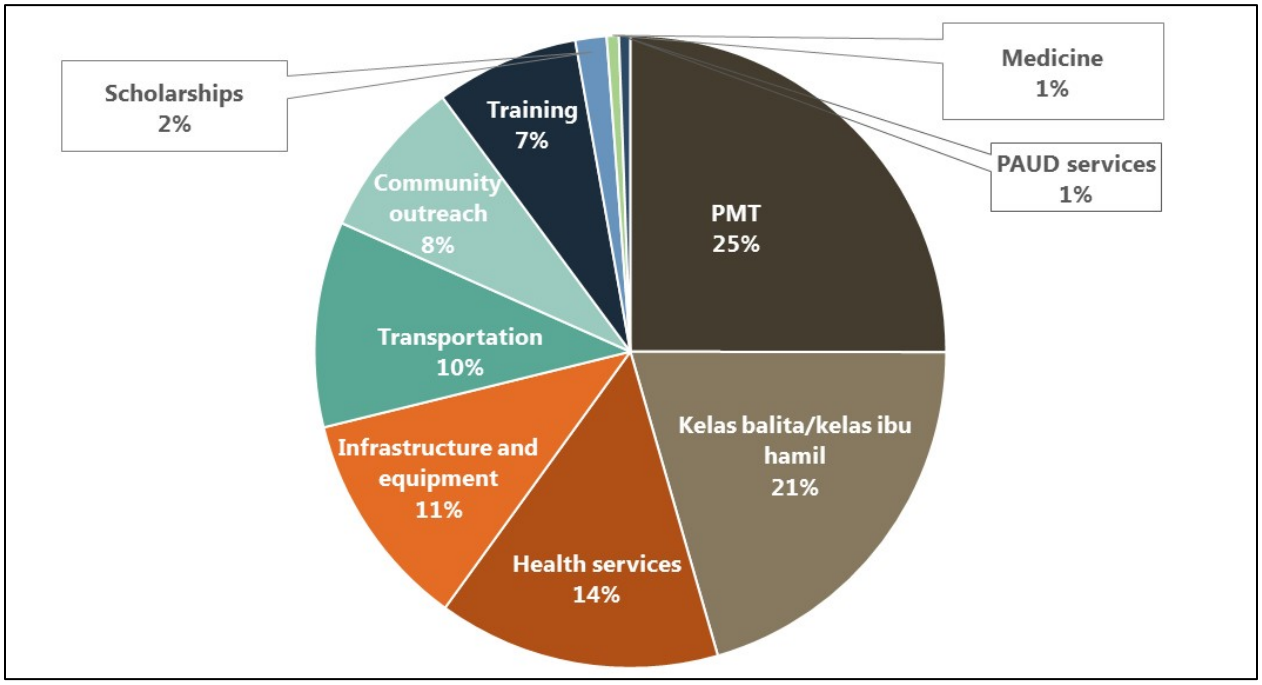
Note: PAUD = early childhood education and development (Pendidikan Anak Usia Dini).

Sample size: 5,890 desa.

Twenty-five percent of Generasi spending on health-related activities went toward PMT, 21 percent toward kelas balita and kelas ibu hamil, and 14 percent toward funding health services (Figure 7.3). (Health services mainly include the cost to pregnant women and women with children under age 5 for health appointments and deliveries.) In addition, nearly every desa that received Generasi funding allocated at least some funds to PMT and kelas balita or kelas ibu hamil between 2012 and 2017 (not shown).

Although kelas balita and kelas ibu hamil made up only 21 percent of desa spending on health-related activities (14 percent of total spending), they made up the majority of Generasi activities. From 2012 to 2017, desa implemented an average of five activities funded through Generasi per year, with an average of three activities related to kelas balita or kelas ibu hamil (not shown).

FIGURE 7.3. ALLOCATION OF GENERASI BLOCK-GRANT FUNDING FOR HEALTH-RELATED ACTIVITIES IN ALL MCC-FUNDED GENERASI PROVINCES



Source: Ministry of Villages Database (2012–2017).

Note: "PAUD services" includes activities the Ministry of Villages defined as health-related that we further categorized as relating to PAUD. We did not change the initial coding for the three highest-level categories provided by the Ministry of Villages for any activities in the database.

Sample size: 5,889 desa.

7.2. Interaction between health providers and Generasi staff

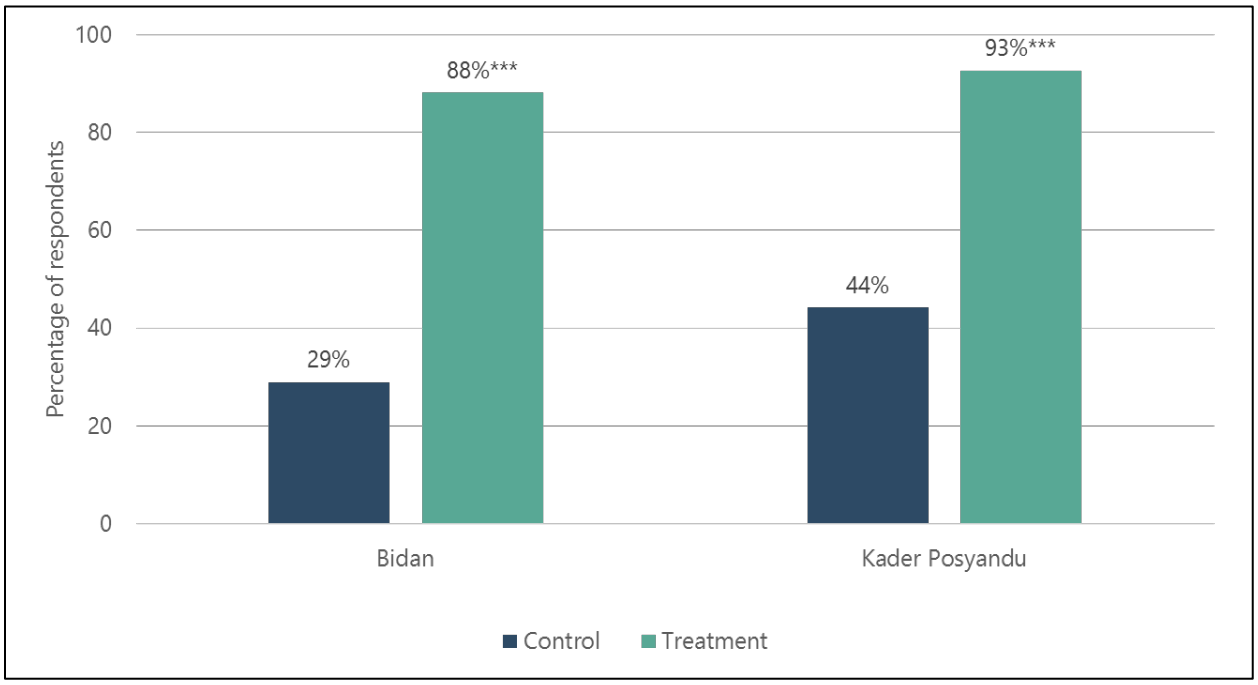
Because health activities are central to Generasi (they make up the majority of indicators and the majority of funding goes to health-related activities), involving desa-level service providers in the planning and implementation of these activities may have been important to their success. In this section, we provide findings related to the amount of interaction that took place between desa-level service providers and Generasi staff or volunteers. The interim study did not measure interaction at the household level.

Almost all desa-level service providers in treatment areas had interacted with Generasi staff or volunteers. Eighty-eight percent of bidan and 93 percent of kader posyandu in treatment areas in the evaluation provinces reported that they had ever talked to Generasi representatives about the program (Figure 7.4). Exposure was significantly lower in control areas of the evaluation provinces, where Generasi did not operate. We cannot fully explain why the respondents in control areas reportedly had contact with Generasi, but it is possible that bidan served in multiple kecamatan, the respondents confused Generasi with another program, or the responses resulted from desirable response bias.

Most service providers in treatment areas had participated in Generasi planning activities at interim. More than half of bidan and kader posyandu in treatment areas reported participating

in meetings to discuss how to spend their desa's Generasi block grant (Figure 7.5). Significantly fewer bidan and kader posyandu in control areas reported participating in meetings after controlling for baseline responses. However, we are again unsure why a substantial portion of bidan—and particularly kader posyandu—in control areas claim to have attended Generasi planning meetings.

FIGURE 7.4. PERCENTAGE OF BIDAN AND KADER POSYANDU IN EVALUATION PROVINCES WHO EVER TALKED TO GENERASI REPRESENTATIVES ABOUT GENERASI



Source: Bidan and kader posyandu baseline (2015) and interim (2017) surveys.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

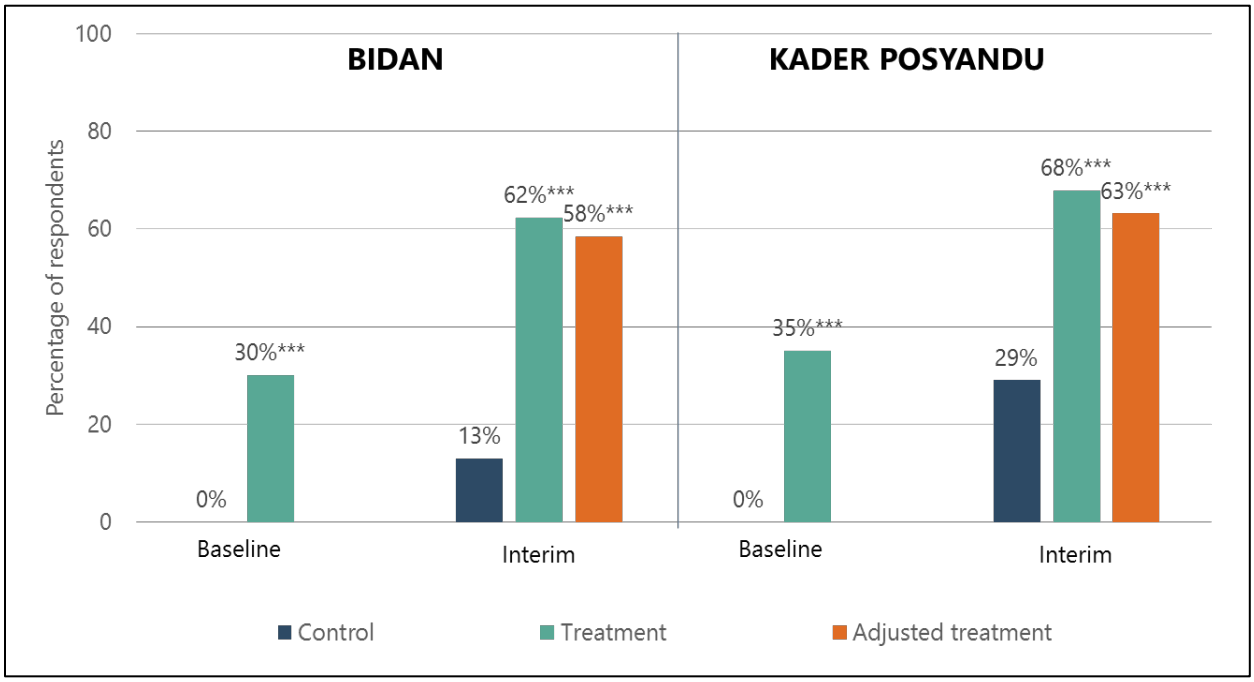
Sample size: 409 bidan and 251 kader posyandu.

In qualitative focus groups with bidan and kader posyandu, SurveyMETER also asked participants what type of interaction they had with Generasi, if any. Consistent with the quantitative findings, some bidan had been to Generasi planning meetings. Some reported that their only interaction with Generasi was to distribute PMT or report on indicators related to vaccination or the number of pregnant women they served. Similarly, kader posyandu were responsible for reporting data on the number of children attending posyandu. Kader posyandu were generally more familiar with Generasi than bidan, as they had attended more meetings, but, like bidan, were not involved in decision-making related to block grant allocation.

We observed some reported participation in Generasi by service providers in treatment areas at baseline (30 percent of bidan and 35 percent of kader posyandu), which is consistent with the timing of the baseline survey in relation to the implementation of Generasi in the evaluation provinces. In particular, at the time of the baseline survey in late 2014/early 2015, 50 percent of treatment desa had received their first tranche of Generasi funding, and some desa in treatment

areas had begun Generasi planning activities (Null et al. 2016). However, only 5 percent of treatment desa had received Generasi funding more than a month before the baseline survey. This means that at the time of the baseline, even though communities had received funding, very few communities actually started to implement activities using the funding.

FIGURE 7.5. PERCENTAGE OF BIDAN AND KADER POSYANDU WHO REPORTED PARTICIPATING IN MEETINGS TO DISCUSS HOW TO SPEND THEIR DESA'S GENERASI BLOCK GRANT



Source: Bidan and kader posyandu baseline (2015) and interim (2017) surveys.

Note: Treatment means are regression adjusted for kabupaten fixed effects (teal bars) and for kabupaten fixed effects together with the baseline value of the outcome (orange bars).

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

Sample size: 407 bidan and 253 kader posyandu.

7.3 Conclusion

Using the Ministry of Villages database, we found that Generasi funding was largely stable in the 3 evaluation provinces during the three full years that MCC provided funding to Generasi (2014–2016), as well as in the 8 non-evaluation provinces until Generasi wound down in those provinces midway through 2016. Desa allocated the majority of Generasi funds in MCC-funded provinces to activities related to improving health, which was in line with the fact that 10 of the 12 indicators used to evaluate the yearly progress that desa made were related to the health of pregnant women, infants, or young children.

Group counseling sessions were the most common type of activity funded by Generasi. However, this strong focus on the group counseling sessions was not reflected in the amount of Generasi funding that desa allocated to those activities. Between 2012 and 2017, activities related to kelas ibu hamil and kelas balita made up 3 out of every 5 Generasi-funded activities,

but they only received 14 percent of all Generasi funds. This finding is consistent with our finding from Chapter 5 that desa-level providers reported that the group counseling sessions often did not receive enough funding to meet project goals.

The Generasi program had some success engaging most of the desa-level service providers, but many of the providers were not engaged in program planning. By the interim survey, nearly all bidan and kader posyandu in treatment areas had discussed Generasi with a program representative, and most had participated in at least one desa-level planning meeting to discuss how to allocate Generasi funds. We found consistent evidence in our qualitative interviews with bidan and kader posyandu, some of whom reported attending Generasi planning meetings. However, more often bidan and kader posyandu only interacted with the program by distributing PMT (bidan) or by simply reporting outcomes related to Generasi indicators. These findings suggest that desa-level providers may not have been fully utilized by the Generasi program to help implement the project and achieve its goals of improving health.

8. CONCLUSION

In this chapter, we discuss the implications of our findings for the project's ability to achieve key short-term outcomes, medium-term outcomes, and potentially long-term outcomes in the program logic. We begin with findings related to IYCF activities, nutritional counseling, and Generasi spending, and then turn to findings related to sanitation. Finally, based on the interim results, we reflect on whether the project is likely to be able to achieve the targeted long-term outcomes as envisioned in the program logic.

Table 8.1 summarizes the interim findings related to IYCF activities, nutritional counseling, and Generasi spending. We find that the IYCF training was implemented as intended: in treatment areas, higher proportions of bidan, bidan coordinators, and nutritionists reported having been trained in IYCF compared to control areas. At the short-term outcome level, we have strong qualitative evidence that the IYCF training was high-quality, and most providers said they benefited from the training.

The expectation in the program logic was that nutritional counseling sessions (kelas balita and kelas ibu hamil) and one-on-one counseling would offer opportunities for providers to apply what they learned in the training. However, we found that there is no difference in the *frequency* of nutritional counseling sessions across treatment and control areas at interim. This suggests that other factors such as higher-quality interactions between providers and project beneficiaries would be necessary if the project were to achieve impacts on outcomes like community behavior around nutrition in the treatment areas relative to the control areas. Our qualitative findings in the treatment communities, however, suggests that the *quality* of these counseling sessions is mediocre to poor, which might make achieving these impacts unlikely.

We also found no difference in the *frequency* of one-on-one counseling, such as pre-and postnatal visits, between treatment and control areas at interim. *Quality* of one-on-one counseling could have improved since this turned out to be a major focus of the training, but since that was not anticipated, the interim study did not explore this possibility. Therefore, it is still possible that the IYCF training—through its emphasis on one-on-one counseling—could improve longer-term health outcomes related to IYCF.

IYCF training rolled out at a slower pace than expected, while Generasi largely began on schedule, limiting the synchronicity between these two activities that MCC initially envisioned. The limited interaction between IYCF and Generasi could account for the lack of subsequent downstream effects on nutritional counseling sessions, one-on-one counseling, and supportive supervision. In addition, when we designed the evaluation, the project expected that Generasi would continue through 2017 in treatment areas and be introduced in control areas after 2017. However, because Generasi ended earlier than anticipated, the long-term impacts of that activity might not be achieved.

TABLE 8.1. SUMMARY OF IYCF ACTIVITIES, NUTRITIONAL COUNSELING, AND GENERASI SPENDING FINDINGS

In order to have an effect, IYCF components needed to…compared to control areas	Did they?
Train more bidan, kader posyandu, bidan coordinators and nutritionists	**Yes, mostly** • Service providers trained on IYCF: – Bidan: 61 percent in treatment areas trained in 2014-2017 (12 percent in control areas) – Kader posyandu: 71 percent in treatment areas in 2014-17 (54 percent in control areas) – Bidan coordinators: 77 percent in treatment areas ever trained (6 percent in control areas) – Nutritionists: 74 percent in treatment areas ever trained (26 percent in control areas) • Coverage not universal (by design) for bidan and kader posyandu
Provide higher quality training	**Maybe** • IYCF cascade relatively successful (high-quality training provided at each cascade level) • New information delivered • Lots of attention to one-on-one counseling, yet participants not trained on how to conduct nutritional group counseling sessions
Have greater contact with beneficiaries by providing one-on-one counseling and nutritional group counseling sessions	**No** • No difference in treatment and control in terms of one-on-one counseling or nutritional group counseling session frequency, potentially due to limited interaction between Generasi and IYCF training implementation
Have higher quality interactions with beneficiaries	**Not with group counseling sessions but maybe with one-on-one counseling** • Counseling session quality mixed despite high share of Generasi spending on sessions, potentially due to limited interaction between Generasi and IYCF training implementation • Not sufficient evidence on one-on-one counseling

In the area of sanitation, as shown in Table 8.2 below, we also find that few outputs and short-term outcomes have improved beyond conditions in control areas. CLTS is a national effort, so while there was a significant difference between treatment and control areas in terms of sanitarians trained on CLTS, a high proportion of sanitarians in control areas were also trained on CLTS (78 percent in control areas compared to 94 percent in treatment areas). Moreover, the CLTS training cascade was not as successful as IYCF training cascade: high-quality training was not provided at each cascade level, leaving training participants without a strong understanding of how to trigger communities to want to become ODF. Consequently, it was common for sanitarians and village kader to miss several key steps in the triggering process. Most importantly, the biggest challenge to achieving ODF status still seems to be financing. Communities did not feel that they could build latrines and make sure every household has its own sanitation facility without access to grants or loans. In addition, very few sanitation entrepreneurs were active in project areas, meaning that there was no project-supported mechanism for latrine construction. Therefore, given these findings, we might not detect any

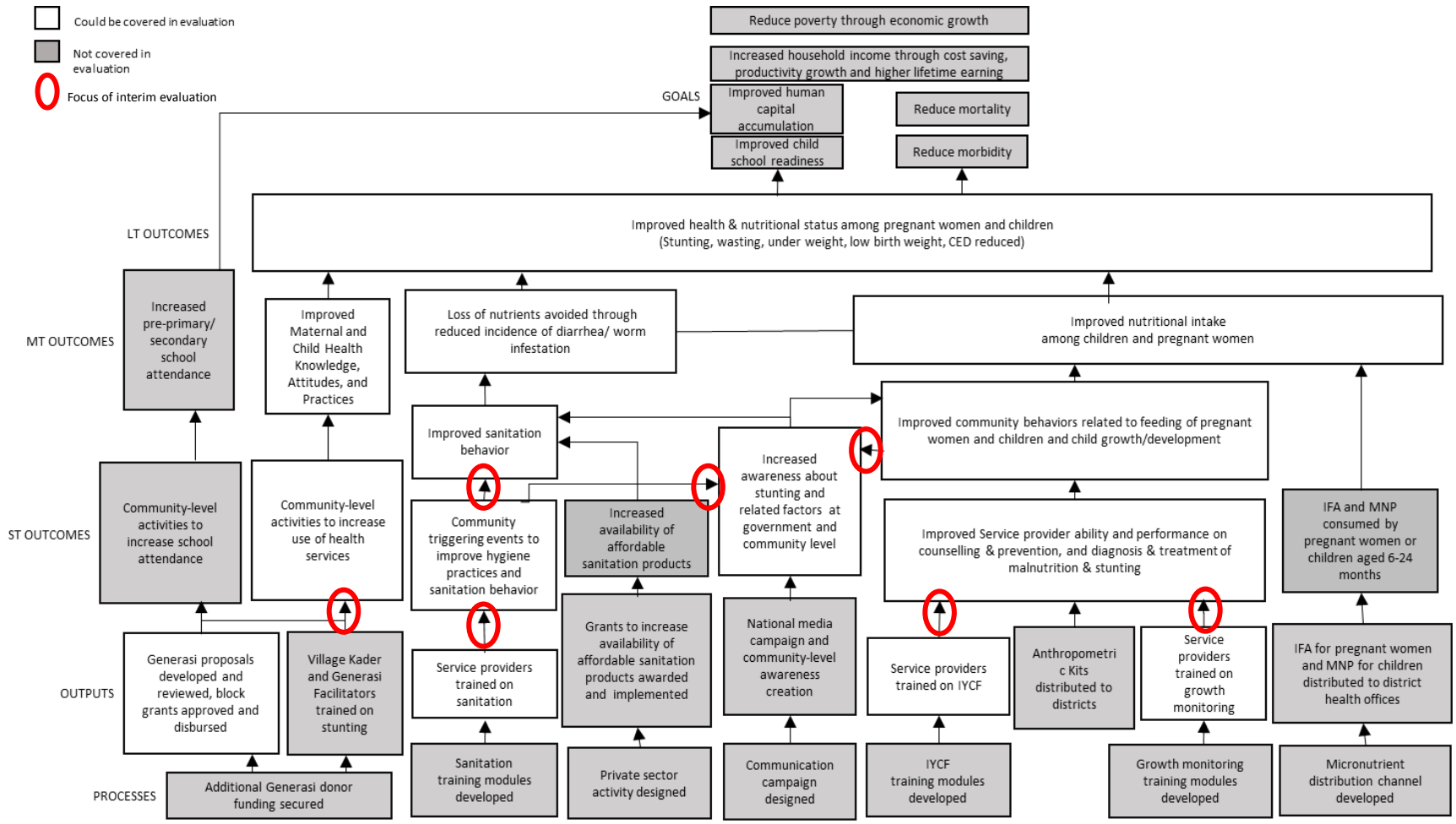
treatment and control differences in sanitation behavior or attainment of ODF status, even in the long run.

TABLE 8.2: SUMMARY OF INTERIM SANITATION FINDINGS

In order to have an effect, sanitation components needed to…compared to control areas	Did they?
Train more sanitarians	**Yes, but barely** • 94 percent of sanitarians received CLTS training compared to 78 percent of sanitarians in control areas
Implement more and better quality triggering	**Somewhat** • Higher fraction of dusun and desa triggered which is likely a project output • Training content, especially regarding how to conduct triggering, could have been more detailed • Several key triggering steps completed, but lack of follow through with strong action plans
Improve access to sanitation facilities	**No** • Limited awareness of role of sanitation entrepreneurs • Economic barriers key constraint to building latrines
Result in less OD	**No** • At interim, no project impact on ODF

Figure 8.1 shows the pathways we examined in this evaluation (in red). To summarize, we see that many of the key pathways were not fully realized at interim. Overall, our assessment from the interim study is that few of the short- and medium-term outcomes that we examined had improved beyond conditions in control areas. We saw modest improvements in increased awareness about stunting and related factors at the government level, and community triggering events occurred with greater frequency in treatment areas, but none of the other short- or medium-term outcomes were achieved. Therefore, it might be difficult for the project to achieve its envisaged long-term outcomes; it will be important for us to take this into account when finalizing our plans for the endline data collection.

FIGURE 8.1 PATHWAYS EXAMINED IN THE INTERIM EVALUATION



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APPENDIX A. DISTRIBUTION OF DESA-LEVEL RESPONDENTS BY TREATMENT STATUS

TABLE A.1. DISTRIBUTION OF DESA-LEVEL RESPONDENTS BY TREATMENT STATUS (NUMBER)

	Bidan		Kader posyandu	
	Control	Treatment	Control	Treatment
No respondents	18	7	25	23
1 respondent	14	20	36	29
2 respondents	22	28	23	28
3 respondents	24	25	9	10
4 respondents	17	15	2	4
5 respondents	0	0	0	1

Sources: Interim bidan and kader posyandu surveys.
Note: Each cell is the number of kecamatan with the indicated number of respondents, by respondent type.

APPENDIX B. BASELINE AND INTERIM RESULTS FOR OUTCOMES COLLECTED IN INTERIM PHONE SURVEYS

In this appendix we present the full set of treatment and control comparisons for all of the outcomes collected in the interim phone surveys. We present results for all five types of service providers interviewed in the interim phone survey: bidan (Table B.1), kader posyandu (Table B.2), sanitarians (Table B.3), bidan coordinators (Table B.4), and nutritionists (Table B.5). Each table includes the sample size, interim mean for respondents in control areas, and interim mean for respondents in treatment areas that is regression adjusted for kabupaten fixed effects. For interim outcomes collected at baseline, the tables also include the baseline control mean and kabupaten regression-adjusted treatment mean, as well as the interim treatment mean regression adjusted for both kabupaten fixed effects and for the baseline outcome.

We conducted all of our analyses using ordinary least squares regressions with standard errors clustered at the kecamatan level. The models we estimated are described in more detail in section 3.2.1. In all of our analyses, we only included respondents who were interviewed in both baseline and interim surveys to ensure comparability across surveys, which is reflected in the sample sizes presented in the tables.

TABLE B.1. RESULTS FOR ALL MEASURES IN INTERIM BIDAN INSTRUMENT (PERCENTAGES UNLESS OTHERWISE INDICATED)

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Trained in IYCF (2014-2017)	198	209				12.0	60.6	48.7***		
Number of kelas ibu hamil led/helped lead in last 12m	119	139				8.9	9.9	1.1		
Led/helped lead a kelas ibu hamil in last month	198	209	23.9	26.5	2.5	63.1	65.5	2.3	65.2	2.1
Number of kelas balita led/helped lead in last 12m	119	139				7.1	7.5	0.4		
Led/helped lead a kelas balita in last month	198	209	6.1	5.1	-1.0	51.8	61.8	10.0**	62.1	10.3**
Number of hours spent working in posyandu in last 30 days	195	207	4.8	4.9	0.1	6.0	5.7	-0.4	5.6	-0.4
Number of women served for prenatal visits in last 30 days	198	209	2.4	2.2	-0.3	13.4	14.3	0.9	14.8	1.3
Number of women served for postnatal visits in last 30 days	198	209	2.6	2.2	-0.4	4.1	3.6	-0.4	3.7	-0.3
Number of women counseled about breastfeeding problems in last 30 days	198	211				7.1	7.9	0.7		
Discussed early initiation of breastfeeding with pregnant women or caregivers of young children in last 30 days	198	209				98.3	96.4	-1.9		
Discussed exclusive breastfeeding with pregnant women or caregivers of young children in last 30 days	198	209				98.3	96.4	-1.9		
Number of pregnant women given IFA in last 30 days	198	209	7.1	8.2	1.0	11.5	11.6	0.1	11.1	-0.4
Knows that mother should start breastfeeding as soon as possible after birth	198	209	92.8	90.9	-1.9	86.3	84.6	-1.7	84.7	-1.6

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Thinks it does not help to give a newborn baby sugar water or other liquids within the first two days of life	198	209	98.0	97.2	-0.8	100.0	99.4	-0.6	99.4	-0.6
Knows that children should not be given fluids other than breastmilk until they are 6 months old	198	209	86.9	86.6	-0.3	96.1	97.3	1.2	97.4	1.2
Knows that foods like rice cereal should not be given to children until they are 6 months old	197	209	98.8	96.9	-1.8	99.5	100.0	0.4	100.0	0.4
Knows that stunting affects both mental and physical development	198	211				75.9	76.5	0.6		
Ever discussed Generasi with Generasi staff	198	211				29.0	88.1	59.2***		
Ever attended a meeting to discuss how to spend desa's block grant from Generasi	198	209				13.0	62.4	49.3***		
Received Generasi funds for kelas ibu hamil/kelas balita between 2014 and 2017	198	211				17.9	80.4	62.4***		

Source: Bidan baseline (2015) and interim (2017) surveys.

Note: Baseline treatment mean and interim treatment mean are regression adjusted for kabupaten fixed effects. Baseline-adjusted interim treatment mean is regression adjusted for kabupaten fixed-effects and the baseline value of the outcome.

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

TABLE B.2. RESULTS FOR ALL MEASURES IN INTERIM KADER POSYANDU INSTRUMENT (PERCENTAGES UNLESS OTHERWISE INDICATED)

	Sample size		Baseline			Interim			Baseline-adjusted interim	
Outcome	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Trained on IYCF (2014-2017)	117	136				53.9	71.5	17.6**		
Number of times posyandu was in operation in last 6 months	117	136	5.6	5.9	0.2	6.2	6.1	-0.1	6.0	-0.1
Number of times posyandu was visited by puskesmas staff in last 6 months	116	134	2.6	2.5	-0.1	4.4	4.5	0.1	4.5	0.1
Posyandu has a stadiometer or microtoise for length measuring	117	136	27.1	39.3	12.2*	64.7	63.2	-1.6	62.3	-2.4
Height/length measuring offered at posyandu in last month	116	135	25.8	29.2	3.4	72.7	63.7	-9.0	63.0	-9.7
Number of kelas ibu hamil led/helped lead in last 12m	116	136				7.1	6.7	-0.4		
Led/helped lead a kelas ibu hamil in last month	116	136	7.6	23.3	15.8***	63.4	65.1	1.7	65.3	1.9
Number of kelas balita led/helped lead in last 12m	116	136				7.1	6.2	-1.0		
Led/helped lead a kelas balita in last month	117	136	8.9	16.0	7.1	68.1	59.3	-8.8	58.0	-10.1
Number of women counseled about solutions to breastfeeding problems in last 3 months	116	135				19.0	19.9	0.9		
Discussed early initiation of breastfeeding at last kelas ibu hamil	117	136	7.9	6.7	-1.2	77.8	82.9	5.1	83.0	5.2
Discussed exclusive breastfeeding at last kelas ibu hamil	117	136	9.5	7.6	-1.9	85.5	87.6	2.1	87.8	2.3
Knows that foods like rice cereal should not be given to children until they are 6 months old	117	136	75.5	75.5	0.1	84.3	93.1	8.8**	93.1	8.8**

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Knows that stunting affects both physical and mental development	117	136				61.5	60.2	-1.3		
Ever discussed Generasi with Generasi staff	117	136				44.2	92.7	48.5***		
Ever attended a meeting to discuss how to spend desa's block grant from Generasi	117	136				29.0	67.9	38.9***		
Received Generasi funds for kelas ibu hamil/kelas balita	115	136				35.6	89.1	53.5***		

Source: Kader posyandu baseline (2015) and interim (2017) surveys.

Note: Baseline treatment mean and Interim treatment mean are regression adjusted for kabupaten fixed effects. Baseline-adjusted interim treatment mean is regression adjusted for kabupaten fixed-effects and the baseline value of the outcome.

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

TABLE B.3. RESULTS FOR ALL MEASURES IN INTERIM SANITARIAN INSTRUMENT (PERCENTAGES UNLESS OTHERWISE INDICATED)

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Ever attended a training on CLTS	68	70	31.7	33.6	1.9	78.3	94.1	15.8**	93.8	15.5**
Knows that stunting affects both mental and physical development	68	70				62.8	76.6	13.8*		
Knows that poor sanitation contributes to stunting	68	70				91.9	95.1	3.2		
Knows that CLTS evokes shame during a transect walk to encourage change	68	70				77.4	82.0	4.6		
Number of desa respondent supervises for sanitation related activities	68	70	9.5	8.7	-0.8	7.2	6.9	-0.3	7.3	0.1
Number of dusun/RT respondent supervises for sanitation related activities	64	67	22.0	22.1	0.2	26.1	28.4	2.3	28.3	2.2
Number of supervised desa triggered	68	70				5.2	6.1	0.9		
Percent of supervised desa triggered	64	65				73.5	87.2	13.6**		
Number of supervised dusun/RT triggered	68	68				15.3	15.3	0.0		
Percent of supervised dusun/RT triggered	58	64				60.6	83.3	22.7***		
Number of desa in respondent's area verified ODF	68	70	0.8	0.6	-0.2	1.1	1.3	0.2	1.3	0.2
Number of desa in respondent's area ODF but not verified	68	70	2.3	1.2	-1.2*	3.2	2.7	-0.5	2.8	-0.3
Total number of desa in respondent's area ODF (verified and not verified)	68	70	2.8	1.5	-1.2*	4.3	3.8	-0.5	4.0	-0.3

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Number of dusun/RT in respondent's area ODF	62	69	8.1	6.6	-1.5	9.2	6.2	-3.0	6.3	-2.9
Number of days in last month spent in dusun doing STBM activities	68	70				5.5	6.4	1.0		
Number of kader or promkes staff trained to spread awareness of ODF and sanitation in last year	68	69				7.2	12.2	5.0**		
Number of triggering events conducted in last year	68	70				5.1	9.9	4.8***		
Number of post-triggering events conducted in last year	68	68				5.8	7.5	1.8		
Awards ODF status to desa as part of job	68	70	22.9	32.7	9.7	63.5	58.7	-4.8	57.3	-6.2
Visits households to confirm ODF status	44	43	16.1	32.1	15.9	77.0	98.1	21.1***	97.6	20.6**
Conducts follow-up visits after a desa is certified ODF	68	70				77.2	89.8	12.6**		
Number of sanitation entrepreneurs in area	68	70				0.3	0.6	0.3**		
Number of months since respondent last sent STBM data to the Ministry of Health's SMS gateway	47	52				4.2	3.6	-0.6		

Source: Sanitarian baseline (2015) and interim (2017) surveys.

Note: Baseline treatment mean and Interim treatment mean are regression adjusted for kabupaten fixed effects. Baseline-adjusted interim treatment mean is regression adjusted for kabupaten fixed-effects and the baseline value of the outcome.

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

TABLE B.4. RESULTS FOR ALL MEASURES IN INTERIM BIDAN COORDINATOR INSTRUMENT (PERCENTAGES UNLESS OTHERWISE INDICATED)

	Sample size		Baseline			Interim			Baseline-adjusted interim	
Outcome	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Ever attended a training on IYCF	49	69				6.0	77.4	71.4***		
Ever attended a training on growth monitoring	49	68	14.5	22.9	8.4	42.4	53.4	11.0	51.8	9.4
Number of bidan supervised	49	69	7.7	8.8	1.1	10.2	9.5	-0.7	8.8	-1.4*
Number of bidan desa respondent supervises with whom he/she met during last 30 days	49	69	2.1	2.8	0.7	6.8	6.9	0.1	6.9	0.1
Number of posyandu affiliated with puskesmas	49	68				16.1	18.2	2.2		
Percent of posyandu visited in last 30 days	49	67				35.2	38.9	3.8		
Percent of posyandu visited to measure height in last 30 days	49	67				24.0	30.0	6.0		
Percent of posyandu visited to perform immunizations in last 30 days	49	67				29.3	24.1	-5.2		
Number of bidan provided with IFA in last 30 days	48	69				7.8	6.8	-1.1		
Number of women counseled about breastfeeding problems in last 30 days	49	69				19.1	18.6	-0.5		
Discussed early initiation of breastfeeding during pre- or post-natal visits in last 30 days	49	68				100.0	97.3	-2.7		
Discussed EBF during pre- or post-natal visits in last 30 days	49	68				100.0	98.3	-1.7		
Identifies stunted children as part of job	48	68				60.0	83.8	23.8**		

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Number of children aged 0-5 years who received services related to stunting in last 30 days	32	53				11.1	8.7	-2.4		
Knows that child's length (height) should be measured lying down until 24 months	47	65				18.8	45.7	27.0***		
Knows that stunting affects both mental and physical development	49	69				67.8	68.1	0.3		

Source: Bidan coordinator baseline (2015) and interim (2017) surveys.

Note: Baseline treatment mean and Interim treatment mean are regression adjusted for kabupaten fixed effects. Baseline-adjusted interim treatment mean is regression adjusted for kabupaten fixed-effects and the baseline value of the outcome.

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

TABLE B.5. RESULTS FOR ALL MEASURES IN INTERIM NUTRITIONIST INSTRUMENT (PERCENTAGES UNLESS OTHERWISE INDICATED)

	Sample size		Baseline			Interim			Baseline-adjusted interim	
Outcome	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Ever attended a training on IYCF	67	76				26.4	73.8	47.4***		
Ever attended a training on growth monitoring	67	76	40.3	41.2	0.9	66.9	85.5	18.6**	85.4	18.5**
Number of bidan supervised	67	76				8.0	8.3	0.3		
Number of bidan desa respondent supervises with whom he/she met during last 30 days	67	76				5.9	5.0	-0.9		
Number of posyandu affiliated with puskesmas	67	76				18.9	19.3	0.3		
Percent of posyandu visited in last 30 days	66	75				35.1	42.9	7.9		
Percent of posyandu visited to measure height in last 30 days	66	75				28.6	35.9	7.2		
Percent of posyandu visited to perform immunizations in last 30 days	66	75				21.8	22.6	0.8		
Number of bidan provided with IFA in last 30 days	66	75				5.4	6.1	0.7		
Number of women counseled about breastfeeding problems in last 30 days	67	75				21.0	7.5	-13.5*		
Discussed early initiation of breastfeeding during pre- or post-natal visits in last 30 days	67	76				74.4	78.5	4.1		
Discussed EBF during pre- or post-natal visits in last 30 days	67	76				87.9	80.5	-7.4		
Identifies stunted children as part of job	67	76				93.8	94.9	1.1		

Outcome	Sample size		Baseline			Interim			Baseline-adjusted interim	
	Control	Treatment	Control Mean	Treatment Mean	Treatment-Control Difference	Control Mean	Treatment Mean	Treatment-Control difference	Treatment Mean	Treatment-Control difference
Number of children aged 0-5 years who received services related to stunting in last 30 days	61	71				7.2	9.6	2.4		
Knows that child's length (height) should be measured lying down until 24 months	67	76				43.1	57.1	14.0		
Knows that stunting affects both mental and physical development	67	76				70.5	84.9	14.3**		

Source: Nutritionist baseline (2015) and interim (2017) surveys.

Note: Baseline treatment mean and Interim treatment mean are regression adjusted for kabupaten fixed effects. Baseline-adjusted interim treatment mean is regression adjusted for kabupaten fixed-effects and the baseline value of the outcome.

* / ** / *** Significantly different from zero at the .10 / .05 / .01 level, two-tailed test.

APPENDIX C. INTERIM SURVEY WEIGHTS

As described in section 3.2.1, we weighted our interim quantitative analyses in order to account for both the sampling and randomization strategies used to construct the baseline sample, as well as for non-response to the interim phone survey. At baseline, we constructed separate weights for estimating sample means (that accounted for our baseline sampling strategy) and conducting treatment-control comparisons (that accounted for both our baseline sampling and the stratified randomization used to assign treatment status). We constructed interim survey weights by combining the baseline weights for each of these analyses with interim non-response weights. Table C.1 presents the types of baseline and non-response weights we used to construct the interim survey weights for each type of provider. We normalized all of the interim survey weights so that their sum was equal to the number of completed interim surveys for each types of service provider.

TABLE C.1. TYPES OF SURVEY WEIGHTS USED IN INTERIM ANALYSES

Provider	Baseline weight		Interim non-response weight	Interim survey weight	
	Means	Treatment-control comparisons		Means	Treatment-control comparisons
Bidan	No	No	Yes	Non-response weights	Non-response weights
Kader posyandu	Yes	Yes	Yes	Non-response weights x baseline weights	Non-response weights x baseline weights
Sanitarian	No	Yes	Yes	Non-response weights	Non-response weights x baseline weights
Bidan coordinator	No	Yes	No	None	Baseline weights
Nutritionist	No	Yes	No	None	Baseline weights

APPENDIX D. STAKEHOLDER COMMENTS AND MATHEMATICA RESPONSES

TABLE D.1. STAKEHOLDER COMMENTS ON THE INTERIM REPORT AND MATHEMATICA RESPONSES

Reviewer's role	Page number	Comment	Mathematica response
MCC Economist	Multiple pages	MPR notes that there were very large improvements in indicators of training, service provider knowledge, service content, service frequency, and health equipment in control locations (non-Generasi kecamatan) relative to baseline. MPR also notes that among kader posyandu in non-Generasi control kecamatan who responded to the phone survey, 29% had attended a meeting to discuss how to spend the desa's block grant from Generasi and 35.6% had received Generasi funds for kelas ibu hamil or kelas balita. MPR observes that: "We do not have an explanation for why this fraction is so high in control areas that by definition did not receive any Generasi funding." a) **It would be helpful to add a table to show the number of phone survey respondents by kecamatan, distinguishing control from treatment, and by respondent type**. This would reveal whether a large share of control respondents were clustered in just a few of the 95 control kecamatan, in which case there might be something unique and unrepresentative about these kecamatan. If so, a more representative endline survey could produce different results. b) It would also be helpful to include the precise Indonesian wording of the Generasi-related questions either in the annex or in a footnote. For example, if the phone enumerators used the term "bantuan langsung masyarakat" or "bantuan operasional kesehatan" this might have confused the kader in control locations.	In response to a), we added this table in Appendix A of the report. In response to b), English and Indonesian versions of the survey will be included in the catalog along with the report.
MCC Economist	p. 42	Figure 4.10 on page 42 appears to show that after receiving growth monitoring training 54% of bidan coordinators and 43% of nutritionists did not know that length should be measured lying down for children under 24 months. This suggests that the training was actually of low quality and that the cascade system failed. If this is not what Figure 4.10 shows, then MPR should indicate the share of service providers who received training that were able to correctly answer this and other knowledge questions, and should also add text to page 42 to better explain Figure 4.10.	We have added in a footnote the fraction of nutritionists and bidan coordinators who answered the question correctly based on whether they did or did not receive training. As expected, knowledge is higher among those who were trained, but it is still far from universal. Because we did not examine growth monitoring training quality as part of the qualitative work, we cannot fully explain why it is not higher. We also do not intend to present similar numbers for other questions because the foundation of our analysis, as outlined in the design report, is an intent-to-treat analysis (examining impacts of the project by comparing the overall treatment and control groups) rather than a treatment-on-treated analysis (examining the impacts of training using treatment as an instrument).

Reviewer's role	Page number	Comment	Mathematica response
MCC Economist	p. 27	There is a mistake at the top of page 27 in the sentence that reads: "In total, the target was to train approximately 1,400 puskesmas staff and 17,000 bidan and kader posyandu per desa [sic] across 11 provinces." **Please double-check the training targets and indicate the source.**	We included the Compact M&E Plan as the source. The current targets (1,400 puskesmas staff and 17,000 bidan and KP) are correct, per page 12 of the M&E plan, which references the targets on page 23 of the nutrition PTO.
MCC Economist	p. 10	Figure 2.1 on page 10 states that growth monitoring training took place at both the puskesmas and at the desa level but the text on page 40 states that growth monitoring training took place only at the kecamatan level. Which is correct? Did bidan or kader posyandu receive training in measuring child length? If so, why weren't they asked related knowledge questions in the phone survey?	We removed desa from the growth monitoring reference in Figure 2.1.
MCC Economist	pp. 48-49	Pages 48-49 indicate that there was a huge increase in the percentage of bidan and kader posyandu who held kelas ibu hamil and kelas balita relative to the baseline, but that the frequency of these classes at interim was no greater in Generasi kecamatan than in control kecamatan. How is this possible, given that holding these classes comprised two of the twelve indicators for disbursing block grants to Generasi villages? What strategy does MPR have for determining at endline how this could have happened?	We will attempt to investigate this at endline. There is currently no interim data source available to answer this question alas.
MCC Economist	General	More generally **what strategy does MPR have to determine why indicators of training, service provider knowledge, service content, service frequency, and health equipment increased just as much in control locations as in treatment locations?** For example, how is it possible that nearly 36% of kader in non-Generasi kecamatan reported receiving Generasi funds and that just as many kader in non-Generasi kecamatan reported that their posyandu had a stadiometer or microtoise even though the project provided length taking equipment only to Generasi kecamatan? What will MPR's approach be to making sense of this puzzle?	We will attempt to answer this through a combination of quantitative and qualitative work at endline.

Reviewer's role	Page number	Comment	Mathematica response
MCC Economist	Annex Tables	Is it possible that a small error exists in the annex tables at the end of the report, in the first two columns labelled "sample size"? Consider Table A.3 "Results for all measures in the interim sanitarian instrument." The maximum sample size is 104 sanitarians in control locations plus 99 sanitarians in treatment locations for a total of 203 sanitarians. This greatly exceeds the total number of 139 sanitarians who responded to the phone survey according to Table 3.2 on page 16. By contrast, in annex table A.2 the total number of control (117) plus treatment (136) kader posyandu exactly matches the 253 kader posyandu who completed the phone survey according to Table 3.2 on page 16. a) Is the label "sample size" in the first two columns of the annex tables correct, or is the correct label actually: "The number of [bidan, kader posyandu, sanitarians, bidan coordinator or nutritionists] who responded to the question"? In other words, are these item response rates rather than sample sizes? If so, this would explain why, in a given table, the "sample size" varies by row. b) Assuming that these are item response rates, it would be interesting to know if MPR has any insights into why 407 bidan answered the question about whether they received IYCF training between 2014 and 2017 but only 258 bidan answered the next question about "number of kelas ibu hamil led or helped lead in the last 12 months." Perhaps MPR also knows why the maximum number of bidan who answered any question in Table A.1 (409) is so much less than the number of bidan who completed the phone survey (488) according to Table 3.2 on page 16.	In response to a), we found an issue with the way the sample sizes were reported in tables A.3, A.4 and A.5 that we corrected in the revised version of the report. In response to b), although item-level non-response was generally low on the interim survey, there were several questions that also appeared on the baseline survey that had high item-level non-response at baseline. We only included respondents to comparable questions on both surveys in the interim analyses so differences in the sample sizes are almost entirely due to item-level non-response at baseline. In investigating a response to b), we identified an issue with table 3.2 that will require input from RTI. (See more in email.) We have reached out to them for clarification.
MCC Project Lead	p. 11	Please include the number of triggering activities MPR observed or what qualitative assessment tools were used to make the summary statements related to the effectiveness of triggering in villages achieving ODF. I think MPR/SurveyMETER could only observe two sessions but may have received more information from interviews with sanitarians. It's important to note the late timing of when most triggering activities occurred, leaving a short window of time for communities to become ODF before CED and the midterm.	Table 3.4 includes the number of triggering activities occurred. The late timing is discussed after Figure 2.1.
MCC Project Lead	P. 11	I'm not sure it's accurate to say few SanE are active. I see in the list of questions on page 112/106 the question is "Number of SanE in the area". The results are 0.3 and 0.6. I'm not sure how results are calculated but it's important to consider results in the context that just one SanE was trained per intervention sub-district, so as not to flood the market with SanE and preventing any one SanE from making a successful business. So if there is .6 SanE per village, this is a good ratio – please clarify what the "area" referred to indicates.	Page 70 shows that at least one sanitation entrepreneur should be active in each kecamatan. The question on the survey asked "How many sanitation entrepreneurs are active in the area you supervise?" Sanitarians reported supervising an average of around 9 desa, which suggests fewer than one SanE per village, supporting the assertion that few SanE are active.

Reviewer's role	Page number	Comment	Mathematica response
MCC Project Lead	P 12 (document page 6)	Text states: In addition, when we designed the evaluation, the project expected that Generasi would continue through 2017 in treatment areas and be control areas after 2017. However, because Generasi ended earlier than anticipated, the longterm introduced in impacts of that activity might not be achieved. It would be more accurate to say that because "Generasi community block grants did not continue post 2017". The WB has actually extended the facilitation aspect of Generasi with funding from the Australian Government through 2018 and has been trying to get MCA to contribute, but no more block grants are being provided.	We revised the text to say that Generasi community block grants did not continue post-2017.
MCC Project Lead	p. 15	However, micronutrient distribution and the private sector activity were not implemented. - This is an incorrect statement. IFA was distributed for pregnant woman and the PSRA did occur.	We revised the text to say that micronutrient distribution for children and the service provider incentives activity were not implemented.
MCC Project Lead	p. 16	The table indicates the Sanitation grant-making activity was implemented for one quarter, but it was implemented from Q3 2017 through Q1 2018. On page 16 it also indicates that the PSRA was changed to be called "sanitation grant making". I never heard it called this and the new name doesn't capture the contribution required from the private sector.	We revised the timeframe to reflect that grants were awarded in Q1 2017 and implemented through Q1 2018. We changed the text to say that the private sector response activity became the sanitation grant making activity, reflecting a change in focus from funding both nutrition and sanitation-related interventions, to funding solely sanitation interventions.
MCC Project Lead	p. 16	It would be good to verify the table with the MCA-I or the report Shreena has about when people were trained. I remember that for almost all of 2016 training was suspended while the fund channeling mechanism was being worked out. The MCA-I/NST has records of when trainings occurred.	The timelines were provided by MCC and were based on ITT reporting.
MCC Evaluation Lead	ii	MoH should be acknowledged	We revised the acknowledgments to include Ministry of Health and Ministry of Villages.
MCC Evaluation Lead	1	Formatting: Missing period in this sentence: This report presents the findings from interim data collection for the Nutrition Project that took place between October and December 2017 The objective of the interim study is to examine project implementation progress and assess impacts on short- and medium-term outcomes that are hypothesized to lead to the project's long-term goals, such as improvements in maternal and child health.	Addressed
MCC Evaluation Lead	4	Suggest adding "in treatment areas" to this sentence: There was little difference in one-on-one counseling across treatment and control groups, with the exception that bidan coordinators "in treatment areas" were more likely to identify stunted children as part of their jobs.	We added this in the text.

Reviewer's role	Page number	Comment	Mathematica response
MCC Evaluation Lead	10	It's worth noting that the dosage of the sub-national communications campaign was lower than anticipated. They only worked in 11 districts in the 3 new provinces.	We noted this in the text.
MCC Evaluation Lead	41	I think it's worth noting that even though there was a higher knowledge about measuring children lying down etc. among T respondents, still only 46-57% of T respondents got the Q right, which brings into question the effectiveness of a training that is intended to teach how to monitor growth. I would think how to measure is a critical practice that is covered by the GM training.	We included more language that caveats this finding.
MCC Evaluation Lead	45-47	In the class frequency section, I suggest including a sentence like the following one in the 1-on-1 counseling section, to emphasize that increases over time in frequency of classes can't be attributed to the project: *This means that prenatal visits increased substantially over time across the 190 kecamatan in the impact evaluation sample, but we cannot attribute the increase to the effects of the project.*	We added this language in the text.
MCC Evaluation Lead	53	Formatting: space needed above section 5.1.3	Addressed
MCC Evaluation Lead	65	I suggest adding one or two more sentences to the conclusion section linking the current concluding statement to the overall program logic, i.e. implications for the logic holding.	We added this language in the text.
MCC Evaluation Lead	71	Figure 6.2 is empty	We checked Figure 6.2 on multiple computers and it is populated. This is a problem in Word where sometimes there is a delay in the text/images showing.
MCC Evaluation Lead	75	Formatting: section 6.2.4.'s numbered list is off	Addressed
MCC Evaluation Lead	78	I suggest referencing the fact that the CLTS training actually paid for a certain amount of triggering, in conjunction with the following statement: *These results suggest that the CLTS training substantively increased the number of triggering events sanitarians conducted in treatment areas relative to control areas.* Triggering events were an output paid for by the project / implemented by the project.	We added this language in the text.
MCC Evaluation Lead	86	Same point as above. I'm wary of the reader thinking that the project impacted triggering simply through the training (i.e. spillover), so it's important to note that triggering was an output along with the training.	We added this language in the text.
MCC Evaluation Lead	97	I think the conclusion could be aided by including the logic diagram again and circling the linkages that the interim report indicated might be breaking down.	We added the logic model with broken linkages highlighted.
MCC Evaluation Lead	General	The MoH interviews are not reflected anywhere in the report. Could you please add?	We added this in Chapters 4 and 6.
Mathematica	17	There were some errors in Table 3.2	Revised in updated version of report.

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