

A guide to design, implement, monitor, and evaluate community-based maternal, newborn and child health and nutrition programs.

Contributors

Project Manager:

Nancy Tenbroek

Grant Manager:

Julie Cominos

Lead Writer:

Beulah Jayakumar (External)

Working Group Members:

Nancy Tenbroek, Naomi Makau, Brenda Souleymane, Ruth Kayima, Lemon Chipwatali, and Pamella Sunday

HEALTH AND NUTRITION PROGRAMMING GUIDE

A guide to design, implement, monitor, and evaluate community-based maternal, newborn and child health and nutrition programs.



Foreword

Achieving ambitious health goals—including the United Nations Sustainable Development Goals of universal health coverage and ending preventable child and maternal deaths across the globe—requires strong, functional, and inclusive health systems. Improving and sustaining community health programs is integral to achieving the SDGs, which makes Community Health Worker (CHW) programs critical. CHWs can bridge geographic and cultural barriers, cost much less than constructing health facilities, and result in quicker and more significant improvements in health outcomes than facility-based programs.

With this in mind, World Renew and its partners have been working in partnership with local organization and communities in community-based health and nutrition programming for more than 40 years, using participatory approaches to mobilize communities to form groups of mothers, and training and supporting local health volunteers to counsel these women and their families. The resulting uptake of positive health practices promoted in communities with high rates of death among mothers, newborns, and children and unacceptable levels of stunted growth among children has been astonishing, with spontaneous uptake into neighboring communities as well.

Replication of this highly effective, scalable, low-cost programming will only further impact health outcomes across the globe. With this in mind, and with gratitude for the grant received from Christian Connections for International Health (CCIH), World Renew has developed this Health and Nutrition: Programming Guide. This guide has been created by a working group of World Renew Country Office Health Program Practitioners and is reflective of the input and contributions of those creating successful programs and outcomes. It is our sincere desire that it will assist World Renew, our partners, those in the CCIH network and beyond in ending preventable child and maternal deaths during our lifetimes.

Lynda Dykstra

Program Manager World Renew Carol Bremer-Bennett

(Brown Genrich

Executive Director World Renew



স্থান: বুড়িগোয়ালিনী, রমজাননগর, ঈশ্বরীপুর ও মুন্সিগঞ্জ, শ্যামনগর, সাতক্ষীরা।

বাস্তবায়নে: ফেইথ ইন এ্যাকশন (সাতক্ষীরা-আইসিডিপি)

Funded by: World Renew



Table of Contents

Foreword	5
Abbreviations	9
Introduction	11
1. Health and nutrition: a conceptual framework	12
2. Programming principles	19
3. MNCH and Nutrition Practices	24
4. Formative Research	26
5. Project Models	28
6. Program Design	35
7. Monitoring and Evaluation	39
8. Complex Humanitarian Emergencies	43
Annexes	45
Annex 2. Compendium of indicators	51
Annex 3. Health and Nutrition Capability Statement	57
References	<u> </u>



Abbreviations

ANC Antenatal Care

ARI acute respiratory illness
CHW Community Health Worker

CMAM Community Management of Acute Malnutrition

COVID-19 Coronavirus disease - 2019
DBC Designing for Behavior Change
GAM global acute malnutrition
IFA iron and folic acid (tablets)

LMIC low- and middle-income countries

M&E monitoring and evaluation

MIYCAN maternal, infant, young child, and adolescent nutrition

MNCH maternal, newborn, and child health

MOH Ministry of Health

MUAC mid-upper arm circumference NCD non-communicable diseases

ORS oral rehydration salts
PD Positive Deviance
PI People's Institution

PMTCT Prevention of Mother-to-Child Transmission

SAM severe acute malnutrition

SD standard deviation

SDG Sustainable Development Goals
SRH sexual and reproductive health
TTC Timed and Targeted Counselling
VSL village savings and loans (groups)

VYA very young adolescents
WASH water, sanitation and hygiene
WHO World Health Organisation



Introduction

This Manual aims to provide a systems oriented, multi-sector approach is to strengthen the continuum of care for women and children through community-based projects. It is meant to guide program planners and managers of World Renew and its partners to design, monitor and evaluate health programs and builds on over three decades of health programming in World Renew. The manual brings together design principles and the evidence base drawing from an extensive range of sources in order to address the complex interfaces that impact health and how they can be addressed at the community level.

Section 1 of the Manual lays out the size, scope and salient features of the problems related to health and nutrition and sets out frameworks developed by the global health community to address them. Section 2 lays down a set of principles to guide program design and section 3 provides comprehensive lists of practices to be promoted at the community level, which are at the heart of all health programming. Sections 4 and 5 list evidence-based approaches for formative research and implementation models respectively that are used globally. These sections draw heavily from primary resources on these models, all of which are cited for further reference. Section 6 describes the essential components of the design document and provides a generic logic chain to draw from. Section 7 contains principles and guidance for monitoring and evaluation (M&E) of health programs and section 8 provides an overview of programming for

1. Health and nutrition: a conceptual framework

This chapter aims to give the "big picture" view of maternal, newborn, and child health (MNCH) and nutrition: the global size of the problem and its thematic scope in terms of mortality and malnutrition, followed by two conceptual frameworks for enhancing survival, growth, and development.

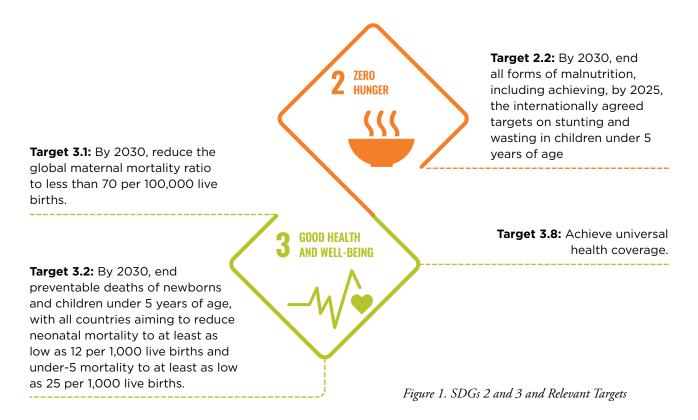
1.1. The size and scope of the problem

Despite being at their lowest ever recorded levels, there were about 5.2 million deaths of children under five years of age and 196,000 maternal deaths in 2019. The immediate causes of under-five deaths are pneumonia, diarrhea, and malaria. Nearly a quarter of these deaths take place during the newborn period (the first month of life), due to complications of preterm birth, birth asphyxia, and severe infections. Leading causes of maternal death include severe bleeding, infections, high blood pressure in pregnancy, complications from childbirth and unsafe abortions. These numbers call attention to MNCH issues.

Over 90% of all child deaths worldwide occur in just 42 countries worldwide and 94% of all maternal deaths occur in low- and middle-income countries (LMICs). These parts of the world are progressing too slowly¹ towards Sustainable Development Goals (SDG) 2 and 3 and targets related to health and nutrition (Figure 1).

Crucially, most of these deaths and illnesses were preventable. High-impact, low-cost interventions that can prevent or treat conditions leading to deaths or poor growth remain at low levels of coverage in these countries. Nutrition-related factors contribute to about 45% of deaths in children under five years of age. Undernourished children, particularly those with severe acute malnutrition, have a higher risk of death from the causes of child deaths mentioned above.

Underpinning these immediate causes of death are weak health systems, widespread poverty, illiteracy, food insecurity and



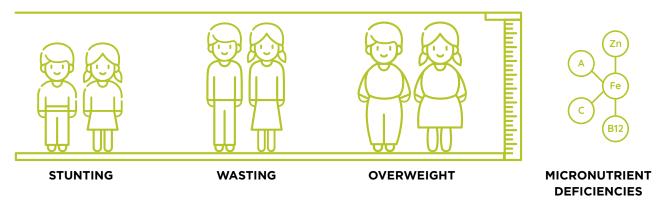


Figure 2. The triple burden of malnutrition

disempowered communities. Gender equality and the empowerment of women and girls also have an important bearing on the underlying determinants of health and nutrition.² Coronavirus Disease – 2019 (COVID-19) has, unsurprisingly, exacerbated these problems and threatens to reverse decades of progress.

1.2. Forms of malnutrition – the "triple burden"

The triple burden of malnutrition – undernutrition, overweight and micronutrient deficiencies (Figure 2) – threatens the survival, growth and development of children, young people, economies, and nations.³ These three forms of malnutrition coexist even within a household.

Undernutrition comes in two distinct physiological forms: stunting and wasting. These, and overweight are the visible forms of malnutrition, while micronutrient deficiencies are not visible, and are aptly called "hidden hunger." Deficiencies of micronutrients zinc, vitamin A and iron are also associated with poor health outcomes, sub-optimal mental development, and low productivity. Young children and women of reproductive age are most vulnerable to these deficiencies.

1.3. Definitions and thresholds

The World Health Organization (WHO) has defined the forms of malnutrition at individual and population levels.

Wasting, or weight-for-height less than -2 SD from the WHO reference population, is an acute form of undernutrition and results from acute shortage of food or severe childhood

illness, carries a heightened risk of death.⁴ Globally, wasting accounts for 4.7% of all deaths of children aged under five years of age.⁵

Stunting, or height-for-age less than -2 standard deviations (SD) from the WHO reference population is a chronic form of undernutrition and is both a symptom of past deprivation and a marker of future poverty. Stunting is a largely irreversible outcome of inadequate nutrition and repeated bouts of infection during the first 1,000 days of life, from conception to the second birthday of the child.⁶ Studies have shown that stunting is associated with diminished cognitive development, poor educational attainment, poor productivity and non-communicable diseases (NCD) in adults. Stunted children who experience rapid growth after two years of age are at increased risk of overweight and obesity later in life.7 Estimates in 2013 showed that 34 countries carried 90% of the global burden of stunting.8 Stunting and wasting can co-exist in an individual.

Overweight, or weight-for-height over +2 SD from the WHO reference population, is associated with a higher probability of obesity in adulthood. Obese children and adolescents are likely to suffer from both short-term and long-term health consequences, the most significant being cardiovascular diseases, mainly heart disease and stroke, diabetes, musculoskeletal disorders, especially osteoarthritis and cancers of the endometrium, breast and colon.

WHO has also set thresholds for population-level prevalence of these conditions⁹ (Table 1).



Table 1. Prevalence thresholds for malnutrition

Undernutrition	Low	Medium	High	Very high
Stunting	<10%	10 to <20%	20 to <30%	≥30%
Wasting	<5%	5 to <10%	10 to <15%	≥15%
Overweight	<5%	5 to <10%	10 to <15%	≥15%

A fourth measure of malnutrition, *underweight*, or low weight-for-age does not distinguish between the two processes and is a composite measure of the two. It is, however, useful for tracking the growth of infants and young children over time, and hence is the most used measure in growth monitoring and promotion.

Wasting, as defined above, is also termed global acute malnutrition (GAM), which is subdivided into:

- Severe acute malnutrition (SAM) defined as weight-for-height less than -3 SD from the WHO reference population or the midupper arm circumference (MUAC) reading below 115 mm or the presence of bilateral pitting edema of legs.
- Moderate acute malnutrition (MAM)
 defined as weight-for-height between
 -2 and -3 SD from the WHO reference
 population or the mid-upper arm
 circumference (MUAC) reading between
 115 and 125 mm.

"Alert" levels for GAM range from 5% to 9.9%, "serious" levels from 10% to 14.9% and "critical" or "emergency" levels above 15%.

1.4. Micronutrients

Micronutrients are vitamins and minerals needed by the body in very small amounts. However, their impact on a body's health is critical, and deficiency in any of them can cause severe and even life-threatening conditions.

Micronutrients are classified based on human response to their deficiency. *Type I* micronutrients lead to specific physical signs when they are deficient, but do not impact linear growth. They include iron, vitamins A, B1, B3, B6 C, D, and E, and calcium.

Type II micronutrients contribute to growth retardation and failure (stunting) when they are deficient, but do not manifest specific physical signs of deficiency. They include zinc, magnesium, phosphorus, and potassium. LMICs bear a disproportionate burden of micronutrient deficiencies, common among which are deficiency of iron, vitamin A and calcium.

1.5. The Lancet's Framework of Actions

The Lancet 2013 series on maternal and child nutrition focuses on a comprehensive framework of actions (Figure 3) that affect the determinants of child survival, optimum nutrition, growth, and development. It also includes actions related to the underlying food security, caregiving resources, and environmental conditions, which are in turn shaped by economic and social conditions, national and global contexts, resources, and governance. These actions include nutrition-specific interventions that address the immediate causes of suboptimum growth and development and nutrition**sensitive interventions** that address the underlying determinants of malnutrition and incorporate specific nutrition goals. The latter includes interventions and programs in agriculture, social safety nets, water, sanitation, and hygiene (WASH) early child development, education, and women's empowerment. It is important to note that while the interventions are framed in terms of addressing malnutrition, the actions lead to improvements in survival and reduced disease prevalence as well and are discussed further in chapter 4.

1.6. WHO's Nurturing Care Framework

6 | HEALTH AND NUTRITION: A CONCEPTUAL FRAMEWORK

Benefits during the life course

Morbidity and mortality in childhood

Cognitive, motor, socioemotional development

School performance and learning capacity

Adult stature Obesity and NCDs Work capacity and productivity

Nutrition specific interventions and programmes

- Adolescent health and preconception nutrition
- Maternal dietary supplementation
- Micronutrient supplementation or fortification
- Breastfeeding and complementary feeding
- Dietary supplementation for children
- Dietary diversification
- Feeding behaviours and stimulation
- Treatment of severe acute malnutrition
- Disease prevention and management
- Nutrition interventions in emergencies

Optimum fetal and child nutrition and development

Feeding and caregiving

practices, parenting,

Breastfeeding, nutrientrich foods, and eating routine

stimulation

Low burden of infectious diseases

Food security, including availability, economic access, and use of food Feeding and caregiving resources (maternal, household, and community levels)

Access to and use of health services, a safe and hygienic environment

Knowledge and evidence Politics and governance

Leadership, capacity, and financial resources
Social, economic, political, and environmental context (national and global)

Nutrition sensitive programmes and approaches

- Agriculture and food security
- Social safety nets
- Early child development
- Maternal mental health
- Women's empowerment
- Child protection
- Classroom education
- Water and sanitationHealth and family planning services

Building an enabling environment

- Rigorous evaluations
- Advocacy strategies
- Horizontal and vertical coordination
- Accountability, incentives regulation, legislation
- Leadership programmes
- Capacity investments
- Domestic resource mobilisation

Figure 3. Framework of actions

Proposed by WHO in 2018,^a this is another comprehensive framework to help children survive and thrive and to realize human potential. Nurturing care refers to conditions created by public policies, programs and services that enable communities and caregivers to ensure children's good health and nutrition and protect them from threats. Nurturing care also means giving young children opportunities for early learning, through interactions that are responsive and emotionally supportive (Figure 4).



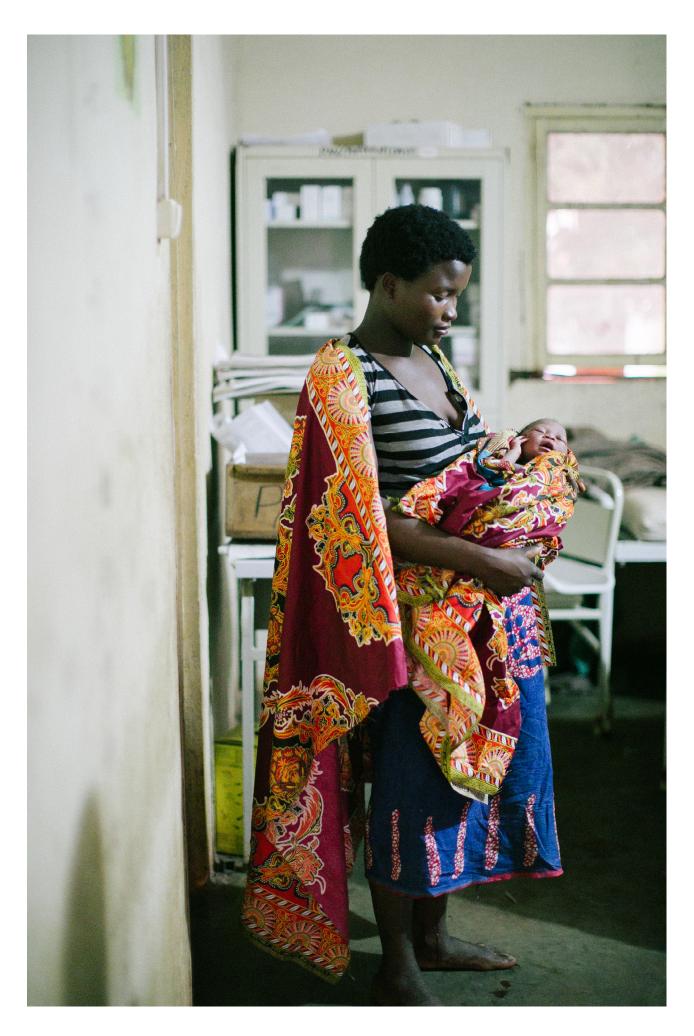
Figure 4. Components of Nurturing Care, WHO 2018.

 This is really a combination of outcomes from nutrition-specific interventions (Good Health and Adequate Nutrition) and nutrition-sensitive ones (Responsive Caregiving, Opportunities for Early Learning and Security and Safety). Two components from this framework that lend themselves to implementation through community-based programs are: responsive feeding and early learning. *Responsive feeding:* which is especially important for low-weight or ill infants. Before young children learn to speak, the engagement between them and their caregivers is expressed through cuddling, eye contact, smiles, vocalizations, and gestures. These mutually enjoyable interactions create an emotional bond, which helps young children to understand the world around them and to learn about people, relationships, and language. These social interactions also stimulate connections in the brain.

Early learning: Children do not start to learn only when they begin kindergarten or pre-primary classes. Rather, learning is a built-in mechanism for human beings, ensuring our successful adaptation to changing circumstances. In the earliest years, children acquire skills and capacities interpersonally, in relationship with other people, through smiling and eye contact, talking and singing, modelling, imitation and simple games, like "wave bye-bye". Playing with common household items can help a child learn about objects' feel and quality, and what can be done with them. Even a busy caregiver can be given the motivation and confidence to talk with a child during feeding, bathing, and other routine household tasks. These interactions give young children their important early experiences of social learning.

These two frameworks provide the basic structure, the interconnections and pathways that lead to improved survival, growth, and development.

a https://www.who.int/publications-detail-redirect/9789240060067



2. Programming principles

While MNCH programs need to be designed in response to needs found in specific contexts, there are overarching guiding principles based on robust scientific evidence that apply to all contexts. Many of these are the "howto" of MNCH programming, and some of them qualify the "what" or the interventions. Designing within the parameters of these principles will ensure that we address contextual issues with a strategic and evidence-based approach. These principles are partly drawn from the framework of actions discussed earlier.

2.1. Maintain primary focus on the first 1,000 days.

The first 1,000 days, the timespan between conception and the second birthday of the child (Figure 5) has a profound impact on a child's ability to survive, grow, learn, and thrive. This is the time when a child's brain begins to grow and develop and when the foundations for their lifelong health are built.



Figure 5. Timespan of the first 1,000 days

Research has provided powerful insights into how nutrition, relationships, and environments in this period shape future outcomes. Poor nutrition in the first 1,000 days can cause irreversible damage to a child's growing brain, affecting her ability to do well in school and earn a good living—and making it harder for the child and her family to rise out of poverty. Poor nutrition can also set the stage for later obesity, diabetes, and other chronic diseases which can lead to a lifetime of health problems.a

For these strategic reasons, a major part of investments in MNCH should focus on this critical and relatively narrow window of opportunity to give children the best possible start in life and break the intergenerational cycle of malnutrition (Figure 6).10 Interventions related to other stages in the lifecycle. especially for adolescent girls and young women, and before and between pregnancies also contribute to breaking this cycle.

The Intergenerational Cycle of Growth Failure

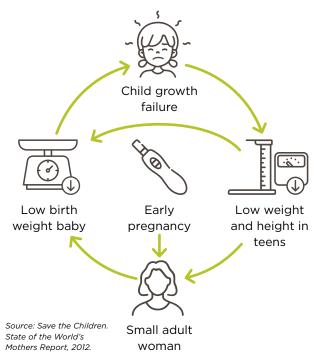


Figure 6. The intergenerational cycle of malnutrition.

2.2. Additionally, focus on adolescents.

Adolescence (ages 10-19 years) is second only to the first 1,000 days for improving maternal and child survival, growth, and development, and to break the intergenerational cycle of malnutrition. Nearly 90% of the 1.2 billion adolescents live in LMICs. Adolescents make up 12% of the population in industrialized countries, compared with 19% in LMICs. Adolescence is a period of rapid growth and maturation from childhood to adulthood and has some potential for height catch-

a https://thousanddays.org/why-1000-days/

up in children with stunting from early childhood. An estimated third of adolescent girls are anemic. This underscores the need for investing in nutrition of adolescents, especially for girls. Adolescent fertility is three times higher in LMICs than in high-income countries. Pregnancies in adolescents have a higher risk of complications and poorer birth outcomes than pregnancies in older women. Furthermore, pregnancy in adolescence will slow and stunt a girl's growth. In some LMICs, as many as half of adolescents are stunted, increasing the risk of poor perinatal outcomes in their offspring. Investing in the overall health, and especially sexual and reproductive health (SRH) of adolescents is therefore critical for improved maternal and child outcomes.

2.3. Enhance women's agency.

Agency refers to the capacity of women and girls to take purposeful action and pursue goals, free from the threat of violence or retribution. Gates Foundation's Gender Equality Toolbox^b outlines three dimensions or core expressions of agency: decision-making, leadership, and collective action. These are part of the nutrition-sensitive approaches described in the Framework for Action.

Women and girls express agency in *decision-making* when they influence and make decisions and when they establish and act on goals. Key decisions that affect women and girls' lives and futures occur in both the private and public spheres and often entail a process that includes negotiation and compromise. A woman or girl exercises empowered decision-making when she uses her voice to influence key decisions and is aware of, and can act upon, a full array of choices.

Women and girls engage in *collective action* when they stand together in solidarity and exercise voice to transform institutions and power relations. Collective action is

a powerful tool for social transformation and is fundamental to women and girls' empowerment on a societal level. Many factors can contribute to a woman's ability to participate in collective action, including social capital through her network and her ability to move safely and freely throughout her community.

Leadership can be a powerful expression of agency when women and girls lead and inspire social change and effectively participate in governance to improve the status of other women and girls as well as themselves. Women's increased participation in leadership is positively associated with a multitude of benefits for society.

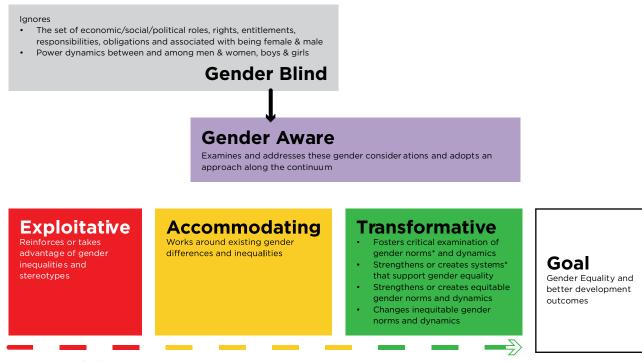
MNCH programs that focus outcomes related to the first 1,000 days need to be designed in ways that capture and redirect women's leadership, collective action and decision-making in homes and communities. These aspects need to be articulated in the program theory of change and measured as outcomes.

2.4. Use a gender-transformative approach to engage men.

The Nurturing Care framework of WHO (section 1.6) highlights available evidence on the impact of engaging men on better MNCH outcomes. The Framework for Action (section 1.5) lists the engagement of men as a nutrition-sensitive approach, and it is associated with higher levels of seeking antenatal, childbirth, and postnatal care, better nutrition for mothers, higher rates of exclusive breastfeeding, and a reduction in postpartum depression and violence against women and children. Men's interactions with their young children contribute to children's cognitive, social, and emotional development, school readiness, educational achievement, and better mental health. In addition, sharing childcare responsibilities can improve men's family relationships, and physical and mental health.

b https://www.gatesgenderequalitytoolbox.org/measuring-empowerment/agency/

Gender Equality Continuum Tool



Norms encompass attitudes and practices

From: Gender Integration Continuum (https://www.igwg.org/wp-content/uploads/2017/05/fg_GendrintegrContinuum.pdf)

Figure 7. The Gender Equality Continuum Tool

The Interagency Gender Working Group^c has developed a conceptual framework known as the Gender Integration Continuum (Figure 7), which categorizes approaches by how they treat gender norms and inequities in the design, implementation, and evaluation of program/policy. The gender integration continuum is also a tool for designers and implementers to use in planning how to integrate gender into their programs/policies.

The term "gender blind" refers to policies and programs which are designed without prior analysis of the culturally defined set of economic, social, and political roles, responsibilities, rights, entitlements, obligations, and power relations associated with being female and male and the dynamics between and among men and women, boys and girls. Gender blind programs/policies ignore gender considerations altogether. In contrast, "gender aware" programs/ policies deliberately examine and address the anticipated gender-related outcomes during both design and implementation.

An important prerequisite for all genderintegrated interventions is to be gender aware.

The **gender-accommodating** approach works around existing gender differences and inequalities. By not directly addressing gender relations, these interventions miss the opportunity to change men's attitudes and identities as fathers and partners, in addition to their behavior. The gender-instrumental approach focuses on the direct assistance that men can provide during pregnancy, delivery, and the postnatal period without questioning harmful gender norms. By contrast, the **gender-transformative** approach recognizes how subscribing to rigid gender norms and expectations can cause harm to boys and men and those around them. For example, men who subscribe to rigid definitions of masculinity often believe that 'real men' are not involved in caring for newborns or do not prepare food for children. Such beliefs place enormous time burdens upon women and girls who are tasked with domestic and

A system consists of a set of interacting structures, practices, and relations

c https://www.igwg.org/wp-content/uploads/2017/05/FG_GendrIntegrContinuum.pdf

Table 2. Outcomes and outputs - Examples

Output	Short-term Outcome	Medium-term Outcome
Farmers trained in new method.	Farmers' knowledge on new method improved.	Farmers adopt the new method.
Mothers counselled on breastfeeding.	Mothers' knowledge and attitudes towards breastfeeding improved.	Mothers follow recommended breastfeeding practices.
VSL group established; conducts regular meetings.	VSL group members learn saving methods, record keeping, networking and business skills	VSL group uses savings to meet members' needs and improve incomes.

care work, as well as income generating responsibilities. Such beliefs also limit men's own emotional connections with their children and their partners, and the knowledge needed to support their health. In this approach, men and women work together to identify the gender inequitable norms that serve as barriers to improving MNCH and develop practical solutions.

It is important for male engagement interventions in MNCH programs to take a gender- transformative approach, by engaging participants in actively questioning what it means to be a man and a woman in society and in challenging inequitable gender norms and power imbalances. This can improve men's relations with their spouses and their children well beyond the first 1,000 days. There are excellent resources from the Gender Working Group of World Renew and other organizations that World Renew partners with including the Global MenCare Campaign.^e

2.5. Combine individual and group-based approaches.

Aggregate data from multiple trials from resource-constrained settings have shown that combining a range of community-based approaches forms the best strategy for improving MNCH and nutrition outcomes. *Group-based mechanisms* such as community meetings, cooking demonstrations and peer education sessions foster peer accountability and support but have limited scope for one-on-one interactions to clarify misconceptions

and for confidential discussions regarding challenges in the home. *Individual or household-level approaches* have the advantage of providing a safe space to discuss challenges specific to the family, and negotiate behavior change, but these can be time consuming to conduct and supervise and therefore expensive.

The program or project will have to weigh the benefits of both approaches and consider the terrain, distribution of community volunteers and supervisors, and budget availability in deciding on a feasible combination of approaches.

2.6. Think outcomes, and not just outputs.

Outputs are the *direct result* of the program or project's inputs, strategies, and activities. They are artifacts introduced into the program or project locations and can be physical (e.g., latrines built), knowledge-based (e.g., training and counselling conducted), digital (e.g., information systems set up) or services (e.g., village savings and loan or VSL group established). They are also the direct responsibility and deliverables of the program or project, and as such, are within its control to deliver and to measure and report on.

Outcomes, on the other hand represent the change brought about by outputs (Table 2). They are often the result of several outputs as well as contextual factors that are not within the purview of the program or project. An outcome could also be defined as the

d https://resourcecentre.savethechildren.net/pdf/gender-equality-social-inclusion-bangladesh-2021.pdf/

e https://men-care.org/wp-content/uploads/2016/12/Male-Engagement-in-MNCH-SRHR-Guide-Web.pdf

humanitarian value that a team expects to produce. Short-term or micro changes might include knowledge, skills, attitudes, and motivations. Medium-term or intermediate changes may be related to behavior, practice, policy, and procedures. Long-term change affects the environment, social conditions, economic conditions, and political conditions. The outcome describes the "desired state."

Why should we consider outcomes in programs? Committing to achieving and measuring outcomes forces us to think about how and why we believe change will take place. When designing a project, we outline a set of needs in target communities (the *problem*), propose a set of interventions (outputs) that would contribute to certain

changes related to the stated needs (outcomes) and propose how and why the proposed activities will result in these changes (assumptions or the premise). This proposition, also called the *theory of* **change** is validated by the outcomes that result from the program or project. In other words, making outcomes explicit leads to a more detailed understanding of the "how and why" or the "missing middle" of the theory of change. This is discussed in greater detail in section 6.

f https://www.theoryofchange.org/what-is-theory-of-change/how-does-theory-of-change-work/

3. MNCH and Nutrition Practices

With the programming principles in place, we will look at the practices that can be promoted through community-based programs, to improve maternal and child survival and nutrition. These constitute the "what" or the desired outcomes of MNCH programming and cover the course of the first 1,000 days and for adolescents. These comprise of household-level practices including seeking preventive, promotive, and curative services, and community-level actions. Country teams need to confirm that they are approved by their Ministries of Health (MoH) and are included in national guidelines (Table 3).

Listed here are evidence-based maternal, infant, and young child and adolescent nutrition (MIYCAN) practices as well as health and nutrition-sensitive practices highlighted in the Lancet series on malnutrition (2013 and 2021), the Lancet series on Optimizing Child and Adolescent Health (2022)¹¹ and the WHO Global Accelerated Action for the Health of Adolescents (2017)¹² that can be promoted and/or implemented in communities and households.

Table 3. Interventions to be promoted.

Nutrition-specific interventions

Nutrition-specific interventions	Nutrition-sensitive interventions
Pregnancy	
Woman:	Woman:
Adequate rest	Preparing for starting a birth spacing method.
Consuming an additional meal	Referral for survivors of gender-based
Consuming iron-folic acid (IFA) supplements	violence
Consuming multiple micronutrient	Follow up on regimes for Prevention of Mother
supplements*	to Child Transmission (PMTCT) of HIV.
Completing at least four antenatal care visits	Household:
Tetanus vaccination	Handwashing at critical times
Preparing for facility birth	Use of sanitary latrine
Preparing for breastfeeding	Homestead gardens and poultry rearing
Sleeping under a bed net**	
Childbirth, postpartum and newborn period (0-1 month)
Mother:	Mother:
Facility birth	Adopting a postpartum birth spacing method
Post partum visits	Mental health and psychosocial support*
Seeking care for danger signs	Referral for survivors of gender-based
Sleeping under a bed net**	violence.
Baby:	Follow up on PMTCT regime.
Timely initiation of breastfeeding	Household:
Feeding colostrum	Handwashing at critical times
Postnatal visits	Use of sanitary latrine
Seeking care for danger signs	Homestead gardens and poultry rearing
Sleeping under a bed net**	

Nutrition-specific interventions

Nutrition-sensitive interventions

Infancy (up to 11 months) and early childhood (12-23 months)

Baby:

Exclusive breastfeeding 0-5 months Initiating complementary feeds at 6 months Increasing the quantity, frequency, and diversity of foods

Consuming fortified foods*
Including animal source foods
Consuming multiple micronutrient
supplements*

Continuing breastfeeding Continued feeding during illness. Growth monitoring and promotion Complete essential vaccinations Vitamin A supplementation

Deworming

Sleeping under a bed net**

Referral for treatment of acute malnutrition

Mother:

Adopting a postpartum birth spacing method Mental health and psychosocial support*
Referral for survivors of gender-based violence.

Follow up on PMTCT regime.

Baby:

Responsive feeding Utilizing early learning opportunities Oral rehydration salts (ORS) and Zinc supplements for diarrhea

Follow up on PMTCT regime.

Household:

Handwashing at critical times Use of sanitary latrine

Seeking care for fever, diarrhea, and acute

respiratory illness (ARI)

Homestead gardens and poultry rearing Mental health and psychosocial support* Referral for survivors of gender-based violence

Adolescents

Weekly iron folic acid supplements*
Consuming fortified foods*
Consuming diverse, nutrient-rich diet
Preventing child, early, and forced marriages.

SRH education

Referral to appropriate SRH services

Life skills education

Enrolment in peer support groups.

Homestead gardens and poultry rearing

Promote staying in school.

Referral for survivors of gender-based

violence

^{*}Where available and approved by MoH.

^{**}In some contexts

4. Formative Research

This section provides an overview of evidence-based formative research methods. Program design should always be informed by formative work that explores the context and specific adaptations that need to be made to generic frameworks of change.

4.1. Designing for Behavior Change

As noted in section 2.6, outcomes help us focus on the change that health programs aim to bring about. Most of these changes pertain to behaviors (or practices) of individuals, households, communities, and health workers. The Designing for Behavior Change (DBC) framework is a formative research and project planning tool which is based on the premise that knowledge alone is insufficient for bringing about a change in behavior. Rather, there are individual and social determinants that shape the decision to change one's behavior.

The framework of DBC includes defining the behavior in clear and specific terms; describing the priority group (which will carry out the behavior) in terms of their sociodemographic and other contextual factors; delineating potential groups that influence the behavior; understanding the social determinants that influence the

behavior; develop "bridges" that address identified determinants; and develop project activities to "call" the priority and influencing groups to action through realistic and feasible activities (including household-level and group-based approaches) that reach enough people and work together with the remaining activities of the project (Figure 8). Thus, the DBC framework is a strategic planning aid that helps maximize project effectiveness.

4.1.1. Barrier (Doer-Non-doer) Analysis

Barrier analysis is an integral part of the DBC framework. It is a quasi-quantitative survey that helps identify determinants for each behavior through in-depth inquiry using openended questions. It relies on a small, purposive sample of clearly defined "doers" and "nondoers" and helps quantify and identify those determinants for which the doers differ the most from non-doers. Determinants used in the analysis may include:

- 1. Perceived self-efficacy for carrying out the behavior.
- 2. Perceived social acceptability of the behavior,
- 3. Perceived positive consequences of doing the behavior,
- 4. Perceived negative consequences of doing

Figure 8. The DBC framework

BEHAVIOUR	PRIORITY GROUP OR INFLUENCING GROUP(S)	DETERMINANTS	BRIDGES TO ACTIVITIES	ACTIVITIES
To promote this behaviour	among this audience(circle one) Priority Group:	we will research these Determinants*	and promote these Bridges to Activities (priority motivators and priority barriers) 	by implementing these Activities
	Influencing Groups:	These can only be determined by conducting Barrier Analysis.		
Outcome Indica	ators	Process Indicators		

the behavior,

- 5. Perceived risk in not doing the behavior,
- 6. Perceived severity of that risk,
- 7. Perceived efficacy of the behavior in minimizing that risk,
- 8. Cues for action, and
- 9. Perceived divine will (rather than the behavior) in deciding the health outcome.

The CORE Group's Social and Behavior Change Working Group has developed a manual^a for implementing the DBC framework in community-based programs. The manual includes a field-tested six-day training curriculum for managers and project planners.

 $a \quad https://coregroup.org/wp-content/uploads/media-backup/documents/Resources/Tools/DBC_English.pdf$

5. Project Models

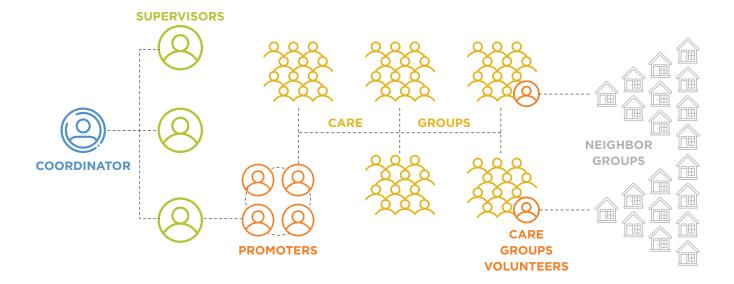
This section describes project models commonly used in community based MNCH and nutrition projects across a wide range of contexts to promote the MNCH and nutrition practices described in section 3. Descriptions of these models below include the purpose for which the method or model is to be used, its conceptual basis, what it offers, and links to resources related to it. These project models are part of the project intervention that are implemented in order to improve the MNCH and nutrition practices (outcomes).

5.1. Care Groups

The Care Group model is a group counselling approach that helps rapidly scale up peer-to-peer promotion of key household practices. Built into the model are high-

frequency contact between volunteers and mothers, regular supervision of volunteers by supervisors, training delivered in frequent, small doses and low workload on volunteers.

Pioneered by World Relief in Mozambique in the late '90s, this model has been used in community based MNCH programs to reach remote and under-served communities across the globe. In its generic form, a Care Group is a group of 10 to 15 community-based volunteer health educators (also called lead mothers) who meet with project staff for training, supervision, and support every two to four weeks. Each lead mother reaches a small number of households (typically 10-15) in the neighborhood. (Figure 9).¹³ The lead mothers are trained by a promoter, who is responsible



Each *Coordinator* (paid staff) is responsible for 3-6 Supervisors.

A project may hire multiple Coordinators (overseen by Manager) if needed to meet the desired coverage

Each **Promoter** (paid staff) supports 4-9 Care Groups

Each *Care Group Volunteer* shares lessons with 10-15 Neighbor Women and their families, known as Neighbor Group (There is a maximum of 15 Neighbor Women in each Neighbor Group.)

Each *Supervisor* (paid staff) is responsible for 4-6 Promoters

Each *Care Group* has 10-15 Care Group Volunteers who are elected by Neighbor Group members

Each Promoter reaches about 500-1,200 women through the Care Group Volunteers.

Figure 9. The Care Group model

for up to nine Care Groups, reaching approximately 150 persons per promoter. According to the Care Group Manual, a 100% of households in an intended group or community should be targeted and a Care Group initiative should attain at least 80% monthly attendance. The model is particularly suited to contexts with low population density, where volunteers cannot be expected to cover more than a few households. It is amenable to adaptations to the generic structure, based on feedback from lead mothers and the community.

Care group volunteers provide peer support, develop a strong commitment to health activities, and find creative solutions to challenges by working together as a group. Care Groups have been used to promote a range of behaviors related to MNCH and nutrition such as breastfeeding, diet diversification, handwashing, and family planning as well as gender equitable practices. Evidence suggests that Care Groups can be an effective approach to changing families' behaviors, which may reduce the frequency and severity of childhood illnesses.

5.2. Positive Deviance - Hearth

Positive Deviance (PD) is the concept that in every community or organization, there are a few individuals who have found uncommon practices and behaviors that enable them to achieve better solutions to problems than their neighbors who face the same challenges and barriers. The PD approach aims to solve community problems by seeking out "positive deviants" (Figure 10) in the community and uses their existing solutions to bring about sustainable behavioral and social change. It is important to note that the term "deviant" is intended to have positive connotations.

The concept of PD entered the community health field in the 1970s in the field of child nutrition where the aim was to find out what the mothers of these children were doing that allowed their children to be well nourished, for example, feeding them special foods available

locally. Community health practitioners could then incorporate these behaviors into a nutrition program, knowing that the behaviors were both affordable and culturally acceptable because they were already being practiced by members of the community. World Renew has implemented PD Hearth in MNCH projects in Bangladesh, Niger and other locations.

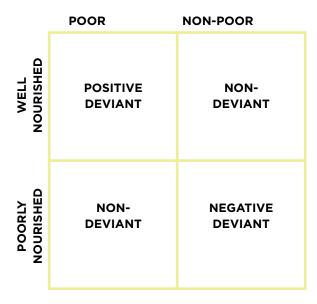


Figure 10. The PD approach

PD is an "assets based" approach, like appreciative inquiry and assets-based community development but more specific in relating community resources or ideas to a predefined problem. PD is considered effective because it identifies existing solutions from within the community, which means that the solutions are more likely to be affordable, acceptable, and sustainable in the long term. These full or partial solutions can also be implemented immediately, without waiting for all underlying determinants of the problem to be addressed.

Anecdotal evidence from studies shows that the PD approach can lead to intangible benefits, such as community mobilization, reduced aid dependency, community empowerment and improved advocacy.

PD Hearth is used to identify and rehabilitate children with MAM in communities through

 $a \quad https://www.fsnnetwork.org/sites/default/files/Care\%20Group_manual_final_508.pdf$

Table 4: TTC Visits: Minimum standards

At least three visits in pregnancy	Early pregnancy (First and second trimesters)	at least one household visit
	Late pregnancy (Third trimester)	at least two household visits
At least seven visits for the child of which	First week of Life (0-1 month of age)	At least two visits but three visits if birth was at home
two are in the first week of life	Early infancy (1week - 6 months of age)	At least two visits (1 and 5 months of age)
	Late infancy and young child (6-24 months of age)	At least two visits (9, 12 and 18 months of age)

group counselling and action. The PD approach is used to identify local solutions for malnutrition from poor, "positive deviant" families that manage to keep their children well nourished by observing their feeding and care practices and using local volunteers to conduct 12-day "hearth" sessions where those practices are taught to caregivers of MAM children in the community. Nutrient-dense meals that are used by the PD families are cooked during these hearth sessions and care practices are also taught.

5.3. Timed and Targeted Counselling

Timed and targeted counselling (TTC) is a household-level counselling model that promotes key MNCH practices to mothers and decision makers in the household, through timed and targeted home visits and using negotiation and dialogue for behavior change over the first 1,000 days of life. TTC was developed by World Vision International^b and is now used globally in several organizations.^c Key features of TTC are described below.

TTC is timed. Selected messages for maternal, newborn and child health are delivered at appropriate times for the woman and her family to be of most value to them at that time. They are delivered prior to the time she needs to act, not too soon that they be forgotten, nor too late for her and her family to have time to change behaviors and take action. This is done through scheduled home visits over the first 1,000 days.

TTC is targeted. This is a home-visiting methodology that reaches women and their supporters including spouses, mothers in law and grandmothers who may be the key decision makers in the home. It is targeted in space (conducted in the home), and towards those who would practice the behaviors and those who would influence them. This model engenders male involvement, and the messages reinforce the role of men in caring for their wives and children.

TTC is counselling. Going beyond generic health-promotion, TTC addresses key personal, cultural, financial, and geographic barriers to adopting the recommended health practice. In TTC, a home visitor engages the family in discussions about their current health practices compared to the messages provided, identifies barriers to the preferred practice through dialogue, and then negotiates a feasible change to current practice based on their individual circumstances.

TTC visit schedule: The intervention consists of 10 scheduled visits to the household, from early pregnancy to the time the baby is two years of age (Figure 11) based on minimum standards (Table 4).

The core project model includes implementation standards, training resources and supervision checklists. Supportive supervision is an integral part of the intervention package, and this is carried

b https://www.wvi.org/health/timed-and-targeted-counseling-ttc

c https://www.wvi.org/sites/default/files/ttCFacilitatorsManual_Methodology.FINAL_.pdf

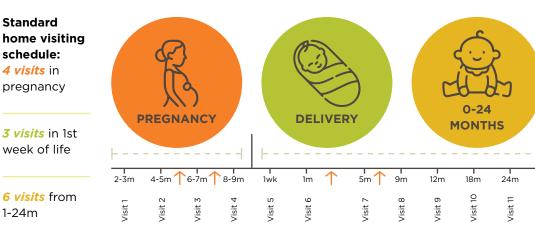


Figure 11: TTC schedule of visits

Responsive care strateav - defined by country and target group enables specialised care for vulnerable clients e.g. adolescents, HIV positive. malnourished and OVC

out using a standardized model. The model consists of direct observation of TTC home visits and case evaluations, as well as a performance audit of the volunteer who provides TTC. A CommCare-based mobile application called mTTC app enables real-time data reporting, sends reminders for visits, and includes audio-visuals in local languages and press-play messages.

TTC has been integrated into community management of acute malnutrition (CMAM) and community case management for sick children. It has been adapted in the World Renew program in Niger for use by volunteer mothers called Shining Mamas. TTC has been adapted to other sector interventions such as preventing child marriage and preventing and addressing violence against children.

5.3.1. Make me a Change Agent

The multisectoral social and behavior change training resource on Make me a Change Agent has useful training content on effective communication (including listening well and asking open-ended questions), empathy and negotiating behavior change during home visits.d Steps prescribed for each home visit include: understanding current practice related to the recommended behavior, providing information on the recommended behavior, listening to the household's perspectives and barriers to practicing it, negotiate possible actions to overcome at

least one barrier, reach an agreement on the action with the family, and set a date for the next visit. This pairs well with TTC home visits and could be included in TTC training cascades.

5.4. Adolescent-friendly services

CHOICES is a gender-focused curriculum for very young adolescents (VYAs) between the ages of 10-14 years that aims to create positive social and behavior change. Through a series of 10 hour-long participatory sessions, the curriculum challenges girls' and boys' views on restrictive gender norms, promotes gender equity and encourages dialogue with peers and family members to improve gender attitudes more broadly. By intervening with children during early adolescence, a critical window of opportunity for formulating positive attitudes and behaviors as children transition into adulthood, CHOICES lays the foundation for gender-equitable attitudes over the life course. An external evaluation of CHOICES found that VYAs who participated in the program expressed significantly improved gender attitudes and behaviors compared to those who did not participate. The program has since been adapted for use in over 10 countries. CHOICES is part of a multi-level package of resources - Choices, Voices, Promises, Commitments - that aims to transform gender and social norms for improved education and health outcomes for girls and boys.e

d https://www.fsnnetwork.org/mmca#:~:text=The%20Make%20Me%20A%20Change,of%20new%20techniques%20 and%20practices.

e https://resourcecentre.savethechildren.net/document/choices-curriculum-children-10-14-years-old-bangladesh/

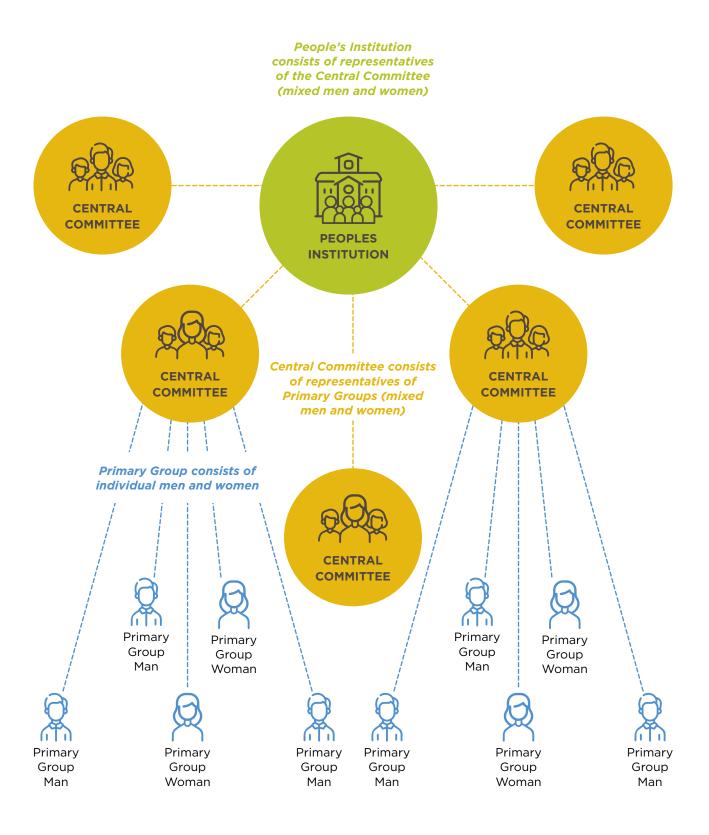


Figure 12. People's Institution: Structure

5.5. Peoples' Institution

Peoples' Institution (PI) is a tiered group system for organizing and mobilizing communities for sustainable development. This was designed first in Bangladesh by World Renew and its partners employ PI as the delivery mechanism for all interventions including health and has since been replicated in other country programs. The purpose implicit in developing this model was to develop a self-sustaining movement of community organization, leadership, and ownership.

The PI structure (Figure 12) is designed as two or three tiers of community groups, depending on the local administrative system. Each tier has a unique set of functions and has oversight functions for the tier below. The basic units of the PI, called primary groups, are formed at the level of the lowest administrative entity, such as the village or community. Representatives from each primary group form the next higher level of groups and so on. Single-gender primary groups provide space for women to actively participate in discussions, in cultures where it is not appropriate for the genders to interact freely. Once experienced in managing primary groups, they can be vocal and persuasive when they represent these groups in higher tiers. The highest tier (apex body) is at a level at which it can be registered/recognized by the local administration.

Primary groups are formed with women from the most vulnerable families; they begin group savings and loaning early; set aside a portion of the savings as an emergency health fund; the group selects volunteers for health and other activities from their members; membership to higher tiers is rotated among members; project staff wean the groups of their support as early as possible; representatives to the higher tier carry issues from the primary group that needs to be resolved at the higher level and return with feedback; and part of the savings from primary groups goes towards the running of the higher tiers. Each group in all tiers conduct periodic self-assessments using standardized tools such as the community capacity indicators (CCI) tools.

The PI model **embeds equity**, especially gender equity. Activities are designed to help men's and women's groups to understand and address gender issues and empower women. Developing social capital is foundational to the model, as women and men work together at multiple levels to address common issues. Every aspect of the model is designed with *sustainability* in mind. There were no handouts, and thus the groups learnt the power of collective action. The model emphasizes *local leadership* as leaders of all groups in all tiers take on leadership roles right from the start. The group provides access to financial capital (through lowinterest loans) for the most vulnerable families, thus giving them a foothold on the ladder of economic stability and growth. The model has an in-built governance **system**, made possible by the system of tiers and group norms by which higher tier(s) are vested with power and authority for supervision and oversight of the lower one(s) and there is accountability and transparency between all levels. The primary groups could serve as excellent vehicles for implementing PD-Hearth or TTC.



6. Program Design

The program design brings together the practices to be promoted and the interventions to promote them, implemented utilizing programming principles, in the context of the project.

6.1. Logic Chains – An Introduction

Logic chains, logical frameworks, or simply logframes articulate the project's theory of change. They are a simple and effective way of showing how an intervention is supposed to work, through a hierarchy of objectives. They bring together the available evidence, and the intervention to show how the intervention can be expected to work in the given context to reach the desired outcomes. The intervention or the proposed solution is typically described in terms of inputs (training material, volunteers), activities (training events, home visits) and outputs (volunteers trained, families counselled). Activities and outputs could be clubbed into a single tier in the hierarchy. Each level is clearly defined and has a specific role in the hierarchy (Figure 13); outcomes are sometimes bifurcated into immediate and intermediate, and impact is also called the ultimate outcome.

6.2. Design Description

The project design document would ideally include a description of *contextual factors* (such as the population density, weather conditions, traditional eating habits and health service availability) that justify the choice of interventions. Description of the context could also include the **problems** that the proposed project aims to address, quoting secondary sources, or the previous initiatives, as baselines would not be available at that point. The context and problem are together also called the problem statement. A thorough, critical, reflective, and honest (realistic) problem statement is immensely helpful in understanding the overall logic of the project, and in evaluating its effectiveness or the lack thereof. It also pays to describe the *proposed interventions* (inputs, activities, and outputs) in detail that will provide clarity for the project team especially if there are staff changes along the way, making this an "inheritable" document. It also pays to articulate the assumptions on which the program logic is built, or a description of why the proposed intervention is expected to work, and lead to the stated outcomes (Table 5). Assumptions



Figure 13. Hierarchy of objectives in a Logic Chain

Consumption of iron supplements and diverse diet; girls and boys access SRH services; child marriages reduced.



Improved utilization of maternal care services

4+ antenatal care visits; Facility birth; Postnatal care visits; postpartum family planning



Improved feeding practices over the first 1,000 days

Women's diet diversity: Consumption of IFA and supplements in pregnancy; Breastfeeding practices; Diet diversity and meal frequency; Micronutrient supplements



Improved maternal & child nutritional status

Improved utilization of disease prevention and treatment services

Vaccinations: Bed net use: Vitamin A supplementation; Deworming; Timely care seeking for fever, diarrhea and cough; ORS for diarrhea



Improved management of **MAM and SAM**

MAM children rehabilitated in community; SAM children referred for inpatient treatment



Improved WASH practices

Handwashing at critical times; Improved sanitation: improved source of drinking water.

36 | PROGRAM DESIGN

VSL Groups/PI: Training; Formation of groups; regular meetings, savings and loans; emergency health fund

PD Hearth: Training;

PD assessment; Hearth sessions

OUTCOMES

Table 5. Assumptions - illustrations

INTERVENTION (INPUT, ACTIVITY, OUTPUT)	OUTCOME	ASSUMPTION
Peer educators trained and supported to meet with a group of 10-12 adolescents twice a month to discuss life skills,	will improve the life skills of adolescents,	because teens look for support from peers rather than from adults; they find the peer group a safe space; and they gain confidence when the peer has the experience with using the life skills, such as saying no to drugs.
Training volunteers and supporting them to conduct home-based counselling and negotiation using TTC	will improve feeding practices during the first 1,000 days,	because TTC will help provide timely counselling, reach the decision-makers in the home, identify barriers that each household faces to practicing the recommended behaviors, negotiate appropriate actions to address the barriers, and follow up on the agreed actions.

make explicit the link (or the theory) between the inputs, activities, and outputs on the one hand and the outcomes on the other.

The design document also includes a *risk matrix* which lists potential risks or uncertainties and the likelihood of their taking place during project implementation, and the steps that the project will take to mitigate their impact on the project's effectiveness. Some projects include these risks in their monitoring framework, also called context monitoring, to help manage them better.

6.3. Generic Logic Chains

In MNCH and nutrition, the logic chain from outputs to outcomes and impact has several overlaps. Similarly, outcomes contribute to multiple overlapping impacts. For these reasons, multiple logic chains can be constructed from the generic and comprehensive logic chain given in Figure 14 by selecting specific outputs that will lead to the desired outcomes. An illustrative logframe is included in *Annex 1. Illustrative Logframe and M&E Framework.*

6.4. Indicators

Indicators help monitor and evaluate the achievement of project objectives, and they need to be defined for each objective in each level in the hierarchy. Indicators need to be as precise as possible, capture only one

result, and be aligned with globally accepted standard definitions. They also need to be non-directional, unlike targets, and specify the unit of measurement. They could be qualitative as well (please see section 6.5).

When deciding on indicators for a project, it is important to keep in mind the respondent group from which each would be collected. Multiple respondent groups (pregnant women, mothers of young children, households, farmers etc.) add to the burden of measurement, which in turn reduces the quality of data collected. As most of the outcome indicators pertain to householdlevel practices the period covered by the indicator should be short enough to allow for reasonably accurate recall. Utilizing standard indicator definitions for outcomes (Annex 2. Compendium of indicators) helps alleviate this problem and enables the project's results to be compared with secondary data such as national -level data.

6.5. Quantitative vs. Qualitative Data

Projects collect quantitative and qualitative data to measure and track indicators, to assess risk levels, and to conduct formative research. The two types of data are not only different in nature; they are meant to answer very different questions. They also come from different philosophical roots. Quantitative data looks at reality as external, objective

Table 6. Quantitative and qualitative data

QUANTITATIVE DATA	QUALITATIVE DATA
Purpose	
Answer the quantity question: How many? How far? How often? Example: Percentage of women who delivered in a facility.	Answer the reason/context question: Why? Why not? Under what conditions? Example: Enabling and hindering factors for facility births.
Nature of data generated	
Numerical Discrete (example: proportions) and continuous (example: weights, ages)	Textual
Data collection and analysis	
Methods: Surveys, facility records.	Methods: In depth interviews, focus group discussions, observations
Sampling: Representative/probability sampling	Sampling: Purposive, and not representative
Tools: Structured, with close-ended questions	Tools: Semi-structured, with open-ended questions.
Analysis: Statistical	Analysis: Summarizing, categorizing, interpreting
Philosophical basis	
Tests theory	Explores, and helps form theory
Paradigm: Reality is external, single, objective and can be quantified.	Paradigm: Reality is more complex than that. It is subjective, contextual, and multiple.
Goal: to predict	Goal: to understand

(factual), singular, and verifiable. Qualitative data, on the other hand, views reality as more complex than verifiable phenomena, and that it is socially constructed, contextual and subjective, as people attach meaning to reality. Quantitative data aims to explain (and even predict), while qualitative data seeks to understand (Table 6).

It is important to note that "qualitative" does not mean "of quality". Quality is a standard for both types. One ought not to be substituted by the other or transformed into the other. The latter is especially true for qualitative data which is often "quantized" or, numerical values are assigned to it, as quantitative data is considered to have more scientific appeal.

Thus, both types are credible forms of data and serve distinct purposes. It is critical to use both quantitative and qualitative thinking in development practice. They are complementary, and together, they tell the full story.

How do we assess the quality and rigor of either method? Measures of rigor in quantitative data include reliability (repeated measurements yield the same result), internal validity (the measure truly reflects what needs to be measured without biases) and external validity (the result can be generalized to the entire population). Analogous to rigor, measures for qualitative data that indicate its "trustworthiness" include credibility (findings reflect reality), dependability (findings are consistent across methods), transferability (findings can be "translated" to similar contexts), and confirmability (findings are shaped by participants and not by the researcher).

7. Monitoring and Evaluation

An M&E framework is a critical part of any project or program. It is built on the project's theory of change, helps collect crucial data and is most useful when it functions as a working document that is revisited and adapted to the changing needs of the project and its context.

7.1. Definitions, purposes, and components

Monitoring refers to the ongoing assessment of project implementation with respect to its objectives and targets. It helps the management make adaptations and course corrections to ensure that the project stays on track to achieving its stated objectives.

Evaluation asks and answers some or all of these three questions: has the project reached its objectives and targets; has there been a change in the target population with respect to the key indicators; and to what extent did the project cause the observed change(s). Evaluations need to be designed to specifically address each question.

Learning systematically takes place when the project's stakeholders reflect on a variety of sources of information and data to improve the project's ability to reach its objectives and to adapt its programming as needed and to apply the lessons to future projects.

The M&E framework is crucial throughout the lifecycle of a project:

- At the start of the project, it helps clarify intentions, set targets and a process to track and evaluate progress.
- Throughout project implementation, the framework helps manage the project adaptively and with agility, optimizing resources and ensuring the best chance to reach project objectives.
- At the end of the project, the framework helps evaluate the project and learn lessons for future cycles of effort.

The M&E framework, at a minimum, includes:

- The hierarchy of objectives from the project's theory of change (inputs, outputs, outcomes, and impact).
- Related indicators and their measurement,
- End-of-project targets for each indicator, and
- Their actual values at baseline, at midterm and at the end of the project.

The M&E framework needs to be assembled near the beginning of the project cycle but continues to be filled out and utilized throughout (Figure 15). Annex 1. Illustrative Logframe and M&E Framework includes an illustrative M&E framework.

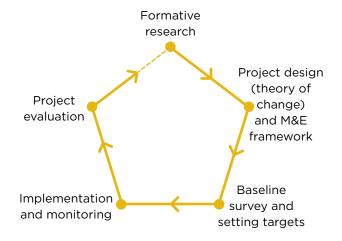


Figure 15. Elements of the project cycle

7.2. M&E activities

The project's design, the selected indicators and the evaluation design will inform the data requirements for the M&E framework. They are typically comprised of quantitative data but could also include qualitative data depending upon the nature of the indicators.

- A baseline survey provides a general profile of the target population with regards to all outcome-level indicators in the M&E framework. This information also helps the project set targets based on objective information.
- A *midterm* survey, if included in the design will provide updated information on the

outcome indicators in the M&E framework. Additional qualitative data could be collected to better understand processes and the context.

- Routine data on output-level indicators collected quarterly or annually from the project's direct beneficiaries will enable the project management to ensure that the project is being implemented as planned. Implementation fidelity, as it is called, is a critical element for the endline evaluation. Routine data also helps keep project spending on track.
- An endline survey will provide the final set of data points required for project evaluation based on stated outcomes. Additional qualitative data could be collected to better understand factors contributing to the results seen through survey data. It is ideal to have the same population universe and the same data collection tools and analysis methods as the for the baseline survey.

7.3. Survey designs

The survey design includes a sampling method and sample size, the scope of the survey as reflected in the tools, and the analysis method.

Sampling: Surveys use sampling because collecting data from the entire target population is not a reasonable use of resources. Instead, they employ sampling methods and sample sizes built on scientific principles that ensure that the selected sample represents the "universe" or the project's target population. Samples are selected based on probability proportionate to size. Results obtained from a sample survey are "estimates" of the true value in the project population. As such, these estimates are calculated as a range around the true value also called the "confidence interval." The true population-level value is expected to lie within that range. This margin of error depends upon the sample size; a larger sample provides a narrower margin of error and vice versa, up to

a certain extent, beyond which increasing the sample size does not improve accuracy (Table 7). It is standard practice to select sample size that provides a "confidence" level of 95%.

Of the various methods available for probability sampling, two-stage, 30-cluster sampling is best suited for community-based projects. Clusters are the primary sampling units, and this is typically communities or villages. As a first stage, a sample of clusters are selected from the "universe," and subsequently, a fixed and equal number of samples are drawn from each selected cluster. Using 30 clusters and a total sample size of 300 (10 samples per cluster) provides estimates with 95% confidence levels. The two-stage 30-cluster sample survey has been used in community health projects since the 1980s globally as a standardized, scientifically valid, and reliable low-cost management and evaluation tool. The Lot Quality Assurance Sampling (LQAS) method could also be used; please refer to the LQAS manual of World Renew.

Scope of the survey: Outcomes included in the M&E framework form the centerpiece of the survey. In addition, background information on the household and the primary caregiver is also collected. When deciding the scope of the survey, it is important to keep in mind that the length of the survey tool adversely impacts the quality of the data collected.

Data collection and analysis: This can be done on paper or using computer-assisted personal interviewing software that can be used on tablets and smartphones. Software such as Open Data Kit^a and Kobo Toolbox^b can be used to collect and analyze data. Data can also be analyzed using Microsoft Excel and EPI $Info^{TM}$.

7.4. Evaluation

Community-based projects with baseline and endline measurements of indicators are based

a https://opendatakit.org/

b https://www.kobotoolbox.org/

Table 7. Confidence interval: an illustration

EXAMPLE	INFERENCE
Results from a baseline survey showed that the proportion of mothers who initiated	We conclude that we are 95% confident that the true proportion of mothers who initiated
breastfeeding within the hour of birth was	breastfeeding within the hour of birth lies
45% and its 95% confidence interval was 41.5%	between 41.5% and 48.8% and our best
- 48.8%.	estimate is 45%.

Table 8. Assessing progress: an illustration

Example: Indicator: Coverage of essential Target: 75%	l vaccines
Scenario 1: Results from the endline survey: 84% (95% confidence interval was 76.8% - 88.4%.)	Inference: We are confident that the target was achieved, as the endline estimate is higher than the target and as the 95% confidence interval of the endline estimate does not include the target (result is statistically significant).
Scenario 2: Results from the endline survey: 81% (95% confidence interval was 74.8% - 86.3%)	Inference: We conclude that the target was likely achieved, because while the endline estimate is higher than the target, the 95% confidence interval of the endline estimate includes the target (result is statistically significant).
Scenario 3: Results from the endline survey: 70.5% (95% confidence interval was 68.1% - 74.2%)	Inference: We are confident that the target was not achieved, as the endline estimate is higher than the target and as the 95% confidence interval of the endline estimate does not include the target (result is statistically significant).

Table 9. Demonstrating change: an illustration

Example: Indicator: Facility birth Baseline: 65% (95% confidence interval: 62.2% - 68.8%)				
Scenario 1: Results from the endline survey: 75% (95% confidence interval: 71.4% - 78.9%)	Inference: We are confident that there was true change in the population, as the endline estimate is higher than the baseline and as the 95% confidence interval of the endline estimate does not overlap that of the baseline estimate (result is statistically significant).			
Scenario 2: Results from the endline survey: 70% (95% confidence interval: 67.5% - 73.7%)	Inference: We cannot be confident that there was true change in the population, because while the endline estimate is higher than the baseline estimate, the 95% confidence interval of the endline estimate overlaps that of the baseline estimate (result is not statistically significant).			
Scenario 3: Results from the endline survey: 59% (95% confidence interval: 56.5% - 63.6%)	Inference: There was likely no true change in the population, because while the endline estimate is higher than the baseline estimate, the 95% confidence intervals of the two estimates overlap (result is not statistically significant).			

on the *pre-test*, *post-test* evaluation design, with the baseline functioning as the pre-test and the endline as the post-test. As noted earlier, evaluations typically aim to answer one or more of three questions, and the results need to be interpreted based on the evaluation question being asked.

Assessing progress towards objectives: Here, the estimated range (confidence interval) of the baseline estimate is compared to the target, which is a static value. This introduces one level of imprecision, which a sample of 300 obtained through two-stage cluster sampling is designed to account for (Table 8).

Demonstrating change: Here, the uncertainty ranges of the baseline and endline estimates are compared. Two levels of imprecision are in play, and this will require a larger sample size of about 560 using two-stage cluster sampling to maintain 95% confidence level (Table 9).

Demonstrating causation: In addition to the observed change between baseline and endline, evidence for the level of fidelity in implementation, analysis of potential alternative causal pathways for the observed change, and triangulating data from other comparable locations within the country is a quasi-experimental way of concluding that the project is likely to have led to the observed change. Please note that the gold standard for demonstrating causation is the use of a fully experimental design such as a randomized controlled trial, which is beyond the scope of projects. Such experiments make use of a counterfactual or a "control" that provides data on what could have happened in the absence of the project intervention. Both these approaches to demonstrate causation are not expected of community-based projects.

8. Complex Humanitarian Emergencies

In **slow-onset disasters** such as droughts or famines, the quantity and quality of potable water for humans and animals can decrease, compromising food and nutrition, which often leads to increased incidences of illness and disease. As families migrate in search of food and water, their ability to cope and access health services decreases. In sudden-onset disasters, such as earthquakes or floods, there may be a high demand for life-saving services, rendering regular MNCH services onerous and recommended behaviors difficult to practice, making children susceptible to communicable diseases like diarrhea.

The vast majority of maternal and child deaths in emergencies are caused by the same conditions that kill mothers and children in non-emergency settings in LMICs. Listed below are some actions that projects can take before and during emergencies; the bottom line is to align activities with the larger, ongoing response to the emergency, and not carry out activities in isolation from the wider local health and emergency response mechanism.

Prepositioning and coordination: Building and pre-positioning partnerships at the national level with other agencies implementing MNCH and nutrition can foster rapid responses during an emergency. Coordination compensates for limitations in expertise or capacity. During the emergency response, a designated staff member should attend MNCH (and other relevant sector/ cluster) coordination meetings and represent the project/organization in these discussions at both the national and sub-national levels, sharing about ongoing work and planning for joint assessments and operations, and informing project staff on interagency developments, protocols and reporting requirements.

Participating in the larger, ongoing response:

- MNCH projects should ensure that pregnant women, children, and mothers are prioritized for distribution of general food rations, fortified foods, multiple micronutrient powders and other supplements being provided by the government or international agencies. Breastmilk substitutes undermine breastfeeding and cause illness and death.
- Projects should participate in larger efforts to screen for moderate and severe acute malnutrition, refer to local treatment centers, and participate in any disease surveillance and early warning systems that are established.
- Projects could also serve as stock and distribution centers for the locality, for supplies of ORS, cholera kits, safe delivery kits, point-of-use water purification tablets etc.

Mother and baby centers: Emergencies exacerbate risk for children who are not breastfed and hamper breastfeeding due to lack of private facilities and support. Mother and baby centers offer women quiet, private, comfortable places to feed their babies, access counselling, access re-lactation consultations to help mothers re-establish breastfeeding and participate in support groups dispelling myths about breastfeeding.

Providing appropriate WASH facilities:

Projects could offer to set up portable toilets and handwashing stations both in the project location and in other affected areas.

Psychosocial support: Women and children's mental health can be profoundly impacted by humanitarian emergencies. Humanitarian groups have pioneered approaches for supporting women, adolescents, and children. Project staff and volunteers could be deputed to undergo training or crash courses in providing such care in the familiar community and home settings.

Referral for survivors of gender-based violence: Displacement causes women and girls to be vulnerable to sexual and gender-

based violence; fleeing populations generally have a high proportion of unaccompanied minors; and conflict has been linked to increased risk of rape. Projects need to sensitize their staff and volunteers to identify survivors and refer them to appropriate services.

Annexes

Annex 1. Illustrative Logframe and M&E Framework

Table 10. Illustrative Logframe

HIERARCHY	OBJECTIVE STATEMENT	INDICATORS	ASSUMPTIONS
Impact	Nutritional status of mothers, children and	% Children aged 6-23m who are stunted.	
	adolescents improved	% Mothers of children aged 0-23m who have low MUAC.	
		% Adolescent girls with low MUAC.	
		% Adolescent girls who are married/pregnant.	
Outcome 1	Improved utilization of maternal and newborn health services	% Mothers of children aged 0-23m who completed ANC4 in previous pregnancy.	
		% Mothers of children aged 0-23m who had their previous birth in a facility.	
		% Mothers of children aged 0-23m who received 100 IFA tablets in previous pregnancy	
		% of mothers of children aged 0-23m who completed at least two postpartum visits in their previous pregnancy.	
Output 1.1	CHWs effectively link households with health services	% CHWs trained/refreshed in MNCH and nutrition in the past year.	CHWs are well supported by the project, health facility
		% CHWs who attended all monthly meetings at the health facility in the past quarter.	and community to carry out their responsibilities. CHW trainings are effective.
Output 1.2	Pregnant women and mothers benefit	% Mothers who are members of VSL groups.	Women have sufficient agency to
	from VSL groups and emergency health funds	% VSL groups who have an emergency health fund.	participate in VSL.
Output 1.3	Men engaged in MNCH	% Mothers whose male partners accompanied them to the facility during previous pregnancy.	Men's events use a gender transformative approach, challenging and changing existing gender norms.
		% Mothers whose male partners participated in men's events in the community.	gender norms.

HIERARCHY	OBJECTIVE STATEMENT	INDICATORS	ASSUMPTIONS
Outcome 2	Improved household practices for the health and nutrition of	% Households that have an improved sanitation facility. % Mothers of children aged	
	mothers and children	0-23m who wash their hands at the five critical times.	
		% Children aged 0-6m who were exclusively breastfed the previous day.	
		% Children aged 6-23m who were given the minimum acceptable diet the previous day.	
		% Children aged 6-23m who were given iron/vitamin A supplements according to national protocol.	
Output 2.1	CHVs conduct household-level counselling	% CHWs supervised at least once in the previous quarter.	CHW supervision is supportive and engages community leaders.
		% CHWs who report that male partners were present during at least 80% of household visits.	CHW counseling is effective and is dialogue-based.
Output 2.2	VSL groups promote health and nutrition practices	% VSL groups that discussed health and nutrition practices at every meeting in the past quarter.	CHW-VSL group interactions are effective.
		% VSL groups that provided loans for latrines in the past year.	VSL groups link with local government schemes for WASH.
Outcome 3	Improved adolescent health and nutrition	% Adolescent girls who consumed at least four food groups the previous day.	
		% Adolescents using the three WASH practices (safe water, improved sanitation and handwashing).	
Output 3.1	Adolescents receive peer education and support to improve life skills	% Adolescent boys and girls attending peer support meetings regularly in the past quarter.	Adolescents are able to influence decisions in their household related to
		% Adolescent boys and girls who are aware of their SHR rights and services.	food consumption, sanitation, and marriage.
		% Adolescent girls who are confident that they will be able to delay their marriage until 18 years.	

HIERARCHY	OBJECTIVE STATEMENT	INDICATORS	ASSUMPTIONS
Output 3.2	Adolescents' parents and guardians engaged	% Adolescents whose parents participated in project meetings in the past quarter.	

Table 11. Illustrative M&E Framework

INDICATOR STATEMENT	DATA SOURCE AND FREQUENCY OF MEASUREMENT	TARGETS AND ACTUALS		
Impact		Baseline Level	Endline Target and Actuals	
% Children aged 6-23m who are stunted.	Baseline and endline surveys of mothers of			
% Mothers of children aged 0-23m who have low MUAC.	children aged 0-23 m			
% Adolescent girls with low MUAC.	Baseline and endline			
% Adolescent girls who are married/ pregnant.	surveys of adolescent girls.			
Outcomes		Baseline Level	Midterm Target and Actuals	Endline Target and Actuals
Outcome 1				
% Mothers of children aged 0-23m who completed ANC4 in previous pregnancy.	Baseline, midterm and endline surveys of mothers of children aged 0-23m			
% Mothers of children aged 0-23m who had their previous birth in a facility.				
% Mothers of children aged 0-23m who received 100 IFA tablets in previous pregnancy.				
% of mothers of children aged 0-23m who completed at least two postpartum visits in their previous pregnancy.				

INDICATOR STATEMENT	DATA SOURCE AND FREQUENCY OF MEASUREMENT	TARGETS AND ACTUALS			
Outcome 2					
% Households that have an improved sanitation facility. % Mothers of children aged 0-23m who wash their hands at the five critical times. % Children aged					
O-6m who were exclusively breastfed the previous day.	Baseline, midterm and endline surveys				
% Children aged 6-23m who were given the minimum acceptable diet the previous day.	and endline surveys of mothers of children aged 0-23m				
% Children aged 6-23m who were given iron/vitamin A supplements according to national protocol.					
Outcome 3					
% Adolescent girls who consumed at least four food groups the previous day.	Baseline, midterm				
% Adolescents using the three WASH practices (safe water, improved sanitation and handwashing).	and endline surveys of adolescent girls.				
Outputs		Year 1	⁄ear 2	Year 3	Year 4
Output 1.1					
% CHWs trained/ refreshed in MNCH and nutrition in the past year.	Project records and				
% CHWs who attended all monthly meetings at the health facility in the past quarter.	CHW reports; annual or quarterly				
Output 1.2					
% Mothers who are members of VSL groups.	VSL records; annual or quarterly				

INDICATOR STATEMENT	DATA SOURCE AND FREQUENCY OF MEASUREMENT	TARGETS AND ACTUALS		
% VSL groups who have an emergency health fund.	VSL records; annual or quarterly			
Output 1.3				
% Mothers whose male partners accompanied them to the facility during previous pregnancy.	CHW reports; annual or quarterly			
% Mothers whose male partners participated in men's events in the community.	CHW reports; annual or quarterly			
Output 2.1				
% CHWs supervised at least once in the previous quarter.	Project records; annual or quarterly			
% CHWs who report that male partners were present during at least 80% of household visits.	CHW reports; annual or quarterly			
Output 2.2				
% VSL groups that discussed health and nutrition practices at every meeting in the past quarter.	VSL records; annual			
% VSL groups that provided loans for latrines in the past year.	or quarterly			
Output 3.1				
% Adolescent boys and girls attending peer support meetings regularly in the past quarter.				
% Adolescent boys and girls who are aware of their SHR rights and services.	Project records; annual or quarterly			
% Adolescent girls who are confident that they will be able to delay their marriage until 18 years.				

INDICATOR STATEMENT	DATA SOURCE AND FREQUENCY OF MEASUREMENT	TARGETS AND ACTUALS		
Output 3.2				
% Adolescents whose parents participated in project meetings in the past quarter.	Project records; annual or quarterly			

Annex 2. Compendium of indicators

1. ANC coverage

Indicator statement:	% Mothers of children aged 0-23m who report that they attended at least four ANC visits in their previous pregnancy
Numerator:	Number of mothers of children aged 0-23m who report that they attended at least four ANC visits in their previous pregnancy
Denominator:	Number of mothers of children aged 0-23m in the sample
Data source:	Sample surveys
Other considerations:	Do not measure this indicator among pregnant women, as the number of ANC visits completed will depend upon the stage of the pregnancy.

2. Facility delivery

Indicator statement:	% Mothers of children aged 0-23m who report that they had their most recent birth in a facility.
Numerator:	Number of mothers of children aged 0-23m who report that they had their most recent birth in a facility.
Denominator:	Number of mothers of children aged 0-23m in the sample
Data source:	Sample surveys
Other considerations:	

3. Postpartum and postnatal care coverage

Indicator statement:	% Mothers of children aged 0-23m who report that they attended at least two postpartum (or postnatal for the newborn) visits in their previous pregnancy
Numerator:	Number of mothers of children aged 0-23m who report that they attended at least two postpartum (or postnatal for the newborn) visits in their previous pregnancy.
Denominator:	Number of mothers of children aged 0-23m in the sample
Data source:	Sample surveys
Other considerations:	Please adapt the number of visits based on MOH protocol.

4. Micronutrient supplements in pregnancy: receipt and consumption

Indicator statement:	% Mothers of children aged 0-23m who report that they received (consumed) at least 100 IFA tablets (or multiple micronutrient powder) in their previous pregnancy.
Numerator:	Number of mothers of children aged 0-23m who report that they received (consumed) at least 100 IFA tablets (or multiple micronutrient powder) in their previous pregnancy.
Denominator:	Number of mothers of children aged 0-23m in the sample

Data source:	Sample surveys
Other considerations:	Please adapt the number of IFA tablets and sachets of
	micronutrient powders based on MOH protocol.

5. Minimum diet diversity of women and girls

Indicator statement:	% Women (or girls) who report having consumed food from at least five out of 10 food groups.
Numerator:	Number of women (or girls) who report having consumed food from at least five out of 10 food groups. The 10 food groups are: 1) grains, tubers and plantains 2) pulses (beans and lentils) 3) nuts and seeds 4) milk and milk products 5) meat, poultry and fish 6) eggs 7) dark green leafy vegetables 8) other vitamin A-rich fruits and vegetables 9) other vegetables and 10) other fruits.
Denominator:	Number of women (or girls) in the sample.
Data source:	Sample surveys
Other considerations:	This is based on definitions from the Food and Agriculture Organization. ^a

6. Early initiation of breastfeeding

Indicator statement:	% Children aged 0-23m who were initiated on breastfeeding within the hour of birth.
Numerator:	Number of children aged 0-23m who were initiated on breastfeeding within the hour of birth.
Denominator:	Number of children aged 0-23m in the sample
Data source:	Sample surveys
Other considerations:	

7. Colostrum feeding

Indicator statement:	% Children aged 0-23m who were given colostrum during the first three days after birth.
Numerator:	Number of children aged 0-23m who were given colostrum.
Denominator:	Number of children aged 0-23m in the sample
Data source:	Sample surveys
Other considerations:	

8. Exclusive breastfeeding

Indicator statement:	% Children aged 0-5m who were given only breastmilk in the past 24 hours.
Numerator:	Number of children aged 0-5m who were given only breastmilk in the past 24 hours.

a https://www.fao.org/documents/card/en/c/cb3434en

Denominator:	Number of children aged 0-5m in the sample
Data source:	Sample surveys
Other considerations:	Five completed months, in which the first month after birth is counted as 0 months.

9. Continued breastfeeding

Indicator statement:	% Children aged 12-23m who were breastfed in the past 24 hours.
Numerator:	Number of children aged 12-23m who were breastfed in the past 24 hours.
Denominator:	Number of children aged 12-23m in the sample
Data source:	
Other considerations:	

10. Minimum diet diversity

Indicator statement:	% Children aged 6-23m who consumed food and beverages from at least five out of eight food groups during the past 24 hours.
Numerator:	Number of children 6-23m who consumed food and beverages from at least five out of eight food groups during the past 24 hours. The eight food groups are: 1) breastmilk 2) grains, roots, tubers, plantains 3) pulses (beans and lentils), nuts and seeds 4) dairy products (milk, infant formula, yoghurt and cheese) 5) flesh foods (meat, fish, poultry, and organ meat) 6) eggs 7) vitamin A – rich fruits and vegetables and 8) other fruits and vegetables
Denominator:	Number of children aged 6-23m in the sample
Data source:	
Other considerations:	This definition is taken from WHO

11. Minimum meal frequency

0 1	
Indicator statement:	% Children aged 6-23m who consumed the minimum number of meals in the past 24 hours.
Numerator:	Number of children aged 6-23m who consumed solid, semi-solid and soft foods (and milk feeds for non-breastfed children) for the minimum number of times during the past 24 hours. The minimum number of meals are: two feeds for breastfed infants aged 6-8m; three feeds for breastfed infants aged 9-23m; and four feeds for non-breastfed infants and children aged 6-23m.
Denominator:	Number of children aged 6-23m in the sample.
Data source:	
Other considerations:	

12. Minimum acceptable diet

Indicator statement:	% Children aged 6-23m who had the minimum acceptable diet in
	the past 24 hours.

Numerator:	Number of children aged 6-23m who had the minimum acceptable diet in the past 24 hours. Minimum acceptable diet = minimum diet diversity + minimum meal frequency
Denominator:	Number of children aged 6-23m in the sample.
Data source:	
Other considerations:	

13. Consumption of eggs/flesh foods

Indicator statement:	% Children aged 6-23m who consumed eggs and/or flesh foods in the past 24 hours
Numerator:	Number of children aged 6-23m who consumed eggs, meat, poultry, fish, and/or organ meat in the past 4 hours.
Denominator:	Number of children aged 6-23m in the sample
Data source:	
Other considerations:	

14. Coverage of essential vaccines

Indicator statement:	% Children aged 12-23m who have received all essential vaccines before their first birthday.
Numerator:	Number of children aged 12-23m who have received all essential vaccines before their first birthday.
Denominator:	Number of children aged 12-23m in the sample.
Data source:	
Other considerations:	This should be based on vaccination records.

15. Micronutrient supplements for children

Indicator statement:	% Children aged 6-23m who received iron or other micronutrients supplements in the past six months.
Numerator:	Number of children aged 6-23m who received iron or other micronutrients supplements in the past six months.
Denominator:	Number of children aged 6-23m in the sample
Data source:	
Other considerations:	The types of supplements will be based on MOH protocol.

16. Bed net use

Indicator statement:	% mothers and/or children aged 0-23m who slept under a bed net the previous night.
Numerator:	Number of mothers and/or children aged 0-23m who slept under a bed net the previous night.
Denominator:	Number of mothers or children aged 0-23m in the sample.
Data source:	

Other considerations:

17. ORS in diarrhea

Indicator statement:	% Children aged 0-23m who had diarrhea in the past 2 weeks who were given ORS.
Numerator:	Number of children aged 0-23m who had diarrhea in the past 2 weeks who were given ORS.
Denominator:	Number of children aged 0-23m who had diarrhea in the past 2 weeks.
Data source:	
Other considerations:	

18. Zinc supplementation in diarrhea

Indicator statement:	% Children aged 0-23m who had diarrhea in the past 2 weeks who were given zinc supplements.
Numerator:	Number of children aged 0-23m who had diarrhea in the past 2 weeks who were given zinc supplements.
Denominator:	Number of children aged 0-23m who had diarrhea in the past 2 weeks.
Data source:	
Other considerations:	

19. Care seeking for ARI

Indicator statement:	% Children aged 0-23m who had cough and difficult breathing in the past 2 weeks who were taken to a qualified provider.
Numerator:	Number of children aged 0-23m who had cough and difficult breathing in the past 2 weeks who were taken to a qualified provider.
Denominator:	Number of children aged 0-23m who had cough and difficult breathing in the past 2 weeks.
Data source:	
Other considerations:	Qualified providers include doctors, nurses, and trained CHWs, from public or private facilities.

20. Care seeking for fever

Indicator statement:	% Children aged 0-23m who had fever in the past 2 weeks who were taken to a qualified provider within 24 hours of the onset of fever.
Numerator:	Number of children aged 0-23m who had fever in the past 2 weeks who were taken to a qualified provider within 24 hours of the onset of fever.
Denominator:	Number of children aged 0-23m who had fever in the past 2 weeks.
Data source:	
Other considerations:	

21. Prevalence of stunting

Indicator statement:	% Children aged 6-23m who are stunted
Numerator:	Number of children aged 6-23m whose height-for-age is less than -2SD from the reference population.
Denominator:	Number of children aged 6-23m whose height was measured.
Data source:	
Other considerations:	

22. Prevalence of wasting

Indicator statement:	% Children aged 6-23m who are wasted
Numerator:	Number of children aged 6-23m whose weight-for-height is less than -2SD from the reference population.
Denominator:	Number of children aged 6-23m whose weight and height were measured.
Data source:	
Other considerations:	

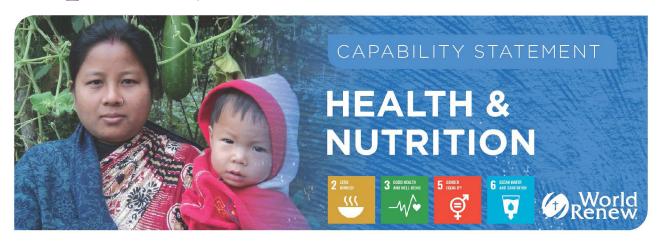
23. Prevalence of underweight

Indicator statement:	% Children aged 6-23m who are underweight
Numerator:	Number of children aged 6-23m whose weight-for-age is less than -2SD from the reference population.
Denominator:	Number of children aged 6-23m whose weight was measured.
Data source:	
Other considerations:	

24. Prevalence of low MUAC in women and girls

Indicator statement:	% Women (or girls) who have low MUAC
Numerator:	Number of women or girls whose MUAC is less than 24.5cm.
Denominator:	Number of women or girls whose MUAC was measured.
Data source:	Sample surveys
Other considerations:	

Annex 3. Health and Nutrition Capability Statement



HEALTH AND NUTRITION SNAPSHOT

In 2019 and 2020, World Renew reached 140,000 HOUSEHOLDS, formed 1,700 COMMUNITY GROUPS, and worked with more than 2,400 COMMUNITY HEALTH VOLUNTEERS.

1,700,000 CHILDREN benefited from health interventions in the last decade

150,000 WOMEN were trained to prevent child stunting in the first 1.000 days of life.

Who is World Renew?

World Renew is a faith-based international development and humanitarian organization, working since 1962 to address the root causes and impacts of poverty, disaster, and injustice. With a USD \$34 million budget in 2020, we work with 64 local partners and have a long-term presence in 19 countries throughout Africa, Asia, and the Americas, bringing permanent, sustainable change to vulnerable communities and working towards the Sustainable Development Goals. We provide consultation, technical assistance, and financial support to build the capacity of our partners as they implement programs that integrate agriculture and food security, health, economic opportunities, peacebuilding and justice, disaster response and preparedness, and gender equality. As an industry leader in prioritizing local ownership of programs, World Renew uses participatory learning and action (PLA) methodologies so communities can identify challenges, evaluate their assets, and generate their own solutions.

Our Health & Nutrition Work

World Renew has worked in partnership with local organizations and communities in health for more than 40 years, focusing on Maternal, Newborn, and Child Health (MNCH), including reduced child stunting by promoting health during the first 1,000 days of life (pregnancy until age 2). This includes preventing infectious diseases like malaria, HIV and AIDS, empowering widows, orphans, and vulnerable children, improving water, sanitation, and hygiene (WASH) and sexual and reproductive health and rights (SRHR). In the last five years, World Renew has delivered more than 120 health programs worldwide, linking food security and livelihoods initiatives to health outcomes. We have extensive experience building partner capacity in promoting care-seeking behavior, nutrition-sensitive agriculture, designing for social behavior change communication, training community health volunteers (CHVs), and improving linkages with clinics.

Key Programming Approaches

- Timed and Targeted Counseling (TTC): CHVs deliver TTC to families regarding the first 1,000 days of life, sharing best practices for human development stages, assessing the family's application of the practices, and determining tailored solutions. TTC teaches the importance of ante- and post-natal care (ANC/PNC), and identification of warning signs.
- Community Groups: Health groups are formed and trained for targeted interventions, such as pregnant or lactating women in MNCH programs, adolescents in SRHR programs, or existing savings groups are used as platforms for health interventions. These groups use a peer education model for collaborative learning and knowledge sharing.

- · Community Health Volunteers: CHVs are trained in health themes and act as liaisons delivering community trainings, TTC, and offering referrals for complications. CHVs ensure community ownership and continuation of health initiatives beyond the project life cycle.
- Social Behavior Change Communication (SBCC): Programs are designed with simple health messages, identifying social norms, and the positive or negative consequences of behaviors to address barriers to behavioral change. SBCC addresses the key determinants that affect health behaviors in MNCH, WASH, and HIV and AIDS.

Our Health & Nutrition Expertise

World Renew has technical expertise in community organization, training CHVs, participatory methodologies, SBCC, barrier analysis, and collaborating with government health institutes, clinics, and health care providers. World Renew implemented three USAID-funded child survival grants (2004-2015) in Bangladesh and India, and a USAID-funded malaria reduction program in Malawi (2007-2012). Global Affairs Canada-funded MNCH grants (2011-2015) in Bangladesh and Malawi, an adolescent SRHR grant in Nigeria and Senegal (2013-2017), and a health and nutrition grant in Kenya with support from the Canadian Foodgrains Bank (CFGB) and the University of Manitoba. Currently, World Renew is implementing a 6-year nutrition program in Bangladesh funded by GAC through CFGB. Since 2015, World Renew has been implementing a 10-year, USD \$1.5 million MNCH grant funded by a private donor in eight countries, which pilots new initiatives and builds the capacity of local partners to access additional funding and grow in scale. World Renew conducted research on social capital with the International Center for Diarrhoeal Diseases in Bangladesh, and has presented abstracts at Global Health Conferences (2013, 2014), Christian Connections for International Health (2017. 2020), and at the American Public Health Conference (2015). World Renew's work with the USAID Malaria Communities program was featured in two publications from USAID's MNCH initiative. Additionally, World Renew's people's institution model was chosen as one of five promising practices in health in Bangladesh, published by the John Hopkins University's Bloomberg School of Public Health, Save the Children, and USAID.

Evidence of Impact

World Renew, in partnership with Anglican Development Services and the University of Manitoba, implemented a USD \$1.67 million, GAC-funded MNCH grant from 2012 to 2015 in Kenya. Over three years, 8,795 women of reproductive age, 7,105 children under age five, 1,076 pregnant women, 6,000 lactating women, and 509 postpartum women were reached. The project increased facility-based births, improved maternal and child nutrition and diet diversity, increased breastfeeding and immunization rates, and increased the treatment of childhood diseases. The program's research was featured in the Canadian Journal of Public Health in 2017 and a Ph.D. dissertation.

Best Practices and Innovations

- · People's Institutions: Pls are a community organizing structure used in Bangladesh, which promote high participation, ownership, and capacity. PIs access and connect with existing structures, such as health and government clinics, school committees, and government agencies. PIs advocate for good health, oversee CHVs, and partner with the government in local health campaigns such as immunizations, ANC and PNC visits, and breastfeeding counseling.
- Holistic, integrated health programs: World Renew combines agriculture, livelihoods, justice, community development, and spiritual transformation components contextually. For example, teaching about nutrition while promoting gardening and growing diversified, nutrient-dense crops.
- · Adolescent Health and Rights: Adolescent groups provide youth, particularly girls, a fun and interactive platform to learn about their health and rights in a safe environment and to discuss subjects that are often taboo, like SRHR. Meanwhile, parents and community and religious leaders are sensitized to understanding and supporting adolescent rights. This combination helps girls have the courage to reject early or forced marriage and unwanted sexual advances, and understand menstruation, reproduction, and STIs.











Fall 2021



References

- 1. Sachs, Jeffrey, Guido Schmidt-Traub, Christian Kroll, Guillame Lafortune, and Grayson Fuller. Sustainable Development Report 2020: The Sustainable Development Goals and COVID-19 Includes the SDG Index and Dashboards, 2021.
- 2. Kabeer N. Gender equality and women's empowerment: a critical analysis of the third millennium development goal 1. Gend. Dev. 2005;13(1):13-24.
- 3. "The State of the World's Children 2019." https://www.unicef.org/reports/state-of-worlds-children-2019.
- 4. DiCampo, Peter. "TARGET: Reduce and Maintain Childhood Wasting to Less than 5%," n.d., 8. https://www.who.int/nutrition/topics/globaltargets_wasting_policybrief.pdf
- Olofin, Ibironke, Christine M. McDonald, Majid Ezzati, Seth Flaxman, Robert E. Black, Wafaie W. Fawzi, Laura E. Caulfield, Goodarz Danaei, and for the Nutrition Impact Model Study (anthropometry cohort Pooling). "Associations of Suboptimal Growth with All-Cause and Cause-Specific Mortality in Children under Five Years: A Pooled Analysis of Ten Prospective Studies." PLOS ONE 8, no. 5 (May 29, 2013): e64636. https://doi.org/10.1371/journal. pone.0064636.
- 6. Weise, Antonio Suarez. "TARGET: 40% Reduction in the Number of Children under-5 Who Are Stunted," https://www.who.int/nutrition/topics/globaltargets_stunting_policybrief.pdf
- 7. Woldehanna, Tassew, Jere R. Behrman, and Mesele W. Araya. "The Effect of Early Childhood Stunting on Children's Cognitive Achievements: Evidence from Young Lives Ethiopia." The Ethiopian Journal of Health Development = Ya'ltyopya Tena Lemat Mashet 31, no. 2 (2017): 75–84.
- 8. Bhutta, Zulfiqar A., Jai K. Das, Arjumand Rizvi, Michelle F. Gaffey, Neff Walker, Susan Horton, Patrick Webb, Anna Lartey, and Robert E. Black. "Evidence-Based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost?" The Lancet 382, no. 9890 (August 3, 2013): 452–77. https://doi.org/10.1016/S0140-6736(13)60996-4.
- 9. de Onis, M., et al. (2018). Prevalence thresholds for wasting, overweight and stunting in children under 5 years. Public health nutrition, 22(1), 175-179.
- 10. Save the Children. State of the World's Mothers Report, 2012.
- 11. Vaivada, Tyler, Zohra S Lassi, Omar Irfan, Rehana A Salam, Jai K Das, Christina Oh, Bianca Carducci, et al. 'What Can Work and How? An Overview of Evidence-Based Interventions and Delivery Strategies to Support Health and Human Development from before Conception to 20 Years'. The Lancet 399, no. 10337 (May 2022): 1810–29. https://doi.org/10.1016/S0140-6736(21)02725-2.
- 12. Global Accelerated Action for the Health of Adolescents (AA-HA!): guidance for country implementation. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

- 13. "The Care Group Difference | CORE Group: Working Together in Health for Mothers, Children and Communities." Accessed August 23, 2021. https://coregroup.org/resource-library/the-care-group-difference/.
- 14. Pascale, Richard, Jerry Sternin, and Monique Sternin. The Power of Positive Deviance: How Unlikely Innovators Solve the World's Toughest Problems. Harvard Business Press, 2010.





LINKEDIN

https://www.linkedin.com/company/world-renew/

WEBSITE

www.worldrenew.net