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Integrating Treatment Services for Severe Acute Malnutrition into the National Health System in the Republic of the Philippines:

Progress Review

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ABBREVIATIONS AND ACRONYMS

ASEAN	Association of Southeast Asian Nations
CMAM	Community-based management of acute malnutrition
DOH	Department of health
FDA	Food and Drug Administration
FHSIS	Field health service information system
HIV	Human immunodeficiency virus
HMIS	Health management information system
IMCI	Integrated management of childhood illness
LGU	Local government unit
MAM	Moderate acute malnutrition
MUAC	Mid-upper arm circumference
NGO	Non-governmental organization
OPT plus	Operation Timbang Plus
PIMAM	Philippines integrated management of acute malnutrition
PhilHealth	Philippines Health Insurance Corporation
PPAN	Philippines Plan of Action on Nutrition
RUTF	Ready-to-use therapeutic food
SAM	Severe acute malnutrition
UHC	Universal health coverage
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organization

EXECUTIVE SUMMARY

The Philippines has made significant investments and advances in health in recent years. Rapid economic growth and strong country capacity have contributed to Filipinos living longer and healthier. However, not all the benefits of this growth have reached the most vulnerable groups, and the health system remains fragmented. According to WHO/UNICEF, the level of stunting in the Philippines remains 'high' at 29.4 per cent (2019 data) and the level of wasting is 'medium', with a reduction from 8 per cent in 2013 to 5.8 per cent in 2019.[1] This is considerably better than the regional average of 9.1 per cent. Further, at the current rate of progress, the Philippines is on track to achieve the World Health Assembly global nutrition target of <5 per cent wasting by 2025 and the Sustainable Development Goal (SDG) target of <3 per cent wasting by 2030.

The management of severe acute malnutrition (SAM) was first introduced in the Philippines in 2008 as a nutrition in emergencies intervention covering children aged 6 to 59 months in disaster-affected communities. In the Philippines, this is referred to as the **Philippines integrated management of acute malnutrition** (PIMAM) and, in 2011, guidelines were developed which were then implemented in 2013 after typhoon Haiyan. In December 2015, the Department of Health (DOH) issued **Administrative Order 2015-055,** providing the policy and strategic framework to guide the adoption of the national guidelines at local level. The DOH and UNICEF teams made a commitment to implement the SAM management programme in a phased approach, scaling up kalusugang pangkalahatan (universal health care) by integrating services for the management of children with SAM into the routine health care system. In Phase 1 in 2016, a total of 17 priority provinces were identified for programme scale-up using Standardized Training Modules. In 2018, PIMAM was deployed in 38 of 81 provinces in the Philippines, and by 2022, it had been scaled up to cover all provinces.

UNICEF has energetically accompanied and supported the integration of SAM management into East Asia and Pacific health systems to ensure that it becomes an essential service in primary health care, with the hope that integration will increase availability and coverage of treatment services, increase sustainability of services and financing, reduce costs of delivery of parallel services and provide governments with greater control and accountability in identifying priorities for addressing child wasting.

The current study documents progress in integrating SAM treatment services into the health system of the Philippines and draws lessons based on a literature review and key informant interviews. Two complementary analysis methods were used based on two published tools.[2,3] The analyses identified general strengths and areas for improvement in the integration of SAM within the health system according to six health system functions, summarized below:

Governance: **PIMAM, particularly the management of SAM, has largely been embedded in most of the laws, guidelines and administrative orders developed in recent years,** although some gaps remain. National guidelines for PIMAM supporting comprehensive child health care have been developed and work is ongoing to integrate them within the integrated management of childhood illness (IMCI).

To be effective, the integration of **SAM management must be coordinated and championed by stakeholders at the local level. Integration of SAM treatment into universal health care planning is critical to ensure synergies with other health programmes** and avoid overburdening local level systems.

Financing: The budget of the DOH has increased significantly over past years, reflecting the increased priority accorded to health care. PIMAM supplies are fully covered in the DOH budget but there are **implementation and coordination challenges related to nutrition funding of local government units (LGUs).** The National Health Insurance Programme, through the Philippine Health Insurance Corporation (PhilHealth), includes a draft package of services and standards for the management of SAM that are essential for scaling up, and will undergo pilot testing in 2023.

Health workforce: The Philippines faces imbalances in the development and distribution of health workers related to three key challenges: poor availability of trained human resources for nutrition; an absence of SAM modules in medical and paramedical curricula; and a lack of supportive supervision leading to insufficient mentoring. Priorities for addressing these challenges include increased geographic distribution and training of health workers, and the inclusion of SAM management within job descriptions, pre-service education curricula and ongoing professional development.

Service delivery: SAM treatment is available in all 81 provinces of the country; however, the quality and coverage of services are still hampered by system bottlenecks. More investment in nutrition training for health workers at the community level, regular supportive supervision and systematic screening is needed to improve early detection of malnutrition. Leveraging the routine child growth monitoring programme (Operation Timbang Plus) will improve the early detection of children wasting, improve referral and facilitate timely admission to inpatient or outpatient therapeutic services. Generating demand from communities for child health and nutrition services is also key to preventing malnutrition.

Health information system: SAM indicators (admission and discharge outcomes [cured, died, defaulted]) have been adopted and integrated into the Health Management Information System (HMIS), which simplifies the data collection and reporting processes. Previously, reporting of SAM indicators was done using parallel and offline systems, which contributed to the workload of both local health staff and partners. Future work priorities include continuous monitoring of potential challenges arising within the HMIS to support and adjust implementation, to increase completeness and accuracy of SAM reports sent by health facilities and to ensure the data collected support decision-making and planning processes.

Medical products, vaccines and technologies: The DOH has been working towards a more integrated supply management system for all health and nutrition supplies. In 2016, the DOH started procurement of ready-to-use therapeutic food (RUTF), and through government funds, the first batch of this life-saving treatment was delivered in March 2017. The DOH has continued to allocate resources for the procurement of RUTF to cover a proportion of the caseload. RUTF has also been registered into the Food and Drug Administration and classified as a Food for Special Medical Purposes, facilitating its procurement and delivery by the national supply chains system. Ongoing priorities include continued improvements of the national supply chain system to ensure treatment availability and tracking and to encourage the decentralization of the SAM management budget to local governments, given current budget limitations and stockouts in health facilities due to supply chain inefficiencies.

In conclusion, some of the factors influencing the integration of SAM into the Philippines health system are linked to the fact that it was implemented in a relatively vertical manner. Most of the "hindering factors for SAM integration" that have been presented in this report are not related to PIMAM itself but to the overall system: challenges in terms of (1) service delivery (underuse of services, absence of a referral system); (2) human resources (scarcity of health staff, uneven distribution, and overburdening of staff, etc.); (3) supply chains (budgetary limitations, frequent RUTF stockouts); and (4) the health information system (fragmented data collection) affect all of the programmes delivered by the health system. There are also hindering factors specific to the PIMAM programme that need to be addressed by: **boosting community outreach and demand generation for SAM services, prioritizing the training of health actors on the management of SAM (pre and in-service training), and improving the supply of RUTF (reducing bulkiness, ensuring it is centrally provided).**

The Government of the Philippines has been working to integrate SAM management into the national health system in a more harmonious way. While challenges remain in integrating SAM management across the health system building blocks, the provision of universal health care provides great potential to support integration as part of overall health systems strengthening. Maintaining the momentum of the political leadership – at all levels of government – will be vital to ensuring continuous success of this strategy in the Philippines.

INTRODUCTION

Wasting (also known as acute malnutrition) affects 47 million children in the world. Severe wasting, the most life-threatening form of malnutrition, affects 14.3 million children worldwide. The South-East Asia region is home to 4.7 million children with wasting, 10 per cent of the total number of children affected globally.[1]

Member States of the Association of Southeast Asian Nations (ASEAN) have endorsed the 2025 World Health Assembly nutrition targets and the SDG 2 targets to end all forms of malnutrition by 2030. Ambitious policies and plans to scale up interventions to address wasting have been developed, but the translation of these policies into services has been slow. Countries in the region have attempted to include the integrated management of acute malnutrition into their health systems, but at varying degrees. Within the ASEAN region, treatment of severe wasting (also known as severe acute malnutrition or SAM) is a relatively new service in the health care system, while the prevention of wasting (acute malnutrition) has not been consistently considered in health or food systems.

UNICEF has supported the integration of SAM treatment into East Asia and Pacific health systems to ensure that it becomes an essential service in primary health care, with the hope that integration will increase availability and coverage of treatment services, improve service sustainability and financing, reduce costs and provide governments with greater control and accountability in identifying priorities for addressing wasting.

This study aims to shed light on the experience gained in integrating treatment for severe wasting within the health system of the Philippines and draw lessons for the future. To document the experience and state of integration of SAM treatment into the Philippines health system, a literature review and key informant interviews were carried out during early 2020.

This report will begin by discussing the notion of integration – a topic that has been the subject of much discussion, debate and sometimes opposition. It explores the concept of integrating health services and describes the definition and methodologies used for this review. The report includes an analysis of the structure and functioning of the Philippines health system and the history and process of integrating severe wasting management into the health system. These two essential parameters are key to fully understanding the health system's capacity for integrating the treatment of wasting.

Integration concepts and principles

The primary focus of integrated health systems is to provide seamless care or coordinated care for patients and their families. The theory is that it will lead to a higher quality of care as well as better health outcomes for patients, by making sure a patient transitions appropriately through the health care system. It should also lead to reduced costs through improved efficiency, availability and sustainability of services, increased coverage and greater government control over priorities.

In 2007, the World Health Organization (WHO) Director-General declared, *"We need a comprehensive, integrated approach to service delivery. We need to fight fragmentation."*[4] The concept of integrated health services is not new; the very principle of primary health care developed in the 1980s was based on this concept. However, there is currently no commonly accepted definition of "integration" and there is much debate about the merits of integrated approaches."[3]

According to WHO, the **definition of integrated health services** is: *"health services that are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course."*[5]

Further, Salam et al define nutrition integration as *"the extent of adoption and eventual assimilation of nutrition interventions into critical health system functions (building blocks)."*[6]

This study adopts the following definition: ***"Integration is defined from a health system perspective as the extent, pattern and rate of adoption and assimilation of interventions for management of severe acute malnutrition into the key functions of the national health system in the Philippines."***

Two guiding principles of integration were applied in framing this study.

a) First, integration is seen as a continuum. Integration can take various forms, but common aims are to provide a continuum of health care services, reduce fragmentation, increase efficiencies and improve quality of care.

b) Second, integration is seen as horizontal care programming, which is a more holistic approach that seeks to deal, in an integrated manner, with various diseases and health problems, while the vertical approach is a disease-specific top-down approach. Arguments for horizontal integration have been driven by the desire to provide comprehensive patient-centred care and strengthen the overall health system with a system-wide approach.

For more information on integration as a continuum and the horizontal-vertical debate and integration in relation to the SDGs and universal health coverage (UHC), refer to Annex 1.

Health situation

The Philippines is an archipelago in Southeast Asia with a population of 104.9 million and consisting of 17 regions and 81 provinces, 145 cities, 1,489 municipalities and 42,044 barangays (equivalent to a village).[7]

The Philippines has made significant investments and advances in health in recent years. Rapid economic growth and strong country capacity have contributed to Filipinos living longer and healthier. However, not all the benefits of this growth have reached the most vulnerable groups, and the health system remains fragmented.[8]

Maternal and child health services have improved, with more children living beyond infancy, a higher number of women delivering at health facilities and more births being attended by professional service providers than ever before. Access to, and provision of, preventive, diagnostic and treatment services for communicable diseases have improved, while there are several initiatives to reduce illness and death due to noncommunicable diseases. These achievements have not been uniform, however, and challenges remain. Deep inequities persist between regions, income groups, and different population groups.[9]

Nutrition situation

Stunting in the Philippines remains high among children under 5 years of age at 29.4%. These levels have remained unchanged over the years. The prevalence of **wasting** in children under 5 increased from 6.1 per cent to 7.9 per cent between 2008 and 2011,[10] followed by a decline from 7.9 per cent to 5.8 per cent between 2013 to 2019.[11] If this annual rate of reduction continues, the Philippines will be on track to achieve the SDG wasting target by 2030.

In the Philippines, 33 per cent of infants under 6 months of age are **exclusively breastfed.** The Philippines' 2015 **low birthweight** prevalence of 20.1 per cent has decreased slightly from 21.5 per cent in 2000.

Health governance

The Philippines adopted decentralized health governance in 1991,[i] introduced a social health insurance programme – **PhilHealth** – in 1995, and has actively pursued UHC since 2010. As a consequence of its focus on the health sector and general socioeconomic development, the Philippines has achieved significant improvements in life expectancy and immunization coverage, as well as a twofold reduction in infant and under-five mortality.9

The enactment of the Local Government Code of 1991 (Republic Act No. 7160) introduced a dual governance in health, with the DOH governing at the national level and the LGU at the subnational level. This setup was designed in response to the fragmented archipelagic nature of the country and the uneven distribution of its population.

- The DOH's role is to steward national policies, plans, standards and regulations on health. It is also in charge of licensing hospitals, laboratories and other health facilities through the Health Facilities and Service Regulatory Bureau and health products through the Food and Drug Administration (FDA). The DOH also coordinates government, private sector and development partner assistance on health and leverages funds for improved health performance. The DOH, together with the Commission on Higher Education and the Professional Regulation Commission, builds the capacity of the health professionals and provides continuing education and development (limited to training and not mentoring on the job/ supervisory support).
- LGUs are responsible for the management and provision of health services at the local level. The provincial government, headed by the governor, manages the provincial health system (comprising the provincial health office and the provincial and district hospitals). The municipal government, headed by the mayor, manages the municipal health system

i In 1991, the enactment of the Local Government Code transferred some national government powers and functions, such as the delivery of basic social services including health, to LGUs.

(composed of Rural Health Units) and Barangay (village) Health Stations. The city government, specifically in highly urbanized and independent cities, manages city hospitals, medical centres, health centres and Barangay Health Stations.

The Philippines has a mixed **public-private health care system** that operates within a fragmented environment. The private sector caters to only about 30 per cent of the population but is far larger than the public system in terms of financial resources and staff.[12] It provides health care that is generally paid through user fees at point of service. About 65 per cent of the 1,224 hospitals in the country in 2016 were private.[13] Private health facilities are the first point of call for children with SAM who can afford the fees, highlighting their critical role in provision of SAM treatment services.

Recent Health reforms

- **Health Sector Reform Agenda (1999-2004):** Development and strengthening of local health systems, fiscal autonomy of government hospitals, increased funding for priority public health programmes and expanded National Health Insurance Programme coverage.
- **FOURmula One for Health (F1):** A framework for implementing health reforms from 2005 to 2010.
- **Regulatory reforms for the availability, affordability and quality medicines, health technology and medical devices**
    - The Cheaper Medicines Act (2005) allows the government to adopt appropriate measures to ensure access to affordable quality medicines, including parallel drug importation, price controls and generic substitution at the point of sale.
    - Food and Drug Administration Act (2009) to strengthen the administrative and technical capacity of the FDA in regulating the establishments and products under its jurisdiction; ensuring the monitoring and regulatory coverage of the FDA; and providing coherence in the regulatory system of the FDA.
- **UHC or Kalusugan Pangkalahatan in 2011** became a policy goal.
- **The Responsible Parenthood and Reproductive Health Act,** 2012 (Republic Act No. 10354), also known as the Reproductive Health Law. It introduces the notion of a service delivery network, which refers to the network of health facilities and providers within the province-wide or city-wide health system, offering core packages of health care services in an integrated and coordinated manner. It covers reproductive care as well as newborn and child care.
- **Philippines Health Agenda** 2016-2022. In 2016, President Rodrigo Duterte released the Agenda in order to attain the health-related SDGs. It is also called the A.C.H.I.E.V.E.
- **National objectives for health** 2017-2022 serve as the medium-term roadmap towards achieving UHC. It specifies the objectives, strategies and targets of the DOH FOURmula One Plus for health built along the health system functions. This ultimately leads to the three major goals to which the Philippines Health Agenda aspires.
- **Guidelines on the Adoption of Baseline Primary Health Care Guarantees for All Filipinos** (2017) (Administrative Order No. 2017-0012): Refers to a package of population-based and individual-based services that the State commits to provide to all Filipinos. This included SAM as one of the essential primary health care services.
- **"Guidelines in the Implementation of Philippine Health Agenda Check-Up Service for All Filipinos"** (2017) (Administrative Order No. 2017-0024) to ensure primary health care is realized within each community.
- **Universal Health Coverage Republic Act No. 11223** (2018): An act instituting UHC for all Filipinos, prescribing reforms in the health care system, and appropriating funds therefore the policy of the State to protect and promote the right to health of all Filipinos and instil health consciousness among them.

Nutrition governance

In a study performed by Engesveen *et al,*[14] the Philippines was graded "strong" in nutrition governance. In March 2014, the Philippines reiterated its commitment to reducing malnutrition by joining the Scaling Up Nutrition Movement. Nutrition governance is managed by:

1. **The National Nutrition Council (NNC):** The highest policymaking and coordinating body on nutrition piloted under the Office of the President of the Philippines. The NNC functions are to:
   a) Formulate national food and nutrition policies and strategies
   b) Coordinate planning, monitoring and evaluation of the national nutrition programme
   c) Coordinate the release of funds, loans, and grants from governmental organizations and non-governmental organizations (NGOs)
   d) Call on any department, bureau, office, agency and other instrumentalities of the government for assistance in the form of personnel, facilities and resources as the need arises.

2. **The National Council on Food Security:** Acts as the overall coordinating body in the formulation of policy guidelines and master plans and programmes on food security, with emphasis on the modernization of agriculture and fisheries sectors. The DOH has been designated as one of the members of the council. **The Food Safety Act** (Republic Act No. 10611) was enacted by Congress in 2013, to strengthen the food safety regulatory system, protect the health of consumers and facilitate market access of local food and food products.

3. **The Philippine Plan of Action for Nutrition (PPAN)** (2017-2022): An integral part of the Philippine Development Plan 2017-2022 and aligned with the Philippine Health Agenda, it incorporates the country nutrition commitments to the global community as embodied in the 2030 SDGs, the 2025 Global Targets for Maternal, Infant and Young Child Nutrition, and the 2014 International Conference on Nutrition.

   PPAN objectives are to reduce stunting from 33.4 per cent to 21 per cent, reduce wasting from 7.9 per cent to less than 5 per cent, and halt the problem of growing overweight and obesity among all population groups and address selected micronutrient deficiencies. In October 2019, the NNC conducted a **mid-term review of the PPAN.** The results guided the formulation of the updated PPAN 2017-2022, reflecting the changes in the results framework, the agenda for resolving programmatic and operational issues of the PPAN and priority actions to sharpen focus.[ii]

4. **Regional Plans of Action for Nutrition:** One of the principal instruments in achieving the outcome targets in the PPAN 2017-2022 is the formulation of Regional Plans of Action for Nutrition in all 17 regions of the Philippines. These plans commit regional sector agencies to actions and resources to address the priority nutrition problems in the region. Together with the results framework, they serve as reference points for all sectors and stakeholders to work together in achieving common nutrition priorities and targets at regional level.

5. **The Barangay Nutrition Scholar Programme** is a human resource development strategy of the PPAN, which involves the recruitment, training, deployment and supervision of community volunteer workers or barangay nutrition scholars. The barangay nutrition scholars undergo intensive training on the delivery of practical nutrition services, including: monitoring the growth of preschool children; communicating simple nutrition messages to parents, particularly pregnant and lactating women; and delivering timely food and pharmaceutical supplements to targeted women and children. Presidential Decree No. 1569 mandated the deployment of one barangay nutrition scholar in every barangay (village) to monitor the nutritional status of children and/or link communities with nutrition and related service providers. This decree also mandated the NNC to administer the programme in cooperation with LGUs.

   The barangay nutrition scholar cadre is complemented by another volunteer, the barangay health worker. These volunteers render primary health care services, including nutrition, in a cluster of 20 to 30 households in every barangay. As an incentive to volunteerism, a law enacted in 1995 grants the

ii PHILIPPINE PLAN OF ACTION FOR NUTRITION 2017-2022 was updated to focus and accelerate actions to achieve outcomes.

barangay health workers (but not barangay nutrition scholars) hazard and subsistence allowances, educational programmes, civil service eligibility, and preferential access to loans.

Operation Timbang (OPT Plus): The annual weighing and height measurement of children under 5 years campaign. Data generated through OPT Plus are used for local nutrition action planning, particularly in quantifying the number of malnourished children and identifying those who will receive priority interventions in the community. Results of OPT Plus provide information on the effectiveness of the local nutrition programme. The OPT Plus team consists of the Rural Health Midwife, barangay nutrition workers and other members of the Barangay Council, the barangay health workers, and day care workers. The team can be assisted by the *purok* or mother leaders, other community leaders or representatives from civic organizations. In 2020 the NNC added mid-upper arm circumference (MUAC) tapes as part of periodic OPT Plus growth monitoring and promotion services alternately with regular anthropometric measures.

6. **Compendium of Actions on Nutrition 2018:** The aim of the compendium is to showcase performing LGUs to provide valuable insights and lessons on nutrition programme implementation. This includes analysing the experience of LGUs to understand what motivated them to become champions in nutrition.

7. **Law on Scaling up Nutrition and the Early Childhood Care and Development First 1,000 Days Programme (ECCD-F1K):** in 2019, the Philippines passed an Act implementing rules and regulations of Republic Act No. 11148, known as *"Kalusugan at Nutrisyon ng Mag-Nanay"* Act. The NNC has since developed the ECCD-F1K Programme to operationalize the Republic Act 11148, which focuses on the intensification of both the national and local health and nutrition programmes intended to address malnutrition problems among the most nutritionally at-risk individuals, such as pregnant and lactating women, adolescent girls and children under 2 years of age.

History of integrating wasting into the national health systems in the Philippines

"In the 1970s, treating a child for malnutrition meant admission into a Malnutrition Ward (Malward), a delegated area within a hospital that focused on fully accommodating the special needs of children with malnutrition. Over time, hospital priorities shifted away from malnutrition, leading to the deterioration or subsequent phasing out of these MalWards. Treatment of malnutrition was largely hospital-based, with clinicians using outdated protocols."[15]

Management of SAM was first introduced in the Philippines in 2008 as a nutrition in emergencies intervention covering children aged 6 to 59 months in disaster-affected communities. In 2009, Save the Children, Doctors without Borders and Community and Family Services International first implemented community-based pilots with support from UNICEF and the World Food Programme (WFP) in armed conflict affected municipalities of Maguindanao, North Cotabato, Lanao del Sur and Lanao del Norte in Mindanao. In 2010, Action Against Hunger attempted the implementation of SAM management in a development context in some municipalities of North Cotabato and Lanao del Sur.[iii]

In 2011, UNICEF supported the National Nutrition Cluster in organizing a workshop to develop national guidelines with the support of experts (Dr Mike Golden and DrYvonne Grellety). During the workshop Professor Golden's protocol was adapted with the support of various stakeholders led by the DOH and the "Community-based Management of Acute Malnutrition (CMAM) taskforce" (now referred to as PIMAM taskforce). The adapted protocol became the **Philippines Integrated Management of Acute Malnutrition** (PIMAM) protocol. Several constraints delayed the official adoption of the national guideline by the DOH, including the local unavailability of essential commodities and the lack of a defined operational component of the PIMAM protocols.

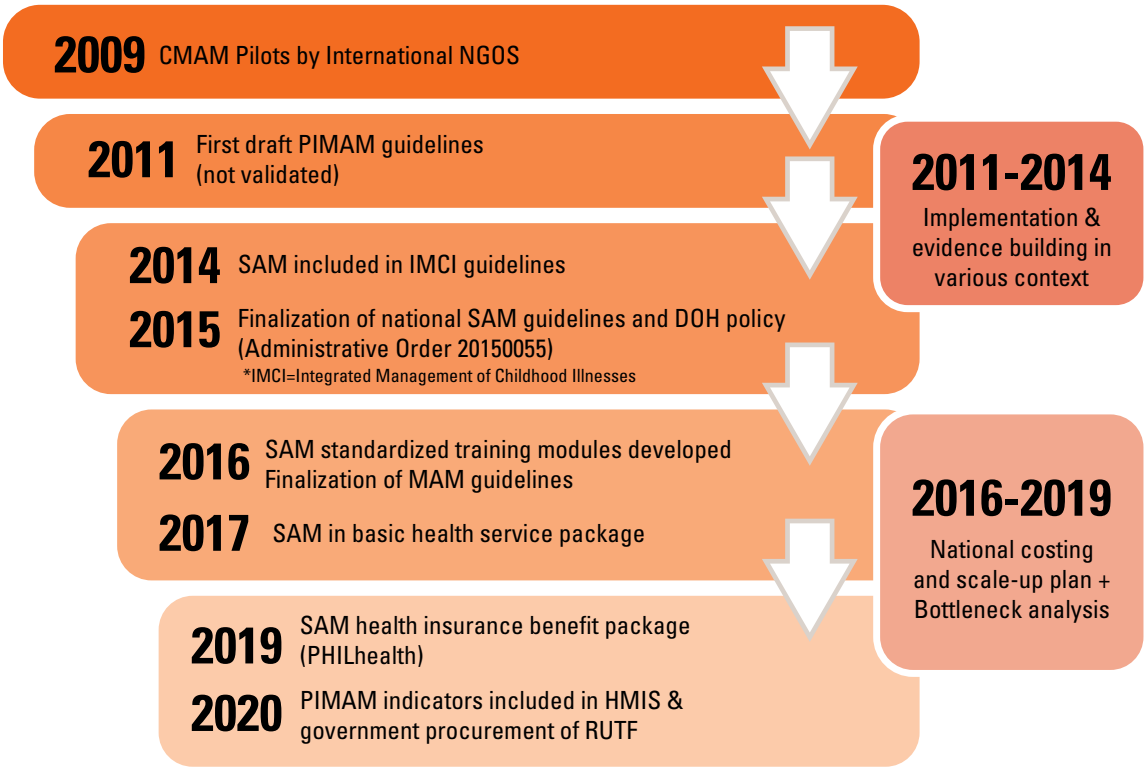
iii Note: early on these pilots were referred to as CMAM (community-based Management of Acute Malnutrition), managed by the CMAM Taskforce

When super-typhoon Haiyan impacted the Philippines in November 2013, management of SAM using the draft PIMAM protocol, led by the Philippine National Nutrition Cluster, was effective in saving the lives of around 1,000 children. This experience, coupled with the evidence-based advocacy efforts of the Nutrition Cluster and partners, resulted in increased awareness and demand from LGUs for improving access and availability of essential services for children with SAM.[16] The PIMAM protocol was also implemented in the urban development context of Davao City in 2014, in a non-emergency context.

In 2014, the Nutrition Cluster decided to revise the 2011 SAM guidelines in order to boost the integration of SAM management into the regular health system.

Key gaps in facilitating the endorsement of the national guidelines and policy were identified and addressed. The Nutrition Cluster decided also to finalize the guidelines for the management of moderate acute malnutrition (MAM) with technical support from WFP and Save the Children. The initial plan was to merge the two guidelines as one for endorsement by the DOH. The National Nutrition Cluster decided to move ahead with the endorsement of the guidelines and policy for SAM management first due to lack of consensus within the technical working group on the MAM guidelines. In addition to the initial protocol, the final PIMAM guideline added a section on operational guidance, which provided clarity on implementation modalities.

Figure 1: Evolution of Philippines Integrated Management of Acute Malnutrition



In December 2015, the DOH issued **Administrative Order 2015-055,** its highest policy instrument for the health and nutrition sectors, providing the policy and strategic framework to guide the adoption and implementation of the national guidelines at the local level. DOH and UNICEF teams developed a **scale-up plan** to implement SAM management using a phased approach. A total of 17 priority provinces out of 81 provinces (20 per cent) were identified for Phase 1 of SAM programme scale-up by the DOH starting in 2016. Priority provinces identified as those with high levels of wasting based on the National Nutrition Survey (2013), hazard-prone provinces, and those with existing capacities for implementation of outpatient and inpatient therapeutic care services.

In 2016, **Standardized Training Modules** for management of SAM were also developed and PIMAM became part of the package of essential health services.

RUTF and ready-to-use supplementary food. In 2018, PIMAM was deployed in 38 out of 81 (47 per cent) of provinces in the Philippines, and by 2022, all provinces were covered. To improve its implementation and eventual scale-up, a bottleneck analysis was performed in 17 provinces with UNICEF support. The main conclusion of the bottleneck analysis was that *"the provinces have not yet fully implemented the management of SAM because a programme management team is not yet established at the regional and provincial levels or there was lack of support from LGUs and other health providers. In addition, there was a lack or limited human resources trained on SAM management both for inpatient and outpatient care. Other main challenges include commodity management including requisition, distribution and delivery of commodities to prevent stockouts or excess at different levels. In areas where SAM services are available, utilization was limited because of poor case finding and community mobilization and the facilities are geographically inaccessible for the clientele. There were also challenges in the monitoring of SAM children, parents' supervision and programme management as well as in overall record keeping."*

In 2020, standardized SAM indicators were adopted and included in the national HMIS. PhilHealth is also designing a benefit package that will ensure equitable and quality access of all segments of the population to responsive health services for SAM in infants and children.

In 2021, following service disruptions because of the COVID-19 pandemic, the Ministry of Health adopted Family-MUAC in select provinces, an approach where parents and caregivers are trained to screen their children for wasting using MUAC tapes. The DOH has also requested UNICEF to conduct operational research on simplification of current approaches in the management of SAM to facilitate supply and demand of SAM services in the region, including facilitating a quicker integration of SAM services into the primary health care services.

METHODS

The study was conducted between November 2019 and November 2021 using a mixed-methods qualitative approach to study factors that influenced the integration of SAM into the health system in the Philippines. Two streams of data were gathered through literature review and key informant interviews.

Thematic literature review

The literature review involved reviewing information on three main topics:

- The national health system in the Philippines, child health and nutrition services
- Regional/national guidance on integration of services and health system strengthening
- Documented experiences of the integration of SAM into the Filipino health system.

Sources of documentation in the public domain were identified through an internet search using key words entered into a web browser. Further documentation was provided by the Government of the Philippines and UNICEF. A list of the sources for the literature review can be found in Annex 2.

Key words used: *Health integration, health system, integrated care, integration of health and nutrition services, integrated management of childhood illnesses, UHC, nutrition, SAM management, acute malnutrition/ wasting.*

Key informant interviews

A list of 26 key informants was shared by the UNICEF Philippines Country Office, divided into three categories of priority (priority 1 contacts, n=13; priority 2 contacts, n=10; priority 3 contacts, n=3). Key informants listed as priority 1 contacts were contacted via email and requested to complete a questionnaire comprised of 32 questions thematically arranged around the building blocks of the health system following the Deconinck framework. After completing the questionnaire, key informants were interviewed (approximately one hour) to validate the interpretation of their responses and provide further clarification. One key priority 2 contact was also contacted via email and requested to complete a questionnaire.

Key informant responses

Ten key informants (nine from "priority 1 list" and one from "priority 2 list") responded to the email and sent back completed questionnaires. Of the 10 key informants who responded to the written questionnaire, eight subsequently underwent an oral interview. **Five key informants** either declined to participate (n=1) or agreed but never sent back the questionnaire (n=1) or did not respond to the emails sent (n=3). Refer to Annex 4.

Tools for analysis

The analysis of the literature review and the key informant interviews used two complementary layers of analysis for assessing the integration of severe wasting into the health system based on two tools/ frameworks that have been developed and tested in the last 10 years in different countries. Both analyses are complementary with the combined results providing a more complete picture of the situation.

a) Deconinck's diagnosis tool (adapted): The extent of SAM integration in the health system (2015)

The first layer of analysis is a systematic review of indicators per health system functions that helps analyse **the degree of integration** of severe wasting into the health system using a diagnosis tool adapted from Deconinck *et al*.[2] It zooms in on precise indicators and identifies priority actions for integration, while also facilitating regular monitoring of achievements and changes occurring over the next few years. This diagnostic tool was developed guided by the literature.[17–19] It is based on the six key health system functions and composed of **29 indicators.** For this study we selected 25 of the 29 diagnostic indicators to focus better on severe wasting and omitted those not relevant. See Annex 2 for more detail of the key health system functions measured. The extent of integration of interventions is tabulated and scored from **none** to **partial** or **full** integration for each health system function.

- **No integration** means no interaction, or segregation
- **Partial integration** means a linkage or coordination
- **Full integration** means that functions, activities, systems or structures are in the mainstream and routine.

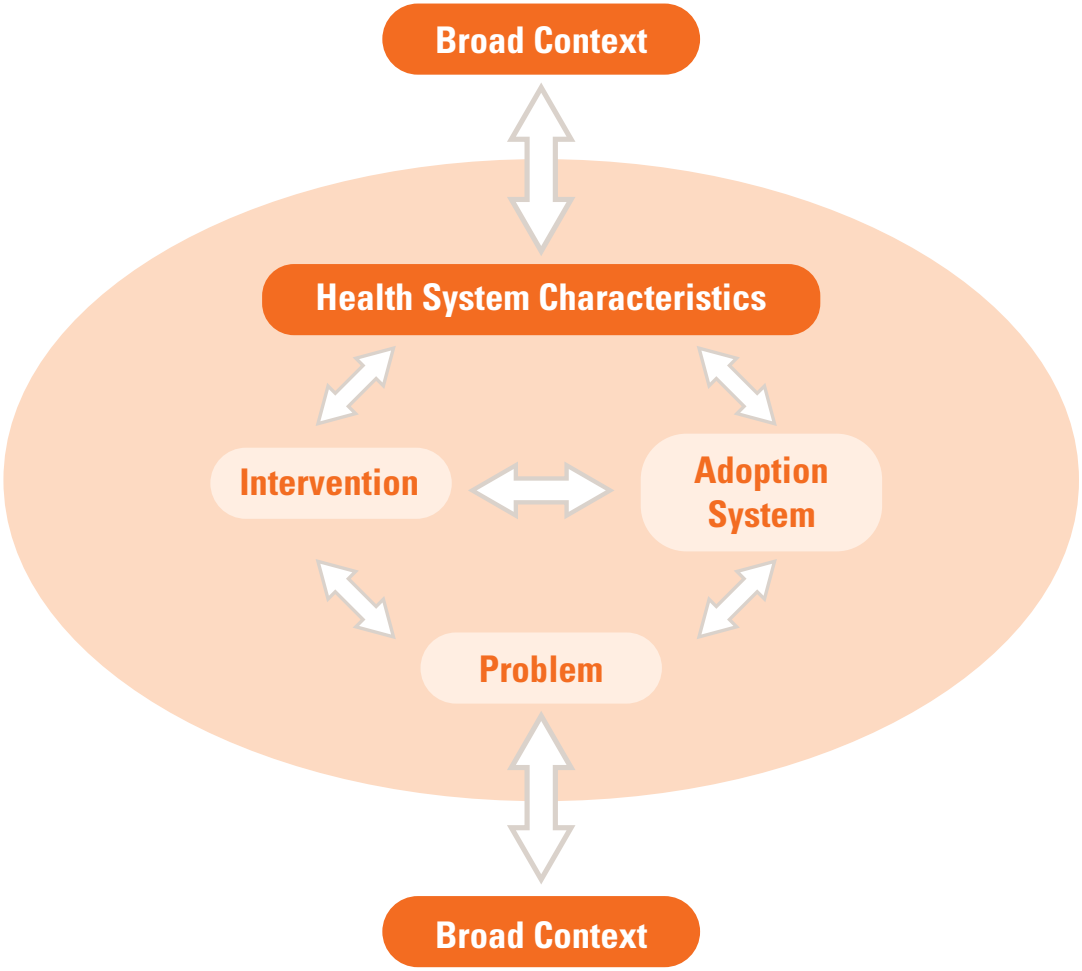
b) Atun framework (2010)

The second layer is an analysis of **the factors influencing integration** using the Atun Framework, which enables deconstruction of the term 'integration' into multiple facets, each corresponding to a critical health system function. The conceptual framework can be used to analyse and map the nature and extent of integration in different settings for different health programmes, along with the factors that influence the integration process of a new intervention into a national health system. It also highlights the systemic and national vision of service integration and the interdependence between bottlenecks and supports the development of recommendations.

This framework should ideally be developed at country level via a focus group discussion or a workshop. Since this was not possible in this project, we analysed each critical function of the health system and mapped the various factors that will influence integration in the context of the Philippines based on the literature review and the key informant interviews performed and finalized with the feedback of UNICEF country teams. This helped identify key actions and critical areas of focus that will facilitate the integration of severe wasting treatment services in routine health services. Influencing factors for the integration of interventions were scored according to three categories: **promoting (+) hindering (-) and factors being both promoting and hindering (+, -).**

Figure 4 below provides a conceptual overview of the Atun Framework. The conceptual framework structures factors that influence the integration of a new intervention into a national health system. This framework was used in various reviews related to SAM integration (e.g., Bangladesh[20] and Niger[21]).

Figure 2: Conceptual framework for analysing integration of targeted health interventions into health systems (Atun et al. 2010)



Limitations of the study

The study was interrupted for a period of five months due to the COVID-19 pandemic and subsequent restrictions of movement. This also required that key informant interviews be undertaken remotely by Skype or phone call. Ideally the Atun Framework findings should have been developed and validated through focus group discussion. This lack of participative validation means that specific actionable recommendations cannot be proposed based on these findings.

RESULTS

SITUATION ANALYSIS OF INTEGRATION OF SAM IN THE PHILIPPINES' HEALTH SYSTEM

This section describes the different health system functions and identifies general strengths and areas of improvement. Each health system function is explored in relation to SAM integration. SAM integration status is analysed using a set of key benchmarks based on Deconinck's model, and this analysis is articulated with other factors that positively or negatively influence the integration of treatment services for severe wasting using the Atun Framework.

i) Governance

Summary

PIMAM has largely been embedded in most of the laws, guidelines and administrative orders developed in the last five years in the Philippines, although some gaps remain. This achievement is thanks to a strong national commitment to scale up provision of services for the management of SAM through the national health system. National guidelines for PIMAM supporting comprehensive child healthcare have been developed and there is ongoing work to integrate it into IMCI and child hospital care through a national level PIMAM technical working group to oversee the scale-up of wasting management within the health system.

Lessons learned/moving forward:

- To achieve successful integration, PIMAM needs to be championed and systematically coordinated at local level.
- Integration of SAM management into UHC planning is critical to ensure synergies with other health programmes and avoid overburdening services at the LGU level. In the effort towards the achievement of UHC, the service delivery network approach will most probably be reframed, it is a key opportunity for SAM management to be better integrated.
- Three strategic and programmatic documents (listed below in this chapter) still lack information related to PIMAM and will need to be updated.
- Greater links and relations between programmes will be critically needed to boost synergies and avoid overburdening the LGU level.
- Specific focus is needed to enforce PIMAM standards of care.

There is global recognition that the existing general health care system is characterized by fragmentation, duplication and competition between programmes. This is an immense challenge that the adoption of the UHC Law will try to correct.

Table 1: Integration level of SAM treatment services in the health governance function in the Philippines[22]

Leadership and governance		
Policy setting	National health and nutrition policies with PIMAM as part of comprehensive child health care* (i.e., IMCI and child hospital care)	Partial
National guidelines	National guidelines for PIMAM supporting comprehensive child health care	Full
Technical leadership	Technical advisory group for comprehensive child health care overseeing wasting scaling up within health system	Partial
Regulation	Standards of care for PIMAM are set and enforced	Partial
Coordination	Extent that wasting treatment is planned for together with other health services at the provincial (meso) and LGU (micro) level	No

The DOH has been successful in generating political support to pursue its recent health reform and bringing the health agenda to the forefront of national government priorities. However, strong political support does not automatically translate to improvements in the health system. There is a lack of institutional capacity to translate policy into effective programme implementation, monitoring and evaluation.[9] National-level directives and financial resources need to be translated to the operations and delivery of critical programmes.

The **Philippine Health Agenda 2016-2022** recognizes that the existing general health care system is characterized by fragmentation, duplication, competition and disorder: *"weak and fragmented health systems in our resource poor setting are not fully able to provide well-designed, cost-effective, and mutually reinforcing prevention and treatment interventions. Indeed, health targets of current Millennium Development Goals have floundered because our health systems are inadequate to simultaneously meet the needs of public health campaigns and everyday health care."*[23] The UHC Law aims to address this challenge.

The DOH website lists 51 programmes, each of which pursues specific objectives, interacting with the LGUs parallelly. As mentioned by a DOH key informant during the interviews, health authorities have identified this issue as the major challenge to overcome in the next 10 years.

Policy setting and national guidelines

The most important nutrition policy document is the recent Republic Act (RA) No. 11148, known as "Kalusugan at Nutrisyon ng Mag-Nanay Act" (2019). Nationally, PIMAM is embedded in most of the laws, guidelines and administrative order developed in the last five years (since the official adoption of PIMAM in 2015). Despite the efforts of the NNC and UNICEF, there are remaining gaps: namely, **PIMAM is not included among the list of 51 programmes.**

This study identified incomplete or missing information within three key health documents:

- **National Objectives for Health 2017-2022 and SAM integration.** While indicator 6 of strategic goal 1 focuses on stunting, acute malnutrition or wasting is not mentioned.
- **Philippines Health Agenda and SAM Integration.** Malnutrition is mentioned in the strategy presentation, but, in the administrative order 2017 0024 (Guidelines in the implementation of the Philippines Health Agenda check-up service for all Filipinos, Annex B) MAM and SAM are only mentioned for the 0–12-month age group. Instead, the former terminology "protein energy malnutrition" is still used and the information about early detection does not refer to oedema and weight for height. The absence of oedema may be due to the relatively low oedema prevalence in the Philippines.
- **Service Delivery Network and SAM Integration.** In the Service Delivery Network Guidelines published in 2016, Annex C details the core package of services. However, SAM is not mentioned among the "Interventions at the Primary Care Facility" level. Further, therapeutic products and measurement tools are not listed as "Key Supplies and Commodities Needed."

Technical leadership, regulation and coordination

At local level, SAM management was reported to be included in the health action plans of provinces supported by UNICEF. Key informants reported that the Local Health/Nutrition Boards at the provincial and municipal levels were often non-functional. The bottleneck analysis also found that *"SAM management was not yet fully implemented or functional in some provinces because the programme management team was not established at regional and provincial level or there was a lack of support from LGUs or other health providers."*

Seven out of nine respondents described the fragmented nature of the health system and the need for improved coordination between programmes. *"With the UHC bill, the direction will be to develop packages of services across life stages. All child health services will be integrated. The cost of coordination especially in terms of time and effort is high, which may be a reason for sectors to tend to work [alone] as sectors. Functionality of coordination structures even at the national level is a challenge because of this. There should be a push from national and local leadership on coordination."*

At subnational level, UNICEF-supported provinces have undergone regular PIMAM Programme Implementation Reviews, which also highlighted the need for better/stronger coordination at the local level. Together with this and the new policy direction at the national level, the various provinces have also started the process of re-organizing their PIMAM management teams.

ii) Health financing

Summary

The budget of the DOH has massively increased over the past years reflecting the increased priority accorded to health care and the vision to reach UHC of the population. Philippine Health Insurance Corporation (PhilHealth) was created to provide health insurance coverage for all Filipinos. But in 2018, financial protection was still limited, with a high level of household out-of-pocket payment. **Nutrition budgeting also received more attention** and standards for the management of SAM have been integrated from primary to tertiary levels of care in 2021, following the expansion of the primary care benefits of PhilHealth. The budget dedicated to PIMAM has long been centralized (within the DOH), particularly when it comes to supply. **The lack of budgets dedicated to nutrition and the management of SAM at the local** level (LGU) is a major bottleneck to the integration of SAM within the health system, according to key informants.

Lessons learned/moving forward:

- Continued financial commitment is needed for PIMAM.
- Local level budgets must be prioritized.
- Implementation and coordination-related funding in LGU annual costed plans need to be strongly promoted (and must systematically include in-service training and supportive supervision costed plans).
- Continuous monitoring of the costed scale-up plan developed by the DOH in 2016 needs to be implemented and budget estimation adjusted to the context and evolution of trends.
- Implementation of the PhilHealth SAM benefit package needs to monitored.

Table 2: Integration level of SAM management in the health system financing function in the Philippines

Health system financing		
Regular budget-pooled funding	Regular budget from pooled funds with a sector-wide approach covering financing for PIMAM	Partial
Annual costed action plans	Annual costed action plans of the DOH covering PIMAM interventions	Partial
Purchasing of SAM treatment services	Service providers payment mechanism for SAM	Partial
Financial risk protection	Availability of financial protection mechanisms to reduce out-of-pocket payments for SAM treatment services	Partial (expected in 2021)

The total health expenditure of the Philippines has consistently increased since 2005. The budget of the DOH has increased 12-fold over the past 12 years (2018), from Philippine peso 10 billion ($183M) in 2005 to 123 billion ($2.2 billions) in 2016, reflecting the increased priority accorded to health care and the vision to provide UHC to the population. The DOH funds regional and apex hospitals, whereas LGUs fund primary and secondary-level care.

Utilization of the health budget has improved over the years, but governance and implementation challenges persist due to the fragmented nature of the system. The country has a mixed health system with an expanding private sector. There is no effective mechanism to regulate private for-profit health-care providers.

The **National Health Insurance Act of 1995** created the **Philippine Health Insurance Corporation** (PhilHealth) to manage the National Health Insurance Plan and provide health insurance coverage for all Filipinos, but enrolment was not made compulsory. In 2013, it was amended, expanding the contribution-based National Health Insurance Plan beyond formal employment to include the underprivileged, sick, elderly, persons with disabilities and women and children. PhilHealth serves as the national social health insurance agency which purchases services from public and private providers on behalf of its members.

The **Universal Health Care Act** provides for the DOH to cover population-level programmes, while PhilHealth is mandated to ensure financial risk protection for all Filipinos who would need individual-based services, particularly outpatient and inpatient therapeutic care.

Salaries of public health workers have steadily increased in recent years. The president issued amendments to Executive Order 201, which scheduled the fourth tranche of adjustments under the salary standardization law 1 January 2019.

Regular Budget-Pooled funding and annual costed action plan for PIMAM

The PPAN 2017-2022 has estimated a budget for the entire period of six years covering the 12 programmes. With UNICEF support, the DOH developed a phased scale up plan for PIMAM. DOH continues to procure essential PIMAM commodities for LGUs, it also funds all programme components for PIMAM at the national level (including necessary workshops and trainings). According to the updated PPAN 2019, PIMAM is fully budgeted from the central level (DOH has allotted US$3.3 million in their 2016 investment plans for PIMAM). As a comparison, in 2020, the DOH allocated US$374 million for the implementation of the Responsible Parenthood and Reproductive Health Law[24] and US$10.1 million and US$14.8 million respectively in 2019 and 2020 for the HIV/AIDS programme. In 2020, the total DOH budget was US$1.98 billion.[25]

A costed scale up approach was developed (2017-2022) with a prioritization of provinces to be included every year based on wasting prevalence. Only costs for supplies were only fully estimated (see Table 3 below).

Table 3: Department of Health SAM scale up annual expansion (2016)

	2017	2018	2019	2020	2021	2022
Number of provinces	17	38	53	67	85	85
Budget estimated for supplies (in USD)	3 million	5,2 million	8,4 million	11,8 million	18 million	18 million
Capacity building (training-of-trainers and service-provider courses) (in USD)	200,000	26,500	10,000			
Development of strategic plan (in USD)		5,000				
Workshop on health governance for PIMAM (in USD)		4,500				
Pre-testing of PIMAM supportive supervision/ mentoring (in USD)		3,000				

In recent years, LGUs have been successful in mobilizing efforts to integrate nutrition in local plans and budgets. LGUs have huge influence on how nutrition programmes are implemented and funded. The NNC developed a guideline for nutrition planning[iv] to support LGUs in developing and financing their local nutrition action plans and how to integrate these into their respective annual investment plan in 32 priority provinces. The local nutrition action plan and annual investment plan are submitted to the Local Planning and Development Office for inclusion in the overall local development plan.

Regional offices formulate Regional Plans of Action for Nutrition in 17 regions. Participating local governments then develop local national action plans and integrate them into their respective development plans, namely the multi-year Provincial Development and Physical Framework Plan, Comprehensive Development Plan, Local Development Investment Programme, and Annual Investment Programme.

The NNC was provided with technical assistance from Nutrition International (via the Nutrition Technical Assistance Mechanism and the Technical Assistance for Nutrition project) secured financing for the PPAN 2017-2022. Specific support was provided to the NNC to conduct decentralized nutrition planning and budget workshops for all prioritized PPAN provinces, cities and municipalities. In 2020, the Nutrition Technical Assistance Mechanism also supported the NNC to develop a thematic guide on prioritizing nutrition in local development plans and budgets. This was meant to accompany the Local Budget Memoranda that were issued by the Department of Budget and Management to instruct local governments to allocate a budget for nutrition (the Local Budget Memoranda No 77a enjoins all barangays to prioritize in the allocation of local funds for Plan of Actions for Nutrition (PPAs) included in their respective Local Nutrition Action Plans (LNAPs)).[26]

While a system for budget tracking is non-existent to date, inspiring anecdotes in various LGUs, that in 2018 prepared their 2019 Annual Investment Programme, attested that they increased their investments in nutrition especially during the first 1,000 days **(ECCD-F1K Programme).**

iv https://www.nnc.gov.ph/phocadownloadpap/userupload/elavapie/NNC%20GB%20Reso%20no.%203%20s2014_LNP.pdf

LGU budgets are vital for achieving targets and results. Barangays have their own income coming from the Internal Revenue Allotment, now called National Tax Allotment, in addition to user fees and other income sources.

Except in LGUs performing well in nutrition, budget allotments for nutrition are minimal, mostly addressed to items such as July nutrition month celebration, support for barangay nutrition scholar incentives, and limited supplementary feeding of under-five children. Barangay officials would normally take a small percentage from the budget of Gender and Development and Sangguniang Kabataan to support nutrition. **The allocations from the two sectors however are deemed inadequate to achieve outcomes at the barangay level** (updated PPAN 2019). Limited mobilization funds at the regional and LGU levels for case finding and other treatment costs for wasting was also cited as a major challenge by the key informant interviewed during this study.

There is a challenge for nutrition funding to be allocated at local level in annual costed plans. *"The lack of budgetary allotment and means to deliver the commodities especially from the municipal and barangay level"* was one of the challenges listed in the bottleneck analysis to improve effective coverage and implementation of SAM management services performed in 2019 in 17 provinces.

Budgets dedicated to in-service trainings are included in the regional and provincial health office plans but are usually deemed not adequate. In some instances, resource contributions from external donors and partners spurred progress and some key achievements. For PIMAM, with the technical and funding support provided by partners such as UNICEF and WFP, the programme benefitted from valuable technical inputs for developing training designs and modules, policies, guidelines, and manuals of operations, as well as with communications and advocacy. A bottleneck analysis funded by UNICEF has been vital to identifying an operational and financial gap.[27]

Purchasing/payment mechanism for service providers

Payment mechanisms for health services vary by the type of ownership of the facility in which the care was provided and the type of funder. Public health services are generally provided by LGU health centres and the Barangay Health Service as well as outpatient departments and outreach programmes of DOH-retained and LGU hospitals. Being government owned, the health staff in these facilities are generally paid a salary. If the Rural Health Unit or city health office of the LGU is accredited by PhilHealth as a provider of primary care benefits, then the health staff in these institutions are also entitled to a proportion of the so-called capitation fund coming from PhilHealth.[9]

Financial risk protection

PhilHealth is guided by the most burdensome conditions in the country when prioritizing conditions for the benefit package development, of which SAM is one.[28] In this light, the DOH promoted the implementation of the PPAN 2017-2022 that targets a wasting prevalence of less than 5 per cent in children.

The current provider payment mechanism provides inpatient coverage for the medical complications that may arise in children with SAM. However, inpatient coverage is not specific to SAM and does not cover commodities for outpatient therapeutic care at the primary care setting. Thus, DOH, PhilHealth, UNICEF Philippines Country Office and key stakeholders formed a technical working group to identify cost-effective evidence-based interventions that could be financed through the National Health Insurance Plan that will be integrated from the primary to tertiary care settings. They designed a benefit package that ensures equitable and quality access of all segments of the population to responsive treatment services for SAM in infants and children.

The management of SAM was targeted to be integrated from primary to tertiary levels of care in 2021, following the expansion of the primary care benefits of PhilHealth as commitment in achieving UHC. As of 2022, the SAM Benefit Package of PhilHealth is still undergoing approval.

iii) Service delivery

Summary

PIMAN capacities are available in 81 provinces – however quality services and good coverage are still hampered by system bottlenecks. Challenges that impact the ability to integrate SAM management into the health system include the absence of functional two-way referral systems and fast turnover of health workers at all levels of the health system. However, efforts towards UHC are promising and will contribute to scaling up the delivery of integrated SAM services.

Since 2014, IMCI in the Philippines includes SAM and MAM management. The DOH recently initiated the strengthening of the service delivery network, but this has not yet included SAM and MAM in the primary care facility level (only mentions management of children with severe complicated malnutrition). The "DOH SAM scale-up plan" implemented since 2016 ensured outpatient and inpatient management of SAM is operative in 81 provinces.

Lessons learned/moving forward:

- More investment in nutrition training for health workers at the community level, regular supportive supervision, and systematic screening of children is needed to improve early detection of malnutrition.
- The routine child growth monitoring programme (which uses local level data generated from Operation Timbang (OPT+) for early detection of SAM and facilitation of referral and timely admission into outpatient or inpatient care) should be better leveraged.
- Demand generation should be boosted from communities to improve child health and nutrition.
- Advocacy for more coordination and management support to front-line workers to improve technical support should be done as part of the UHC approach.
- The geographical availability of treatment in provinces must be improved where PIMAM is already implemented and scaled up to the provinces not yet covered.

Table 4: Integration level of SAM management into service delivery function in the Philippines

Service delivery		
Accessibility	Geographic accessibility/availability and continuity of care	Partial
Demand generation and prevention	Demand generation by activating and informing communities for improved child health and nutrition	Partial
Early case finding	Screening for SAM is included in outreach and community health services and systematic case finding by health workers for all children presenting at the health facility	Partial
Community-based primary care	Outpatient management of SAM without complications as part of comprehensive care at health clinic/centre and in community	Partial

Recent DOH initiatives to strengthen the service delivery network at the local level are aimed at addressing gaps and inefficiencies in health care provision. The service delivery network, as defined by the Responsible Parenthood and Reproductive Health Law, refers to the network of health facilities and providers within the province- or city-wide health system, offering core packages of health care services in an integrated and coordinated manner.

The Philippines Health Agenda aims to ensure the best health outcomes for all, by providing care at all life stages, made accessible through a functional delivery network and sustainably financed through universal health insurance (Administrative order N°2017 0024: Guidelines in the implementation of Philippines Health Agenda check-up service for all Filipinos).

The 2018 Health Systems in Transitions (HIT)[9] highlighted the following major challenges related to service delivery in the Philippines that also had an impact on the ability of the system to integrate SAM management.

- **The absence of a facilitated referral system.** Overall, the patient lacks the opportunity to navigate the health system effectively – from identifying the appropriate hospital, getting recommended to a doctor, to getting advice on the needed medical tests or procedures and referral back from the hospital to primary care for continued health care. This is an important barrier to the identification and management of SAM cases (see "demand generation and early case finding" section below).
- **The lack of gatekeeping at the primary care level** (as mentioned in the governance section) also contributes to inefficiencies and increasing the cost of care as patients with simple conditions that can be treated at the primary care facility, such as simple pneumonia and normal deliveries.
- **The gap in utilization of health services between urban and rural areas.** As intended by the DOH, upgraded local health facilities should get PhilHealth accreditation and the income from PhilHealth payments must be retained to sustain the operations of service delivery, especially in isolated and hard-to-reach areas.
- **Uneven participation of civil society organizations** in provincial, city and municipal councils, that depends on the openness of the local government executive.
- Medical care is fraught with serious **information asymmetry** between provider (hospitals, doctors) and patient, as well as funder (health insurance, health maintenance organization) and patient. Patient empowerment is particularly challenging in the Philippines due to pervasive income inequality (forcing doctors and hospitals to practice price discrimination among patients categorized according to capacity to pay).
- **Lack of health infrastructures:** The country lacked over 2,500 Rural Health Units or health centres and more than 500 Barangay Health Stations to serve the population in 2016, despite the DOH support to the new construction of 351 Barangay Health Stations and 107 Rural Health Units under the 2016 Health Facility Enhancement Programme. This has limited access to health care, given that the majority of those attending these health facilities belong to the poorest income quintiles, as shown by the 2013 NDHS.[29]

The challenges listed above in service delivery have a big impact on the system's ability to deliver PIMAM effectively.

Demand generation, prevention and early case detection of SAM

According to the PIMAM guideline "the City/Municipal Health Officer and the City/Municipal Nutrition Action Officer, as well as supervising midwives, have a responsibility to ensure that the barangay nutrition scholars and barangay health workers (and other volunteers in times of emergency) are trained in engaging with the community, disseminating sensitization messages effectively and identifying and referring SAM cases."

The barangay nutrition scholars and barangay health worker are the reference point for counselling, active case finding and demand generation. In the bottleneck analysis report (2019) one of the challenges identified was that PIMAM implementation programme was seriously hindered by low case finding and that "most of the provinces reported that the screening of SAM cases was through Operation Timbang Plus (OPT+), which also had variable coverage." Only 5 out of 17 provinces studied reported community outreach.

According to a key informant *"there is no mechanism for informing the communities on child health and nutrition formally in place. Health promotion and information dissemination on key child health and nutrition issues are not well-established at the barangay level. This is very dependent on campaigns and nationally funded advocacy materials." "Demand is mostly generated through barangay assemblies, dependent on the Chair of the Sanggunian (Council), and discussions among parent leaders or women's groups. Community outreach is not prioritized."*

Another key informant noted that *"community outreach is only performed during the OPT Plus (first three months of the year) where anthropometric measurements, including MUAC, are being done. Only a few community health workers at the barangay and municipality levels are reporting and referring children with SAM to the health facility for management."*

The NNC official further stated: *"the system on annual planning or OPT Plus does not seem to be used to the fullest for detection. For instance, after each OPT Plus (usually done in the first quarter) the identified SAM cases should be referred to the nearest inpatient or outpatient care. I am not sure on the extent to which this happens."*

The actual PIMAM working group chair made the following comment: *"outreach and community mobilization are not efficiently being done. At health facility level there is often only a midwife and only two volunteers (barangay health worker or barangay nutrition scholar); one midwife will cover two to three villages. The barangay health workers and barangay nutrition scholar do not have enough capability to screen because they lack the competency. As a result, the midwife remains as the only person to do assessment (together with all other programmes) and it becomes very challenging to do the outreach. The volunteer network is weak in number and not enough trained. [There is no real training but a few hours of orientation] There is a need to develop a standardized integrated training package for the barangay health workers and nutrition scholars."*

The WFP nutrition programme officer stressed the fact that volunteer turnover was a major challenge, together with the geographical isolation of certain municipalities which are facing road access problems, hampering the roll-out of proper volunteer work.

The low functionality of outreach and early case finding seems also related to unreported data collected, unaccomplished growth charts, lack of standardized measuring tools and lack of proper training among community health workers prior to engagement in the programme. As mentioned under the financing building block, limited mobilization funds at the regional and LGU levels for case finding and other related inpatient therapeutic care costs was also cited as a major reason for this setback.

The inadequate case finding resulted in instances of underutilized supply of RUTF/ready-to-use supplementary food that had to be disposed.

Accessibility and community-based and facility-based primary care

Since 2016, important efforts have been made to ensure outpatient and inpatient management is operative. In 2018, 38 provinces were implementing PIMAM according to the 2018 bottleneck analysis and the geographical coverage has reached all 81 provinces.

In the Philippines, IMCI was started on a pilot basis in 1996; thereafter, more health workers and hospital staff were capacitated to implement the strategy at the front-line level. In 2018, IMCI was implemented in 70 per cent of all health facilities nationwide. IMCI was also integrated in the Nursing, Midwifery and Medical Pre- Service Education. Since 2014, IMCI in the Philippines includes SAM and MAM management.

The PIMAM Chair suggested that 80 per cent of the targeted provinces effectively integrated SAM management in their mainstream health programmes. *"All the 17 regions have had a training on management of SAM and MAM, all of them conducted roll out training for respective provinces. Inpatient therapeutic care and outpatient therapeutic care have started. Nevertheless, not all health facilities are covered by this change and there are major challenges in the supply chain management that affect the delivery of care. One of the most important challenges remains the overburdening of the health staff."*

In some of the 17 provinces assessed in the 2019 bottleneck analysis, SAM management was not yet fully implemented or functional. In the 17 provinces, 74 per cent of the Rural Health Units serve as outpatient therapeutic centres, while only 18 per cent of hospitals provided inpatient therapeutic services over the period January to June 2018. The reasons were related to the lack of technical support (LGU, health providers) but also the absence of a programme management team. A challenge listed was also the geographical accessibility of the inpatient and outpatient therapeutic facilities. One key respondent mentioned as well that one of the main challenges was that screening was not proactively done at the hospital and primary health care level. *"We may be missing cases among inpatients and among those who are not referred to outpatient therapeutic centres in outpatient care settings."*

A national boost to the integrated approach will soon be happening (next two years according to the PIMAM Chair) *"In the past, the service delivery system was very centralized. With the UHC law the service delivery will be better integrated (Continuum of Care) and the system will be changed. The service delivery network will be different from what we have now. Eventually a manual of operation will come up for the existing guideline. The transition will challenge every programme and province."*

iv) Health workforce

Summary

The Philippines faces imbalances in the development and distribution of health workers. The top three challenges identified for the integration of the health workforce for SAM management in the Philippines include the availability of trained human resources for nutrition, the absence of SAM modules in medical and paramedical curricula, and the lack of supportive supervision due to a stretched workforce, leading to insufficient mentoring and skills development for health workers.

Lessons learned/moving forward:

- There is a need for increased geographic distribution and training of health workers.
- SAM management should be included within into job descriptions, preservice education curriculum modules (medical/paramedical).
- SAM management should be systematically included as part of continuing professional development (training and supportive supervision needs to be budgeted).
- Local management teams in charge of coordinating and supervising front line workers need to be available and trained in SAM management.

Table 5. Integration level of SAM treatment services in the health workforce function in the Philippines

Health workforce		
Adequate coverage	Adequate number of health workers trained on SAM management and their geographic distribution	No
Competences	Job descriptions and work standards for health workers include treatment of SAM	Yes
Education/ skills development	Modules of pre-service education curriculum for all health sector staff include prevention and treatment of SAM	No
	In-service training for all untrained health workers providing SAM treatment services.	Partial
Performance management and motivation system	Performance appraisal and supportive supervision includes SAM treatment services	Partial
Professional development	The integrated management of acute malnutrition is included as part of continuing professional development for health workers	Partial

As in many other countries, the Philippines faces imbalances in the development and distribution of health workers, which poses challenges to the health system. The Philippines has a huge reservoir of trained health professionals. However, they are unevenly distributed in the country; only 10 per cent of the country's human resources for health serve rural areas, leaving some municipalities without trained medical professionals. In addition to shortages of qualified health professionals in underserved areas, there are significant variations in the quality of health services, causing inequities in health outcome.[30]

In 2020, the DOH issued an updated strategic plan, the HRH Philippines Master Plan with a short, medium and long-term plan.[31] Its mission is to ensure adequate/equitable and sustainable number of compassionate and responsive HRH at all levels to deliver health care through the continuum of promotive, preventive, curative, rehabilitative health interventions. Four goals for HRH Management and Development were identified: (i) Develop highly skilled and highly motivated health workers; (ii) Ensure adequate and equitable distribution of health workers across the Philippines; (iii) Contribute in improving population health outcomes.[31]

The DOH has also started the development of the DOH Academy, with the primary objective of integrating, harmonizing and streamlining HRH capacity development and training activities, instituting a certification and accreditation system for academic and training institutions, and improving the efficiency and cost of training. The institution of the DOH Academy was formalized through Administrative Order No. 2015–0042 (Guidelines for the Establishment of the DOH Academy). As the primary training arm of the DOH, the Academy is expected to enhance competencies of the health workforce in local health systems development. The Health Human Resource Development Bureau undertakes the development of e-learning modules as well as a component strategy of the DOH Academy to lessen interruption of service delivery due to attendance in service training courses, and to provide career growth opportunities for front-line health workers unable to avail of such face-to-face training courses.

Two government entities are responsible for training, qualifying and continued professional development of health workers. The Commission on Higher Education is mandated to prescribe standards for quality health science education and the health science curriculum, and to regulate public and private higher education institutions in the country. The Professional Regulation Commission is tasked to promote honest and credible licensure examinations of health professionals, provide continuing education and development, and ensure effective regulation of professional practice.

Adequate coverage and distribution of health workers trained on treatment of SAM

Most of the key informants interviewed during this study listed human resources as one of the top three challenges for SAM integration in the Philippines. The availability and the training of human resources has also been listed in the key challenges in the bottleneck analysis performed in 2019.

Barangay nutrition scholars and barangay health workers are reference points for counselling, active case finding and demand generation. Service delivery for SAM management services occur in two settings – the hospital and the community. Within the community, the Rural Health Unit and their staff are the first-line implementers. The PIMAM former Chair suggested that *"in recent years, the inadequate human resources for health, even at the national level, have had an impact on the capacity of programme managers (that were already managing several programmes) to handle everything. This resulted to the team members being too spread out to manage and focus on PIMAM programmes. At the regional office level, prioritization for some programmes may be compromised due to more pressing needs that needs to be acted upon (e.g., poliomyelitis outbreak versus scaling up of capacity development for the management of severe acute malnutrition)."*

When it comes to implementation, front-line workers are also stretched. Health personnel are tasked with programmes other than PIMAM and have heavy workloads to deal with. The high turnover of physicians was also cited as a challenge.

In one of the bottleneck analysis case studies performed in 2019, it was reported that in the study province *"SAM management stops when other health priorities that require the participation of all available health personnel arise."* The Provincial Health Officer staff expressed *"a need for an additional staff member, preferably a nutritionist, whose work will be limited only to nutrition programme management. While a nurse can do this, making the staff member a nutritionist could help limit the effect of other health emergencies on the implementation, as nutritionists are not typically capacitated for medical care."* These additional staff are not budgeted and included in the health workers payroll.

Coordination positions were also reported to be underfunded. If SAM management is included in the health action plans for those provinces supported by UNICEF, often the Local Health/Nutrition Boards at the provincial and municipal levels were reported to be non-functional.

To respond to these challenges, guidance was developed in July 2021 to support the establishment of nutrition offices at provincial and local level.[32]

Competencies and education and skills development

SAM management is not integrated in medical and paramedical curricula but is included in the conduct of orientation/training for new staff prior to deployment. There is a plan to include it SAM management in higher education, medical and nutrition curricula. In the past the management was part of the pre-service training (focusing on the protocol implemented in the "malwards"). In paramedic schools, SAM management is not covered but during public health nursing course there is a possibility to learn about it during the field work (in the practice in rural health).

In 2018, the PIMAM programme has been introduced in 38 provinces located in all 17 regions of the country. Training and orientation activities were conducted for hospital-based service providers, provincial and community health workers. As of 2018, a total of 115 batches of training for provincial teams and for community workers (barangay nutrition scholars, barangay health workers and DOH Human Resource for Health) were conducted. Five hospitals in Baguio City were also trained on the management of SAM.

In many provinces in-service trainings for government health staff are provided by UNICEF through NGOs/ implementing partners. A common report from the different areas assessed during the bottleneck analysis was *"the lack of budgetary allocation for SAM training resulting to a limited of municipalities and facilities covered by the roll-out."* Community workers such as the barangay nutrition scholars and barangay health workers should be trained on all aspects of the programme, from case finding, treatment, and referral, but according to most key informants, were reportedly not systematically trained. Often the training is done by the national team but they have no mandate to conduct follow-up mentoring or supportive supervision making continuum of skills development challenging.

Performance management and motivation system

Mentoring and continued development of skills is a challenge in an environment where most of the trainings are performed by partners or a national team. As a result, PIMAM is only included as part of continuing professional development for health workers in the provinces where training and supportive supervision have been budgeted and are done by a skilled local team and include SAM management.

According to a key informant in the Bangsamoro Autonomous Region of Muslim Mindanao, supportive supervision of nutrition programmes are not done regularly at the regional and provincial levels, mainly because of the lack of manpower and mobilization of funds for this activity is lacking.

v) Health information systems

Summary

SAM indicators (admission and discharge outcomes [cured, dead, defaulted]) have been formally adopted and integrated into the HMIS, through UNICEF's technical assistance to the DOH, which simplifies the collection and reporting processes. Previously, reporting of SAM indicators was done using parallel and offline systems which contributed to the workload of both local health staff and partners.

Lessons learned/moving forward:

- Continuous monitoring of potential challenges that may arise within the HMIS to support and adjust implementation and any gaps identified.
- Adjust the completeness and accuracy of SAM reports sent by health facilities and ensure the data collected supports decision-making and planning processes.
- The inclusion of nutrition in the LGU scorecards should be considered.

Table 6. Integration level of SAM in the health information system function in the Philippines

Health information system		
Indicator in HMIS	National HMIS including SAM treatment indicators (and being reported against consistently)	Partial (ongoing inclusion)
Service monitoring	Routine health service assessments and supervision checklist include SAM services	Partial
Data management	Completeness, timeliness and accuracy of SAM reports from health facilities providing SAM treatment services	No
Data use	Data from SAM treatment reports translated into information to inform decision-making/planning for SAM services	No

The DOH issued standard policies, procedures and guidelines governing all information and communications technology-related work in 2005. The major challenge related to HMIS was the integration and harmonization of all existing health-related information systems and data sources, and the inadequacy of a governance structure on information technology for the health sector.

The DOH also joined the Health Metrics Network to advocate for sector-wide strengthening, integration and harmonization of health information systems. The DOH Information Management Service is now called the Knowledge Management and Information Technology Service. It instituted the collection of data based on standard sets of indicators, the storage of the data from various sources into a single data store or warehouse, and the consolidation, analysis and provision of reports in an integrated system.[33]

Manual data collection needed for the different health surveys conducted by the DOH and the various reports it requires from field offices has burdened local health coordinators and personnel who are already preoccupied with regular work (e.g., Field Health Service Information System). Overlaps as well as duplication in the content of related reporting forms result in tedious work on the ground with similar indicators repetitively being requested by the different DOH offices and concerned units. Submission of health-related data by private health providers has also been a challenge, especially given the Data Privacy Act of 2012, which aims to

protect the right of privacy of personal data. Given that health care in the country is provided by both public and private sectors, lack of private sector information would diminish the effectiveness of the HMIS in providing evidence to address health challenges.

There is also a need for a common set of database and standard indicators to be used officially for policy and programme monitoring and evaluation. The interoperability of the different HMISs, such as the Hospital Operations Management Information System for hospital-based morbidity data and the Field Health Service information System for Rural Health Units/ Health Centers-based morbidity data, for instance, also needs to be looked into. Ways to increase utilization of health information for evidence-based decision-making on health likewise needs to be considered.[9]

The **LGU Health Scorecard** monitors and evaluates the performance of the LGUs in implementing and achieving the results of the health sector reforms as well as progress in meeting the national health targets based on the priority programmes, projects and activities of the government. This is the most mature form of scorecard as it was actually introduced and used since 2008 to track the LGUs' performance in terms of implementing the health sector reforms using FOURmula 1 plus as framework (FOURmula One for Health) developed in 2005 sought to fill the remaining gaps in the health system not addressed by previous reforms by leveraging central government funds to promote inter-LGU collaboration in attaining desired health outcomes. It is an overarching strategy for health service reform in the areas of governance, service delivery, regulation and financing).

In order to improve collection and data management, a partnership agreement was forged between the DOH and Department of the Interior and Local Government, which took effect in 2009 until 2016. It increased the turnout of data due to the clout of this department over the LGUs. In 2017, the Knowledge Management and Information Technology Service developed a web-based system to automate the collection and generation of report cards. In the LGU scorecard the indicator 10 includes **stunting.**

SAM indicators in Health Information System

At the start of the present study the PIMAM working group engaged in a work to include indicators into the Field Health Service Information System. In July 2020, the government approved the integration of SAM indicators into the system.

Now that SAM management indicators are formally adopted by the health system, the challenge will be to implement this data collection concretely in the field. Some key informants were worried that the system is not ready to absorb metrics and indicators and to add to the workload of the front-line workers: *"data collection is not just a SAM problem even the most sophisticated and advanced programme (EPI) faces challenges with data!"* and *"what we are lack is the integration of the indicators for SAM in the HMIS, but we are working on it."* (UNICEF nutrition officer).

Service monitoring, data management and data use

DOH rely on UNICEF and partners to provide reports on SAM (emergency based). Until now there were no existing structures to report on SAM. Key informants reported that it somehow became a culture and tradition that PIMAM data would come from partners. The bottleneck analysis reported incomplete data collection and municipalities failing to submit their reports to the provincial level: *"all of the 17 provinces do not have a systematic reporting system from the municipal up to the regional level."* Most health workers recommended to include SAM information in the FHSIS as they had to fill a separate form for the PIMAM programme. Reliability of data reported has also been mentioned as a key bottleneck.

vi) Medical products, vaccines and technologies

Summary

The DOH has been working towards a more integrated supply management system for all health and nutrition supplies. **In 2016, the DOH started procurement of RUTF and the first batch of this life-saving treatment through government funds was delivered in March 2017.** The DOH has continued to allocate budgetary resources for the procurement of RUTF to cover a proportion of the caseload. **RUTF has also been registered into the Food and Drug Administration (FDA) and classified as a Food for Special Medical Purposes,** facilitating its procurement and delivery by the national supply chains system.

Additionally, the government has enacted policies to keep the prices of medicine down. However, supply chain management up to the last mile (delivery at health facility) remains a challenge and local governments need further financial support to ensure availability of supplies in their health facilities.

Lessons learned/moving forwards:

- Continued improvements of the national supply chain system, including procurement, can ensure availability and tracking of treatment.
- Decentralization of budget for SAM management to local governments given current budget limitations and stock-outs/delayed deliveries in health facilities due to supply chain inefficiencies, especially to support "last-mile delivery".

Table 7. Integration level of SAM in the medical products function in the Philippines

Medical products, vaccines and technologies		
Essential medical supplies list	National essential drugs and medical supplies list including SAM management supplies (particularly RUTF and therapeutic milks and MUAC tapes)	Full (RUTF is included in the essential food list)
Procurement and distribution system	National drugs and medical supply needs forecasting and procurement covering SAM management are forecasted, procured, and delivered through national supply chain system	Partial (stockouts)
Stock monitoring	RUTF and other supplies for treatment of SAM are included within the national LMIS	No

Numerous global studies have shown that a major barrier to improving health outcomes is the inefficient and fragmented supply chain management system at all levels of the health system. The Philippines' DOH has demonstrated its commitment to a more integrated supply management system. **The Food and Drug Administration Act of 2009** (Republic Act No. 9711) provided for strengthening of the administrative and technical capacity of the FDA and the enhancement of the regulatory system for health products.

Local governments are responsible for ensuring the availability of essential medicines in their health facilities. However, because of budgetary limitations or inefficiencies in procurement systems, the supplies of medicines in front-line health facilities are unreliable. The National Online Stock Inventory Reporting System, which was put in place by the DOH in 2007, has not been successful in monitoring the availability of medicines in public sector facilities to address stockouts and overstocking.[34]

To supplement the supply of medicines procured by municipalities for their health centres, the DOH implements the **Medicines Access Programme,** which does bulk procurement and nationwide distribution of essential medicines.

Since medicines constitute one of the biggest costs for health care, the Government has enacted policies to keep their prices down. For example, in the late 1990s, the DOH pursued the policy of parallel importation by importing a selected number of medicines from India where the prices of these products were at least 10 times less expensive.[35]

The existing Procurement Law is deemed not suitable for many health sector transactions as it is too focused on the lowest-cost provider with little concern for quality. Skills in procurement are also scarce, especially in LGUs. LGU-procured drug prices are often higher than those procured by the Central DOH.[36]

Lack of procurement planning, including drug quantification, small purchases (diseconomies of scale) and emergency procurements are often cited as the reasons behind the higher prices. Corruption was reported to range from 10 per cent to 70 per cent of the contract price of drugs in an investigation conducted in 2001.[35]

Essential medical supplies list

RUTF is now included in the FDA register as a **food with medical purpose.**

Procurement and distribution system

Supply chain management was another of the top three challenges for SAM integration listed by key informants. The delivery of the commodity from the national warehouse to the different regions is a particularly important challenge. This issue is not SAM specific: the supply chain is reportedly overwhelmed. Since SAM management commodities are very specific and a parallel delivery mechanism was put in place by the DOH, it is not aligned with other medical commodities.

One of the key informants stated: *"SAM commodities pose a systemic challenge, from planning to procurement and distribution. At the start of the year, the DOH procures imported RUTF. The importation is the first challenge. Then the next challenge is when the DOH starts the delivery allocation from the warehouse to each province, the provinces can reject delivery because they don't have space to store the commodity."*

The "last mile" delivery issue: According to the bottleneck analysis of 2019 *"the identified challenges in the logistic management included lack of budgetary allotment and means to deliver the commodities, especially from the municipality to the barangay level."*

The logistical management issue: This issue was noticed at all the levels of the health system from the facility level to the provincial level: *"incomplete records of the quantity of commodities distributed and received due to the absence of recording forms" and "no formal requisition for the quantity of commodities needed at the provincial or regional level."*

Stock monitoring

The absence of available data further deteriorated the system's ability to forecast supply needs. These issues impacted the functioning of the PIMAM programmes in the provinces where they were deployed. Regular stockouts were reported and when the commodities arrived issues with the expiry dates arose. Separate to stockouts, some had to manage excess RUTF/ready-to-use supplementary food, and suffered a lack of guidance on how to avoid wastage.

HEALTH SYSTEM ANALYSIS

This section explores all elements that influence the capacity of the health system and the intervention (PIMAM) to coexist in a synergistic manner. The Atun Framework helps in mapping the factors that positively or negatively influence the integration of treatment services for SAM. Most of the integration factors largely interrelate and overlap as do the health system building blocks.

The Philippines has a complex island geography that makes effective national integration difficult. Leading and coordinating a health system and implementing comprehensive health and nutrition policies over a vast territory made up of thousands of islands alone is a challenge. Climate change and frequent disasters are other major challenges facing the country. COVID-19 has added additional stress to the health system, but Filipinos are experienced in overcoming environmental risks and humanitarian crises that regularly plague the country.

The Philippines has shown real commitment to the Scaling Up Nutrition movement and more generally a real impetus to achieve the SDGs. Politically, whether on health or nutrition, great efforts have been made in recent years. The health care system is characterized by fragmentation, duplication and competition between programmes. Regional and socioeconomic disparities in the availability and accessibility of resources are prominent. There is maldistribution of infrastructure and human resources across and within regions, which are concentrated in Metro Manila and other major cities. The Philippines is a major exporter of health care professionals but finds it challenging to ensure adequate availability within the country.

PIMAM has long been seen as an emergency nutrition response. As in other contexts, the population's perception of SAM as a condition has led to delays in identifying the risks faced by the child and in seeking care. Today, PIMAM has largely been embedded in most of the laws, guidelines and administrative orders developed in the last five years, even if certain gaps remain.

In terms of **leadership and governance,** one of the hindering factors for SAM integration relies on the coordination capacity of the different levels of the health system. PIMAM needs to be championed and systematically coordinated at the local level. But more globally, greater links and relations between programmes will be critically needed to boost synergies and avoid overburdening the LGU level. The implementation of the UHC strategy will be critical in achieving this.

In terms of **health financing,** the budget of the DOH has increased 12-fold over the past 12 years reflecting the increased priority accorded to health care and the vision to achieve UHC for the population. The National Health Insurance Act of 1995 created the PhilHealth to manage the NHIP and provide health insurance coverage for all Filipinos. But in 2018, financial protection was still limited, resulting in a high level of household out-of-pocket payment. More than 50 per cent of total health spending is out-of-pocket. Nutrition budgeting has also received more attention globally but remains to be improved. Budget allotments for nutrition at local level are minimal except in LGUs performing well in nutrition. PIMAM supplies are fully in DOH budgets but there is a challenge for implementation and coordination-related funding at local level in LGUs annual costed plans.

The standards for the management of SAM have been integrated from primary to tertiary levels of care in 2021, following the expansion of the primary care benefits of PhilHealth as a commitment in achieving UHC which is a critical step towards SAM integration and scale-up.

At the **service delivery level,** since 2014, IMCI in the Philippines includes SAM and MAM management. The DOH recently initiated the strengthening of the service delivery network, which does not yet include SAM in the primary care facility level (only the management of children with severe complicated malnutrition is mentioned). Today, despite considerable advances, there are still a good proportion of provinces in which SAM treatment is not available.

Many challenges related to service delivery are well known by the health authorities and partners. These challenges have an **impact** on the system's ability to integrate SAM management. Plans and measures for improvement are taken at national level. The absence of a facilitated referral system is one of the hindering factors for SAM integration. The lack of health infrastructure has also an **impact** on global accessibility of health care services. Efforts towards UHC are nevertheless very promising and will certainly boost actual delivery of integrated SAM services.

Regarding the **health workforce,** as in many other countries, the Philippines faces imbalances in the development and distribution of health workers. Despite a huge human reservoir for health, only 10 per cent of the country's human resources for health serve rural areas, leaving some municipalities without trained medical professionals. Programme managers, already managing several programmes, are too stretched to focus on PIMAM programmes. SAM management is not integrated in medical and paramedical curricula. Fortunately, there is a plan for the inclusion of SAM management in higher education, medical and nutrition curricula, but this will need to be followed up. Furthermore, in an environment where most of the trainings are performed by partners or national teams, mentoring and continued development of skills at facility level is a challenge. As a result, PIMAM is only included as part of continuing professional development for health workers in the few provinces where training and supportive supervision have been budgeted. Training is done by a skilled local team and includes SAM management.

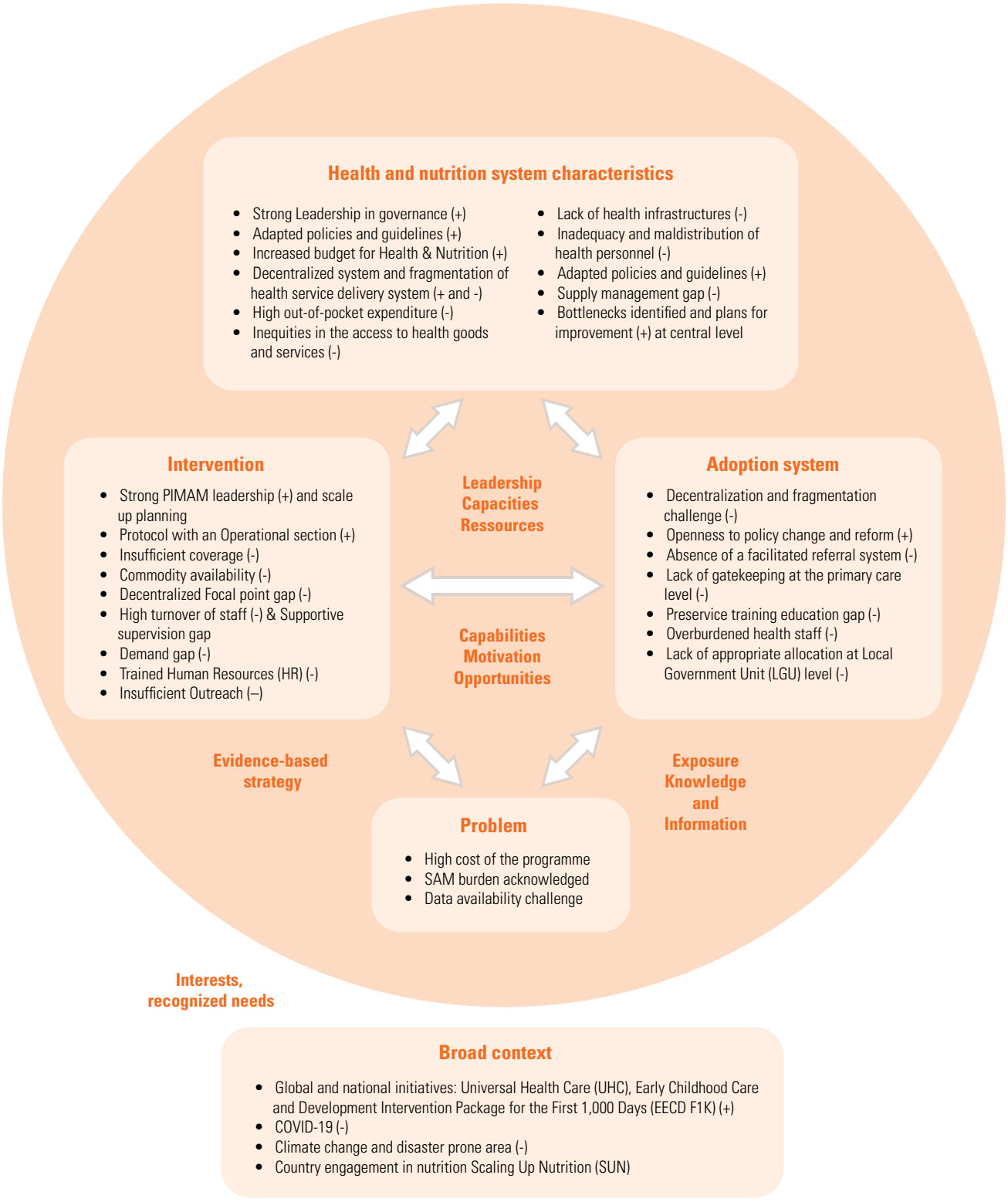
Information management is a major challenge when it comes to SAM management, but at health system level integration and harmonization of all existing health-related information systems and data sources is considered a critical step to take. Manual collection of data needed for the different health surveys conducted by the DOH and the various reports has burdened local health coordinators and personnel who are already preoccupied with regular work. The challenge is to automate the collection and generation of report cards. A parallel reporting system for SAM management was previously implemented and contributed to the overburdening of staff. SAM management indicators are now formally adopted and integrated in the HMIS and will ease the process of collecting and reporting SAM related data.

Supply management: Finally, numerous studies have shown that a major global barrier to improving health outcomes is the inefficient and fragmented supply chain management system at all levels of the health system. The Philippines' DOH has demonstrated its commitment to a more integrated supply management system. Local governments are responsible for ensuring the availability of essential medicines in their health facilities. However, because of budgetary limitations or inefficiencies in procurement systems, the supplies of medicines in front-line health facilities are unreliable. To supplement the supply of medicines procured by municipalities for their health centres, the DOH implements the Medicines Access Programme, which does bulk procurement and nationwide distribution of essential medicines. RUTF is now included in the FDA register as a food with medical purpose. Since medicines constitute one of the biggest costs for health care, the Government has enacted policies to keep their prices down. The supply chain management was another of the top three challenges for SAM integration that most of the key informants listed in this study. The delivery of the commodity from the national warehouse to the different regions is a particularly important challenge.

Strong PIMAM leadership and planning resulted in the achievement of major concrete integration milestones. Nevertheless, the SAM scale-up plan has yet to be implemented and completed in most of the provinces. The UHC strategy will certainly provide a welcome boost to integration and answers to front-line health workers overburdening and population access to health.

This analysis is summarized in Figure 3 below.

Figure 3. Summary of system analysis for integration of SAM into the health system in the Philippines



Promoting factors are marked (+), hindering factors (-), both promoting and hindering factors (+ -)

CONCLUSION

In less than 10 years, the DOH, supported by UNICEF (and other actors such as WFP and NGOs), has succeeded in making SAM integration politically unavoidable. The process of mainstreaming acute malnutrition into the health priorities of the Philippines has been exemplary in many ways. The recent major developments are consolidating the work done (the inclusions of SAM indicators in the HMIS and SAM in PhilHealth). On the political level, the integration of SAM into the policies of the health system has therefore been made.

The operationalization and launch of the SAM scale-up plan in the health system have, as this study shows, however, raised many challenges that DOH and partners are willing to tackle. It is essential here to specify that many of the obstacles encountered by the PIMAM programme in its operationalization are more related to the fragmented nature and the weaknesses of the health system rather than to specificities of the SAM programme. The Atun Framework clarifies what challenges are related to the new service (PIMAM) and what challenges are related to the system absorbing this new service.

The national objectives for health summarized well the Philippines health system challenges:[13] disjointed health system, high out-of-pocket expenditure, inequities in the access to health goods and services, limitations in health service packages and facilities standards, inadequacy and maldistribution of health personnel and fragmentation of the health service delivery system.

The integration of SAM into the health system was conceived on an operational "programme" model and in a relatively vertical manner, like the other programmes present in the Philippines. The only area where the management of SAM is fully integrated is at the point of delivery, but to the cost of the front-line workers who suffer from overburdening and a lack of supervision and support. Recently, the HMIS has also integrated indicators for SAM management.

As stated before, most of the "hindering factors for SAM integration" that have been presented in this report are not related to the intervention (PIMAM) but to the overall system: challenges in terms of service delivery (underutilization, absence of referral system…), human resources (resources scarcity, unevenly distributed, overburden, etc.), supply chain (budgetary limitation, frequent stockouts…) or even HMIS (fragmented data collection…) affect all the programmes delivered by the health system. It is therefore important to distinguish what challenges are specific to the implementation of the SAM programme. The main 3 challenges systematically highlighted during the study could be addressed through:

- **Reinforcing community outreach and boosting demand generation**
- **Prioritizing training of health actors on the management of SAM (pre- and in-service training)**
- **Addressing the challenges of supplying RUTF (bulkiness, centrally provided etc.)**

With the provision of UHC, the health system will be able to better support the implementation of a fully integrated approach through the overall strengthening and address many of the barriers specific to the implementation of SAM. Maintaining the momentum of the political leadership demonstrated in the Philippines will be vital to the continuing success of the strategy. Systematic monitoring of the integration indicators used by this study should make it possible to assess the successes and benefits on both fronts.

Annex 1: Documents consulted during the literature review

Philippines Official Documents:

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Annex 2: Key Informant Interviews and questionnaire

10 key informants (9 from "priority 1 list" and 1 from "priority 2 list") responded to the email and sent back the written questionnaire filed. Among the 10 key informants who responded to the written questionnaire 8 responded as well to an oral interview. Each oral interview lasted on average an hour. **5 key informants** either refused to take part to the study (1) or agreed but never sent back the questionnaire (1) or simply never responded to the emails sent (3).

Profile of the respondent

1. **Maria Lourdes A. Vega:** Division Chief National Nutrition Council: Member of PIMAM working Group, participated in guideline development, joined Bottleneck Analysis as working group member
2. **Luz Tagunicar:** Nutrition Programme Manager DOH Current PIMAM Programme Manager; PIMAM Working Group Chair
3. **Anthony Calibo:** Medical Specialist IV National Newborn Care and National IYCF Programme Manager Children's Health Development Division DOH: Supported development of PIMAM policies, SAM Manual, Standard Training Modules and SAM PhilHealth Package; Supported DOH Scale up of SAM; PIMAM WG Chair (2014-2018)
4. **Felecita Borata:** CHD Western Visayas Regional Nutritionist Dietitian: Leads regional PIMAM initiatives; supports capacity building, reporting, programme review; represented Philippines in EAPRO Consultation
5. **Dr. Mel Santillan:** Acting Senior Manager of the Benefits Development and Research Department (BDRD) of the Philippine Health Insurance Corporation (PhilHealth), Development of Philhealth Benefit Package for SAM
6. **Merla Rose Reyes:** Team Lead for the development of catastrophic and special benefits packages. The core of her function is the conduct of policy research pertinent to benefits development and implementation, policy review, monitoring and enhancement
7. **Dr Martin Parreno:** WFP Nutrition Programme Officer: Leads regional PIMAM initiatives; supported capacity building, reporting, programme review; represented Philippines in EAPRO Consultation
8. **Dr Esther Miranda:** Plan international Inc.: Health and Nutrition Programme Technical Manager. Member of PIMAM working Group, participated in guideline development, joined bottleneck analysis as group member
9. **Rosalia Bataclan:** UNICEF Mindanao Field Office: One of the early implementers of CMAM back in 2009, master trainer, supports BARMM PIMAM programme
10. **Dr Rene Gerard Galera Jr:** UNICEF Nutrition Specialist Manila: Supported development of PIMAM policies, SAM Manual, Standard Training Modules and SAM PhilHealth Package; Supported DOH development of costed SAM Scale Up Plan and implementation of Scale up of SAM; PIMAM working group member. (Supported by Ian Curt R. Sarmiento, Nutrition officer SAM)

    Ian Curt Sarmiento, SAM Specialist (UNICEF Manila office) was also key in responding to the questions and sending key documents.

SAM integration in the health system- questionnaire

1. **Global questions:**
    a. Who are the champions **for nutrition** in country (partners/ donors…)
    b. Who are the champions **for SAM** in country?
2. **Wasting specific questions**
    a. **List 3 major Key current bottlenecks** for detection and treatment of Wasting in Cambodia

3. **Questions per Building block of the health system**

a. **Governance:**
   i. Where does the nutrition team sit in the Ministry of Health? (is it the NNP? name the unit) How is the collaboration between Nutrition unit and the child health unit at Ministry of Health level? (Excellent, very smooth/ fair/ to be improved/ insufficient) **Explain why**
   ii. Who is responsible for the follow-up of SAM deployment at Public Health Department and Out-patient Department level? Is it a specific nutrition person or is it embedded into the child health approach? Is the Follow-up functioning well at subnational level?

b. **Financing:**
   i. In 2019 was there a Ministry of Health budget line dedicated to Nutrition (percentage of the main basket?)/ was there a budget line for SAM detection and management, was there a budget line for the equipment and supplies.
   ii. In 2020 do we know what will be the provisional budget for Nutrition, for SAM detection and management/ for equipment and supplies.
   iii. For the budget dedicated to SAM: provide an estimation of the percentage this budget would cover (compared to expected cost of the SAM scale up plan). Is there a formal agreement with the WB? (can you share it?)
   iv. Is SAM treatment free for all patient (if yes what is the mechanism and what is its efficiency?)

c. **Health information system**
   i. Is SAM management integrated to the national HIS (if no, why? If yes, how?)
   ii. What if the quality of the data collected
   iii. who does the compilation and analysis of the data?
   iv. What are the challenges?

d. **Service delivery**
   i. Is SAM integrated into Are anthropometric measurement systematically taken during a regular <5 years health consultation? How is SAM treatment delivered? (as part of any medical consultation or via specific moments and days?)
   ii. Demand generation: is there a mechanisms for informing the communities on Child health and nutrition? Does It includes SAM?
   iii. Emergency preparedness: is there a national/ provincial emergency preparation plan including Wasting management? (nut response and recovery plan)
   iv. Is the cured rate globally collected and analysed?
   v. Do private providers of care provide SAM treatment? If yes, is there any specific follow-up?

e. **HR**
   i. Health curricula (Pre-service training): what are the steps of integrating SAM in the curricula? Is there a global in-service training strategy for health staff including SAM management?
   ii. In the prioritized provinces do the health authorities provide supportive supervision including SAM management

f. **Supply drugs**
   i. Is the material (scale, muac tapes etc) well delivered in most HC in the country? is it supplied via partners, UNICEF or by the Ministry of Health? Did you experience stock out of nutritional commodities in 2018-2019?
   ii. What is the plan for 2020 (budget and distribution of nutrition commodities)
   iii. Local RUTF: What are the successes and the challenges?

Annex 3: Indicators and framework for assessing level of integration of severe wasting into the health system

1. Deconinck's diagnosis tool (adapted): the extent of SAM Integration in the health system (2015)

The key health functions examined are listed in the table below.

Key health system functions		Extent
Governance		
Policy setting	National health and nutrition policies with SAM as part of comprehensive child health care* (i.e., IMCI and child hospital care)	
National guidelines	National guidelines for IMCI and child hospital care supporting comprehensive child health care	
Technical leadership	Technical advisory group for comprehensive child health care	
Regulation and coordination	Regulation and coordination of health actors aligning with national health and nutrition policy and implementation strategy	
Evidence-based decision-making	Generation and interpretation of intelligence and research on policy and strategy options	
Social participation	Social participation of local and community actors in planning, building coalitions and implementing and monitoring comprehensive child health care with a people-centred approach	
Contingency planning	Plans and regulations for addressing contingencies	
Financing		
Regular budget-pooled funding	Regular budget from pooled funds with a sector-wide approach covering financing for comprehensive child health care	
Annual costed action plans	Annual costed action plans for comprehensive child health care	
Health workers payroll	Staff in national health facilities involved in comprehensive child health care on Ministry of Health payroll	
Financial risk protection	Fee waiver system for children (or health insurance) under 5 covering comprehensive child health care	
Information		
Health information (HIS)	National HIS including indicators for comprehensive child health care	
Service monitoring	Performance monitoring of comprehensive child health care	
Contact coverage monitoring	Coverage monitoring of comprehensive child health care	

Key health system functions		Extent
Workforce		
Adequate coverage	Adequate number and spread of qualified health workers for comprehensive child health care	
Competences	Adequate technical and organizational management skills for comprehensive child health care	
Performance and motivation	Performance appraisal and career development opportunities for comprehensive child health care	
Pre-service education	Pre-service education modules on comprehensive child health and nutrition	
Professional development	Continuing professional development on comprehensive child health and nutrition	
Supplies		
Essential medical supplies list	National essential drugs and medical supplies list covering comprehensive child health care	
Procurement system	National drugs and medical supplies needs (forecasting and) procurement covering comprehensive child health care	
Logistic mgmt system	National logistic management system for drugs and medical supplies covering comprehensive child health care	
Service delivery		
Demand generation	Demand generation for informing communities, changing health behaviour and improving health service access and utilization	
Early case finding	Active case finding of selected child illnesses by volunteers in community and systematic case finding by health workers at the health facility	
Community-based primary care	Promotive and preventive community-based health and nutrition activities and community case management (CCM)	
Facility-based primary care	Decentralized comprehensive child-centred IMCI	
Child hospital care	Comprehensive child-centred paediatric hospital care	
Health outreach	Health outreach activities for immunization and other comprehensive child health care and nutrition services	
Referral and tracing system	Referral and tracing system between services for service uptake and retention in treatment of comprehensive child health care	
Patient-centred continuity of care	Comprehensive child health care tracked over time and place responding to individual preferences, needs and values	
Quality improvement	Continuous quality improvement of comprehensive child health care	

2. The Atun Framework3 (2010): Factors influencing Integration

The conceptual framework structures **factors that influence the integration of a new intervention into a national health system.** The author defines integration as the extent, pattern, and rate of adoption and eventual assimilation of health interventions into each of the critical functions of a health system. An 'intervention' in this context refers to combinations of technologies (e.g., vaccines, drugs), inputs into service delivery, organizational changes and modifications in processes related to decision-making, planning, and service delivery. Atun et al, suggest that the adoption and diffusion of new health interventions and the extent to which they are integrated into critical health system functions will be influenced by **the nature of the problem being addressed, the intervention, the adoption system, the health system characteristics, and the broad context.** Promoting factors are marked (+), hindering factors (-), both promoting and hindering factors (+ -).

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