

POSITIONING NUTRITION WITH UNIVERSAL HEALTH COVERAGE: *OPTIMIZING HEALTH FINANCING LEVERS*

DISCUSSION PAPER

January 2022

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Health, Nutrition, and Population (HNP) Discussion Paper

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Positioning Nutrition within Universal Health Coverage: *Optimizing Health Financing Levers*

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Abstract: Achieving universal health coverage (UHC) is a top global priority, and nutrition actions are a critical part of meeting that goal. When delivered within key windows of opportunity to improve health throughout the life-course, essential nutrition actions play an important role in reducing the burden of disease and preventing permanent physical and cognitive impairments, ultimately staving off future health care costs for both individuals and health systems.

Coverage and quality of nutrition service delivery remains low, despite robust evidence of cost-effective interventions. The health system, and most especially primary health care (PHC), is essential for delivering high-impact, cost-effective, nutrition-specific interventions at scale. There are gaps in knowledge on how to deploy resources more effectively to improve the delivery of nutrition services as part of preventive and promotive health care. A shift in focus is needed from the “what” and “why” of scaling-up nutrition to the “how” of improving nutrition services coverage and quality of nutrition services delivered through the health system, and especially PHC.

Parts 1, 2, and 3 of this paper introduce the thesis that health financing arrangements can be optimized to ensure that distribution and utilization of health system resources are aligned with nutrition objectives that are well-grounded on already available evidence to maximize nutrition impacts. Such health financing arrangement reforms should enhance equity, efficiency, transparency, and accountability, while also catalyzing improvements in other areas of the health system such as human resources, information systems, and the supply chain.

Parts 4, 5, and 6 of the paper explore the financing challenges and options to address key financing and service delivery challenges. These options encompass health financing arrangements—revenue raising, pooling, and purchasing—to serve as a critical entry point for mobilizing improvements across health systems pillars. Part 7 of the paper discusses the cross-cutting actions to enable health financing levers, and Part 8 summarizes the conclusions.

Achieving nutrition outcomes and movement toward UHC are inextricably interlinked. Countries have financing choices to make in their response to the COVID-19 pandemic and pursuit of UHC. It will be critical to include and prioritize a costed and well-defined set

of nutrition services in the UHC benefits package for countries to scale up nutrition, strengthen health systems, and achieve global nutrition and UHC goals.

Keywords: Nutrition, universal health coverage, quality service delivery, health financing arrangements, system strengthening

Disclaimer: The findings, interpretations, and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

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ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
CBHI	Community-Based Health Insurance
CCT	Conditional Cash Transfer
CHW	Community Health Worker
COVID-19	Coronavirus Disease 2019/Illness caused by SARS-CoV-2
CRS	Creditor Reporting System (DAC)
DAC	Development Assistance Committee
DRG	Diagnosis-Related Group
EQUIST	Equitable Impact Sensitive Tool (UNICEF)
FES	Fee-for-Service
HCI	Human Capital Index
HIPtool	Health Interventions Prioritization Tool
IBRD	International Bank for Reconstruction and Development
IFMIS	Integrated Financial Management Information System
IFN	Investment Framework for Nutrition
LMIC	Lower-Middle-Income Country
MIYCN	Maternal, Infant, and Young Child Nutrition
MoH	Ministry of Health
MSS	Minimum Service Standards (Indonesia)
NCD	Noncommunicable Disease
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
P4P	Payment for Performance
PBF	Performance-Based Financing
PFM	Public Financial Management
PMNCH	Partnership for Maternal, Newborn, and Child Health
RBF	Results-Based Financing
SDG	Sustainable Development Goal
SUN	Scaling Up Nutrition
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations Children's Fund
WHA	World Health Assembly
WHO	World Health Organization

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PART I – INTRODUCTION

1. **Investing in nutrition is a “best buy” that builds human capital and leads to healthy societies and healthier economies that further spur human capital.** Nutrition is one of the most cost-effective international development investments. For example, every dollar spent on a set of high-impact interventions to reduce stunting generates US\$18 on average in economic return (Hoddinott et al. 2013). At the same time, the total economic gains to society of investing in nutrition could reach \$5.7 trillion a year by 2030 and \$10.5 trillion a year by 2050 (Development Initiatives 2021). Human capital—the sum total of a population’s health, nutrition, skills, knowledge, and experience—is estimated to account for over two-thirds of total global wealth (Lange, Wodon, and Carey 2018). The global economic cost of undernutrition was estimated to be \$3 trillion in 2016 (Global Panel 2016). The World Bank’s Human Capital Index (HCI) emphasizes the importance of investing in human capital through sectors such as health, social protection, and education. Nutrition is a key component of the HCI indicator, with health measured in terms of the rate of stunting of children under age five and the adult survival rate, which is greatly influenced by overweight and obesity and related noncommunicable diseases (NCDs) (World Bank 2018a). Good nutrition in the first 1,000 days (between conception and a child’s second birthday) is associated with improved productivity and earnings in adulthood (Black et al. 2013) and reduced risk of overweight and obesity later in life (Barker 1997; Martínez 2018; Rito et al. 2019; Horta, Loret de Mola, and Victora 2015). Disruptions in the delivery of essential health and nutrition interventions due to the COVID-19 pandemic threaten to exacerbate undernutrition in low- and-middle-income countries (LMICs). The additional burden of childhood stunting and child mortality due to COVID-19-related disruptions are estimated to result in productivity losses of up to \$44 billion (Osendarp et al. 2021).
2. **Achieving universal health coverage (UHC) is a top global priority, and actions to improve the coverage and quality of nutrition services are a critical part of meeting that goal.** UHC means that all individuals and communities receive the essential promotive, preventive, curative, rehabilitative, and palliative health services they need without suffering financial hardship or compromising equity and quality. Countries around the world have committed to achieving UHC as a target under Sustainable Development Goal (SDG) 3 (“Ensure healthy lives and promote well-being for all at all ages”). In addition, SDG 2 (“End hunger, achieve food security and improved nutrition and promote sustainable agriculture”) and the United Nations (UN) Decade of Action on Nutrition (2016–2025) call for ending malnutrition in all its forms, including undernutrition, overweight and obesity, and associated chronic conditions such as diabetes and cardiovascular disease. The World Health Assembly (WHA) Global Nutrition Targets 2025 have galvanized momentum around priority areas to improve Maternal, Infant, and Young Child Nutrition (MIYCN), and the Scaling Up Nutrition (SUN) Movement is accelerating progress toward WHA global targets through collective efforts at global, national, and subnational levels. SDG Target 3.8 (Achieve UHC)¹ and SDG Target 2.2 (End all forms of malnutrition)² prioritize nearly

¹ SDG Target 3.8: “Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.”

the same vulnerable populations, as a person's nutrition status is inextricable from his or her health status.

3. **Accelerating progress toward improved nutrition requires recognition that increased coverage and quality of high-impact nutrition services are essential to the achievement of UHC.** Despite the long-recognized linkages between nutrition and UHC, action to achieve UHC remains disconnected from action to improve nutrition (Heidkamp et al. 2020). Global monitoring frameworks and, in most instances, country-specific monitoring frameworks for tracking progress toward UHC do not include nutrition indicators (WHO 2019d; WHO and IBRD 2017). The potential of UHC to contribute significantly to the scale-up of nutrition interventions also remains conspicuously missing from the global nutrition dialogue. Both action and dialogue are needed for countries to view nutrition services as an integral component of UHC and invest in improving both coverage and quality. Thus, it would be advantageous to approach these objectives in an integrated fashion rather than through stand-alone efforts for nutrition. The health system, and most especially primary health care (PHC), is essential for delivering high-impact, cost-effective, nutrition-specific interventions at scale. Ideally, an evidence-based prioritization process should include nutrition as integral to preventive and promotive PHC services and ensure accountability for how nutrition is financed and delivered as part of PHC through a robust monitoring system.
4. **Nutrition services delivered through PHC provide an important foundation for the achievement of UHC.** When delivered within key windows of opportunity to improve health throughout the life-course, high-impact, cost-effective, nutrition services (see Box 1.1) play an important role in reducing the burden of disease and preventing permanent physical and cognitive impairments. Some of the most impactful nutrition-specific services are best delivered by the PHC system as part of an integrated set of maternal and child health services—for example, promoting exclusive breastfeeding as part of antenatal and postnatal care delivered by skilled health workers in facilities (Box 1.2). Some nutrition actions require ready access to supplies in sufficient amounts, such as vitamin A supplements. Nutrition prevention and promotion interventions at the PHC level play a critical role in reducing the burden of disease by helping to prevent illness related to dietary risk factors from developing, ultimately staving off future health care costs for both individuals and the health system.

² SDG Target 2.2: "By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons."

Box 1.1. Overview of the Proven High-Impact, Cost-Effective, Preventive, and Promotive Nutrition Services Delivered through PHC

Maternal nutrition during pregnancy and for women age 15–49 years

- Antenatal care (ANC) including counseling on maternal diet during pregnancy
- Maternal multiple micronutrient supplements containing iron and folic acid
- Iron and folic acid supplementation
- Calcium supplementation in populations at risk of low intake
- Balanced energy protein dietary supplementation in undernourished populations

Interventions for newborns

- Delayed cord clamping
- Immediate initiation of breastfeeding including skin-to-skin contact
- Kangaroo mother care for low birthweight babies

Maternal and infant and young child nutrition

- Protect, promote, and support optimal breastfeeding, including counseling during ANC and in maternity facilities and communities
- Promote and support for early, exclusive, and continued breastfeeding in facilities and communities
- Complementary feeding counseling and food supplements for children age 6–23 months
- Small-quantity lipid-based nutrient supplements for children age 6–23 months
- Weight and length/height measurements in children under five and their nutritional status classified according to the WHO Child Growth Standards

Micronutrient supplementation in children age 6–59 months

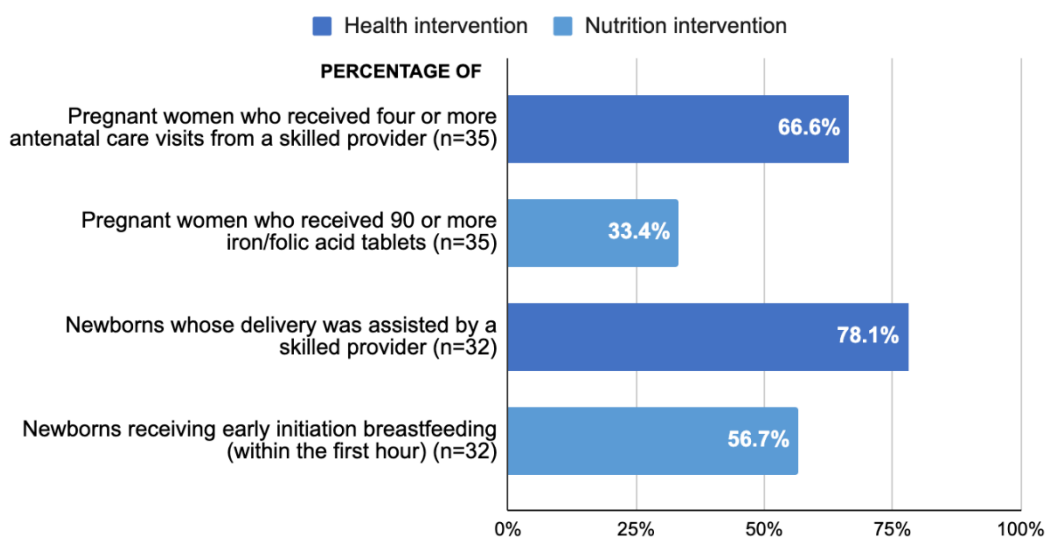
- High-dose vitamin A supplementation (VAS)
- Zinc-containing supplements or fortified foods
- Iron supplementation
- Micronutrient powders

Sources: Heidkamp et al. 2021; UNICEF 2019.

5. **A shift in focus is needed from the “what” and “why” of scaling up nutrition to “how” improved coverage and quality of nutrition services can be delivered through the health system.** Coverage and quality of nutrition services delivery in health care remain low and lag behind coverage of traditional health interventions delivered through the same platforms (Figure 1.1) despite robust evidence on the resources required to scale up cost-effective interventions (the “what”) and the impact of malnutrition on health and development outcomes (the “why”) (Bloom 2013). Women receive nutrition-related interventions considerably less often than they seek care. For example, two-thirds of pregnant women have access to antenatal care (ANC), but only half receive iron and folic acid (IFA) tablets; more than three-quarters of newborn deliveries are attended by a skilled provider, but just over half of newborns are breastfed within the first hour. Even in settings with high ANC and skilled attendance at birth, failure to counsel women on the benefits of IFA supplementation or breastfeeding is a missed opportunity by health facilities to improve maternal and child health. More attention to the quality of care provided, as

well as to improvements in how these services are measured, is required to achieve the SDGs (Joseph et al. 2020; Kruk et al. 2018; Sobel et al. 2016). As noted earlier, the health system, and most especially PHC, is essential for delivering high-impact, cost-effective, nutrition-specific interventions at scale (see Box 1.2). Integrating nutrition services with the broader health system requires action across the six pillars of national health systems. The six pillars of national health systems (Figure 1.2) comprise policy options for creating an enabling environment that can support the scaling up of nutrition interventions. The pillars include ensuring the availability and affordability of essential nutrition-related commodities and health workforce readiness to deliver nutrition services across the life-course, with financing as a critical entry point that can mobilize improvements across these and other pillars. The specific measures to be taken within each of the pillars will depend on the characteristics of each country's health system. Guidance on policies that work to increase country investment in nutrition and deploy existing resources more effectively are needed.

Figure 1.1. Coverage of Maternal and Child Nutrition versus Health Interventions Delivered through PHC in Thirty-Five Countries



Sources: Development Initiatives 2020; USAID 2021.

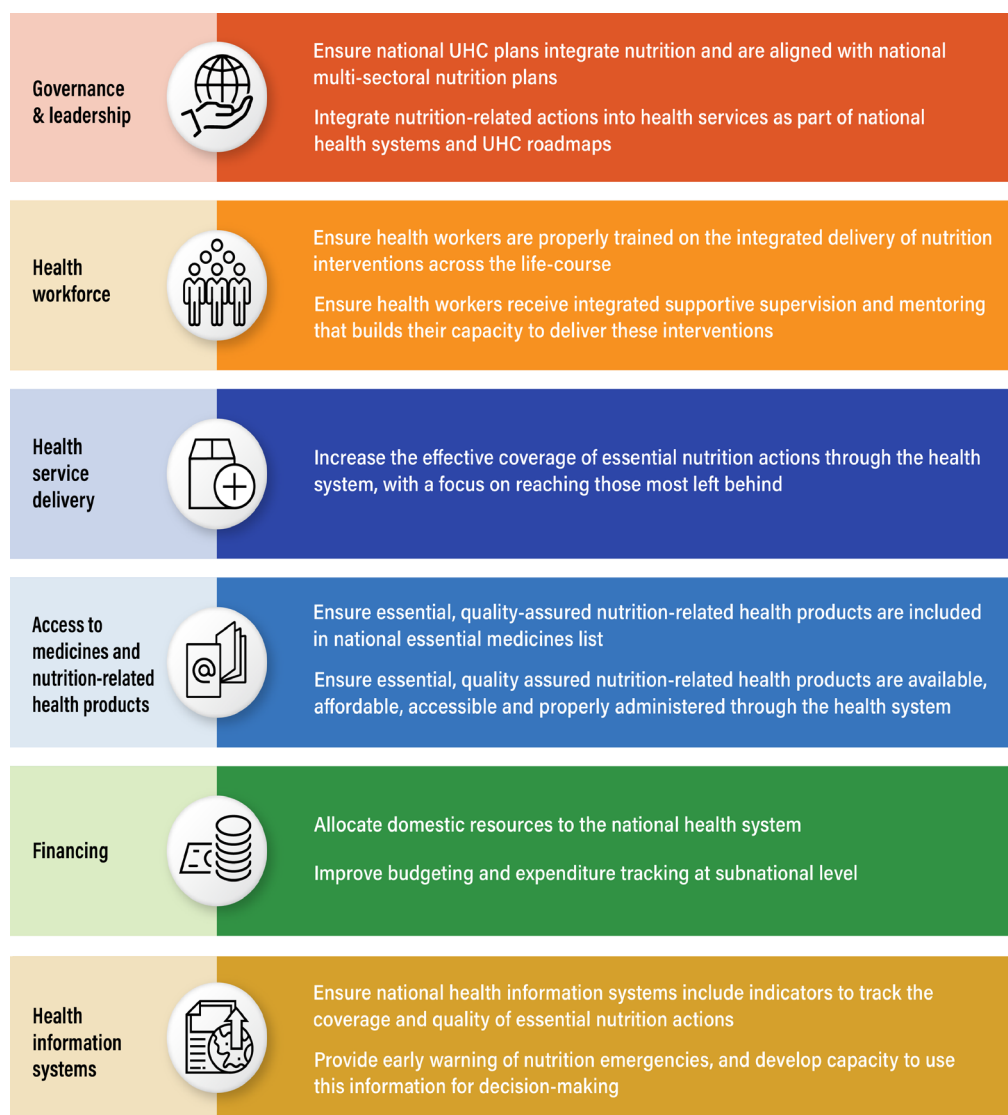
Box 1.2. Definition of Nutrition-Specific Interventions and Programs

Nutrition-specific interventions and programs refer to interventions or programs that address the immediate determinants of fetal and child nutrition and development. Nutrition-specific interventions delivered through PHC are not limited to but include the following:

- Adolescent, preconception, and maternal health and nutrition
- Dietary or micronutrient supplementation or fortification for women and children
- Promotion of optimum breastfeeding
- Complementary feeding and responsive feeding practices and stimulation
- Disease prevention and management

Source: Ruel, Alderman, and Maternal and Child Nutrition Study Group 2013.

Figure 1.2. Integration of Nutrition-Related Actions through the Six Pillars of National Health Systems



Source: WHO 2019c.

6. **Enhanced financing arrangements, informed by an evidence-based priority-setting process, serve as a critical entry point to mobilize improvements across health systems pillars.** Systematic evidence-based priority setting will help drive a larger share of health and nutrition budgets to deliver on the most impactful, “best buy,” nutrition services. In turn, health financing arrangements, including the specific mechanisms of revenue raising, pooling, and purchasing (collectively referred to as “health financing levers,” see Box 1.3), can be optimized to ensure that scarce nutrition resources are distributed with equity, efficiency, transparency, and accountability, while also catalyzing improvements in other areas of the health system such as human resources, information systems, and the supply chain (see Figure 1.2).

Box 1.3. Definitions of Health Financing Arrangements and Levers

Health financing arrangements consist of the schemes that govern the flow of funds to pay for health services. They perform three key functions: revenue raising, pooling, and purchasing. These health financing levers may be used individually or in combination and serve as critical levers for aligning health financing with health system goals.

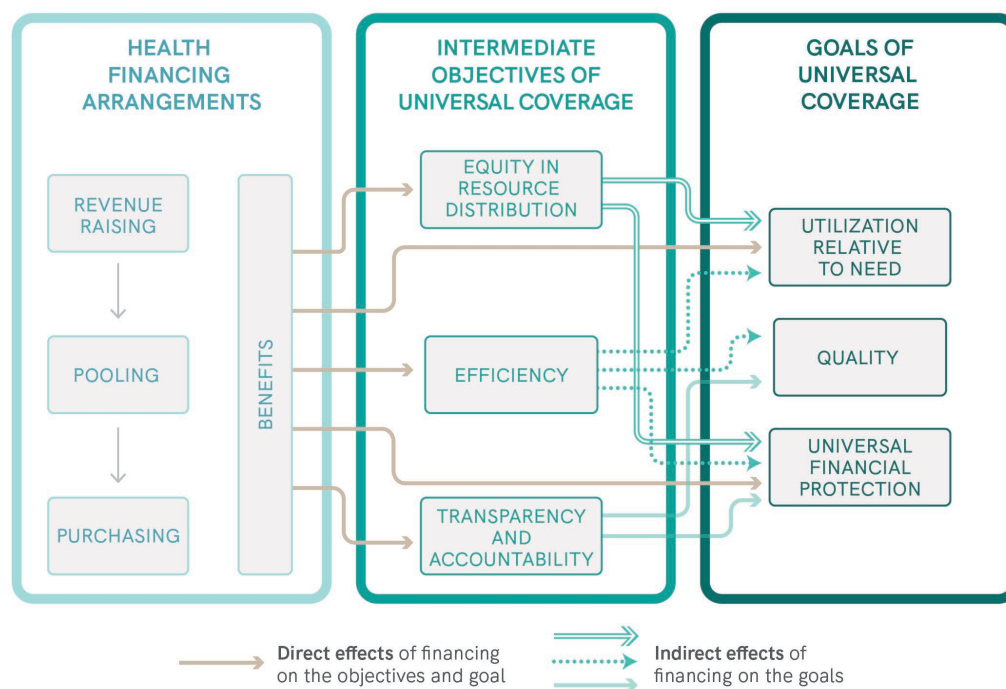
Revenue raising involves the collection of funds from individuals, organizations, or firms, and/or donors to pay for health services. Revenues can be raised through a variety of mechanisms including general government taxes, earmarked taxes for health, compulsory or voluntary contributions, direct out-of-pocket payments, and overseas development assistance (ODA).

Pooling deals with the accumulation and management of prepaid funds to ensure that the financial risks of paying for health care are spread equally across all members of the pool and not only to the individuals who fall ill. Prepayments can be consolidated into a single national pool or several smaller pools, which are drawn from to pay for health services.

Purchasing refers to the process of paying for health services, including determining what benefits will be paid for, which providers will be paid, what payment methods will be used, and how much will be paid for each service. Payment methods can be input-based (i.e., staff, equipment, medical supplies, etc.) or output-based (i.e., for services rendered).

Source: Gottret and Schieber 2016.

Figure 1.3. How Health Financing Arrangements Support Movement toward UHC



Sources: Cashin et al. 2017; Kutzin 2013.

7. **The health financing levers can have either direct or indirect impact on nutrition coverage and quality.** Direct benefits may be conferred, for example, by raising revenues to reduce out-of-pocket payments and thereby promoting increased utilization of nutrition services (Kutzin 2013). Even in resource-constrained environments, countries use financial levers to indirectly increase coverage of high-quality nutrition services by improving the intermediate UHC objectives of equity, efficiency, and transparency and accountability (see Figure 1.3). Equity can be improved by pooling prepaid resources to spread financial risk for nutrition services across population groups and/or contracting community-based providers who have greatest access to the most vulnerable target users. Efficiency can be improved by incentivizing delivery of essential nutrition services in PHC using output-based payment methods such as capitation, fee-for-service, and results-based financing (see Table 1.4 for more details). Finally, transparency and accountability can be improved by raising awareness among target users, health workers, and community-based workers about nutrition service entitlements and by monitoring the use of public funds for nutrition to ensure that they are managed appropriately. As a result, optimizing health financing levers can address many of the underlying service delivery and financing bottlenecks contributing to low nutrition service coverage and quality. Box 1.4 uses the example of iron and folic acid supplementation for pregnant women to illustrate how health financing levers can be used concurrently to address these bottlenecks to improve related outcomes.
8. **UHC-oriented reforms offer an opportunity to optimize health financing arrangements to reach UHC and nutrition targets.** The World Health Assembly (WHA) Global Nutrition Targets will only be achieved if countries align their health financing systems with nutrition policy objectives. In Rwanda, for example,

enrollment in a community-based health insurance scheme that includes nutrition services in its benefits package has been associated with a significantly reduced likelihood of child stunting (Lu et al. 2016). In Peru, a strong monitoring system, performance-based budgeting, and a conditional cash transfer program for low-income users increased equitable coverage of high-impact nutrition services, contributing to a halving of the child stunting prevalence in just one decade (Shekar et al. 2017). In Indonesia, the reform on nutrition budget tagging and tracking system has contributed to improving prioritization of high-impact nutrition interventions in the budget and enhanced strategic purchasing for nutrition services. Furthermore, in Senegal, strong political commitment, a multisectoral approach, and largely government-driven nutrition financing contributed to the scale-up of vital outreach strategies for nutrition-related interventions, leading to a significant reduction in child stunting prevalence in just three years (Shekar et al. 2017). This paper will discuss the valuable lessons from countries' experiences utilizing health financing levers to address many of the financing and service delivery challenges and, ultimately, to improve nutrition service coverage and quality as part of the movement toward UHC.

Box 1.4. Illustrative Impact Pathway between Health Financing Levers and Nutrition Outcomes: Iron and Folic Acid Supplementation for Pregnant Women

Coverage of iron and folic acid (IFA) supplementation during pregnancy remains low in many low- and middle-income countries, with notable urban-rural equity gaps (Heidkamp et al. 2020). Countries could leverage health financing levers to improve delivery of this cost-effective and high-impact nutrition intervention.

For example, nutrition policy makers could help raise sufficient revenues for the delivery of IFA supplementation in antenatal care (ANC) by working with central budgeting authorities to ensure that health sector budgets cover all associated costs. These may include the costs of maintaining adequate stock levels of supplements at health facilities; providing regular training, supportive supervision, and effective communication materials to health workers; and reaching vulnerable populations in communities through transport, sensitization, and mobilization. Pooling mechanisms could be leveraged to ensure that subnational regions with higher percentages of rural populations receive funding necessary to support any additional costs of community-based distribution and follow-up. Finally, to increase incentives and accountability, health service purchasers could explicitly include IFA supplementation in output-based payments (e.g., capitation, fee-for-service), ensure users' awareness of their entitlement to this service, and periodically monitor its provision.

Ideally, these investments would result in increased uptake and adherence to IFA supplementation among pregnant women, while protecting them against financial risks. Increased coverage would, in turn, contribute to improvements in outcomes, such as lower prevalence of maternal anemia, low birthweight, and preterm birth, and therefore stave off associated long- and short-term health care costs.

Source: Authors.

PART II – OBJECTIVES AND METHODS

9. **The goal of this discussion paper is to provide practical knowledge to policy makers on how to use health financing levers to improve nutrition service coverage and quality as part of the movement toward UHC.** Some countries are already making headway and have experiences from which others can learn. This paper summarizes global learnings and country experiences on how nutrition is being prioritized, financed, delivered, and monitored as part of UHC strategies.
10. **This paper also reiterates the importance of approaching nutrition as an integral part of the health system and UHC and lays out the concrete mechanism for strengthening the integration through a health financing arrangement.** The paper will discuss the critical elements in optimizing health financing levers to improve the quality and coverage of high-impact nutrition services as part of UHC. This would include an evidence-based prioritization process supported by quality data on disease burden and costing that shows both why and how nutrition interventions should be included in the UHC benefits package. Once prioritized, services within the benefits package such as supplies, commodities, and health worker time for delivering nutrition services, need to be well-defined to optimally leverage health financing arrangements and ensure accountability and equity. Furthermore, an enabling environment for nutrition includes high-level political and donor commitment; leadership in ensuring multisectoral policy and program coherence; and investment in subnational data and capacity to monitor progress—the same as for the broader health system (Heidkamp et al. 2021). Thus, framing nutrition within a UHC narrative can help highlight these enabling factors in an integrated manner and to a greater impact than if these were viewed as stand-alone issues for nutrition.
11. **This discussion paper was developed through a series of research activities,** including multiple literature reviews, key informant interviews with subject matter experts and country representatives, and numerous discussions among the authors who represent key areas of expertise. Countries were selected through program reviews (e.g., from ongoing World Bank project work in nutrition) (Table 1A.1 in annex). The desk reviews were conducted to consolidate and rapidly synthesize existing literature, including peer-reviewed published and unpublished literature, research data and reports, and selected country program documents on the health system, nutrition services, policies, and historical experiences with implementing UHC.
12. **Lessons learned from country experiences were gleaned using a four-part analytical framework consisting of key guiding questions:**
 - a. **Prioritization of nutrition services in national health plans and strategies:** Are nutrition services clearly defined in essential health packages? Are nutrition services included in national strategies to achieve UHC? Do national UHC monitoring frameworks include nutrition indicators?
 - b. **Financing arrangements for nutrition within the health system and its challenges hindering the achievement of effective coverage of**

nutrition services: How are nutrition services financed (i.e., how are revenues raised and pooled, and how are services purchased)? What specific revenue-raising, pooling and purchasing challenges prevented the achievement of nutrition coverage and quality targets? How did financing reforms impact these challenges? How did these arrangements change as a result of financing reforms?

- c. **Optimization of health financing levers to address nutrition-related challenges:** How were the revenue raising, pooling, and purchasing levers optimized to address service delivery/financing challenges? What obstacles were faced in the process, and how were they overcome? What were the possible impacts on coverage, quality, and financial protection?
- d. **Role of other health system features in enabling the optimization of health financing levers:** What critical health system inputs and features (i.e., data management and information systems, governance arrangements, public financial management [PFM] policies, etc.) were necessary to enable the optimization of revenue raising, pooling, and purchasing?

ORGANIZATION AND TARGET AUDIENCE OF DISCUSSION PAPER

- 13. **The composite findings of the analytical activities described above are presented in this paper.** The remainder of this discussion paper is organized as follows: Part 3 reviews how nutrition has been positioned in global- and national-level strategies and monitoring frameworks for UHC; Parts 4, 5, and 6 describe the main financing challenges and bottlenecks contributing to poor coverage and quality of nutrition services while providing examples of financing reforms implemented by countries, including the specific operational steps followed to optimize the health financing levers of revenue raising (Chapter 4), pooling (Chapter 5), and purchasing (Chapter 6); Chapter 7 highlights reforms that were essential in enabling the successful implementation of the previously described health financing reforms; and finally, Chapter 8 concludes with a summary of key takeaways and recommendations on areas of further research.
- 14. **The intended audience for this paper includes national, regional, and international stakeholders working at country level, as well as global nutrition and health technical and financial partners.** At country level, health sector policy and program decision makers are in a key position to set the national agendas for health and nutrition. At the same time, multilateral agencies that focus on health and nutrition also drive global agendas in those areas. A shared understanding among country and global-level health and nutrition experts of the concepts outlined in this paper will be essential to synergistically driving both the nutrition and UHC agendas forward.

PART III – A REVIEW OF HOW NUTRITION HAS BEEN POSITIONED IN UHC POLICY AND STRATEGY

15. **The positioning of nutrition in UHC policy and strategy provides critical opportunities for leveraging UHC to improve coverage and quality of nutrition services.** The World Health Organization (WHO) recommends that national UHC policies emphasize prevention of malnutrition since provision of nutrition services is integral to achieving UHC (WHO 2019a). United Nations (UN) member states simultaneously vowed to end all forms of malnutrition (SDG Target 2.2) (UN General Assembly 2017). Achieving nutrition outcomes and movement toward UHC are inextricably interlinked: good nutrition for all will not be realized without UHC, and no country will be able to achieve UHC without strengthening the delivery of essential nutrition interventions that can tackle malnutrition across life stages and target groups (WHO 2019a, 2019c). There is overwhelming evidence on the magnitude of malnutrition globally, the financial and opportunity costs of inaction, and the availability of cost-effective interventions that offer the greatest benefit to the most vulnerable populations (WHO 2019c, 2020). Investing in nutrition improves nutrition and health outcomes, saves lives, and contributes to human capital development (WHO 2020). Integrating nutrition interventions as part of national UHC packages and delivering them with quality would amplify and accelerate achievement of UHC objectives, the World Health Assembly Global Nutrition Targets, and the Sustainable Development Goals (SDGs). This section will assess how nutrition is being prioritized and monitored in UHC policy and strategy both at the global and country level.
16. **Nutrition remains vulnerable to not being visible in the UHC agenda.** Mainstreaming nutrition into the health system is an indispensable prerequisite for ensuring equitable access to nutrition services that will improve diets, save lives, and reduce health care spending, and, ultimately, result in better health outcomes for all (Development Initiatives 2020). Nonetheless, the discussions of nutrition and UHC remain somewhat disconnected. Nutrition outcomes are covered in SDG 2.2; however, the inputs required to achieve SDG 2.2 are encompassed in SDG 3.8, which does not explicitly include nutrition. Furthermore, despite strong historical precedent for the inclusion of nutrition within PHC services, nutrition is not explicitly included in the UHC Global Monitoring Framework (WHO 2019d)³.
17. **Adequate positioning of nutrition in UHC policy remains a challenge in spite of global guidance.** Nutrition is often "underprioritized in national health care policy and financing discussions" (Development Initiatives 2020). The current "lack of clarity" for the inclusion of nutrition within the scope of UHC is evident in practice (WHO 2015a). Rather than being framed as integral to health, nutrition is often positioned among other "broader determinant[s] of health," such as water, sanitation, and housing, or as an "other" sector (along with economic growth and job creation, gender equality,

³ While nutrition is implicitly included in the service coverage index through services such as ANC and through prevention of NCDs, nutrition services not being explicitly included leads to nutrition services not being appropriately prioritized at the strategy and planning stage as well as at the time of resource allocation (see Development Initiatives 2020).

education, and poverty reduction) benefiting from UHC (WHO 2015a; WHO and IBRD 2017). In response, WHO has proposed criteria for country commitments to ensure inclusion of nutrition in UHC, including the following: (i) reinforce nutrition as a pillar for UHC; (ii) tailor to the country context; (iii) ensure it is evidence-based; (iv) prioritize the nutrition needs of the poorest and most vulnerable populations; (v) cover the whole life-course and note periods most sensitive to good nutrition; (vi) leverage the health sector as a critical entry point; (vii) account for the coexistence of multiple forms of malnutrition; (viii) focus on equity, quality, and financial risk protection; and (ix) be SMART (specific, measurable, achievable, relevant, and time-bound) (WHO 2020). However, countries' adoption and operationalization of these criteria for ensuring inclusion of nutrition remains inadequate.

18. **Too often countries stop at the vague commitment to "include nutrition" in the benefits package and fail to elaborate the details necessary for strategic financing and quality service delivery.** Nutrition interventions, particularly those that are preventive and promotive such as breastfeeding counseling, are among the most cost-effective in terms of health outcomes. With high-quality data, these interventions are naturally prioritized in the benefits package. Thus, to ensure that nutrition is fully integrated and accounted for, what is needed at the country level is (1) an evidence-based prioritization process to identify "best buy" nutrition services; (2) a clearly defined nutrition package of services, including standards for delivering quality services; (3) a concrete strategy for sustainability and predictability of financing; and (4) a robust accountability system and mechanism to monitor expenditure, service delivery, and results. Without this, it is not possible to deliver quality services, determine what comprises adequate financing, devise a financing strategy that effectively uses health financing levers to achieve allocative efficiency (e.g., using Optima Nutrition⁴), or monitor progress and adjust the financing strategy over time.
19. **Positioning nutrition in UHC begins with an evidence-based prioritization process to determine which nutrition services to be delivered as part of benefits package.** Since *the Lancet's* Maternal and Child Undernutrition Series⁵ (2008), a lot of work has gone into assessing the cost-effectiveness of nutrition interventions, which several initiatives have used to propose lists of overlapping "priority" nutrition interventions (Bhutta et al. 2008; Jamison et al. 2018; WHO 2019a). However, malnutrition looks different in different countries. Beyond high-level nutrition commitments, a more contextualized understanding of the interdependencies between nutrition and UHC is needed to clarify the nationally determined evidence-based nutrition actions that can be integrated into health service delivery. Use of various tools (i.e., Optima, WHO-CHOICE, EQUIST) that support data-driven

⁴ Optima Nutrition is a quantitative tool to assist with current or projected budget allocation and to provide important guidance for targeting nutrition investments to achieve greater impact (see Box 1.6 [Pearson et al. 2018])

⁵ Maternal and Child Undernutrition (thelancet.com).

allocation of resources for nutrition can help to ensure the effective prioritization of high-impact interventions in the benefit package.

20. **Once prioritized in the benefit package, the package of services needs to be well-defined, including the required service standards and inputs across health system building blocks to deliver quality nutrition services.** Integrating nutrition services with the broader health system requires action across the six pillars of national health systems. Each of the six pillars of national health systems includes a vast range of policy options and considerations that can enable adequate scale-up of nutrition interventions. It is crucial for the country to clearly define these service delivery components, including essential nutrition-related commodities/products that need to be available, the capacity standard of the health workforce to deliver nutrition interventions, required equipment and tools, and integrating delivery of nutrition interventions within current health service delivery platforms. The definition and standard for these pillars will need to be contextualized with each country's health system.
21. **Sustainable and predictable financing are critical factors to mobilize improvements across the health system pillars.** A fundamental constraint to sustaining nutrition coverage and quality improvements is the availability and efficient use of adequate financial resources for nutrition. For example, sufficient financial resources are needed to make targeted investments (in areas such as human resources for health, medicines and nutrition-related products, and health management information systems) that can facilitate a full scale-up of nutrition service provision. WHO calls for nutrition to be integrated and "financed through essential packages of quality health services" (WHO 2020). Proposed commitments include governments increasing public spending on essential nutrition actions delivered as part of essential health services, and stakeholders ensuring that 100 percent of government financing includes nutrition. These proposed commitments address revenue raising for nutrition, one of the three health financing levers. Although there have been serious efforts to increase allocation of resources for nutrition over the past decade, guidance on optimizing the remaining two levers—pooling and purchasing—to incentivize nutrition service delivery remains sparse (Heidkamp et al. 2021).
22. **Positioning nutrition in UHC requires a clear articulation of accountability for results and a reliable means to track progress.** Through the SDGs, UN member states have committed both to "end all forms of malnutrition" and "achieve universal health coverage"; however, there is no mechanism of accountability for ensuring universal coverage and access to quality nutrition services. The UHC monitoring system functions as a crucial mechanism of accountability for SDG Target 3.8, but nutrition is not explicitly included among the tracer indicators (WHO 2019d). Conversely, the SDG Monitoring Framework tracks progress against nutrition outcomes, but not delivery of nutrition interventions (Leadership Council of the Sustainable Development Solutions Network 2015). WHO (2020) has proposed a series of commitments to more firmly bind SDG Targets 2.2 and 3.8.1. It calls on member states, UN entities, and civil society organizations to commit to mainstream

nutrition in UHC, through actions taken across the six pillars of a national health system (see Figure 1.2) (WHO 2020). In particular, governments are charged with responsibility for actions required—vis-a-vis the integration of nutrition services with broader health service delivery, health workforce, health financing, health information systems, access to essential medicines, and leadership and governance—to deliver basic nutrition services, as encapsulated in the essential nutrition actions, over the life-course to all, in line with both SDG Target 2.2 and SDG Target 3.8.1. However, as of November 2021, these commitments have not yet been ratified by UN member states.

23. Countries are pioneering innovative ways of integrating nutrition services with the national UHC package and leveraging revenue raising, pooling, and strategic purchasing to improve nutrition service coverage and quality.

Much can be learned from other intervention areas, such as immunization or family planning, on how to effectively leverage health financing levers to improve coverage of nutrition services. Programmatic similarities between these traditionally vertical program areas and nutrition, including a reliance on donor-based funding and the preventative nature of services, make them valuable examples on how to improve service coverage through integration with UHC-oriented financing reforms. For example, several countries have increased coverage of immunization and family planning services by strengthening political commitment to raising sufficient resources (Results for Development 2017), improving flexibility of pooling arrangements to reduce barriers to access (Coe and Madan 2018), including the services in benefits packages of government-supported social health insurance schemes (Fagan et al. 2017; Ross et al. 2018) and introducing payment-for-performance (P4P) methods in PHC to create incentives for their delivery (Results for Development 2017). Experiences from these service areas have also demonstrated common challenges with integration into UHC financing plans, including unclear responsibilities for financing services between multiple public health financing schemes, the effect of decentralization on maintaining equitable coverage, and inconclusive evidence on the impact of performance-based payments in low- and lower-middle-income countries (Results for Development 2017). They have highlighted that the details of the integration matter—the populations targeted, the benefits package provided, the providers contracted, the payment methods used, “how” those nutrition services are to be delivered through strategies to enhance quality PHC services, all play important roles in improving service coverage (Mazzili, Appleford, and Boxshall 2016). This means ensuring that health financing levers, including purchasing and payment systems, are optimally used to incentivize improvement in access and quality of nutrition services (as part of the basic services package).

24. Country case studies highlight diverse contexts that have made notable headway with integrating nutrition into UHC.

Several characteristics stand out for having helped pave the way for success. These include sustaining commitment to UHC and nutrition across political cycles, high health insurance coverage rates, a cadre of community-based health workers, and strong accountability mechanisms. In Peru, for example, at the urging of an active and coordinated civil society, successive

governments committed to sustaining policies on stunting that led to remarkable improvements in stunting in a short period of time. Further, to better link nutrition program planning and budgeting, Peru has installed health financing specialists in the Ministry of Finance at both national and regional levels. In Indonesia and Thailand, nutrition has been integrated into UHC for decades, with each administration building on the achievements of its predecessors. In Thailand, local community leaders and health insurance beneficiaries are engaged in priority setting. As a result, in Peru, Indonesia, Thailand, and Rwanda too, a high proportion of the population, especially the poorest, are covered by health insurance schemes that help to ensure allocation of resources and reduce costs (by investing in promotion and prevention rather than more costly treatment). In these countries and in Ethiopia, it is possible to reach large swaths of the population at the community level due to strong community-based health systems. These features have provided a strong foundation for improving the integration of nutrition with UHC.

25. **For the countries that are highlighted in the case studies, there is alignment between national health, UHC, and nutrition policies.** In Ethiopia's UHC policy, for example, nutrition-related services are specifically mentioned. Peru's UHC policy is linked to a benefits package that details the nutrition services it covers. As long as they are explicitly included, nutrition services can but do not have to be described as a stand-alone package. In nearly all the case study countries, the benefits package includes a discrete list of evidence-based and cost-effective nutrition services that are covered. Peru and Thailand have taken it a few steps further by prioritizing a small number of nutrition services based on an analysis of the country's nutrition situation and a rigorous costing exercise.
26. **Efforts to impose accountability vary by country and are usually designed to function at multiple mutually reinforcing levels of government.** Indonesia has established a set of minimum service standards for (decentralized) local governments, which include nutrition promotion and prevention services. Both Indonesia and Rwanda have begun tracking resources for nutrition (nutrition-specific and nutrition-sensitive) in an integrated financial management information system. Rwanda has fully integrated its community health worker (CHW) platform into the national health system, including the performance-based financing (PBF) scheme being implemented at facility and community levels. Peru, too, is using performance-based budgeting for its national nutrition program. Peru is also notable for making use of people-centered indicators for monitoring progress and, like Thailand, investing in a robust and integrated nutrition information system. Peru emphasized meaningful and impactful indicators, having the "right services at the right time; for example, instead of just counting the number of vaccines, it tracked the number of children who have access to the full package of immunizations on time. While no single country is a standout across all factors, there are commonalities as well as context-specific innovations that can serve to guide other countries wishing to do the same.

PART IV – OPTIMIZING REVENUE RAISING FOR NUTRITION

27. **Many countries face the challenge of insufficient revenues for nutrition services delivered by the health sector.** As estimated by the Investment Framework for Nutrition (IFN), scaling up nutrition services to meet the WHA Global Nutrition Targets will require substantial amounts of additional funding from a mix of domestic government revenues, official development assistance (ODA), and other financing mechanisms (Shekar et al. 2017). Country ownership and investment through domestic resources are and will remain critical to ensuring sustained nutrition action and outcomes (Development Initiatives 2020). Mobilizing resources will require addressing challenges with revenue raising mechanisms for the health sector overall, which may be inhibiting the allocation of resources to nutrition. These challenges and approaches for addressing them are summarized in Table 1.1 and explained in more detail in the sections below.

Table 1.1. Revenue Raising Challenges and Solutions (Nutrition-Specific)

	Challenges	Solutions	Country examples
1	Inadequate costing and tracking of nutrition resources, rigid budgeting practices, and limited data on the extent of disease burden.	Conduct costing of nutrition services that need to be delivered, improve tracking of nutrition resources by budget tagging, budget tag and track nutrition services domestically or externally, commission multi-country studies to monitor malnutrition burden.	Indonesia and Rwanda have begun tracking and tagging resources, which paves the way for improving effective budgeting, strategic purchasing, and efficiency.
2	Competing programs and economic costs at the national and subnational levels, and health sectors.	Improve advocacy and strengthen coordination and alignment of nutrition priorities in regional and local health budget allocation.	Peru developed a strong advocacy strategy by using a mini-Ministry of Health (MoH) known as “Mini-MoH” within the Ministry of Finance at all levels that provided information about needs and argued for more resources. Indonesia and Rwanda have used a World Bank financing instrument (i.e. Development Policy Operation (DPO)), to support human

	Challenges	Solutions	Country examples
			capital-focused policy reforms to make an argument for domestic resource allocation to nutrition.
3	Fragmented domestic sources of nutrition financing limits sustained funding and nutrition service delivery.	Streamline nutrition resources allocated in various sectors and programs to improve predictability and sustain funding for nutrition services.	<p>Ethiopia uses “One Plan, One Budget and One Report” approach to harmonize resources from different stakeholders.</p> <p>Peru consolidated multiple revenue streams and with existing resources and system capacity used it to fully fund a package of key nutrition services identified on the basis of specific nutrition outcomes (reducing stunting)</p>
4	Overreliance on and insufficient external financing for nutrition.	Increase availability of domestic funding for nutrition by continuing to advocate for and promote nutrition in the broader health and development agenda.	India transitioned a donor-sponsored HIV-AIDS prevention program, Avahan, to a government-funded project by building government capacity, aligning donor program components with government priorities, and budgeting for adequate support throughout the transition.

Source: Authors

28. **Domestic spending on nutrition is not at a level needed to meet targets according to the Investment Framework for Nutrition (Development Initiatives 2020).** At the outset, it is impossible to accurately assess progress on country

financing toward the investment framework requirements at a global scale as there is no routine system for tracking and reporting on domestic spending on nutrition across countries. Nevertheless, it is commonly the case that the proportions of health sector budgets allocated to nutrition outcomes are small, with only modest increases in some countries. Across the 38 countries reporting health spending by disease through the WHO Global Health Expenditure database, overall spending on nutritional deficiencies as a share of total health expenditure was approximately 1.4 percent in 2017, representing a decrease of 5.6 percent from 2015 (Development Initiatives 2020). Limited domestic spending on nutrition often means excessive reliance on external funding, which is unsustainable.

29. **Low domestic spending on nutrition services within the health sector is partly attributable to limited fiscal space for the health sector overall.** The number of financial resources available for nutrition services largely depends on the available fiscal space for health,⁶ which in turn is driven by the total level of government revenues and the ability and willingness to prioritize health among other competing priorities. Total government spending on health is relatively low in LMICs. In 2017, government expenditure on health was just \$10 per capita in low-income countries compared with \$2,021 per capita in high-income countries (WHO 2019b). However, differences in government expenditure on health are only partly attributable to country wealth. Even among countries of similar income levels there is substantial variation, suggesting that different countries may assign different levels of priority to the sector (WHO 2010). Governments, especially in LMICs, spend less per capita on health because health spending is often perceived to be inefficient or seen to give low returns compared to spending on other sectors, such as agriculture or education. Low allocation for the health sector means fewer resources available for allocation to nutrition.
30. **Low prioritization of nutrition within health sector budgets further exacerbates the low share of domestic resources for nutrition.** Although government tax revenues—an important source of revenues for the health sector—are projected to grow in most of the 61 Scaling Up Nutrition (SUN) countries, a World Bank analysis demonstrates that without an increase in the total share of resources allocated to nutrition, this growth would still be insufficient to meet financing targets to improve nutrition outcomes in several countries. Nutrition-specific services, in spite of being high impact are often underprioritized in national health care policy and financing discussions (Development Initiatives 2020) because, instead of being seen as integral to health, nutrition is positioned among “broader determinant(s) of health,” such as water, sanitation and housing or sometimes even as an “other” sector along with economic growth, gender equality, or education that benefits from UHC (WHO 2015a; WHO and IBRD 2017).

⁶ Fiscal space for health care refers to the budgetary room that allows a government to devote resources to services or activities delivered through the health sector without endangering the sustainability of its financial position (Tandon and Cashin 2010).

31. **In cases where nutrition is included in health sector budgets, there may be difficulties linking budgeted amounts to policy commitments due to a poor understanding of the required investment coupled with inadequate resource tracking.** National financing gaps for nutrition are often hard to determine owing to a limited understanding of what the resource needs are for nutrition services and inadequate tracking of how existing resources are being used. Fewer than half of countries with nutrition policies covering both nutrition-specific and nutrition-sensitive services have a costed operational plan (Development Initiatives 2020). Even in instances where nutrition is included in the health budget, in the absence of updated and reliable costing data and an understanding of what can be achieved with existing resources, it is challenging to determine whether policy commitments for nutrition services are being fulfilled, and to what extent. For countries having a costed nutrition plan, whether resource allocation is made based on costs (as opposed to based on historical benchmarks) often depends on how nutrition is positioned in the overall budget.
32. **Accurately identifying the resource needs and gaps is further exacerbated by limited data on allocation and spending on nutrition.** Nutrition allocation and spending tracking is lacking for both domestic and external financing. In Ethiopia, for instance, even though most nutrition services are donor-funded and on budget, there is limited understanding of how much is allocated and spent on nutrition due to underreporting of financing, infrequent public expenditure reviews, and lack of consistent tracking of spending on nutrition programs. Having reliable and accurate nutrition financing data is key for identifying how much is needed, what resources are available, and the resource gap. Without these vital pieces of information, it is impossible for countries to take stock of nutrition financing shortfalls, build a case for increasing investing in nutrition services, or develop strategic plans for the same.
33. **Globally, the lack of data regarding nutrition needs and external resource tracking also hampers mobilization and targeting of donor resources.** Inadequate data on the country-specific malnutrition burden, costs, and coverage of interventions through domestic and donor resources hampers the ability of countries to identify resource gaps and advocate for higher donor commitments, especially in areas that most need additional funding. Ultimately, this leads to low prioritization of “best buy” nutrition services within a benefits package. Moreover, resource tracking would enable the donor community to better coordinate and more strategically target assistance (i.e., relative to need). Improvements have been made to how basic nutrition funding is tracked because of revisions to the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System (CRS) code in 2017. Previously, the CRS code was insufficient in capturing total aid for nutrition because there was no systematic approach to identify nutrition investments that were integrated within health, agriculture, emergency response, social security, and other sectors—despite the multisectoral and cross-cutting nature of nutrition (OECD 2018). As a result of revising the CRS code to be based on nutrition interventions outlined in the 2013 *Lancet* Series on Maternal and Child Nutrition (Box 1.2), the CRS can better track donor disbursements for nutrition and monitor nutrition as a cross-cutting global

health and development investment (OECD 2018). However, there is still limited tracking of external assistance outside of the OECD DAC and South-South Donors.

34. **Rigid input-based budgeting practices may also make it difficult to align spending with policy commitments.** Many LMICs rely on input-based budgeting, which allocates revenues to defined line items for inputs (e.g., salaries for health workers, equipment, medicines, and commodities, etc.) rather than for outputs (e.g., via program-based budgeting). The amounts allocated toward these inputs tend to be based on historical benchmarks rather than on actual service-related costs. Reallocation of funds is often challenging due to public financial management (PFM) rules that allow the entity responsible for budget execution only limited flexibility for reallocation. Paying only for inputs also means that the payment is made regardless of the output, and this makes it difficult to determine whether budgetary allocations for nutrition are effectively fulfilling policy commitments.
35. **Decentralization can contribute to inequitable revenue raising for nutrition at the subnational level.** Decentralization is usually intended to enable provincial or local government authorities to simultaneously (i) be more responsive to local needs and (ii) leverage general fiscal transfers. Consequently, in fiscally decentralized contexts, the extent of public spending allocated to nutrition is influenced by the revenue raising capacity and the involvement of technical actors in the planning and budgeting process at the subnational level. Also, in many low-income countries, the tax base is weak and highly unequal, favoring richer, urban areas over poorer, rural ones. This can impact the overall level of resources available for subnational health spending, and thus nutrition spending. Decentralization of authority on budget decisions has been linked with inequalities in per capita health spending across regions (McIntyre and Kutzin 2016).
36. **Although strong domestic financing is necessary to sustain investments and improvements in nutrition outcomes, many countries will still rely on ODA to support the delivery of nutrition interventions in the coming years.** External financing for nutrition will remain critical for many countries. Indeed, some countries will not experience consistent levels of growth in domestic tax revenues, and thus fiscal space for health and nutrition will be affected, due to several constraining factors (Development Initiatives 2020). Failing to secure adequate external assistance could threaten the continuity of existing programs. For example, Ethiopia relies on external assistance, which covers over 60 percent of the cost of essential exempted services, including several nutrition services. However, there is concern that donor funding in general is underreported and nutrition financing by donors is not effectively tracked.
37. **Despite better prioritization and significant increases in donor financing for nutrition, sharp increases in external resources are needed in the short term to achieve global targets.** The political and strategic momentum generated by the WHA targets, the UN Decade of Action on Nutrition, inclusion of nutrition in the SDGs, the Scaling Up Nutrition (SUN) Movement, Nutrition for Growth Summit, the

Investment Framework for Nutrition (IFN), and others has raised the profile of nutrition among other donor financing priorities, and generated significant increases in funding since 2007, from \$200 million to nearly \$1 billion annually (Kim 2018). Available data on ODA show that donor disbursements for basic nutrition have increased in absolute terms, with important contributions from private donors. However, the share of ODA that these disbursements comprise has not increased beyond 2013 levels. Although donors mobilized 93 percent of their proposed share of IFN priority package costs (which includes costs outside of basic nutrition) in 2017, there was still a gap of \$100 million. Moreover, the gap in financing of the full package of interventions needed to reach the WHA Global Nutrition Targets will be substantially larger, though this has not yet been quantified (Development Initiatives 2020).

38. **External assistance may not be adequately targeted toward countries most in need.** Donor funding is broadly targeted toward LMICs, which comprise the largest burden of malnutrition. However, beyond this there is a wide variation in the level of funding countries receive, with several high-need countries consistently receiving relatively small volumes of nutrition assistance (Development Initiatives 2020; Kim 2018). Although this may be due in part to several geopolitical factors, including ability to pay, absorptive and implementation capacity, and stability, there is significant scope for improvement in targeting of external nutrition assistance based on need.
39. The indirect effects of the COVID-19 pandemic further threaten the availability of fiscal space for nutrition. The experience of previous health emergencies has shown that the resources required to respond to the immediate consequences of the COVID-19 pandemic are likely to crowd out funding for routine health and nutrition services (World Bank 2020a). As emergency response efforts take precedence in the short term to respond to capacity constraints, domestic health financing needs increase for pandemic response efforts but leave lower fiscal space for nutrition. Further, the forecasted economic slowdowns are more dire than the 2007–2009 global financial crisis and are likely to affect funding from donor countries and the private sector. Due to its reliance on the health system for delivery, any potential slowdown in development aid is cause for concern in nutrition programming.

APPROACHES FOR ADDRESSING REVENUE RAISING CHALLENGES

40. **Increased allocations for the health sector can improve availability of resources for nutrition.** Resources allocated for health can be increased by increasing general government revenues as well as improving the prioritization of health in government budgets. As countries develop financing strategies to achieve UHC, many are diversifying revenue sources including (i) compulsory public payments, such as indirect taxes on consumption, direct payroll taxes, and direct earmarked social health insurance taxes for health, and (ii) private voluntary payments such as employer/employee contributions to private health insurance and out-of-pocket payments. Although using a mix of financing sources may ensure stability through political and economic cycles, moving toward a predominant reliance on prepaid, public funding sources has been shown to be most effective in

improving access (Jowett and Kutzin 2015). The scope for increasing revenues for the health sector will need to be assessed at the country level and may include questions such as the efficiency of tax and social insurance contribution collection, size of the informal sector, tax compliance, and implications for poor and vulnerable populations (WHO 2010). Rwanda and Thailand are examples of countries that have reformed sources of health financing to be more sustainable. Reforms by successive governments in Thailand, particularly the health budget reform of 2002, not only improved financial protection but also increased budget allocation to health, which helped Thailand achieve UHC. Rwanda undertook reforms to improve domestic resource mobilization through more efficient business operations. Reforms on improving targeting of social programs, including health and nutrition, to improve spending efficiency were introduced as part of Human Capital Development Policy Financing.

41. **Making health a key political issue can help persuade politicians to place health and UHC at the top of the political agenda.** Improving efficiency of spending in the health sector can also help convince Ministries of Finance that scarce public resources will be well spent (see Box 1.5. Using evidence from tools like Optima Nutrition (see Box 1.6 for planning and budgeting can increase the impact of funding, in turn increasing confidence among stakeholders while helping make the case for increasing the level of domestic investment in nutrition (Development Initiatives 2020). Finally, enhancing negotiations by “learning the language” of Ministries of Finance and understanding the types of arguments that are needed to convince them of the need for additional funding is key (WHO 2010).

Box 1.5 Advocacy and Health Representation in Finance Units

Peru uses an advocacy strategy that focuses on raising resources for health. Peru’s Ministry of Economy and Finance has health finance specialists within the ministry and part of the budgeting unit and is known colloquially as the “mini-MoH.” Its role is to strengthen the link between program planning and budgeting. The same mini-MoH structure is also employed at all the 26 regional government offices for strengthening political support and advocacy. There was a significant advocacy process for putting the issue of early childhood development before politicians and the public, particularly during the electoral process. That helped the issue gain both commitment and traction and get the attention of the incumbent president.

Source: Authors.

42. **Strengthening generation of evidence to inform systematic prioritization is key for effective advocacy for adequate prioritization of nutrition in health sector budgets.** Strong advocacy highlighting the importance and long-term benefits of nutrition services delivered through the health sector will be critical in enhancing prioritization by national and subnational health officials. This should include raising awareness on the Investment Framework for Nutrition, the critical role of domestic government spending in reaching Global Nutrition Targets, and the potential health-

related and economic costs of not prioritizing nutrition. Advocacy efforts should also strongly convey that investing in nutrition, especially in preventive nutrition services, is highly efficient as it can avert chronic disease or the escalation of certain diseases that come at great cost to the individual and health system. Malnutrition, for instance, in all its forms is estimated to cost the global economy \$3.5 billion or approximately \$500 per individual every year resulting from the lost economic growth and investments in human capital due to preventable child and premature adult deaths (Global Panel 2016). Within the health care sector, investing in nutrition can reduce health care spending by preventing downstream utilization, such as treatment for severe acute malnutrition, management of diet-related noncommunicable diseases (NCDs), and hospitalizations (Global Panel 2016). Local media campaigns can help call attention to the need and clarify the economic case for investment in nutrition.

43. **Promoting the use of tools can improve efficiency and optimize resources for nutrition.** Various tools (see Box 1.6) that use evidence to support costing, resource tracking, and budget allocation can help enhance the efficiency of resources for nutrition. For instance, costing can enhance linkages between nutrition financing commitments and policy priorities. Costed operational plans are needed to ensure that funding allocations in health care budgets are sufficient to address nutrition service coverage priorities laid out in national strategies. These plans should account for the cost-effectiveness of nutrition interventions and determine how funding should be allocated across interventions and geographical areas and how costs can be shared with other interventions (Development Initiatives 2020). The input costs that have been included and the assumptions used in the costing exercise should be clearly laid out, and multiple stakeholders at the national and subnational levels should be involved in the costing process (SUN 2014).
44. To complement information on costs, understanding how much is currently being spent on nutrition services is necessary to effectively identify financing gaps. Thus, implementing a resource tracking system that examines budget commitments, execution, and/or actual expenditures will be key (SUN 2014). Nutrition Public Expenditure Reviews (PERs) can be useful periodic tools to explore data availability and identify the types of information that would be helpful for decision making. Many countries are also piloting nutrition budget tagging/resource mapping through the Integrated Financial Management Information System (IFMIS) to generate timely data on resource availability and spending for nutrition, which appear promising if adequately institutionalized. The SUN Movement's Networks have developed guidance notes on costing and resource tracking tools and methodologies, along with a summary of country implementation experiences where available (SUN 2014; Fracassi et al. 2020; MQSUN+ 2020).
45. The Optima Nutrition tool can build on costing and resource tracking exercises by modeling how different budget allocations across costed interventions and geographic regions will address country nutrition targets. As a result, this can increase confidence among stakeholders that funding is being used in a way that maximizes impact, and also make the case for the appropriate level of domestic investment (Development Initiatives 2020). The Optima Nutrition tool was used to determine the best use of

available resources across seven districts in Bangladesh through enhanced targeting of the most cost-effective interventions to increase the number of children age five years and above who are not stunted by 1.4 million by 2030 (representing an increase of 5 percent for the same budget). The reduction-in-stunting objective could be maximized by shifting allocations of the available resources to a combination of just two of the interventions: infant and young child feeding promotion for children age 6–23 months and vitamin A supplementation (VAS). From an equity perspective, the analysis also enabled decision makers to identify districts where the targeting of these interventions could achieve the greatest impact (Development Initiatives 2020).

Box 1.6. Processes and Tools That Support Evidence-Based Allocation of Resources for Nutrition

Public Expenditure Review. Public expenditure review (PER) informs policy makers on the effectiveness, efficiency, and equity of public expenditures. Periodic PERs inform whether public expenditures are implemented as planned, and whether a change is required to ensure intended impacts are achieved.

Expenditure tracking. Expenditure tracking helps to track the processes and results of budget execution to understand if there are delays, leakages, and corruption in the implementation of expenditures. Expenditure tracking also helps in understanding client experiences, incentives, and efficiency in budget implementation.

Costing. Costing of all inputs and processes helps to identify the components of inputs and the associated cost of implementing a program. Costing informs budget, including the type and amount of resources required for an intervention.

WHO Choosing Interventions that are Cost-Effective (WHO-CHOICE) tool: This tool uses economic evaluation such as cost-effectiveness analysis to provide policy makers with evidence to inform decisions on health programs to improve outcomes with the available resources.

Optima Nutrition: This modeling tool carries out an impact and efficiency analysis for nutrition. For different funding levels, Optima Nutrition helps to estimate resources to be allocated across a mix of nutrition interventions as well as the associated achievable impact. For example, considering an overall public health budget available for nutrition, Optima Nutrition will provide policy makers with the investment combination leading to optimal outcomes.

UNICEF's Equitable Impact Sensitive Tool (EQUIST): A web-based analytical platform, EQUIST is designed to help decision makers develop strategies to improve health and nutrition for women and children, especially in the most deprived populations. EQUIST identifies cost-effective interventions and the key blockages that limit their coverage to improve maternal, newborn, and child health (Uneke 2018).

OneHealth Tool: By modeling costs and the impact of health plans, this tool

produces evidence-based assessment of costs and benefits to advocate for increased investment in nutrition. This tool allows users to estimate cost and impact of different scaling-up scenarios or changes while planning human resource development and the strengthening of systems for nutrition. The nutrition module of the OneHealth Tool contains default values for all of the WHO Essential Nutrition Actions. It also includes other nutrition-specific and nutrition-sensitive interventions recommended by WHO and delivered through the health sector; for example, water, sanitation, and health (WASH); optimal timing of cord clamping; and deworming. Since the tool was first disseminated in 2012, over 25 countries in Africa, Asia, and Latin America have been trained to use the tool and have employed it for planning in the health sector, nutrition, and maternal and child health (WHO 2014).

The Lives Saved Tool (LiST): Developed in 2003, this tool estimates the impact of increasing coverage of efficacious interventions on under-five mortality. Over time, the model has been expanded to include more outcomes (neonatal mortality, maternal mortality, stillbirths) and interventions. The model has also added risk factors, such as stunting and wasting, and over time has attempted to capture a full range of nutrition and nutrition-related interventions (antenatal supplementation, breastfeeding promotion, child supplemental feeding, acute malnutrition treatment, etc.), practices (e.g., age-appropriate breastfeeding), and outcomes (stunting, wasting, birth outcomes, maternal anemia, etc.) (Clermont and Walker 2017).

Other tools for evidence-informed policy planning in nutrition:

Landscape analysis country assessment: Assesses countries' readiness to accelerate action in nutrition. A participatory, rapid assessment is conducted by multisectoral country teams, to systematically assess commitment and capacity for nutrition at different levels.

Evidence-informed policy planning for nutrition: Provides "how to" develop scaling-up plans through five proposed steps that can be adapted to country context using global and local evidence.

e-Library of Evidence from Nutrition Actions (eLENA): Compile the latest nutrition guidelines, recommendations, evidence, and related information.

Global database on the Implementation of Nutrition Action (GINA): A database of nutrition-related policies and actions along with lessons learned from country implementations.

Nutrition landscape information system: Links to all WHO nutrition databases providing country profiles, key indicators of nutrition outcomes, and causes at all levels.

Global Nutrition Targets tracking tool: Allows users to explore scenarios for the six global nutrition targets, taking into account the different rates of progress.

The Health Interventions Prioritization Tool (HIPtool): A cloud-based, open-

access, user-friendly, high-impact resource to assist with health intervention prioritization at the country level.

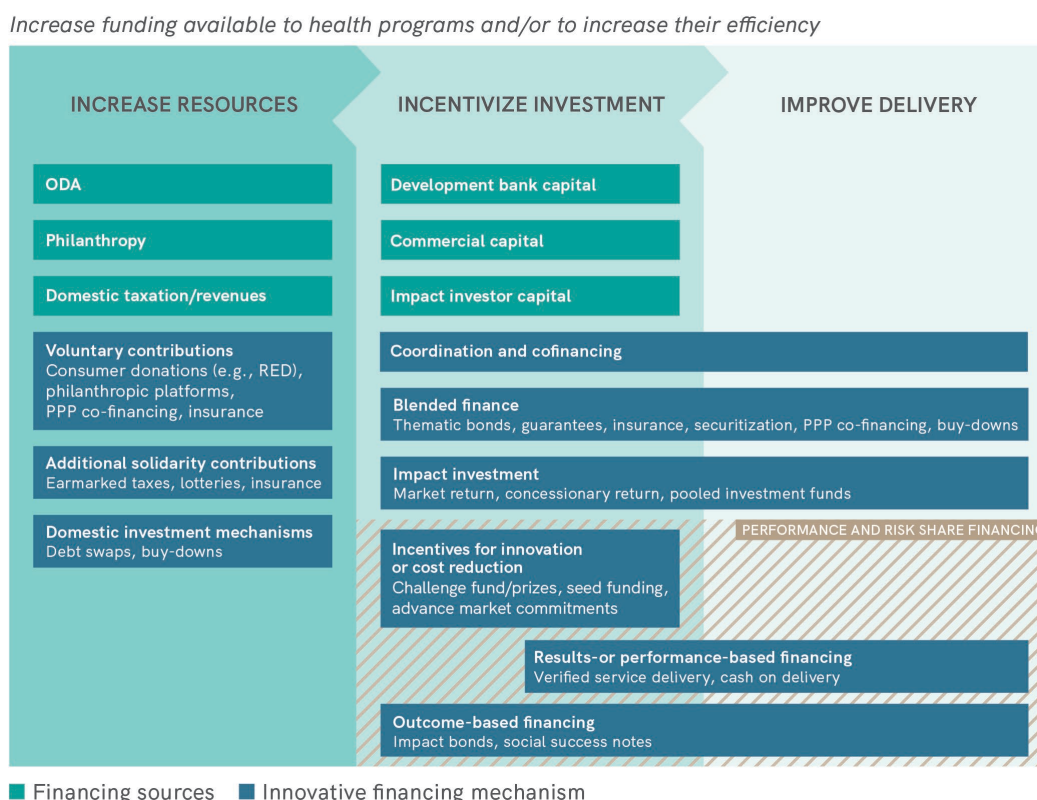
Source: Authors.

- 46. Facilitating a shift from input to output-based budgeting can help better address nutrition resource needs.** Using program budgets where allocations are put toward certain outputs (i.e., provision of certain services) rather than inputs (i.e., line items) can help better align revenue allocations with nutrition needs of the population. By clarifying how much of the budget is being directed to different types of services, governments can better assess whether current spending levels and distributions are adequately meeting population needs, and, if not, how to optimize allocations. Thus, once gaps in funding for costed nutrition services are identified, output-based budgeting can provide the flexibility needed to efficiently reallocate funding (Cashin et al. 2017). For example, Peru shifted the focus of its budgetary processes to reflect priorities based on results. This shift toward performance-based budgeting (PBB) has been one of the key reforms that contributed to a dramatic decline in child stunting in about 10 years, from a prevalence of 28 percent in 2007 to 13 percent in 2016 (Huicho et al. 2016, Huicho et al. 2020). The government's funding for nutrition that operated under the results-based budgeting has been a critical factor for success, by calculating and securing funding for nutritional accomplishment and creating incentives for government actors to be transparent with spending (Mejía 2014). The effect has influenced program managers to make budget prioritizations based on outcomes and impacts, and not based on inputs or activities (Levinson 2013). However, Peru's program-based budgeting focused on specific population groups and diseases but needs to move toward more system-wide and broader goal-oriented programs to improve the overall health system efficiency in a more sustainable manner (see Dale et al. 2020).
- 47. In decentralized systems, efforts to strengthen prioritization of nutrition within subnational health budgets are critical.** Local governments that have the authority to raise revenues (e.g., through taxes) and/or make decisions on health budget allocations significantly influence the availability of resources for nutrition. Another opportunity is to leverage general fiscal transfers to the subnational level to improve the prioritization of social sectors including nutrition and provide adequate advocacy and sufficient technical capacity at the planning and budgeting stage. The ministries that hold local government accountable are key stakeholders in influencing the local government planning and budgeting process. Further, strong and responsive PFM systems can enable national-level Ministries of Health to coordinate with subnational governments to ensure that national funding priorities, such as nutrition services, are carried through to these lower administrative levels, while accounting for differences in local population needs (Rohrer 2016). Further, national governments can also use financing incentives to influence budget allocation to priority health services. For example, the Peru government used the variable tranche to incentivize the regions to plan and execute more preventive treatments to promote nutrition. To achieve this, the central government signed an allocation agreement with subnational authorities in

which the ministry would provide top-ups for the regional budget, if the priorities of the regional health unit were related to nutrition activities. It used this model of a fixed tranche plus variable tranche as a way of incentivizing regional governments to plan more preventive treatments (Brousset 2021). In Indonesia, the strong engagement with the Ministry of Home Affairs and Ministry of Village in the national nutrition program (Stranas Stunting) has contributed to improved prioritization of spending for high-impact nutrition services in its fiscal transfers to district and village.

48. Innovative fiscal policies (e.g., taxing sugar) can be explored to promote healthy behavior and provide potential for increasing the government's fiscal space for investing in health and nutrition. Taxes on sugar-sweetened beverages, modeled after tobacco taxes that have been successful in reducing smoking, are being implemented in many countries as a measure to help prevent and control obesity and diet-related NCDs (Development Initiatives 2020). Such taxes are generally expected to raise additional government revenue, which can be invested in stronger health systems, including delivery of nutrition services. A good example is Thailand's alcohol and tobacco taxes, which were intended for financing preventive and promotive nutrition. However, the revenue raising potential of such taxes has been difficult to predict in practice, given that they are intended to reduce sales of products on which they are levied. Advocates for these taxes need to consider avoiding overly optimistic claims about potential revenue gains, given that failure to reach predicted revenues may be used by opponents to undermine support for them (World Bank 2020c).

Figure 1.4. Typologies of Innovative Financing Instruments for Development and Global Health



Source: Global Fund 2018.

Note: There are many definitions and typologies of innovative financing instruments for development and global health. This functional typology is borrowed from a Global Fund simplified landscape of innovative financing instruments.

49. Availability of external funding can be supported by continuing to promote nutrition in the broader health and development agenda and exploring innovative financing sources. Nutrition contributes to significant progress in a number of development areas such as health, education, employment, and poverty and inequality reduction, and yet it is not sufficiently mainstreamed into these development topics. As such, there is a need to better promote nutrition's "value for money" in contributing to outcomes in health and other areas. This can be accomplished through greater advocacy supported by strong analysis, as well as by seeking champions for nutrition within development agencies and donor governments (Kim 2018). Non-traditional sources of external aid, including the private sector and emerging economies, could also be tapped or engaged to a greater extent. Finally, countries should explore innovative financing sources to help increase available resources, catalyze private investments, and incentivize efficient use of existing resources (see Figure 1.4 for an overview of innovative financing mechanisms). Mechanisms such as blended financing and outcome-based social bonds are also being explored for nutrition financing (see Box 1.7) (Development Initiatives 2020).

Box 1.7. Blended Financing and Outcome-Based Financing for Nutrition

Blended finance refers to the use of development finance from the public or philanthropic sector, at market rates or on concessional terms, to mobilize additional private sector investment to support projects with social and development benefits. This mechanism has been used to leverage commercial investments in nutritious food value chains. One example of this is the Global Alliance for Improved Nutrition (GAIN) Premix Facility, which includes a revolving fund to provide credit for buying vitamins and minerals. Here, donors fund the core cost of the services while the private sector funds the commodities and transactions. This facility has now provided nearly \$80 million on extended credit to food businesses in Africa and Asia and reached about 150 million individuals a year since 2009 with fortified foods.

Development Impact Bond is a good example of an outcome-based financing mechanism. Under a development impact bond, investors provide funds to implement interventions, service providers work to deliver outcomes, and the government (in this context referred to as outcome funder) repays investors the principal along with a financial return only if independently verified evidence shows that intended outcomes have been achieved (Development Impact Bond Working Group 2013). Recently in 2019, the first Development Impact Bond with a nutrition dimension was piloted in Cameroon. Prefinanced by Grand Challenges Canada, the Kangaroo Mother Care program was launched in 10 hospitals across Cameroon. The two-year bond worth \$2.8 million aims to reduce the number of deaths and improve health and nutrition for low birthweight and preterm infants. If the program is successful, the Cameroonian Ministry of Public Health (drawing on funds from the Global Financing Facility) and Nutrition International will pay back the financial outlay to Grand Challenges Canada with a small return on the investment (Development Initiatives 2020).

50. **Protecting financing for nutrition is crucial for mitigating the indirect effects of the COVID-19 pandemic.** As a lesson of former emergencies and economic shocks, it is imperative that countries ensure continued access to nutrition services delivered through the health sector to reduce the magnitude of repercussions from interrupted coverage of these services due to COVID-19 (Robertson et al. 2020). Doing so will require strong advocacy, political will, and understanding of the long-term gains of countries protecting funding for these services within health care budgets, so that they are not redirected toward addressing direct impacts of the pandemic.
51. Donors, partners, and governments should work together to enhance the allocation and utilization of external resources for nutrition. Efforts to develop data and information systems capable of collecting and aggregating country-level data on the malnutrition burden, resource gaps, and tracking where donor funds are currently being allocated will be crucial to effectively mobilize additional donor funding and

ensure equitable allocation of global resources according to need (Development Initiatives 2020). Funders, global partners, and governments should work together to identify how current data-collection tools and information systems can be leveraged to obtain this information to ensure that marginalized populations are not left behind.

PART V – OPTIMIZING POOLING ARRANGEMENTS FOR NUTRITION

52. **In many countries, nutrition services are covered through fragmented health financing pools.** Prepaid revenue streams for the health sector are typically pooled by different pooling/purchasing agents, such as the MoH, subnational governments, and national or private health insurance agencies. These agents are responsible for covering specific health services, including nutrition services, for defined population groups. The schemes through which these agents cover health and nutrition services may include tax-funded public provision (i.e., “national health services”), social health insurance, or private health insurance. Multiple pools often differ based on revenue stream (e.g., tax-financing vs. social health insurance contributions), population group (i.e., the poor, civil servants, and formal sector workers), territory (e.g., specific geographic regions), and/or benefits covered (primary/preventive care vs. hospital-based curative services and the like) (Fagan et al. 2017; Mathauer Saksena, and Kutzin 2019). Fragmented funding flows and pooling are rampant in LMICs. An example of fragmented pooling is the Indonesian revenue raising mechanism, which is characterized by several fragmented channels. A district health office receives funds from a provincial health office (decentralization fund), the local government budget, and various other transfers from the MoH and other fiscal transfer mechanisms. Furthermore, a district health office also receives funds from local revenues whereas health facilities are also paid by health insurance agencies and households (out-of-pocket). This fragmented source of revenues leads to inefficiencies arising from multiple efforts in resource raising, management, and reporting and requires an effective coordination mechanism between programs, donors, and other multisectoral stakeholders. Pooling challenges are summarized in Table 1.2 and explained in more detail in the sections below. Approaches for addressing these challenges are provided in the second half of this chapter.

Table 1.2. Pooling Challenges and Solutions (Nutrition-Specific)

	Challenges	Solutions	Country examples
1	Fragmented pooling for nutrition services due to multiple domestic revenue streams/financing schemes, fiscal decentralization, and off-budget donor assistance for nutrition	Merge nutrition funds where possible, harmonize benefits, and ensure close collaboration between government and donors to include off-budget donor funds in the budget.	Ethiopia integrates most of donor funding to its budget systems.
2	Poor tracking of nutrition resources from various nutrition funding streams makes understanding how nutrition	Engage nutrition technical working groups, funding partners, academia, and implementing agencies to strengthen nutrition resource tracking.	Indonesia implemented budget-tagging reform to monitor and track expenditure, service

	Challenges	Solutions	Country examples
	spending is distributed across pools challenging, further affecting ability to match funding with population needs		delivery, and results.
3	The use of rigid budgeting structures such as input-based budgeting or earmarking can affect ability to redistribute funding where necessary	Shift to output-based budgeting to improve responsiveness to population needs. Ensure flexibility with earmarked funds linked to broad health spending priorities.	Pakistan used DCP3 ⁷ to systematically appraise evidence (including burden of disease data, unit cost and cost effectiveness of each intervention) to develop a comprehensive essential package of services (including nutrition services) aimed at being responsive to population needs. This package has been costed and aims to deliver services within existing health system capacity

Source: Authors

53. **Fragmented pooling limits the redistributive capacity needed to spread risk, which could leave nutrition services underfunded, especially for the neediest populations.** Multiple pools have the tendency to cover smaller populations that may have lower diversity in the health risks of covered members; the ability to cross-subsidize from healthy to sick is limited, so pools with a larger share of “sicker” populations will have higher health care costs. The size and diversity issues are exacerbated when participation in pools is not compulsory (i.e., coverage is dependent on voluntary contributions) (McIntyre and Kutzin 2016). This means that funding available within each pool may not be matched with the needs of the population covered—some pools may have more funding than necessary, and others may not have enough funding. As a result, members of the underfunded pools may be forced to pay out-of-pocket for the services they need or, in the case of poorer

⁷ DCP3 or the third edition of the Disease Control Priorities in Developing Countries aims to provide an up-to-date and comprehensive review of the efficacy, effectiveness, and cost-effectiveness of priority health interventions with the goal of influencing program design and resource allocation at global and country levels. In addition to economic evaluation DCP3 incorporates evidence on intervention quality and update, along with non-health outcomes such as equity and financial protection.

populations, may have to forgo receiving the services altogether. Thus, when nutrition funds are included in fragmented pooling arrangements, there is a risk that some members may be forced to pay out-of-pocket for nutrition services, and vulnerable and marginalized populations are left behind. For example, Peru has a tax-based insurance scheme Sistema Integral de Salud (SIS), which covers about 45 percent of the population (mostly the poor), as well as a standard private insurance scheme (covering about 30 percent of the population). However, a quarter of the population—the segment not poor or rich enough to qualify for either of the schemes—does not have an insurance coverage (Rosas et al. 2020). Furthermore, the private sector insurance scheme serving about 30 percent of the population is consuming around 70 percent of the total funds flowing through the health sector in the country. Consequently, high out-of-pocket payments (37 percent in 2012) were reported, indicating low and/or less effective insurance schemes or leakages therein.

54. **Existence of multiple pools can undermine the purchaser’s ability to make payment strategically.** Payment for services is considered strategic when funding is linked to the performance of providers and the needs of the population served. However, the existence of multiple pools can undermine the ability of the purchaser to pay for particular outcomes. For instance, if prevention and hospitalization are covered under two separate pools, providers may not have an incentive to provide more preventive services (even though they may be highly cost-effective) since they are paid for inpatient services under a separate pool.
55. **Fiscal decentralization contributes to fragmentation in pooling within publicly financed systems.** When responsibility for pooling funds for health and nutrition services is decentralized to subnational governments, the smaller pool sizes lead to a lower ability to spread risk. The Ethiopian community-based health insurance (CBHI) program is an example of fragmented risk pooling with over 700 woredas having their own woreda-based schemes. Currently, efforts are underway to pool risk at higher-level systems—zones or even regions—to disperse risks more widely and improve efficiency. The availability of funding between different regions tends to be uneven, with poorer and rural regions often having lower per capita spending on health than wealthier and urban regions (Development Initiatives 2020).
56. **Donor funding is essential to service delivery (making up the majority of the financing for nutrition), but can worsen fragmentation, particularly when it is “off-budget.”** In some cases, donor funding is extended directly to community-level implementers (e.g., NGOs, technical agencies) and not accounted for within government budgets (Cashin et al. 2017). Such “off-budget” revenue streams add yet another level of complexity to nutrition financing by limiting the ability of governments to track what is being financed as well as related resource needs. They also limit the ability to use such resources flexibly for changing population health needs. Even for countries that have been able to integrate most of donor funding into their budget systems, such as Ethiopia, nutrition resources are still not accounted for or fully tracked. As countries transition from donor funding to domestic financing, pooling revenues for these programs separately from the government budget may threaten the sustainability of programmatic activities.

57. **Poor resource tracking limits an understanding of how nutrition spending is distributed across pools, further inhibiting ability to match funding with population needs.** Without adequate tracking of both donor and domestic spending on nutrition, combined with data on population malnutrition burden and service coverage gaps, it is difficult to fully understand and make necessary changes, such as reallocation of resources, to mitigate the impact of fragmented pooling on access to nutrition services across target groups.
58. **Inflexible budget structures and revenue streams can also prevent adequate redistribution of funding for nutrition.** Many countries rely on rigid input-based budgets, which are often based on historical benchmarks for spending rather than actual need, and thus may cause distortions in amount of funding allocated to various inputs. In addition, historical benchmarks tend to favor urban versus rural areas, and curative versus preventive services, placing nutrition services and important target populations at a disadvantage. Without linking budgets to outputs (i.e., services), there is little incentive or basis for reallocating funding across line items. In addition, certain types of revenue raising mechanisms, such as earmarking, which are tied to specific services, can also introduce rigidity into the budgeting system, further limiting the redistributive capacity of funding pools.

APPROACHES FOR ADDRESSING POOLING CHALLENGES

59. **Adequate pooling is critical to ensuring that resources for nutrition services are distributed equitably and efficiently.** Fragmented pooling of prepaid funds in the health sector limits the redistributive capacity needed to spread risk, which could lead to interruptions in funding and access to care for some services. As a result, when nutrition is covered by fragmented pooling arrangements, potential underfunding of these services (due to competing population health needs) may cause some members to have to pay out-of-pocket, while vulnerable and marginalized populations are left behind. Ensuring that resources for nutrition are distributed equitably will require addressing pooling challenges in the health sector, including the various types of fragmentation and barriers to efficient redistribution of funds.
60. **Enhance redistributive capacity by making coverage compulsory and merging pools where possible.** Some pooling reforms can help increase the size and diversity of pools to improve redistributive capacity (Mathauer et al. 2020). Making coverage compulsory for the whole population by mandating contributions to a national social health insurance scheme, for example, increases the number of members of the pool and, thus, the diversity of health risks. For example, Rwanda was able to cover 90 percent of its population through mandatory community-based health insurance (CBHI) or social health insurance (Rwandan Social Security Board [RSSB]) schemes. Government subsidies may be required for those, like the poor, who are unable to contribute. In practice, however, making coverage compulsory may be difficult to enforce for the “missing middle”—those who are neither poor nor employed in the formal sector. Pools can also be merged across territories in decentralized systems, for instance, or across population groups (e.g., a previously separate subsidized scheme for the poor and contributory scheme for formal workers)

to increase redistributive capacity. However, it is important to understand on a case-by-case basis whether such merging would be equitable: merging can, in some cases, have undesirable effects if the cross-subsidization originally aimed at improving equity does not benefit the poor due to inadequate care-seeking behavior and lower access among this population group or the existence of purchasing arrangements (input-based payment that does not incentivize any particular outputs) that undermine redistributive capacity, as has been the case in Indonesia and Vietnam (Mathauer et al. 2020).

61. **As an alternative to merging, cross-subsidize between pools or harmonize benefits and purchasing arrangements.** Other purchasing reforms maintain the pooling structure but attempt to equalize per capita funding and/or benefits and conditions at the point-of-service (Mathauer et al. 2020). For example, countries aiming to enhance equity can implement explicit cross-subsidization to adjust pooled funding according to members' health needs and risks. Typically, funds from a central pool are allocated among the smaller pools based on an allocation formula that accounts for demographic information, employment status, disability, and morbidity to equalize per capita funding. This mechanism is used in countries with decentralized systems, such as Spain and the United Kingdom, with population segmentation such as in Japan, and with competing health insurance funds such as in Germany and Switzerland (Mathauer et al. 2020). However, for cross-subsidization to work, especially when it is aimed at better addressing population needs and enhancing equity, the underserved district would need to have the capacity to manage and absorb additional funds. Risk-adjusted cross-subsidization may be politically more acceptable but generates higher administrative costs than having a single pool. Countries can also harmonize benefits, contracting, and payment arrangements across pools, which can be considered "as-if-pooling" mechanisms. Even though they fall outside the realm of pooling, they in effect reduce overlap, redundancy, and wastage. Such reforms have been implemented in Colombia. However, a downside is that they can take several years to equalize risk-adjusted per capita funding (Mathauer et al. 2020).
62. **Improve resource tracking and use Optima Nutrition to improve coherence of pooling reforms for nutrition.** Enhancing resource tracking through tools such as budget tagging and resource mapping through the Integrated Financial Management Information System (IFMIS) will be critical to understanding how different pools prioritize nutrition services, and, hence, how pooling reforms can be optimized to improve coverage. Resource mapping and expenditure tracking can also help mitigate inefficiencies arising out of ring-fencing of off-budget donor financing. For example, Rwanda is undertaking tracking of resources for nutrition services under the IFMIS and a multisectoral nutrition tracking, tagging, monitoring and evaluation program. Drawing on the Optima Nutrition tool can also be helpful as it can suggest optimal budget allocations to different regions to improve nutrition outcomes. Using this as a guide can help to ensure that pooled funding levels are aligned with population needs.
63. **Improve coordination with donors on off-budget financing to facilitate pooling of funds after transition.** With respect to off-budget funding, closer collaboration between governments and donors combined with improved resource tracking can

strengthen coordination to better address population needs. A better understanding of donor expenditures can also help countries urge donors to direct funds toward national priorities while identifying areas for efficiency gains that can inform and facilitate pooling funds for these services together with other health services after transition (Kim 2018).

64. Shift to output-based budgeting and earmarking linked to broad priorities.

Shifting from input- to output-based budgeting can help enhance the effectiveness of pooling reforms by allowing funds to be efficiently redistributed across services for an intended output. Using output-based budgeting will also improve alignment with population needs and reduce reliance on biased historical benchmarks. Similarly, if earmarking is used to raise funds for the health sector, ensuring that they are linked to broad health spending priorities, with some flexibility for reallocation if urgent needs arise, can minimize rigidity and improve the ability to pool while maintaining flexibility to reallocate in response to population needs.

PART VI – OPTIMIZING PURCHASING FOR NUTRITION

65. **Purchasing systems in the health sector do not strategically address nutrition service needs.** Purchasing deals with the allocation of pooled funds to providers. All purchasing systems have to address three key considerations in their design: (i) benefits package (what services are to be purchased with pooled funds); (ii) providers (which providers to purchase services from); and (iii) payment mechanisms (how to purchase services) (McIntyre and Kutzin 2016). Purchasing is strategic when funding is linked to the performance of providers and the needs of the population served (Mathauer et al. 2019). Many purchasing systems are not linked effectively to population needs for nutrition services. As a result, the three key design considerations may need to be refined to address these needs more strategically. This, however, brings its own set of challenges, which have been detailed below along with some suggested approaches that can help address these challenges. Table 1.3 provides a summary.

Table 1.3. Purchasing Challenges and Solutions (Nutrition-Specific)

	Challenges	Solutions	Country examples
	Benefits package (What to purchase?)		
1	Nutrition services inadequately specified in benefits packages	Clearly specify, on the basis of cost-effectiveness and resource availability which nutrition services are included and how they are to be delivered in benefits packages.	Peru defined a specific package of priority interventions including specifically defined nutrition services based on resources availability and capacity. Indonesia established a package of services called the Minimum Standard of Services (MSS), which include preventive and promotive interventions, including nutrition.
	Providers (From whom to purchase?)		
2	Limited contracting with community-based providers	Reduce barriers to contracting for community-located providers of nutrition services, including community health workers.	CHW reforms in Rwanda on performance-based incentives and certification/ accreditation system improved the integration of community health

	Challenges	Solutions	Country examples
			workers in service delivery.
3	Limited contracting with private providers	Expand contracting to private providers while using reliable costing data.	In Thailand, health care providers (both public and private) can be paid through the health insurance schemes (based on predetermined unit cost), and the salaries of the health workers are paid by the Ministry of Public.
Payment mechanisms (How to purchase?)			
4	Low-powered incentives due to input-based payments	Improve incentives for delivery of nutrition services by shifting to output-based payments.	PBF was instrumental in the effective management of malnutrition in Burundi.
5	Nutrition not clearly specified in output-based payments (e.g., capitation)	Planning priorities on the basis of outputs, clearly communicating which nutrition services providers will be paid for and what the measures of performances are.	
6	Low prioritization of preventive nutrition services under capitation payment; preference for curative services typically paid for through fee-for-service (FFS); distortionary effects due to mix-of-payment methods across levels of care	Consider the mix-of-payment methods, both within and across levels of care to ensure that they incentivize provision of nutrition services. Identify indicators of preventive care services to measure performances.	
7	Lack/inadequate design of performance-based payments	Link payment to nutrition service delivery performance.	Rwanda added a set of nutrition services to the facility-level PBF system to incentivize delivery of priority nutrition interventions
8	Lack of sufficient incentives in the contracts to deliver quality nutrition services	Include provisions in provider contracts that target improving quality of nutrition care and identify	Benin contextualized and employed PBF to successfully improve quality of service

	Challenges	Solutions	Country examples
		measurable quality indicators to be included in provider contracts.	while also strengthening health system (Paul et al. 2018; Korachias 2020).
9	Diluted incentives due to fragmentation in purchasing	Address conflicting incentives from fragmented revenue streams by harmonizing budgets, benefits, payment and performance incentives.	In Thailand all public health care providers are paid through the health insurance schemes (based on predetermined unit cost) and the salaries of all the public health workers are paid by the Ministry of Public Health.
10	Lack of demand-side incentives	Improve incentives for use of nutrition services through demand-side incentives.	<p>Rwanda and Indonesia are implementing household conditional cash transfer (CCT) programs that include key health and nutrition indicators as conditionalities.</p> <p>Peru uses demand side incentive including conditional cash transfer—JUNTOS—as incentives for poor families to take their young children to health facilities. CCTs in Mexico, Colombia, and Brazil have had positive impacts on child nutrition outcomes.</p>
11	Lack of effective data collection and information systems to support strategic purchasing	Improve routine data collection, information systems, and monitoring capacity.	The national civil registration database played a key role in ensuring all citizens were able to access care while avoiding leakages and enrollment in multiple schemes in Thailand.

Source: Authors

66. **Inadequate routine data collection, information, and monitoring systems create challenges for supporting strategic purchasing and holding providers accountable.** Information systems and monitoring capacity are not robust in many LMICs, making it difficult to monitor purchases and provider service delivery performance relative to population needs. Many countries do not have a mechanism for tracking quality of service delivery at facility level, which makes it difficult to gauge whether services meet needs. This was exacerbated by lack of accountability among local government entities for not meeting minimum standards. This lack of accountability and a reliable service tracking system limits the ability of purchasers to design purchasing systems that create adequate incentives for nutrition service delivery and hold providers accountable.

BENEFITS PACKAGE

67. **Lack of good quality data can affect the inclusion of nutrition services in benefits packages.** Benefits packages clarify what services are to be purchased for the populations covered by each funding pool, as well as the means by which they are to be rationed (by requiring cost-sharing or excluding specific population groups from coverage of certain services). Covered services may be specified through a positive list (a detailed, itemized list of what is included) or a negative list (a list of services that are excluded, with the assumption that all other services are covered under the entitlement). When the prioritization process lacks quality nutrition data to show cost-effectiveness of nutrition interventions, nutrition services may not be appropriately prioritized and as a result left out of the list of services to be covered under benefits packages.
68. **Even when included, nutrition services are often not clearly defined in benefits packages, further limiting accountability.** Merely including nutrition services in a benefits package is not enough if the manner in which the service is to be delivered is not clarified. For example, a study of coverage of family planning methods within social health insurance packages in Sub-Saharan Africa and Asia revealed that only one package listed “family planning” without defining specific contraception methods covered, while other packages included a few contraception methods, but providers were unaware that they could claim for them (Mazzili, Appleford, and Boxshall 2016). Failure to clearly provide specifics regarding nutrition services to be included in benefits packages can thus undermine the provision and utilization of said services while also limiting the ability to hold providers accountable for the provision of these services.

SELECTION OF PROVIDERS

69. **Large UHC financing schemes often face challenges in contracting with small, community-based providers, although these are essential to service delivery.** The decision of which providers to contract to deliver services could impact access to

services and the overall cost to the health system. Financing schemes should aim to contract with providers of nutrition services who are appropriately located with respect to target populations; familiar with the local context; and at the lowest, most cost-effective level of the health system. Yet in many countries, smaller community-based providers such as nurse-/midwife-run maternity homes and day clinics, which are particularly well-suited to nutrition counseling, may be excluded from public health financing opportunities. This is typically due to requirements for contracting and insurance accreditation, such as staffing structures, services, and having a certain number of rooms, that are beyond the reach of small facilities. Attempts are therefore made to pool community health workers into a formal cadre of health providers. There is also reluctance from social health insurance agencies in several countries about having an excess number of provider contracts to manage. Excluding these providers presents a missed opportunity for reaching target populations as these facilities are, in many instances, in geographic proximity to poorer populations (Mazzill, Appleford, and Boxshall 2016). For example, in Ghana, the Community-Based Health Planning and Services have not been well-integrated into the National Health Insurance Scheme due to issues such as accreditation and nonavailability of bank accounts. Further, only clinical services are covered by the insurance scheme, leaving out critical preventive and promotive services including nutrition.

70. **There is limited contracting of public health financing schemes with private providers.** Although nutrition services are often provided for free or nearly free through public facilities, the reality is that many people, including the poor, seek services such as IFA supplementation or screening, and counseling for overweight/obesity from private providers. This may be due to stockouts, limited geographic access, and poor quality within the public sector (Holtz and Sarker 2018). Because public financing schemes in some countries may not cover services provided by private providers, users are required to pay out-of-pocket for these services, which may cause financial hardship or affect utilization behavior, particularly for the poor and near-poor. Thus, limited contracting of public health financing schemes with private providers and reliance primarily on public providers for the provision of nutrition services may limit access to nutrition services and compromise financial risk protection.

PAYMENT MECHANISMS

71. **Input-based payment methods provide low-powered incentives for provision of nutrition services.** In many LMICs, public health care providers are paid using input-based line-item payments (health worker salaries, supplies, equipment, infrastructure, etc.) (See Table 1.4). In return, these providers are expected to provide services like nutrition without charging a user fee to the recipient or at highly subsidized rates. Because input-based payments are not tied to the services delivered, there is often little motivation for providers to prioritize nutrition services, particularly those that may require more effort (e.g., nutrition counseling). Further, input-based payments make it difficult to hold providers accountable as they will get

paid for inputs regardless of whether certain services are provided (or at what level of quality). For instance, the Health Extension Program in Ethiopia is an effective platform for providing services that involve promotive and counseling services, including for nutrition, but the input-based financing mechanism provides little incentive for providers to exert more effort to maximize performance. In addition, input-based payments provide limited scope to contract with private providers, further limiting the options for increasing coverage of nutrition services (Mazzill, Appleford, and Boxshall 2016).

72. **Nutrition services are not explicitly included under capitation payment.** In some countries, nutrition services may be paid for using output-based payments such as capitation, which is a fixed payment amount made in advance to providers (typically primary care) to cover a defined set of services for each person enrolled for a fixed period of time (Cashin 2015). Coverage of nutrition services may be only weakly specified under these payments. For example, provider contracts may not specify whether community outreach, which is a critical platform for delivery of nutrition services and demand generation, is covered. This undermines the ability to hold providers accountable for the delivery of these services.
73. **Capitation itself may limit incentives for nutrition service delivery.** This is because it is tied to the number of people enrolled with the provider rather than the volume or quality of services delivered. Although the fixed payment amount does, in theory, provide incentives to deliver lower-cost services (e.g., preventive services like nutrition) versus more costly ones, there is also an incentive to underdeliver the total number of services per person since the payment amount is fixed for each patient. Capitation does create an incentive to enroll more patients as this increases the total payment that providers receive. However, if the payment amount is not risk-adjusted, providers may choose to minimize financial risk by choosing to enroll relatively healthy patients with lower or less costly health needs (OECD 2016).
74. **The blend of payment methods used may further reduce incentives for delivery of nutrition services.** Other payment mechanisms used in primary care can influence the incentives providers have to deliver nutrition services. For example, if primary care providers also receive fee-for-service (FFS) payments for other (typically curative care) services, they will have an incentive to prioritize delivering those services over the preventive services covered under capitation. This is because FFS payments are tied to the individual service rather than to the patient. Thus, providers have an incentive to increase the volume of services delivered using this payment mechanism (Cashin 2015).
75. **The mix-of-payment methods used across levels of care for nutrition can have unintended outcomes for the health system.** For example, if a health financing system, using a blend of payment methods, does not adequately incentivize delivery of preventive nutrition services in primary care owing to input-based or capitation payments being used, it may end up having to pay for services to address costly downstream effects of malnutrition (e.g., hospitalizations). This inefficiency can be further exacerbated if the payment method used at a higher level of care has a

higher payout for higher volumes of services/patients, such as FFS or diagnosis-related groups (DRGs) (see Table 1.4). In such cases, the health financing system is not creating the right incentives to promote health but causing undesired outcomes, while also incurring higher costs in the long run.

76. **There is a lack, or inadequate design, of performance-based payments that prioritize nutrition services.** Performance-based payments can be used to encourage improvement in provider performance to achieve certain objectives such as improved quality of care, coordination, or management of NCDs (OECD 2016). Payment for performance (P4P) is usually treated as an “add-on” payment to complement rather than replace traditional payment methods. It can be particularly useful to complement payment methods that create incentives to underdeliver services, such as input-based and capitation payments. Despite these positive benefits, P4P is difficult to design, and not many countries have managed to implement it at scale. Further, there is a lack of experience with good nutrition indicators that can be used for P4P since the data systems for nutrition are often not well-aligned with the high-impact nutrition indicators. For example, in Tanzania, payment for performance is based on (and limited to) vitamin A supplementation and deworming since those data are available in District Health Information Software (DHIS2). In Ethiopia, the payment-for-results program pays on the basis of coverage of growth monitoring and promotion, which only captures coverage of the platform, not quality or the delivery of the high-impact nutrition actions (e.g., counseling) through the platform. To add to that, the design of the payments, and the process by which they are determined, often ends up being inadequate to achieve intended results at scale.⁸ Concerns have also been raised regarding the potential negative effect of payments on outcomes that are not incentivized (Patel 2018). In many countries, health systems lack a results orientation whereby providers are paid salaries and incentives, transport and outreach, and drugs and services. Input-based payment systems focus more on achieving standards and norms, and less on volume and quality of care. Value-for-money is improved when performances are measured by outputs, such as number of patients serviced or number of procedures performed, and when payments are made based on outputs produced, rather than inputs required.
77. **There is a lack of contracting incentives to promote quality nutrition services.** Aside from payment methods, providers’ contracts can also have important incentives for quality by requiring providers to meet certain requirements before qualifying for payment (Cashin 2015). For example, they may require accreditation to verify specific facility infrastructure, equipment, and staffing structures, regular training and continuing education, or participation in clinical audits. Many countries are not adequately taking advantage of contracting incentives to incentivize quality nutrition services, by, for example, requiring specific staffing requirements (e.g.,

⁸ For example, providers may not be adequately consulted during the development process, resulting in selection of too many indicators or indicators that are not acceptable or easily measured. The overall reward amount may also be too low, compared with the level of effort required of providers (Patel 2018).

nutrition specialists, community health workers, supportive supervisors) or nutrition training.

78. **Fragmented purchasing results in fragmented funding flows to providers.** This fragmentation can dilute the strength of purchasing strategies used by different agents, particularly when they cover different benefits and/or use different payment and contracting incentives (McIntyre and Kutzin 2016). For example, if a provider is paid with a line-item budget from the MoH as well as an output-based payment from a national health insurance fund, any incentives for efficiency and productivity tend to get diluted (Cashin et al. 2017). Providers may also have perverse incentives to select or provide services to patients where payment mechanisms result in higher revenues (see Table 1.4). Moreover, having a larger number of purchasers can raise administrative costs due to the need to comply with different payment and reporting requirements, ultimately taking away the focus from addressing patient needs.
79. **A lack of demand-side incentives for nutrition can affect coverage.** Mechanisms that help to generate demand for nutrition services can complement provider payments to improve effective coverage. These mechanisms include conditional cash transfer payments or vouchers, which help reduce financial barriers to access for services, particularly for the poor. Many countries such as Ethiopia have not fully utilized complementary demand-side incentives, such as cash transfers, for uptake of prioritized services including nutrition.

Table 1.4. Types of Provider Payment Methods

Payment method	Definition	Incentives for providers
Input-based: Payment is based on inputs used to provide services		
Line-item budget	Allocation of a fixed amount of funds to a health care provider to cover specific line items (or input costs), such as personnel, utilities, medicines, and supplies, for a certain period.	Underprovide services, refer to other providers, increase inputs, no incentive or mechanism to improve the efficiency of the input mix, incentive to spend all remaining funds by the end of the budget year.
Fee-for-service (no fixed-fee schedule)	Provider is reimbursed for each individual service provided, but there is no fixed-fee schedule, and services are not bundled into a higher aggregated unit. Providers can bill purchasers for all costs incurred to provide each service.	Increase number of services, increase inputs.
Output-based: Payment is based on outputs produced, such as cases treated, bed-days completed		
Fee-for service (fixed-fee schedule and	Provider is reimbursed for each individual service provided based on a fixed-fee schedule, and	Increase number of services overall per encounter including above the necessary level;

Payment method	Definition	Incentives for providers
bundling of services)	services are bundled to some degree: provider is paid the fixed fee for the predefined service regardless of the costs incurred.	reduce inputs per service. Services that can be provided most efficiently and generate a surplus will be expanded most quickly.
Per capita/ Capitation	Provider is paid, in advance, a predetermined fixed rate to provide a defined set of services for each individual enrolled with the provider for a fixed period.	Improve efficiency of input mix, attract additional enrollees, decrease inputs, underprovide services, refer to other providers, focus on less expensive health promotion and prevention, attempt to select healthier enrollees.
Per diem/per bed-day	Provider is reimbursed for each bed-day. The rate may be adjusted to reflect characteristics of patients, clinical speciality, and variations in case mix across hospitals. It may also vary for different days in the hospital stay, with early days paid at a higher rate than later days.	Increase number of days (admissions and length of stay), reduce inputs per hospital day, reduce the intensity of service for each bed-day, increase bed capacity, shift outpatient and community-based services to the hospital setting.
Case-based	Provider is reimbursed a predetermined rate for a defined case for which services have been provided.	Increase number of cases, including unnecessary hospitalizations; reduce inputs per case; incentive to improve the efficiency of the input mix; reduce length of stay; shift rehabilitation care to the outpatient setting.
Input- /Output-based		
Global budget	A global budget at the hospital level is set in advance to cover the aggregate expenditure of a hospital over a given period to provide a set of services that have been broadly agreed on by the hospital and the purchaser. Global budget can be based on inputs when it is determined on the basis of historical costs. It can be based on outputs when measures of output such as number of bed-days or cases are incorporated into hospital global budgets.	Underprovide services, refer to other providers, increase inputs, mechanism to improve efficiency of the input mix.

Source: Langenbrunner, Cashin, and O'Dougherty 2009.

APPROACHES FOR ADDRESSING PURCHASING CHALLENGES

80. **Refine the purchasing system to increase accountability for the delivery of nutrition services in line with population needs.** Well-designed purchasing systems can help raise coverage and quality of nutrition services by improving accountability for their delivery. This may also have indirect effects on service delivery, including changes in management and organization of care, improvements in care coordination, and strengthening of demand generation. By enhancing accountability for delivery of nutrition services, it may help to resolve the so called “opportunity gap” in the delivery of nutrition services, where target populations are not receiving services despite being reached by health care platforms through which they are delivered (Heidkamp et al. 2020). Improving purchasing for nutrition will require addressing challenges that prevent (i) clearly specifying nutrition in benefits packages, (ii) choosing providers that can improve access, and (iii) using payment and contracting methods that increase incentives for delivering/seeking nutrition services (see Table 1.3). Good examples of systems addressing population needs, inclusion, and accountability include Peru’s “people-centered” success indicators, as compared to “administrative indicators,”⁹ and Thailand’s strategy of ensuring a more equitable distribution of facilities and health workers across the country. Indonesia’s “minimum standards”¹⁰ and Peru’s reforms to ensure equitable distribution of facilities and health workers across the country are some of the ways central governments promote accountability in a decentralized system.

BENEFITS PACKAGE

81. **Ensure that benefits packages clearly specify nutrition services and define required conditions for quality delivery.** *The Lancet* series on Maternal and Child Nutrition (2013) highlights 10 nutrition-specific interventions delivered through the health system that, if scaled up, could significantly reduce child mortality associated with undernutrition (King et al. 2020). Purchasers should decide which of these services are to be included in their benefits packages and what conditions for access are to be used as rationing measures (e.g., cost-sharing, limitation to specific population groups, etc.). The Optima Nutrition tool may be helpful in selecting the combination of interventions that may have the highest impact on nutrition outcomes (Development Initiatives 2020). Countries use different mechanisms to prioritize nutrition services they provide, including some element of cost-effectiveness and the ability of the health system to deliver the selected package. For example, Peru identified its main nutrition outcome (stunting) and drilled down on three to four key interventions based on resources available and the capacity of the system and created a package that could readily be delivered to every child. Indonesia

⁹ Peru placed an emphasis on meaningful and impactful indicators, having the “right services at the right time”. e.g., instead of just counting the number of vaccines, they count the number children that have access to the full package of immunizations on time. The indicator tracked is comprised of multiple sub-indicators.

¹⁰ Nutrition specific interventions in Indonesia have been mainly guaranteed through the Minimum Standard of Services to be provided by government health care facilities at national and sub-national level.

established Minimum Service Standards (MSS), which all districts are mandated to deliver. The MSS encompasses preventive and promotive interventions, including interventions directly related to nutrition and meant to be complementary to the JKN (social health insurance) benefit package.

SELECTION OF PROVIDERS

82. **Reduce barriers to contracting for community-located providers of nutrition services.** To increase access to nutrition services, particularly for poor and rural populations, purchasers should contract with smaller, community-located providers (including providers that may be serving on government platforms that need to be brought into schemes). This may require making exceptions to or modifying contracting rules and requirements for these types of providers. Alternatively, to facilitate contracting with many smaller frontline workers, it may be necessary to set up systems that allow them to group together under a union or guild (Coe and Madan 2018). A good example is Rwanda, where a strong CHW program provides basic health services, including some nutrition services. More importantly, Rwanda also uses the CHW platform for dissemination of health information and promotion messages. The integration of the CHW platform into the health system helped to improve and monitor performances and provider-payment mechanisms. Another successful CHW program is that of Thailand, where a well-supported and long-standing cadre of paid village health volunteers provide essential services at community level.
83. **Expand contracting to private providers where appropriate.** Similarly, as countries develop their UHC financing schemes, moving toward a mixed system, where public financing schemes also contract with private providers, could substantially increase access to preventive services like nutrition. For example, in countries such as Turkey, Indonesia, the Republic of Korea, and Taiwan, public purchasers have contracted with private general practitioners to ensure the national immunization program is delivered (Coe and Madan 2018). However, appropriate payment and accountability structures (e.g., output-based payments) as well as sufficient service mix and coverage may need to allow the transfer of public funds to private facilities.

PAYMENT MECHANISMS

84. **Improve incentives for delivery of nutrition services by shifting to output-based payments.** Shifting from input-based to output-based payments is one of the most important ways to improve effective use of public funds for health (Cashin et al. 2017). The most used output-based payments include capitation, fee-for-service (FFS), diagnosis-related groups (DRGs), global budgets, and per diem. These payment methods can allow purchasers to link payments to services and strategically design payment systems that create the right incentives to reach nutrition service delivery-related goals. However, providers must also have some degree of autonomy for management decisions so they can adequately respond to these incentives and meet the needs of the populations they serve. Rwanda is an example where via performance-based financing (PBF), nutrition service delivery has been used as an

indicator in the provider payment mechanism. PBF was also applied at facility as well as community levels, addressing the challenges related to strategic purchasing at the lower level where the majority of nutrition services are provided.

85. **Communicate and monitor which nutrition services are covered under output-based payments (such as capitation).** This information could be included in the contracts along with the specific types of nutrition services included (e.g., community outreach). There should also be a detailed list of technical guidelines to which providers are expected to adhere.
86. **Consider the mix-of-payment methods, both within and across levels of care to ensure that they incentivize nutrition provision.** Purchasers should assess whether the payment methods used are creating the right incentives to address nutrition service needs. This includes determining what types of payment methods should be used for nutrition and how they interact with those for other types of services (e.g., curative care). In addition, purchasers should assess the mix-of-payment methods across levels of care for nutrition services and identify ways to mitigate adverse effects on the health system. A mix-of-payment methods may be needed to help improve incentives for preventive nutrition service delivery. In the Czech Republic, for example, providers are paid using a capitation payment for primary care but also receive an additional FFS payment for each vaccinated individual to provide extra incentive. Alternatively, payment for performance (P4P) could be used. If capitation is used, risk-adjustment formulas that account for various demographic and health characteristics of the population served can help ensure that capitation amounts are in line with service needs (OECD 2016).
87. **Link payment to nutrition service delivery performance.** Including nutrition in payments for performance as an add-on to traditional payments, such as capitation or input-based payment, would be another way to counteract incentives to underdeliver these services. These could set specific nutrition service coverage or outcome targets and reward providers with an additional lump-sum payment once they are reached. Providers would need to be consulted to ensure that both the indicators and the payment amounts selected are acceptable and feasible. The impacts of these incentives on non-incentivized services and outcomes would also have to be closely monitored. Estonia provides a good example of a P4P system that targets preventive services for children, including immunization, and management of NCDs in adults (WHO 2015a; Merilind et al. 2016). Other types of performance-based payments include pay-for-coordination, which aim to incentivize coordination across levels of care and have been used in France and Germany (OECD 2016). These applications may be relevant for nutrition, particularly between community-based and facility-based care.
88. **Include provisions, especially in facility-level provider contracts that can improve quality of nutrition care.** As provider contracts, and the conditions that must be met to qualify for and maintain them, also serve as an incentive for providers, certain provisions can be included that benefit the delivery of nutrition. These may include specific equipment or staffing requirements for nutrition that will improve quality of care (e.g., nutritionists on staff, anthropometrics, and stadiometers), as well as requirements to participate in certain trainings relevant to population needs. An important consideration is the potential barriers contracting incentives may present to

smaller providers who are often located in hard-to-reach communities. Refinements or exceptions may have to be made to ensure that these providers are not excluded.

89. **Address conflicting incentives from fragmented revenue streams by harmonizing benefits, payments, and contracting incentives.** As discussed in the pooling section above, minimizing the effects of fragmentation can be achieved by harmonizing benefits and incentives at the point-of-service (Mathauer et al. 2020). This can be done by ensuring that the parallel systems are aligned as much as possible including in the administration, reporting mechanism, IT infrastructure, and layout of the user interface. Further, harmonizing incentives under parallel systems such that, overall, there are stronger incentives for providing preventive services, and payment methods across streams can help increase equitable access to nutrition services. Where possible, merging pools would be an alternative way to minimize fragmentation.
90. **Improve utilization of nutrition services by using demand-side incentives.** Demand-side incentives, such as conditional cash transfers (CCTs) and vouchers, may help to increase utilization for nutrition by providing financial compensation for their use (i.e., “negative user fees”). They can serve as complements to output-based and performance-based payments for nutrition service providers. For example, Peru uses demand-side incentives including the JUNTOS CCT program to incentivize poor families to take their young children to health facilities. CCT in Brazil, Colombia, and Mexico have had positive impacts on child nutrition outcomes (Cecchini and Soares 2015). Rwanda is another example where household CCTs have helped address demand-side challenges and improve uptake of key nutrition interventions among the target populations.
91. **Improve data collection, information systems, and monitoring capacity.** The ability to make purchasing more strategic is dependent on the regular collection of information on services purchased, provider performance, and impacts on patient outcomes. Enhancing data collection, information systems, and monitoring capacity will thus be essential to ensuring that the purchasers are addressing population nutrition needs. Information systems should be strengthened to enable transfer of both financial and clinical performance data related to nutrition between providers and purchasers. This can be complemented by surveillance data on population health needs and periodic collection of information on patient experience (e.g., through facility or community-based surveys) and performing clinical audits to observe service quality. Capacity to perform these functions will need to be increased to ensure that incentives have the intended impacts on population health outcomes. Thailand has issued a digital identity card for everyone above seven years of age, which ensures that citizens are covered by one of the health insurance schemes, while avoiding loopholes and leakages of the UHC system. Similarly, Peru has made heavy investments in data collection and strong information systems, such as Consulta Amigable, Sistema Integrado de Administracion Financiera (SIAF), and the annual demographic and health survey (DHS), which have been instrumental in informing nutrition programs, monitoring interventions, and ensuring accountability.

PART VII – CRITICAL COMPLEMENTARY REFORMS AND INVESTMENT IN SYSTEMS STRENGTHENING TO OPTIMIZE HEALTH FINANCING LEVERS

92. Efforts to strengthen and reform health systems as part of achieving UHC must be leveraged for simultaneous improvements in nutrition services delivered through the health system. It is undeniable that investing in a stronger health system contributes to better health outcomes. The momentum to strengthen health systems as part of UHC should also be leveraged for improving nutrition outcomes (Heidkamp, 2020). In order to optimize the health financing levers described in this paper, there are critical elements of the health system that need to be strengthened. The aim of this chapter is to present these necessary health systems reforms and how to capitalize on these to improve nutrition coverage and quality.
93. **The health system's ability to deliver quality services rests on the strength of key enabling factors.** The critical reforms outlined below set the stage for better positioning nutrition within UHC and optimizing the health financing arrangements of revenue raising, pooling and purchasing. These include evidence-based priority setting, data and information systems, nutrition-responsive public financial management and accountability mechanisms. For example, undertaking evidence-based prioritization processes supported by quality nutrition data will place nutrition among a high-priority, cost-effective package of services which targets the same populations of women and young children. Likewise, an improved data system is key to closing opportunity gaps for integration of nutrition and health services. Data are also critical at sub-national levels to highlight geographical equity gaps. (Heidkamp 2020). Nutrition-responsive public financial management (PFM) systems are necessary to improve tracking of nutrition resources and strengthen the integration of priority nutrition services in the planning and budgeting process. Finally, the health system requires strong accountability mechanisms to ensure good governance across institutions.

PRIORITY SETTING

94. **Institutionalize evidence-based prioritization processes that are explicitly supported by quality data to better integrate and position preventive and promotive nutrition services in health benefits packages.** Evidence-based priority setting during national health planning processes serves as a starting point for the integration and positioning of nutrition within health benefits packages. Country prioritization processes that explicitly include quality nutrition data on unit costs, health and disease burden, and nutrition service coverage are more likely to reveal the cost-effectiveness of nutrition services, and thereby place nutrition services, particularly preventive and promotive, squarely within health benefits packages. These processes are aided by analyses, using tools like Optima Nutrition, which can be used to advise governments on the most impactful and cost-effective

allocation of current or projected budgets across nutrition programs (Pearson et al. 2018). Where quality epidemiological and cost data are lacking, the use of the Institute for Health Metrics and Evaluation (IHME) Global Burden of Disease database provides the most robust estimates of disease burden in many countries (Bundhamcharoen et al. 2011).

95. **Define nutrition services within benefits packages to better optimize health financing levers and ensure accountability and equity in nutrition service delivery.** Once nutrition services are prioritized within benefits packages, the services need to be well-defined, including costing for supplies, commodities, and health worker time, to fully leverage the health financing levers. For example, as countries shift toward output-based budgeting, calculation of nutrition allocations allows governments to set incentives and make budget prioritizations that will help the country reach its nutrition outcomes within a broader system-wide program to improve efficiency in the health system.

DATA AND INFORMATION SYSTEMS

96. **Develop mechanisms and a culture of utilizing data to optimize both financial and service delivery performance.** Well-functioning data and information systems tailored to health care analytics guide the prioritization, collection, analysis, dissemination, and use of nutrition data in countries. In many LMICs, the capacity of the health system to monitor both financial and service delivery performance for nutrition is constrained by the lack of high-quality and timely data to inform program and policy design and enable accountability against commitments (Shekar 2020). The availability and reliability of transparent, routine, and timely data—including nutrition costing and expenditure data, epidemiological data per target population, service utilization, health system capacity and performance—are essential for optimizing the allocation and execution of financial resources to achieve nutrition results through the health system. Improved data and information systems will also close critical opportunity gaps for integrating nutrition services into health, such as delivery of IFA within ANC or early initiation of breastfeeding linked to skilled birth attendance.
97. **Invest in an integrated, interoperable information system to allow for the seamless exchange of financial and programmatic data.** Investing in health financing levers requires governments to prioritize the financial tracking of nutrition funds to assess financing systems' performance and progress in the domestic financing transition, evaluate efficiency, and advocate for policy change (Global Burden of Disease Health Financing Collaborator Network 2019). The most effective information systems are entirely electronic, interconnected, and interoperable (CDC 2019; Davis 2000; Haggerty et al. 2003). The interoperability of the data collection and monitoring systems enables different surveillance systems, processes, or applications to connect, in a coordinated manner, within and across organizations or locations, to access, exchange, and cooperatively use data among stakeholders (HIMSS 2019). The integrated system should also allow information on expenditure to be linked to performance.

NUTRITION-RESPONSIVE PUBLIC FINANCIAL MANAGEMENT

98. **A nutrition-responsive public financial management (PFM) system is necessary to effectively manage spending and enhance accountability for results.** A country's PFM system ultimately determines how funds are allocated and disbursed across populations and geographic areas to respond to health needs and ensure equity and financial protection for target populations. A nutrition-responsive PFM system would enable a country to identify resources going to nutrition, monitor budget releases against plans, and evaluate budget to inform course correction and resources allocation to generate greater value for money. It ensures that nutrition interventions are adequately prioritized and accounted across the PFM cycle (e.g., budget formulation, execution, and evaluation).
99. **Nutrition-responsive PFM promotes the adequate financing of priority nutrition interventions by enabling integration within the government planning and budgeting process.** The extent to which fragmented funds from multiple domestic revenue/financing schemes and off-budget donor assistance for nutrition services are merged tends to depend on the strength of a country's PFM system. Implementing an inclusive budget preparation process so that the budget is comprehensive of all sources and allows for well-informed and strategic budget formulation is important to ensure that high-level nutrition policy goals are translated into financial targets and adequately financed. Ensuring that the information related to budget allocations and technical guidelines are issued early to allow enough time for governments at different levels of care to prepare activity plans is important for optimal resource mobilization. This would require strong engagement from enabling ministries that play essential roles in budget formulation and budget allocation, such as the Ministry of Finance (MoF) and Ministry of Planning (MoP) to ensure coordinated engagement across agencies and different levels of government.
100. **Tracking nutrition spending using government PFM systems, such as the Integrated Financial Management System (IFMIS), would provide a robust mechanism to identify, track, and evaluate nutrition-related activities in the budget information system.** Tracking nutrition spending is crucial as countries cannot manage or improve what they do not measure even if coordination efforts are in place. This can be achieved in two ways: (i) introducing a nutrition-dedicated segment in the chart of accounts, or (ii) identifying nutrition-related activities in the budget proposal and tagging them to enable expenditure tracking. Identifying nutrition in the budget will require a clear definition of nutrition activities across the various ministries and implementing agencies. Furthermore, a robust tracking system that captures financial and performance data would enable a thorough budget evaluation to adjust budget activities for more effective engagement (Qureshy et al. 2021).

ACCOUNTABILITY MECHANISMS

101. **Ensure accountability for good governance across institutions and processes that are required for the health system to function and achieve effective coverage of nutrition services.** For the accountability mechanism to work for public services, certain conditions must be met, including transparent access to information, reliable accounting systems, transparent communication, and comprehensive legal and administrative frameworks that are appropriately enforced. The legislature, backed by appropriate structures for planning, monitoring, reporting, and performance measurement, should take the lead and make accountability a requirement for all levels of public management.
102. **Incentivizing stronger accountability processes, including a performance-based mechanism, would enhance the effectiveness of financing levers in improving the quality and coverage of nutrition services.** Accountability measures tied to performance could shift the focus of program implementation from a culture of compliance with service delivery standards toward achieving better health outcomes. They will also have the added benefit of stronger demand for better quality data and reporting compliance (World Bank 2020b). Fostering an integration of nutrition services in results-based financing (RBF) has emerged as a promising approach. RBF improves the incentives mechanism and promotes collaboration between the government, service providers, and communities.

PART VIII – CONCLUSIONS

103. **Nutrition and UHC are inextricably linked.** To accelerate progress in reaching nutrition goals, both the nutrition and broader health communities need to recognize that increased coverage and quality of high-impact nutrition services are foundational to the achievement of UHC. Aligning health financing arrangements, that is, revenue raising, pooling, and purchasing, with nutrition objectives can address financing challenges and bottlenecks to scaling up nutrition, as well as nutrition service delivery challenges in other pillars of the health system (e.g., supply, workforce, and information systems).

104. **This paper concludes with the following strategic messages for stakeholders:**

- Include and prioritize a costed and well-defined set of nutrition services in the UHC benefits package as a critical driver for countries to achieve UHC.
- Increase domestic nutrition investment through innovative fiscal policies and strategic advocacy on saving future health care costs and aligning external financing with country priorities.
- Have donors, partners, and governments work together to enhance the allocation and utilization of resources for nutrition as integral to preventive and promotive PHC services.
- Institute and implement strong accountability measures to deploy existing nutrition resources more effectively, efficiently, and equitably, for example, shifting to output-based payment methods and linking payment to performance.
- Strategically invest in strengthening of health systems through program and financial data systems, routine health information, and technologies, as critical health financing enablers for nutrition outcomes.

105. **The following actionable recommendations are specific to optimizing revenue raising, pooling, and purchasing levers.** These recommendations are largely grounded in country examples referenced throughout this paper, as well as extensive literature reviews:

1. Revenue raising:

- Strengthen evidence-based planning and resource allocation to properly reflect disease burden of nutrition-/diet-related risk factors and the costs of nutrition interventions at both national and subnational levels.
- Explore innovative fiscal policies, such as diet-related taxation, that aim to impact health and revenue amid serious fiscal constraints around the world.

2. Pooling:

- Reduce fragmentation by aligning sources of finance, harmonizing benefits, facilitating cross-subsidization relative to need, and bringing off-budget donor funds on-budget.
- Implement a nutrition-responsive PFM system to monitor and track expenditures and service delivery performance and make both financiers and implementors accountable to results.

3. Purchasing:

- Include an explicit, costed, and prioritized nutrition package of services in the UHC benefits package.
- Design health system reform to ensure adequate incentivization of preventive and promotive care; for example, moving from input- to output-based financing and reducing barriers to contracting of community-based providers.
- Put in place planning, budgeting, and payment mechanisms that enable and incentivize provision of nutrition services; for example, via strategic purchasing while allowing providers autonomy to meet the needs of the population they serve.

4. Critical complementary reforms and investment in systems strengthening to optimize health financing levers:

- Develop mechanisms and the culture of utilizing data on disease burden, service delivery, and costing to prioritize preventive and promotive services and translate priorities into action with evidence-based policies and finance-related decision making.
- Invest in an integrated, interoperable information system to allow for seamless exchange of financial and service delivery performance assessment.
- Translate nutrition policy goals into financial targets in annual workplans, supported by resource mapping and tracking across sectors and levels for strategic resource allocation and course correction.
- Strengthen accountability measures tied to performance to shift the focus from input-based accountability toward one that is output-based for better health and nutrition outcomes.
- Develop a nutrition-responsive PFM framework and mechanisms that can support further leveraging of the three health financing levers—revenue raising, pooling, and purchasing—through targeted actions to improve coverage and quality of nutrition service delivery and results.

ANNEX 1. SUMMARY OF SERVICE DELIVERY CHALLENGES AND SITUATION ANALYSIS

Table 1A.1. Vision and Challenges Related to Nutrition Integration in UHC via the WHO Health System Building Blocks

Pillar	Vision for nutrition integration in UHC	Challenges
Health service delivery	Coordination of care entailing continuum of care to maximize the effectiveness of individual interventions, realize efficiencies in the cost of delivery, and close opportunity gaps.	<ol style="list-style-type: none"> 1. Poor integration across fragmented health systems leading to inefficiencies. 2. Poor tracking of budget allocations and expenditures for nutrition across health programs.
Demand and utilization	The web of barriers exogenous to the health system that impede first and subsequent contact with care providers are addressed.	<ol style="list-style-type: none"> 1. Lack of incentives (including explicit inclusion in benefit packages) to allocate household resources to receive nutrition and preventive/promotive services in general. 2. Inadequate attention and allocation of public funding to demand-side activities for nutrition and preventive/promotive services in general.
Health workforce	A health workforce ready, available, and motivated at sufficient number and distribution to reach all people in their communities, with quality nutrition services.	<ol style="list-style-type: none"> 1. Lack of incentives and accountability mechanisms to improve nutrition service delivery.
Health information systems	Accurate and timely nutrition information is essential for monitoring the coverage and quality of nutrition services to impose accountability; track progress; and support	<ol style="list-style-type: none"> 1. Lack of understanding and prioritization of nutrition indicators by health system performance monitoring systems. 2. Limited human and financial resources and information and communications technology (ICT) systems to support

Pillar	Vision for nutrition integration in UHC	Challenges
	planning, management, and decision making.	<ul style="list-style-type: none"> collection of nutrition data. 3. Lack of incentives at all levels to improve nutrition data collection. 4. Inadequate tracking of budget allocation and expenditure for nutrition across health programs and other sectors. 5. Lack of linkages between financial and nonfinancial data to hold both financiers and implementers accountable.
Access to essential medicines	Access to affordable and quality-assured nutrition-related medicines, vaccines, and supplements; screening and diagnostic supplies and equipment and products; and tailored communication tools.	<ul style="list-style-type: none"> 1. Limited financial resources due to nutrition commodities not being adequately prioritized during financial and budgetary planning. 2. Fragmented procurement and supply chains with poor integration with the rest of the health sector. 3. Delay in provisioning of nutrition-related commodities due to lack of incentives for improving nutrition service delivery and insufficiently trained staff.
Financing	Prioritization of nutrition services to ensure availability of adequate and predictable funding with proper tracking of budget allocation and expenditure for nutrition across health programs and other sectors.	<ul style="list-style-type: none"> 1. Insufficient prioritization and resource allocation for nutrition. 2. Unpredictable funding due to donor reliance.
Leadership and governance	Systematic use of data and evidence to make a case for investing in nutrition; inform policies and financing strategies for integration of nutrition in health sector priority setting, planning, and budgeting; improve	<ul style="list-style-type: none"> 1. Lack of comprehensive, enforceable legal and administrative frameworks that can support the development and implementation of financing strategies for integration of nutrition in health sector priority setting, planning, and budgeting. 2. Lack of appropriate structures for planning, monitoring,

Pillar	Vision for nutrition integration in UHC	Challenges
	coordination for better service delivery; and set up and implement accountability mechanisms.	reporting, and performance measurement for instating accountability mechanisms and for improving coordination for better service delivery.

Source: Authors

106. Commodities, Supplies, and Equipment. Access to affordable and quality-assured nutrition-related medicines, vaccines and supplements; screening and diagnostic supplies, equipment, and products is integral to UHC (Peabody et al. 2018; Rowe et al. 2018; WHO 2018). In LMICs, supplies of essential nutrition-related medicines and products are unstable and stockouts are common (Baker et al. 2015; Hodgins and D'Agostino 2014; Kruk et al. 2018; O'Neill et al. 2013; Pronyk et al. 2016; Salam, Das, and Bhutta 2019). The underlying cause of stockouts and delays in provisioning of nutrition-related commodities, supplies, and equipment vary, but common themes emerge. First, financial resources—especially in LMICs—are limited, and competing demands are many. Trade-offs are made between covering more people with fewer services versus covering more services at a lower level of financial protection (Holtz and Sarker 2018). In LMICs, nutrition commodities and supplies are often poorly integrated in health supply chains. In some countries, separate channels for nutrition commodities and supplies have been created for expediency. Other bottlenecks commonly cited include regulatory challenges, poor quality assurance, insufficiently trained staff, weak supply chains, and inadequate logistics management systems to track commodities within country.

107. Data and Information Systems. Accurate and timely nutrition information is essential for monitoring "effective coverage" and quality of nutrition services to impose accountability and track progress, and support planning, management, and decision making (Ng et al. 2014; Nguyen et al. 2021; UNICEF 2020; WHO 2020). For proper tracking of nutrition progress, data are needed for dietary intakes, biomarkers, anthropometric indicators, and nutrition-related health outcomes. Data on more distal factors are also needed, such as clean water accessibility and sanitation and hygiene practices, as well as data on the coverage and quality of preventive and curative nutrition actions (Gillespie et al. 2019). Nutrition data need to be timely, reliable, and actionable, and readily available to the stakeholders who need it. In LMICs, nutrition data are often unavailable, not fit-for-purpose, and/or insufficiently comprehensive to identify nutrition problems and their causes or monitor the effectiveness of policies and programs. Collection of nutrition-related data is hindered by the lack of human and financial resources and ICT systems to support it. Efforts to overcome nutrition data gaps have led to the development of parallel systems.

108. Workforce. Provision of quality nutrition services to all requires a ready health workforce trained to deliver nutrition services and available at sufficient number and

distribution to reach people in communities where they are (Chou et al. 2017; Crowley, Ball, and Hiddink 2019; King et al. 2020; Kruk et al. 2018; McPake et al. 2013; SUN 2020; WHO and UNICEF 2018b). However, there is a severe shortage of qualified health workers in LMICs, most especially in rural areas (Boerma et al. 2018; Perry, Zulliger, and Rogers 2014; Scheil-Adlung 2013). The shortage of nutritionists in LMICs is even more dire (Development Initiatives 2020). Community health workers (CHWs) extend the capacity of the health system to improve health outcomes by increasing the volume of efficacious interventions delivered to underserved populations in an appropriate manner with sufficient quality to be effective (Aboubaker et al. 2014; Agarwal et al. 2016; Berman, Gwatkin, and Burger 1987; Chou et al. 2017; Perry, Zulliger, and Rogers 2014; Singh and Sachs 2013). Few countries, however, have well-functioning community-based workforces at scale. Low-quality health care provision in LMICs, where providers are reported to take less than half of recommended evidence-based care measures, results in poor health outcomes and utilization (Kruk et al. 2018). In particular, health workers at all levels are grossly ill-equipped to provide high-quality nutrition care, due in part to insufficient training, supervision, and integration (Boerma et al. 2018; Crowley, Ball, and Hiddink 2019; Kruk et al. 2018). In addition to the lack of basic commodities, supplies, and equipment, and poor infrastructure, health workers lose motivation because of heavy workloads and time commitments, inadequate pay, payment delays, and insufficient incentives (Kruk et al. 2018; McPake et al. 2013).

109. **Coordination of Care.** To extend the reach of effective nutrition interventions and close opportunity gaps requires seamless continuity across the lifelong continuum of care, be it in a health facility, in the community, or at home (Aboubaker et al. 2014; Bitton et al. 2018; Chopra et al. 2012; Chou et al. 2017; English et al. 2018; Foo et al. 2021; Kruk et al. 2018; Nguyen et al. 2021; Rogers and Curtis 1980; Schneider and Lehmann 2016; Starfield et al. 1976). The benefits of receiving successive essential nutrition interventions along the continuum of care accrue synergistically over time (Darmstadt et al. 2008; Graft-Johnson et al. 2006; Kerber et al. 2007; Yeji et al. 2015). The continuum-of-care approach builds upon the natural interactions between women's and children's health and strengthens their linkages (Graft-Johnson et al. 2006; WHO 2005). Especially where resources are severely constrained, the continuum-of-care approach is critical for maximizing the effectiveness of individual interventions while realizing efficiencies in the cost of delivery (Bhutta et al. 2005; Bryce et al. 2005; Engmann et al. 2016; Kerber et al. 2007; Kikuchi et al. 2015; Starfield et al. 1976; PMNCH 2006a; Tinker et al. 2005; WHO 2005, 2019a; Yeji et al. 2015). The continuum-of-care approach is also associated with increased client satisfaction and uptake of services (Agyepong 1999; Foo et al. 2021; Haggerty et al. 2003; Kerber et al. 2007; Mohan et al. 2017; Rogers and Curtis 1980; Starfield et al. 1976; PMNCH 2006a). Estimates of the continuum-of-care completion rate from Africa and Asia range from 8 percent in Ghana to 60 percent in Cambodia, with a lot of variation within countries and over time (Asratie, Muche, and Geremew 2020; Chaka, Parsaeian, and Majdzadeh 2019; Kikuchi et al. 2021). The factors driving continuum-of-care completion also vary geographically, and by stage of the continuum and point of care (Adams et al. 2018; Agustina et al. 2019; Akinyemi, Afolabi, and Awolude 2016; Basinga et al. 2011; de Jongh et al.

2016; Haggerty et al. 2003; Haile et al. 2020; Iqbal et al. 2017; Kinney et al. 2010; Mohan et al. 2017; Rogers and Curtis 1980; Shitie et al. 2020; Singh et al. 2016; Starfield et al. 1976). In LMICs, fragmentation is, in part, a historical by-product of a period of public health policy that focused on "vertical programming," which, for example, created divisions—in funding and other resources—between care for mothers and care for children (Dudley and Garner 2011; Graft-Johnson et al. 2006; Kerber et al. 2007; Kikuchi et al. 2015; Lawn et al. 2006; Sherry et al. 2018; PMNCH 2006a; WHO 2005).

110. **Demand and Utilization.** To "reach the furthest behind first" and ensure that nutrition services are "universally available on the basis of need" requires tackling the web of barriers—exogenous to the health system—that impede first and subsequent contact with care providers (Appleford 2015; Blacklock et al. 2016; Çalışkan et al. 2015; Chou et al. 2017; Ensor 2004; Ensor and Tiwari 2020; Kruk et al. 2018; Lassi et al. 2016; Leon et al. 2015; Leroy and Menon 2008; Mangham-Jefferies et al. 2014; Renner et al. 2018; UN 2015; Wagstaff and van Doorslaer 1998; WHO 2005, 2015a, 2015d, 2019c, 2019d; WHO and UNICEF 2018a). In LMICs, the need for maternal and child health services—including essential nutrition actions—far exceeds their level of utilization (Bright et al. 2017; Çalışkan et al. 2015; Dalglish et al. 2018; Leroy and Menon 2008; WHO 2005, 2016). Further, the underutilization of maternal and child health services is not equitably borne (Barros et al. 2012; Ngirabega et al. 2010; PMNCH 2006b; Victora et al. 2003). For millions of vulnerable women and children missing out on essential nutrition services, the factors determining health care utilization operate long before "first-contact" (Ensor 2004; Ensor and Tiwari 2020; Foo et al. 2021; Starfield 1979; WHO and UNICEF 2018b). The demand-side barriers to service utilization are well-documented and include the financial and time cost of care; level of education, access to information, and awareness in terms of understanding the benefits of care, knowledge about where to access care, and the capacity to recognize signs of illness; traditional and religious beliefs, customs, and preferences; and women's status in the household or community, which can limit their decision making, control of resources, or mobility to access care (Appleford 2015; Bezabih et al. 2018; Bright et al. 2018; Byrne et al. 2014; Çalışkan et al. 2015; Dalglish et al. 2018; Fotso, Higgins-Steele, and Mohanty 2015; Mason et al. 2015; Ntoimo et al. 2019; PMNCH 2006b; WHO 2005; Yasuoka et al. 2018). To an extent, underutilization can be remediated with more targeted supply of services via outreach and community-based platforms and improved quality of care (Appleford 2015; Bezabih et al. 2018; Byrne et al. 2014; Çalışkan et al. 2015; Karra, Fink, and Canning 2016; Kruk et al. 2018; Leon et al. 2015; Ngirabega et al. 2010; Ntoimo et al. 2019; PMNCH 2006b; WHO 2005; Yasuoka et al. 2018). However, residual inequities in utilization remain despite supply-side improvements (Bright et al. 2017; Ensor 2004; Mason et al. 2015; Murray et al. 2014; Saaka and Galaa 2011).

ANNEX 2. COUNTRY PROFILES AND SELECTION

Table 2A.1. Country Profiles and Selection

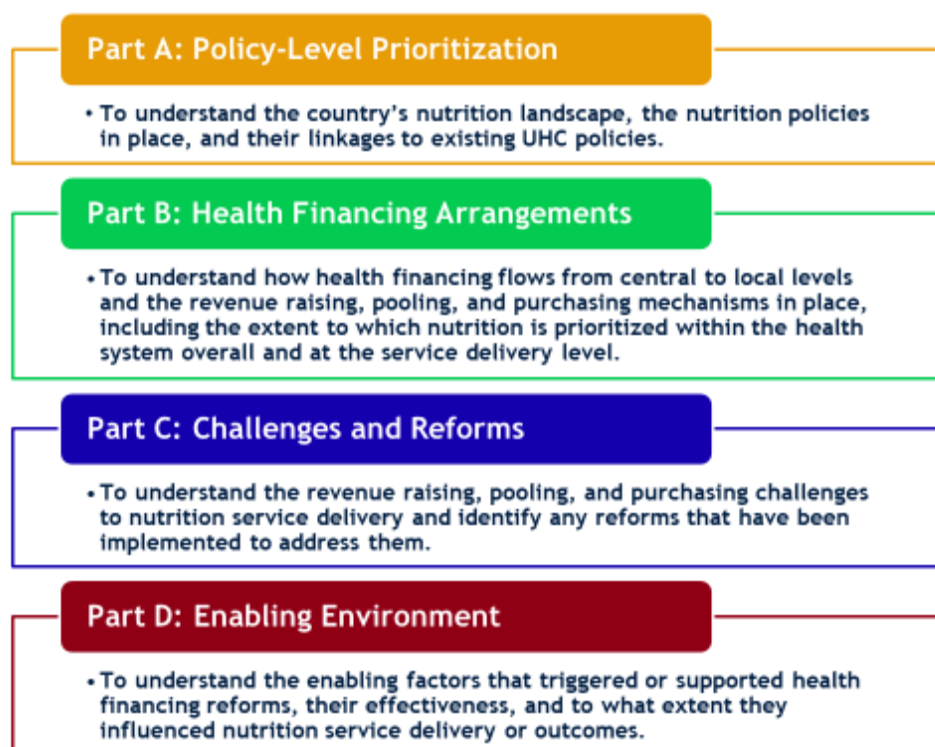
Profile	Description	Rationale	Selected countries
Profile 1	Low/Medium stunting prevalence with nutrition services included in UHC financing reforms	To describe experiences with the implementation of reforms that had a positive impact on nutrition service coverage/quality (including key driving factors, reform processes, and lessons learned)	Thailand, Peru
Profile 2	Low/Medium stunting prevalence with nutrition services not included in UHC financing reforms	To explore why efforts to improve nutrition service delivery and move toward UHC are not connecting, despite progress on both sides	Ghana
Profile 3	High/Very high stunting prevalence with nutrition services included in UHC financing reforms	To explore why financing reforms may not have been as effective in improving nutrition services/outcomes, and what could be done to make them more successful	Indonesia, Ethiopia, Rwanda

Source: Authors

111. The **desk review** identifies UHC-oriented health financing reforms in countries that have improved coverage and quality of nutrition services. Where available, selected country program documents will also be reviewed for a more detailed understanding of country health financing arrangements and/or reforms undertaken.

112. The desk review followed the structure outlined in Figure 2A.1: policy-level prioritization, health financing arrangements, challenges and reforms, and enabling environment. (The desk review template is in Annex 3.) In addition to web searches focusing on peer-reviewed literature, World Bank Task Team Leaders in selected countries were contacted to request additional resources for inclusion in the desk review. The relevant articles were then reviewed in full and summarized by a member of the team.

Figure 2A.1. Desk Review Structure



Source: Authors

113. **Semi-structured key informant interviews** were used to explore how countries were able to optimize health financing levers to overcome nutrition service delivery and financing challenges, including the operational steps followed and other health system factors that were essential to success (e.g., investments in monitoring and information systems to track nutrition financing and related impacts). The interview tool was adapted for each country based on the gaps identified in the desk review and was administered in six countries that have implemented nutrition financing reforms (Ethiopia, Ghana, Indonesia, Peru, Rwanda, and Thailand). Interviews with subject matter experts lasted 60 minutes and were conducted over video teleconference. The interview responses were recorded by note-taking and recording with consent from all participants. Interview data were compiled into a Word document and categorized by theme and stored in a SharePoint folder accessed only by team members.

ANNEX 3. DESK REVIEW TEMPLATE AND KEY INFORMANT INTERVIEW INSTRUMENT

Background

Country	
Region	
Income group	
Stunting AARR	
Stunting level (%)	
UHC quadrant	
Service coverage progress	
Profile	

Key informants

Interview		Key Informants			
ID	Date	Name	Title	Affiliation	Type1

Part A: Policy-Level Prioritization

A1. What are the key national/subnational policies related to nutrition and UHC?

Level	Title	Period covered	Signatories

Nutrition policy

A2. What are the country's nutrition objectives, indicators, and targets, and in which national/subnational policy(ies) are they defined?

A3. Which nutrition services are included in the national health (and/or nutrition) plan?

A4. Who has responsibility for delivering nutrition services and achieving nutrition targets, and in which national/subnational policy(ies) are they identified? For example, what are the MoH, any other central-level ministries (please specify), and local governments each responsible for?

A5. Are the nutrition activities in key national/subnational policies costed? If yes, how are they costed? Who has responsibility for budgeting those activities? Are the costed nutrition activities taken up for health sector budgeting on the same platform as other health services?

A6. What are the mechanism(s) in place to track nutrition spending?

A7. What are the mechanism(s) in place to monitor coverage of nutrition services?

A8. Is there a common nutrition package funded by all donors? If yes, describe.

A9. What are the mechanism(s) in place to identify fragmentation in the way nutrition services are provided? For example, is mapping conducted of nutrition interventions and stakeholders working in nutrition? If so, how frequently is mapping conducted, and how is it used?

UHC policy

A10. Which nutrition services are included in the UHC plan?

A11. Is the benefits package costed? If yes, how is it costed? Who has responsibility for budgeting the benefits package?

A12. Are any UHC nutrition services explicitly prioritized; for example, is there an "essential services" list identifying the most cost-effective interventions, most high-burden areas for intervention, or other criterion of prioritization?

Part B: Health Financing Arrangements

Part B refers to the following "sentinel interventions": (1) iron and folic acid supplementation (IFA), (2) infant and young child nutrition counseling, (3) vitamin A supplementation (VAS), and (4) treatment of severe acute malnutrition (SAM).

Revenue Raising

B1. How does money flow through the health system from central to village levels? Include a diagram, where available.

B2. What percentage of revenue is domestic versus donor-financed?

Complete the table, where information is readily available.

Source	Description	% Domestic financing	% Donor
Supply-side financing			
Ministry of Finance			
Ministry of Health			
Other relevant ministries? (specify)			
Fiscal transfers			
Province			
District			
Local revenues			
Demand-side financing			
Private employer			
Households			

B3. Is there anything unique about the revenue sources used to finance nutrition services? If yes, describe.

Pooling

B4. What pooling mechanisms are used to finance health services, in general?

B5. Is there anything unique about the pooling mechanisms used to finance nutrition services? If yes, describe.

Purchasing

B6. What purchasing mechanisms (including requirements/conditions set for disbursement and verification systems) are used to finance health services, in general?

B7. Is there anything unique about the purchasing mechanisms used to finance nutrition services? If yes, describe.

Financing at the health facility (HF) level

B8. How are health services financed at the HF level, in general?

B9. Is there anything unique about how nutrition services are financed at the HF level?

B10. Is there anything unique about how public versus private HFs are financed?

B11. Which, if any, nutrition interventions are most likely to get "missed" due to lack of prioritization at the HF level?

B12. Is there anything done to incentivize delivery of [SENTINEL INTERVENTION] at the HF level?

B13. Are there any demand-side incentives for uptake of [SENTINEL INTERVENTION] at the HF level?

B14. Are there any associated user fees for [SENTINEL INTERVENTION] at the HF level?

Financing at the community level

B15. How are health services financed at the community level, in general?

B16. Is there anything unique about how nutrition services are financed at the community level?

B17. Is there anything unique about how public versus private community-level providers are financed?

B18. Which, if any, nutrition interventions are most likely to get "missed" due to lack of prioritization at the HF level?

B19. Is there anything done to incentivize delivery of [SENTINEL INTERVENTION] at the community level?

B20. Are there any demand-side incentives for uptake of [SENTINEL INTERVENTION] at the community level?

B21. Are there any associated user fees for [SENTINEL INTERVENTION] at the community level?

Financing of key intervention types

B22. How are essential drugs financed? How well are the nutrition commodities integrated into the health supply chain?

B23. How are diagnostic equipment and supplies provided for ANC? That is, are they partner-supplied or government-supplied? How well are anemia diagnostic equipment and supplies (e.g., HemoCue or SAHLI) integrated into the health supply chain?

Part C: Challenges and Reforms

Revenue Raising

C1. Regarding revenue raising, what are the significant challenges to delivery of health services? Which reforms have been undertaken to address those challenges?

Table 3A.1 Indicative Revenue Raising Challenges and Reforms

Challenges	Reforms
Domestic financing	
Low revenues for health sector overall contribute to low revenues for nutrition.	Raise more revenues for the health sector through different mechanisms, including increased government budget allocations and efficiency improvements. Explore innovative revenue raising methods such as fiscal policies (sugar taxation).
Low prioritization of nutrition services in health sector budgets due to trade-offs and pressure to focus on curative care. Low prioritization of nutrition in subnational health sector budgets (decentralized system).	Strengthen advocacy to help ensure adequate prioritization in health sector budgets. In decentralized systems, efforts should be made to strengthen alignment of nutrition prioritization in subnational health budgets.
As countries transition from donor to domestic financing, reliance on vertical programs may inhibit efficiency gains that can sustain funding for nutrition services.	Use UHC lens to encourage a focus on integrating funding for vertical nutrition programs within broader health system to reduce costs and sustain progress on effective coverage.
Difficulties linking nutrition financing commitments to policy priorities due to (i) inadequate costing and resource tracking, (ii) rigid budgeting practices (e.g., input-based budgeting).	Strengthen costing of nutrition services in line with needs (Optima Nutrition), improve tracking of nutrition resources through budget tagging and resource mapping, support awareness around structural issues with budget that can hamper efficient allocation of resources to nutrition.
External financing	
Insufficient external financing for nutrition (despite significant improvement over recent years) with sharp increases needed to meet global targets.	Increase availability of external funding by continuing to promote nutrition in the broader health and development agenda. Explore innovative financing mechanisms including private sector, blended financing, etc.
Difficulties linking nutrition financing commitments to policy priorities and poor targeting of financing resources to countries in need, due to limited data on malnutrition burden, coverage of nutrition interventions, and donor resource tracking.	Improve monitoring of malnutrition burden, identification of resource gaps, and tracking of donor funding to better direct assistance toward countries most in need.

Source: Authors

C2. Are there any revenue raising challenges specific to delivery of nutrition services? If so, what are they, and what reforms have been undertaken to address them?

Pooling

C3. Regarding pooling, what are significant challenges to delivery of health services? What reforms have been undertaken to address those challenges?

Table 3A.2. Indicative Pooling Challenges and Reforms

Challenges	Reforms
Fragmented pooling for nutrition due to multiple domestic revenue/financing schemes, fiscal decentralization, and off-budget donor assistance	Reduce fragmentation by merging where possible, harmonizing benefits, facilitating cross-subsidization relative to need (Optima Nutrition), bring off-budget donor funds on budget
Poor resource tracking makes it difficult to make pooling of different funding streams more coherent	Improve resource tracking
Rigid budgeting structures (e.g., input-based budgeting, earmarking, vertical programs) make it difficult to reallocate funding relative to need	Shift to output-based budgeting, make earmarked funds broader, move toward integration of vertical program funding within broader health system

Source: Authors

C4. Are there any pooling challenges specific to delivery of nutrition services? If so, what are they, and what reforms have been undertaken to address them?

Purchasing

C5. Regarding purchasing, what are the significant challenges to delivery of health services? What reforms have been undertaken to address those challenges?

Table 3A.3. Indicative Purchasing Challenges and Reforms

Challenges	Reforms
Low prioritization of preventative nutrition services under capitation payment; preference for curative services typically paid for through FFS; distortionary effects due to mix-of-payment methods across levels of care	Consider the mix-of-payment methods, both within and across levels of care to ensure that they incentivize nutrition provision.
Lack/inadequate design of performance-based payments	Link payment to performance on nutrition service delivery performance.
Lack of sufficient contracting incentives	Include provisions in provider contracts that can improve quality of nutrition care.
Diluted incentives due to fragmentation in purchasing	Address conflicting incentives from fragmented revenue streams by

	harmonizing benefits, payment, and contracting incentives.
Lack of demand-side incentives	Improve incentives for utilization of nutrition services by using demand-side incentives.

C6. Are there any purchasing challenges specific to delivery of nutrition services? If so, what are they, and what reforms have been undertaken to address them?

Part D: Enabling Environment

Profile 1

P1.D1. What were the broader enabling factors that triggered and/or supported the above reforms?

Table 3A.4. Indicative Enabling Factors

- | |
|---|
| <ul style="list-style-type: none">• Part of broader health system reforms (e.g., of service delivery organization, legislative/legal changes, etc.)• Stakeholder participation and support (e.g., providers, insurers) through [which mechanisms]• Community engagement and social accountability through [how]• Improvements in data management and information systems• Improvements in governance arrangements |
|---|

P1.D2. Were there improvements on coverage/quality of nutrition interventions due to the reform(s) undertaken? If so, describe.

P1.D3. To what extent would you attribute [COUNTRY's] low stunting status/good progress to the inclusion of nutrition interventions in financial reforms undertaken?

P1.D4. How can delivery of Maternal, Infant, and Young Child Nutrition (MIYCN) counseling/preventative nutrition services be better incentivized?

Profile 2

P2.D1. To what do you attribute [COUNTRY's] low stunting status/good progress, despite NOT having included nutrition interventions in the financial reforms that have been undertaken?

P2.D2 How can delivery of MIYCN counseling/preventative nutrition services be better incentivized?

Profile 3

P3.D1. What were the broader enabling factors that triggered and/or supported the above reforms?

Table P3.D1. Indicative Enabling Factors

- Part of broader health system reforms (e.g., of service delivery organization, legislative/legal changes, etc.)
- Stakeholder participation and support (e.g., providers, insurers) through [which mechanisms]
- Community engagement and social accountability through [how]
- Improvements in data management and information systems
- Improvements in governance arrangements

P3.D2. Were there improvements on coverage/quality of nutrition interventions due to the reform(s) undertaken? If so, describe.

P3.D3. To what do you attribute [COUNTRY's] high stunting status/poor progress, despite having included nutrition interventions in the financial reforms that were undertaken?

P3.D4 How can delivery of MIYCN counseling/preventative nutrition services be better incentivized?

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Achieving universal health coverage (UHC) is a top global priority, and nutrition actions are a critical part of meeting that goal. When delivered within key windows of opportunity to improve health throughout the life-course, essential nutrition actions play an important role in reducing the burden of disease and preventing permanent physical and cognitive impairments, ultimately staving off future health care costs for both individuals and health systems.

Coverage and quality of nutrition service delivery remains low, despite robust evidence of cost-effective interventions. The health system, and most especially primary health care (PHC), is essential for delivering high-impact, cost-effective, nutrition-specific interventions at scale. There are gaps in knowledge on how to deploy resources more effectively to improve the delivery of nutrition services as part of preventive and promotive health care. A shift in focus is needed from the “what” and “why” of scaling-up nutrition to the “how” of improving nutrition services coverage and quality of nutrition services delivered through the health system, and especially PHC.

Parts 1, 2, and 3 of this paper introduce the thesis that health financing arrangements can be optimized to ensure that distribution and utilization of health system resources are aligned with nutrition objectives that are well-grounded on already available evidence to maximize nutrition impacts. Such health financing arrangement reforms should enhance equity, efficiency, transparency, and accountability, while also catalyzing improvements in other areas of the health system such as human resources, information systems, and the supply chain. Parts 4, 5, and 6 of the paper explore the financing challenges and options to address key financing and service delivery challenges. These options encompass health financing arrangements—revenue raising, pooling, and purchasing—to serve as a critical entry point for mobilizing improvements across health systems pillars. Part 7 of the paper discusses the cross-cutting actions to enable health financing levers, and Part 8 summarizes the conclusions.

Achieving nutrition outcomes and movement toward UHC are inextricably interlinked. Countries have financing choices to make in their response to the COVID-19 pandemic and pursuit of UHC. It will be critical to include and prioritize a costed and well-defined set of nutrition services in the UHC benefits package for countries to scale up nutrition, strengthen health systems, and achieve global nutrition and UHC goals.

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