PRIMARY HEALTH CARE PERFORMANCE MEASUREMENT IN WORLD BANK HEALTH, NUTRITION AND POPULATION PROJECTS

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Health, Nutrition & Population

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An Analysis of Trends, Gaps, and Promising Practices in Evidence-Based Measurement of Primary Health Care Performance

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Health, Nutrition, and Population (HNP) Discussion Paper

PRIMARY HEALTH CARE PERFORMANCE MEASUREMENT IN WORLD BANK HEALTH, NUTRITION, AND POPULATION PROJECTS

An Analysis of Trends and Gaps in Evidence-Based Measurement of Primary Health Care Performance

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Abstract: Effective measurement of primary health care (PHC) performance is an essential pillar for learning, accountability, and informed decision making in investments dedicated to achieving universal health coverage (UHC). The World Bank Health, Nutrition, and Population (HNP) Global Practice has a critical role to play to support sustainable and robust PHC measurement in client countries through project investments and project monitoring and evaluation (M&E) practices. Previous evaluations of the HNP portfolio have singled out measurement as a salient gap that must be bridged in HNP projects to better understand and improve results. However, existing evaluations provide limited in-depth understanding of nuances in measurement gaps and specific opportunities for improvement as it pertains to measurement of PHC in HNP projects. The objective of this analysis is to bridge this gap through a focused review of PHC measurement in HNP projects over the past decade (fiscal years [FY] 2010–FY 2020). Indicators from HNP projects were extracted and mapped to corresponding essential pillars of PHC performance, including capacity, financing, access, quality, coverage, equity, and outcomes. The definition of these pillars, along with the additional classification of indicators to more specific components of PHC performance, was guided by the application of a conceptual framework developed by the Primary Health Care Performance Initiative (PHCPI). Overall trends in PHC performance measurement, including common indicators utilized across the portfolio, data-collection methods, and distribution of projects measuring PHC performance by region, income bracket, and fiscal year of approval, were also identified and used to understand relative strengths and areas for improvement in PHC measurement. This exercise revealed a strong focus on the measurement of PHC system inputs, particularly workforce capacity and PHC coverage of Reproductive, Maternal, Newborn, and Child Health (RMNCH) and infectious disease services in HNP projects. Measurement of other crucial dimensions of PHC performance, including PHC

financing, local capacity for high-quality PHC, demand-side barriers to access, quality of services delivered, effective service coverage, and equity, were limited. Trends in data-collection methods used to collect indicators in World Bank projects and variations in measurement practices across regions, economic contexts, and time revealed opportunities for the Bank to enhance the sustainability of PHC measurement for improvement in client countries. Results from this analysis were ultimately used to devise a series of recommendations for the World Bank to support short-term and long-term improvements in PHC measurement over the coming decade.

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Table of Contents

ACKNOWLEDGMENTS

GLOSSARY OF TERMS

Abbreviation	Definition
BHFS	Bangladesh Health Facility Survey
DGHS	Directorate General of Health Services
DHIS	District Health Information Software
DHS	Demographic Health Survey
EAP	East Asia and Pacific (Region)
ECA	Europe and Central Asia (Region)
EHR	Electronic Health Record
EMR	Electronic Medical Record
ENDES	Perú Encuesta Demográfica y de Salud Familiar
GIS	Geographic Information System
HICs	High-Income Countries
HMIS	Health Management Information Systems
HNP	Health, Nutrition, and Population
ICRC	International Committee of the Red Cross
IEG	Independent Evaluation Group
IRIS	Integrated Referral Information System
KAP	Knowledge, Attitude, and Practices
LICs	Low-Income Countries
LCR	Latin America and Caribbean (Region)
LMICs	Lower-Middle Income Countries
MENA	Middle East and North Africa (Region)
MICS	Multiple Indicator Cluster Survey
MOF	Ministry of Finance
MOH	Ministry of Health
NCD	Noncommunicable Disease
NGO	Nongovernmental Organization
NQAS	National Quality Assurance Standards
PBF MIS	Performance-Based Financing Management Information System
PHC	Primary Health Care
PHCPI	Primary Health Care Performance Initiative
PILMIS	Pharmaceutical Inventory Logistics Management Information System
RMNCH	Reproductive, Maternal, Newborn, and Child Health
SAR	South Asia Region
SMART	Standardized Monitoring and Assessment of Relief and Transitions
SSA	Sub-Saharan Africa (Region)
UHC	Universal Health Coverage

UMICs	Upper-Middle-Income Countries
VSP	Vital Signs Profile

INTRODUCTION

PRIMARY HEALTH CARE PERFORMANCE MEASUREMENT—A GLOBAL GAP

Primary Health Care (PHC) is widely recognized as the most efficient, effective, and equitable approach to realizing the global vision of universal health coverage (UHC) (Pettigrew et al. 2015). Encompassing primary care service delivery and essential public health functions at the heart of integrated services, empowered people and communities, and multisectoral policy and action, PHC is a whole-of-society approach that, when strengthened, can meet approximately 80 percent of population health needs (Pettigrew et al. 2015). Empirical research consistently supports that a commitment to PHC across all development contexts improves health care access, quality, equity, and outcomes (Weel and Kidd 2018). Global leaders have rallied behind the need to strengthen PHC, with global commitments reaffirmed most recently in the 2018 *Declaration of Astana on Primary Health Care* (Declaration of Astana 2018).

To realize true improvements in PHC systems performance, it is essential that countries can understand what is currently working, what is not working, and whether the investments they are making are leading to improvements. To achieve this capacity, good measurement of PHC performance is vital. However, measurement, particularly of the quality of services delivered in primary care, has historically been a key gap in countries' ability to understand PHC performance and act accordingly (Kruk et al. 2018). Namely, while countries have historically been able to measure PHC inputs, such as workforce and medicines, and outputs in terms of coverage of essential services, the processes of high-quality care that transform inputs into robust outputs and improved outcomes have historically been a "black box" in understanding PHC system performance.

INPUTS → SERVICE DELIVERY → OUTPUTS → OUTCOMES

PRIMARY HEALTH CARE PERFORMANCE INITIATIVE—BRIDGING THE MEASUREMENT GAP

The Primary Health Care Performance Initiative (PHCPI) was founded to bridge the PHC measurement gap in 2015, with an emphasis on measurement of the quality of care and on PHC strengthening in low- and middle-income countries (LMICs). A collaboration of the Bill and Melinda Gates Foundation, the World Bank, the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) in partnership with Ariadne Labs and Results for Development, PHCPI aims to improve the performance of PHC systems and progress toward universal health coverage (UHC) in developing countries through better, comprehensive, and actionable measurement of high-quality PHC. To achieve this goal, PHCPI has developed a set of evidence-based tools including a PHC Conceptual Framework and Vital Signs Profile (VSP) assessment to help partner countries assess the performance of their PHC systems.

Developed through extensive literature review and expert consultation, the PHCPI Conceptual Framework identifies key domains of PHC performance, with an expanded emphasis on service delivery for high-quality care compared to other health system measurement frameworks (see **Figure 1**) (Veillard et al. 2017). The PHCPI Conceptual Framework is regarded as the most complete framework for measuring PHC performance in LMICs and has been endorsed by a

range of actors such as the World Bank Group, the Bill and Melinda Gates Foundation, the WHO, and UNICEF. This emphasis on quality measurement within the framework identifies the core processes of care that support improvements in PHC outputs and outcomes. The PHCPI Conceptual Framework follows the logic model approach (structure, process, outcome) and identifies five core domains of PHC performance: Systems, Inputs, Service Delivery, Outputs, and Outcomes. The *Systems* domain encompasses systemic functions of the PHC systems, such as governance and leadership, health financing capacities, and the ability of the system to adjust to changing population health needs. The *Inputs* domain captures the availability of the required inputs necessary for PHC system functioning, including drugs and supplies, facility infrastructure, information systems, workforce, and funds. The *Service Delivery* domain captures the supply-side processes involved in delivering high-quality PHC, such as population health management capacities, facility management capabilities, availability of care, and quality of services delivered, as well as the demand-side barriers to access, including geography, finances, and timeliness of care. The *Outputs* domain captures PHC-relevant measures of effective service coverage, a quality-weighted coverage measure. Finally, the *Outcomes* domain reflects the results of well-performing PHC systems, including improvements in health status, responsiveness to people, equity, efficiency, and resilience of the health system. Each domain is then further elaborated in subdomains to identify essential components that must be in place to facilitate robust PHC. For instance, effective population health management is facilitated through local priority-setting processes, community-engagement mechanisms, empanelment of the population, and proactive outreach in community-based settings. For full definitions of PHC domains and subdomains of the framework, see **Annex 1.**

Figure 1: PHCPI Conceptual Framework
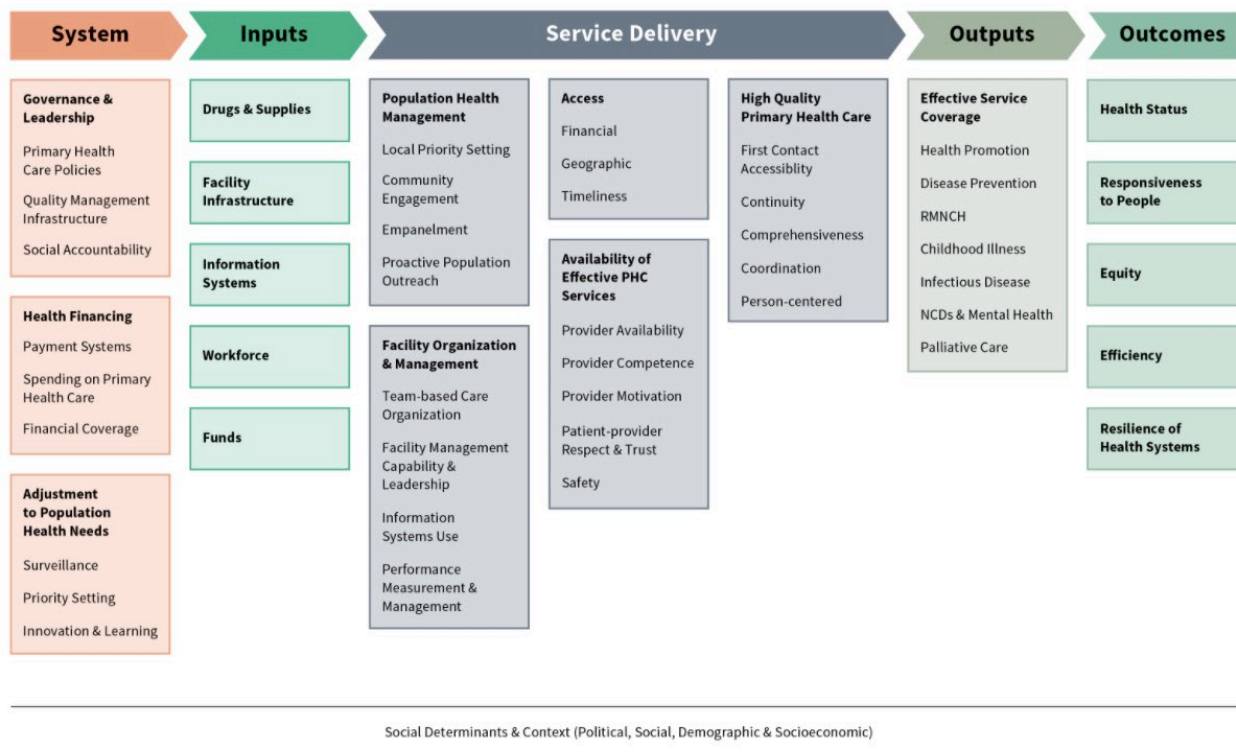
Source: The Primary Health Care Performance Initiative (PHCPI)
Notes: PHC = Primary health care; RMNCH = Reproductive, Maternal, Newborn, and Child Health; NCDs = Noncommunicable diseases.

To support countries to assess their current PHC performance and identify areas for improvement, the PHCPI framework is operationalized into the *Vital Signs Profile (VSP),* a mixed-methods PHC assessment tool that provides a snapshot of PHC system strengths and bottlenecks in individual countries (see **Figure 2**). Several LMICs have worked and are currently working with PHCPI to perform a Vital Signs Profile assessment, with 22 countries spanning across Africa, Asia, Central and South America, and Europe having completed and published a VSP as of June 2021. The *Vital Signs Profile* categorizes PHC into four pillars: *Financing, Capacity, Performance*, and *Equity.* Three of the pillars—*Financing, Performance,* and *Equity*—are captured by way of a set of 38 internationally comparable performance indicators. The *Financing* pillar assesses the total amount of money, the prioritization of money, and sources of spending within the PHC systems. The *Performance* pillar measures three key aspects of PHC service delivery, capturing *Access, Quality, and Coverage* of PHC services through indexes that are constructed from individual performance indicators. The *Equity* pillar aims to elucidate if PHC services are reducing health inequalities within the population. The fourth pillar—*Capacity*—encompasses the infrastructure that enables high-quality PHC, such as policies, physical and human resources, and quality improvement mechanisms. Unlike the other three domains, PHC capacity is measured by way of a participatory mixed-methods assessment tool, the *PHC Progression Model*, which engages a variety of country health system stakeholders through semi-structured interviews and in-depth document review. Although not included in the formal VSP pillars, the VSP also encompasses *Context* indicators relevant to PHC performance, such as gross domestic product (GDP) per capita and percentage of the population living in poverty, as well as *Outcome* indicators, such as maternal and neonatal mortality, that are indicative of overall health system performance.

Figure 2: PHCPI Vital Signs Profile
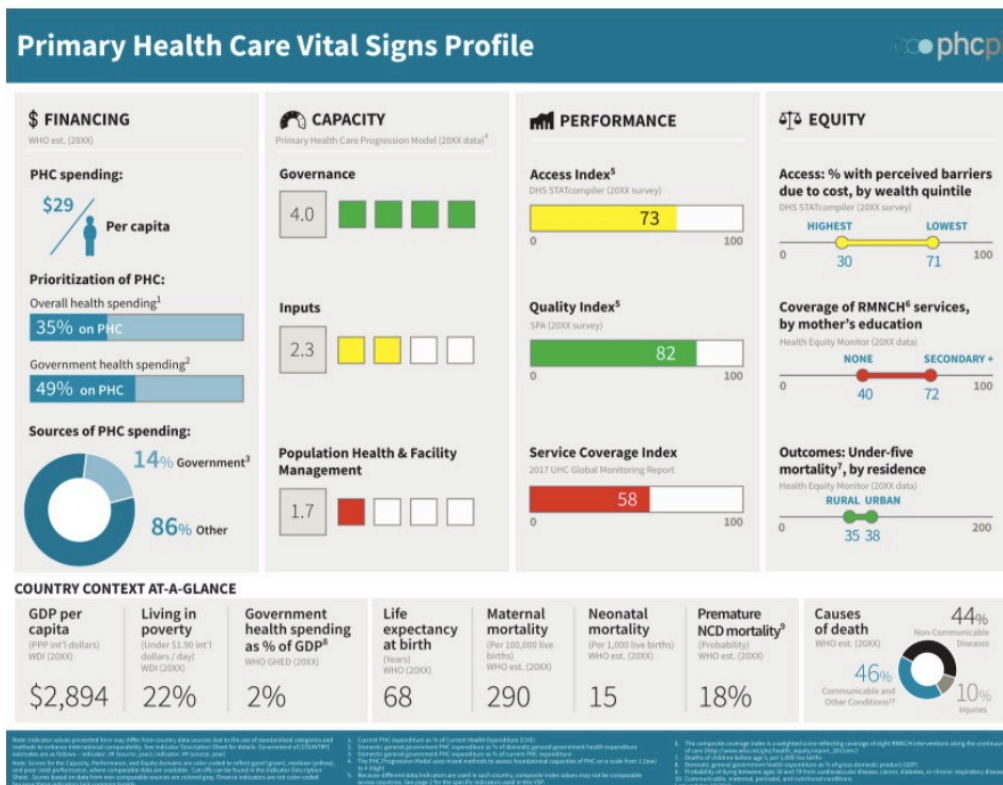
Source: The Primary Health Care Performance Initiative
Notes: PHC = Primary health care; NCD = Noncommunicable disease; PPP = Purchasing power parity.

Together, the PHCPI Conceptual Framework and its operationalization in the Vital Signs Profile identify critical components of PHC performance along a continuum that countries can monitor and improve to realize the vision of UHC.

PHC PERFORMANCE MEASUREMENT IN WORLD BANK HNP PROJECTS—A KNOWLEDGE GAP

Since 1979, the World Bank Group has supported over 100 countries to improve Health, Nutrition, and Population (HNP) outcomes, with investment totaling over $40 billion in loan commitments (World Bank 2018). The overarching strategy guiding HNP investment has been characterized by marked shifts over the course of the past 40 years. Most recently, the World Bank has committed to supporting countries to realize the global vision of universal health coverage (UHC) and is a co-convener with the World Health Organization of UHC2030, a global movement to build stronger health systems for UHC. In alignment with global consensus on the role of robust primary health care in achieving UHC, recent World Bank support to HNP has centered around strengthening PHC systems in client countries, with approximately 80 percent of projects approved between fiscal 2005 and fiscal 2016, focused at the first level of care (World Bank 2018).

All World Bank projects include a Results Framework, which consists of performance indicators to connect project activities to expected and observed results. The results are measured in relation to the projects' short-, medium-, and long-term objectives through a series of indicators. A good Results Framework defines cause-and-effect linkages using supporting evidence to outline why and how a specific action will lead to an improved outcome. These indicators are used to track, monitor, and evaluate the success of project objectives through a set of appropriate targets. In the context of Bank financing projects, measurement serves two fundamental purposes: learning and accountability. Namely, measurement allows project stakeholders to identify inhibiting and enabling factors in project implementation and to adjust accordingly, as well as to hold the project accountable to achieving project objectives.

However, while all projects include quantitative indicators for monitoring and evaluation of project results, measurement has been identified as a critical area for improvement in previous evaluations of HNP projects. For example, an evaluation of the HNP portfolio between fiscal 1997 and fiscal 2008 found weak commitments to monitoring and evaluation that limited the ability of projects to implement appropriate project designs and targets, assess the effectiveness of activities, and maximize efficiency through learning (World Bank 2009). In addition, this evaluation noted a lack of equity measurement in the HNP, underscoring a lack of project accountability for delivering health results to vulnerable populations and people living in poverty. More recently, an Independent Evaluation Group (IEG) assessment of the HNP portfolio from fiscal 2005 to fiscal 2018 echoed these findings, with added emphasis on gaps in measurement pertaining to quality of care and equity in health services. Namely, the 2018 evaluation found that, while HNP project objectives demonstrated a greater emphasis over time on improving the quality of health services and identifying specific population groups with coverage gaps expected to benefit from interventions, projects also demonstrated limited capacity to measure the relevant aspects of quality and equity encompassed in project objectives and activities (World Bank 2018).

Delivering high-quality care and facilitating equitable access to services are both fundamental pillars of a well-functioning PHC system. As World Bank support to HNP has focused predominantly on strengthening PHC, it is crucial that measurement be effectively leveraged to understand how such investments are improving core functions of PHC and ultimately responding

13

to population health needs; however, measurement gaps identified in previous evaluations point to a salient measurement gap of PHC performance in HNP projects.

ASSESSING PHC MEASUREMENT IN THE HNP PORTFOLIO—BRIDGING THE KNOWLEDGE GAP

While previous evaluations of HNP projects have highlighted measurement as a key gap, they offer limited understanding of specific opportunities for improvement, particularly as it pertains to the measurement of PHC performance in HNP projects. PHCPI tools can be utilized to bridge this gap by identifying key determinants of high-quality PHC that must be measured and by offering globally comparable indicators that can be used to measure them. In the 2018 IEG evaluation, PHCPI is highlighted as a testament to the World Bank's increasing attention to bridging the measurement gap, particularly regarding quality of care. However, the extent to which the PHCPI approach to PHC performance measurement has been bridged in practice in HNP projects is not currently understood. In outlining specific areas of PHC performance that must be measured and components of strong PHC systems that must be in place, PHCPI tools can be used to identify strengths and weakness in PHC performance measurement across the HNP portfolio and inform actionable suggestions to bridge identified gaps.

This analysis aims to support the World Bank in bridging the HNP measurement gap, particularly as it pertains to PHC performance. To accomplish this aim, PHCPI tools, including the PHCPI Conceptual Framework and Vital Signs Profile, are applied to a review of HNP projects over the past decade (FY 2010–FY 2020) to identify PHC measurement trends and areas for improvement. In addition, the review is also leveraged as a learning opportunity for PHCPI to identify areas where PHCPI tools are not currently equipped to support country clients in the issues they are trying to measure, and to propose how the tools might be expanded to do so. The results from this analysis can be leveraged to guide future efforts to strengthen PHC measurement within the Bank so that projects may best support World Bank client countries toward achieving UHC.

METHODS

OBJECTIVES

This exercise is underpinned by four primary objectives.

1. **To assess the extent to which PHCPI VSP indicators have been used in HNP projects over the past decade (FY 2010–FY 2020).** An understanding of the frequency of use, data-collection methods, and basic characteristics of projects applying these indicators in practice will provide valuable insights on progress achieved and areas for improvement in PHC measurement in HNP projects.

2. **To identify key trends in PHC performance measurement in HNP projects over the past decade (FY 2010–FY 2020)** based on indicators that are not PHCPI VSP indicators but aim to measure a dimension of PHC performance outlined in the Vital Signs Profile and PHCPI Conceptual Framework. Investigating which aspects of PHC performance have been measured in HNP projects, how they have been measured, and trends in their use by project characteristics will further strengthen the understanding of strengths and areas for improvement in HNP measurement of PHC performance.

3. **To analyze indicators used to measure quality of care and equity for specific health issue areas** to better understand the nature of the quality and equity measurement gap identified in the 2018 IEG evaluation and opportunities for improvement.

4. **To identify themes that are relevant to PHC and must be measured but are not conceptually encompassed by the PHCPI Conceptual Framework and/or in measurement of PHC performance through the Vital Signs Profile as it stands.** Unearthing these gaps and how HNP projects have sought to measure them over the past decade will be vital to guide future adaptations of PHCPI assessment tools to best meet the needs for improving measurement in partner countries.

DATA COLLECTION

PHC Indicator Database Construction
The data for this analysis were extracted from SAP software using the "Implementation Status Report (ISR) for Project Development Objectives (PDO) Ratings & Indicators" report, which collates the most recent ISR inputs for each project as of the date requested from the system. Parameters were set in this search to identify only projects approved within the past decade (FY 2010–FY 2020) that were led by the Health, Nutrition, and Population (HNP) Global Practice. For projects where ISR data were not available, the relevant data were taken from the Project Appraisal Documents (PADs) via the Operations Portal. PADs are formal documents developed by the World Bank and the client country that summarize the project details, logistics, and objectives. Indicators from identified projects were extracted and compiled into an Excel database. Relevant project characteristics (project name, project ID, fiscal year [FY] approval, project country, corresponding World Bank region and income bracket, and project implementation status) were extracted and compiled into the database alongside indicators.

PHCPI VSP Indicator Identification

Once indicators had been extracted from the HNP Results Framework and compiled into the database, the database was then reviewed to identify all PHCPI VSP Indicators used across HNP projects over the past decade. Indicators that were closely related to PHCPI VSP Indicators but were characterized by slightly different wording were included as PHCPI VSP Indicators. For a full list of PHCPI VSP Indicators, see **Annex 2**.

PHC Indicator Mapping and Consensus-Building

Indicators in the database that did not pertain to PHC were designated as such and were excluded from further analysis. Remaining indicators that were relevant to PHC performance measurement but not characterized as PHCPI VSP Indicators were classified according to which dimension of PHC performance they sought to measure. This classification was based on the PHCPI Conceptual Framework. Namely, each indicator was mapped to a corresponding dimension of PHC performance reflected in the framework. The mapping process was carried out by three principal investigators (Latifat Okara, Simone Wahnschafft, Cameron Feil), each of whom individually reviewed the database and mapped indicators to their corresponding domain of the PHCPI Conceptual Framework. Indicators that could not readily be mapped to the framework were compiled and discussed among reviewers and PHCPI measurement experts to arrive at two designations: (a) consensus reached and mapped to corresponding PHCPI framework domain; or (b) consensus reached and indicator identified as a gap not reflected in the framework. If consensus could not be reached among the three principal investigators, the indicator was discussed among a group of PHC measurement experts (Manuela Villar-Uribe, Jasmine Vicencio, and Marwa Ramadan) to determine which domain in the PHCPI Conceptual Framework it best reflected. Once mapped to PHCPI framework domains, indicators were also classified to their corresponding VSP pillars. Expanding upon the original four pillars of the VSP, the Performance pillar was divided into its component categories of Access, Quality, and Coverage. In addition, the informal VSP pillar pertaining to health systems outcomes was also included. Thus, PHC indicators were ultimately mapped to one of the following VSP pillars: *Capacity*, *Financing*, *Access*, *Quality*, *Coverage*, *Equity,* or *Outcomes*.

Additional PHC Classification by Health Issue Area

Where pertinent, indicators in the database were characterized by the health issue area they aimed to measure PHC performance for, such as Reproductive, Maternal, Newborn, and Child Health (RMNCH), nutrition, noncommunicable diseases (NCDs), and infectious diseases.

For a summary of the steps of the data collection procedure, see **Figure 3**. For a full list of PHC issue areas applied to the review of indicators, see **Annex 3**.

Figure 3: Steps of Data-Collection Procedure
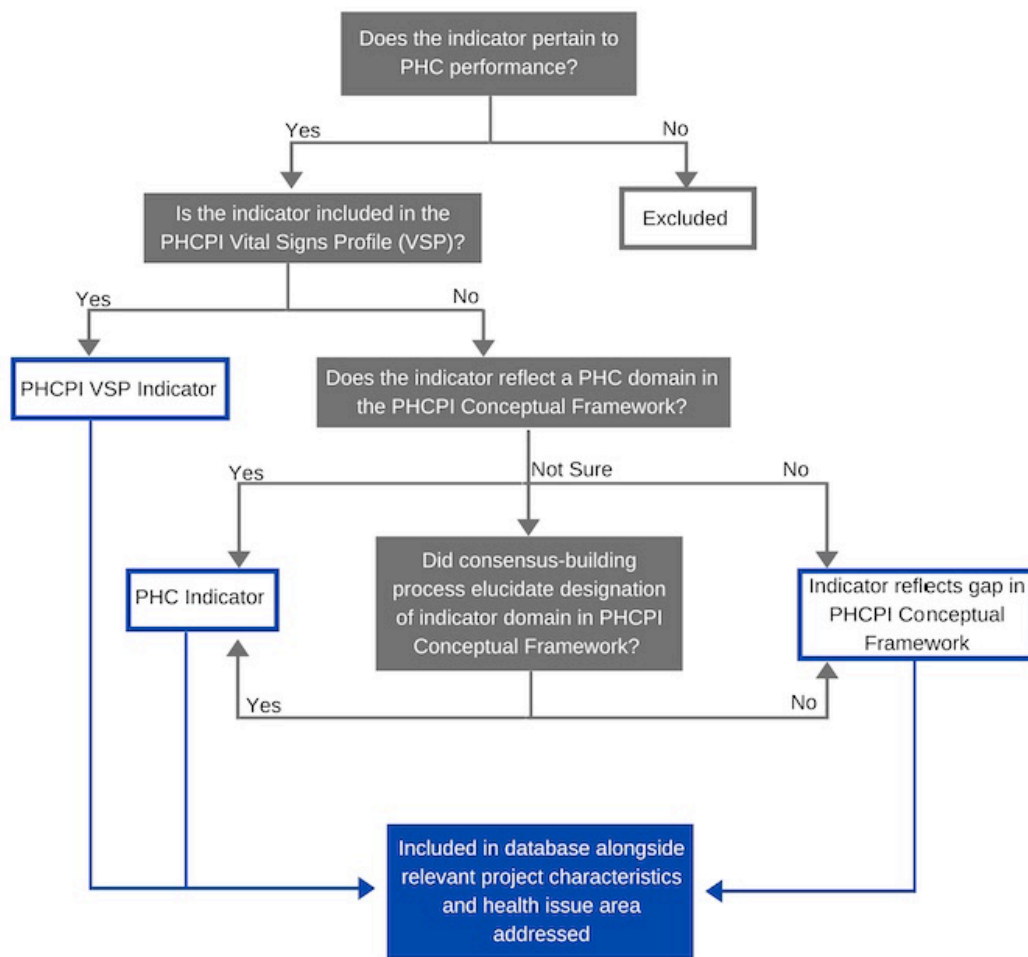
DATA ANALYSIS—UNDERSTANDING INFORMATION

In accordance with the four principal objectives of this paper, this paper is underpinned by four overarching analytical approaches, as detailed below.

PHCPI VSP Indicator Utilization
With all classification systems of indicators finalized, the absolute and relative frequency of PHCPI VSP Indicator use was determined by calculating the number and percentage of projects of the overall HNP portfolio over the past decade that encompassed PHCPI VSP Indicators. Data-collection methods proposed to collect PHCPI VSP Indicators in HNP projects were extracted from project PADs. Data-collection methods identified included data source and frequency of collection. Given the specificity of data sources to specific contexts, data sources were grouped into overarching categories, such as surveys or electronic medical records, to provide an

overarching sense of data-collection methods used. For a full list of categories for data-collection methods, see **Annex 4**. Finally, the use of PHCPI VSP Indicators measuring distinct aspects of PHC performance, such as capacity, access, and quality, in HNP projects were analyzed by region, income bracket, and fiscal year approval to facilitate a robust understanding of PHC performance measurement patterns across the HNP portfolio in the last decade.

PHC Performance Measurement—Key Trends
Indicators that measured some pillar of PHC performance reflected in the Vital Signs Profile and PHCPI Conceptual Framework were analyzed with a very similar approach to that applied to PHCPI VSP Indicators. First, the absolute and relative frequency of indicators were identified for each PHC performance domain to determine which dimensions of PHC were commonly measured across the HNP portfolio. Second, indicators that were most frequently used across projects to measure dimensions of PHC performance outlined by the VSP were identified and their data-collection methods extracted from project PADs to further elucidate how PHC performance has commonly been measured in HNP projects. The data-collection methods were characterized in the same way as they were for PHCPI VSP Indicators. Third, innovative indicators used to measure dimensions of PHC performance that were important but not commonly measured were identified, along with their data-collection methods, to illustrate a small but existing precedent of robust PHC performance measurement to build upon. Finally, trends in PHC indicator utilization across HNP projects were analyzed by region, income bracket, and fiscal year approval to further analyze patterns in PHC performance measurement across the HNP portfolio in the past decade.

PHC Performance Measurement—Focus on Quality of Care and Equity
Indicators used to measure dimensions of quality of care and distributional impacts of project activities for addressing distinct health challenges were extracted, along with their data-collection methods, to assess how HNP projects operationalized these essential dimensions of PHC performance into project Results Frameworks. The in-depth analysis of PHC measurement of quality of care and equity presented in this report was critical to address the 2018 IEG evaluation findings.

PHCPI Conceptual and Measurement Gaps
Indicators used in HNP projects to measure PHC-relevant issues that are not encompassed in the framework were used to identify conceptual and measurement gaps in PHCPI assessment tools. Indicators and data-collection methods were extracted to illustrate HNP measurement of issue areas in action and propose overall areas for improvement in PHCPI assessment tools for comprehensive PHC measurement.

RESULTS

PHC MEASUREMENT IN THE HNP PORTFOLIO

156 HNP projects were approved between fiscal 2010 and fiscal 2020, encompassing 3,951 indicators in project Results Frameworks. Most projects approved over the past decade are currently active (89.7 percent). This evaluation did not include the 74 approved COVID-1 multiphase programmatic approach (MPA) projects.

The highest proportion of HNP projects analyzed have been implemented in Sub-Saharan Africa (SSA) and in lower-middle-income countries (LMICs). Just over 40 percent of projects approved from the past decade have been implemented in SSA, while projects carried out in other World Bank regions each account for less than 15 percent of the portfolio. Almost half (46 percent) were implemented in LMICs, followed by low-income countries (LICs) (26 percent).

See **Table 1** below for the basic characteristics of the HNP project portfolio over the past decade.

Table 1: Basic Characteristics of HNP Project Portfolio, 2010–2020

Project characteristics	Number of projects	Percent of HNP portfolio, 2010–2020
Project status		
Active	140	89.7
Closed	16	10.3
World Bank region		
ECA	17	10.9
LCR	20	12.8
EAP	17	10.9
SSA	66	42.3
MENA	12	7.7
SAR	22	14.1
Other	2	1.3
World Bank income group		
LIC	40	25.6
LMIC	71	45.5
UMIC	28	18.0
HIC	4	2.6
Multi country	13	8.3
Fiscal year approval		
2010–2012	23	14.7
2013–2015	51	32.7
2016–2018	45	28.9
2019–2021	37	23.7
Total	**156**	**100**

19

PHCPI VSP INDICATOR INCLUSION IN HNP PROJECTS

Frequency of PHCPI VSP Indicator Utilization in HNP Projects

Nearly two in five (38 percent) of HNP projects approved within the past decade included at least one PHCPI indicator, primarily measuring PHC coverage of RMNCH and infectious disease services. PHCPI VSP Indicators that were most frequently used across projects include "Demand for family planning satisfied with modern methods," Antenatal care coverage (4+ visits)," and "Coverage of DTP3 immunization." All three of these indicators are measures of RMNCH essential service coverage. Several projects also utilized PHCPI VSP Indicators to measure coverage of PHC services for infectious disease prevention and treatment, including "Children aged <5 years with diarrhea receiving oral rehydration salts (ORS)," and "Use of insecticide treated nets (ITNs) for malaria prevention (only in malaria-endemic countries)." No projects included the PHCPI indicator for effective noncommunicable disease (NCD) service coverage or "Percent of population with normal blood pressure."

Comparatively, few projects included PHCPI VSP Indicators to measure essential dimensions of quality of care. While 31 percent of projects included at least one PHCPI VSP Indicator for essential service coverage, only 8 percent included any PHCPI VSP Indicator pertaining to measuring the quality of primary care service delivery. Of those projects that did incorporate PHCPI quality indicators, they pertained primarily to continuity of care ("Treatment success rate for new TB cases") and safety of PHC services ("Adequate waste disposal"). Use of PHCPI VSP Indicators for measuring provider competence and motivation to deliver high-quality services was limited, while the use of PHCPI VSP Indicators to measure comprehensiveness of care and person-centeredness of care were entirely absent.

Figure 4 below describes the percentage of PHCPI VSP indicators in HNP projects based on their alignment to the VSP pillar and PHCPI framework domain.

Figure 4: **Inclusion of PHCPI VSP Indicators in HNP Projects (2010–2020) by VSP Pillar and PHCPI Framework Domain**
(Percent)
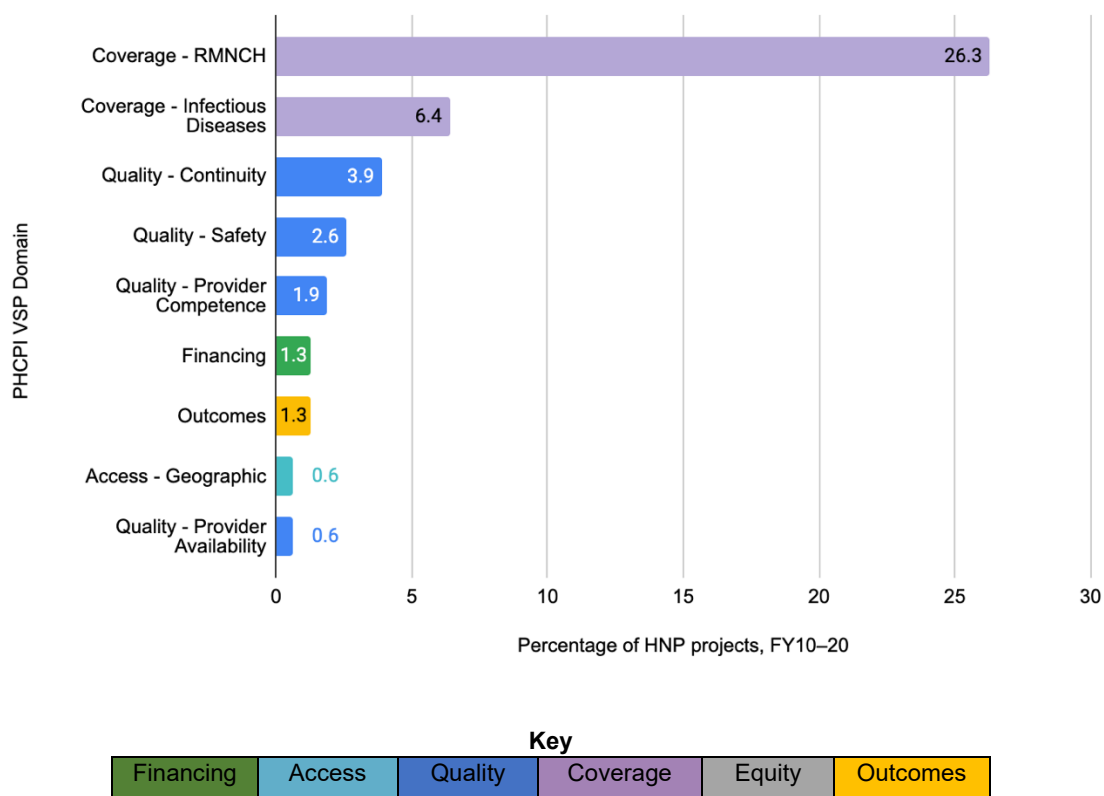
Source: Authors' calculations
Notes: PHCPI = Primary Health Care Performance Initiative; RMNCH = Reproductive, Maternal, Newborn, and Child Health; HNP Health, Nutrition, and Population.

Less than 2 percent of projects incorporated PHCPI VSP Indicators for assessing PHC financing, access, and outcomes. Two projects monitored changes in "Government PHC spending as a share of total health spending" as a measure of PHC financing. In addition, one project measured access through the PHCPI VSP indicator "Perceived access barriers due to geographic barriers" and two projects measured outcomes through the indicator, "Cause of death."

No projects encompassed PHCPI VSP Indicators that can be used to measure PHC system equity. Of the 156 projects, none contained PHCPI VSP Indicators that are recommended to measure dimensions of PHC equity by stratifying indicators of PHC access, coverage, and outcomes by population subgroups. **Table 2** below shows the absolute and relative use of PHCPI VSP indicators used in the HNP portfolio from FY 2010-FY 2020

Table 2: Absolute and Relative Use of PHCPI VSP Indicators in HNP Portfolio, 2010–2020

VSP Pillar	Corresponding PHCPI framework domain	PHCPI VSP Indicator (short-name)	Number of projects
Financing	Health financing	PHC spending per capita	0
		PHC spending as a share of overall health spending	0
		Government PHC spending as a share of total	2
		Government PHC spending as share of current PHC spending	0
Access	Geographic access	Perceived access barriers due to distance	1
	Financial access	Perceived access barriers due to treatment costs	0
Quality	Comprehensiveness	Average availability of 5 tracer RMNCH services	0
		Average availability of services for 3 tracer communicable diseases	0
		Average availability of diagnosis and management services of 3 tracer NCDs	0
	Continuity	Dropout rate between 1st and 3rd DTP vaccination	1
		Treatment success rate for new TB cases	5
	Person-centered	Percentage of caregivers told sick child's diagnosis	0
	Provider availability	Percentage of family planning, ANC, and sick child visits over 10 minutes	0
		Provider absence rate	1
	Provider competence	Antenatal care quality score based on WHO guidelines	0
		Family planning quality score based on WHO guidelines	0
		Sick child care quality score based on IMCI guidelines	0
		Adherence to clinical guidelines	1
		Diagnostic accuracy	2
	Safety	Adequate waste disposal	4
		Adequate infection control	0
Coverage	RMNCH	Demand for family planning satisfied with modern methods	10
		Antenatal care coverage (4+ visits)	21
		Coverage of DTP3 immunization	27
		Care-seeking for suspected child pneumonia	0
	Infectious diseases	Children aged <5 years with diarrhea receiving oral rehydration salts (ORS)	6
		People living with HIV receiving antiretroviral therapy (ART)	0
		TB cases detected and treated	0
		Use of insecticide treated nets (ITNs) for malaria prevention (only in malaria-endemic countries)	3
	NCDs	Percentage of population with normal blood pressure	0
Equity	Equity	Perceived barriers to care due to treatment costs, by wealth quintile.	0
		Coverage of RMNCH services, by mother's education	0
		Under-five mortality rate, by residence	0
Outcomes	Outcomes	Life expectancy at birth (years)	0
		Maternal mortality ratio	0
		Neonatal mortality ratio	0
		Premature NCD mortality	0

		Causes of death	2
		Any PHCPI Indicator (Total)	59

Data-Collection Methods for PHCPI VSP Indicators in HNP Projects

PHCPI VSP Indicators have been collected through a variety of sources as appropriate for each country's measurement capacity in HNP projects. While nationally representative, internationally comparable surveys are the primary data source used to collect PHCPI VSP Indicators in PHCPI assessment tools, results from this exercise prove that indicators can be constructed from a variety of mechanisms. Countries have used a range of national reports, project records, HMIS, surveys, facility records, etc., to collect data on PHCPI VSP Indicators. Further, the examples demonstrate the importance of multisectoral coordination between projects, surveys, the Ministry of Health, and other government ministries, as the data are provided from all these sources. See **Table 3** for a summary of the PHCPI VSP indicators collected through various data collection methods.

Table 3: PHCPI VSP Indicators Collected in HNP Projects and Data-Collection Methods, FY 2010– FY 2020

VSP pillar	Corresponding PHCPI framework domain	PHCPI VSP Indicator (short-name)	Data-collection methods		
			Frequency	**Source**	**Examples**
Financing	Health financing	Government PHC spending as a share of total	Annually, Semi-annually	National reports	Department of Finance, National Health Accounts
Access	Geographic access	Perceived access barriers due to distance	Annually	Project records, HIS	Project Monitoring reports, DHIS2
Quality	Continuity	Dropout rate between 1st and 3rd DTP vaccination	Annually	Survey, HIS	DHIS, administrative data
		Treatment success rate for new TB cases	Annually	National reports, Independent evaluation, HIS	Joint evaluation, HMIS, National TB reports
	Provider availability	Provider absence rate	Baseline and Endline	Survey	SDI
	Provider competence	Adherence to clinical guidelines	Biannually	Survey	SDI
		Diagnostic accuracy	Annually Baseline and Endline	Survey health information systems	Administrative data SDI survey
	Safety	Adequate waste disposal	Annually, Biannually	Project records, Survey	Project progress report, Facility survey

23

Coverage	RMNCH	Demand for family planning satisfied with modern methods	Annually Baseline and Endline	HIS, survey, project records	HMIS DHS Impact Evaluation Household Survey, PBF database
		Antenatal care coverage (4+ visits)	Annually, Quarterly	HIS, Project records	DHIS2, PBF statistics
		Coverage of DTP3 immunization	Annually 3 years	HIS, Project records, survey	-
	Infectious diseases	Children aged <5 years with diarrhea receiving oral rehydration salts (ORS)	Biannually, Annually, DHS 5 years	Survey, Project records	DHS, PBF statistics
		Use of insecticide-treated nets (ITNs) for malaria prevention (only in malaria-endemic countries)	Annually	HIS	HMIS
Outcomes	Outcomes	Causes of death	Annually	National reports HIS	Civil registration and Vital Statistics SISMA

Source: Project appraisal documents
Notes: HIS = Health information systems; PHCPI = Primary Health Care Performance Initiative; PHC = Primary health care; DHIS = District Health Information Software; DTP = Diphtheria-Tetanus-Pertussis (vaccine); TB = Tuberculosis; SDI = Service Delivery Indicator; RMNCH = Reproductive, Maternal, Newborn, and Child Health; PBF = Performance-based financing

Basic Characteristics of HNP Projects with PHCPI VSP Indicators

Use of PHCPI VSP Indicators in HNP projects has varied by region. PHCPI VSP Indicators were most often used in the World Bank regions of Sub-Saharan Africa (SSA), in which 60 percent of projects contained PHCPI VSP Indicators and in the South Asia Region (SAR), where 41 percent of projects contained PHCPI VSP Indicators. By comparison, 29 percent of projects in the East Asian and Pacific (EAP) Region and 25 percent in the Latin American and Caribbean (LCR) Region contained PHCPI VSP Indicators. PHCPI VSP Indicators were least commonly used in projects in the Middle East and North Africa (MENA) and Europe and Central Asia (ECA) Regions, as just 17 percent of HNP projects in each region incorporated PHCPI VSP Indicators into project Results Frameworks over the past decade.

Though projects approved in MENA contained few PHCPI VSP Indicators overall, projects conducted in the region and in SSA had a higher number of PHCPI coverage indicators compared to other regions. PHCPI coverage indicators were used in 47 percent and 33 percent of all projects approved in SSA and MENA regions over the past decade, respectively. Comparatively, PHCPI coverage indicators were found in less than 20 percent of projects approved in ECA, LCR, EAP, and SAR. See **Figure 5** below for PHCPI VSP indicators distributed by World Bank region

Figure 5: Inclusion of PHCPI VSP Indicators in HNP Projects by World Bank Region, 2010–2020
(Percent)
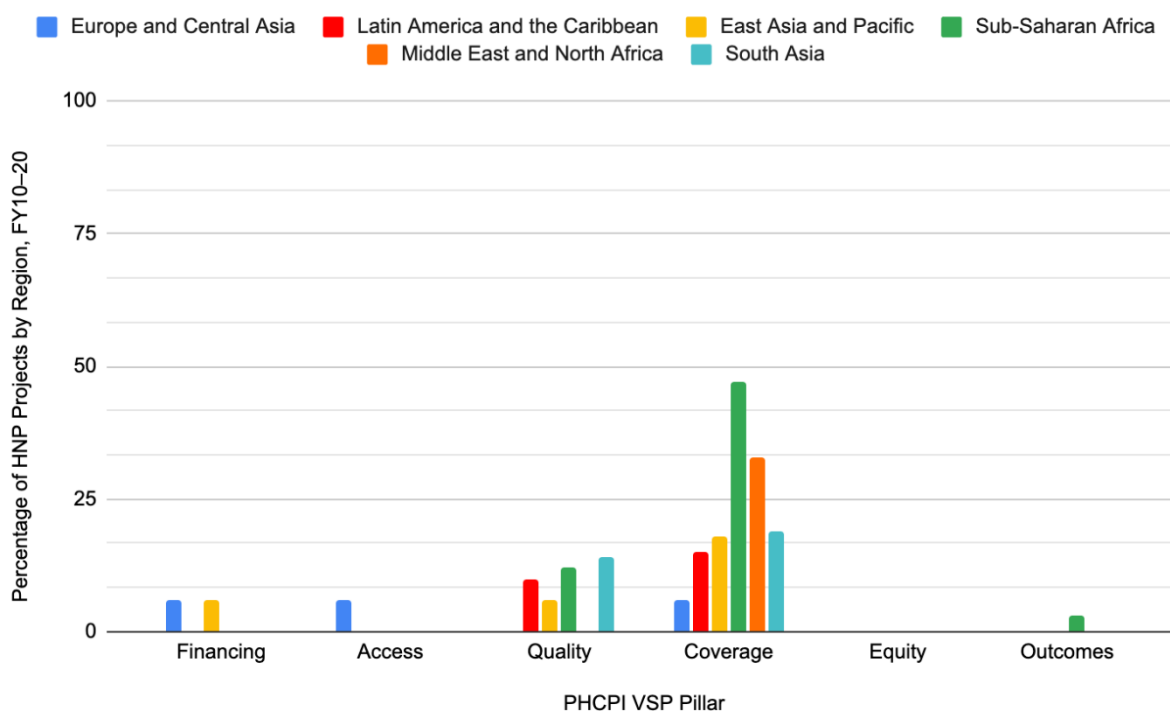
Source: Authors' calculations
Notes: PHCPI = Primary Health Care Performance Initiative; VSP = Vital Signs Profile; HNP = Health, Nutrition, and Population.

While limited overall, use of PHCPI quality indicators has been highest in the SAR. In total, 14 percent of projects in SAR contained at least one PHCPI quality indicator, followed by 12 percent of projects in SSA and 10 percent of projects in LCR. By comparison, zero projects in ECA and MENA included PHCPI quality indicators over the past decade.

Use of PHCPI VSP Indicators in HNP has also varied by economic context. Namely, PHCPI VSP Indicators have predominantly been used in LICs (64 percent of projects), followed by LMICs (50 percent of projects). By comparison, PHCPI VSP Indicators were identified in just 18 percent of projects conducted in UMICs. Further, PHCPI VSP indicator use has also varied by economic context in the type of PHCPI VSP Indicators used. Namely, coverage and quality indicators have predominantly been applied in LIC and LMIC contexts, while PHCPI financing indicators have been included exclusively in projects approved in upper-middle-income countries (UMICs) and high-income countries (HICs). **Figure 6** demonstrates the distribution of PHCPI VSP indicators in HNP projects by World Bank country income classification.

Figure 6: Inclusion of PHCPI VSP Indicators in HNP Projects (2010–2020) by World Bank Country
Income Classification
(Percent)

Source: Authors' calculations

Notes: LIC = Low-income country; LMIC = Lower-middle-income country; UMIC = Upper-middle-income country; HIC = High-income country; PHCPI = Primary Health Care Performance Initiative; VSP = Vital Signs Profile; HNP = Health, Nutrition, and Population; WB = World Bank.

Use of PHCPI VSP Indicators in HNP projects has increased over the past decade. Absolute use of PHCPI VSP Indicators in HNP projects has increased over the past decade, from 11 projects in 2010–2012 to 26 projects in 2016–2018. The increased use of PHCPI VSP Indicators within the past five years aligns with the founding of PHCPI in 2015. For a full summary of PHCPI VSP indicator use by region, income bracket, and time, see **Annex 5.**

PHC PERFORMANCE MEASUREMENT IN HNP PROJECTS

To develop a more robust understanding of key trends in PHC performance measurement in HNP projects over the past decade, this section explores trends in PHC indicators. Namely, these indicators measure concepts reflected in the PHCPI Conceptual Framework and PHCPI VSP Indicators but are not currently PHCPI VSP Indicators. In this section, trends in PHC indicators are explored both in terms of their correspondence to the PHCPI Vital Signs Profile pillars (capacity, financing, access, etc.) and to their more specific domain of the PHCPI Conceptual Framework (e.g., within "capacity," indicators could be classified as pertaining to quality management infrastructure, social accountability, payment systems, etc.).

PHC Performance Pillars and Domains Measured in HNP Projects

Almost all (97 percent) projects included at least one PHC indicator. Overall, 152 of 156 HNP projects approved within the past decade included at least one indicator measuring PHC

performance. See **Figure 7** below for the percentage of HNP projects distributed by PHCPI VSP domain.

Figure 7: PHC Measurement by VSP Pillar in HNP Portfolio, 2010–2020
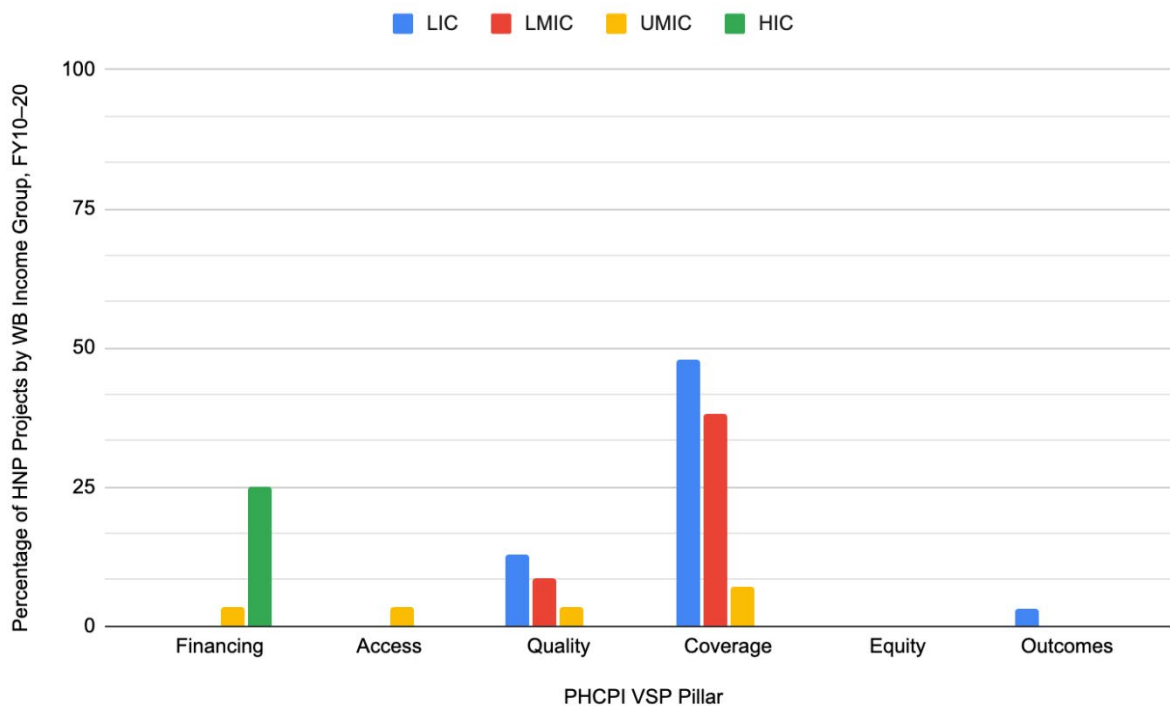**(Percent)**
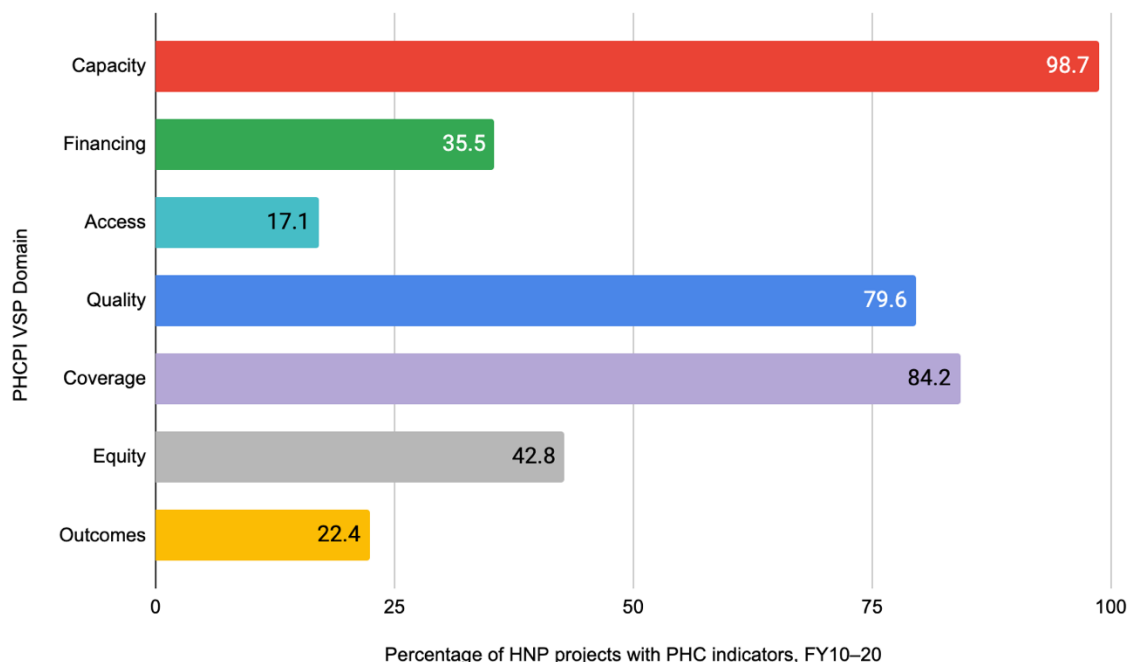
Source: Authors' calculations
Notes: PHCPI = Primary Health Care Performance Initiative; VSP = Vital Signs Profile; HNP = Health, Nutrition, and Population; PHC = Primary health care.

PHC capacity indicators, predominantly pertaining to system inputs and national governance and leadership, were most common across HNP projects. Overall, 99 percent of projects from the past decade measured at least one dimension of PHC capacity. Of these, those measuring PHC system inputs, such as PHC workforce capacities (69 percent) and drugs and supplies (37 percent) were most common. Other dimensions of PHC capacity that were commonly measured across projects pertained to national PHC governance and leadership, including PHC policies and institutional capacity-building (37 percent), quality management infrastructure (36 percent), and social accountability mechanisms (30 percent). HNP projects carried less of an emphasis on measuring the ability of PHC systems to adjust to population health needs at the national level through surveillance (19 percent), priority-setting mechanisms (17 percent), and innovation and learning capabilities (16 percent).

Certain dimensions of local community and facility PHC capacity were less commonly measured than national capacities. By comparison, projects carried a much smaller focus on measuring PHC capacity to deliver services at the facility and community levels. At the facility level, HNP projects carried only a small focus on measuring essential dimensions of facility organization and management for high-quality PHC, such as the delivery of care through multidisciplinary teams (6 percent), facility management and leadership capabilities (6 percent), and performance measurement and management capacity (13 percent). Though not quite as

27

absent, projects also carried a smaller focus on measurement of the functions of population health management at the community level, such as empanelment (10 percent), proactive population outreach (16 percent), local priority-setting (18 percent), and community engagement (20 percent). See **Figure 8** for the common dimensions of PHCPI framework measured in HNP projects

Figure 8: Common Dimensions PHC Performance Measured in HNP Projects by VSP Pillar and PHCPI Framework Domain, 2010–2020
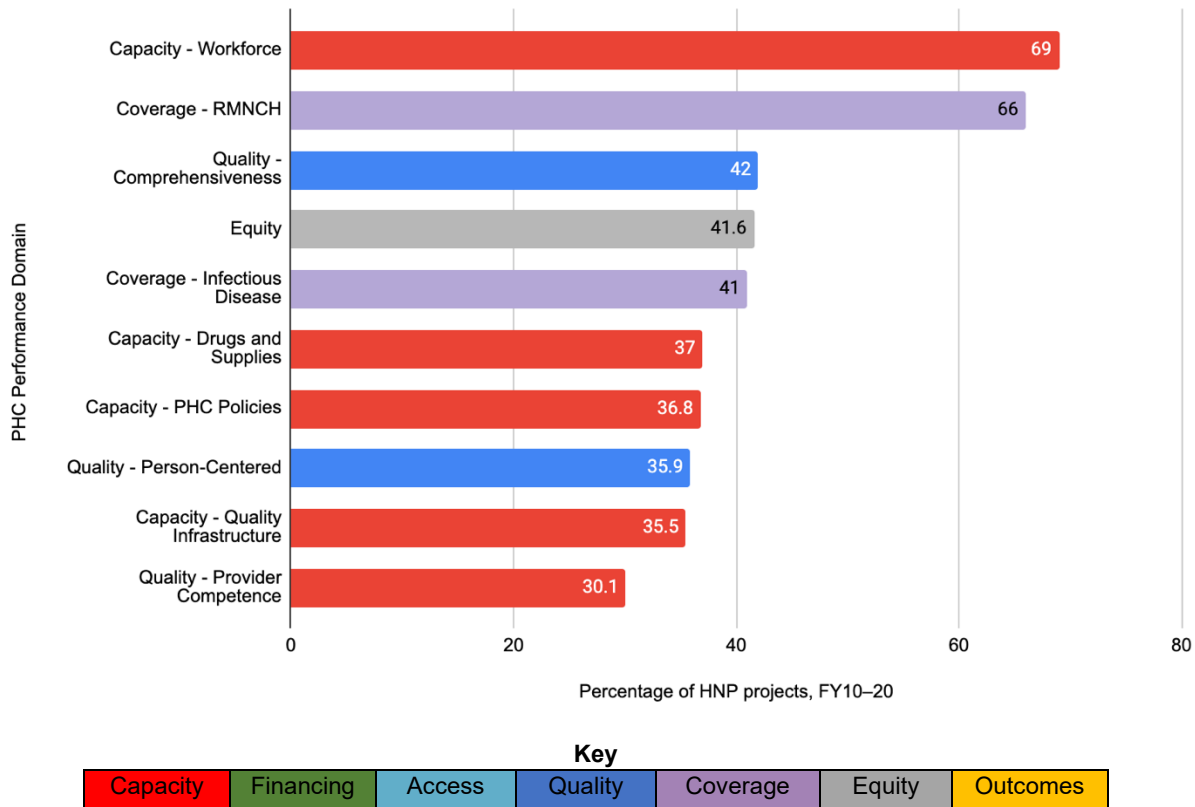
Source: Authors' calculations
Notes: PHC = Primary health care; RMNCH = Reproductive, Maternal, Newborn, and Child Health; HNP = Health, Nutrition, and Population.

Like the use of PHCPI coverage indicators, PHC coverage indicators were common and pertained primarily to RMNCH and infectious disease services. In total, 82 percent of projects measured some dimension of PHC coverage. Inclusion of PHC indicators to measure coverage of services for RMNCH and infectious diseases were predominant, as they were included in 66 percent and 41 percent of projects, respectively. Measurement of service coverage for other salient health issue areas, including NCDs and mental health, health promotion, disease prevention, and palliative care, were infrequently used across projects by comparison.

Unlike the limited use of PHCPI quality and equity indicators in HNP projects, PHC quality and equity indicators were also commonly used. While not as common as measurement of PHC capacity or coverage, 78 percent of projects sought to measure PHC quality. The most

common dimensions of PHC quality that were measured were comprehensiveness of care (42 percent), person-centered care (36 percent), and provider competence (30 percent). Other domains of quality of care were less frequently measured, including coordination of care (17 percent), continuity of care (12 percent), first-contact accessibility (8 percent), provider motivation (4 percent), and patient-provider trust and respect (0 percent); 42 percent of projects sought to measure equity in PHC.

PHC financing, access,[1] and outcome indicators were used less frequently across projects. As shown in **Table 4**, the proportion of projects including financing indicators was low across all three domains: payment systems (19 percent), financial coverage (17 percent), and spending on PHC (9 percent). Further, the number of projects containing PHC access indicators was even lower across its three domains: financial (2 percent), geographic (6 percent), and timeliness (9 percent). PHC outcome indicators were used in 28 percent of projects to measure changes in the health status of the population.

Table 4: PHC Measurement by VSP Pillar and PHCPI Framework Domain, HNP, FY 2010–FY 2020

VSP pillar	Corresponding PHCPI framework domain	Corresponding PHCPI framework subdomain	Number of projects	Percentage of HNP portfolio, 2010–2020
Capacity	Governance and leadership	PHC policies	56	36.8
		QM Infrastructure	54	35.5
		Social accountability	47	30.1
	Adjustment to population health needs	Surveillance	30	19.2
		Priority-setting	21	16.8
		Innovation and learning	25	16.0
	Inputs	Drugs and supplies	58	37.0
		Facility infrastructure	44	28.2
		Workforce	105	69.0
		Funds	22	14.1
		Information systems	46	29.0
	Population health management	Proactive population outreach	25	16.0
		Community engagement	32	20.0
		Local priority-setting	28	17.9
		Empanelment	15	9.6
	Facility organization and management	Team-based care organization	9	5.7
		Facility management capability and leadership	9	5.7

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[1] The PHCPI "Access" domains captures demand side barriers to care—including geography, finances, and timeliness. It is well-noted that the World Bank uses coverage and access interchangeably, as this definition would align with PHCPI's definition of "Coverage."

		Performance measurement and management capability	21	13.4
		Information systems use	36	23.0
Financing	Health financing	Payment systems	30	19.2
		Financial coverage	27	17.3
		Spending on PHC	15	9.6
Access	Access	Financial access	3	1.9
		Geographic access	10	6.4
		Timeliness access	14	8.9
Quality	Availability of effective PHC	Provider availability	13	8.3
		Provider competence	47	30.1
		Provider motivation	6	3.8
		Patient-provider trust and respect	0	0.0
		Safety	20	12.8
	High-quality PHC	First-contact accessibility	13	8.3
		Comprehensiveness	65	42.0
		Continuity	20	12.8
		Coordination	27	17.3
		Person-centered	56	35.9
Coverage	Effective service coverage	Infectious disease	64	41.0
		RMNCH	103	66.0
		Childhood illness	33	21.0
		NCDs and mental health	20	12.8
		Health promotion	30	19.0
		Disease prevention	30	19.0
		Palliative care	0	0
Equity	Equity	Equity	65	41.6
Outcomes	Outcomes	Health status	44	28.0
		Responsiveness to people	0	0.0
		Efficiency	1	0.6
		Resilience	0	0.0
Any Domain-related indicator (Total)			152	97.4

Source: Authors calculations and project appraisal documents
Notes: QM = Quality management; PHC = Primary health care; RMNCH = Reproductive, Maternal, Newborn, and Child Health; NCDs = Noncommunicable diseases.

Data-Collection Methods for Common PHC Indicators in HNP Projects

This section identifies the most common PHC indicators used to measure each VSP pillar in HNP projects over the past decade, along with the frequency of their use and the methods used to collect them. Up to 10 common indicators were identified for each VSP pillar, which are detailed in **Table 5**.

30

PHC capacity has been commonly measured in terms of workforce training, followed by other system inputs and governance and leadership capacities. The single-most common HNP capacity indicator identified across HNP projects was "Health personnel receiving training" (26 percent of projects), which pertains to the measurement of PHC workforce capacity. Several other indicators were commonly used to measure "hardware" inputs into PHC systems, including the number of health facilities constructed/renovated (12 percent), the availability of essential drugs in PHC centers (9 percent), and the establishment of health management information systems (HMIS) (7 percent). Apart from PHC system inputs, HNP projects did also commonly measure health system governance and leadership capacities, particularly the establishment of certain systems infrastructure for clinical quality management, including clinical guidelines (7 percent) and quality accreditation (8 percent). While many projects included metrics of PHC policies and social accountability, indicators used were highly variable depending on the country context; thus, common indicators were not identified for these domains. As mentioned above, measurement of PHC capacity at local and community levels was limited by comparison; however, two common indicators pertaining to population health management and facility organization and management were identified across HNP projects: "Citizens and/or communities involved in the [planning/ implementation/ evaluation] of development programs" (6 percent) and '[Facilities/districts] reporting health data on time—DHIS" (11 percent).

PHC coverage has commonly been measured in terms of the number of individuals receiving certain RMNCH and infectious disease services. The three most common indicators used to measure coverage of PHC services in HNP projects over the past decade were "People who have received essential health, nutrition, and population (HNP) services" (51 percent of projects), "Number of children immunized" (40 percent), and "Number of births/deliveries attended by skilled health personnel" (38 percent). The first of the three comes from the World Bank Corporate Scorecard, the annual reporting tool on results and performance of the World Bank. Depending on the country context, essential HNP services encompassed in this indicator can vary from antenatal care services to immunization to screening and treatment of chronic conditions. While certainly less commonly used than the three most common indicators, a few other indicators used across projects are worth highlighting. For instance, in the realm of maternal and child health, several HNP projects measured "Infants exclusively breastfed up to six months" (8 percent), as well as "Children receiving vitamin A supplementation" (8 percent) and "Children treated for severe acute chronic malnutrition" (4 percent). In addition, while a limited topic area across the HNP portfolio in general, a small subset of HNP projects included indicators for coverage of NCD screening services, such as hypertension and diabetes (4 percent) and cervical cancer (5 percent).

Common measurements of PHC quality pertain to scores on quality indexes in PHC and metrics of self-reported patient satisfaction with PHC services. Quality of care has been commonly measured in the form of average scores on quality checklists or indexes (14 percent of projects), which encompass several different dimensions of quality and are in some cases linked to performance-based financing. One specific example is the Quality-of-Care index in Nigeria, which encompasses indicators of clinical competence, availability of drugs and basic equipment, and readiness to provide care, supervision, and financial management. While components that are measured to create the overall quality score/index and data-collection methods vary across countries, projects are consistent in measuring changes in the overall score over the duration of the project. Other metrics that have been commonly used to measure PHC quality include self-reported measures of patient satisfaction (9 percent) and the number of grievances related to project activities that are addressed (8 percent).

PHC equity has been commonly measured along gender lines, along with a small precedent of measurement by wealth quintiles. Projects with equity indicators primarily sought to measure the distributional impact of project activities by gender, primarily by measuring the receipt of health services and project beneficiaries that were women (19 percent). Few projects (2 percent) also measured the delivery of services, including three doses of diphtheria-tetanus-pertussis (DTP3) coverage and births attended by skilled health personnel, among individuals in the lowest income quintile.

While limited across HNP projects, certain indicators have been commonly used to measure PHC financing, namely performance-based payment systems and financial coverage. Several projects measured the establishment and implementation of performance-based financing (PBF), including the number or percentage of subnational regions implementing performance-based financing schemes (7 percent of projects) and the number of physicians signed with performance-based financing contracts (1 percent). Several projects also sought to measure dimensions of financial coverage. Common metrics include the population covered by a particular mechanism (3 percent), the population entitled to/covered by fee-exemption mechanisms (2 percent), and the utilization of services among those who are covered (5 percent). Another indicator measured more than once pertained to measuring whether the essential benefits package for PHC was established or modified over the course of the project (2 percent). Finally, few projects (4 percent) captured spending on PHC by measuring the percentage of the health budget spent on PHC or expenditure on a certain dimension of PHC care.

Two indicators of PHC access used across more than one HNP project were identified. These indicators include "People with access to a basic package of health, nutrition, or reproductive services" (4 percent of projects) and "Number/percentage of women receiving postnatal care within a specified time frame since delivery" (5 percent), which reflects the timeliness of services.

While understandably limited in HNP projects, a handful of projects included common metrics of PHC outcomes pertaining to changes in population health status. Outcome indicators were not common across projects, due in part to the limited ability to attribute project activities to changes in long-term population health outcomes. That said, a few common outcome indicators were identified across projects, including hypertensive patients with hypertension under control (3 percent of projects), percentage of children stunted (2 percent), smoking prevalence/tobacco consumption (1 percent), prevalence of women with anemia (1 percent), and children with adequate weight gain (2 percent).

Common PHC indicators have been collected through different sources depending on the needs and capabilities of client countries. Data-collection methods outlined in **Table 5** demonstrate that, for certain indicators that are commonly collected, a variety of data sources have been used in HNP projects. For instance, this is the case with "Maternal deaths reviewed/audited [per year/among suspected maternal deaths]," which is an indicator for PHC safety used across a subset of HNP projects, as well as one of the 100 Core Health Indicators recommended by the WHO for health system monitoring and evaluation efforts (WHO 2018). In HNP projects, this indicator has been collected through the Demographic Health Survey (DHS), through project records, and via performance-based financing statistics, depending on the country in which it was collected. While this is one example, the same can be said for several other

indicators of PHC performance, including measurements of quality that have historically been difficult to measure in LMIC contexts.

Table 5: PHC Indicators Commonly Used in HNP Projects to Measure PHC Performance and Proposed Data-Collection Methods, 2010–2020

VSP pillar	PHCPI framework domain	Indicator	Number of projects (%)	Data-collection methods		
				Frequency	Source type	Specific source
Capacity	Quality management Infrastructure	[Development/adoption /update] of clinical guidelines	11 (7.1)	Quarterly, Annually	National reports	MOH
		Number of [PHC] facilities with quality accreditation	12 (7.7)	Quarterly, Biannually, Annually	National reports	HMIS NQAS
	Social accountability	Grievance mechanisms for citizens' complaints regarding service providers established/improved	11 (7.1)	Biannually, Annually, One-offs	HIS, national reports, survey	HMIS, MOH, automated surveys
	Drugs and supplies	Availability of [essential/tracer] drugs	14 (9.0)	Quarterly, Biannually, Annually	National reports	MOH
		Facilities having essential medicines and commodities [in stock/out of stock]	18 (11.5)	Biannually, Annually, every 2 years, Monthly	HIS, surveys, national reports	PILMIS, BHFS, DHIS2, HMIS, MOH
	Workforce	Health personnel receiving training	40 (25.6)	Biannually, Annually	Project report, national reports, HIS	MOH training report, project progress report, HMIS
	Facility infrastructure	Health facilities constructed, renovated	18 (11.5)	Biannually, Annually	Project report, national reports	Project progress report, MOH
	Information systems	[Establishment/implementation] of the HMIS	11 (7.1)	Biannually, Annually, One-off	HIS, project report, national reports, independent evaluations	HMIS, project progress report, DoH IRIS, joint external evaluation
	Community engagement	Citizens and/or communities involved in the [planning/ implementation/ evaluation] of development programs	10 (6.4)	Quarterly, Biannually, Annually	Survey interviews	National TB Programme, user groups
	Information systems use	[Facilities/districts] reporting health data on time—DHIS	17 (10.9)	Quarterly, Biannually, Annually	Facility records, project reports,	MOH, UNICEF and ICRC

					national reports, international standard reports	Implementation Progress report
Financing	Payment systems	[Facilities/districts] using performance-based/results-based financing (PBF/RBF)	11 (7.1)	Biannually, Annually	National reports, project records, independent evaluation	Contract documents, MOH PBF MIS database
		Primary care providers signed with [PBF/RBF] contracts	2 (1.3)	Biannually	HIS	Facility records
		Provider-payment mechanism is [implemented/revised] for quality	3 (1.9)	Annually, Biannually	National reports	MOH
	Financial coverage	Utilization of services by population covered by a health insurance mechanism	7 (4.5)	Biannually, Annually	National reports, project records	MOH PBF database, DHIS2 local health care provider
		Essential benefit package [of PHC issue area] adopted/revised	6 (3.8)	One-off, Annually	National reports, state reports	MOH Uttarakhand Health and Family Welfare Society data
		Population covered by [health insurance mechanism]	5 (3.2)	Annually	HIS, national reports	GIS Health Insurance Department
		Population [entitled to/covered by] fee exemption mechanism	3 (1.9)	Quarterly, Biannually, Annually	Project records, survey	MOH NGO report
	Spending on PHC	Expenditure on [PHC/preventive care/health promotion]	4 (2.6)	Biannually, Annually	National reports	MOF National Health Accounts, Department of Finance
		Health sector budget allocated to [PHC issue area]	2 (1.3)	Biannually	HIS	Nutrition Expenditure Tracking System
Access	Geographic	People with access to a basic package of health, nutrition, or reproductive services	6 (3.8)	Biannually	National reports, survey	MOH DHS

	Timeliness	Women provided with postnatal care within [specific time frame]	8 (5.1)	Quarterly, Annually	International standard reports, Independent evaluation, HIS	Health facility registers, HMIS Health facility survey
Quality	Provider competence	Average Health Facility Quality of Care Score/Quality Index of Health Services	22 (14.1)	Annually, Biannually, Quarterly	Survey, project records, checklist	PBF statistics RBF database NHFS DHIS2 Balanced Scorecard
		Staff demonstrating improved knowledge of [health issue/skill]	2 (1.3)	Annually	Survey	NHFS
		Services delivered according to national [protocols/guidelines]	7 (4.5)	Annually, Biannually, Quarterly	Survey, national report, project records	Baseline survey SDI survey MOH project roster managemen t
	Safety	[Municipalities/facilities] implementing health waste management [guidelines/policy]	4 (2.6)	Annually	Project records, national report	Project report Directorate of Public Health report
		Maternal deaths reviewed/audited [per year/among suspected maternal deaths]	6 (3.8)	Annually	Survey, project records	DHS Project report, PBF statistics
	First-contact accessibility	Proportion of outpatient visits at primary care level	5 (3.2)	Annually	Survey, HIS, community records	Household survey DHIS2 administrativ e data Community Health Service Agency
	Comprehensi veness	Health centers offering integrated management of childhood illness (IMCI)	3 (1.9)	Biannually	Checklist, survey	Supervision Checklist Facility Survey
	Coordination	Patients referred by [village/community] health workers	6 (3.8)	Annually	HIS, project records	HMIS PBF database
	Person-centered	Beneficiaries satisfied with quality of services provided in health facilities	14 (9.0)	Annually	Surveys, project records, national reports	Health facility assessment Client satisfaction survey

					International standard reports	MOH UNICEF, WHO reports
		Grievances related to delivery of project benefits that are addressed (number)	13 (8.3)	Annually	National reports	MOH Grievance registers
Coverage	Infectious disease	Number of children immunized	63 (40.4)	6 months, Annually, Every 3 years	HIS, Survey, national reports	HMIS, Health Sector Report, DHS DHSI2
		Children in [age group] vaccinated with Penta3	15 (9.6)	Every 3 years, Biannually, Annually	Survey, HIS, project records	SMART survey Cluster survey DHIS2 report from PBF statistics
	RMNCH	Infants exclusively breastfed up to 6 months	12 (7.7)	Every 3 years, Biannually, Annually	Survey, HIS	SMART survey, DHS KAP survey. DHIS2
		Number of [births/deliveries] attended by skilled personnel	59 (37.8)	Every 3 years, Annually, Monthly, Quarterly	Survey, HIS, national reports, project reports, facility records	HMIS DHIS2 MOH RBF Routine Data
	Childhood illness	Children receiving vitamin A supplementation	13 (8.3)	Annually	HIS	DHIS2 District survey Immunizatio n database
		Children treated for severe acute chronic malnutrition	6 (3.8)	Annually	Surveys, national reports, community reports, HIS	Cross-section surveys HMIS Community register MOH
	NCDs and mental health	[Increase in] patients screened for [hypertension/diabetes/ NCDs]	6 (3.8)	Annually, Quarterly	HIS, project records	MOH HIS project report
		[Number/percentage] of women screened for cervical cancer	8 (5.1)	Annually, Quarterly	Project records, HIS	Project roster administrativ e data Statistics report

						electronic health records
	Health promotion	Children who receive minimum acceptable diet/minimum dietary diversity	7 (4.5)	Annually, Biannually, Baseline, Midterm, & Endline	Survey	DHS KAP survey Provincial survey
	Disease prevention	People who have received essential health, nutrition, and population (HNP) services	80 (51.2)	Annually, Quarterly	HIS, Project reports, survey	PBF report DGHS DHIS2
Equity	Equity	PENTA3 coverage among [child population] in lowest income quintile	3 (1.9)	Not Specified	HIS	PDHS and administrative data
		Deliveries [in health facilities/attended by skilled birth attendant] in lowest income quintile	3 (1.9)	Annually	Surveys	DHS Impact evaluation endline survey
		[Population screened/receiving treatment] for NCDs—female	5 (3.2)	Biannually	Survey, HIS, national reports	Administrative data Household survey HMIS MOHP
		People who have received essential health, nutrition, and population (HNP) services—female	29 (18.6)	Annually, Quarterly	HIS, project reports, survey	PBF report DGHS DHIS2
		Project beneficiaries—female	26 (16.7)	Annually, Biannually, Quarterly	Project report, HIS, national report	DHIS HMIS program report MOF report
Outcomes	Health status	Percentage of children who are stunted	3 (1.9)	Annually	Surveys	HMIS, Household survey
		Smoking prevalence/tobacco consumption	2 (1.3)	Twice during project	Surveys, surveillance systems	STEPS Household surveys Telephone surveillance National risk factor surveys
		Percentage of adults with hypertension under control	5 (3.2)	Once	Surveys, national reports, HIS	ENDES STEPS MOH Analysis on medical records
		Pregnant women with anemia	2 (1.3)	Not specified	Not specified	Not specified
		Children with adequate weight gain	3 (1.9)	Monthly	Project records	Implementation report

Source: World Bank Project appraisal documents (PADs)

Innovative PHC Performance Indicators for Measurement of PHC Capacity, Financing, Access, and Data-Collection Methods

While several crucial dimensions of PHC performance are not commonly measured in HNP projects, they are not without precedent. A handful of HNP projects included innovative metrics for dimensions of PHC capacity, financing, and access that were not characterized by many or any common indicators across projects. These innovative metrics are further explored in this section.

Several HNP projects included metrics of PHC system capacity for evidence-based and transparent priority-setting. While the majority of PHC capacity measurement centered around system inputs, PHC policies, and the development of quality-management infrastructure, some projects did seek to measure other essential national capacities for high-quality PHC, such as assessment of population health needs, integration of evidence into priority-setting and decision making, knowledge-sharing across sectors, and transparency on PHC performance to the public. These indicators are included in **Table 6.**

Several projects also sought to measure local- and facility-level capacity for delivering high-quality PHC. HNP projects did include some precedent of measuring the ability of PHC systems to manage population health at the community level. For instance, certain projects measured the percentage of the population registered or empaneled in PHC practices, targeted outreach conducted through home visits and mobile clinics, community representation in local health service decision making, and implementation of local plans for healthier communities. Projects also included metrics relevant to PHC capacity at the facility level for high-quality PHC, such as the percentage of providers working in team-based care, the prevalence of health center management committees, and use of electronic health records for referrals to other levels of care.

Few HNP projects incorporated in-depth indicators capturing financial risk protection. While most projects measured the percentage of the population covered by certain financial protection mechanisms or the utilization of services among those covered, a small handful of projects included measurement of financial risk protection, such as those pertaining to changes in out-of-pocket health expenditure as a share of overall health expenditure or income.

Measurement of access through understanding patient experience has been limited, with just one relevant indicator identified. Measurement of access to PHC services must discern whether patients have affordable, timely access to a PHC facility that is geographically convenient. To understand barriers to access, consideration of the patient point of view in measurement is crucial. However, this has been very limited in HNP projects, with just one indicator identified that measured, through a patient exit survey, the average waiting time for an appointment at the primary care level. Thus, while several projects included metrics of access to

PHC services, there has been limited precedent of measurement of access by understanding perceived barriers through the lens of the patient experience of care.

Table 6: Examples of PHC Indicators Used in HNP Projects to Measure Underrepresented Components of PHC Performance, 2010–2020

VSP pillar	PHCPI framework domain	Corresponding PHCPI framework domain	Indicator	Data-collection methods	
				Frequency	**Source**
Capacity	Governance and leadership	Social accountability	Percentage of health facilities that displayed two previous quarter health HMIS statistics to the public.	Quarterly	PBF statistics
			Percentage of districts with completed and published data on national health programs indicators and facility-level performance (efficiency and accountability)	Annually	Review of published district report cards
			Percentage of Primary Health Centers participating in the social accountability pilots for which a service delivery assessment has been completed & at least one corrective action by govt.	Annually	Third-party validation of assessment reports
			LGAs that have implemented one or more community or social accountability mechanisms (scorecard, posting financial or performance information, complaint line, enhanced community participation in health facility governance or public opinion survey)	Annually	Survey
	Adjustment to Population Health Needs	Priority-setting	Participatory process evaluation conducted, and lessons are integrated in the annual work plan	Annually	Evaluation report including lessons learned
			Results of learning/evaluation from the project implementation are reincorporated into the project plan annually	Annually	Review of project plans
		Surveillance	Number of PHC facilities that pilot a new mechanism to collect patient experience information regularly	Annually	Patient experience questionnaire
		Innovation and learning	Number of peer learning events conducted (within and between districts and sectors)	Not specified	Not specified
			Pilots for social accountability and performance-based incentives designed, implemented, and evaluated	Annually	Facility survey, Citizen report cards for PHCs, Household surveys
	Population Health Management	Proactive population outreach	Number of villages in Zones 2 and 3 in which complete Integrated Outreach Sessions are conducted at least three times during the year	Semi-annually	DHIS2

			Percentage of households with children under age of two that were visited by CHWs to support infant and child nutrition practices	Annually	HMIS/ Program reports
			Mobile clinic coverage in high prevalence districts as indicated in annual district plans	Annually	Baseline and endline survey
			Cumulative percentage of target population personally invited to undergo colon cancer screening in five priority counties	Annually	PHC facility records
		Community engagement	Percentage of public health facilities in the project area with functioning management committees having community representation	Not specified	National report
			Percentage of health facilities with Boma/village health committees established and meeting at least twice every quarter	Once	MOH rreport
			Percentage of community members involved in planning and decision-making meetings: poorest community members	Not specified	Not specified
			Percentage of community-reported involvement in decision making	Biannually	National report
		Empanelment	Percentage of patients in the hypertension and diabetes registry tracked and managed by rural health facilities following standardized disease management protocols	Quarterly	Rural health facility registry, patient medical records
			Percentage of eligible population enrolled and assigned to a health facility, for continuous care ("empaneled")	Annual ly	Project Roster Management System
			Percentage of primary health care providers georeferenced and with a catchment area defined	Annually	Administrative data
			Percentage of population registered with FM teams	Biannually	MOH report
			Women referred by CHWs and registered at the health facility within 4 months of pregnancy	Annually	HMIS
		Local priority-setting	Number of project states in which "convergent nutrition action plans" have been developed by the district convergence committees in at least one district	Annually	Subnational reports
			Townships in which the Township Health Departments have prepared integrated and inclusive Township Health Plans	Annually	MOH reports
			Percentage of health facilities producing annual microplans validated by district health service	Annually	PBF portal
			Districts that implement the community health strategy	Annually	Subnational report

	Facility Organization and Management	Facility management capability and leadership	Proportion of health centers with functioning health center management committees	Biannually	RBF database
		Team-based care	Number of rural district hospitals/health centers with multidisciplinary teams in place	Biannually	MOH report
			Percentage of primary health care doctors working in group practices	Annually	Administrative records
		Information system use	Primary health care facilities submitting monthly report according to national guidelines	Annually	Project records
			Percentage of electronic referrals out of total referrals at pilot facilities	Quarterly	HMIS
		Performance measurement and management outreach	Facilities in the targeted networks using quality checklists	Annually	Progress report
			Number of states with performance management systems in place	Annually	Subnational reports
Financing	Financing	Financial coverage	Reduction in the share of households that experienced impoverishing health spending during the year	Every 3 years	Survey
			Reduction in out-of-pocket health expenditure as percentage of the total health expenditure	Annually	National Health Accounts Household survey
			Percentage of households with annual health expenditures in excess of 20% of total income	Annually	Survey
		Payment systems	Number of health centers participating in the PBF scheme with a signed contract with the Independent Verification Agency	Annually	PBF M&E
			Number of health facilities with PBF contract	Biannually	PBF MIS Official medical statistics
			Percentage of facilities that received PBF within 60 days of invoicing	Annually	Subnational reports
			PHC facilities participating in the PBF scheme supported by the project that reimburses for both quantity and quality of service	Monthly	Facility records
Access	Access	Timeliness	Waiting time	Annually	Patient exit survey

Source: Project appraisal documents
Notes: PBF = Performance-based financing; RBF = Results-based financing; M&E = Monitoring and evaluation; HMIS = Health Management Information System; MOH = Ministry of Health; CHW = Community health worker; FM = Facility Management; LGA = Local Government Area

Basic Characteristics of HNP Projects with PHC Indicators

Use of PHC indicators to measure different dimensions of PHC performance in HNP projects has varied significantly by region and country income classifications.

Measurement of PHC financing, quality, and coverage vary widely by geographic context.
Measurement of PHC financing ranges from 8 percent of projects in MENA to 45 percent of

projects in SSA. In addition, measurement of PHC coverage ranges from inclusion in 69 percent of projects in ECA to 100 percent of projects in MENA. Though less pronounced than the range of coverage and financing measurement across regions, variation was also observed regarding inclusion of PHC quality measurement. For instance, over 90 percent of projects in EAP, SAR, and MENA contained metrics of PHC quality, while the same could only be said for 68.8 percent and 60 percent of projects in ECA and LAC, respectively.

Measurement of equity is an outlier in the MENA Region. For all regions apart from MENA, less than 50 percent of projects include measurement of equity in PHC. However, in the case of MENA, all but one project approved over the past decade included at least one measure of PHC equity. **Figure 9** shows the percentage of HNP projects with PHC indicators by VSP domains and World Bank regions.

Figure 9: HNP Projects with PHC Indicators by VSP Pillar and World Bank Region

(Percent)
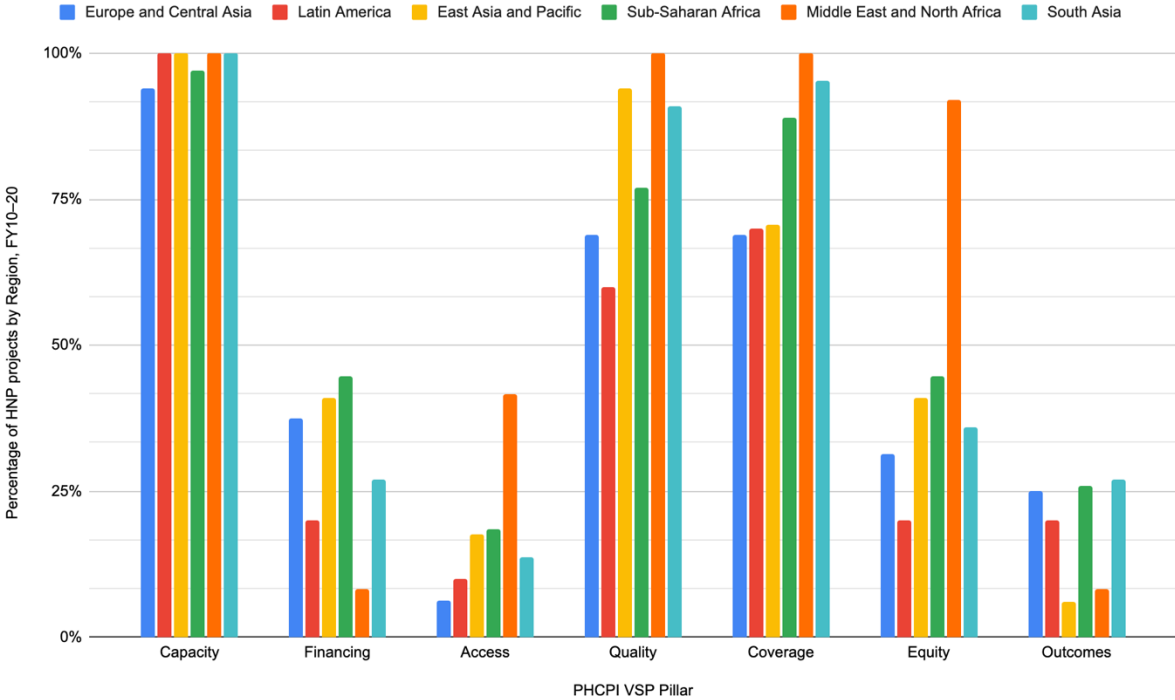
Source: Authors' calculations
Notes: PHCPI = Primary Health Care Performance Initiative; VSP = Vital Signs Profile.

PHC measurement has been most comprehensive in LICs. The percentage of projects that measure PHC access, financing, quality, and outcomes has been highest in LICs compared to projects in all other country income groups. There appears to be an inverse relationship overall between income classification and the use of financing, access, and outcome indicators in HNP projects, as their use decreases in countries with higher income classification. See **Figure 10**

below for the percentage of HNP projects with PHC indicators differentiated by the World Bank income bracket.

Figure 10: HNP Projects with PHC Indicators by VSP Pillar and World Bank Income Bracket (Percent)
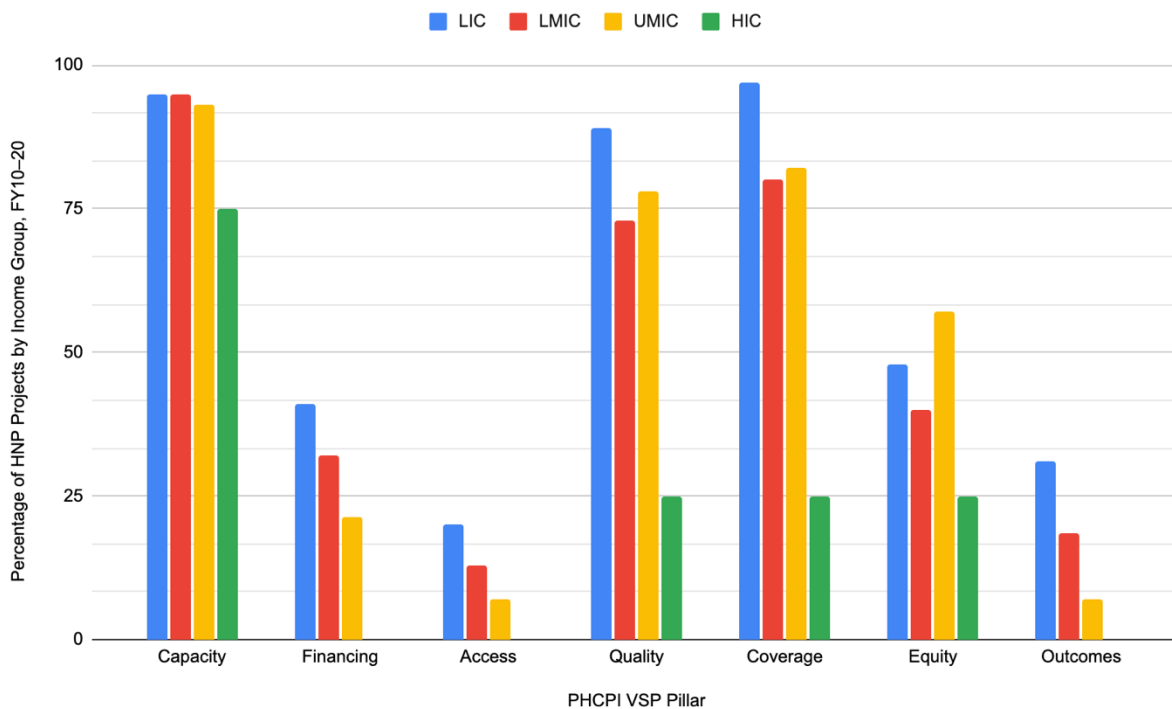
Absolute use of PHC indicators has increased over the past decade, while relative inclusion of PHC indicators has remained constant. The number of projects including PHC indicators for different pillars has increased slightly over the past decade, from 56 over the period of fiscal 2010 to fiscal 2014 to 86 over the period of fiscal 2015 to fiscal 2019. However, the relative use of PHC indicators has remained relatively constant and has declined for certain dimensions of PHC performance. Namely, a smaller percentage of projects over the latter half of the decade have included indicators to measure PHC access and equity. See **Figure 11** below showing the increase in the use of PHC indicators in HNP projects since 2010.

Figure 11: HNP Projects with PHC Indicators by VSP Pillar, FY 2010–FY 2014 and FY 2015– FY 2019
(Percent)
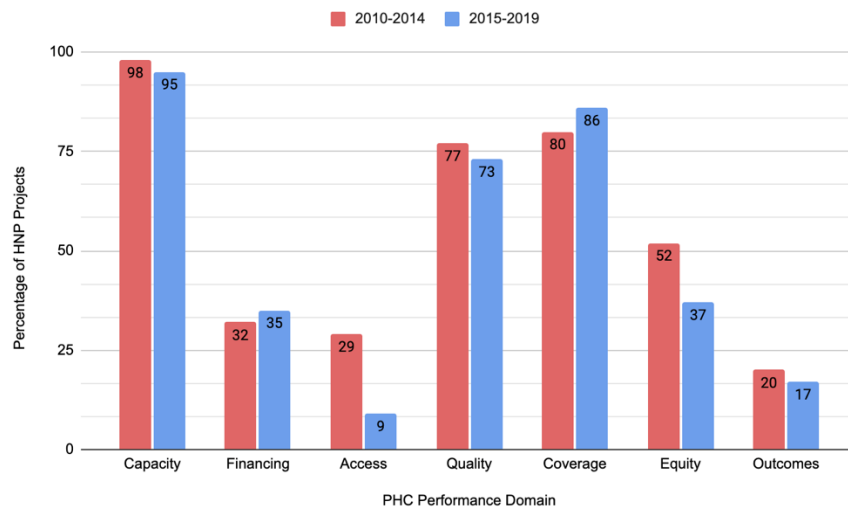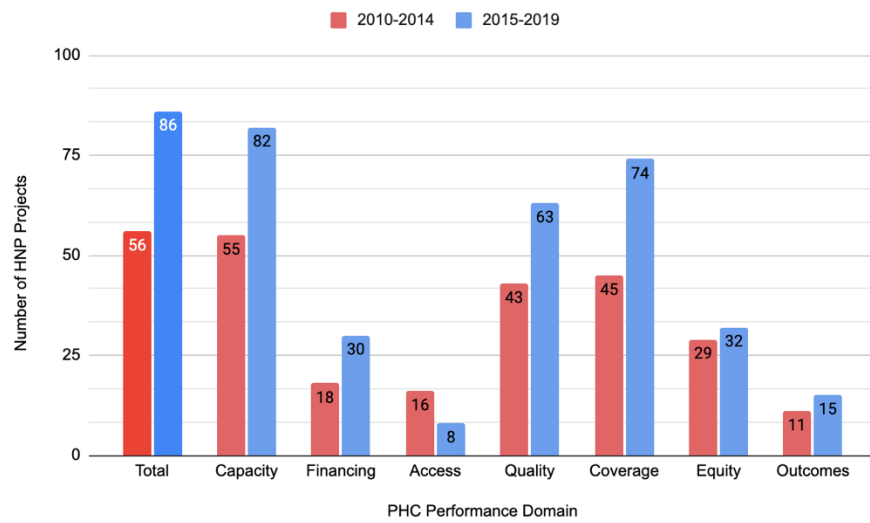
Source: Authors' calculations

For a full summary of PHC indicator utilization by region, income bracket, and fiscal year approval, see **Annex 6.**

PHC QUALITY OF CARE AND EQUITY MEASUREMENT IN HNP PROJECTS

In response to the major finding of the 2018 IEG evaluation that identified quality of care and distributional impacts of project activities as major measurement gaps in HNP projects, this section explores more nuanced trends in the use of indicators to measure PHC quality and equity in the HNP portfolio. Drawing on the classification of indicators by health issue areas, this section examines the use of indicators to measure quality and equity in the delivery of services for various

health conditions, such as infectious diseases, RMNCH, and NCDs, to further investigate gaps and opportunities for improvement in HNP measurement of these crucial dimensions of PHC performance.

PHC Quality Measurement

Measurement of PHC quality can be divided into two overarching categories: (1) measures of the availability of effective PHC services; and (2) measures of high-quality PHC. The former encompasses five subdomains that reflect the presence of a competent and motivated health care workforce in facilities that are positioned to deliver safe care and build a foundation of trust and respect with patients: provider availability, provider competence, provider motivation, safety, and patient-provider respect and trust. The latter of the two categories encompasses five core primary health care functions that underpin high-quality PHC service delivery: comprehensiveness, continuity, coordination, person-centeredness, and first-contact accessibility. See **Table 7** for a detailed breakdown of HNP projects with PHC quality indicators used to measure progress on PHC health issue areas, broken down by PHCPI framework domains.

Table 7: Number and Percentage of HNP Projects with PHC Quality Indicators Used to Measure Progress on PHC Health Issue Areas by PHCPI Framework Domain

PHCPI framework quality domain		Number of projects	Percentage of HNP portfolio, 2010–2020	Health issue areas addressed
Availability of Effective PHC	Provider availability	4	2.6	RMNCH
	Provider competence	9	5.8	Malaria, CVD, General NCDs, Nutrition, RMNCH, HIV/AIDs, Women's health
	Provider motivation	0	0.0	None
	Safety	4	2.6	Malaria, RMNCH
	Patient provider trust and respect	0	0.0	None
High-Quality PHC	Comprehensiveness	42	26.9	NTDs, TB, Mental health, Cancer, CVD, Diabetes, General NCDs, Nutrition, RMNCH, HIV/AIDs, Women's health
	Continuity	16	10.3	TB, Diabetes, General NCDs, RMNCH, HIV/AIDs
	Coordination	9	5.8	TB, CVD, Diabetes, Obesity, Wasting, RMNCH
	Person-centeredness	6	3.8	Mental health, General NCDs, Nutrition, RMNCH
	First-contact accessibility	0	0.0	None

Source: Authors' calculations
Notes: RMNCH = Reproductive, Maternal, Newborn, and Child Health; CVD = Cardiovascular disease; NCDs = Noncommunicable diseases; HIV/AIDS = Human immunodeficiency virus/Acquired immunodeficiency syndrome; NTDs = Neglected tropical diseases; TB = Tuberculosis.

Provider competence was the most common dimension of "availability of effective PHC" subdomain measured in HNP projects for delivery of care for specific health issue areas. Availability of effective PHC services is enabled by the presence of a highly trained, competent,

and motivated health care workforce that ensures patient safety and trust through adherence to best practices in clinical and nonclinical procedures. Overall, measurement of the availability of effective PHC services for specific health issue areas was relatively infrequent, as indicators were identified in just 11 percent of projects. Within this overarching category, projects measured provider competence most commonly (6 percent of projects), followed by provider availability (3 percent) and safety (3 percent). No projects were identified that measured intrinsic and/or extrinsic motivation of providers to deliver high-quality services nor patient-provider trust and respect for addressing specific health issue areas. Provider competence was measured in the delivery of services for several health conditions, including malaria, cardiovascular disease (CVD), and nutrition, and included metrics of provider knowledge, such as "Nutrition knowledge score for health workers in project districts" and adherence to clinical guidelines and protocols, such as "Percentage of hypertension patient charts with treatment according to protocol."

Just over one in four projects (27 percent) included indicators to measure the availability of services to meet specific health needs at the PHC level, strengthening an understanding of the comprehensiveness of services in PHC. High-quality PHC must be equipped to provide holistic care across a spectrum of health needs. In other words, PHC must be comprehensive. Indicators used in HNP projects to measure the availability of services spanned across a range of preventive, promotive, chronic, behavioral and rehabilitative services for different health conditions. For instance, projects measured the availability of screening services for conditions such as TB, cancer, hypertension, and diabetes. Projects also measured the availability of promotive and behavioral services for RMNCH and nutrition, including antenatal care, growth monitoring activities, and nutrition community support groups. Inclusion of indicators focused on single health issue areas alone does not necessarily reflect the comprehensiveness of services; however, understanding the availability of certain essential services, particularly those that have historically been underprioritized for delivery in PHC in LMICs, such as those for NCDs and mental health, adds an important dimension of understanding regarding the comprehensiveness of services available in PHC.

Approximately 1 in every 10 HNP projects in the past decade measured the continuity of care for PHC health issue areas. To deliver high-quality services, PHC must be able to deliver services across the continuum of care. For example, in the case of management of hypertension, patients must be screened, diagnosed, prescribed appropriate treatment and monitored continuously to achieve effective control of their hypertension. In HNP projects, measurements of care continuity looked at dimensions of care such as the continuation of antiretroviral therapy (ART) 12 months after initiation, the delivery of screening on a regular basis for cancer and diabetes, and the percentage of TB patients lost to follow-up. Regarding RMNCH, continuity indicators investigated the delivery of preventive services throughout the course of antenatal care, such as the delivery of three doses of intermittent preventive treatment of malaria in pregnancy, as well as the follow-up of women following delivery for postpartum care.

A handful (6 percent) of HNP projects measured the coordination of care for certain PHC conditions. High-quality PHC is embedded in a well-coordinated health care system that effectively refers patients to appropriate levels of care and communicates their needs across the system. Though to a lesser extent than comprehensiveness and continuity, a handful of projects measured coordination of PHC with different levels of the health care system. Measurement focused largely on the referral and subsequent receipt of services in PHC for those screened by community stakeholders (school nurses, nongovernmental organizations [NGOs], community health workers [CHWs]).

Finally, very few projects (4 percent) measured the person-centeredness of PHC for addressing certain health needs. A few projects encompassed metrics of patient satisfaction with specific PHC services, while no projects measured first-contact accessibility of PHC for certain health conditions.

PHC quality indicators identified were collected through a range of methods, illustrating the diversity of approaches to measure PHC quality. HNP projects that encompassed PHC quality indicators used a variety of methods to collect data, from nationally representative surveys to electronic medical record (EMR) data. For a compilation of salient example indicators used across projects to measure quality for specific health issue areas, along with data-collection methods used, see **Table 8.**

Table 8: Examples of PHC Quality Indicators Used to Measure Progress on PHC Health Issue Areas and Data-Collection Methods, FY 2010–FY 2020

PHCPI framework quality domain		PHC health issue area	Indicator	Data-collection methods	
				Frequency	Source
Availability of Effective PHC	Provider availability	RMNCH	[Number/Percentage] of deliveries assisted by trained health personnel	Biannually, Annually	HMIS
	Provider competence	Malaria	Percentage of Primary Health Facility Health Workers who have knowledge of IMCI key danger signs and main symptoms in malaria states	Annually	Survey (NHFS)
		CVD	Percentage of hypertension patients correctly diagnosed	Annually	HMIS, Survey
			Percentage of hypertension patient charts with treatment according to protocol	Biannually	Project records (PBF database)
			Percentage of people, identified as high-risk through screening, tracked and managed by rural health facilities following standardized protocols	Quarterly	Patient records, Facility records
		General nutrition	Nutrition knowledge score for health workers in project districts	Biannually	Survey
			Percentage of community health and nutrition workers achieving satisfactory score on the community Service Delivery Indicator (SDI) score	Baseline, Midline, Endline	Survey (SDI)
	Safety	RMNCH	Deliveries by C-section	Annually	HMIS
			Percentage of births delivered in high-capacity health facilities	Annually	HMIS
High Quality PHC	Comprehensive-ness	HIV/AIDs	ART treatment sites offering high quality services	Annually	National reports
			Health facilities offering high-quality HIV counseling and testing and referral services	Annually	National reports
		TB	Number of health facilities that provide TB diagnosis	Quarterly	National reports
			Percentage of Primary Medical Care Institutions (PMCIs) with capability for TB screening and referral	Annually	National reports

			The proportion of TB patients who have received drug-sensitivity testing (DST)	Annually	HMIS
		Cancer	Number of public health care facilities providing new services for early detection of colon cancer	Annually	Subnational reports
		Diabetes	Percentage of population age 35–68 screened for diabetes mellitus at PHC level at least once during the last 3 years	Annually	HMIS
			Scope and effectiveness of PHC traced through the share of diabetes medication initiated by PHC providers and proportion of adults (40+) receiving annual medical checkups	Annually	HMIS
		CVD	Percentage of population age 35–68 screened for hypertension at least once in the last year: (a) female; (b) male	Annually	HMIS
		General nutrition	Percentage of Medical Officer of Health areas with at least three health and nutrition community support groups	Annually	Subnational reports
	Continuity	HIV/AIDs	High-risk group (core) with known HIV status on ART for 12 months after initiating ART	Biannually	Project records
		TB	Percentage lost to follow-up of TB patients	Annually	HMIS
			Percentage of patients with drug-sensitive TB successfully completing treatment with daily regimen of fixed drug combination	Annually	HMIS
		Cancer	Proportion of eligible women between 25 and 64 years of age with regular cervical cancer screening following established norms	Annually	HMIS
			Percentage of women age 30–60 screened for cervical cancer at least once during the last 3 years and having received the results	Annually	HMIS
		Diabetes	Number of diabetic patients (type I and II) who received HbA1C test at least once a year in a public PHC facility	Annually	HMIS
		General NCDs	Percentage of screened adults with high risk for noncommunicable diseases who are registered and actively followed up at primary medical care institutions	Annually	National reports
		RMNCH	Percentage of pregnant women who received three or more doses of IPT during antenatal care	Annually	Survey
			Percentage of antenatal care (ANC) attendees screened for glycosuria, hypertension, and proteinuria in at least three antenatal visits	Annually	HMIS
			Proportion of adolescent girls delivering in facilities in the strategic purchasing program receiving post-partum family planning	Quarterly	National reports

			Deliveries that are followed by adequate postnatal care	Every 3–5 years	HMIS
	Coordination	Obesity	Percentage of children ages 5–12 years, screened as overweight through school nurse program, who are referred to and managed under a health promotion program	Biannually	National reports
		RMNCH	Women referred to antenatal care, postnatal care, family planning, or delivery by community health workers	Biannually	Project records
			Women referred by CHWs, who completed at least 3 antenatal visits at the health facility	Annually	HMIS
		Wasting	Severely malnourished detected children who are referred and received at the health center for all necessary visits	Quarterly	Facility records
	Person-centeredness	Mental health	Levels of perceived social support	Baseline and Endline	Survey
		General nutrition	Percentage of participating health facilities that receive a satisfactory rating from women and caregivers whose children received nutrition services	Biannually	Survey
		RMNCH	Percentage of women of reproductive age that are satisfied with the quality of RH care and services provided in public sector facilities	Annually	Subnational reports

Source: Project appraisal documents
Notes: RMNCH = Reproductive, Maternal, Newborn, and Child Health; HIV/AIDS = Human immunodeficiency virus/Acquired immunodeficiency syndrome; TB = Tuberculosis; CVD = Cardiovascular disease; NCDs = Noncommunicable diseases; IMCI = Integrated management of childhood illness; ART = Antiretroviral therapy; HbA1 = Hemoglobin A1 ; IPT = Intermittent preventive treatment; CHWs = Community health workers; RH = Reproductive health; HMIS = Health Management Information System; NHFS = National Health Family Survey; PBF = Performance-based financing.

PHC Equity Measurement

HNP projects primarily incorporated measurement of equity along gender lines. Though limited overall across the HNP portfolio, several PHC indicators were identified that measured PHC performance through an equity lens for specific health issue areas. First and foremost, projects measured distributional impacts of project activities along gender lines (8 percent of projects), which was accomplished by disaggregating indicators of PHC quality, coverage, and outcomes by gender. This includes the disaggregation of measures of hypertension screening, treatment and control, diabetes treatment, awareness of key NCD risk factors, Pentavalent vaccine (PENTA3) coverage, and growth monitoring. See **Table 9** for PHC equity indicators used to measure progress on PHC health issue areas and their corresponding data collection methods.

Table 9: PHC Equity Indicators Used to Measure Progress on PHC Health Issue Areas and Data-Collection Methods, FY 2010–FY 2020

Equity dimension	Number of projects	Percent of HNP portfolio, 2010–2020	Health issue areas addressed
Gender disparities	12	7.7	TB, mental health, CVD, Diabetes, General NCDs, Nutrition, RMNCH, Stunting

Targeting high-risk/Vulnerable populations	6	3.8	HIV/AIDS, General NCDs, Mental health, RMNCH, Nutrition, Women's Health
Wealth disparities	5	3.2	Infectious disease, CVD, Nutrition, RMNCH
Geographic disparities	8	5.1	Infectious disease, CVD, Nutrition, RMNCH, Stunting

Source: Project appraisal documents
Notes: TB = Tuberculosis; CVD = Cardiovascular disease; NCDs = Noncommunicable diseases; RMNCH = Reproductive, Maternal, Newborn, and Child Health; HIV/AIDS = Human immunovirus/Acquired immunodeficiency syndrome.

HNP projects have also established a very small precedent of disaggregating indicators by wealth quintile to understand socioeconomic disparities in service coverage and health outcomes. Incorporated into just 3 percent of projects, metrics identified include the disaggregation of PENTA3 coverage, hypertension control achieved, prevalence of underweight among children under five years old, and percentage of deliveries attended by skilled health personnel by wealth quintiles. However, for some indicators, performance was delineated by wealth quintile but not compared across quintiles, limiting the overall understanding of differences in performance along socioeconomic lines.

A few projects measured changes in performance among priority populations but did not compare across groups to facilitate a robust understanding of changes in performance from an equity perspective. Several indicators isolated from HNP projects sought to measure changes in performance among specific priority populations, such as a subset of "low-performing" districts or regions "with the poorest health outcomes (5 percent), or a certain vulnerable population, such as the Rohingya refugee population residing in Bangladesh or a population at high risk for developing a particular disease (4 percent). These metrics encompass a focus on vulnerable populations and thus reflect an equity lens in measurement; however, it should also be recognized that these indicators did not include a comparison group and thus provide a limited understanding of performance from an equity perspective.

Measurement of PHC equity has relied primarily on household survey data with limited examples of other potential data sources for monitoring health inequalities. Data sources used in LMICs to disaggregate data by relevant dimensions of health disparities have relied predominantly on household surveys, such as the WHO STEPS survey, Demographic Health Survey (DHS), Multiple Indicator Cluster Survey (MICS), and national risk factor surveys. Other potential data sources for monitoring health and health care inequities, such as civil registration and vital statistics systems, electronic medical records, and country surveillance systems have been less commonly used to measure inequity in HNP project M&E. For a compilation of salient example indicators used across projects to measure equity for specific health issue areas, along with data-collection methods used, see **Table 10.**

Table 10: PHC Equity Indicators Used to Measure Progress on PHC Health Issue Areas and Data-Collection Methods, FY 2010–FY 2020

Equity dimension	PHC health issue area	Indicator	Data-collection methods	
			Frequency	Source
Gender disparities	CVD	Adults with hypertension whose blood pressure is under control—disaggregated by gender	Baseline and Endline	HMIS
	CVD/ Diabetes	Percentage of patients in the hypertension and diabetes registry tracked and managed by rural health facilities following standardized disease management protocols, disaggregated by gender	Quarterly	Patient records

		Increase in the percentage of adult population screened and stratified by risk as per clinical protocols for hypertension and diabetes: (a) male, and (b) female	Quarterly	Patient records
	Diabetes	Number of diabetic patients (type I and II) who received HbA1C test at least once a year in a public PHC facility: (a) male, and (b) female	Annually	HMIS
	RMNCH	Number of children (0–11 months) in CXB District who have received three doses of pentavalent vaccines (disaggregated by gender, host, and DRP)	Not specified	Not specified
	Stunting	Percentage of children between 10 to 11 months with developmental follow-up chart (by gender)	Annually	HMIS
Targeting priority populations	HIV/AIDs	People in high-risk groups correctly identifying ways to prevent HIV and correctly reject misconception	Every 2 years	Survey
	General NCDs	Prevalence of tobacco consumption among vulnerable populations	Annually	Survey
		Prevalence of sodium consumption among vulnerable populations	Annually	Survey
		Percentage of screened adults with high risk for noncommunicable diseases who are registered and actively followed up at primary medical care institutions	Annually	National and subnational reports
	General nutrition	Characteristics of Rapid Results for Nutrition Initiatives (RRNI) teams: percentage of minority participation in all RRNIs	Annually	National reports
		Among the displaced Rohingya population, the number of pregnant women and lactating mothers reached with social and behavior change interventions on infant and young child feeding (annual)	Annually	Not specified
Wealth disparities	Infectious disease	PENTA3 coverage among children aged between 12 and 23 months in lowest income quintile	Not specified	Not specified
		PENTA3 coverage in each province between the lowest and the highest wealth quintile	Annually	Survey
	CVD	Adults with hypertension whose blood pressure is under control—disaggregated by gender and wealth quintile	Baseline and Endline	Survey (STEPs)
	General nutrition	Prevalence of underweight among children under 5 years of age among the lowest two wealth quintile groups	Every 3 years	Survey (DHS)
	RMNCH	Proportion of delivery by skilled birth attendant among the lowest two wealth quintile groups	Every 3 years	Survey (DHS)
Geographic disparities	Infectious disease	Percentage increase over baseline of children who have received DPT3 in nutrition convergence districts	Annually	HMIS (DHIS2)
		Fully immunized children 12–23 months of age— Average for 18 low-performing districts	Every 3 years	Survey (MICS)
	CVD	Percentage of eligible adults with hypertension that are diagnosed, in regions with poorest health outcomes	Not specified	Not specified
	General nutrition	Proportion of children 6–24 months of age in the 18 low-performing districts receiving the basic package of nutrition services	Annually	Project records
	RMNCH	Births attended by skilled health personnel— Average for 18 low-performing districts	Every 3 years	Survey (DHS, MICS)
		Contraceptive Prevalence Rate—Average for 18 low-performing districts	Every 3 years	Survey (DHS)

		Percentage of pregnant women who receive 4 antenatal care contacts in the 12 nutrition convergence districts	Monthly	HMIS (DHIS2)
	Stunting	Percentage of children age 0–24 months of age receiving the Nutrition Intervention Package (NIP) in 8 priority provinces with the prevalence of stunting of above 35 percent	Biannually	Survey

Source: Project appraisal document
Notes: CVD = Cardiovascular disease; HMIS = Health Management Information System; RMNCH = Reproductive, Maternal, Newborn, and Child Health; CXB = Cox Bazar; DRP = Demobilization and Reintegration Program; HIV/AIDS = Human immunovirus/Acquired immunodeficiency syndrome. NCDs = Noncommunicable diseases; HbA1C = Hemoglobin A1C; DPT3 = Diphtheria tetanus toxoid and pertussis ; DHS = Demographic Health Survey; DHIS2 = District Health Information Software; MICS = Multiple Indicator Cluster Survey.

PHC CONCEPTUAL AND MEASUREMENT GAPS IN PHCPI TOOLS

A review of HNP indicators that are relevant to PHC but did not fit the PHCPI Conceptual Framework and/or Vital Signs Profile (VSP) culminated in the identification of the following key conceptual and/or measurement gaps in PHCPI assessment tools: (1) awareness, attitudes, knowledge, and behaviors for health promotion; (2) nutrition; and (3) first-contact access and contact coverage.

Measurement Gap: Awareness, Attitudes, Knowledge, and Behaviors for Health Promotion

Health promotion is reflected as a pillar of effective service coverage in the PHCPI Conceptual Framework; however, it is not accompanied by performance indicators in the VSP. Strong PHC systems empower individuals to take charge of their own health by engaging in health-promoting behaviors. Several HNP projects included indicators that monitored changes in awareness, attitudes, and knowledge of health behaviors or changes in behaviors themselves, illustrating an area of measurement in HNP projects that PHCPI measurement tools are not yet poised to support. Behavior change indicators included in HNP projects primarily focused on changes in NCD risk factor behavior, early childhood nutrition, and sexually transmitted disease (STD) prevention. For a summary of indicators used in HNP projects to measure shifts in population awareness, knowledge, attitudes, and behaviors, along with data-collection methods used, see **Table 11**.

Table 11: Indicators Used to Measure Changes in Awareness, Attitudes, Knowledge, and Behaviors through Health Promotion Activities in HNP Projects and Data-Collection Methods, FY 2010–FY 2020

Dimension of change measured	Indicator	Data-collection methods		
		Frequency	Source	Example
NCD risk factors				
Awareness	Level of awareness among adults in key NCD risk factors (a) high blood pressure, (b) high cholesterol level, (c) high salt intake, (d) obesity, (e) high glucose level (disaggregated by gender)	Biannually	International standard report	WHO Health System Performance Assessment
	Percentage increase in awareness of linkage between habits and behaviors, and NCD risks (such as cardiovascular disease, cancer, diabetes, stroke) among public education and health care employees	Baseline and Endline	Survey	Not specified

Knowledge	Percentage change in share of the general population that can state two or more negative health impacts of selected risk factors of NCDs and substance use (disaggregated by gender)	Biannually	Survey	Household Health Survey
Awareness, Knowledge	Percentage of residents in Pen Fa'a Samoa districts with improved knowledge and awareness of NCD risk factors, disaggregated by gender	Annually	Survey	PEN Fa'a Samoa Screening Program and verification Survey conducted in intervention villages
Behavior	Reduction of the tobacco consumption prevalence in adults aged 18–64 years	Every 5 years, Annually	Survey	National Risk Factor Survey Telephone surveillance system
Behavior	Prevalence of sodium consumption among vulnerable population	Annually	Survey	National Risk Factor Survey Telephone surveillance system
RMNCH/Nutrition				
Knowledge	Knowledge and attitudes score related to nutrition (households)	Biannually	Survey	Cross-sectional household survey
Knowledge	Nutrition knowledge score for health workers in project districts	Biannually	Survey	Cross-sectional survey
Knowledge	At least 75% of caretakers of children 6–23 months of age with acceptable knowledge related to infant and young child feeding (IYCF) practices	Annually	Survey	Household National Nutrition and Health Survey (SMART)
Knowledge	Population, age 15 and older, who can correctly identify key SBCC messages on nutrition	Annually	Survey	Knowledge, Attitudes, and Practices (KAP) Survey
Behavior	Percentage of children 6–23 months of age who receive foods from 4 or more food groups	Baseline, Midline, Endline	Survey	Household survey
Behavior	Children 6–24 months fed in accordance with all three IYCF practices (food diversity, feeding frequency, consumption of breastmilk or milk)	Biannually	Survey	Cross-sectional survey at district level
STDs				
Behavior	Percentage of [migrant men who are workers/truckers/miners] with more than one partner in the past 12 months who used a condom the last time they had sex	Biannually	Survey	Second Generation Survey
	Sex workers using a condom at their most recent sexual encounter	Biannually	Survey	Second Generation Survey
	Percentage of female sex workers who report using a condom with their last client	Baseline, Endline	Survey	Integrated Bio Behavioral surveillance

Source: Project appraisal documents
Notes: NCD = Noncommunicable disease; RMNCH = Reproductive, Maternal, Newborn, and Child Health; SBCC = Social and Behavior Change Communication; IYCF = Infant and young child feeding.

Conceptual and Measurement Gap: Nutrition

Commonly measured in HNP projects, nutrition is not reflected in the PHCPI Conceptual Framework nor in PHCPI VSP indicators, indicating a conceptual and measurement gap in

PHCPI tools. Nutrition at the PHC level plays a critical role in prevention and health promotion activities that can reduce disease burden by helping to prevent illness related to dietary risk factors from development. Evident in several HNP projects was the inclusion of indicators that measure nutritional status throughout the life course, as detailed in **Table 12**. In addition, indicators commonly used to measure nutrition cut across critical areas of PHC and can also be found in Tables 10 and 12. Measuring nutrition is critical to PHC improvement, and PHCPI assessment tools should be modified to address this gap.

Table 12: Indicators Used to Measure Progress in Addressing the Nutrition in HNP Projects and Data-Collection Methods, FY 2010–FY 2020

Indicator	Data-collection methods		
	Frequency	Source	Example
Wasting			
Children under 5 years whose weight and height are monitored regularly.	Annually	HMIS	HMIS/Program reports
Percentage of children under 2 years who attend the GMP session.	Annually	HMIS	HMIS/Program reports
Number and proportion of children <3 enrolled in the growth monitoring and promotion program	Annually	HMIS	HMIS/Program reports
Proportion of children with Severe Acute Malnutrition (SAM) registered for treatment at stabilization centers in target districts	Annually	HMIS	Nutrition/MNCH-MIS DHIS
Number of Under-five children screened by MUAC in target areas	Annually	HMIS	Nutrition support Program/MIS
Stunting			
Percentage of children 6–59 months who are stunted	Every 2 years	HMIS, Surveys	HMIS SMART Survey Provincial survey
Percentage of children under-five suffering from childhood stunting	Annually, Periodic	Surveys	Provincial survey
IYCF practices			
Exclusive breastfeeding for children under 6 months	Every two years, Annually	Survey, HMIS	DHS, Mini DHS Ministry of Public Health and Social Assistance information systems Surveys when needed
Maternal nutrition			
Percentage of women in nutrition convergence districts receiving at least 90 iron folic acid tablets at last pregnancy	Monthly, Annually, Biannually	Surveys	DHIS2 Nutrition/MNCH MIS
Nutrition—General			
Number of people with access to a basic package of nutrition services (CBN), % female	Biannually	National reports, Survey	MOH DHS

Source: Project appraisal document
Notes: GMP = Growth monitoring and promotion; SAM = Severe Acute Malnutrition; MUAC = ; IYCF = Infant, young child feeding; HMIS = Health Management Information System; MOH = Ministry of Health; DHS = Demographic Health Survey; DHIS2 = District Health Information Software; MNCH = Maternal, Newborn, and Child Health; MIS = Management Information System.

First-contact accessibility is included as a core function of PHC in the PHCPI Conceptual Framework, but is not measured in the VSP. One of the five core functions of high-quality PHC, first-contact accessibility is an important dimension of PHC performance, as it distinguishes whether primary care services serve as the first point of contact between patients and the local health care system. Whether PHC acts as the first point of entry into the health system carries salient implications for the delivery of cost-effective services, as well as provides insights on public perceptions and trust of local primary care services. While first-contact accessibility is emphasized as a core function of high-quality PHC in the PHCPI Conceptual Framework, it is not accompanied by indicators to measure this function in practice. In contrast, 35 percent of all output indicators in HNP projects measure contact coverage—the total number of people receiving health services out of the target population. With the high proportion of HNP projects already containing measures of contact coverage, there lies an opportunity to leverage contact coverage as first-contact access indicators by comparing the utilization of select services in primary, secondary, and tertiary settings. For example, comparing the number of patients who were screened for hypertension at a local primary care clinic versus hospitals settings in a specific geographic region. Examples of first-contact access and contact coverage indicators for specific PHC services from HNP projects can be viewed in **Table 13.**

Table 13: Indicators Used to Measure Progress in Addressing the First Contact/Contact Coverage in HNP Projects and Data-Collection Methods, FY 2010–FY 2020

Indicator	Data-collection methods		
	Frequency	Source	Example
First-contact access			
Share of outpatient cases delivered at the primary health care facilities among the total outpatient services delivered in the country (including hospitals)	Monthly	HMIS	DHIS2
Proportion of outpatient care delivered by primary care facilities	Annually	HMIS	Administrative data from health facility report
Percentage of the targeted population with a health issue that seeks care in the first level of care	Annually	Household Survey	ENAHO
Number of outpatient visits to Primary and Community Health Centers and mobile vans per year, disaggregated by districts	Annually	HMIS	Administrative data
Ratio between primary health care/secondary outpatient care and hospital inpatient care services	Not specified	HMIS	HMIS
Contact coverage—NCDs			
Percent of target population screened for 3 types of cancer: (a) cervical, breast, colorectal	Annually	National reports	Cancer screening records
Percentage of population age 35–68 screened for diabetes mellitus at PHC level at least once during the last 3 years	Annually	HMIS	HMIS
Adults with hypertension receiving treatment	Twice during the program	Household Survey	STEPs Survey
Contact coverage—Nutrition			
Number of women and children who have received basic nutrition services	Annually, Quarterly	Project reports, HMIS	HMIS
Contact coverage—RMNCH			

Number of women and children who utilized health centers for RMNCH services	Biannually	HMIS	HMIS
Increased utilization of reproductive and child health services in priority districts	Biannually	Household Survey	NFHS
Utilization of maternal health care services is increased	Annually	Project records	DGHS Records

Source: Project appraisal documents

Notes: HMIS = Health Management Information System; NCDs = Noncommunicable diseases; RMNCH = Reproductive, Maternal, Newborn, and Child Health; NHFS = National Health Family Survey; DGHS = Directorate General of Health Services; DHIS2 = District Health Information Software; ENAHO = Encuesta Nacional de Hogares

DISCUSSION

By applying PHCPI conceptual and analytical tools to a review of the World Bank HNP portfolio from fiscal 2010 to fiscal 2020, this exercise adds to existing evaluations of HNP and PHC performance measurement by unearthing overarching trends, pinpointing strengths, and synthesizing areas for improvement in HNP measurement of PHC performance across measurement pillars of capacity, financing, access, quality, coverage, equity, and outcomes. The results from this analysis can be leveraged to drive improvements in measurement for learning and accountability within the Bank, as well as for PHCPI, and ultimately foster more effective measurement of PHC performance in LMICs. The remainder of this section delves into key takeaways and recommendations to improve PHC measurement in HNP projects.

PHC Performance Measurement Trends and Areas for Improvement in HNP Projects

Overall, the breadth of PHC indicators *across* the HNP portfolio was strong, with nearly all projects containing PHC indicators and a relatively high proportion of projects containing PHCPI VSP Indicators. However, a deeper dive into measurement trends revealed variation and gaps in the breadth of PHC measurement *within* HNP projects, as a relatively large proportion of all PHC indicators in HNP projects pertained to PHC capacity and coverage relative to quality, equity, financing, and access. Within the areas of capacity and coverage, the focus of indicators across projects were further concentrated into specific domains, such as workforce and measurement of service coverage for infectious disease and RMNCH services. The following sections explore each pillar of the VSP examined, apart from "outcomes" due to low relevance for attribution of improvement to project activities, to consolidate key trends identified and implications for improvement.

Pillar 1: Capacity

Measurement of PHC capacity has been characterized by a predominant emphasis on capturing PHC system inputs that alone have limited utility for learning and catalyzing evidence-based improvement. The high proportion of projects containing PHC capacity indicators is characterized by a significant inclusion of indicators measuring dimensions of inputs into PHC systems, with a particular emphasis on workforce indicators such as the "number of health care workers receiving training." The predominance of this approach within the Bank aligns with a broader PHC measurement issue in LMICs: the tendency to solely measure inputs, such as funds, human resources, medicines, facilities, and information systems and pay less attention to the interactions between providers, communities, and patients, along with the quality of services delivered (Bitton et al. 2017). While PHC inputs are important to track, this information alone does not provide the full picture for decision makers to understand bottlenecks in the

performance of PHC nor how best to improve based on monitoring and evaluation efforts. Therefore, it is important to ensure that input measures are linked and complemented with process and output measures to more accurately diagnose and address bottlenecks within the PHC system. For example, linking measures of provider inputs (number of providers, training) with process indicators pertaining to the quality of care, such as provider competence and provider motivation, would provide a more complete understanding of the downstream impacts of input-related activities.

HNP projects have not effectively leveraged measurement to assess system capacity to adjust to population health needs. As countries around the world continue to weigh difficult trade-offs in the face of limited resources on the road to UHC, robust health systems must be able to regularly assess population health needs, integrate relevant data into decision making for priority-setting, and institutionalize participatory mechanisms to encourage transparency and fairness in priority-setting decisions (PHCPI 2019a). Measurement of priority-setting mechanisms is essential to promote accountability and participation in PHC systems governance. Few HNP projects encompassed indicators focused on measuring PHC system capacity for promoting evidence-based and fair priority-setting processes. That said, a few important example indicators were identified in projects, such as those measuring the conduct of participatory process evaluations, the incorporation of evaluations into project planning, and the creation of a mechanism to collect patient experience information on a regular basis. Overall, however, the lack of measurement of PHC system capacity to adjust to population health needs constitutes a measurement gap that, left unaddressed, carries salient implications for realizing evidence-based and fair priority-setting processes for PHC improvement.

Measurement of local PHC capacity to effectively manage PHC services in facilities and reach patients in communities has also been limited, suggesting a gap in subnational PHC capacity measurement. This gap is apparent in the measurement of two dimensions of PHC capacity for strong PHC, as only a third of projects include "Facility Organization and Management" indicators, and less than half of projects contain "Population Health Management" indicators. In contrast to the relatively high inclusion of indicators measuring PHC capacity at the national level, the lack of measurement of these PHC domains indicates an HNP gap in measuring PHC capacity to deliver high-quality care in local settings.

Gaps in PHC capacity measurement reflect a broader challenge that may be mitigated by application of tools designed to measure these dimensions of PHC performance. PHCPI has previously identified the challenge of measuring important dimensions of PHC capacity through traditional performance indicators, leading to the development of the mixed-methods Progression Model. Drawing predominantly from document review and stakeholder interviews, the PHC Progression Model is used to populate the capacity pillar of the VSP and encompasses five domains: governance and leadership; adjustment to population health needs; inputs; population health management; and facility organization and management. As documented in this evaluation, the quantitative measurement of activities pertaining to three of these domains— adjustments to population health needs, facility organization and management, and population health management—appears to be relatively weak across HNP projects. This trend both further evinces the challenge of measuring these dimensions of PHC performance using performance indicators and alludes to an opportunity to strengthen measurement in HNP projects by applying the Progression Model approach for measuring these domains of PHC capacity.

Measurement of *effective* service coverage constitutes an area for improvement in HNP measurement of coverage. The three most common coverage measures identified in HNP projects from the past decade were "Number of children immunized," "Number of births/deliveries attended by skilled health personnel," and "Number of people who have received essential health, nutrition and population services. While it is vital to measure PHC coverage in output measures, understanding solely the number or percentage of individuals receiving a given service does not account for the quality of services delivered. Strong measurement of service coverage must capture both *contact* (the number of people receiving PHC services) and *effectiveness* (quality of PHC services).

HNP projects did include promising measures of effective service coverage for RMNCH services; however, the same could not be said for prevention and management of chronic conditions. A relatively high share of projects contained PHCPI VSP Indicators that measured effective service coverage of RMNCH (66 percent of projects) and infectious disease (41 percent of projects) services, such as "Coverage of DTP3 Immunization," "Antenatal Care Coverage of 4+ visits," and Demand for Family Planning Satisfied with Modern Methods." This inclusion of quality-adjusted indicators in HNP projects demonstrate that some HNP projects have adopted more complex and comprehensive indicators for measuring RMNCH and infectious disease effective service coverage. Conversely, HNP projects were characterized by limited inclusion of PHC effective service coverage indicators pertaining to childhood illness (21 percent), health promotion (19.0 percent), disease prevention (19.0 percent), and NCDs and mental health (12.8 percent).

Trends in inclusion of quality-adjusted PHCPI coverage indicators (or lack thereof) point to the importance of building upon established knowledge. The importance of measuring the general coverage of basic RMNCH and infectious disease services, such as the "number of children immunized" and "number of births attended by skilled health personnel" have become well-understood as key indicators of PHC performance (WHO 2018). This legacy of understanding means that the limitations of such measurements have also likely been explored and documented. This general grounding of knowledge provides a foundation for RMNCH measurement to be expanded upon and adopted, incentivizing more specific and comprehensive measures (PHCPI VSP Indicators) to be adopted to address these gaps. The same hypothesis helps contextualize the finding that no projects contained PHCPI VSP Indicators for the coverage of NCDs. With LMICs increasingly facing a growing burden of noncommunicable diseases requiring long-term management, the need to expand effective service coverage measurement to include NCD services, as well as health promotion and disease-prevention activities, is increasingly urgent. However, understanding of how best to measure performance for improvement in quality and coverage of NCD services is not as well-understood nor documented as knowledge of measurement for RMNCH and infectious disease services. This global measurement gap is reflected in PHCPI's tools, as there is only one PHCPI indicator measuring NCD-related services and thus the lack of PHCPI VSP indicators in HNP projects pertaining to NCDs reflects a double deficiency in both PHCPI tools and HNP project measurement that constitutes a key area of improvement.

The frequently used indicator, "number of essential HNP services" is an opportunity to promote the use of effective service coverage indictors through alignment with PHCPI indicators. Over half of projects from the past decade sought to measure the "number of people receiving essential HNP services. This indicator is a standard of practice for HNP projects and is a combination of up to 14 different services, many of which should be delivered at the primary care level. TTLs may choose only a proportion of the indicators to comprise "essential HNP services" depending on project scope and context. Many of the services included in the HNP essential services overlap with the services measured in PHCPI VSP Indicators, including antenatal care, family planning, tuberculosis, and malaria treatment. This preexisting alignment presents the opportunity to build synergies between PHCPI and HNP practice. In particular, the measurement of HNP services could be extended to capture effective service coverage. Specifically, PHCPI could present a series of proxy or additional measurements that build off the existing HNP essential services. These indicators would aim to enhance the current understanding of PHC performance measurement in projects already containing HNP indicators. An example of a current synergy exists in antenatal care. As the HNP indicator "pregnant women receiving antenatal care." While this is general measure of coverage, it does not illustrate additional dimension of quality compared to the PHCPI VSP indicator "Number of women receiving four or more antenatal consultation," which does. Thus, developing a more specific PHC performance measurement that expands upon widely used across HNP projects may lead to increased utilization and improve the actionability of PHC performance measurement. Additional opportunities to strengthen understanding of PHC coverage of essential HNP services through existing PHCPI coverage indicators are outlined in **Table 14**.

Table 14: Opportunities to Strengthen Measurement of Essential Health, Nutrition, and Population Coverage with Existing PHCPI Quality-Adjusted Effective Service Coverage Indicators

Essential HNP service indicator	Relevant PHCPI coverage indicator	Rationale for quality-adjusted coverage measurement
Number of children immunized	One-year-old children who have received 3 doses of diphtheria-tetanus-pertussis (DTP3) vaccine (%)	Immunization is essential for reducing under-five mortality.
Number of pregnant women who received antenatal care	Antenatal care coverage, four or more visits (%)	Receiving antenatal care at least four times, as recommended by WHO, increase the likelihood of receiving effective maternal health interventions during antenatal visits.
Women who received family planning services	Demand for family planning satisfied with modern methods among women 15–49 years who are married or in a union (%)	Use of modern contraception is a critical component of women's, maternal, and population health. This indicator serves as a proxy for population access to reproductive health services, particularly women's access, which are frequently delivered through the primary health care system and are essential for meeting many health targets.
Adults and children who have received tuberculosis treatment (WHO-recommended	TB cases detected and treated with success (%)	This indicator combines case detection rate with treatment success rate to estimate how well the system is detecting and successfully treating TB cases. Treatment success is an indicator of the

Directly Observed Treatment Short Course (DOTS)		performance of national TB programs. It also serves as a proxy for several aspects of successful service delivery within a health system, including diagnostic and treatment accuracy and the system's ability to capture and follow up with patients.
Adults and children who have received treatment for malaria	Population at risk sleeping under insecticide-treated nets the previous night (%)	ITNs are a form of personal protection that has been shown to reduce malaria illness, severe disease, and death due to malaria in endemic regions. In community-wide trials in several African settings, ITNs have been shown to reduce the death of children under 5 years from all causes by about 20%.

Source: World Bank, HNP Data

Notes: PHCPI = Primary Health Care Performance Initiative; HNP = Health, Nutrition, and Population; TB = Tuberculosis; ITN = Insecticide-treated nets; DTP3 = Diphtheria-tetanus-pertussis.

Pillar 3: Quality

HNP projects do carry a precedent of measuring quality in PHC system performance. Seemingly in contrast to the quality measurement gap identified in the 2018 IEG evaluation of the HNP portfolio, 75 percent of HNP projects from the past decade included at least one indicator that sought to measure the quality of PHC services delivered. These metrics were concentrated in understanding certain dimensions of PHC quality, including comprehensiveness of care, person-centeredness, and provider competence to deliver high-quality care.

Core functions of high-quality PHC, such as first-contact accessibility, continuity of care, and care coordination, were relatively underrepresented in HNP measurement, signifying gaps in comprehensive quality measurement. The low proportion of projects containing indicators in these domains demonstrate significant gaps in understanding across the service delivery continuum. First-contact accessibility, which refers to the capacity of a primary care system to serve as the first point of a patient's entry into the health system, is a defining characteristic of robust and efficient health systems (PHCPI 2019d). Failing to measure this in the care-quality continuum reduces the ability to discern whether PHC is serving as an effective gatekeeper and coordinator of care in the health system. Continuity of care is another essential dimension of high-quality PHC, referring to the long-term healing relationship between individuals and their primary care providers/care team over time (PHCPI 2019b). A lack of measurement of care continuity constitutes a salient knowledge gap for fostering high-quality PHC, as PHC is not meant to deliver one-off, curative treatments, but rather to systematically prevent and treat health problems over the life course. This has become even more salient in recent years with the growing burden of NCDs in LMICs that can and must be managed at the primary care level. Finally, measuring coordination of care across levels of the health system is essential to understanding how PHC is integrated within the larger context of the health care system (PHCPI 2019c). These three dimensions, along with comprehensiveness and person-centeredness, capture five core functions that underpin high-quality care and must all be measured to develop a comprehensive understanding of PHC quality.

A few promising examples in measurement of underrepresented dimensions of PHC quality were identified, though they were not common practice. A few projects included promising indicators that measured the continuity of primary care over time, including "High-risk group (core) with known HIV status on ART for 12 months after initiating ART," the "Percentage

of antenatal care (ANC) attendees screened for glycosuria, hypertension, and proteinuria in at least three antenatal visits" and the "Number of diabetic patients who receive at least one HbA1c test a year in a PHC facility." In addition, a handful of projects included salient indicators of coordination of PHC across health system levels, such as "Women referred who completed at least three antenatal visits at the health facility" and "Percentage of children ages 5–12 years, screened as overweight through school nurse program, who are referred to and managed under a health promotion program." These indicators demonstrate a small, but important example of more complex measurement of PHC quality in HNP projects that should be further built upon going forward and expanded to cover other dimensions of PHC quality, such as first-contact accessibility and person-centeredness of care.

Overall, despite advancements in recent years, persisting gaps in PHC quality measurement in HNP projects limit the ability to foster learning and accountability for high-quality PHC. Prioritizing quality measurement incentivizes quality across all levels of care. While World Bank projects are relatively short in length, averaging three to seven years, they present an opportunity to promote and engrain a culture of quality improvement through improved measurement, accountability mechanisms, and incentivization structures. Measuring dimensions of quality of care is a rapid expanding concept and has been incorporated into HNP projects over the past decade. However, it is important to ensure that all core functions of PHC for high-quality care, including first-contact accessibility, continuity of care, comprehensiveness of care, coordination of care, and person-centeredness of care are measured to fully understand and improve the quality of PHC services delivered.

Pillar 4: Equity

HNP projects have been characterized by limited consideration of well-documented correlates of inequity in PHC apart from gender. Indicators that were included pertaining to equity focused on gender first and foremost, followed by limited consideration of wealth quintile. In addition, a small number of indicators were identified in HNP projects that measured the impact of project activities by additional dimensions of health disparities, such as geographic location and among specific marginalized populations. However, these indicators were few and far between, and several did not include comparison groups to foster a robust understanding from an equity perspective. In addition, none of the indicators developed by PHCPI to monitor and benchmark equity in PHC access, coverage, and outcomes in LMICs were identified in HNP projects.

Measurement of health equity in PHC has relied heavily on household survey data. The capacity for data collection and availability is limited in many LMICs, often making household surveys the default source for monitoring of health inequalities (WHO 2013). The use of household surveys is characterized by certain advantages, as they are often the most reliable data source for healthy inequality monitoring in LMICs; produce rich data on specific health topics; and are often conducted in multiple countries, which allows for benchmarking. That said, household surveys are also characterized by certain limitations, including the inability to represent small subpopulations of interest and thus assess cross-district inequalities (WHO 2013). In addition, if surveys are not repeated over time and with consistent methods, their utility in decision making can be limited. Where other potential country-level data sources, such as facility records and surveillance systems, may be characterized by limitations, the Bank can integrate activities

to build more robust information systems that are capable of disaggregating relevant data to monitor care processes, outputs, and outcomes through an equity lens.

HNP must push the envelope for health equity measurement beyond the consideration of gender equity and support countries to build capacity for robust health equity monitoring. The lack of inclusion of PHCPI VSP Indicators pertaining to equity along with limited inclusion of equity metrics beyond the role of gender demonstrate a salient gap in an equity lens in HNP measurement. If left unaddressed, this gap may carry significant consequences in the ability of the Bank to best support client countries to identify and address inequities on the road to UHC. Measurement must be expanded to encompass the gamut of inequity correlates, such as wealth, urban and rural residence, age and education, ethnicity, displacement, disability, and stigma. In addition, the Bank must support countries to develop capacity for monitoring of these inequities, which can be accomplished through long-term investments in country-level health information systems.

Pillar 5: Financing

The scope of health financing indicators specifically focused on PHC is limited throughout HNP projects. Dimensions of health financing such as financial coverage, payment systems, and spending on PHC are at the core of achieving UHC. In many countries, poorly designed health financing mechanisms and payment models result in higher costs and impose additional costs on users (World Bank 2017). For example, insufficient funding will affect inputs necessary for effective service provision, while poorly designed payment mechanisms will disincentive providers to deliver continuous high-quality services, and insufficient government spending will result in low levels of financial coverage, forcing individuals to forfeit essential care or pay out-of-pocket (Angell 2019). Despite such pervasive impacts on access, quality, and coverage of services in primary care and beyond, little over a third of HNP projects included any indicator pertaining to health financing, including payment systems, financial coverage, and spending on PHC.

Measurement of financial coverage represents a particular area for improvement in HNP measurement. Apart from a select few projects, measurement of financial coverage in HNP projects commonly focused on the number or percentage of individuals covered by insurance or other financing mechanisms rather than on other salient indicators of health expenditure such as out-of-pocket expenditures, catastrophic health expenditure (CHE), or impoverishing health expenditure (IHE). While understanding changes in the number of individuals enrolled in financial coverage mechanisms is illustrative in terms of access to financial protection mechanisms, it is vital to also understand financial protection in action, particularly in preventing against CHE and IHE. Thus, the Bank should explore building on the very small precedent of projects that include these metrics to better measure financial coverage in HNP projects.

The lack of indicators capturing the design and use of PHC provider-payment systems suggests a huge gap in implementing and monitoring incentives. The type of provider-payment mechanism used in primary care settings is linked to service delivery quality. For example, fee-for-service payment models in which providers are paid based on the number of visits and services they provide have been shown to incentivize the overprovision of care compared to capitation-based payment models, which set an estimated amount per person based on estimated costs (Alshreef 2019). An example from a HIC compared the quality of hypertension

services, finding that providers paid through capitation-based payments were more likely to provide comprehensive treatment and control services (Tu 2009). Moreover, shifting payment models away from fee-for-service to full or blended capitation models will help LMICs to realign incentives and produce less waste as they move through the epidemiological transition toward higher rates of NCDs. Ensuring that provider-payment mechanisms are adequately measured will help to ensure that the PHC system is designed to deliver services in the most efficient and effective way, thus optimizing value for both patients and providers across the system.

Pillar 6: Access

Low levels of PHC access measurement reinforce a lack of focus on capturing the demand-side forces impacting projects. In the context of this review, PHC access is defined from the patient's point of view when trying to access care or at the point of care. Indicators that measured the three dimensions of access domains: financial, geographic, and timeliness, were sparingly used. There was only one PHCPI access indicator—"Perceived barriers due to distance"— identified within the past decade of HNP projects. Overall, this highlights a significant gap in demand-side considerations of PHC service coverage. PHC services may be delivered continuously and comprehensively, but the population will not achieve maximum benefits if barriers to access remain. Financial access represents one pillar of demand-side consideration for achieving universal health coverage. If individuals cannot pay for the cost of health services, they will either not access the service or pay an impoverishing amount for services. Geographic access, pertaining to significant barriers due to distance or terrain, is another vital determinant of demand for PHC, particularly in the context of many LMICs where a significant proportion of populations tend to live in rural areas. Timeliness, referring to the accessibility of primary care services with acceptable and reasonable waiting times and at convenient hours, comprises the third essential consideration for PHC demand. Ultimately, HNP projects measure access from a position of supply rather than demand as there was little to no precedent of measuring perceived barriers to access of services based on financial, geographic, or timeliness considerations, which limits the ability of projects to understand how to effectively improve demand for PHC services.

Reflections on PHC Measurement Trends—Health Data Systems and Capacity

Global assessment of health data systems and capacity highlights the limitations in data capacity that underpin measurement trends identified in this analysis. The recently published WHO *Global Report on Health Data Systems and Capacity* provides the first global assessment on country-level health data capacity and gaps (WHO 2020). Key findings from the report contextualize trends and gaps identified in comprehensive PHC measurement in this analysis. For example, the report identifies the percentage of countries around the world with available data to measure health facility–based indicators across 11 tracer conditions. The conditions with greatest available capacity pertained predominantly to infectious diseases; including TB treatment and antiretroviral coverage, and RMNCH services, including diphtheria-tetanus-pertussis (DTP3) coverage among infants, access to family planning methods, and four or more visits of antenatal care. On the other hand, measurement of services for chronic conditions, such as cancer diagnosis and mental health services, were less frequently measured globally. These trends in overall measurement capacity help contextualize trends identified in this report, as countries have greater overall capacity to measure RMNCH and infectious disease

services than those for managing chronic conditions. This inability to measure some services indicates the limitation in measuring the comprehensiveness of PHC service delivery.

The challenge of financial coverage measurement extends beyond HNP projects. The WHO *Global Report on Health Data Systems* found that 89 percent of countries globally currently track and report country-specific health expenditure data. However, the ability to measure specific indicators of health expenditure, such as catastrophic health expenditure (CHE), is much more limited, as only 40 percent of countries globally track this measure. This global measurement capacity gap aids in contextualizing the lack of financial coverage measurement in HNP projects and points to an overarching need to identify financing measures that are linked to PHC and support improved capacity for robust measurement of financial coverage in client countries.

A strong reliance on survey data in HNP projects is indicative of a broader gap in sustainable PHC measurement capacity in client countries that must be addressed. Many LICs rely on facility assessment surveys to track data relating to health care service delivery, as this type of data is typically not routinely collected. Examples of such surveys include the WHO's Service Availability and Readiness Assessment (SARA), Service Provision Assessment (SPA), and Service Delivery Indicator (SDI), and the newer Harmonized Health Facility Assessment Survey (HHFA). The WHO *Global Report on Health Data Systems and Capacity* identified that over half of LMICs do not have adequate systems in place to monitor service availability, quality, and effectiveness. This highlights the reality that the challenge in measuring the delivery of health services is not just limited to the World Bank but is rather a common problem across many LICs and LMICs.

The World Bank is in a unique position to enhance the sustainability of PHC measurement through investments in country data capacity. Using the right indicators is just one component of PHC monitoring and evaluation for improvement. As demonstrated in this analysis and contextualized by global reporting of data capacity, there is a significant need to support client countries for long-term improvements in PHC measurement, such as through investments in Health Management Information System (HMIS) strengthening and integration of surveys such as the Service Provision Assessment (SPA), Service Availability and Readiness Assessment (SARA), Service Delivery Indicators (SDI), and Harmonized Health Facility Assessment Survey (HHFA). Further, the Bank must also focus on training local staff and government to properly track and monitor the necessary data, but also how to interpret and act on the information collected. Integrating data-collection–capacity-building as a part of monitoring and evaluation in projects will help to better align long-term objectives of partner countries and promote sustainability within health care systems.

Reflections on PHC Measurement Trends—Commitment to Robust PHC Measurement

While limitations in data-collection capacity help to contextualize measurement gaps identified in HNP projects, there are additional variations in PHC performance measurement that point to varying commitment to comprehensive PHC measurement in HNP projects.

There is demonstrable regional variation in commitment to PHC performance measurement in the HNP portfolio. Essential pillars of comprehensive PHC measurement are those that are outlined by the PHCPI Vital Signs Profile: capacity, access, financing, quality,

coverage, and equity. This analysis revealed wide regional variation in the comprehensiveness of PHC performance measurement by these essential pillars. For instance, while measurement of PHC capacity has been relatively consistent across all regions, Latin America and Caribbean and Europe and Central Asia Regions show low relative inclusion of indicators measuring PHC access, quality, coverage, and equity in HNP projects compared to other regions, such as Sub-Saharan Africa and Middle East and North Africa. Regional variations persist in the inclusion of PHCPI VSP Indicators, with PHCPI quality and coverage indicators more commonly identified in projects implemented in Sub-Saharan Africa.

Commitment to comprehensive PHC performance measurement has been concentrated in countries commonly considered to face the greatest economic and resource constraints. This analysis revealed a higher relative focus on comprehensive measurement of PHC performance among low-income countries compared to middle- and high-income countries. Namely, most HNP projects conducted in low-income countries incorporated indicators of PHC access, financing, and quality relative to projects conducted in countries with richer economies. This pattern was echoed in the inclusion of PHCPI VSP Indicators of quality and coverage, which were concentrated in LICs followed by LMICs. The relative concentration of comprehensive PHC performance measurement in HNP projects conducted in LIC and LMIC contexts, which are on average characterized by greater constraints on information systems and resources for monitoring and evaluation, begs the question of the origin of the bottlenecks in PHC performance measurement. Namely, comprehensive PHC performance measurement does not appear to be limited just by country resources but perhaps by other administrative or operational practices in HNP measurement.

Ultimately, trends identified in HNP projects demonstrate that comprehensive PHC performance measurement can be accomplished even in the face of limitations in capacity, resources, and expertise. For example, Investing in RMNCH (Senegal 2020) is an example of a project in a LMIC context that contains a wide range of PHC performance measurements. The project contains a series of Systems, Inputs, Service Delivery, and Outputs indicators measuring aspects of PHC performance from health financing to effective service coverage. Commitment to developing and incorporating robust indicators of PHC performance pertaining to capacity, financing, access, quality, coverage, and equity is of paramount importance for improving measurement for strong PHC systems. HNP projects from the past decade demonstrated both promising practices and future areas for improvement in comprehensive PHC measurement.

PHCPI Tools Should Expand to Meet the Measurement Needs of PHC Challenges

This review is the first time that the conceptual framework has been used retrospectively to evaluate and compare multiple sets of projects, revealing that the products are extremely useful and actionable, but improvements could be made to enhance their value. The inclusion of indicators pertaining to nutrition, behavior change, and first-contact coverage would enhance PHCPI's ability to identify bottlenecks and improve the overall performance of the PHC system.

Strengthening the link between primary health care and nutrition starts with adequate measurement. It is well-established that a comprehensive primary health care system is well-positioned to serve as a link between nutrition and UHC agendas as they both require multisectoral action, community involvement, and a life course based on delivery of evidence-

based preventive and curative health care integrated with public health services (Declaration of Astana 2018; WHO 2014). Across HNP projects, PHC indicators for integrated monitoring and evaluation of nutrition-related outcomes were a frequent practice. The use of indicators that measure the "Number of women who receive IFA (Iron Folic Acid) supplementation" and the "Number of children who are exclusively breastfed or stunted or wasted" demonstrated the Bank's effort to sufficiently account for effective coverage of these services in HNP projects conducted over the past decade. However, while there was substantial use of indicators to measure maternal health across Bank projects, the focus is still within a very narrow scope of RMNCH. Additionally, without a distinct representation of these vital issue areas in the core PHCPI measurement tools, adequate recognition of gaps and subsequent improvement will be limited.

Health behavior change is crucial to realizing the PHC vision of empowered people and communities, and HNP projects have made innovative strides to ensure its measurement in the past decade. Relevant indicators identified across HNP projects reflect effective service coverage of health promotion activities such as reduction of tobacco consumption prevalence and level of awareness of key NCD risk factors, such as hypertension, high salt intake, and obesity among adults. These indicators promote accountability for changes in prevention and health promotion at the societal, community, and individual levels and provide food for thought for the integration of relevant indicators into PHCPI analytical tools.

Coverage must be measured along a continuum to facilitate a robust understanding of bottlenecks and areas for improvement. For PHC to effectively meet 80 percent of population health needs, the following must hold: (a) the population utilizes primary care services; (b) primary care services serve as the main platform for the receipt of essential services; and (c) the population receives high-quality essential services in primary care. These three conditions capture the conceptual dimensions of contact coverage, first-contact access, and effective service coverage, respectively. Measurement of these distinct dimensions of coverage can elucidate whether poor outcomes can be attributed to low overall utilization, the inefficient delivery of services at higher levels of care, and/or receipt of low-quality services in primary care. In measurement of coverage, HNP projects carried a predominant focus on measurement of contact coverage and first-contact access, which differs from PHCPI's focus on measurement of essential service coverage. Measurement of contact coverage and first-contact access should be expanded in PHCPI tools to develop a more robust understanding of bottlenecks and areas for improvement in PHC coverage.

ANALYTICAL IMPLICATIONS—IMPROVING POLICY AND PRACTICE

Opportunities for the Bank to Strengthen PHC Measurement over the Next Decade

1. **Address measurement gaps identified in this analysis by integrating evidence-based best practices in PHC measurement into HNP projects.** Namely, PHC measurement in HNP projects can be strengthened in the following ways:

   - **Ensure PHC measurement in projects reflects an underlying "theory of change."** All results frameworks and theories of change should be developed using a cascading approach such as the model of Systems, Inputs, Service Delivery, Outputs, and Outcomes offered by the PHCPI Conceptual Framework System or simplified models

like the Donabedian framework, which distinguishes measures of health service performance along a structure, process, outcome continuum (Berwick and Fox 2016). Measurement of project results should subsequently align along the continuum of the underlying theory of change to facilitate comprehensive PHC measurement and the opportunity to more effectively identify bottlenecks in project results.

- **Incorporate measures of financial protection, such as impoverishing health expenditure (IHE) and catastrophic health expenditure (CHE), into project results frameworks and theories of change.** Particularly in projects aiming to improve health financing for UHC, measurement of changes in financial coverage are essential. Further, integrate monitoring of payment models, including linking provider-payment mechanisms such as fee-for-service, capitation, or salaries to outcomes, and measurement of the source of funding to understand differences in health service coverage, access, and quality between the public and private sectors.

- **In the measurement of PHC coverage and outcomes, account for quality of services covered and the distributional inequities in progress realized, such as those across gender, socioeconomic, geographic, and racial/ethnic lines.** Understanding the number of individuals receiving PHC services, which is predominant in HNP projects, cannot alone serve as a proxy for discerning whether services covered are of adequate quality to improve population health or whether there are persisting systematic inequities in PHC performance. Incorporating considerations of quality and equity into measures of coverage is vital to develop a robust understanding of gaps in PHC performance. Disaggregating outcome measurements across vulnerable populations and sociodemographic characteristics will provide a richer understanding of the true effectiveness and reach of PHC services to populations with the greatest health needs.

- **Demystify the "black box" of PHC service delivery that translates PHC inputs into effective outputs by integrating measures of the structures and processes that facilitate high-quality care**. These indicators, which can be drawn from the repository of PHCPI quality indicators and are highlighted through illustrative examples in this report, pertain to both the availability of effective PHC services and the five core functions of high-quality PHC.

- **Account for demand-side barriers to PHC service access in PHC measurement.** Even the most robust improvements to the supply of high-quality PHC services will not translate into improvements if demand remains limited due to structural barriers. Measurement can and must be leveraged to understand the patient experience in accessing high-quality services, including geographic, financial, and timely accessibility of care.

- **Advocate for the creation of a corporate mandate on PHC measurement within the World Bank.** The high proportion of gender-equity indicators is most likely attributable to the World Bank Group Gender Strategy (FY 2016–FY 2023). This strategy has embedded the equity measures of gender into projects, and a similar approach could be used for PHC. Specifically, the corporate mandate could work to

leverage PHCPI's existing expertise and work to include a series of core PHC indicators in specific HNP projects.

2. **Support countries to improve critical health information system infrastructure to realize long-term improvements in PHC performance measurement.** The need to leverage measurement for short-term learning needs in HNP projects should not supplant long-term investments in data and health information system capacities that are essential for effective and sustainable PHC performance measurement in client countries. To realize sustainable improvements in PHC measurement, Bank projects can do the following:

- **Include project activities to optimize the collection and use of health service data at the country level, including improvements to civil registration and vital statistics (CRVS) systems, routine facility reporting systems, and regular monitoring systems of service availability, quality, and effectiveness.** Also, projects can ensure that countries have the capacity to track health expenditure through the Health System of Accounts (HSA).

- **Complement long-term investments in robust country-level health information systems capabilities with support to high-quality, internationally comparable health facility surveys,** such as the Service Delivery Indicator (SDI) survey, the Service Availability and Readiness Assessment (SARA) survey, the Harmonized Health Facility Assessment (HHFA) survey, and the Service Provision Assessment (SPA) survey, that can help to ascertain PHC performance on a shorter-time scale. Surveys should be embedded as project activities.

- **Ensure that project results frameworks incorporate both medium- and long-term objectives of the partner countries and use quality-driven measurements to achieve this.** Particularly, the use of quality-adjusted metrics of PHC coverage, such as those devised by PHCPI and included to some degree in HNP projects over the past decade, provides the opportunity for the health care system to incentivize and reward quality over other dimensions of service delivery such as utilization.

- **Support investments in health information systems with necessary training and capacity-building to ensure that data collected can be effectively translated into information to drive decision making**, both in policy and governance of PHC and in clinical quality improvement at the primary care–facility level.

- **Develop a series of PHC indicators to measure the adoption and use of innovative practices, with a particular focus on digital health**. Digital health solutions can improve the functionality and usefulness of patient data through better electronic health records, improving the management of patients over their life course. Also, the digitization of health systems, including at the PHC level, can be a key trend in post-pandemic reforms. For example, countries such as Israel and Vietnam have benefitted greatly from previous investments into digital health—such as electronic health records and telehealth—before and during the COVID-19 pandemic.

3. **Make more effective use of existing and emerging analytical tools to inform comprehensive PHC performance measurement in HNP projects**. A number of evidence-based analytical tools have been developed to facilitate comprehensive PHC

measurement for improvement. These tools could be more effectively leveraged to inform strategic measurement in HNP projects in the following ways:

- **World Bank task team leaders (TTLs) and country partners can work with PHCPI to assess strengths and bottlenecks in current PHC performance and measurement capacity in the project-planning process.** PHCPI has developed robust, evidence-based tools for PHC performance assessment, including the mixed-methods PHC Progression Model and Vital Signs Profile assessment. These tools can be applied in HNP client countries to strategically inform HNP investments for strengthening PHC. In addition, the participatory nature of PHCPI assessment can be a strategic starting point for enhancing stakeholder collaboration for PHC improvement that will by synergistic with project planning. PHCPI can also be called upon to offer technical assistance on effective PHC measurement practices in HNP projects.

- **Project TTLs and other stakeholders involved in project design can learn from promising measurement practices developed in previous projects to measure PHC performance by way of the HNP indicator database developed by PHCPI.** The database developed and analyzed for this exercise, which includes all indicators from HNP projects over the past decade, will be made available as a practical tool to share knowledge on measurement practices in HNP projects. Indicators in the database will be searchable by several functions, including which dimension of PHC performance they measure according to the PHCPI Conceptual Framework, which health issue area they pertain to as outlined in **Annex 3,** and other relevant PHC themes they address as outlined in **Annex 4.**

- **Leverage the WHO Primary Health Care Monitoring and Evaluation (PHCME) framework and accompanying performance indicators to align the inclusion of HNP measurement approaches with comprehensive and internationally comparable PHC performance metrics.** The framework, which is in the final stages of development, synthesizes knowledge, evidence, and experiences of PHC monitoring and evaluation across several international organizations, academic institutes, national ministries of health, and local stakeholders collected over the past five years since the initial publishing of the PHCPI Conceptual Framework. As PHCME indicators will be regularly collected from member countries in the years to come, the framework presents a strategic starting point for the consideration of PHC indicators to include and build upon in HNP project monitoring and evaluation.

Limitations

The first limitation is the reliance on indicator definitions at face value in mapping to relevant domains of PHC performance. While not the case for all projects, several project PADs did not include additional information on how certain indicators in the Results Framework were calculated, and thus many measures had to be interpreted by relying solely on the text of the indicator alone. A lack of available information on indicator definitions may have dulled some of the nuance in understanding the distinct domains of PHC measured by certain indicators, such as distinctions between the five core functions of high-quality PHC; however, it is unlikely that this

information would pose a significant difference in overall PHC domain trends observed or alter the classification of indicators across different pillars of the VSP.

Another key limitation of this analysis is the inability to distinguish the true nature of measurement gaps identified. Namely, because this analysis focused in-depth on measurement without integrating consideration of project activities, it is not possible to discern whether measurement gaps identified reflected a lack of project activities pertaining to a particular dimension of PHC performance or rather a gap in the measurement of relevant project activities. Thus, a gap reflected in this analysis might not necessarily mean that projects have not invested in improving these dimensions of PHC. However, whether due to a lack of project activities or measurement of those activities, measurement gaps identified still reflect overall ability of the Bank to catalyze learning and accountability for improved performance of PHC and thus are important to highlight, as is done in this analysis.

A final limitation of this study that must be accounted for is that this analysis did not consider additional analytical work conducted to support client countries. Thus, important technical assistance aimed at supporting improvements to PHC measurement that may be encompassed in analytical and advisory products are not reflected in the findings from this report. Despite these limitations, results from this exercise provide a sense of the breadth and depth of PHC measurement in HNP projects over the past decade and offer crucial lessons for future improvement.

CONCLUSION

Historically, PHC measurement has been characterized by key limitations in LMICs, including little health system data capacity and reliance on metrics of PHC system inputs and outputs, which alone cannot catalyze action for improvement of PHC performance. By applying PHCPI tools to a review of the HNP portfolio over the past decade, this analysis identified that, to a certain extent, these limitations persist in the use of measurement for PHC improvement in World Bank lending projects over the past decade. That said, this analysis also identified promising practices in the measurement of PHC capacity, financing, access, quality, coverage, and equity in HNP projects. These trends reflect a growing commitment within the Bank to the comprehensive measurement of PHC performance; however, there is much left to be done to effectively leverage measurement for results. For one, the Bank must ensure that the Results Frameworks reflect an underlying theory of change and commit to comprehensive measurement of PHC performance beyond measurement of inputs and outputs alone. In addition, the Bank should further support countries to develop capacity for the meaningful conduct of data collection, analysis, and translation into decision making in both the short and long term for PHC improvement. The last decade has seen a proliferation of tools, including those developed by PHCPI and applied in this analysis, that can be effectively leveraged to guide the integration of measurement for improvement into HNP projects. Ultimately, commitment to measurement reflects a commitment to learning, accountability, and results, in Bank projects and beyond. Future projects must build on existing momentum and bridge persisting gaps in measurement to best support countries in their efforts to strengthen PHC and expand universal health coverage.

ANNEXES

Community engagement. The inclusion of local health system users and community resources in all aspects of design, planning, governance, and delivery of health care services.

Comprehensiveness. Refers to the provision of holistic and appropriate care across a broad spectrum of health problems, age ranges, and treatment modalities. Comprehensive care should address a wide range of preventive, promotive, chronic, behavioral, and rehabilitative services and include an assessment of a patient's risks, needs, and preferences at the primary care level.

Continuity. Refers to a long-term healing relationship between a person and his or her primary care provider or care team over time.

Coordination. Involves managing and integrating care across levels of the system and across time to ensure patient information is communicated at the right time and to the right people to facilitate the delivery of safe, appropriate, and effective care.

Drugs and supplies. This measures the availability of essential medicines, vaccines, and commodities. It also includes measures of essential equipment, such as scales and thermometers.

Empanelment. A continuous, iterative set of processes that identify and assign populations to facilities, care teams, or providers who have a responsibility to know their assigned population and to proactively deliver coordinated primary health care toward achieving universal health coverage.

Facility infrastructure. Captures the actual availability of facilities, including numbers of facilities, the mix of facilities (health posts and health centers), and the distribution of facilities, both public and private, throughout the country.

Facility management capability and leadership. Refers to the capabilities of managers and leaders within a facility.

Financial access. Means that there are no or few cost barriers to receipt of care, including prohibitive user fees, out-of-pocket (OOP) payments, or other costs associated with care-seeking such as transportation or childcare costs.

First-contact accessibility. Refers to the capacity of a primary care system to serve as the first point of contact, or a patient's entry point to the health system and main coordinator of care, for the majority of a person's health needs.

Funds. Pertains to the availability of funds at the facility level, looking at the ability to address recurrent and fixed costs incurred at the facility level.

Geographic access. The absence of barriers including distance, transportation, and other physical challenges in accessing care when needed.

Health financing. Addresses the efficacy of health systems to (1) mobilize adequate funds for health to ensure access to PHC in a financially sustainable manner; (2) provide protection from catastrophic financial expenditure on health leading to impoverishment; and (3) ensure equitable and efficient use of resources.

Information systems. An overarching term that refers to the systems used for collecting, processing, storing, and transferring data and information that is used for planning, managing, and delivering high-quality health services.

Information systems use. The effective utilization of existing information systems and the data they produce at the facility level to coordinate care, monitor performance, and drive management.

Innovation and learning. A characteristic of a health system that enables flexibility and iteration to continuously improve services and ultimately drive improved health outcomes. The goal of innovation and learning is to stimulate and make use of new and existing evidence, research, and data and to adapt and incorporate these learnings into changes at scale.

Local priority-setting. The process of identifying health priorities specific to the local community and developing action plans informed by community needs as well as national or regional priorities.

Patient-provider respect and trust. Refers to a relationship between patients and providers that is mutually respectful and trusting.

Performance measurement and management. Encompasses systems for monitoring performance and managing through implementing improvement strategies within facilities.

Person-centered care. Involves engaging with people as equal partners in promoting and maintaining their health and assessing their experiences throughout the health system, including communication, trust, respect, and preferences.

Population health management. An approach to primary health care (PHC) provision that integrates active outreach and engagement with the community in care delivery.

Primary health care (PHC) policies. Decisions and plans undertaken by governments with input from other stakeholders to achieve specific health care goals. PHC policies promote, support, and establish system orientation, financing, inputs, and service delivery mechanisms to ensure quality and improve and develop PHC functions and outcomes.

Priority-setting. The process of making decisions about how best to allocate limited resources to improve population health. Effective priority-setting addresses differing interests and motivations through a clear process focused on the use of evidence, transparency, and participation to identify the most appropriate programs and interventions to address population health needs.

Proactive population outreach. The active provision of care in homes or communities rather than exclusively in facilities.

Provider availability. The presence of a trained provider at a facility or in the community when expected, and providing the services as defined by his or her job description.

Provider competence. Entails having and demonstrating the "knowledge, skills, abilities, and traits" to successfully and effectively delivery high-quality services.

Provider motivation. Captures intrinsic and extrinsic characteristics that affect the behavior and performance of providers in a health system. Intrinsic motivation is the feeling of accomplishment driven by organizational goals and the impact of one's work on patients and communities. Alternatively, extrinsic motivation is driven by monetary or nonmonetary individual or environmental incentives.

Quality management infrastructure. Comprises the planning, control activities, and improvement work that ensure populations receive high-quality health services: the right care at the right time, responding to the service users' needs and preferences, while minimizing harm and resource waste.

Safety. Refers to safe practices being routinely followed in the delivery of care as well as in facilities more broadly.

Social accountability. A measure of whether a country is held accountable to existing and emerging social concerns and priorities based on need.

Surveillance. The ongoing and systematic collection, analysis, and interpretation of health-related data essential to the planning, implementation, and evaluation of service delivery and public health.

Team-based care organization. Refers to groups of providers with diverse education and capabilities.

Timeliness. Includes two elements. First, patients should be able to physically access care with acceptable and reasonable waiting times. Second, hours and days of facility operation should be such that patients can find a time to visit facilities without sacrificing other obligations and duties such as work or childcare and can access care for emergent needs, including on nights and weekends.

Workforce. The term PHC workforce refers to all occupations of health professionals responsible for organizing and delivering PHC. This subdomain reflects the need to have a trained workforce, sufficient numbers of health personnel, and the right mix of staff that is well-distributed geographically to promote equitable access for the population.

VSP pillar	Corresponding PHCPI domain	PHCPI VSP Indicator (short-name)
Financing	Financing	PHC spending per capita
		PHC spending as a share of overall health spending
		Government PHC spending as a share of total
		Government PHC spending as share of current PHC spending
Access	Financial	Perceived access barriers due to distance
	Geographic	Perceived access barriers due to treatment costs
Quality	Comprehensiveness	Average availability of 5 tracer RMNCH services
		Average availability of services for 3 tracer communicable diseases
		Average availability of diagnosis and management of 3 tracer NCDs
	Continuity	Dropout rate between 1st and 3rd DTP vaccination
		Treatment success rate for new TB cases
	Person-centered	Percentage of caregivers told sick child's diagnosis
	Provider availability	Percentage of family planning, ANC, and sick child visits over 10 minutes
		Provider absence rate
	Provider competence	Antenatal care quality score based on WHO guidelines
		Family planning quality score based on WHO guidelines
		Sick child care quality score based on IMCI guidelines
		Adherence to clinical guidelines
		Diagnostic accuracy
	Safety	Adequate waste disposal
		Adequate infection control
Coverage	RMNCH	Demand for family planning satisfied with modern methods
		Antenatal care coverage (4+ visits)
		Coverage of DTP3 immunization
		Care-seeking for suspected child pneumonia
	Infectious diseases	Children aged <5 years with diarrhea receiving oral rehydration salts (ORS)
		People living with HIV receiving antiretroviral therapy (ART)
		TB cases detected and treated
		Use of insecticide treated nets (ITNs) for malaria prevention (only in malaria-endemic countries)
	NCDs	Percentage of population with normal blood pressure
Equity	Equity	Perceived barriers to care due to treatment costs, by wealth quintile
		Coverage of RMNCH services, by mother's education
		Under-five mortality rate, by residence
Context	Context	GDP per capita
		Population living in poverty (under $1.90 int'l per day)
		Government health spending as percentage of GDP
Outcomes	Outcomes	Life expectancy at birth (years)
		Maternal mortality ratio
		Neonatal mortality ratio
		Premature NCD mortality
		Causes of death

Notes: VSP = Vital Signs Profile; PHC = Primary Health Care; RMNCH = Reproductive, Maternal, Newborn and Child Health; DTP3 = Diphtheria-tetanus-pertussis.; TB = Tuberculosis; ORS = Oral Rehydration Salts; ART = Antiretroviral Therapy; ITN = Insecticide Treated Net; GDP = Gross Domestic Product; NCD = Non-Communicable Disease

ANNEX 3: HEALTH ISSUE ("TOPIC") TAGS

STDs – HIV/AIDs
STDs – Other/General
Infectious disease – Diarrheal
Infectious disease – Influenza
Infectious disease – Malaria
Infectious disease – TB
Infectious disease – NTDs
Infectious disease – Other
Mental health
NCDs – General
NCDs – Cardiovascular
NCDs – Cancer
NCDs – Diabetes
NCDs – Obesity
Nutrition – General
Nutrition – Stunting
Nutrition – Wasting
Respiratory
RMNCH
Adolescent health

Notes: STD = Sexually Transmitted Disease; NCD = Non-Communicable Disease; TB = Tuberculosis; NTD = Neglected Tropical Disease; RMNCH = Reproductive, Maternal, Newborn and Child Health

ANNEX 4: GROUPING OF DATA-COLLECTION METHODS

Data-collection type	Examples
International standard reports	UNICEF, WHO reports, WHO Health System Performance Assessment
National reports	Reports obtained from MoH, Ministry of Finance, National Quality Assurance Standards (NQAS), National Health Accounts, Department of Finance, Health Insurance Department, Directorate of Public Health Report
Subnational reports	Reports obtained from subnational government stakeholders, municipal reports, provincial reports
Project records	Project progress report, PBF database, PBF statistics, RBF database, Project roster management data
Patient records	Electronic medical record (EMR), Electronic health record (EHR)
Community records	Community health service agency reports
Health Information Systems (HIS)	District Health Information Software (DHIS2), HMIS, Pharmaceutical Inventory Logistics Management Information System (PILMIS), Integrated Referral Information System (IRIS), Nutrition Expenditure Tracking System, Geographic Information Systems (GIS), Health facility registers, grievance registers

	Demographic Health Survey (DHS), Health facility survey, e.g.,
Surveys	Bangladesh Health Facility Survey (BHFS), household survey, client satisfaction survey, STEPS survey, National risk factor survey,
Checklist	Supervision checklist, quality-of-care checklist
Independent evaluations	Joint external evaluation
Surveillance systems	Telephone surveillance

Source: World Bank, HNP Data
Notes: WHO = World Health Organization; MOH = Ministry of Health, PBF = Performance-Based Financing

ANNEX 5: PHCPI VSP INDICATOR TREND SUMMARY TABLE

Project characteristic (Number of projects)	VSP pillar						Total
	Financing	Access	Quality	Coverage	Equity	Outcomes	
World Bank Region							
ECA (17)	1 6%	1 6%	0	1 6%	0	0	3 17.6%
LCR (20)	0	0	2 10%	3 15%	0	0	5 25%
EAP (17)	1 6%	0	1 6%	3 18%	0	0	5 29%
SSA (66)	0	0	8 12%	31 47%	0	2 3%	41 60%
MENA (12)	0	0	0	4 33%	0	0	4 17%
SAR (22)	0	0	3 14%	6 19%	0	0	9 41%
World Bank income group							
LIC (39)	0	0	5 13%	19 48%	0	2 3%	26 64%
LMIC (70)	0	0	6 8.5%	27 38%	0	0	33 50%
UMIC (28)	1 3.5%	1 3.5%	1 3.5%	2 7%	0	0	5 18%
HIC (4)	1 25%	0	0	0	0	0	1 25%
Multi (1)	0	0	1 100%	0	0	0	1 100%
FY approval							
2010–2012 (23)	0	0	0%	11 30%	0	0	11 48%
2013–2015 (51)	0	0	2 4%	13 25%	0	0	15 29%
2016–2018 (45)	0	1 2%	8 18%	16 35%	0	1 2%	26 55%
2019–2021 (37)	2 5%	0	3 8%	9 24%	0	1 3%	15 38%
Total (156)	2 1%	1 >1%	13 8%	49 31%	0 0%	0 0%	**59 38%**

ANNEX 6: PHC INDICATOR TREND SUMMARY TABLE

Project characteristic (Number of projects)	VSP pillar							Total
	Capacity	Financing	Access	Quality	Coverage	Equity	Outcomes	
World Bank Region								
ECA (17)	16 94%	6 37.5%	1 6.3%	11 68.8%	11 68.8%	5 31.3%	4 25%	16 94%
LAC (20)	20 100%	5 20%	2 10%	12 60%	14 70%	5 20%	5 20%	20 100%
EAP (17)	17 100%	7 41%	3 17.6%	16 94%	12 70.6%	7 41%	1 6%	17 100%
SSA (66)	63 97%	29 44.6%	12 18.4%	50 77%	58 89%	29 44.6%	17 26%	65 98%
MENA (12)	12 100%	1 8.3%	5 41.7%	12 100%	12 100%	11 92%	1 8.3%	12 100%
SAR (22)	22 100%	6 27%	3 13.6%	20 91%	21 95.4%	8 36%	6 27%	22 100%
World Bank income group								
LIC (39)	37 95%	16 41%	8 20%	35 89%	38 97%	19 48%	12 31%	39 100%
LMIC (70)	67 95%	23 32%	9 13%	51 73%	56 80%	28 40%	13 18.5%	69 98%
UMIC (28)	26 93%	6 21.4%	2 7%	22 78%	23 82%	16 57%	2 7%	28 100%
HIC (4)	3 75%	0 0%	0 0%	1 25%	1 25%	1 25%	0 0%	4 100%
FY approval								
2010–2012 (23)	21 91%	8 34%	8 34%	18 78%	20 87%	14 61%	4 17.3%	22 95.6%
2013–2015 (51)	51 100%	19 37%	11 21.6%	41 80.4%	40 78.4%	22 43.1%	11 21.5%	51 100%
2016–2018 (45)	42 93%	15 33%	2 4.4%	35 78%	38 84%	15 33%	7 15%	43 95%
2019–2020 (37)	36 97%	12 32.4%	5 13.5%	27 73%	30 81%	14 37.8%	12 32.4%	36 97.2%
Total (156)	150 96%	54 34.6%	26 17%	121 77.5%	128 82%	65 42%	34 21.7%	152 97%

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Effective measurement of primary health care (PHC) performance is an essential pillar for learning, accountability, and informed decision making in investments dedicated to achieving universal health coverage (UHC). The World Bank Health, Nutrition, and Population (HNP) Global Practice has a critical role to play to support sustainable and robust PHC measurement in client countries through project investments and project monitoring and evaluation (M&E) practices. Previous evaluations of the HNP portfolio have singled out measurement as a salient gap that must be bridged in HNP projects to better understand and improve results. However, existing evaluations provide limited in-depth understanding of nuances in measurement gaps and specific opportunities for improvement as it pertains to measurement of PHC in HNP projects. The objective of this analysis is to bridge this gap through a focused review of PHC measurement in HNP projects over the past decade (fiscal years [FY] 2010–FY 2020). Indicators from HNP projects were extracted and mapped to corresponding essential pillars of PHC performance, including capacity, financing, access, quality, coverage, equity, and outcomes. The definition of these pillars, along with the additional classification of indicators to more specific components of PHC performance, was guided by the application of a conceptual framework developed by the Primary Health Care Performance Initiative (PHCPI). Overall trends in PHC performance measurement, including common indicators utilized across the portfolio, data-collection methods, and distribution of projects measuring PHC performance by region, income bracket, and fiscal year of approval, were also identified and used to understand relative strengths and areas for improvement in PHC measurement. This exercise revealed a strong focus on the measurement of PHC system inputs, particularly workforce capacity and PHC coverage of Reproductive, Maternal, Newborn, and Child Health (RMNCH) and infectious disease services in HNP projects. Measurement of other crucial dimensions of PHC performance, including PHC financing, local capacity for high-quality PHC, demand-side barriers to access, quality of services delivered, effective service coverage, and equity, were limited. Trends in data-collection methods used to collect indicators in World Bank projects and variations in measurement practices across regions, economic contexts, and time revealed opportunities for the Bank to enhance the sustainability of PHC measurement for improvement in client countries. Results from this analysis were ultimately used to devise a series of recommendations for the World Bank to support short-term and long-term improvements in PHC measurement over the coming decade.

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