Primary health care measurement framework and indicators:

monitoring health systems through a primary health care lens

Web Annex. Technical specifications

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Abbreviations

CHW	community health worker
CPD	continuing professional development
CRS	creditor reporting system
CRVS	civil registration and vital statistics
DAC	Development Assistance Cooperation
EPHF	essential public health functions
GDP	gross domestic product
GIS	geographical information system
GPW13	Thirteenth General Programme of Work 2019–2023
HBP	health benefits package
HHFA	harmonized health facility assessments
HiAP	health in all policies
HMIS	health management information systems
ICT	information and communication technologies
IHR	International Health Regulations
IPC	infection prevention and control
IPCAF	Infection Prevention and Control Assessment Framework
IVD	in vitro diagnostic
M&E	monitoring and evaluation
MCH	maternal and child health
NCD	noncommunicable disease
NHA	national health account
NHPS	national health policy and strategy
NHRIS	national human resource information system
NHWA	national health workforce accounts
NPHI	national public health institute
ODA	official development assistance
PHC	primary health care
POC	point of care
RDT	rapid diagnostic test
RHIS	routine health information systems
SARA	service availability and readiness assessments
SCORE	survey population health risks; count births, deaths and causes of death; optimize health service data; review progress and performance; enable data use for policy and action
SDG	Sustainable Development Goal
SPA	service provision assessment
SPAR	state party annual report
TB	tuberculosis
UHC	universal health coverage
WASH	water, sanitation and hygiene

Introduction

This document provides technical specicfications for each indicator included in the the menu of indicators proposed for primary health care (PHC) measurement framework and indicators. In the first section below, Tables 1.1 and 1.2 provide a summary overview of the menu of indicators, including brief definitions, possible disaggregations, level of data, and preferred data source. This is then followed by detailed metadata for each indicator. Metadata tables include additional information such as definitons (including details on key criteria and or attributes), numerator and denominator, rationale for the indicator, references, and available data collection tools as and where relevant. Indicators that are of significant value for monitoring dimensions of quality, equity, and resilience across the entire framework are marked with superscripted text.

As quality, equity and resilience have been highlighted as key cross-cutting monitoring dimensions in the PHC measurement framework, the second section of this document includes tables 3.1, 3.2, 3.3 that list specific indicators to help monitor these dimensions.

Figure 1 presents the PHC performance measurement framework and indicators, demonstrating how measuring PHC contributes to monitoring UHC, health-related SDGs, and overall impact on health and well-being. Many of the indicators (particularly those that assess outcomes and impact) draw from globally agreed standards, including the Global indicator framework for the Sustainable Development Goals and the WHO Thirteenth General Programme of Work 2019–2023 (GPW 13) Impact Framework. Other indicators are more novel and have been included to address critical areas of PHC measurement. These indicators will require further testing and development. As such, these technical specifications will be reviewed and refined regularly to take account of lessons learned from experiences applying the framework as well as new approaches to measuring PHC that emerge over time.

Figure 1 PHC measurement framework and menu of indicators (including outcomes and impact indicators)

Focus of the PHC monitoring conceptual framework
* PHC strategic & operational levers

■ Tier 1 indicators (n=39)
● Tier 2 indicators (n=48)
- Grey text: additional hospital-oriented indicators

From PHC-oriented health systems → **towards achievement of UHC and the SDGs**

PHC components

- Integrated health services
- Multisectoral policy and action
- Empowered people & communities

Health systems determinants

Structures

Governance

Political commitment & leadership*
- ■ Health in all policies with multisectoral coordination
- ● Existence of right to health legislation

Governance & policy frameworks*
- ■ Existence of national health policy oriented to PHC and UHC
- ■ Existence of policy, strategy or plan for improvement of quality and safety
- ■ Existence of health emergency and disaster risk management strategies
- ● Institutional capacity to meet essential public health functions and operations

Engagement with communities and other stakeholders*
- ■ Coordination mechanisms with multistakeholder participation and community engagement
- ● National, sub-national and local strategies for community participation

Engagement with private sector providers*
- ● Evidence of effective stewardship of mixed health systems

Adjustment to population needs

Monitoring and evaluation*
- ■ Priority setting is informed by data & evidence
- ■ Existence of an M&E framework for national health plan meeting criteria

PHC oriented research
- ■ Total net ODA to medical research & basic health sector
- ● Percentage of public research funding for primary care research

Financing

Funding and allocation of resources*
- ■ Current expenditure on health (total and PHC specific) as a percentage of gross domestic product (GDP)
- ■ Per capita health expenditure on health (& PHC-specific)
- ■ Government PHC spending
- ● Sources of expenditure on health (& PHC-specific)
- ● Contingency funds available for emergencies

Purchasing & payment systems*
- ■ Services included in health benefits package (including primary care)
- ● Purchasing and provider payment methods are in place (including primary care)
- ● Health financing follows established guidelines

Physical infrastructure*
- ■ Health facility density and distribution (including primary care)
- ■ Availability of basic WASH amenities
- ■ Availability of power and communications
- - Bed density (inpatient only)**
- ● Access to emergency transport for inter-facility transfer

Health workforce*
- ■ Health worker density and distribution [SDG 3.c.1]
- ● Accreditation mechanisms for education and training institutions
- ● National systems for continuing professional development

Medicines & other health products*
- ● Regulatory mechanisms for medicines
- ■ Availability of essential medicines [SDG 3.b.3]
- ● Availability of essential in vitro diagnostics
- ● Availability of priority medical equipment and other medical devices

Health information

Information systems
- ● Completeness of reporting by facilities
- ● Percentage of facilities using comprehensive patient records
- ● Regular system of facility and patient surveys
- ■ Functional national human resource information system
- ■ Completeness of birth registration
- ■ Completeness of death registration
- ● Regular system of population-based health surveys

Surveillance
- ■ Existence of effective surveillance system

Digital technologies for health*
- ● National e-health strategy
- ● Telemedicine access
- ■ Percentage of facilities using electronic health records

Service delivery [promotion, prevention, diagnosis, treatment, rehabilitation, palliation]

Processes

Models of care*

Selection and planning of services
- ■ Service package meeting criteria
- ■ Roles and functions of service delivery platforms and settings defined

Service design
- ● Existence of an empanelment system
- ■ System to promote first contact accessibility
- ● Protocols for patient referral, counter-referral and emergency transfer
- ● Existence of care pathways for tracer conditions

Organization and facility management
- ● Professionalization of management
- ● Management capability and leadership
- ● Multidisciplinary team-based service delivery
- ■ Existence of supportive supervision system
- ● Existence of facility budgets and expenditures meeting criteria

Community linkages and engagement
- ● Collaboration between facility-based and community-based service providers
- ● Community engagement in service planning and organization
- ■ Proactive population outreach
- ● Services for self-care and health literacy in primary care

Systems for improving quality*
- ■ Percentage of facilities with systems to support quality improvement

Resilient health facilities and services
- ● Percentage of facilities meeting criteria for resilient health facilities and services

Outputs

Access and availability

Accessibility, affordability, acceptability
- ● Geographical access to services
- ■ Perceived barriers to access due to (distance, cost, sociocultural)
- ● Access to emergency surgery
- ● Existence of a system of post-crash care

Service availability and readiness
- ■ Percentage of facilities offering services according to national defined service package
- ● Provider availability (absence rate)
- ■ Percentage of facilities meeting minimum standards to deliver tracer services
- ■ Percentage of facilities compliant with infection prevention and control (IPC) measures

Utilization of services
- ■ Outpatient visits
- ● Emergency unit visits
- ■ Hospital discharges
- ■ Leading diagnoses (primary care/outpatient visits, inpatient diagnoses at discharge)

Quality care

Core primary care functions

(first-contact accessibility, continuity, comprehensiveness, coordination, people-centredness)
- ■ Patient-reported experiences
- ● People's perceptions of health system and services

Effectiveness
- ● Diagnostic accuracy (provider knowledge)
- ● Adherence to clinical standards for tracer conditions
- ● 30-day hospital case fatality rate (for acute myocardial infarction or stroke)
- ● Avoidable complications (lower limb amputation in diabetes)
- ● Hospital readmission rate for tracer conditions
- ■ Admissions for ambulatory care sensitive conditions
- - Institutional mortality

Safety
- ■ Prescribing practices for antibiotics
- ● Proportion of people 65 years and over prescribed antipsychotics
- - Caesarean section rate
- - Postoperative sepsis
- - Postoperative pulmonary embolism
- - Postoperative deep vein thrombosis
- - Perioperative mortality rate
- - Hospital-acquired infections

Efficiency
- ● Provider caseload
- ● Bed occupancy

Timely access
- ● Cancer stage at diagnosis (by cancer)
- - Coverage of timely emergency resuscitation at first-level hospitals
- ● Waiting time to elective surgery

Health system objectives

Outcomes

UHC - Service coverage
- ● UHC service coverage (index) [SDG 3.8.1]
- ● Service intervention coverage
  - - Family planning demand satisfied with modern methods [SDG 3.7.1]
  - - ANC4
  - - Child immunization coverage (DTP3) [SDG 3.b.1]
  - - Care-seeking for suspected pneumonia
  - - TB treatment
  - - HIV ART
  - - Use of insecticide-treated nets (ITN)
  - - Children receiving ACT among those with fever
  - - Population with basic sanitation (WASH)
  - - Hypertension treatment coverage
  - - Diabetes treatment coverage
  - - Cervical cancer screening
  - - Availability of essential medicines
  - - Skilled birth attendance [SDG 3.1.2]
  - - Number of people requiring interventions against NTDs [SDG 3.3.5]
  - - Coverage of interventions for substance-abuse disorders [SDG 3.5.1]
  - - AMR blood stream infections
  - - Patterns of antibiotic consumption

UHC - Financial protection
- ● Proportion of population with large/impoverishing household expenditure on health as share of total household expenditure of income [SDG 3.8.2]

Health security
- ● IHR/SPAR capacity [SDG 3.d.1]
- ● Routine/emergency vaccine coverage [SDG 3.b.1]
- ● Timeliness of emergency detection and reporting
- ● Proportion of vulnerable people in fragile settings provided with EHS
- ● Number of cases of poliomyelitis caused by wild poliovirus

Impact

Improved health status
- ● Healthy life expectancy
- ● Life expectancy
- ● Avoidable mortality
- ● Probability of premature death from NCDs [SDG 3.4.1]
- ● Maternal mortality rate [SDG 3.1.1]
- ● Neonatal mortality rate [SDG 3.2.2]
- ● Under-five mortality rate [SDG 3.2.1]
- ● Mortality rate due to air pollution [SDG 3.9.1]
- ● Mortality rate due to unsafe WASH [SDG 3.9.2]
- ● Mortality rate from unintentional poisoning [SDG 3.9.3]
- ● Suicide mortality [SDG 3.4.2]
- ● Road deaths [SDG 3.6.1]
- ● New HIV infections [SDG 3.3.1]
- ● TB incidence [SDG 3.3.2]
- ● Malaria incidence [SDG 3.3.3]
- ● Hepatitis B [SDG 3.3.4]
- ● Cancer incidence

Responsiveness

Equity
- ● Within-country inequalities reduced

Determinants of health and risk factors

- ● Child stunting/wasting/overweight [SDG 2.2.1/2.2.2]
- ● Child development [SDG 4.2.1]
- ● Alcohol consumption [SDG 3.5.2]
- ● Tobacco use [SDG 3.a.1]
- ● Prevalence of hypertension
- ● Prevalence of diabetes
- ● Obesity (adults and children) [WHA 66.10]
- ● Trans fats policy [WHA 66.10]
- ● Intimate partner violence [SDG 5.2.1]
- ● Non-partner sexual violence [SDG 5.2.2]
- ● Violence against children [SDG 16.2.1]
- ● Safely managed water and sanitation [SDG 6.1.1/6.2.1a/6.2.1b]
- ● Clean household fuels [SDG 7.1.2]
- ● Air pollution level in cities [SDG 11.6.2]
- ● No. of people affected by disasters [SDG 1.5.1/11.5.1/13.1.1]
- ● Informed sexual choice
- ● Female genital mutilation /cutting [SDG 5.3.2]
- ● Adolescent birth rate [SDG 3.7.2]

Monitoring capacity of PHC → **Monitoring performance of PHC** → **Monitoring impact**

Monitoring Quality, Equity, Resilience

1. Overview of indicators for monitoring primary health care

Table 1.
Summary overview of indicators: primary health care monitoring

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
Governance						
Political commitment and leadership						
1	Health in all Policies (HiAP) with multisectoral coordination	The country has implemented an HiAP approach that includes key elements (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1 + Global
2	Existence of right to health legislation	The country has an enabling legal environment for universal health coverage (UHC) that includes key elements (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
Governance and policy frameworks						
3	Existence of national health policy oriented to PHC and UHC	The country has a national health sector policy, strategy oriented to PHC and UHC based on minimum standards (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1 + Global
4	Existence of policy, strategy, or plan for improvement of quality and safety	There is a validated national strategic direction on quality and safety, measured against key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1 + Global
5	Existence of health emergency and disaster risk management strategies	There is a health emergency and disaster risk management strategy that is measured against key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1
6	Institutional capacity to meet essential public health functions and operations	There is a public health institution or entity that carries out key public health functions (see technical specifications.	Not applicable	National Subnational	Qualitative assessment	Tier 2
Engagement with communities and other multisectoral stakeholders						
7	Coordination mechanisms with multistakeholder participation and community engagement	A national coordination mechanism for PHC toward UHC exists and meets key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1 + Global
8	Existence of national, subnational and local strategies for community participation	Strategies exist to promote and support community engagement in defining and monitoring objectives of the national health plans/strategies and follow minimum standards (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
Engagement with private sector providers						
9	Evidence of effective stewardship of mixed health systems	There is a national policy, strategy or plan guiding the engagement of private sector providers in health service delivery sector that follow WHO recommended behaviours (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
Adjustment to population health needs						
Monitoring & evaluation						
10	Priority setting is informed by data and evidence	Priority setting in the national health strategic plan/policy is based on data and evidence, and is measured against key criteria (see technical specifications)	Not applicable	National Subnational Facility	Qualitative assessment	Tier 1
11	Existence of an M&E framework for national health plan meeting criteria	The country's national health plan and policies include an M&E plan with a focus on PHC for UHC	Not applicable	National Subnational	Qualitative assessment	Tier 1
PHC-oriented research						
12	Total net official development assistance (ODA) to medical research and basic health sector	Total net ODA to the medical research and basic health sectors is currently measured by the gross disbursements of total ODA from all donors to medical research and basic health sectors	Not applicable	National Subnational	Global database	Tier 1
13	Percentage of public research funding for primary care research	Percentage of public research funding devoted to primary care research	Not applicable	National Subnational	Qualitative assessment	Tier 2
Financing						
Funding and allocation of resources						
14	Current expenditure on health (total and PHC-specific) as percentage of gross domestic product (GDP)	Total (and PHC-specific) current expenditure on health as a percentage of GDP	Current and total PHC-specific expenditure Source of funding (e.g., GGHE-D, private, external)	National Subnational	National health accounts	Tier 1
15	Per capita health total health expenditure (and PHC-specific)	Per capita health expenditure (total and PHC-specific)	Current and total PHC-specific expenditure Source of funding (e.g., GGHE-D, private, external)	National Subnational	National health accounts	Tier 1 + Global
16	Government PHC spending as percentage of government health expenditure	Domestic general government expenditure on PHC as a share of domestic general government health expenditure	Not applicable	National Subnational	National health accounts	Tier 1 + Global
17	Sources of expenditure on health (and PHC-specific)	Distribution of expenditure on health by source (private (including out of pocket), domestic government, external)	Current and total PHC-specific expenditure Source: out of pocket, domestic government, external	National Subnational	National health accounts	Tier 2
18	Contingency funds available for emergencies	Contingency funds available for emergencies measured against key criteria	National Subnational	National Subnational	Qualitative assessment	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
Purchasing and payment systems						
19	Services included in health benefits package (HBP) (including primary care)	HBP defines a set of services to be financed from public sources that have been assessed for inclusion in the benefit package as part of a systematic, transparent process, including criteria on economic evidence and budget impact/cost-effectiveness	Type of service Disease area/life-course need Delivery platform	National Subnational	Qualitative assessment	Tier 1
20	Purchasing and provider payment methods are in place (including primary care)	Purchasing and provider payment methods are in place as measured against key criteria	Not applicable	National Subnational	Qualitative assessment	Tier 2
21	Health financing follows established guidelines	Health financing (or access to HBP or insurance scheme) follows WHO-recommended guidelines, including key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
Physical infrastructure						
22	Health facility density/ distribution (including primary care)	Total number of health facilities (and primary care facilities) per 10 000 population, disaggregated by managing authority	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility census	Tier 1 + Global
23	Availability of basic water, sanitation and hygiene (WASH) amenities	Percentage of facilities that have basic WASH amenities (see technical specifications)	Facility type Managing authority Urban/rural	National Subnational Facility	Facility survey	Tier 1 + Global
24	Availability of power	Percentage of facilities that use, at least some of the time, any source of electrical power, excluding standalone medical devices	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1
25	Availability of communications	Percentage of facilities that have access to communication systems including key attributes (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1
26	Access to emergency transport for interfacility transfer	Percentage of facilities that have access to emergency transport, measured by having key components (see technical specifications)	Facility type Managing authority Urban/rural	National Subnational Facility	Facility survey	Tier 2
Health workforce						
27	Health worker density and distribution	Number of health workers per 10 000 population, by occupation	Activity level Occupation Facility type Gender, Age Managing authority Location	National Subnational	NHWA	Tier 1 + Global

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
28	Accreditation mechanisms for education and training institutions	There are national and/or subnational mechanisms for accreditation of education and training institutions, health care organizations, and their programmes, measured against key criteria (see technical specifications)	Occupation	National Subnational	NHWA	Tier 2
29	National systems for continuing professional development	There is a national system for continuing professional development, measured against key criteria (see technical specifications)	Occupation	National	NHWA	Tier 2
Medicines and other health products						
30	Regulatory mechanisms for medicines	There are regulatory mechanisms for medicines, measured against key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
31	Availability of essential medicines	Percentage of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis (Sustainable Development Goal (SDG) indicator)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1 + Global
32	Availability of essential in vitro diagnostics	Percentage of health facilities that have an appropriate set of diagnostics for their health care facility level, based on the WHO's model list of essential in vitro diagnostics (EDL 3)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
33	Availability of priority medical equipment and other medical devices	Percentage of health facilities with availability of essential equipment and other health products	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
Medicines and other health products						
Information systems						
34	Completeness of reporting by facility	Percentage of facilities that uses information systems for capturing and reporting comprehensive patient and facility data and report according to district and/or national requirements within the required deadline	Facility type Managing authority Subnational Urban/rural Service area (immunization, MCH, etc.)	National Subnational	RHIS	Tier 2
35	Percentage of facilities using comprehensive patient records	Percentage of facilities using single, comprehensive patient records that provide a longitudinal health history of patients across time and for all health conditions and which includes key components (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
36	Regular system of facility and patient surveys	Country has a regular system of facility and patient surveys to independently monitor health services and patient perspectives.	Not applicable	National Subnational	Qualitative assessment	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
37	Functional national human resource information system NHRIS and national health workforce NHWA	NHRIS is in place and functional and can generate key required HR information (see technical specifications)	Not applicable	National Subnational	NHRIS NHWA	Tier 1
38	Completeness of birth registration	1. Percentage of births that are registered 2. Proportion of children under 5 years of age whose births have been registered with a civil authority. (both definitions are used)	Subnational	National Subnational	CRVS Population-based survey	Tier 1
39	Completeness of death registration	Percentage of deaths that are registered (with age and sex) and include valid cause-of-death	Subnational	National Subnational	CRVS	Tier 1
40	Regular system of population-based health surveys	Country can generate regular, comprehensive, high-quality, nationally representative statistics with equity dimensions on population health status, health-related behaviours and risk factors, access to health interventions and out-of-pocket spending on health	Not applicable	National	Qualitative assessment	Tier 2
Surveillance						
41	Existence of effective surveillance system	Country has an effective surveillance system based on the average of two SPAR indicators on early warning function (C6.1) and mechanisms for event management (C6.2) (see technical specifications)	Not applicable	National	SPAR	Tier 1
Digital technologies for health						
42	National eHealth strategy	There is a national digital/eHealth strategy that includes key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
43	Telemedicine access	Percentage of patients that have had at least one virtual health consultation in the past 12 months	Facility type	National Subnational	Qualitative assessment	Tier 2
44	Percentage of facilities using electronic health records	Percentage of facilities with a system of electronic capture of patient-level health data (patient records system) with following attributes (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
Models of care						
Selection and planning of services						
45	Service package meeting criteria	Service package of essential health services (including primary care services) and public health functions is developed and meets set criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1 + Global
46	Roles and functions of service delivery platforms and settings defined	The roles and functions of service delivery platforms, including scope of services, are defined within the context of integrated health service delivery networks (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1
Service design						
47	Existence of an empanelment system	An empanelment system exists and is measured by key criteria (see technical specifications)	Subnational Urban/rural Gender Wealth quintiles	National Subnational	Population-based survey	Tier 2
48	System to promote first contact accessibility	There is a system to promote first contact through primary care provider which meets key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 1
49	Protocols for patient referral, counter-referral and emergency transfer	Explicit protocols and structured communication mechanisms are in place to promote reporting and feedback between primary care practitioners and other levels of care (referral and counter-referral) to promote coordination and information continuity that include key data elements (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
50	Existence of care pathways for tracer conditions	A multidisciplinary management plan exists that maps care pathways through the health system for individuals and includes key attributes (see technical specifications)	Subnational	National Subnational	Qualitative assessment	Tier 2
Organization and facility management						
51	Professionalisation of management	The conditions are in place nationally (and subnationally) to ensure professionalised management and leadership in health care organization, including key criteria (see technical specifications)	Not applicable	National Subnational	Qualitative assessment	Tier 2
52	Management capability and leadership	Percentage of facilities with a manager/management team that has decision-making responsibilities in key areas	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1
53	Multidisciplinary team-based service delivery	Percentage of facilities where providers work as part of a multidisciplinary team that is characterized by key criteria (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
54	Existence of supportive supervision system	Percentage of facilities that implement or receive supportive supervision including key attributes (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1
55	Existence of facility budgets and expenditures meeting criteria	Percentage of facilities that have budgets and expenditures that meet key criteria (see technical specifications)	Not applicable	National Subnational	Facility survey	Tier 2
Community linkages and engagement						
56	Collaboration between facility and community-based service providers	Percentage of primary care facilities and first-referral hospitals that have established formal linkages with community-based service providers (including community health workers)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
57	Community engagement in service planning and organization	There is a system to ensure local service planning is informed by community voices including vulnerable groups, including key activities (see technical specification)	Not applicable	National Subnational	Qualitative assessment	Tier 2
58	Proactive population outreach	Percentage of facilities that actively provide services to communities according to local health needs and priorities	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
59	Services for self-care and health literacy in primary care	Percentage of facilities promoting self-management and health literacy based on key criteria (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	
Systems for improving quality of care						
60	Percentage of facilities with systems to support quality improvement	Percentage of health facilities with systems to support and implement quality improvement, measured against key criteria (see technical specifications)	Facility type Managing authority Subnational Urban/rural	Facility survey	Qualitative assessment	Tier 1
Resilient health facilities and services						
61	Percentage of facilities meeting criteria for resilient health facilities and services	Percentage of health facilities that are meeting criteria for resilient health services measured against key attributes (see technical specifications)	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
Access and availability						
Accessibility, affordability, acceptability						
62	Geographical access to services	Percentage of population living within 5 km (or 1 hour) of a comprehensive primary care facility/provider and 2 hours of an emergency care unit/provider	Urban/rural Subnational	National Subnational	Facility database Geographical information system (GIS)	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
63	Perceived barriers to access (geographical, financial, sociocultural)	Percentage of target population reporting problems in accessing care when they have a health care need, by problem.	Population-based survey only: Wealth quintile Education Both: Urban/rural Age Gender Subnational Facility survey only: Facility type Managing authority	National, subnational	Population-based survey Facility survey (exit interviews)	Tier 1
64	Access to emergency surgery	Percentage of the population that can access, within 2 hours, a facility that can perform emergency caesarean section, laparotomy and open fracture fixation	Urban/rural Subnational	National Subnational	RHIS GIS	Tier 2
65	Proactive population outreach	Existence of a system for post-crash care that includes key attributes (see technical specifications)	Urban/rural Subnational		Qualitative assessment RHIS (for prehospital emergency care)	Tier 2
Service availability and readiness						
66	Percentage of facilities offering services according to national defined service package	Percentage of primary care facilities/units offering services according to national defined service package	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey or RHIS	Tier 1
67	Provider availability (absence rate)	Percentage of clinical staff who are expected to be at facility but are not present at a facility during an unannounced visit compared to the expected number of staff at a given time.	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 2
68	Percentage of facilities meeting minimum standards to deliver tracer services	Percentage of facilities offering services that meet minimum standards including availability of • Staff and guidelines • Equipment • Diagnostics • Medicines and commodities	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1
69	Percentage of facilities compliant with infection prevention and control (IPC) measures	Facility meets standards (inadequate, basic, intermediate, advanced) based on the eight core components of the Infection Prevention and Control Assessment Framework (IPCAF):	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	Facility survey	Tier 1
Utilization of services						
70	Outpatient visits	Number of outpatient visits (e.g., to facilities or doctors) per person per year	Subnational Age Gender	National Subnational Facility	RHIS Population based surveys	Tier 1 + Global

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
71	Emergency unit visits	Number of emergency department visits per 1 000 population	Subnational Age Gender	National, Subnational Facility	RHIS	Tier 2
72	Hospital discharges**	Number of patients who are admitted to or leave a hospital after staying at least one night per 1 000 population (includes death following inpatient care but excludes same-day discharges)	Subnational Age Gender	National Subnational Facility	RHIS	Tier 1
73	Leading diagnoses (primary care/ outpatient visits, inpatient diagnoses at discharge**)	Number, Rate per 1 000 population and percentage distribution of the main diagnostic categories	Subnational Age Gender Service type	National Subnational Facility	RHIS	Tier 1
Quality of care						
Core primary care functions first-contact accessibility, continuity, comprehensiveness, coordination, people-centredness)						
74	Patient-reported experiences	Percentage of key attributes for patient experience, satisfaction and health systems responsiveness being met (see technical specifications)	Population-based survey and facility survey: Age Gender Subnational Urban/rural Only facility survey: Facility type Managing authority if measured through facility survey	National Subnational Facility	Patient survey Facility survey (exit interviews)	Tier 1
75	People's perceptions of health system and services	Percentage of people that have positive perception of health system and services that include key domains (see technical specifications)	Provider type Wealth quintile Education Gender Age	National Subnational	Population-based survey	Tier 2
Effectiveness						
76	Diagnostic accuracy (provider knowledge)	Percentage of cases correctly diagnosed out of the number of patients examined, as observed through clinical vignettes on multiple common conditions, including patients with multimorbidity	Facility type Managing authority (public/private) Subnational Urban/rural Cadre Tracer condition	National Subnational Facility	Facility survey (patient-provider observation or record review)	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
77	Adherence to clinical standards for tracer conditions	Adherence to clinical guidelines measures the number of relevant history and physical examination questions asked by a provider during a clinical encounter compared to the total number of relevant history and examination questions that should have been asked, examined through clinical vignettes. Alternatively, could be examined through exit interviews or household surveys.	Facility type Managing authority (public/private) Subnational Urban/rural Cadre	National Subnational Facility	Facility survey (patient-provider observation or record review)	Tier 2
78	30-day hospital case fatality rate (for acute myocardial infarction or stroke)**	Percentage of hospital inpatients with primary diagnosis of acute myocardial infarction or stroke who died within 30 days of admission	Cause Facility type Managing authority Subnational Urban/rural Gender Age Education	National Subnational Facility	RHIS Facility survey (record review)	Tier 2
79	Avoidable complications (lower limb amputation in diabetes)	Admissions who had a major lower extremity amputation as a percentage of population age 15 and older with diabetes	Age Gender Subnational	National Subnational Facility	RHIS Facility survey (record review)	Tier 2
80	Hospital readmission rate for tracer conditions**	Percentage of unplanned and unexpected hospital readmissions for tracer conditions (acute myocardial infarction, pneumonia, asthma, diabetes, surgical site infections)	Tracer condition Facility type Managing authority (public/private) Subnational Urban/rural Age Gender Education	National Subnational Facility	RHIS Facility survey (record review)	Tier 2
81	Admissions for ambulatory care sensitive conditions	Rate of admission with ambulatory care-sensitive conditions, including asthma or chronic obstructive pulmonary diseases, congestive heart failure, hypertension, and diabetes per 100 000 population in a specified year and as percentage of all hospitalizations	Tracer condition Subnational Gender Age	National Subnational Facility	RHIS	Tier 1 + Global
Safety						
82	Prescribing practices for antibiotics	Overall volume of antibiotics for systemic use prescribed	Subnational	National Subnational Facility	Prescription database	Tier 1
83	Proportion of people 65 years and over prescribed antipsychotics	Proportion of people 65 years and over prescribed antipsychotics during the reference year	Subnational	National Subnational Facility	Prescription database	Tier 2

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source	Tier
Efficiency						
84	Provider caseload	Average number of outpatient services provided by a given health worker in a specified period (e.g., working day, year)	Facility type Managing authority Subnational Urban/rural Cadre	National Subnational Facility	Facility survey	Tier 2
85	Bed occupancy**	Percentage of available beds that have been occupied over a given period	Facility type Managing authority Subnational Urban/rural	National Subnational Facility	RHIS	Tier 2
Timely access						
86	Cancer stage at diagnosis (by cancer)	Percentage of all stageable cancers diagnosed that are recorded as presenting as a Stage 1 or 2	Gender Cancer types	National Subnational	Cancer registry	Tier 2
87	Waiting time to elective surgery**	Average number of days that patients have been waiting for elective procedure (i.e., non-urgent) surgeries – cataract, coronary angioplasty, hip replacement, knee replacement, skin biopsies	Type of procedure Facility type Sub-national Urban/rural Gender	National, Subnational Facility	RHIS (waiting time management systems)	Tier 2

** Hospital-oriented indicators considered important for broader PHC monitoring and relevant in terms of inter-relations with primary care.

Table 2.
Summary overview of indicators: additional hospital-oriented indicators

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source
Physical infrastructure					
A	Bed density (inpatient only)	Total number of hospitals beds per 10 000 population	Facility type Managing authority Subnational Urban/rural Type of bed	National Subnational Facility	RHIS - facility census
Quality care					
Effectiveness					
B	Institutional mortality	Number of institutional deaths as a percentage of total admissions	Cause -of- death Age Facility type Managing authority Subnational Urban/rural	National Subnational Facility	RHIS Death surveillance and response systems
Safety					
C	Caesarean section rate	Number of caesarean deliveries performed per 100 live births	From facility surveys: Facility type Managing authority Subnational Urban/rural Population-based surveys: Age Education	National Subnational Facility	RHIS Population-based survey Facility survey (record review)
D	Postoperative sepsis	Percentage of discharges with postoperative sepsis among abdominopelvic discharges only	Facility type Managing authority Subnational	National Subnational Facility	RHIS Population-based survey Facility survey (record review)
E	Postoperative pulmonary embolism	Percentage of discharges with pulmonary embolism among all hip and knee replacement discharges	Facility type Managing authority Subnational	National Subnational Facility	RHIS
F	Postoperative deep vein thrombosis	Percentage of discharges with pulmonary embolism among all hip and knee replacement discharges	Facility type Managing authority Subnational	National Subnational Facility	RHIS Facility survey (record review)
G	Perioperative mortality rate	All-cause death rate prior to discharge among patients having one or more procedures in an operating theatre during the relevant admission	Emergency versus elective surgery Tracer condition Facility type Managing authority Subnational	National Subnational Facility	RHIS Facility survey (record review)

N	Indicator	Definition	Disaggregations (Details in document)	Level	Preferred data source
H	Hospital-acquired infections	Percentage of hospitalised patients with at least one health care-associated infection (which is relevant to country context)	Tracer condition Facility type Managing authority Subnational	National Subnational	RHIS Facility survey (record review)
Timely access					
I	Coverage of timely emergency resuscitation at first-level hospitals	Proportion of adults and children [at first-level hospitals] admitted or transferred with pneumonia or shock from any cause, who received oxygen and/or intravenous volume in the emergency unit prior to admission or transfer	Managing authority (public/private) Subnational Urban/rural	National Subnational	RHIS Facility survey (record review)

2. Indicators for monitoring primary health care with metadata

2.1 Governance indicators

Governance

Indicator 1 Health in All Policies with multisectoral coordination

Indicator short name	**Health in All Policies with multisectoral coordination**
Indicator long name	Adoption of a Health-in-all-Policies approach with multisectoral coordination
Domain	Governance
Subdomain	Political commitment and leadership
M&E domain	Structures
Definition	The country has implemented an HiAP approach that includes the following elements: • Existence of a national HiAP strategy and plan of action involving multiple sectors • Existence of recognized functional mechanisms to manage and monitor HiAP development and implementation • Mechanism for monitoring and oversight to examine the impact on health and equity of outcomes of HiAP • Evidence of collaborations across sectors to address health issues or determinants of health including: ▪ Existence of operational policy/strategy/action plan to reduce physical inactivity ▪ Age limits alcohol service/sales ▪ Alcohol taxation ▪ Drunk driving laws ▪ Alcohol advertising restrictions ▪ Alcohol licensing requirements ▪ Existence of a national seat-belt law ▪ Existence of national speed limit ▪ MPOWER measures fully implemented (tobacco) ▪ Existence of any policies to reduce population salt consumption ▪ Existence of policies on marketing of foods to children ▪ Existence of tax on sugar-sweetened beverages • Training opportunities and knowledge change for health workforce and institutions • Opportunities for community engagement through consultations and level of community participation.
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents.
Rationale	Multisectoral policies and action are a core component of PHC. In order to bring about policy changes in other sectors, the health community needs to advocate for change and to generate evidence on the health impacts of multisectoral determinants. This is particularly important because a number of the policy changes that are most important for improving health and well-being involve vested commercial interests, which often have significant influence over policymakers. HiAP is a whole-of-government approach to multisectoral policy and action at the national, subnational and regional levels: "an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity" (WHA67.12). HiAP underscores the alignment of interests across policies to serve all people's basic right to a healthy, productive life. It provides a framework for addressing determinants by developing the needed leadership and governance and providing an umbrella for multiple sets of actions across sectors. In an HiAP approach, the health sector is seen as the champion for health, keeping health on the agenda but aware of the need for policy action with mutual benefit with other sectors, seeking overall societal gains. National health assemblies can bring together key stakeholders, including those from other sectors, to shape policymaking.
Reference(s)	Health in all Policies (HiAP). Framework for Country Action. Geneva: World Health Organization; 2014 (https://www.who.int/healthpromotion/hiapframework.pdf, accessed 16 August 2021). Health in All Policies as part of the primary health care agenda on multisectoral action. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326463, accessed 30 August 2021).
Existing data collection tool	To note, a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Governance

Indicator 2 Existence of right-to-health legislation

Indicator short name	**Existence of right to health legislation**
Indicator long name	Existence of right to health legislation
Domain	Governance
Subdomain	Political commitment and leadership
M&E domain	Structures
Definition	The country has an enabling legal environment for UHC that includes: • Legal recognition to all people of access rights to essential health services, essential medicines and vaccines • Protection of individuals from discrimination when accessing quality essential health services, essential medicines and vaccines • Right to access to a limited set of essential health services, essential medicines and vaccines accessible to all people independent of their right to health care including groups without health coverage
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on key informant interview and/or desk review of country documents
Rationale	The law plays a key role in a country's progressive realisation of UHC. The quality of a country's health laws and legal practices significantly contributes to the efficient, effective and equitable use of the available health resources and, consequently, the attainment of a country's health system goals. Therefore, creating an enabling legal environment for UHC is a critical investment to ensure implementation of UHC policies and programmes.
Reference(s)	UHC law in practice: legal access rights to health care: introduction. Geneva: World Health Organization; 2019 (https://www.who.int/publications/i/item/uhc-law-in-practice-legal-access-rights-to-health-care-introduction, accessed 16 August 2021).
Existing data collection tool	To note: a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Governance

Indicator 3 Existence of national health policy oriented to PHC and UHC

Indicator short name	**Existence of national health policy oriented to PHC and UHC**
Indicator long name	Existence of a comprehensive national health sector policy, strategy, oriented to PHC and UHC based on key attributes
Domain	Governance
Subdomain	Governance and policy frameworks
M&E domain	Structures
Definition	The country has a national health sector policy, strategy oriented to PHC and UHC based on the following standards: • Has been developed/revised within the past five years • Sets out clear priorities, goals, policies, objectives, interventions that are oriented towards PHC and the achievement of UHC and the health SDGs • Based on sound evidence-based analysis of the health situation • Promotes the delivery of integrated health services with an emphasis on primary care and essential public health functions at both facility and community level • Includes a section on addressing the broader determinants of health, with links to other sectors • Includes strategic actions to promote and empower individuals and communities as co-developers of health and social services and as self-carers • Specifies plans to improve health equity and specifies interventions for the most marginalised and vulnerable populations • Describes how resources will be deployed to achieve outcomes and improve equity, including how resources will be allocated to subnational level and non-state actors • Is developed and reviewed through a regular and transparent system of review of the strategy/plan with broad involvement of key stakeholders • There is an effective country led mechanism for governance, coordination and accountability for implementation of the national health strategy /plan
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on key informant(s) and/or desk review of country documents, including national health strategic plans, PHC-specific plans, national health annual operational plans and budgets, national development plans and policy and legal frameworks.
Rationale	The development of sound national and subnational health policies and strategies (NHPS) through intersectoral (whole-of-government) and intersectoral inclusive policy dialogue with all health stakeholders (whole-of-society) are necessary to address common challenges to health agendas, including: the under-prioritization of health, funding inconsistency and the lack of predictability of both domestic and external resources for health; budget underspending; and misallocation of resources. They must be well prioritized and reflect the needs and the demand for health services, with resource allocation orientated toward PHC and UHC objectives. They need to clearly specify health sector goals and be anchored in strong political agreements to improve consistency and predictability. NHPSPs must be well translated into operational plans and budgets that will allow for full implementation. They also need to be well monitored and transparently evaluated for increased accountability and transparency.
Reference(s)	Strategizing national health in the 21st century: a handbook. Geneva: World Health Organization; 2016 (https://apps.who.int/iris/handle/10665/250221, accessed 23 August 2021). Joint Assessment of National Health Strategies and Plans (JANS): Joint Assessment Tool, Frequently Asked Questions, Quality Assurance Checklist, 2014. Geneva: World Health Organization; 2015 (https://www.uhc2030.org/fileadmin/uploads/ihp/Documents/Tools/JANS/JANS_2014_English_WEB__1_.pdf, accessed 16 August 2021).
Existing data collection tool	To note: a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Governance

Indicator 4 Existence of policy, strategy or plan for improvement of quality and safety

Indicator short name	**Existence of policy, strategy or plan for improvement of quality and safety**
Indicator long name	Existence of national policy or strategy on quality of care and patient safety aligned with the national health strategic plan. The policy, strategy or plan addresses multiple domains of quality (effectiveness, safety, people-centredness, timeliness, equity, efficiency and integration).
Domain	Governance
Subdomain	Governance and policy frameworks
M&E domain	Structures

Definition	There is a validated national strategic direction on quality and safety, measured against the following criteria:
	• A national policy, strategy or plan exists (either separately or as part of the national health sector plan) that has been developed or revised /finalised within the last five years
	• Developed through a consultative stakeholder process, inclusive of communities and/or civil society
	• Defines a set of quality planning, improvement and control/assurance interventions that include:
	  ▪ Interventions for enabling system, e.g., registration and licensing, external evaluation and accreditation, clinical governance, training and supervision of workforce
	  ▪ An intervention on reducing harm, e.g., safety standards, protocols and checklists, adverse event reporting
	  ▪ An intervention on improving clinical care, e.g., clinical decision support tools, clinical standards, pathways and protocols, morbidity & mortality reviews
	  ▪ An intervention on patient, family and community engagement and empowerment, e.g., health literacy, shared decision-making, patient self-management tools
	• Includes specific mention defining the use of facility and provider regulatory mechanisms such as licensing, certification, external evaluations or accreditation
	• Includes specific mention of mechanisms to be enacted across service delivery platforms including primary care, community and outreach care, referral care and in-patient hospital care
	• Dedicated funding allocated in the government budget to implement the policy, strategy or plan for improvement of quality and safety
	There is a recognized structure such as a quality directorate/department/unit to take forward the development and operationalization of the national direction on quality

Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents
Rationale	National strategic direction setting on quality essential health services is important in order to systematically address local quality priorities and align all efforts in an integrated manner. In the 2018 joint WHO-World Bank-OECD global report, Delivering Quality Health Services: A Global Imperative, WHO, the World Bank and the OECD call on all countries to develop national quality policy and strategy. This is reiterated in the high-level UN Political Declaration on UHC and in the PHC operational framework lever on systems to improve quality of care (page 58).
Reference(s)	Handbook for National Quality Policy and Strategy. A practical approach for developing policy and strategy to improve quality of care. Geneva: World Health Organization; 2018. https://www.who.int/publications/i/item/9789241565561, accessed 16 August 2021). Quality Health Services. A Planning Guide. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/9789240011632, accessed 16 August 2021) UN Political Declaration on UHC; 2019 (https://undocs.org/en/A/RES/74/2, accessed 16 August 2021). Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/272465/9789241513906-eng.pdf?ua=1, accessed 4 October 2021). Quality in primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326461, accessed 30 August 2021).
Existing data collection tool	To note: a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Governance

Indicator 5 Existence of health emergency and disaster risk management strategies

Indicator short name	**Existence of health emergency and disaster risk management strategies**
Indicator long name	Existence of health emergency and disaster risk management strategies (all-hazards emergency plans for preparedness and response). (It will be important to consider documents with other possible titles, such as health emergency and disaster risk management strategies, health disaster risk reduction plans, national action plans for health security, health emergency preparedness and response plans, and risk reduction strategy/policy, etc.)
Domain	Governance
Subdomain	Governance and policy frameworks
M&E domain	Structures
Definition	There is a health emergency and disaster risk management strategy that is measured against the following criteria: • A health emergency and disaster risk management strategy has been developed/revised within the past five years • The strategy addresses the risk profiles of countries based on risk assessment • The strategy specifies the role of primary care providers regarding health emergency and disaster risk management • It is comprehensive in terms of health emergency management cycle, i.e., addresses prevention, preparedness, response and recovery measures • The strategy includes protocols for continuity and the maintenance of quality essential health services during response and safe restoration of services and strategies to address the backlog of health care needs in the recovery phase • The strategy adopts a whole-of-health system and whole of society approach (describes the roles and responsibilities of the health system, health sector and other allied sectors) • The strategy includes multilevel measures (i.e., it describes roles and responsibilities at all administrative levels of the country, e.g., national, subnational, local) • The strategy adopts inclusive, people- and community-centred approach based on PHC approach (i.e., it addresses vulnerabilities and capacities of communities including populations with higher levels) • The strategy incorporates an equity lens (i.e., it ensures financial barriers do not impede access to health care before, during and after emergencies including within primary care); it identifies vulnerable populations and addresses the needs of the vulnerable • The strategy adopts ethical and rights-based approaches (i.e., it upholds health as a human right and applies ethical standards driven by principles such as respect for persons, justice, solidarity and cultural sensitivity).
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on desk review of country documents
Rationale	Reducing the health risks and consequences of emergencies is vital to local, national and global health security and to build the resilience of communities, countries and health systems. Sound risk management is essential to safeguard development and implementation of the SDGs, including the pathway to UHC, the Sendai Framework for Disaster Risk Reduction 2015–2030 (Sendai Framework), International Health Regulations (IHR) (2005), Paris Agreement on Climate Change (Paris Agreement) and other related global, regional and national frameworks.
Reference(s)	Health emergency and disaster risk management framework. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/handle/10665/326106, accessed 16 August 2021). State Party Annual Report for IHR (e-SPAR) (https://extranet.who.int/e-spar, accessed 16 August 2021). Primary health care and health emergencies. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/328105, accessed 25 August 2021).
Existing data collection tool	World Health Organization. IHR (2005) State Party Self-Assessment Annual Reporting Tool (SPAR). Geneva: World Health Organization; 2018 (https://www.who.int/publications/i/item/WHO-WHE-CPI-2018-16, accessed 16 August 2021).

Governance

Indicator 6 Institutional capacity to meet essential public health functions and operations

Indicator short name	**Institutional capacity to meet essential public health functions and operations**
Indicator long name	Existence of national public health entity that is responsible for carrying out essential public health functions.
Domain	Governance
Subdomain	Governance and policy frameworks
M&E domain	Structures
Definition	There is national public health institute (NPHI) or entity that is responsible for leadership, expertise and coordination of a country's public health activities. This entity can have multiple forms, such as a standalone NPHI, a semi-autonomous institution under another national health authority, department(s) within the Ministry of Health, and several agencies with the responsibilities to carry out public health functions for population-based services collectively with the following characteristics: • The NPHI develops policies and interventions that address the country's public health problems • The NPHI is a public institution operating as part of the government or with the concurrence of the government • The NPHI is the main source of technical and scientific information of the Ministry of Health, lawmakers and other parts of government • The NPHI has adequate human and financial resources to carry out its core functions • The NPHI has adequate infrastructure support (computer, communications, access to laboratories) • The NPHI coordinates activities with other national organizations at national and subnational level • The NPHI has a defined workplan with a responsibility to carry out the following public health functions: ▪ Monitoring and evaluation of health status, service utilisation, and surveillance of risk factors and threats to health ▪ Public health emergency management ▪ Assuring quality and access to health services, health protection, including environmental occupational, food safety and other hazards ▪ Health promotion and action to address social determinants and health inequity, including through community engagement ▪ Disease prevention, including early detection of illness ▪ Community engagement for advocacy and social mobilization for health ▪ Advancing public health research to inform policy and practice ▪ Assuring effective health governance, regulation and public health legislation ▪ Supporting efficient and effective health systems planning, financing, and management for population health ▪ Ensuring adequate quality and quantity of public health workforce ▪ Ensuring equitable access to and rational use of essential medicines and other health technologies
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents, e.g., public health policies, national public health act, etc.
Rationale	Providing and maintaining essential public health functions (EPHFs) is a cornerstone for public health and resilient systems. The COVID-19 pandemic has exposed weaknesses in the public health capacities necessary for resilient health systems. It is important to have institutions such as NPHIs that are responsible for and able to carry out the core components of EPHFs reflective of the national context. Without dedicated responsible entity(ies) these functions will not be carried out, to the detriment of public health.
Reference(s)	International Association of National Public Health Institutes (IANPHI) Framework for the Creation and Development of National Public Health Institutes, IANPHI 2007 (https://ianphi.org/_includes/documents/sections/tools-resources/all-frameworks/frameworkfornphi.pdf , accessed 4 October 2021). Essential public health functions, health systems and health security: developing conceptual clarity and a WHO roadmap for action. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/272597, accessed 17 August 2021). Primary health care: closing the gap between public health and primary care through integration. Geneva; World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326458, accessed 30 August 2021).

Existing data collection tool	Self-assessment tool for the evaluation of essential public health operations in the WHO European Region. Copenhagen: World Health Organization Regional Office for Europe; 2015 (https://www.euro.who.int/en/publications/abstracts/self-assessment-tool-for-the-evaluation-of-essential-public-health-operations-in-the-who-european-region-2015, accessed 17 August 2021). Assessment of essential public health functions in countries of the Eastern Mediterranean Region. Assessment tool. Cairo: World Health Organization Regional Office for the Easter Mediterranean; 2017 (http://www.emro.who.int/about-who/public-health-functions/assessment-public-health-functions.html, accessed 17 August 2021). Pan American Health Organization/World Health Organization/Centers for Disease Control and Prevention/ Centro Latino Americano de Investigación en Sistemas de Salud. Public health in the Americas: Instrument for Performance Measurement of Essential Public Health Functions (https://www.paho.org/hq/dmdocuments/2010/EPHF_Instrument_Performance_Measurement.pdf, accessed 17 August 2021). To note: a revised and consolidated qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Governance

Indicator 7 Coordination mechanisms with multistakeholder participation and community engagement

Indicator short name	**Coordination mechanisms with multistakeholder participation and community engagement**
Indicator long name	Coordination mechanisms with multistakeholder participation and community engagement
Domain	Governance
Subdomain	Engagement with communities and other stakeholders
M&E domain	Structures
Definition	A national coordination mechanism exists meeting the following criteria: • Responsible for coordinating, monitoring and implementing health- PHC and/or UHC-related strategies and policies within the national health sector policy, strategies and plans • Participation includes broad range of stakeholders, including: ▪ Community groups, including vulnerable, marginalised and excluded populations ▪ Members of parliamentary health committee ▪ Health worker associations, patient groups ▪ Civil society organizations and advocacy groups, ▪ Health insurance bodies ▪ Provider organizations/associations ▪ Private sector • The coordination mechanism has accountability for the range of health activities defined by national health policies and plans • The coordination mechanism/authority has adequate budget and sufficient staff • The mandate includes the public sector as well as oversight and regulation of the private sector where feasible
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and /or desk review of country documents.
Rationale	A key role of the Ministry of Health is to plan, initiate, coordinate and oversee the priority-setting process, where relevant, through health sector coordination mechanisms. Policymakers must thus lead the process, ensure broad and meaningful stakeholder participation, ensure that the priorities that are set reflect stakeholder input in a balanced way, and be held accountable for the results. The process must be transparent, with clear roles and responsibilities, especially when it comes to evaluating and discussing evidence from different angles and viewpoints.
Reference(s)	Adapted from the PHCPI PHC Progression Model Assessment tool. Primary Health Care Performance Initiative (PHCPI). Primary health care progression model (https://improvingphc.org/primary-health-care-progression-model, accessed 16 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	To note: a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Governance

Indicator 8 Existence of national, subnational and local strategies for community engagement

Indicator short name	**Existence of national, subnational and local strategies for community engagement**
Indicator long name	Existence of national, subnational and local strategies for community engagement and social accountability in defining and priority setting processes
Domain	Governance
Subdomain	Engagement with communities and other stakeholders
M&E domain	Structures
Definition	Strategies exist to promote and support community engagement and social accountability in defining and monitoring objectives of the national health plans/strategies and based on the following minimum standards: • **Participation:** Communities assess their own health needs and participate in the analysis, planning, design, implementation, monitoring and evaluation of governance, development and humanitarian initiatives • **Ownership:** Communities have opportunities to own and feel empowered by community engagement processes • **Inclusion:** Community members and groups (populations) that are under-served, underrepresented, disadvantaged, vulnerable and marginalized are identified, supported and ensured a role and a voice in all aspects of community engagement (Power dynamics need to be critically considered for this standard in implementation.) • **Two-way communication:** Communities give and receive clear, appropriate and accurate information through two-way communication pathways, on a regular and predictable basis • **Adaptability:** Community engagement approaches are developed based on local contexts and responsive to local population needs, conditions, and concerns • **Building on local capacity.** Community engagement builds on the existing skills and resources of community and the local groups that serve them • Budget addressing community concerns and priorities
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents
Rationale	National governments have the primary responsibility to respect, fulfil and protect the rights of the population. Governments can facilitate processes through which community engagement efforts are coordinated and integrated with relevant government agencies, and work in a manner that is consistent with national policies and strategies. Government should develop policy and advance mechanisms for coordinating community engagement activities.
Reference(s)	Minimum Quality Standards and Indicators for Community Engagement. UNICEF; 2020. https://www.unicef.org/mena/media/8401/file/19218_MinimumQuality-Report_v07_RC_002.pdf.pdf, accessed 16 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). WHO community engagement framework for quality, people-centred and resilient health services. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/handle/10665/259280, accessed 30 August 2021).
Existing data collection tool	The reference document above includes a checklist tool in the Annex: https://www.unicef.org/mena/media/8401/file/19218_MinimumQuality-Report_v07_RC_002.pdf.pdf

Indicator 9 Evidence of effective stewardship of mixed health systems

Indicator short name	**Evidence of effective stewardship of mixed health systems**
Indicator long name	Evidence of effective stewardship of mixed (public/private sector) health systems
Domain	Governance
Subdomain	Engagement with private sector providers
M&E domain	Structures
Definition	There is a national policy, strategy or plan guiding the engagement of the private sector in health service delivery that includes the following WHO-recommended behaviours: • Builds understanding ▪ There are structures/platforms for data sharing ▪ Data are collected and analysed to align priorities for action ▪ Private sector data are used in relevant processes at national and subnational level for decision-making/prioritization • Fosters relations (Policy reflects shared objectives of all relevant stakeholders) ▪ Regulations and standards are in place for public/private actors that are evenly applied/enforced across public and private sectors and within different segments of the sectors ▪ The private sector is involved in decision-making (e.g., members of organization committees and/or task forces) ▪ Private health care players/providers are part of a larger federation led by a representative body/ committee ▪ Private sector is included in crisis management plans • Nurtures trust (System engenders mutual trust amongst all actors as reliable participants) ▪ There are checklists/guidelines to monitor accountability processes and diagnose symptoms of poor accountability ▪ Monitoring results are made public and there is a mechanism to ensure that the results are used for policy and planning ▪ There are transparent mechanisms in place to address challenges • Enables stakeholders (Institutional framework empowers actors) ▪ There are contracting models in place with the private sector ▪ Private sector is noted in economic and tax regulations ▪ Private sector is included within national health insurance or other results-based financing mechanisms • Delivers strategy (Policy incudes an articulation of roles and responsibilities to achieve a shared direction) ▪ There is a vision for the representative roles and responsibilities of public and private sectors ▪ Country has implemented policies for private sector engagement ▪ There are monitoring and engagement processes in place for the strategy
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents
Rationale	Both public and private sectors share responsibility for provision of services, but governments must oversee and guide the whole health system in order to protect the public interest. To do this, the role of health ministries as stewards for health must be reinforced. Private sector engagement is the inclusion of private providers for service delivery in mixed health systems. Private sector engagement requires that governments focus on governance of the whole health system – both private and public – to ensure quality of care and financial protection for patients, irrespective of where they seek care. It requires that the private sector aligns with public sector health goals and commits to working to support the government agenda.

Reference(s)	Engaging the private health service delivery sector through governance in mixed health systems: strategy report of the WHO Advisory Group on the Governance of the Private Sector for Universal Health Coverage Strategy. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/strategy-report-engaging-the-private-health-service-delivery-sector-through-governance-in-mixed-health-systems, accessed 16 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). The private sector, universal health coverage and primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/312248, accessed 30 August 2021).
Existing data collection tool	To note: a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

2.2 Indicators of adjustment to population needs

Adjustment to population needs

Indicator 10 Priority setting is informed by data and evidence

Indicator short name	**Priority setting is informed by data and evidence**
Indicator long name	Policy priority setting is informed by data and evidence on health priorities, burden of diseases, population risk, and equity analysis
Domain	Adjustment to population health needs
Sub-domain	Monitoring and evaluation
M/E domain	Structures
Definition	Priority setting in the national health strategic plan/policy is based on data and evidence, measured against the following criteria: • Includes a review of past performance (trends) over past five years • Includes a burden of disease analysis identifying populations most at risk • Includes data and analysis of performance at the subnational level • Data are disaggregated data to highlight gender responsiveness • Data are disaggregated to highlight populations experiencing vulnerabilities • Data are disaggregated to highlight spatial inequities • Stakeholder engagement is systematically used in all in priority setting exercises • A central unit or function in Ministry of Health exists to translate data and evidence into policy actions • Allocation of resources is based on results of the priority setting
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and /or desk review of country documents.
Rationale	Priority-setting is necessary everywhere, as resources are never unlimited. Choices must be made that reflect a society's values and vision for the health system and integrate reflections on explicitly chosen criteria. Priority-setting exercise is where the principal decisions are made after the situation analysis discussions and . is based on criteria set by health sector stakeholders. Evidence on the different criteria is then examined jointly. The results of the evidence analysis feed into the formulation of the national health policy, strategy or plan (NHPSP).
Reference(s)	Score for health data technical package: assessment methodology, 2020. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/medicines/regulatory-updates/gbt/2021-fair-pricing-forum/who_2021-04-16_methodology-score_web.pdf?sfvrsn=2a91f846_1, accessed 16 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	World Health Organization. SCORE assessment instrument (https://www.who.int/data/data-collection-tools/score/documents, accessed 16 August 2016).

Adjustment to population needs

Indicator 11 Existence of an M&E framework for national and local health plan meeting criteria

Indicator short name	**Existence of an M&E framework or plan for national health plan meeting criteria**
Indicator long name	Existence of an M&E framework for national health plan meeting criteria
Domain	Adjustment to population health needs
Sub-domain	Monitoring and evaluation
M/E domain	Structures
Definition	• The country's national health plan and policies include an M&E plan with a focus on PHC for UHC and includes PHC-related indicators with baselines and targets • Includes a well-balanced set of core indicators for PHC covering all three components of PHC (community engagement, multisectoral action and integrated health services) • All indicators including PHC indicators have well-defined baseline and targets • specifies disaggregations including by age, sex, gender, and by other inequity dimensions • includes specifications on data collection methods, digital architecture required for reporting of key indicators • includes data quality assurance mechanisms • includes analysis and review process specifications including roles and responsibilities • specifies use of data for policy and planning • specifies dissemination of data, including by level of care • specifies resource requirements to implement the strategic plan/policy
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents
Rationale	Health data are the bedrock of sound NHSPs and decisions to accelerate improvements in health systems and health outcomes. An enabling environment is therefore critical for ensuring their effective use. Accessible, credible data from multiple sources must be available to those who are best placed to use it to improve health system performance, including decision-makers at all levels, health service funders and implementers, academic institutions, the media and the public. It must also be accessible to those who aim to hold the government accountable. Mechanisms to promote data access and dissemination include annual statistical reports, national health observatories or portals and an open data policy in the government. Policy-relevant data analyses, evidence synthesis and structured expert review processes are needed to translate this knowledge to inform policy-making and legislative proposals. The use of regular independent reviews can promote transparency, strengthen accountability and drive remedial action. To ensure data and evidence are effectively applied to improve health systems and health outcomes, it is important to recognize the political complexities around data release and use and to engage proactively with decision-makers.
Reference(s)	Chapter 9 Monitoring, evaluation and review of national health policies, strategies and plans. Strategizing national health in the 21st century: a handbook. Geneva: World Health Organization; 2016 (https://apps.who.int/iris/bitstream/handle/10665/250221/9789241549745-chapter9-eng.pdf, accessed 16 August 2021). Score for health data technical package: assessment methodology, 2020. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/medicines/regulatory-updates/gbt/2021-fair-pricing-forum/who_2021-04-16_methodology-score_web.pdf?sfvrsn=2a91f846_1, accessed 16 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	World Health Organization. SCORE assessment instrument (https://www.who.int/data/data-collection-tools/score/documents, accessed 16 August 2016).

Adjustment to population needs

Indicator 12 Total net official development assistance to medical research and basic health sector

Indicator short name	**Total net ODA to medical research and basic health sector**
Indicator long name	Total net ODA to medical research and basic health sector (SDG 3.b.2)
Domain	Adjustment to population health needs
Sub-domain	Primary health care-oriented research
M/E domain	Structures
Definition	Total net ODA to the medical research and basic health sectors is currently measured by the gross disbursements of total ODA from all donors to medical research and basic health sectors.
Disaggregation(s)	Not applicable
Numerator	The sum of ODA flows from all donors to developing countries for medical research and basic health.
Denominator	Not applicable
Preferred data source	WHO, OECD, or other international database
Rationale	Total ODA quantifies development assistance to governments in developing countries that focuses on economic development and welfare. ODA is the main source of development aid. This indicator quantifies the public effort that donors provide to developing countries for medical research and basic health. Medical research and basic health sectors as defined by the Development Assistance Cooperation (DAC) includes all funding for activities included under Creditor Reporting System (CRS) codes 12182 (for medical research) and basic health (all codes in the 122 series). Some of the items covered under basic health include financial support to basic and primary health care programmes, paramedical and nursing care programmes, supply of drugs, medicines and vaccines related to basic health care, and activities targeted for achieving UHC, all linked to strengthening PHC.
Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021). United Nations Department of Economic and Social Affairs Statistics Division. Indicator 3.b.2: Total net official development assistance to the medical research and basic health sectors https://unstats.un.org/sdgs/metadata/files/Metadata-03-0b-02.pdf, accessed 18 August 2021).
Existing data collection tool	Data is compiled/collected by OECD/DAC.

Adjustment to population needs

Indicator 13 Percentage of public research funding for primary care research

Indicator short name	**Percentage of public research funding for primary care research**
Indicator long name	Percentage of public research funding for primary care research
Domain	Adjustment to population health needs
Sub-domain	Primary health care-oriented research
M/E domain	Structures
Definition	Percentage of public research funding for primary care research
Disaggregation(s)	Not applicable
Numerator	Amount of public research funding devoted to primary care research
Denominator	Total amount of public research funding
Preferred data source	Metadata under development by the World Health Organization.
Rationale	The comprehensive nature of primary care that focuses on the whole individual, how the individual navigates the health system and how the health system responds to the needs of individuals is a complex setting that requires research to understand and improve health service delivery. As most health care visits are managed in primary care, it is critical to strengthen this system to deliver quality health services. This effort requires evidence which is generated through primary care research. As primary care research requires funding, this measure examines the level of public funds allocated to primary care research. While overall public research funding varies between countries, and low-income countries have lower levels of research funding, the amount of public research funding devoted to primary care research reflects the level of prioritization of primary care by the government.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	Metadata under development by the World Health Organization. A data collection instrument and scoring methodology will be developed once finalized.

2.3 Financing indicators

Financing

Indicator 14 Current expenditure on health (total and PHC specific) as a percentage of gross domestic product (GDP)

Indicator short name	**Current expenditure on health (total and PHC-specific) as a percentage of GDP**
Indicator long name	Current expenditure on health (total and PHC-specific) as a percentage of GDP
Domain	Financing
Sub-domain	Funding and allocation of resources
M/E domain	Structures
Definition	Total (and PHC-specific) current expenditure on health as a percentage of GDP Notes on calculation of PHC expenditure based on SHA2011[4] methodology include: • General outpatient curative care (HC.1.3.1) - such as visits to a general practitioner or nurse • Dental outpatient curative care (HC.1.3.2) - such as visits for regular control and other oral treatment • Curative outpatient care not elsewhere classified. (HC.1.3.nec), excluding specialized outpatient care • Home-based curative care (HC.1.4), such as home visits by a general practitioner or nurse • Outpatient (HC.3.3) and home-based (HC.3.4) long-term health care • Preventive care (HC.6), such as immunization, health check-ups, health education, disease detection, monitoring and emergency response programmes • Part of medical goods provided outside health care services (80% of HC.5) • Part of health system administration and governance costs (80% of HC.7) The medical goods category under the HC classification includes medicines purchased outside the inpatient and outpatient setting (in pharmacies and markets) or paid for separately from the consultation fee. The PHC component of medical goods includes only those for general outpatient use and self-prescribed medicine. It does not include medical goods for specialized outpatient and inpatient services. Following these criteria and assuming most spending recorded for medical goods is for PHC, 80% of medical goods spending was attributed to PHC spending under this global definition. Governance functions are mainly related to the administration, development and implementation of policies, and the administration of health financing. Policy development, implementation and coordination are population-based interventions in the broader public health scope and so are considered as PHC. According to this criterion, 80% of spending in the governance category is counted as PHC spending. This includes all current expenditure, regardless of the source (domestic and donor funding).
Disaggregation(s)	PHC-specific expenditure Source of funding (e.g., GGHE-D, private, external)
Numerator	Sum of all current expenditure on health (12-month period).
Denominator	GDP
Preferred data source	National health account (NHA)
Rationale	Health expenditure as a share of GDP provides an indication on the level of resources channelled to health relative to other uses. It shows the importance of the health sector in the whole economy and indicates the societal priority which health is given, measured in monetary terms.

Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021). Methodology for the update of the Global Health Expenditure Database, 2000-2018: Technical note. Version December 2020 (https://apps.who.int/nha/database/DocumentationCentre/GetFile/58717361/en, accessed 16 August 2021). World Health Organization. Global Health Expenditure Database (https://apps.who.int/nha/database, accessed 16 August 2021). Global spending on health: a world in transition. Geneva: World Health Organization; 2019 (WHO/HIS/HGF/HFWorkingPaper/19.4). Licence: CC BY-NC-SA 3.0 IGO (https://www.who.int/health_financing/documents/health-expenditure-report-2019.pdf, accessed 17 August 2021). Organisation for Economic Co-operation and Development (OECD), Eurostat, and World Health Organization. A system of health accounts 2011. OECD; 2011 (https://www.who.int/health-accounts/methodology/sha2011.pdf, accessed 18 August 2021).
Existing data collection tool	OECD and World Health Organization. Guidelines for the implementation of the SHA 2011 framework for accounting health care financing. OECD; 2014 (https://www.who.int/health-topics/health-accounts#tab=tab_1, accessed 18 August 2021) [Can be found in the Guidelines Tab].

Financing

Indicator 15 Per capita total health expenditure (and PHC specific)

Indicator short name	**Per capita total health expenditure (and PHC-specific)**
Indicator long name	PHC expenditure per capita (as disaggregation of total health expenditure.
Domain	Financing
Sub-domain	Funding and allocation of resources
M/E domain	Structures
Definition	Per capita health expenditure (total and PHC-specific) PHC expenditure is calculated as follows based upon data from the SHA2011: 4 • General outpatient curative care (HC.1.3.1) - such as visits to a general practitioner or nurse • Dental outpatient curative care (HC.1.3.2) - such as visits for regular control and other oral treatment • Curative outpatient care not elsewhere classified. (HC.1.3.nec), excluding specialized outpatient care • Home-based curative care (HC.1.4), such as home visits by a general practitioner or nurse • Outpatient (HC.3.3) and home-based (HC.3.4) long-term health care • Preventive care (HC.6), such as immunization, health check-ups, health education, disease detection, monitoring and emergency response programmes • Part of medical goods provided outside healthcare services (80% of HC.5) • Part of health system administration and governance costs (80% of HC.7) The medical goods category under the HC classification includes medicines purchased outside the inpatient and outpatient setting (in pharmacies and markets) or paid for separately from the consultation fee. The PHC component of medical goods includes only those for general outpatient use and self-prescribed medicine. It does not include medical goods for specialized outpatient and inpatient services. Following these criteria and assuming most spending recorded for medical goods is for PHC, 80% of medical goods spending was attributed to PHC spending under this global definition. Governance functions are mainly related to the administration, development and implementation of policies, and the administration of health financing. Policy development, implementation and coordination are population-based interventions in the broader public health scope and so are considered as PHC. According to this criterion, 80% of spending in the governance category is counted as PHC spending.
Disaggregation(s)	PHC-specific expenditure Source of funding (e.g., GGHE-D, private, external)
Numerator	Total health expenditure and Total current PHC expenditure (in U.S. dollars)
Denominator	Population count
Preferred data source	NHA
Rationale	This indicator calculates the average expenditure on health per person. It contributes to understanding the health expenditure relative to the population size, facilitating international comparison. The per capita expenditure for PHC demonstrates levels of health expenditure that are used for PHC.

Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021). World Health Organization. Methodology for the update of the Global Health Expenditure Database, 2000-2018: Technical note. Version December 2020 (https://apps.who.int/nha/database/DocumentationCentre/GetFile/58717361/en, accessed 16 August 2021). World Health Organization. Global Health Expenditure Database (https://apps.who.int/nha/database, accessed 16 August 2021). Global spending on health: a world in transition. Geneva: World Health Organization; 2019 (WHO/HIS/HGF/HFWorkingPaper/19.4). License: CC BY-NC-SA 3.0 IGO (https://www.who.int/health_financing/documents/health-expenditure-report-2019.pdf, accessed 17 August 2021). Organisation for Economic Co-operation and Development (OECD), Eurostat, and World Health Organization. A system of health accounts 2011. OECD; 2011 (https://www.who.int/health-accounts/methodology/sha2011.pdf, accessed 18 August 2021).
Existing data collection tool	OECD and World Health Organization. Guidelines for the implementation of the SHA 2011 framework for accounting health care financing. OECD; 2014 (https://www.who.int/health-topics/health-accounts#tab=tab_1, accessed 18 August 2021) [Can be found in the Guidelines Tab].

Indicator 16 Government PHC spending as percentage of government health expenditure

Indicator short name	**Government PHC spending as percentage of government health expenditure**
Indicator long name	Government PHC spending as percentage of total government health expenditure
Domain	Financing
Sub-domain	Funding and allocation of resources
M/E domain	Structures
Definition	Domestic general government expenditure on PHC as a share of domestic general government health expenditure PHC expenditure is calculated as follows, based upon data from the SHA2011:4 • General outpatient curative care (HC.1.3.1), such as visits to a general practitioner or nurse • Dental outpatient curative care (HC.1.3.2), such as visits for regular control and other oral treatment • Curative outpatient care not elsewhere classified. (HC.1.3.nec), excluding specialized outpatient care • Home-based curative care (HC.1.4), such as home visits by a general practitioner or nurse • Outpatient (HC.3.3) and home-based (HC.3.4) long-term health care • Preventive care (HC.6), such as immunization, health check-ups, health education, disease detection, monitoring and emergency response programmes • Part of medical goods provided outside health care services (80% of HC.5) • Part of health system administration and governance costs (80% of HC.7) The medical goods category under the HC classification includes medicines purchased outside the inpatient and outpatient setting (in pharmacies and markets) or paid for separately from the consultation fee. The PHC component of medical goods includes only those for general outpatient use and self-prescribed medicine. It does not include medical goods for specialized outpatient and inpatient services. Following these criteria and assuming most spending recorded for medical goods is for PHC, 80% of medical goods spending was attributed to PHC spending under this global definition. Governance functions are mainly related to the administration, development and implementation of policies, and the administration of health financing. Policy development, implementation and coordination are population-based interventions in the broader public health scope and so are considered as PHC. According to this criterion, 80% of spending in the governance category is counted as PHC spending.
Disaggregation(s)	Not applicable
Numerator	Government expenditure on PHC
Denominator	General government expenditure on health
Preferred data source	NHA
Rationale	The amount of government spending on health devoted to PHC reflects the level of prioritization of PHC by the government as well as the sustainability of financing for PHC. Public funding should be prioritized to ensure equity of access and financial protection through a PHC approach.

Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021). World Health Organization. Methodology for the update of the Global Health Expenditure Database, 2000-2018: Technical note. Version December 2020 (https://apps.who.int/nha/database/DocumentationCentre/GetFile/58717361/en, accessed 16 August 2021). World Health Organization. Global Health Expenditure Database (https://apps.who.int/nha/database, accessed 16 August 2021). Global spending on health: a world in transition. Geneva: World Health Organization; 2019 (WHO/HIS/HGF/HFWorkingPaper/19.4). Licence: CC BY-NC-SA 3.0 IGO (https://www.who.int/health_financing/documents/health-expenditure-report-2019.pdf, accessed 17 August 2021). Organisation for Economic Co-operation and Development (OECD), Eurostat, and World Health Organization. A system of health accounts 2011. OECD; 2011 (https://www.who.int/health-accounts/methodology/sha2011.pdf, accessed 18 August 2021).
Existing data collection tool	OECD and World Health Organization. Guidelines for the implementation of the SHA 2011 framework for accounting health care financing. OECD; 2014. (https://www.who.int/health-topics/health-accounts#tab=tab_1, accessed 18 August 2021) [Can be found in the Guidelines Tab].

Financing

Indicator 17 Sources of expenditure on health (and PHC-specific)

Indicator short name	**Sources of expenditure on health (and PHC-specific)**
Indicator long name	Sources of expenditure on health including out-of-pocket (and PHC-specific)
Domain	Financing
Sub-domain	Funding and allocation of resources
M/E domain	Structures
Definition	Distribution of expenditure on health by source (private (including (out of pocket), domestic government, external) Expenditure on PHC from pre-paid sources: Proportion of expenditure from pre-paid sources (all sources but out-of-pocket), including change in this proportion over time as a measure of promotion of the use of PHC by making PHC a priority to make financially accessible. PHC expenditure is calculated as follows, based upon data from the SHA2011:4 • General outpatient curative care (HC.1.3.1), such as visits to a general practitioner or nurse • Dental outpatient curative care (HC.1.3.2), such as visits for regular control and other oral treatment • Curative outpatient care not elsewhere classified. (HC.1.3.nec), excluding specialized outpatient care • Home-based curative care (HC.1.4), such as home visits by a general practitioner or nurse • Outpatient (HC.3.3) and home-based (HC.3.4) long-term health care • Preventive care (HC.6), such as immunization, health check-ups, health education, disease detection, monitoring and emergency response programmes • Part of medical goods provided outside health care services (80% of HC.5) • Part of health system administration and governance costs (80% of HC.7) The medical goods category under the HC classification includes medicines purchased outside the inpatient and outpatient setting (in pharmacies and markets) or paid for separately from the consultation fee. The PHC component of medical goods includes only those for general outpatient use and self-prescribed medicine. It does not include medical goods for specialized outpatient and inpatient services. Following these criteria and assuming most spending recorded for medical goods is for PHC, 80% of medical goods spending was attributed to PHC spending under this global definition. Governance functions are mainly related to the administration, development and implementation of policies, and the administration of health financing. Policy development, implementation and coordination are population-based interventions in the broader public health scope and so are considered as PHC. According to this criterion, 80% of spending in the governance category is counted as PHC spending.
Disaggregation(s)	PHC-specific expenditure Source: out of pocket, domestic government, external
Numerator	Total expenditure on health from each relevant source (government schemes, compulsory contributory health care financing, voluntary health care payment schemes, household out-of-pocket, rest of world financing schemes, other)
Denominator	Total expenditure on health
Preferred data source	NHA

Rationale	The distribution of sources for expenditure on health reflects the mix of resources available to support a country's health system. The share of domestic general government resources used to fund health expenditures out of total current health expenditures indicates what proportion of public sector spending is devoted to health. Public sources include domestic revenue (such as internal transfers and grants, transfers, subsidies to voluntary health insurance beneficiaries, NPISH or enterprise financing schemes) as well as compulsory prepayment and social health insurance contributions. All these transfers and subsidies represent public sources for health and indicate the government's overall contribution to funding health care relative to other sources of funding from domestic private and external sources. The share of domestic private expenditures on health of the total current health expenditures indicates how much is funded domestically by the private sector. Private sector funds stem from households, corporations and non-profit organizations. Such expenditures can be either prepaid to voluntary health insurance or paid directly to health care providers. This indicator describes the role of the private sector in funding health care relative to public or external sources. Out-of-pocket expenditure estimates how much households in each country are spending on health directly out of pocket. The share of external sources spent on health as a percentage of total current health expenditures indicates how much the health system is dependent on external funding sources relative to domestic sources. External sources compose of direct foreign transfers and foreign transfers distributed by government encompassing all financial inflows into the national health system from outside the country.
Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021). World Health Organization. Methodology for the update of the Global Health Expenditure Database, 2000-2018: Technical note. Version December 2020 (https://apps.who.int/nha/database/DocumentationCentre/GetFile/58717361/en, accessed 16 August 2021). World Health Organization. Global Health Expenditure Database (https://apps.who.int/nha/database, accessed 16 August 2021). Global spending on health: a world in transition. Geneva: World Health Organization; 2019 (WHO/HIS/HGF/HFWorkingPaper/19.4). Licence: CC BY-NC-SA 3.0 IGO (https://www.who.int/health_financing/documents/health-expenditure-report-2019.pdf, accessed 17 August 2021). Organisation for Economic Co-operation and Development, Eurostat, and World Health Organization. A system of health accounts 2011. OECD; 2011 (https://www.who.int/health-accounts/methodology/sha2011.pdf, accessed 18 August 2021).
Existing data collection tool	OECD and World Health Organization. Guidelines for the implementation of the SHA 2011 framework for accounting health care financing. OECD; 2014 (https://www.who.int/health-topics/health-accounts#tab=tab_1, accessed 18 August 2021) [Can be found in the Guidelines Tab].

Financing

Indicator 18 Contingency funds available for emergencies

Indicator short name	**Contingency funds available for emergencies**
Indicator long name	Contingency funds are available for emergencies
Domain	Financing
Sub-domain	Funding and allocation of resources
M/E domain	Structures
Definition	Contingency funds available for emergencies, measured against the following criteria: • An emergency contingency fund exists at the national, regional or international level, with which a national or subnational authority can coordinate the reception and distribution of funds for responding to emergencies is in place at the national, intermediate and local levels. (IHR. SPAR C1.3). • Contingency funding having explicit coverage on maintenance of essential health services, including primary care services. • Financing can be executed and monitored in a timely and coordinated manner at all levels and for all relevant sectors, with an emergency contingency fund in place, for response to an acute public health emergency. (IHR JEE P1.3 Sustainable capacity)
Disaggregation(s)	National and subnational
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents
Rationale	Contingency funds for emergencies that allow WHO to access funds to respond to emergencies, often in 24 hours or less, are a critical part of emergency response preparedness. Ability to quickly respond to emergencies can stave off unnecessary suffering and save lives. This emergency fund also serves to support continuity of services during an emergency when there are gaps in other donor funds.
Reference(s)	Health emergency and disaster risk management framework. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/handle/10665/326106, accessed 16 August 2021). (caveat: does not cover funding "maintenance of essential health services" aspects. World Health Organization. State Party Annual Report for IHR (e-SPAR) (https://extranet.who.int/e-spar, accessed 16 August 2021). Joint External Evaluation Tool: International Health Regulations (2005) – 2nd ed. Geneva: World Health Organization, 2018 (https://apps.who.int/iris/handle/10665/259961, accessed 19 August 2021).
Existing data collection tool	World Health Organization. IHR (2005) State Party Self-Assessment Annual Reporting Tool (SPAR). Geneva: World Health Organization; 2018 (https://www.who.int/publications/i/item/WHO-WHE-CPI-2018-16, accessed 16 August 2021).

Financing

Indicator 19 Services included in health benefits package (including primary care)

Indicator short name	**Services included in HBP (including primary care)**
Indicator long name	Explicit definition of HBP (including primary care services) to be prioritized for UHC and financed from public sources
Domain	Financing
Sub-domain	Purchasing and payment systems
M/E domain	Structures
Definition	UHC package (health benefits package) defines a set of services to be financed from public sources that have been assessed for inclusion in the benefit package as part of a systematic, transparent process including criteria on economic evidence and budget impact/cost-effectiveness. • There is a set of explicitly defined benefits for the entire population • Decisions on those services to be publicly funded made transparently, using explicit criteria and participatory processes • Entitlements and conditions of access are clearly defined and communicated to the population • User charges are clear and include mechanisms to exempt vulnerable persons • Participation in the development of the HBP includes broad range of stakeholders, including: ▪ Other relevant sectoral ministries ▪ Members of parliamentary health committee ▪ Civil society organizations (advocacy groups, population groups, including vulnerable, marginalized and excluded populations) ▪ Patients ▪ Health workers ▪ Health insurance bodies ▪ Provider organizations/associations
Disaggregation(s)	Type of service: e.g., prevention, promotion, treatment/rehabilitation, palliation Disease area/life-course need Delivery platform: e.g., (primary care (including community-based care), referral care, home care, long-term care, etc.
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents

Rationale	Benefit policy comprises decisions on population entitlements (i.e., publicly funded services) and medicines and other medical products. Also, part of benefit policy decisions are decisions on the conditions of access, such as the need for a co-payment or adherence to a referral system. Together, these two aspects can shape the way in which publicly funded services are delivered, and how they are accessed. International experience shows that general declarations of UHC or benefit entitlements for the population are not enough to make real progress; in contrast, being explicit and clear about entitlements and any related conditions of access, reduces uncertainty for the population (which generally constitutes a barrier to accessing services) is a move in a positive direction. Increasing transparency does not mean defining benefits in detail, as this can be confusing, especially where covered services are defined in long complicated lists. Many countries are becoming more explicit about what the population is, and is not, entitled to - for example, through packages of essential services. While benefit design can influence health system performance, and should be rooted in evidence, difficult choices on trade-offs will need to be made and hence many decisions are also inherently political. A transparent process which considers both technical evidence and societal values is important to make priorities with widespread support. Many countries are now establishing such processes. Overarching concerns which guide decisions include efficiency, equity, and financial protection, but the balance between these will vary across countries. Incorporating population demands or preferences is also important, as is the budget impact of any decisions; funding public or semi-public goods is also of critical importance.
Reference(s)	Included in Stage 2 – benefits and conditions of access in the health financing progress matrix. Assessing country health financing systems: the health financing progress matrix. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021). The health financing progress matrix: country assessment guide. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021).
Existing data collection tool	World Health Organization. Web Annex. Data collection template. In: The health financing progress matrix: country assessment guide. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021).

Indicator 20 Purchasing and provider payment methods are in place (including in primary care)

Indicator short name	**Purchasing and provider payment methods are in place (including in primary care)**
Indicator long name	Purchasing and provider payment methods are in place (including in primary care)
Domain	Financing
Sub-domain	Purchasing and payment systems
M/E domain	Structures
Definition	Appropriate provider payment methods are in place as measured against the following criteria: • Payment of providers is driven by information on the health needs of the population they serve • Provider payments harmonized within and across purchasers to ensure coherent incentives for providers • Purchasing arrangements promote quality of care • Provider payment methods and complementary administrative mechanisms address potential over- or under-provision of services • Information on providers' activities captured by purchasers adequate to guide purchasing decisions • Providers have financial autonomy and are held accountable
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents.
Rationale	The way in which providers are paid is one of the most powerful ways to influence the performance of providers, from several perspectives, including the quality and efficiency of services provided. Depending on the type of provider payment system in place, providers have different incentives for health services delivery. For example, when a payment system is based on the quantity of services (fee-for-service), quality and efficiency might not get the same level of importance. To ensure that patients get the highest-quality care, appropriate provider payments need to be implemented.
Reference(s)	The health financing progress matrix: country assessment guide. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Analytical guide to assess a mixed provider payment system. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/handle/10665/311020, accessed 25 August 2021).
Existing data collection tool	World Health Organization. Web Annex. Data collection template. In: The health financing progress matrix: country assessment guide. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021).

Financing

Indicator 21 Health financing follows established guidelines

Indicator short name	**Health financing follows established guidelines**
Indicator long name	Health financing (or access to health benefits package/insurance scheme) follows established guidelines
Domain	Financing
Sub-domain	Purchasing and payment systems
M/E domain	Structures
Definition	Health financing (or access to HBP or insurance scheme) follows WHO-recommended guidelines, including following criteria: • Population entitlements and conditions of access defined explicitly and in easy-to-understand terms • User charges are designed to ensure financial obligations are clear and have functioning protection mechanisms for patients • Defined benefits aligned with available revenues, available health services, and purchasing mechanisms
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents.
Rationale	Benefit policy comprises decisions on population entitlements (i.e., publicly funded services) and medicines and other medical products. Also, part of benefit policy decisions are decisions on the conditions of access, such as the need for a co-payment or adherence to a referral system. Together, these two aspects can shape the way in which publicly funded services are delivered, and how they are accessed. Coverage policy, in terms of both entitlements and conditions of access, must be clearly defined and easy to understand for the population; when unsure, patients may decide not to seek the care they need. Transparency is hence a key objective of health systems, and requires avoiding overly detailed, differentiated and complicated entitlements and conditions of access. It means avoiding technical language and generally keeping things simple but clear. Fixed amount co-payments are easy for people to understand and reduce uncertainty about the payment required. Additional policy measures which protect patients against excessive payments include annual caps on total co-payments and the use of exemptions; in both cases implementation will be difficult where administrative capacity is weak, and detailed information is not available. Simpler approaches such as targeted exemptions for certain services, or geographical areas, are more likely to be administratively feasible. Decisions by policymakers on benefit design (i.e., both entitlements and conditions of access) can be one of the most powerful instruments or levers through which health system performance can be improved, especially when realistically aligned with available revenues and coordinated with complementary reinforcing policies such as the development of programme budgets and improvements in strategic purchasing.
Reference(s)	Included in Stage 2 – benefits and conditions of access in the health financing progress matrix. Assessing country health financing systems: the health financing progress matrix. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021). The health financing progress matrix: country assessment guide. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021).
Existing data collection tool	World Health Organization. Web Annex. Data collection template. In: The health financing progress matrix: country assessment guide. Geneva: World Health Organization; 2020 (https://www.who.int/teams/health-systems-governance-and-financing/health-financing/diagnostics/health-financing-progress-matrix, accessed 16 August 2021).

2.4 Physical infrastructure indicators

Physical infrastructure

Indicator 22 Health facility density/distribution (including primary care)

Indicator short name	**Health facility density/distribution (including primary care)**
Indicator long name	Health facility density/distribution (including primary care)
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	Total number of health facilities (and primary care facilities) per 10 000 population, disaggregated by managing authority.
Disaggregation(s)	Facility type (as relevant to context): including, primary care facilities (e.g., GP practices, health centres, community health posts), specialty outpatient facilities (including polyclinics), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, traditional medicine, etc. Managing authority: public, private Sub-National Urban/rural
Numerator	Number of facilities in public and private sectors
Denominator	Total population
Preferred data source	Routine facility information system – facility database/master facility list, geospatial modelling
Rationale	Provides an idea of geographic accessibility to health services. Availability of health facilities, especially facilities that provide primary health care services is critical for achieving UHC. This indicator is also a key measure of equity as it demonstrates the levels of physical access to health services.
Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021).
Existing data collection tool	Routine health information system

Physical infrastructure

Indicator 23 Availability of basic water, sanitation and hygiene amenities

Indicator short name	**Availability of basic water, sanitation and hygiene (WASH) amenities**
Indicator long name	Percentage of facilities with availability of basic WASH amenities (potable water, toilet, sink, waste management, cleaning)
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	Percentage of facilities that have basic WASH amenities: • Water: available from an improved source, on premises • Sanitation: Improved facilities are usable, with at least one toilet for staff, one sex-separated with menstrual hygiene facilities and at least one accessible for those with limited mobility • Hand hygiene: functional hand hygiene facility (water with soap and/or ABHR) at points of care and within 5 metres of toilets • Health care waste: waste is safely segregated into three bins and sharps and infectious waste and treated and disposed of safely • Cleaning: basic protocols for cleaning are available and staff with cleaning responsibilities have received training
Disaggregation(s)	Facility type: hospital, non-hospital Managing authority: government, non-government Urban/rural
Numerator	Number of health facilities that meet basic WASH standards
Denominator	Total number of facilities examined
Preferred data source	Facility survey
Rationale	WASH services in health care facilities are fundamental to providing quality care, adhering to infection prevention and control standards and to the acceptability of health facilities.
Reference(s)	Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. Geneva: World Health Organization and the UNICEF; 2018 (https://www.who.int/water_sanitation_health/publications/monitoring-wash-in-health-care-facilities-aug-2018.pdf, accessed 16 August 2021). Global progress report on WASH in health care facilities: Fundamentals first. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/9789240017542, accessed 16 August 2021). WHO/UNICEF Joint Monitoring Programme. Latest database: (http://washdata.org/data/healthcare, accessed 16 August 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's Service Availability and Readiness Assessments (SARA) and Harmonized Health Facility Assessments (HHFA), World Bank's Service Delivery Indicators (SDI), and DHS program's Service Provision Assessment (SPA). World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Physical infrastructure

Indicator 24 Availability of power

Indicator short name	**Availability of power**
Indicator long name	Percentage of facilities with availability of power
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	Percentage of facilities that use - at least some of the time - any source of electrical power, excluding standalone medical devices
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health facilities with
Denominator	Total number of facilities
Preferred data source	Facility survey
Rationale	Access to electricity is a prerequisite for powering medical devices for diagnosis, disease prevention and treatment. It is required for the operation of critical medical devices, such as vaccine refrigeration, oxygen concentrators, foetal heart monitors, neonatal infant warmers and basic surgical and diagnostic equipment, as well as for lighting, clean water, communication and several other services.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). World Health Organization. Access to modern energy services for health facilities in resource-constrained settings: a review of status, significance, challenges and measurement. Geneva: World Health Organization; 2014 (https://apps.who.int/iris/handle/10665/156847, accessed 23 August 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's SDI, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement.

Physical infrastructure

Indicator 25 Availability of communications

Indicator short name	**Availability of communications**
Indicator long name	Percentage of facilities with a communication system in place
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	Percentage of facilities of that have access to communication systems as measured by the following attributes: • Facility ownership of telephone, radio and computer • Functioning telephone that is available to call outside at all times client services are offered • Functioning shortwave radio for radio calls • Functioning computer • Access to email or internet
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health facilities with communication system
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Communication services in health care facilities are fundamental to providing quality care, enabling digital health capacities, and providing connectivity to patients, families and other health facilities.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Access to modern energy services for health facilities in resource-constrained settings: a review of status, significance, challenges and measurement. Geneva: World Health Organization; 2014 (https://apps.who.int/iris/handle/10665/156847, accessed 23 August 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's service delivery indicators, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement.

Physical infrastructure

Indicator 26 Access to emergency transport for interfacility transfer

Indicator short name	**Access to emergency transport for interfacility transfer**
Indicator long name	Percentage of facilities with access to emergency transport for interfacility transfer
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	Percentage of facilities that have access to emergency transport measured by having key components: • Access to a functional ambulance or other vehicle for emergency transportation for patients that is either available by call or stationed at facility. • Emergency vehicle, emergency care health worker and a driver are available 24 hours
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health facilities with emergency transport
Denominator	Total number of facilities examined
Preferred data source	Facility survey
Rationale	Emergency transport for interfacility transfer is important to improve the timely management of time-sensitive urgent/emergent conditions that cannot be adequately or completely managed in some facilities.
Reference(s)	World Health Organization. WHO Emergency Care System Framework (https://www.who.int/publications/i/item/who-emergency-care-system-framework, accessed 17 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's service delivery indicators, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment (HHFA). March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement.

2.5 Health workforce indicators

Health workforce

Indicator 27 Health worker density and distribution

Indicator short name	**Health worker density and distribution**
Indicator long name	Health worker density per 10 000 population and distribution (by occupation, health facility type, managing authority, location, GINI)
Domain	Health workforce
Sub-domain	Health workforce
M/E domain	Inputs
Definition	Number of health workers per 10 000 population by occupation Total population as estimated by the UN Statistics Division. In case of other methodology used, WHO recalculates densities according to the UN Statistics population data to harmonize the densities and ensure comparability.
Disaggregation(s)	**By activity level** the following categories are recommended: practising health workers, professionally active health workers, and health workers licensed to practise. The PHC workforce includes all occupations engaged in providing health promotion, disease prevention, treatment, rehabilitation and palliative care services, the public health workforce, and those engaged in addressing the social determinants of health with a specific focus on general medical practitioners, nurses, midwives and community health workers (CHWs). It also includes caregivers and volunteers, the majority of whom are women, who complement the work of salaried workers. **By Occupation:** (ISCO-08 codes included in parentheses) Medical Doctors (221) • Generalist medical practitioners (2211) • Specialist medical practitioners (2212) Nursing and midwifery professionals (222) • Nursing professionals (2221) • Midwifery professionals (2222) Traditional and complementary medicine professionals (223) Other health professionals (226) • Dentists (2261) • Pharmacists (2262) • Environmental and occupational health and hygiene professionals (2263) • Physiotherapists (2264) • Dietitians and nutritionists (2265) • Audiologists and speech therapists (2266) • Optometrists and ophthalmic opticians (2267) • CHWs (3253) **By health facility** types based on the classification of NHWA (NHWA indicator 1-06): • Hospitals (HP.1) • Residential long-term care facilities (HP.2) • Providers of ambulatory health care (HP.3) (including facilities, community services, individual providers) • Ancillary services (HP.4) (including transportation, emergency rescue, laboratories and others) • Retailers (HP.5) (including pharmacies) • Providers of preventive care (HP.6)

	Density of family medicine practitioners per 100 000 population (NHWA 8-05) Family medicine practitioners are part of the generalist medical practitioners classified in ISCO-08 with code 2212. They are referred to as general practitioners in some countries, and as a specialization in others. They should provide person-centred, continuous and comprehensive medical care to individuals and families in their communities. This group does not include resident medical officers, medical interns or other generalist medical practitioners not in general practice activities. **Gender** (NHWA indicator 1-04) **Age** (NHWA indicator 1-03) **Managing authority** (public/private) (NHWA indicator 1-05) **Location** (district, province, national, etc) (NHWA indicator 1-02) **Gini index** of subnational (first administrative level) To better understand the stock and distribution of health workforce-supporting integrated health services emphasizing primary care and public health functions, disaggregation by both occupation and health facility type are particularly helpful. The occupations and facility types that should be considered as part of public health and primary care will vary according to national context, established models of care and relative roles and responsibilities of service delivery platforms. Understanding the density of family medicine practitioners relative to other practitioners is one way to demonstrates the relative staffing of primary care in relationship to other service delivery platforms.
Numerator	Number of health workers by occupation
Denominator	Total population as estimated by the UN Statistics Division. In case of other methodology used, WHO recalculates densities according to the UN Statistics population data in order to harmonize the densities and ensure comparability
Preferred data source	NHWA
Rationale	The concept of a multidisciplinary primary care workforce that was articulated in the Declaration of Alma-Ata is as valid and relevant today as it was 40 years ago. To progress toward UHC, countries will need a health workforce that is aligned with population and community health needs and which can adjust to the growing demand for health care driven by rapid demographic, epidemiological, economic, social and political changes. The primary health care workforce includes all occupations engaged in providing health promotion, disease prevention, treatment, rehabilitation and palliative care services, the public health workforce, and those engaged in addressing the social determinants of health with a specific focus on general medical practitioners, nurses, midwives and CHWs. It also includes caregivers and volunteers, the majority of whom are women, who complement the work of salaried workers. Ensuring that all occupations play an effective role in the PHC team, including through role optimization and role substitution, can transform traditional models of service provision. Preparing the health workforce to work toward the attainment of a country's health objectives represents one of the most important challenges for its health system. Methodologically, there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population. It has been estimated, however, in the World Health Report 2006, that countries with fewer than 23 physicians, nurses and midwives per 10 000 population generally fail to achieve adequate coverage rates for selected PHC interventions as prioritized by the Millennium Development Goals framework.
Reference(s)	Building the primary health care workforce of the 21st century. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/328072, accessed 16 August 2021). National Health Workforce Accounts: a handbook. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/bitstream/handle/10665/259360/9789241513111-eng.pdf?sequence=1, accessed 16 August 2021).
Existing data collection tool	WHO National Health Workforce Accounts (https://apps.who.int/nhwaportal/, accessed 19 August 2021).

Indicator 28 Accreditation mechanisms for education and training institutions

Indicator short name	**Accreditation mechanisms for education and training institutions**
Indicator long name	Existence of national and/or subnational mechanisms for accreditation of education and training institutions and their programmes
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	There are national and/or subnational mechanisms for accreditation of education and training institutions, health care organizations and their programmes, measured against the following criteria: • National and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes have been established • National and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes are compulsory • Additional, non-compulsory, national and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes exist • National and/or subnational mechanisms for accreditation of health workforce education and training institutions and their programmes take into account national education plans for the health workforce: ▪ Match health worker competencies with population, health systems, and health labour market needs ▪ Take into account efforts to scale up transformative education and training? ▪ Recognized institutes such as national public health institutes, universities and collaborating centres offer training courses on the implementation and monitoring of Health in All Policies and related concepts? ▪ Strategic steps are taken when considering and taking into account the workforce market needs and absorptive capacities for the education plan development
Disaggregation(s)	**By Occupation:** (ISCO-08 codes included in parentheses) • Medical Doctors (221) ▪ Generalist medical practitioners (2211) ▪ Specialist medical practitioners (2212) • Nursing and midwifery professionals (222) ▪ Nursing professionals (2221) ▪ Midwifery professionals (2222) • Traditional and complementary medicine professionals (223) • Other health professionals (226) ▪ Dentists (2261) ▪ Pharmacists (2262) ▪ Environmental and occupational health and hygiene professionals (2263) ▪ Physiotherapists (2264) ▪ Dietitians and nutritionists (2265) ▪ Audiologists and speech therapists (2266) ▪ Optometrists and ophthalmic opticians (2267) ▪ CHWs (3253) ▪ Family medicine practitioners

Numerator	Not applicable
Denominator	Not applicable
Preferred data source	NHWA
Rationale	The accreditation of medical education and training - the certification of the suitability of health care education programmes, and of the competence of training institution in the delivery of training and education - ensures patient safety, quality of care and competent health care providers. For PHC, the focus for accreditation of medical education and training programmes will be for general medical practitioners, nurses and midwives.
Reference(s)	Building the primary health care workforce of the 21st century. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/328072, accessed 16 August 2021). National Health Workforce Accounts: a handbook. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/bitstream/handle/10665/259360/9789241513111-eng.pdf?sequence=1, accessed 16 August 2021).
Existing data collection tool	WHO National Health Workforce Accounts (https://apps.who.int/nhwaportal/, accessed 19 August 2021).

Health workforce

Indicator 29 National systems for continuing professional development

Indicator short name	**National systems for continuing professional development (CPD)**
Indicator long name	Existence of national systems for CPD
Domain	Health workforce
Sub-domain	Health workforce
M/E domain	Inputs
Definition	There is a national system for CPD, measured against the following criteria: • It is compulsory • It is linked to re-licensure • It is integrated into national education plans for the health workforce, for that occupation (see NHWA indicator 09_04)

Disaggregation(s)	**By Occupation:** (ISCO-08 codes included in parentheses)
	• Medical Doctors (221)
	  ▪ Generalist medical practitioners (2211)
	  ▪ Specialist medical practitioners (2212)
	• Nursing and midwifery professionals (222)
	  ▪ Nursing professionals (2221)
	  ▪ Midwifery professionals (2222)
	• Traditional and complementary medicine professionals (223)
	• Other health professionals (226)
	  ▪ Dentists (2261)
	  ▪ Pharmacists (2262)
	  ▪ Environmental and occupational health and hygiene professionals (2263)
	  ▪ Physiotherapists (2264)
	  ▪ Dietitians and nutritionists (2265)
	  ▪ Audiologists and speech therapists (2266)
	  ▪ Optometrists and ophthalmic opticians (2267)
	  ▪ CHWs (3253)
	  ▪ Family medicine practitioners

Numerator	Not applicable
Denominator	Not applicable
Preferred data source	NHWA
Rationale	CPD is critical for learning about new medical advances as well as maintaining knowledge. It will enable the workforce to deliver quality care and thus strengthens population health outcomes. For PHC, the focus on CPD will be on general medical practitioners, nursing and midwifery professionals.
Reference(s)	National Health Workforce Accounts: a handbook. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/bitstream/handle/10665/259360/9789241513111-eng.pdf?sequence=1, accessed 16 August 2021).
Existing data collection tool	WHO National Health Workforce Accounts (https://apps.who.int/nhwaportal/, accessed 19 August 2021).

2.6 Medicines and other health products indicators

Medicines and other health products

Indicator 30 Regulatory mechanisms for medicines

Indicator short name	**Regulatory mechanisms for medicines**
Indicator long name	Regulatory mechanisms for medicines are established
Domain	Medicines and other health products
Sub-domain	Medicines and other health products
M/E domain	Inputs
Definition	There are regulatory mechanisms for medicines, measured against the following criteria: • National regulatory authority • Marketing authorization • Licensing of manufacturers • Licensing of importers, exporters, wholesalers and distributors • Licensing pharmacies and retail outlets • Registration of pharmacy personnel • Post-marketing surveillance and controls • Control of drug promotion and advertising • Pharmacovigilance • Regulation of clinical trials • Regulatory inspections • Laboratory quality control • Control of narcotics, psychotropic substances and precursors
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant
Rationale	PHC relies on access to health products including medicines, vaccines, medical devices, in vitro diagnostics, protective equipment and vector-control tools, and assistive devices. These must be of assured safety, efficacy/performance and quality. In addition, they must be appropriate, available and affordable. Poor or inadequate regulation can lead to the prevalence of poor standard, counterfeit, harmful and ineffective drugs on national markets and in the international commerce. This can result in serious harm to the health of individual consumers and even to the health of a wider population. Therefore, countries must continuously strengthen key drug regulatory responsibilities to ensure the safety, quality and efficacy of drugs and the accuracy of product information.
Reference(s)	WHO Expert Committee on Specifications for Pharmaceutical Preparations: fifty-fourth report. Geneva: World Health Organization; 2020 (WHO technical report series; no. 1025) (https://www.who.int/publications/i/item/978-92-4-000182-4, accessed 23 August 2021). Good governance for medicines: model framework, updated version 2014. Geneva: World Health Organization; 2014 (https://apps.who.int/iris/handle/10665/129495, accessed 30 August 2021).
Existing data collection tool	WHO Data Collection Tool for the Review of Drug Regulatory Systems. Geneva: World Health Organization; 2007 (https://www.who.int/medicines/areas/quality_safety/regulation_legislation/ENdatacollectiontool.pdf?ua=1, accessed 16 August 2021).

Medicines and other health products

Indicator 31 Availability of essential medicines

Indicator short name	**Availability of essential medicines**
Indicator long name	Percentage of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis (SDG indicator)
Domain	Medicines and other health products
Sub-domain	Medicines and other health products
M/E domain	Inputs
Definition	Percentage of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis The indicator is a multidimensional index reported as a proportion (%) of health facilities that have a defined core set of quality-assured medicines that are available and affordable relative to the total number of surveyed health facilities at national level. A medicine is **available** in a facility when it is found in this facility by the interviewer on the day of data collection (based on the following list):

Category	Medicines
Noncommunicable diseases (NCD) respiratory	Salbutamol; Beclomethasone
NCD Diabetes	Gliclazide, Metformin, insulin regular [soluble]
NCD Cardiovascular	**Any two of the following hypertensives:** Amlodipine, Enalapril, Hydrochlorothiazide or Chlorthalidone, Bisoprolol;
NCD Cardiovascular	Simvastatin, Acetylsalicylic acid (aspirin), Furosemide
Pain and palliative care	Morphine, paracetamol, ibuprofen for adults
Central nervous system	Fluoxetine; Phenytoin or Carbamazepine
Anti-infective	Gentamicin, Amoxicillin for adults, Ceftriaxone, Procaine benzylpenicillin or Benzathine benzylpenicillin
Contraception - maternal child health (MCH)	**One of the following contraceptives:** Ethinylestradiol + Levonorgestrel, Levonorgestrel (30 mcg cap/tab), Medroxyprogesterone acetate injection, progesterone-releasing implant (Etonogestrel or Levonorgestrel), Levonorgestrel (750 mcg or 1.5 mg tablet)
MCH	Oral rehydration salts, zinc sulphate, Oxytocin, magnesium sulphate, folic acid
Anti-malarial	**One of the artemisinin-based combination therapies (ACT):** Artemether + Lumefantrine, Artesunate + Amodiaquine, Artesunate + Mefloquine, Dihydroartemisinin + Piperaquine, Artesunate + Sulfadoxine + Pyrimethamine;
Anti-malarial	Artesunate
Antiretroviral (ARV)	**One of combination ARV first-line treatment for HIV:** Efavirenz + Emtricitabine + Tenofovir disoproxil fumarate, Efavirenz + Lamivudine + Tenofovir disoproxil fumarate
Neonatal care	Chlorohexidine
Nutrition	Ready-to-use therapeutic food (RUTF)
Antituberculosis	Isoniazid + pyrazinamide + rifampicin
Chronic kidney disease	Erythropoietin

	Antiallergics and medicine used in anaphylaxis (optional) — **One of the following:** Epinephrine injection, Dexamethasone injection Anti-fungal medicines (optional) — Fluconazole, Nystatin Thyroid hormones (optional) — Levothyroxine A medicine is **affordable** when no extra daily wages are needed for the lowest-paid unskilled government sector worker to purchase a monthly dose treatment of this medicine after fulfilling basic needs represented by the national poverty line. Affordability is measured as a ratio of 1) the sum of the national poverty line and the price per daily dose of treatment of the medicine, over 2) the lowest-paid government worker salary. This measures the number of extra daily wages needed to cover the cost of the medicines in the core set and that can vary between 0 and infinity.
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc. Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities that have a core set of relevant essential medicines available and affordable
Denominator	Total number of surveyed facilities per country
Preferred data source	Facility survey
Rationale	Access to medicines is a composite multidimensional concept that is composed of the availability of medicines and the affordability of their prices. Information on these two dimensions has been collected and analysed since the 54th World Health Assembly in 2001, when Member States adopted the WHO Medicines Strategy (resolution WHA54.11). This resolution led to the launch of the joint project on Medicine Prices and Availability by WHO and the international non-governmental organization Health Action International (HAI/WHO), as well as a proposed HAI/WHO methodology for collecting data and measuring components of access to medicines. To this day, this methodology has been widely implemented to produce useful analyses of availability and affordability of medicines, however the two dimensions have been evaluated separately.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Model List of Essential Medicines, 21st List, 2019. Geneva: World Health Organization; 2019 (https://www.who.int/publications/i/item/WHOMVPEMPIAU2019.06, accessed 23 August 2021). United Nations Department of Economic and Social Affairs Statistics Division. United Nations Sustainable Development Goals Indicators Metadata repository (https://unstats.un.org/sdgs/metadata/, accessed 20 April 2021). 2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 18 August 2021).
Existing data collection tool	While existing health facility survey tools such as the World Health Organization's facility survey assessments, World Bank's SD), and DHS program's SPA measure availability of essential medicines, they are not all fully aligned to the SDG definition and they also do not collect information on affordability. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). World Health Organization. World Health Organization. Harmonized Health Facility Assessment (HHFA). March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). To note: WHO is currently revising its facility survey modules to incorporate/address PHC-specific elements.

Medicines and other health products

Indicator 32 Availability of essential in vitro diagnostics

Indicator short name	**Availability of essential in vitro diagnostics (IVDs)**
Indicator long name	Percentage of health facilities with availability of essential IVDs
Domain	Medicines and other health products
Sub-domain	Medicines and other health products
M/E domain	Inputs
Definition	Percentage of health facilities with availability of appropriate set of essential IVDs and associated laboratory equipment and consumables for their health care facility level on a sustainable basis, based on the WHO's model list of essential IVDs (EDL 3) and priority medical devices listed in the WHOMEDEVIS An in vitro diagnostic test and its associated laboratory equipment (when applicable) and consumables are available in a community setting or health facility when it is found in this setting/facility by the interviewer on the day of data collection (based on the following list): The EDL is presented by health care facility level in two tiers: I. Community and health settings without laboratories, with two sections: Ia. General IVDs for community and health settings without laboratories • Blood typing ▪ A, B and O blood groups and Rhesus (Rh) factor (Slide agglutination test) • Clinical chemistry ▪ Albumin (dipstick) ▪ Bilirubin (dipstick) ▪ Glucose (dipstick/glucose meter) ▪ Ketones (dipstick) ▪ Urinalysis test strips (dipstick) • Haematology ▪ Erythrocyte sedimentation rate (Westergren) ▪ Haemoglobin (Haemoglobinometer) • Pregnancy testing ▪ Human chorionic gonadotrophin - rapid diagnostic test (RDT) Ib. Disease-specific IVDs for community and health settings without laboratories (See WHO EDL 3 for detailed information) • *Trypanosoma cruzi* IgG antibody (RDT) • *Vibrio cholerae* antigen (RDT) • SARS-CoV-2 antigen (RDT/Benchtop point of care (POC) instrument) • Haemoglobin A1c (Handheld analyser/POC) • Hepatitis B surface antigen (RDT) • Hepatitis B e antigen (RDT) • Antibodies to hepatitis C virus (RDT)HIV 1/2 antibody (RDT) • Combined HIV antibody/p24 antigen (RDT) • Qualitative HIV nucleic acid test (POC NAT) • CD4 cell enumeration (POC flow cytometer platform) • Cryptococcal antigen (RDT) • Influenza A and B antigen (RDT/Benchtop instrument-based POC immunoassay) • Influenza A and B nucleic acid test (POC NAT) • *Plasmodium* spp. antigens; species-specific (RDT) • Group A *Streptococcus* antigen (RDT) • Sickle cell Testing (RDT)

	• Antibodies to *Treponema pallidum* (RDT) • Combined antibodies to *T. pallidum* and HIV-1/2 (RDT) • Tuberculin skin test/Mantoux test (Intradermal test) • Lipoarabinomannan antigen (RDT) • Recombinant K39 antigen (RDT) Laboratory equipment (from the WHO Priority Medical Devices list in MEDEVIS) • Clinical chemistry analyser/Clinical chemistry point of care (POC) analyser • Blood glucose meter/Glucometer • Haemoglobinometer • Dipstick analyser • Nucleic acid testing platform with accessories, closed system/POC NAT • Dedicated flow cytometer, with accessories/POC flow cytometer platform • Handheld analyser/POC for HbA1c • Benchtop instrument based POC immunoassay for Influenza A and B antigen • Benchtop instrument for POC use for COVID-19 • Laboratory bench top centrifuge for separation of samples • Westergren tubes • Rack, ESR • Microplates • Micro plate shaker • Rack, test tube • Tourniquets • Timer Consumable Supplies • Swab-pad, alcohol • Intravenous needle, child • Needles, sterile, single use • Syringes, single use • Venepuncture kit • Tube containing EDTA anticoagulant • Lancet, blood, safety, sterile • Container, sample
	• Biosafe, puncture-proof waste disposal box, for used syringes/needles, sharps • Swabs (nasal, nasopharyngeal, throat, rectal) • Medical mask • Gloves, examination • Protective goggles
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of surveyed health facilities with an appropriate set of essential in vitro diagnostic tests and associated laboratory equipment and consumables available
Denominator	Total number of surveyed facilities
Preferred data source	Facility survey
Rationale	The crucial role of IVDs has become widely acknowledged in a diverse range of areas including case finding, treatment, test of cure, outbreak response, surveillance, disease elimination, certification, and vaccine efficacy evaluation. Access to essential in vitro diagnostics is a central component of quality health services and indispensable to advance UHC, address health emergencies and promote healthier populations.

Reference(s)	The selection and use of essential in vitro diagnostics: report of the third meeting of the WHO Strategic Advisory Group of Experts on In Vitro Diagnostics, 2020 (including the third WHO model list of essential in vitro diagnostics). Geneva: World Health Organization; 2021 (https://apps.who.int/iris/handle/10665/339064, accessed 19 August 2021). World Health Organization. Electronic Model List of Essential In Vitro Diagnostics Platform (https://edl.medevis.test.evidenceprime.com/, accessed 06 September 2021). World Health Organization. MEDEVIS Platform (https://medevis.test.evidenceprime.com/search?, accessed 06 September 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and World Bank's SDI, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment (HHFA). March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement.

Medicines and other health products

Indicator 33 Availability of priority medical equipment and other medical devices

Indicator short name	**Availability of essential medical equipment and consumables**
Indicator long name	Percentage of health facilities with availability of priority medical equipment and other medical devices
Domain	Medicines and other health products
Sub-domain	Medicines and other health products
M/E domain	Inputs
Definition	Percentage of health facilities with current stock of the below equipment and products that are available and functional (* indicates specific to referral facility or hospital) Examination equipment • Scale, adult • Blood pressure measurement device, automated • Thermometer, digital • Stethoscope • Light, examination • Scale, child • Scale, infant • Height board/stadiometer • Pulse oximeter • Measuring tape • Otoscope • Ophthalmoscope Oxygen • Oxygen concentrator • Oxygen tank with pressure gauge and regulator • Flowmeter, oxygen therapy • Humidifier • Oxygen delivery devices (connecting ties, mask, nasal prongs) Consumable Supplies • Suture, absorbable • Needles, suturing • Suture, non-absorbable • Infusion set, intravenous • Blood giving set • Intravenous cannula (any size) • Intravenous needle, child • Needles, sterile (any size) • Syringes, single use • Splinting set, extremities • Casts, set and materials • Examination gloves, latex, single use • Alcohol swabs • Sterile gauze, swabs • Adhesive tape • Condoms, male • Urinary catheter, straight • Urinary catheter, with bulb • Urine collection bag • Endotracheal tube (adult) • Endotracheal tube (paediatric)

	Diagnostic imaging technology (often reported as density per million population) • X-ray, general; fixed/mobile/portable • Ultrasound scanner • Electrocardiogram (ECG) Medical Equipment for treatments • Phototherapy device • Incubator, newborn • Anaesthesia system* • Table, operating • Surgical instruments, basic surgery set • Defibrillator • General equipment: • Autoclave, electric • Dry-heat sterilizer • Refrigerators (vaccines, medicines, blood) • Lamp, Surgical (for outpatient surgeries) *hospital-oriented equipment and health products
Disaggregation(s)	Type of equipment, supply, commodity Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Total number of facilities with the equipment, supply or commodity For diagnostic technologies: Total count of medical devices available in the country (by type)
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Access to good quality, affordable, and appropriate health products is indispensable to advance UHC, address health emergencies, and promote healthier populations.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). World Health Organization. Management and safe use of medical devices (https://www.who.int/teams/health-product-and-policy-standards/assistive-and-medical-technology/medical-devices/management-use, accessed 23 August 2021). World Health Organization. MEDEVIS Platform (https://www.who.int/teams/health-product-and-policy-standards/assistive-and-medical-technology/medical-devices/management-use, accessed 23 August 2021). World Health Organization. MeDevIS (Priority Medical Devices Information System) open access WHO electronic database of Medical Devices (https://medevis.test.evidenceprime.com/, accessed on 6 September 2021). Interagency list of priority medical devices for essential interventions for reproductive, maternal, newborn and child health. World Health Organization, 15 June 2016 (https://www.who.int/publications/i/item/9789241565028, accessed on 6 September 2021). WHO list of priority medical devices for cancer management. World Health Organization, 17 February 2017 (https://www.who.int/publications/i/item/9789241565462, accessed on 6 September 2021. WHO List of Priority Medical Devices for management of cardiovascular diseases and diabetes. World Health Organization, 2021 (https://apps.who.int/iris/bitstream/handle/10665/341967/9789240027978-eng.pdf, accessed on 6 September 2021). WHO List of Priority medical devices list for the COVID-19 response and associated technical specifications. World Health Organization, 19 November 2020 (https://www.who.int/publications/i/item/WHO-2019-nCoV-MedDev-TS-O2T.V2, accessed on 6 September 2021).

	World Health Organization. WHO general medical devices (https://www.who.int/health-topics/medical-devices#tab=tab_1, accessed on 6 September 2021). World Health Organization. WHO prioritizing medical devices (https://www.who.int/activities/prioritizing-medical-devices, accessed on 6 September 2021.
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's service delivery indicators, and DHS program's SPA (fully or partially). World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://datatopics.worldbank.org/sdi/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

2.7 Health information indicators

Health information

Indicator 34 Completeness of reporting by facilities

Indicator short name	**Completeness of reporting by facilities**
Indicator long name	Percentage of completeness of reporting by facilities
Domain	Health information
Sub-domain	Health information
M/E domain	Inputs
Definition	Percentage of facilities that use information systems for capturing and reporting comprehensive patient and facility data and report according to district and/or national requirements within the required deadline.
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural Service/Programme: e.g., immunization, maternal child health, noncommunicable diseases, etc.
Numerator	Number of reports received
Denominator	Total number of facilities included in the national reporting
Preferred data source	RHIS
Rationale	Facilities generate data on a continuous, routine basis that can be used to produce regular (e.g., monthly, quarterly or annual) summary statistics on service availability, utilization and performance; health care resources; and individual client care. These data can be used at local, district and national levels for client management, facility management, disease surveillance, sector planning, and monitoring and management at all levels. A high level of reporting is required.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Score for health data technical package: assessment methodology, 2020. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/medicines/regulatory-updates/gbt/2021-fair-pricing-forum/who_2021-04-16_methodology-score_web.pdf?sfvrsn=2a91f846_1, accessed 16 August 2021).
Existing data collection tool	Country health information systems At the global level, this information can be compiled through the World Health Organization's SCORE for health data assessment: World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021).

Health information

Indicator 35 Percentage of facilities using comprehensive patient records

Indicator short name	**Percentage of facilities using patient records**
Indicator long name	Percentage of facilities using single, comprehensive patient records
Domain	Health information
Sub-domain	Information systems
M/E domain	Inputs
Definition	Percentage of facilities using single, comprehensive patient records that should provide a longitudinal health history of patients across time and for all health conditions (horizontal integration) and include: • Unique patient identification • Family and social history (including socioeconomic determinants) • Problem lists • Care history and notes • Medication lists and allergies • Referrals and results of referrals/counter-referrals • Laboratory/radiology and other test results • Always available • Accessible to patient
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities using comprehensive patient records
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Comprehensive personal care records record the history and clinical "story" of a patient, summarizing their experiences with the health system over time in one place. While health management information systems (HMIS) and CRVS systems are invaluable for planning, managing, and decision-making at the facility, subregional, subnational and national decisions, personal care records play an important role in fostering quality, continuous, and coordinated care. Health care workers in primary care and other levels of the health system and patients can review and act on the complete information in personal care records to better assess, diagnose, monitor, treat, and/or refer a patient. By maintaining relevant information in one place, personal care records make it easier to identify and follow trends, understand chronic conditions, and address any gaps in care.
Reference(s)	Global strategy on digital health 2020-2025. Geneva: World Health Organization; 2021 (https://www.who.int/docs/default-source/documents/gs4dhdaa2a9f352b0445bafbc79ca799dce4d.pdf, accessed 23 August 2021). Digital technologies: shaping the future of primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326573, accessed 30 August 2021).
Existing data collection tool	To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Health information

Indicator 36 Regular system of facility and patient surveys

Indicator short name	**Regular system of facility and patient surveys**
Indicator long name	Country has a regular system of facility and patient surveys to independently monitor health services and patient perspectives
Domain	Health information
Sub-domain	Information systems
M/E domain	Inputs
Definition	Country has a regular system of facility and patient surveys (or accreditation systems) to independently monitor health services and patient perspectives that includes the following criteria: • Regular independent assessments of service availability, readiness and quality of care at least once every two years • Regular independent assessments of patient satisfaction and or experiences at least once every five years
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents.
Rationale	A system of external review through facility surveys or accreditation systems provides assurances that health care facilities have quality systems in place and can demonstrate the required level of service provision. Depending on the comprehensiveness of the standards against which health service performance is being measured, external reviews can contribute to quality improvement, risk mitigation, patient safety, improved efficiency and accountability and can contribute to the sustainability of the health-care system.
Reference(s)	Score for health data technical package: essential interventions. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/bitstream/handle/10665/334006/9789240009851-eng.pdf, accessed 19 August 2021).
Existing data collection tool	World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021).

Indicator 37 Functional national human resource information system and national health workforce accounts

Indicator short name	**Functional national human resources information system and NHWA**
Indicator long name	Functional national human resources information system and NHWA exist
Domain	Health information
Sub-domain	Information systems
M/E domain	Inputs
Definition	National human resources information system is in place and functional and can generate: • Information for reporting on outputs from education and training institutions • Information to track entrants to the labour market • Information to track active stock on the labour market • Information to track exits from the labour market • Geocode information on the location of health facilities • Information to report on IHR • Information to report on implementation of the WHO Global Code of Practice on the International Recruitment of Health Personnel
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	NHWA
Rationale	The availability, quality, comprehensiveness and interoperability of health workforce data are often limited, with availability often restricted to a few core health occupations, to the public sector only, or to employed workers only. In many cases, information from routine administrative sources is not updated. Moreover, even when data quantity and quality are adequate, there are limitations to its effective use. NHWA can help countries address these problems by progressively improving the availability, quality and use of workforce data through using a set of core indicators. This can help standardize countries' health workforce information systems to improve interoperability and data sharing among national stakeholders; support tracking of health workforce policy performance in relation to UHC; and facilitate comparability of health workforce data nationally and globally. As the implementation of NHWA is by nature progressive, some of the benefits for countries will be immediate, while others will become available over the longer term.
Reference(s)	National Health Workforce Accounts: better data and evidence. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/handle/10665/311853, accessed 19 August 2021). National Health Workforce Accounts: a handbook. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/handle/10665/311853, accessed 19 August 2021).
Existing data collection tool	WHO National Health Workforce Accounts (https://apps.who.int/nhwaportal/, accessed 19 August 2021).

Health information

Indicator 38 Completeness of birth registration

Indicator short name	**Completeness of birth registration**
Indicator long name	Completeness of birth registration
Domain	Health information
Sub-domain	Information systems
M/E domain	Inputs
Definition	1. Percentage of births that are registered 2. Proportion of children under 5 years of age whose births have been registered with a civil authority Both these definitions are used. Definition 1 is used for countries that have robust CRVS systems. For countries with CRVS systems that are not mature, a survey-based method has been proposed to calculate completeness of birth registration. Both these methods are valid.
Disaggregation(s)	Subnational
Numerator	1. Number of registered births 2. Number of children under the age of 5 whose births are reported as being registered with the relevant national civil authorities.
Denominator	1. Actual number of births 2. Total number of children under the age of 5
Preferred data source	1. CRVS 2. Population-based surveys
Rationale	Birth registration is an SDG indicator and is defined as the "continuous, permanent and universal recording within the civil registry, or the occurrence and characteristics of birth in accordance with the legal requirement of a country" (UN SDG definition). Having a birth registered with the accompanying birth certificate is an essential requirement for safeguarding children's rights by giving them legal recognition and universal access to health and social services, a key component of PHC.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021).
Existing data collection tool	CRVS When this data is measured through surveys, it can be collected through UNICEF's Multiple Indicator Cluster Survey. This measure is also compiled by WHO through the SCORE for health data assessment. UNICEF. Multiple Indicator Cluster Survey. 2021 (https://mics.unicef.org/, accessed 19 August 2021). World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021).

Health information

Indicator 39 Completeness of death registration

Indicator short name	**Completeness of death registration**
Indicator long name	Percentage of deaths that are registered
Domain	Health information
Sub-domain	Information systems
M/E domain	Inputs
Definition	Percentage of deaths that are registered (with age and sex)) and include valid cause-of-death
Disaggregation(s)	Subnational
Numerator	Number of deaths registered
Denominator	Total number of deaths
Preferred data source	CRVS
Rationale	Death registration and to know what people are dying of gives a critical view of health status in a country and can support planning of heath service delivery, including PHC. CRVS systems generate administrative data that serve as the basis for other databases or population registers and can be used to produce vital statistics. Countries with a strong CRVS can reliably and continuously track fertility rates, mortality rates, cause-of-death distribution and life expectancy.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Score for health data technical package: essential interventions. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/bitstream/handle/10665/334006/9789240009851-eng.pdf, accessed 19 August 2021).
Existing data collection tool	CRVS; in country. This measure is also compiled by WHO through the SCORE for health data assessment. World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021).

Health information

Indicator 40 Regular system of population-based health surveys

Indicator short name	**Regular system of population-based health surveys**
Indicator long name	Existence of a system of regular population-based health surveys
Domain	Health information
Sub-domain	Information systems
M/E domain	Inputs
Definition	Country can generate regular, comprehensive, high-quality, nationally representative statistics with equity dimensions on population health status, health-related behaviours and risk factors, access to health interventions and out-of-pocket spending on health
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents.
Rationale	Population-based health surveys are a significant source of data for many health and health-related SDG and UHC indicators. They are often the only data source for indicators of health-related behaviours and risk factors, for example breastfeeding practices or tobacco use. Population surveys also capture measures of mental health and well-being and are an important means for collecting biomarkers. In the absence of functioning civil registration or reliable facility reporting systems, surveys can provide data for indicators of mortality, health service coverage and use. Surveys also provide critical information from other sectors (such as education, water and sanitation, housing, nutrition, and security) and are among the data sources used to determine out-of-pocket expenditure in national health accounts. Population-based surveys are also among the most important instruments for assessing equity, since they provide disaggregated data (including sex, age, wealth, education and geographic location) for almost all indicators. Although routine health facility reporting systems (also known as HMIS) are an important source of data, population-based surveys include individuals who may not be accessing health care and thus provide a population-level understanding of a country's disease burden and risk factors. In some contexts, special-population surveys may also be needed to target populations that cannot be specifically identified in a population-based survey (WHO's Study on Global Ageing and Adult Health is one).
Reference(s)	International Household Survey Network (https://www.ihsn.org/, accessed 19 August 2021). World Health Organization. World Health Survey Plus (https://www.who.int/data/data-collection-tools/world-health-survey-plus, accessed 19 August 2021). Score for health data technical package: essential interventions. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/bitstream/handle/10665/334006/9789240009851-eng.pdf, accessed 19 August 2021).
Existing data collection tool	World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021).

Indicator 41 Existence of effective surveillance system

Indicator short name	**Existence of effective surveillance system**
Indicator long name	Existence of effective surveillance system
Domain	Health information
Sub-domain	Surveillance
M/E domain	Structures
Definition	Country has an effective surveillance system based on the average of two SPAR indicators:

C6.1 Early warning function: indicator- and event-based surveillance

Level	Attributes
1	The surveillance system for diseases/syndromes/events (reporting, feedback, communication) is under development
2	Standard operating procedures (SOPs) and/or other written technical guidelines for surveillance have been developed and implemented at the national, intermediate and local levels of the surveillance system
3	Surveillance data/information are collected via either indicator-based or event-based surveillance on ad hoc basis
4	Surveillance data/information are collected via both indicator-and event-based surveillance with regular reporting and immediate notification taking place in a systematic manner
5	Surveillance system is regularly evaluated and updated

C6.2 Mechanism for event management (verification, risk assessment, analysis investigation)

Level	Attributes
1	There is unstructured mechanism for event management
2	SOPs and/or other written technical guidelines for event management are developed and disseminated to national, intermediate and local levels
3	Event verification, risk assessment, investigation and analysis are systematically performed and guide a response by national and intermediate levels AND Findings are disseminated by production of periodical epidemiological reports
4	Event verification, risk assessment, investigation and analysis are systematically performed and guide a response by national, intermediate and local levels AND Results of all events that may constitute potential public health events of international concern are communicated to WHO and epidemiological reports are shared with all relevant sectors, and partners
5	Event management system is evaluated and updated on a regular basis

Indicator-based surveillance is the systematic (regular) collection, monitoring, analysis and interpretation of structured data, i.e., of indicators produced by several well-identified, mostly health-based, formal sources, such as when health care facilities (including primary care settings) regularly report the numbers of cases and deaths caused certain priority diseases that are predefined and mandated.

Event-based surveillance is the organized collection, monitoring, assessment and interpretation of mainly unstructured ad hoc information regarding health events or risks which may represent an acute risk to human health. It is a functional component of the early warning and response system (such as media screening that is conducted in a systematized manner to identify events of public health interest).

All surveillance data are systematically analysed for informed decision-making and dissemination.

Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	WHO/WHO/another international database
Rationale	Public health surveillance is a critical intervention for identifying emerging threats to population health and is an essential public health function and component of the PHC Operational framework. The IHR 2005 require countries to maintain an integrated, national system for public health surveillance and response, and set out the core national capabilities necessary for monitoring, surveillance and investigation of public health threats.
Reference(s)	Guidance document for the State Party self-assessment annual reporting tool -International Health Regulations (2005). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/272438, accessed 19 August 2021). Primary health care and health emergencies. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/328105, accessed 25 August 2021). Primary health care: closing the gap between public health and primary care through integration. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326458, 30 August 2021).
Existing data collection tool	World Health Organization. Electronic State Parties Self-Assessment Annual Reporting Tool (https://extranet.who.int/e-spar, accessed 30 July 2021).

2.8 Digital technologies for health indicators

Digital technologies for health

Indicator 42 National eHealth strategy

Indicator short name	**National eHealth strategy**
Indicator long name	Existence of a valid/up-to-date national eHealth strategy
Domain	Digital technologies for health
Sub-domain	Digital technologies for health
M/E domain	Inputs
Definition	National eHealth/digital health strategy exists, measured against the following criteria: • Includes discussion of health data architecture • Includes description of health data standards and exchange • Includes a strategy/policy on telehealth/telemedicine • Includes handling of data security issues • Includes specifications for data confidentiality and data storage • Specifies access to data • Specifies alignment/is integrated with national HIS strategy • Specifies financing • Specifies organizational roles and responsibilities
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment based on interview with key informant and/or desk review of country documents.
Rationale	The World Health Organization defines eHealth as the use of information and communication technologies (ICT). While electronic information can have a positive impact on health service delivery, it can also fail to support and promote population health if information is fragmented and is not appropriately managed. Having a strategy for eHealth will enable a country to logically lay out a plan to achieve its eHealth goals. The use of digital health data should be strategic, support national health goals and be closely linked to the national M&E and HIS plans.
Reference(s)	Global strategy on digital health 2020-2025. Geneva: World Health Organization; 2021 (https://apps.who.int/iris/handle/10665/344249, accessed 25 August 2021). World Health Organization & International Telecommunication Union. National eHealth strategy toolkit. Geneva: International Telecommunication Union; 2012 (https://apps.who.int/iris/handle/10665/75211, accessed 19 August 2021). Digital technologies: shaping the future of primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326573, accessed 30 August 2021).
Existing data collection tool	World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021).

Digital technologies for health

Indicator 43 Telemedicine access

Indicator short name	**Telemedicine access**
Indicator long name	Percentage of people that have had at least one virtual health consultation in the past 12 months
Domain	Digital technologies for health
Sub-domain	Digital technologies for health
M/E domain	Inputs
Definition	Percentage of patients that have had at least one virtual health consultation in the past 12 months; Average number of virtual health consultations in the past 12 months The definition of virtual health consultations/telemedicine (used interchangeably here) has been adapted from the global digital health strategy (1) to mean "the delivery of health care services, where distance is a critical factor, by all health care professionals using ICT for the exchange of valid information for diagnosis and treatment." (The remaining part of the definition that includes prevention, research and evaluation, continuing education are not explicitly included in this definition while acknowledging these are critical part of advancing digital health service delivery to individuals and communities). It is also more in line with the definition used in the OECD Working paper on the use of telemedicine in OECD countries.
Disaggregation(s)	Age Gender Subnational Urban/rural Socioeconomic status
Numerator	1. Number of people that have at least one virtual health consultation in the past 12 months 2. Average number of virtual health consultations
Denominator	Total number of people interviewed
Preferred data source	Population-based survey
Rationale	There is need to support or develop innovative health service delivery platforms that can provide improved access to health care for the population, and especially the vulnerable. Many people do not have access to health care services due to issues of geographic access, physical or financial barriers, or being part of stigmatized groups. Receiving health care remotely can mitigate some of these barriers. It will be important for government to use advances in ICT to improve access to health on the path to UHC. While there are different enablers and barriers to the implementation of telemedicine, this indicator measures to which degree people are currently using telemedicine for their health care needs.
Reference(s)	Global strategy on digital health 2020-2025. Geneva: World Health Organization; 2021 (https://apps.who.int/iris/handle/10665/344249, accessed 25 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Digital technologies: shaping the future of primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326573, accessed 30 August 2021). Hashiguchi, Tiago Cravo Oliviera. Bringing health care to the patient. An overview of the use of telemedicine in OECD countries. OECD Health Working Papers No. 116; 2020 (https://doi.org/10.1787/8e56ede7-en, accessed 22 September 2021).
Existing data collection tool	To note: WHO is in the process of developing survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Indicator 44 Percentage of facilities using electronic health records

Indicator short name	**Percentage of facilities using electronic health records**
Indicator long name	Percentage of facilities using electronic health records with the essential attributes
Domain	Digital technologies for health
Sub-domain	Digital technologies for health
M/E domain	Inputs

Definition	Percentage of facilities with a system of electronic capture of patient level health data (patient records system) that have the following attributes:
	• Information recorded should be standardized across health facilities
	• Interoperable
	• Integrated with aggregated routine HIS
	• Links to clinical systems such as:
	  ▪ automatic vaccination alerting systems
	  ▪ pathology information systems
	  ▪ picture archiving and communication systems
	  ▪ pharmacy information systems
	  ▪ laboratory information systems
	• Can be shared among multiple providers/facilities and within facilities
	• Covers multiple diseases/conditions

Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities that have an electronic capture of patient level data with the relevant attributes
Denominator	Total number of facilities surveyed.
Preferred data source	Facility survey
Rationale	Electronic health record systems can enable individuals to have an electronic record of their key characteristics and health concerns, as well as their history of encounters with the health system and the treatments that they have received from a variety of health providers. This record can then be shared among health providers to support the provision of the most appropriate care. The existence of such records opens a promising new frontier for advancing patient care, in the same way that advancements in the use of information technologies have revolutionised most other industries. Unique patient identifiers are crucial to the development of longitudinal electronic health records, to ensure that the data within the record is complete and accurate, as patients move among health care providers, health insurers, and regions within their country and over time. They are also important for statistical purposes, to identify unique patients and to conduct, where approved, linkages of data across more than one data source. (See indicator on criteria for patient records)
Reference(s)	Global strategy on digital health 2020-2025. Geneva: World Health Organization; 2021 (https://www.who.int/docs/default-source/documents/gs4dhdaa2a9f352b0445bafbc79ca799dce4d.pdf, accessed 23 August 2021). Score for health data technical package: essential interventions. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/bitstream/handle/10665/334006/9789240009851-eng.pdf, accessed 19 August 2021).

Existing data collection tool	WHO's SCORE for health data assessment tool collects information on the extent availability of electronic patient records system, and thus offers an approximation of this measure. However, it does not provide a representative estimate of coverage, which would be through a health facility survey. Some parts of this indicator are also measured by WHO's HHFA, though not all elements are covered. World Health Organization. SCORE Assessment Instrument (https://www.who.int/data/data-collection-tools/score/dashboard#/downloads, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

2.9 Models of care indicators

Models of care

Indicator 45 Service package meeting criteria

Indicator short name	**Service package meeting criteria**
Indicator long name	Service package for essential health services and public health functions developed and meets criteria
Domain	Models of care
Sub-domain	Selection and planning of services
M/E domain	Processes
Definition	Service package of essential health services (including primary care services) and public health functions is developed and meets following criteria: • Addresses comprehensive essential health services including: ▪ Health protection ▪ Prevention ▪ Promotion ▪ Management (diagnosis, treatment, rehabilitation, resuscitation) ▪ Palliation • Includes key life course needs and disease programmes ▪ Foundations of care management of emergency syndromes and common presentations in primary care ▪ Reproductive and sexual health, including pregnancy, childbirth, and family planning ▪ Growth, development, disability and ageing ▪ Communicable diseases ▪ Noncommunicable diseases ▪ Mental health, neurological and substance use disorders ▪ Violence and injury • The package addresses disease burden and other national priorities including risk factor profiles and projections • The process for development of the service package involves a wide range of stakeholders • The package is based on an evaluation of existing resources • Is routinely revised as part of national planning processes • The package includes and designates key services related to emergency events for which the country is at risk
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents
Rationale	The concept of PHC is rooted in a whole-of-society approach that ensures meeting population health needs throughout the life course but also addresses different health service needs such as prevention and promotion of health services. To meet this broad requirement, countries must formulate a service package that addresses these health service delivery functions. The exercise of specifying a core package is a value-laden process, looking to decision-makers and system stewards to establish a strategic policy position and equitable framework for protected access to health services when faced with competing priorities. A package meeting the essential attributes will ensure that a fair process was undertaken in the development of this service package, including the involvement of many different stakeholders.

Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). World Health Organization. UHC Compendium (https://www.who.int/universal-health-coverage/compendium, accessed 17 August 2021). Making fair choices on the path to universal health coverage. Final report of the WHO Consultative Group on Equity and Universal Health Coverage. Geneva: World Health Organization; 2014 (http://apps.who.int/iris/bitstream/handle/10665/112671/9789241507158_eng.pdf?sequence=1, accessed 17 August 2021). Integrating health services: brief. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326459, 30 August 2021). Primary health care: closing the gap between public health and primary care through integration. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326458, accessed 30 August 2021).
Existing data collection tool	To note: qualitative assessment tool with recommended scoring methodology is under development by WHO and will be forthcoming end 2022.

Indicator 46 Roles and functions of service delivery platforms and settings defined

Indicator short name	**Roles and functions of service delivery platforms and settings defined**
Indicator long name	Roles and functions of service delivery platforms and settings defined
Domain	Models of care
Sub-domain	Selection and planning of services
M/E domain	Processes
Definition	The roles and functions of service delivery platforms are: 1) defined within the context of integrated health service delivery networks; and 2) include the minimum services listed below. For this, good distribution of roles and responsibilities needs to be defined for existing facilities/organizations in countries. • Community-based services ▪ Self-testing and self-care services ▪ Community based services ▪ CHW visits at home or health posts • General outpatient services in a clinical setting (e.g., facility at primary care level) ▪ General outpatient services in clinic setting (at a minimum, health facility staffed by nurse or mid-level provider ▪ Periodic schedulable services delivered by skilled health worker in home, schools, workplace, or public space • Prehospital emergency care services ▪ Services at the scene ▪ Ambulance transport • First referral level (e.g., district or general hospital) ▪ Outpatient services at first referral level ▪ Emergency unit services at first referral level ▪ Inpatient services at first referral level ▪ Diagnostic laboratory and medical imaging services within a first referral level • Second referral level and above (e.g., regional, specialized or national hospitals) ▪ Advanced outpatient services at second referral level and above ▪ Advanced emergency unit services at second referral level and above ▪ Advanced inpatient services at second referral level and above ▪ Advanced diagnostic laboratory and medical imaging services within a second level referral and above
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents

Rationale	Service delivery platforms are the modes or channels of health service delivery. The platforms can include public and private health facilities (for example health posts, clinics, health centres, mobile clinics, emergency care units, first and second referral facilities, other entities (for example, home-based care, schools, community centres, long-term care facilities) and outreach services, campaigns or digital platforms. These can be classified in a variety of ways. Examples are community-based services; individual-oriented clinical services at different levels (primary level, first referral level and second referral level). The organization of service delivery platforms should promote integrated health services, strategically prioritizing primary care and public health functions and ensuring adequate coordination between them. At the level of individual health care services, health systems need to be reoriented to facilitate access to services closer to where people live (for example, home-based and community-based care, primary care in long-term care facilities, step-down units for rehabilitation in local hospitals, dedicated emergency care units at comprehensive health centres and first-level hospitals), taking into consideration context (for example, living conditions, public transport, availability of emergency transportation and pre-hospital care), people's preferences and cost-effectiveness.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). World Health Organization. UHC Compendium (https://www.who.int/universal-health-coverage/compendium, accessed 17 August 2021). Integrating health services: brief. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326459, accessed 30 August 2021). The transformative role of hospitals in the future of primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326296, accessed 30 August 2021).
Existing data collection tool	To note: qualitative assessment tool with recommended scoring methodology is under development by WHO and will be forthcoming end 2022.

Models of care

Indicator 47 Existence of an empanelment system

Indicator short name	**Existence of an empanelment system**
Indicator long name	Existence of an empanelment system
Domain	Models of care
Sub-domain	Service design
M/E domain	Processes
Definition	An empanelment system exists and that is measured by the following attributes: • Proportion of the population that is empanelled to a provider, care team or facility • Frequency at which patient panes are updated • Patients can choose and/or switch the facility/provider/team to which they are empanelled
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents.
Rationale	Having a defined practice population by means of a registered patient list system creates an incentive for primary care providers as well as the population to provide and receive services on a continuous basis with the same provider. Registering with a specific practitioner has been found to contribute to accountability by making clear who is responsible for service coordination. Ongoing services from the same provider contributes to quality of care. Patient list systems can be defined based on geographic empanelment, insurance-based empanelment and individual choice or based on specific diagnoses.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Bearden T, Ratcliffe HL, Sugarman JR et al. Empanelment: A foundational component of primary health care [version 1; peer review: approved] Gates Open Research 2019, 3:1654 (https://doi.org/10.12688/gatesopenres.13059.1, accessed 4 October 2021).
Existing data collection tool	Primary Health Care Performance Initiative. Primary Health Care Progression Model Assessment Tool (measure 27 – empanelment). 2019 (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf; accessed 20 April 2021). Indicator passport - WHO European Primary Health Care, Impact, Performance and Capacity Tool. Copenhagen: World Health Organization Regional Office for Europe; 2019 (https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2019/indicator-passport-who-european-primary-health-care,-impact,-performance-and-capacity-tool-phc-impact-2019, accessed 20 April 2021). To note: WHO is working with partners to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Models of care

Indicator 48 System to promote first contact accessibility

Indicator short name	**System to promote first contact accessibility**
Indicator long name	System to promote first contact through primary care providers
Domain	Models of care
Sub-domain	Service design
M/E domain	Process of care
Definition	Governance and financing policies/mechanisms promote primary care providers as the first point of contact for most health needs. Those include: • Gatekeeping mechanisms/Conditional access to specialist care • Financial incentives that promote primary care (e.g., removal of out-of-pocket payments and fee structures) as first point of contact There are other measures in this framework such as: having a comprehensive essential package of services; be easily accessible; empanelment that promotes first contact accessibility. These are not included here as they are measured separately, but this indicator should be examined in that holistic context.
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents
Rationale	First contact accessibility measures the ability and capacity of a PHC system to ensure primary care workers can serve as the first point of contact for most conditions and are responsible for the delivery of primary care services as well as the coordination and referral of care to other sites and platforms. The ease of access to a primary provider will ensure health services are provided at the appropriate levels and reduce or remove use of emergency and tertiary services for PHC, which can be costly and inefficient.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Continuity and coordination of care: a practice brief to support implementation of the WHO Framework on integrated people-centred health services. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/274628, 30 August 2021).
Existing data collection tool	Qualitative assessment tool with recommended scoring methodology is under development by WHO and will be forthcoming end 2022.

Indicator 49 Protocols for patient referral, counter-referral and emergency transfer

Indicator short name	**Protocols for patient referral, counter-referral and emergency transfer**
Indicator long name	Existence of explicit protocols for patient referral, counter-referral system and emergency transfer
Domain	Models of care
Sub-domain	Service design
M/E domain	Process
Definition	Explicit protocols and structured communication mechanisms for referral, counter-referral and emergency transfer are in place to promote reporting and feedback between primary care practitioners and other levels of care (or within facility) to promote coordination and information continuity. These protocols provide guidance on the following elements: For referral: • individual's identification information • reason for referral (e.g., investigation, diagnosis, treatment, reassurance, etc.) and services needed at referral site • information related to illness (e.g., history, findings, etc.) • information related to relevant investigations already undertaken • medication list • socio-psychological factors • practitioner's contact details For counter referral: • assessment of current problem • investigation undertaken • medication prescribed • next steps in the care of the individual For emergency transfer: • provision of medical screening examination and stabilizing treatment • condition of patient • timing of transfer • mode of transfer • level of care during transfer • destination of patient • inclusion of pertinent records and images
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents
Rationale	The delivery of coordinated health services depends on the accessibility and exchange of information among those involved in the care of an individual. The use of referral letters can facilitate this. Having protocols regarding the content of the referral letter is important in assessing the quality of a referral, which impacts the quality of care. Good communication can avoid problems related to polypharmacy, duplication of investigations, etc.

Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Continuity and coordination of care: a practice brief to support implementation of the WHO Framework on integrated people-centred health services. Geneva: World Health Organization 2018 (https://apps.who.int/iris/handle/10665/274628, accessed 23 August 2021).
Existing data collection tool	Adapted from World Health Organization. Indicator Passport. WHO European Primary Health Care, Impact, Performance and Capacity Tool. Copenhagen: World Health Organization Regional Office for Europe; 2019 (https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2019/indicator-passport-who-european-primary-health-care,-impact,-performance-and-capacity-tool-phc-impact-2019, accessed 17 August 2021). Qualitative assessment tool with recommended scoring methodology is under development by WHO and will be forthcoming end 2022.

Indicator 50 Existence of care pathways for tracer conditions

Indicator short name	**Existence of care pathways for tracer conditions**
Indicator long name	Care pathways are developed for common conditions requiring coordination.
Domain	Models of care
Sub-domain	Service design
M/E domain	Process
Definition	A management plan exists that maps care pathways through the health system for individuals: • For the following key tracer conditions: ▪ Chronic heart disease (ischemic, heart failure) ▪ Diabetes mellitus (type 1 and type 2) ▪ Cancer – breast ▪ Cancer – cervical ▪ Cancer – colorectal ▪ Asthma ▪ Chronic obstructive pulmonary disease ▪ Depression ▪ Febrile illness ▪ Complications of pregnancy ▪ Sepsis ▪ Acute respiratory distress in childhood ▪ Road traffic injury • Includes pathways for assessing multimorbidity • And includes the following attributes: ▪ Key care elements are based on evidence and best practice ▪ Details on communication among the team members and with patients and families are included ▪ Roles and responsibilities, including sequencing of activities across the multidisciplinary care team, patients and their relatives are defined ▪ Guidance on monitoring and evaluation of variances and outcomes is included
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents
Rationale	Care pathways are standardized, processed, and developed to address care for patients presenting with same/similar conditions. Clearly designed care has been found to contribute to improvements in service provision, including minimizing discrepancies in core services in terms of both what is provided and how care is delivered. Care pathways have also been found to support the delivery of relevant services in a timely manner, to reduce complications, and to enable better discharge planning.

Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Continuity and coordination of care A practice brief to support implementation of the WHO Framework on integrated people-centred health services. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/274628/9789241514033-eng.pdf?sequence=1&isAllowed=y, accessed 23 August 2021). Improving healthcare quality in Europe. Characteristics, effectiveness and implementation of different strategies. United Kingdom: World Health Organization and OECD, 2019 (https://www.ncbi.nlm.nih.gov/books/NBK549276/pdf/Bookshelf_NBK549276.pdf, accessed 4 October 2021).
Existing data collection tool	Qualitative assessment tool with recommended scoring methodology is under development by WHO and will be forthcoming end 2022.

Indicator 51 Professionalization of management

Indicator short name	**Professionalization of management**
Indicator long name	System for professionalization of management capability for health care organizations
Domain	Models of care
Sub-domain	Organization and facility management
M/E domain	Process
Definition	The conditions are in place nationally (and subnationally) to ensure professionalized management and leadership in health care organization. This is achieved by ensuring adequate numbers, competencies and deployment of managers throughout the health system, and creating an enabling environment that contributes to managers' motivation and enables them to perform well, as measured by: • Ensuring adequate numbers of managers through: ▪ The listing of management posts in the HRHIS system ▪ The increase in the number of qualified managers through training ▪ The establishment of plans and procedures for filling management posts • Ensuring competency of managers through the existence of ▪ Developed formal post descriptions for all management/leadership positions ▪ Formal training curriculum (competency-based, accredited) for health service management ▪ A system of competency-based transparent selection process • Increasing managers' motivation and creating an enabling environment through: ▪ The existence of a governing board with clear terms of reference ▪ Ensuring effective participation of community representatives in health services management ▪ Promoting a work environment that supports manager autonomy ▪ Implementing supportive supervision for and by top and mid-level managers ▪ Performance assessments that are linked to career development and continuing learning opportunities The term "manager" should in the first instance be used for staff who have a major management role with a significant proportion of their time being spent on this role. Each country can define "health manager" differently. However, a useful starting point is the following definition: a health manager is someone who spends a substantial proportion of his/her time managing: • Volume and coverage of services (planning, implementation and evaluation) • Resources (e.g., staff, budgets, drugs, equipment, buildings, information) • External relations and partners, including service users (1)
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents
Rationale	Leadership and management are complex concepts which are relevant to many different parts of the health system, including the private and public sectors; health facilities, district health offices and central ministries; and support systems related to pharmaceutical, finances and information. Leadership and management are also human resource issues - specifically, the skilled and motivated managers and leaders needed to work throughout a health system. Effective health care management and leadership is necessary for improving performance of health service delivery and requires a trained workforce to fill managerial roles. Good managers are also necessary to deliver quality health services. Having an enabling environment that has key characteristics supports the development of managerial and leadership capacity.

Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Linnader, EL, Mantopoulos, JM, Allen N, Nembhard IM, Bradley, EH. Professionalizing health care management: a descriptive case study. Int J Health Policy Manag 2017, 6(10), 555-560 (https://www.ijhpm.com/article_3346.html, accessed 1 September 2021). 2. Making Health Systems Work: Working Paper No. 1. WHO/EIP/healthsystems/2005.1 (https://www.who.int/management/general/overall/Strengthening%20Management%20in%20Low-Income%20Countries.pdf, accessed 1 September 2021). 3. World Health Organization. Towards better leadership and management in health: report on an international consultation on strengthening leadership and management in low-income countries. WHO/HSS/healthsystems/2007.3 Working Paper No. 10 (https://www.who.int/management/wp10.pdf, accessed 1 September 2021). 4. PHCPI PHC Progression model assessment tool (measure 30 – Facility management capability and leadership) (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf).
Existing data collection tool	To note: a qualitative assessment tool with recommended scoring methodology is currently under development by WHO and will be forthcoming by end 2022.

Models of care

Indicator 52 Management capability and leadership

Indicator short name	**Management capability and leadership**
Indicator long name	Percentage of facilities with managers or teams that have decision-making responsibilities (including in primary care facilities)
Domain	Models of care
Sub-domain	Organization and facility management
M/E domain	Process
Definition	Percentage of facilities with a manager/management team that has decision-making responsibilities that include the following areas: • Procurement of equipment, medicines and commodities • Staff recruitment • Staff promotion (where applicable) • Disciplinary action against health workers • Approval of staff absence • Minor facility repairs/maintenance (such as painting walls, fixing equipment) • Selecting facility staff to attend relevant training • Budget/financial management • Health facility performance management • Linkages with community organisations
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first level hospitals, second level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Sub-National Urban/rural
Numerator	Number of facilities with trained managers
Denominator	Total number of facilities
Preferred data source	Facility survey
Rationale	Management and leadership capability within a facility requires key staff to have some level of autonomy in decision-making in domains such as coordination of day-to-day operations, target setting, human resources, and external relations. While this indicator does not measure the competency of the manager in making decisions, it demonstrates the level of autonomy available at an individual facility level. In combination with the system level ability to foster managers as measured by the previous indicator, this indicator shows how some of the attributes of management manifest in practice.
Reference(s)	Making Health Systems Work: Working Paper No. 1. WHO/EIP/healthsystems/2005.1 (https://www.who.int/management/general/overall/Strengthening%20Management%20in%20Low-Income%20Countries.pdf, accessed 1 September 2021). World Health Organization. Towards better leadership and management in health: report on an international consultation on strengthening leadership and management in low-income countries. WHO/HSS/healthsystems/2007.3 Working Paper No. 10 (https://www.who.int/management/wp10.pdf, accessed 1 September 2021). PHCPI PHC Progression model assessment tool (measure 30 – Facility management capability and leadership) (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf).

Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's SDI, and DHS program's SPA+ (fully or partially). World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://datatopics.worldbank.org/sdi/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment (HHFA). March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Indicator 53 Multidisciplinary team-based service delivery

Indicator short name	**Multidisciplinary team-based service delivery**
Indicator long name	Health service delivery through multidisciplinary teams in primary care settings
Domain	Models of care
Sub-domain	Organization and facility management
M/E domain	Process
Definition	Percentage of facilities that have adopted multidisciplinary team approaches (looking at extent and scope) for the delivery of services in primary care settings as measured by: • Proportion of professional staff who are integrated in multidisciplinary care • Number of attributes of multidisciplinary team-based approaches that are met, including: ▪ A team identity (team members see themselves as part of one larger, cohesive unit with shared methods, ideals, and goals ▪ Regular team meetings ▪ Clearly defined roles and responsibilities that are uniformly understood by all team members ▪ Shared goals of providing quality care that individual teammates cannot achieve on their own. Goals should include providing the highest quality care for the broadest range of undifferentiated patients presenting for care, regardless of age, gender, health issue, organ system, or disease ▪ Mutual accountability structures in which each team member can be held accountable by any other team member. • Composition of teams (number of different professions represented) • Caseload (proportion of patients cared for through multidisciplinary care programmes) Multidisciplinary care teams can range from the basic unit of general medical practitioners and nurses to larger, multisectoral teams that engage health and social care workers. Across-sector teams can allow for improved collaboration and knowledge exchange between providers working in different settings. with a mix of health and social care workers, which could include other generalist medical practitioners, nurse, social worker, psychologist, dietician, pharmacist, or public health professional. Multidisciplinary care programs can be made available to only a limited number of patients, those with multiple comorbidity and complex health and social needs (e.g., for long-term conditions) or with targeted conditions (e.g., diabetes clinic in a primary care centre). In other cases, a multidisciplinary approach is systematically available to all patients (i.e., patients are registered or empanelled to teams and not to individuals).
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Facility survey
Rationale	Across-sector teams can allow for improved collaboration and knowledge exchange between providers working in different settings. Close collaboration between different primary care professionals optimizes the treatment of individuals and therefore increases the strength of primary care. Regardless of the mode of teamwork that is applied, there should be some form of structural communication among primary care professionals treating the same individual.

Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Building the primary health care workforce of the 21st century. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/328072, accessed 16 August 2021).
Existing data collection tool	WHO is currently revising its facility survey modules to incorporate/address PHC-specific elements.

Models of care

Indicator 54 Existence of supportive supervision system

Indicator short name	**Existence of supportive supervision system**
Indicator long name	Percentage of providers that receive supportive supervision
Domain	Models of care
Sub-domain	Organization and facility management
M/E domain	Process
Definition	Percentage of providers that receive supportive supervision for PHC (not just specific disease areas) that include the following attributes: • There is collaborative problem-solving and open dialogue • Routine mentoring to address gaps in performance, knowledge or skills • Support in setting individual goals and reviewing progress towards their achievement • Receipt of specific technical expertise when required A provider can be an individual health care worker, a team, or a health centre.
Disaggregation(s)	If provider is defined as a facility, please include the following disaggregations: Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural Health care worker type (e.g., CHW, midwife, nurse, medical doctor, etc) if individual health care workers are surveyed
Numerator	Number of facilities meeting the key attributes for supportive supervision
Denominator	Total number of facilities
Preferred data source	Facility survey or provider survey
Rationale	Supportive supervision of individual providers is a key component of performance measurement and management. Rather than using punitive or corrective action, supportive supervision is focused on collective problem-solving and identifying gaps and opportunities to fill them. This approach strengthens relations between staff and builds pathways to improvement through active collaboration between providers and supervisors. This can lead to improved quality of care when combined with other quality-related interventions.
Reference(s)	Adapted from PHCPI PHC Progression model assessment tool (measure 33 – Supportive supervision) Primary Health Care Performance Initiative. Primary Health Care Progression Model. 2019 (https://improvingphc.org/primary-health-care-progression-model, accessed 17 August 2021). Building the primary health care workforce of the 21st century. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/328072, accessed 16 August 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, and DHS program's SPA assess external supervision but not supportive supervision. To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Indicator 55 Existence of facility budgets and expenditures meeting criteria

Indicator short name	**Existence of facility budgets and expenditures meeting criteria**
Indicator long name	Existence of facility budgets and expenditures meeting criteria
Domain	Models of care
Sub-domain	Organization and facility management
M/E domain	Process
Definition	Percentage of facilities that have budgets and expenditures that include the following attributes: • Line-item funds and/or global budgets as relevant • Billing/insurance/other patient financial coverage tracked use expenses (if present) • Internally generated funds from user fees or other fees collected at the point of care • Flexibility to use and/or re-allocate funds across budgetary lines to fit evolving financial needs and to retain fees collected at service level • Use of a comprehensive annual budget to engage in a systematic forecasting exercise **Line-item funds:**– funding amounts from government source for specific types of regular expenses, such as supplies, equipment, staff, or income, such as from service-specific fees **Global budgets:** a pre-specified amount of funds for a given period of time per patient **Billing/insurance/other financial coverage tracked-use expenses:**– refers most often to reimbursements by government or private insurance mechanisms for services provided to patients **Internally generated funds:** funds generated at and by the facility, most often from user fees or other fees that are collected at the point of care **Systematic forecasting exercise:** projecting expected costs and income for a future period, based on past data, to enable strategic planning
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.). Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities that are able to use/re-allocate funds across budgetary lines
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Facility budgets set out how much money comes into the facility, where it comes from, and how much money is spent and on what. Budgets should be flexible to allow re-allocations. Budgets can simply track the flow of funds as they move in real time/retroactively, but at higher levels of performance facilities can also use budgets to proactively plan for future activities and expenditures. These forecasting exercises provide the information facilities need to make strategic decisions such as what and how many medicines and supplies to buy, which staff to hire, etc.
Reference(s)	Primary Health Care Performance Initiative. Primary Health Care Progression Model Assessment Tool (measure 22 - Facility budgets; measure 23 - Financial management information system). 2019 (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf; accessed 20 April 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).

Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's SDI, and DHS program's SPA+ (fully or partially). World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://datatopics.worldbank.org/sdi/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment (HHFA). March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Models of care

Indicator 56 Collaboration between facility-based and community-based service providers

Indicator short name	**Collaboration between facility-based and community-based services**
Indicator long name	Formal linkages exist between facility-based and community-based primary care providers
Domain	Models of care
Sub-domain	Community linkages and engagement
M/E domain	Process
Definition	Percentage of primary care facilities and first referral hospitals that have established formal linkages with community-based service providers (including CHWs). These linkages include the following key attributes: • There are clear roles and responsibilities established between the facility and community-based providers on the appropriate provision of care at the different levels • There are effective two-way communication channels between community-based and facility • Community-based providers are integrated in the facility management structures, facility teams, and data systems • Supportive supervision and training opportunities are made available by primary-care facility to the community-based service providers • The community and facility organizations are in close geographic proximity to each other • The facility refers patients to the community-based providers and receive referrals from community-based providers Evidence for formal linkages can be defined as either clear national or regional guidelines that define the roles between the different service delivery platforms or ad hoc written agreements that formalize this relationship locally
Disaggregation(s)	Managing authority: public, private Subnational Urban/rural
Numerator	Number of primary care facilities and first-referral hospitals with the key attributes defining facility-community linkages
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Creating sustainable, effective linkages between facilities and community settings can improve people's use of promotion and preventive services, their timely access to facility-based services and their adherence to treatment. These positive outcomes are achieved when community-based service providers are trusted by the community they serve and by facility-based providers and when they are partnering to ensure continuity of care and improved clinical quality (i.e., through training or formative supervision). In addition, community-based providers have a role to alert facility-based providers of public health issues and help carry the voice of the people they serve to improve responsiveness of primary care services. They can act as an effective broker between communities and district or facility managers. These linkages connect clinical providers, community organizations, and public health agencies. While this indicator focuses on the linkages with primary care providers (including first-referral hospitals), it is also essential that hospitals are fully embedded within the communities they serve, working closely with other health care and social service providers. Hospitals should transition from being "the last link in a chain" of health service providers to being actively and continuously engaged with their communities and with providers of primary care.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). WHO community engagement framework for quality, people-centred and resilient health services. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/handle/10665/259280, accessed 30 August 2021).

Existing data collection tool	The World Health Organization's HHFA includes information on community linkages for HIV, TB, and malaria that include the delivery of a certain set of services. However, these are not designed in terms of the attributes of facility-community linkage. World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate /address PHC-specific elements.

Indicator 57 Community engagement in service planning and organization

Indicator short name	**Community engagement in service planning and organization**
Indicator long name	Community voices to inform planning and organization of services at the local level (district or local health systems and facilities)
Domain	Models of care
Sub-domain	Community linkage and engagement
M/E domain	Process
Definition	There is a system to ensure local service planning is informed by community voices included but not limited to the following activities and demonstrates involvement of vulnerable groups in the planning process: • Community health needs and asset assessment • Participatory processes for priority setting • Patient and relatives' surveys • Training of patient advocates • Membership of community representatives in advisory boards at the local level (e.g., council boards) or in supervisory boards of facilities
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative/Key informant survey and/or desk review with verification from key country documents
Rationale	Community engagement is the inclusion of local health system users and community members in all aspects of health planning, provision, and governance. It is a central component of ensuring that the services delivered are tailored to population needs, priorities and values, which can be achieved through the involvement of communities in the design, financing, governance, and implementation of PHC. To ensure that the needs of all community members are met, it is important that community engagement efforts include representation from diverse members of the community. This may require multiple mediums for engagement, to best capture the needs and opinions of traditionally underrepresented community members.
Reference(s)	WHO community engagement framework for quality, people-centred and resilient health services. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/handle/10665/259280, accessed 4 October 2021). Indicator passport - WHO European Primary Health Care, Impact, Performance and Capacity Tool. Copenhagen: World Health Organization Regional Office for Europe; 2019 (https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2019/indicator-passport-who-european-primary-health-care,-impact,-performance-and-capacity-tool-phc-impact-2019, accessed 20 April 2021). Primary Health Care Performance Initiative. Primary Health Care Progression Model Assessment Tool (measure 26 – community engagement). 2019 (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf; accessed 20 April 2021). Voice, agency, empowerment-handbook on social participation for universal health coverage. Geneva: World Health Organization; 2021 (https://www.who.int/publications/i/item/9789240027794, accessed 27 September 2021). Community Engagement: A health promotion guide for universal health coverage in the hands of the people. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/9789240010529, accessed 27 September 2021).
Existing data collection tool	A qualitative assessment tool with recommended scoring methodology is under development by WHO and will be forthcoming end 2022.

Indicator 58 Proactive population outreach

Indicator short name	**Proactive population outreach**
Indicator long name	Health system engages in proactive population outreach
Domain	Models of care
Sub-domain	Community linkages and engagement
M/E domain	Process
Definition	Percentage of facilities that actively provide services to communities according to local health needs and priorities; Average number of services provided by the facilities. Proactive outreach activities include: • Mobile health units • Available transport systems • Home-based care • Telemedicine • Proactive follow-up with chronic disease patients • Health promotion activities • Health education • Identification of acute cases • Pregnant women needing referrals • Family planning provision • Chronic disease adherence follow-up
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	1. Number of facilities actively providing services to communities 2. Average number of proactive outreach activities
Denominator	Facility survey
Preferred data source	Qualitative assessment based on interview with key informant and /or desk review of country documents
Rationale	Proactive population outreach is when health systems actively reach out to provide care in homes and communities rather than exclusively in facilities. The health services are initiate by the health system and include preventive and promotive health services. Services delivered by CHWs are often classified under proactive population outreach. These services are often preventive or promotive (though may also be curative) and initiated by the health system rather than by patients. Such services are often provided by CHWs or similar occupations. Examples of common proactive outreach services include community engagement interventions, health promotion activities, health education, identification of acute cases and of pregnant women needing referrals to health facilities, family planning provision, and chronic disease adherence follow-up.
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Primary Health Care Performance Initiative. Primary Health Care Progression Model Assessment Tool 2019 (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf; accessed 20 April 2021).

Existing data collection tool	The World Health Organization's HHFA measures some of these individual items but it does not measure all the attributes. World Health Organization. Harmonized Health Facility Assessment (HHFA). March 2021. (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction; accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Indicator 59 Services for self-care and health literacy in primary care

Indicator short name	**Services for self-care and health literacy in primary care**
Indicator long name	Percentage of facilities that promote self-care and health literacy in primary care
Domain	Models of care
Sub-domain	Community linkages and engagement
M/E domain	Process
Definition	Percentage of facilities that promote self-care and health literacy that include the following services, and average number of self-care and health literacy services provided by health facilities: • Routine use of telephone-based services • Routine use of computer-based programmes (e.g., internet-based chat rooms, virtual support group) • Routine distribution of printed resources (e.g., pictograms, pamphlets, brochures, etc.) • Routine support on use of in-home electronic aids (e.g., blood pressure cuff, blood glucose device etc.) • One-on-one patient education (e.g., a dedicated health care worker who is responsible for providing this support) • Established peer support groups
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities that have the key attributes for improved self-management and health literacy
Denominator	Number of facilities surveyed
Preferred data source	Facility survey
Rationale	Strengthening health literacy enables people to make important health service decisions and to communicate, assert and enact these decisions. Strengthened health literacy improves health outcomes, the effective use of health services and reduces health inequities. Low levels of health literacy are associated with unhealthy choices and lifestyle and riskier behaviours. An important part of patient education is increasing awareness about the importance of disease prevention and health promotion as patients with certain co-morbidities are at increased risk for other related conditions. Services that work to link patients with peers can increase access to expert advice about how to manage both clinical and social aspects of a condition. It can also help to overcome feelings of isolation.
Reference(s)	National Committee for Quality Assurance: Measuring Quality, improving health care. Emergency Department Utilization (EDU) (https://www.ncqa.org/hedis/measures/emergency-department-utilization/, accessed 23 August 2021). Agency for Health care Research and Quality. 2015. Measures of Care Coordination: Preventable Emergency Department Visits (https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/carecoordination/measure2.html, accessed 23 August 2021). World Health Organization Regional Office for Europe. Indicator passport - WHO European Primary Health Care, Impact, Performance and Capacity Tool. Copenhagen: World Health Organization Regional Office for Europe; 2019 (https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2019/indicator-passport-who-european-primary-health-care,-impact,-performance-and-capacity-tool-phc-impact-2019, accessed 20 April 2021).
Existing data collection tool	WHO is currently revising its facility survey modules to incorporate/address PHC-specific elements.

2.10 Systems for improving quality of care indicators

Systems for improving quality of care

Indicator 60 Percentage of facilities with systems to support quality improvement

Indicator short name	**Percentage of facilities with systems to support the improvement of quality of care and safety**
Indicator long name	Percentage of facilities with systems to support the improvement of quality of care and safety
Domain	Systems for improving quality of care
Sub-domain	Systems for improving quality of care
M/E domain	Process
Definition	Percentage of health facilities with systems to support and implement quality improvement, measured against the following criteria • Existence of a focal person for quality improvement and patient safety • Dedicated resources for action on quality and safety • Regular application of quality improvement methods (e.g., performance measurement and management, quality improvement cycles, audit and feedback, learning systems) • Processes for clinical audits and mortality reviews (e.g., neonatal and maternal death review and response systems) • Availability of clinical guidelines/protocols and checklists • Systems for adverse event reporting including medication harm • Existence of an up-to-date risk management protocol • System or mechanism to measure patient experience/patient voices
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities with systems to support quality improvement meeting defined criteria
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Facility-level action on quality and safety requires a multifaceted approach with strong linkages to district management and national strategic direction. Facility leadership and facility improvement teams drive activity and ensure relevant stakeholders are engaged. Key areas of activity span organizational aspects with focused attention to clinical improvement, reducing harm and engagement with patients, families and communities. The listed criteria in the definition represent a translation of quality interventions to the facility level in four areas - systems environment, reducing harm, improving clinical care and patient, family and community engagement, as outlined by WHO, the World Bank and OECD.
Reference(s)	Quality health services: a planning guide. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/336661, accessed 18 August 2021). World Health Organization, Organisation for Economic Co-operation and Development & International Bank for Reconstruction and Development. Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/272465, accessed 26 July 2021). Quality in primary health care. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/326461, accessed 30 August 2021).
Existing data collection tool	World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/hhfa/hhfa_-questionnaire_combined_core_2021.03.07.pdf?sfvrsn=698754fa_5&download=true, accessed 16 August 2021). WHO is currently revising its facility survey modules to incorporate /address PHC-specific elements. To note, however, the HHFA captures many of these attributes.

2.11 Resilient health facilities and services indicators

Resilient health facilities and services

Indicator 61 Percentage of facilities meeting criteria for resilient health facilities and services

Indicator short name	**Percentage of facilities meeting criteria for resilient health facilities and services**
Indicator long name	Percentage of facilities meeting criteria for resilient health facilities and services
Domain	Resilient health facilities and services
Sub-domain	Resilient health facilities and services
M/E domain	Processes
Definition	Percentage of health facilities that are able to demonstrate the following: • Defined health facility emergency management plan including service continuity, with availability or access to a budget line • Designated team or focal persons for emergency management and service continuity • Prioritised primary care services to be maintained during emergencies (according to national protocols) are identified • Up-to-date protocols for case management for priority health emergencies and disasters • Staff trained on emergency and disaster risk management (including prevention, preparedness, response and recovery) and service continuity • Recent (once in past five years) assessment of risks and structural, non-structural, functionality and preparedness of health care facilities • Simulation exercises to routinely test the functionality of health facility structures, mechanisms and functions for emergency management and service continuity • Post-emergency reviews (at facility or subnational level) to evaluate the performance of the facility in emergency management and service continuity and use lessons to effect recovery and strengthen capacities for current and future risks.
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health facilities meeting attributes for resilient health facilities and services
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Reducing the health risks and consequences of emergencies is vital to local, national and global health security and to build the resilience of communities, countries and health systems. There are many cross-cutting, system-wide capacities that contribute to community and country resilience, including the critical roles of resilient health facilities and their functionality to provide health services in both day-to-day and emergency situations. Various system-wide attributes of resilience can be found in other indicators of this framework. This indicator focuses on emergency and disaster risk management, the continuity of services and functions, and the use of reviews and lessons learnt to facilitate recovery and strengthen capacities for current and future risks, as key attributes of resilient health facilities and services.

Reference(s)	Service availability and readiness assessment. Geneva: World Health Organization; 2014 (https://apps.who.int/iris/handle/10665/149025, accessed 20 April 2021). Comprehensive safe hospital framework. Geneva: World Health Organization; 2015 (https://www.who.int/publications/i/item/comprehensive-safe-hospital-framework, accessed 19 August 2021). World Health Organization and Pan American Health Organization. Hospital safety index: guide for evaluators, 2nd ed. 2015 (https://apps.who.int/iris/handle/10665/258966, accessed 19 August 2021). State Party self-assessment annual reporting tool. Geneva: World Health Organization; 2018 (https://www.who.int/ihr/publications/WHO-WHE-CPI-2018.16/en/, accessed 20 April 2021). Health Emergency and Disaster Risk Management Framework. Geneva: World Health Organization; 2019 (https://www.who.int/hac/techguidance/preparedness/health-emergency-and-disaster-risk-management-framework-eng.pdf?ua=1, accessed 28 July 2021). United Nations and United Nations Office for Disaster Risk Reduction. Sendai Framework for Disaster Risk Reduction 2015-2030. 2015 (https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030, accessed 20 April 2021). Primary health care and health emergencies. Geneva: World Health Organization;2018 (https://apps.who.int/iris/handle/10665/328105, accessed 25 August 2021). World Health Organization. WHO Health Systems Resilience Indicators (forthcoming).
Existing data collection tool	World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). WHO is currently revising its facility survey modules to incorporate/address PHC-specific elements. To note, however, the HHFA captures some of these attributes.

2.12 Access and availability indicators

Access and availability

Indicator 62 Geographical access to services

Indicator short name	**Geographical access to services**
Indicator long name	Percentage of population living within 5 km (or 1 hour) of a comprehensive primary care provider and 2 hours of an emergency care unit/provider
Domain	Access and availability
Sub-domain	Accessibility, affordability, acceptability
M/E domain	Outputs
Definition	Percentage of population who live within 5km of a comprehensive primary care facility or provider Percentage of population who live within 2 hours of an emergency care unit
Disaggregation(s)	Urban/rural Subnational
Numerator	Number of people who live within 5km of a primary care facility/provider
Denominator	Total population count
Preferred data source	Routine facility information system – facility database/master facility list, geospatial modelling
Rationale	Access to health services is critical for the health status of a population and analysis of its variance is important in the effective allocation of national health resources. The indicator contributes to the measurement of facility infrastructure management such as physical availability and accessibility of health services.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021).
Existing data collection tool	Country information system

Access and availability

Indicator 63 Perceived barriers to access (geographical, financial, sociocultural)

Indicator short name	**Perceived barriers to access (geographical, financial, sociocultural)**
Indicator long name	Perceived barriers to access (geographical, financial, sociocultural)
Domain	Access and availability
Sub-domain	Accessibility, affordability, acceptability
M/E domain	Outputs
Definition	Percentage of target population who report problems in accessing care when they have a health care need, by problem.
Disaggregation(s)	Wealth quintile Education Urban/rural Age Gender Subnational
Numerator	Number of people interviewed who report having had a problem accessing care when they had a health care need: • Getting permission to go for treatment • Getting money for treatment • Distance to the health facility • Not wanting to go alone
Denominator	Number of people interviewed who reported having a health care need
Preferred data source	Population-based survey
Rationale	Perceived barriers to access can negatively impact the use of health services, especially for marginalized and vulnerable populations. A perceived barrier during one visit can impact on future use of services. Addressing barriers to access and use of health services is critical for ensuring equitable delivery and use of health services. Assessments of barriers to health services can be one example of PHC-oriented research that contributes to the reduction of health inequities
Reference(s)	Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	The Demographic and Health Surveys Program. Demographic and Health Surveys (https://dhsprogram.com/Methodology/Survey-Types/DHS.cfm, accessed 19 August 2021).

Access and availability

Indicator 64 Access to emergency surgery

Indicator short name	**Access to emergency surgery**
Indicator long name	Access to emergency surgery
Domain	Access and availability
Sub-domain	Accessibility, affordability, acceptability
M/E domain	Outputs
Definition	Percentage of the population that can access, within 2 hours, a facility that can perform emergency caesarean section, laparotomy and open fracture fixation
Disaggregation(s)	Urban/rural Subnational
Numerator	Total count of population that can access, within 2 hours, a facility that can perform emergency caesarean section, laparotomy and open fracture fixation
Denominator	Total population
Preferred data source	Routine facility information system – facility database/master facility list, geospatial modelling; facility survey
Rationale	Emergency surgical care is unplanned surgery care that is needed to treat acute illness or trauma that is presented at the emergency department of a health facility (mainly hospitals but also larger polyclinics). Emergency surgical care is necessary for common or less-common emergency conditions that can become life-threatening if not addressed in time, e.g., appendicitis. Availability of and access to emergency surgery is critical for meeting population health needs and is a critical component of PHC. Capacity to perform the 3 defined procedures ("Bellwether procedures") predicts accomplishment of many other essential surgical procedures; 2 hours is a threshold of deaths from complication of childbirth. Access to health services is critical for the health status of a population and analysis of its variance is important in the effective allocation of national health resources. The indicator contributes to the measurement of facility infrastructure management, such as physical availability and accessibility of health services.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). 2. World Health Organization. WHO Emergency Care System Framework (https://www.who.int/publications/i/item/who-emergency-care-system-framework, accessed 17 August 2021). 3. Global surgery 2030: Core indicators for monitoring universal access to safe, affordable surgical and anaesthesia care when needed. https://www.lancetglobalsurgery.org/ (see "Measure and plan").
Existing data collection tool	Country health information system; World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021).

Access and availability

Indicator 65 Existence of a system for post-crash care

Indicator short name	**Existence of a system for post-crash care**
Indicator long name	Existence of a system for post-crash care
Domain	Access and availability
Sub-domain	Accessibility, affordability, acceptability
M/E domain	Outputs
Definition	Existence of a system for post-crash care that is assessed by the presence of the following attributes: • National emergency care access number • Trauma registry • Formal certification pathway for prehospital providers (e.g., for medics, technicians, nurses) • Comprehensive assessment of emergency care systems conducted at the national level comprising prehospital and facility-based emergency care systems • Policy specifying national (or subnational) target(s) and parameters for maximum time interval between a road crash resulting in injury and the provision of first professional emergency care • Existence of Good Samaritan laws to protect bystanders, other laypeople, or non-clinical first responders, such as police
Disaggregation(s)	Not applicable
Numerator	Not applicable
Denominator	Not applicable
Preferred data source	Qualitative assessment or policy review
Rationale	Delays in detecting and providing care for those involved in a road traffic crash increase the severity of injuries. Care of injuries after a crash has occurred is extremely time-sensitive: delays of minutes can make the difference between life and death. Improving post-crash care requires ensuring access to timely prehospital care and improving the quality of both prehospital and hospital care, such as through specialist training programmes.
Reference(s)	WHO status report on road safety 2018. Geneva: World Health Organization; 2018 (https://www.who.int/publications/i/item/9789241565684, accessed 7 September 2021).
Existing data collection tool	A national assessment tool developed by WHO to collect data for the WHO status report on road safety 2018 measures some of the attributes. WHO is in the process of revising this assessment to incorporate additional elements in 2022.

Indicator 66 Percentage of facilities offering services according to national defined service package

Indicator short name	**Percentage of facilities offering core services according to national defined service package**
Indicator long name	Percentage of facilities offering core services according to national defined service package
Domain	Access and availability
Sub-domain	Accessibility, affordability, acceptability
M/E domain	Outputs

Definition	Percentage of primary care facilities/units offering services according to national defined service package. Specific services depend on the country context and should align with the core package of services, for example:
	• Communicable diseases
	  ▪ Communicable disease prevention
	  ○ Immunization
	  ▪ Communicable diseases (excluding NTDs)
	  ○ HIV counselling and testing;
	  ○ HIV/AIDS care and support services;
	  ○ Antiretroviral prescription and client management;
	  ○ Sexually transmitted infections diagnosis or treatment;
	  ○ Tuberculosis services (diagnosis, treatment prescription or treatment follow-up)
	  ○ Malaria diagnosis or treatment;
	  ○ Childhood respiratory infections and diarrheal diseases
	  ▪ Neglected Tropical Diseases
	• Foundations of care
	  ▪ Core functions
	  ▪ Integrated approach to common conditions
	• Growth, development and ageing
	  ▪ Infant, child and adolescent growth and development
	  ▪ Nutrition, physical activity and sleep
	  ▪ Special considerations at the end of life
	  ○ Palliative care services
	  ▪ Special considerations in older people
	  ▪ Disabilities
	• Noncommunicable diseases
	  ▪ Blood disorders
	  ▪ Cancers
	  ○ Cervical cancer screening
	  ▪ Cardiovascular disease
	  ▪ Chronic musculoskeletal disorders
	  ▪ Chronic respiratory diseases
	  ▪ Congenital abnormalities
	  ▪ Digestive diseases
	  ▪ Endocrine, metabolic, and autoimmune disorders
	  ▪ Genitourinary disorders
	  ▪ Sense organ diseases
	  ▪ Skin and hair diseases
	  ▪ Skin and subcutaneous diseases

	• Mental health, neurological and substance abuse disorders
	  ▪ Mental disorders
	  ▪ Neurological disorders
	  ▪ Substance use disorders
	• Reproductive and sexual health
	  ▪ Pregnancy and birth
	  ○ Family planning, Antenatal care, Prevention of mother-to-child transmission of HIV;
	  ○ Basic emergency obstetric and neonatal care (BEmONC);
	  ○ Comprehensive emergency obstetric and neonatal care (CEmONC), post-abortion care;
	  ○ Essential newborn care;
	  ▪ Sexual health and family planning
	• Violence and injury
	  ▪ Injury
	  ○ Envenomation injuries;
	  ○ Mechanical injury;
	  ○ Poisoning, toxic and environmental injuries (including drowning);
	  ▪ Interpersonal violence;
	• Rehabilitative services
	• Basic and comprehensive surgical care, including caesarean section, laparotomy and open fracture
	• Services available 24 hours a day (for emergencies) with either a health care worker present at the facility at all times or officially on call for the facility at all times
	• Emergency units with acuity-based triage
	• Nutrition services

Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of facilities offering the total package of core services; number of facilities offering each service
Denominator	Total number of facilities examined
Preferred data source	Facility survey or facility census or RHIS
Rationale	Availability of health services should be aligned with a country's defined package of essential health services and public health functions. This measures assess the extent to which specific services are offered and available in the relevant health care settings (for example, primary care, hospital and long-term care).
Reference(s)	World Health Organization. WHO Universal Health Coverage compendium: a global repository of interventions for UHC. 2021 (https://www.who.int/universal-health-coverage/compendium, accessed 1 July 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and Harmonized Health Facility Assessments (HHFA, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Access and availability

Indicator 67 Provider availability (absence rate)

Indicator short name	**Provider availability (absence rate)**
Indicator long name	Provider availability (absence rate)
Domain	Access and availability
Sub-domain	Service availability and readiness
M/E domain	Outputs
Definition	Percentage of clinical staff who are expected to be at facility but are not present at a facility during an unannounced visit compared to the expected number of staff at a given time.
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health professionals that are not off duty who are absent from the facility on an unannounced visit
Denominator	Ten randomly sampled workers who are supposed to be on duty at the facility on the day of the assessment. The only health workers that are removed from the denominator are those on shift work (i.e., not present because it is not their shift) or those doing fieldwork (mainly community and public health professionals).
Preferred data source	Facility survey
Rationale	Health worker density and distribution measures one dimension of staff availability. Provider absence measures another dimension of staff availability. Presence of medical staff is a critical component for health service delivery and quality. Low levels of staff availability may preclude people from accessing the care that they require.
Reference(s)	World Bank. World Bank Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021).
Existing data collection tool	World Bank. World Bank Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Access and availability

Indicator 68 Percentage of facilities meeting minimum standards to deliver tracer services

Indicator short name	**Percentage of facilities meeting minimum standards to deliver tracer services**
Indicator long name	Percentage of facilities meeting minimum standards to deliver tracer services
Domain	Access and availability
Sub-domain	Service availability and readiness
M/E domain	Outputs
Definition	Percentage of facilities offering the service that have appropriate (according to tracer services): • Staff and guidelines • Equipment • Diagnostics • Medicines and commodities
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health facilities that have the recommended staff, guidelines, equipment, diagnostics, medicines and commodities to provide tracer services, such as for reproductive, maternal, newborn, child and adolescent health, communicable diseases, and noncommunicable diseases.
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	One of the goals of UHC is the ability to provide quality health services to the population that meet their needs without financial hardships. Service readiness (as defined by facilities meeting minimum standards to deliver services) is a necessary component of quality health services. The ability of facilities to provide quality services to those accessing care is dependent on the facility having adequate supplies and staffing. Some of the components of these indicators are measured separately as part of this framework. However, this measure combines the different components to give a combined measure of service readiness as well as examining separately the different components to see where minimum standards are (or are not) being met.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021).
Existing data collection tool	From existing health facility survey tools such as World Health Organization's SARA and HHFA, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Access and availability

Indicator 69 Percentage of facilities compliant with IPC measures

Indicator short name	**Percentage of facilities compliant with IPC measures**
Indicator long name	Percentage of facilities compliant with IPC measures
Domain	Access and availability
Sub-domain	Service availability and readiness
M/E domain	Outputs

Definition	Percentage of facilities meeting standards (inadequate, basic, intermediate, advanced) based on the eight core components of IPCAF:
	• IPC programme
	  ▪ Trained IPC link person, with dedicated (part-) time in each PHC facility
	  ▪ One IPC-trained health care officer at the next administrative level (for example, district) to supervise the IPC link professionals in PHC facilities
	• IPC guidelines
	  ▪ Evidence-based facility-adapted SOPs based on the national IPC guidelines
	  ▪ Routine monitoring of the implementation of at least some of the IPC guidelines/SOPs
	• IPC education and training
	  ▪ All front-line clinical staff and cleaners must receive education and training on the facility IPC guidelines/SOPs upon employment.
	  ▪ All IPC link persons in primary care facilities and IPC officers at the district level (or other administrative level) need to receive specific IPC training
	• HAI surveillance
	  ▪ HAI surveillance should follow national or sub-national plans (where available and applicable)
	• Multimodal strategies
	  ▪ Use of multimodal strategies – at the very least to implement interventions to improve hand hygiene, safe injection practices, decontamination of medical instruments, devices and environmental cleaning
	• Monitoring/audit of IPC practices and feedback
	  ▪ Monitoring of IPC structural and process indicators should be put in place at primary care level, based on IPC priorities identified in the other components.
	• Workload, staffing and bed occupancy
	  ▪ Reduce overcrowding with a system for patient flow, a triage system (including referral system) and a system for the management of consultations should be established according to existing guidelines, if available
	  ▪ Optimize staffing levels by assessment of appropriate staffing levels, depending on the categories identified when using WHO/national tools (national norms on patient/staff ratio), and development of an appropriate plan
	• Built environment, materials and equipment for IPC at the facility level
	  ▪ Water should always be available from a source on the premises
	  ▪ A minimum of two functional, improved sanitation facilities should be available on site, one for patients and the other for staff; both should be equipped with menstrual hygiene facilities
	  ▪ Functional hand hygiene facilities should always be available at points of care/toilets and include soap, water and single-use towels (or if unavailable, clean reusable towels) or alcohol-based hand rub at points of care and soap, water and single-use towels (or if unavailable, clean reusable towels) within 5 metres of toilets
	  ▪ Sufficient and appropriately labelled bins to allow for health care waste segregation should be available and used

	▪ The facility layout should allow adequate natural ventilation, decontamination of reusable medical devices, triage and space for temporary cohorting/isolation/physical separation if necessary ▪ Sufficient and appropriate IPC supplies and equipment (for example, mops, detergent, disinfectant, personal protective equipment and sterilization) and power/energy (for example, fuel) should be available for performing all basic IPC measures according to minimum requirements/SOPs, including all standard precautions, as applicable; lighting should be available during working hours for providing care ▪ Isolation areas
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural
Numerator	Number of health facilities meeting IPC standards
Denominator	Total number of facilities surveyed
Preferred data source	Facility survey
Rationale	Preventing harm to patients, health workers and visitors due to infection in health care facilities is fundamental to achieve quality care, patient safety, health security and the reduction of health care-associated infections and antimicrobial resistance.
Reference(s)	Minimum Requirements for infection prevention and control programmes. Geneva: World Health Organization; 2019 (https://www.who.int/publications/i/item/9789241516945, accessed 19 August 2021). Improving infection prevention and control at the health facility level: interim practical manual supporting implementation of the WHO guidelines on core components of infection prevention and control programmes. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/279788, accessed 19 August 2021).
Existing data collection tool	Infection prevention and control assessment framework at the facility level. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/330072, accessed 19 August 2021). A number of the specific items can also be found in existing facility survey tools such as World Health Organization's SARA and HHFA, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Access and availability

Indicator 70 Outpatient visits

Indicator short name	**Outpatient visits**
Indicator long name	Outpatient visits (primary care) per person per year
Domain	Access and availability
Sub-domain	Utilization of services
M/E domain	Outputs
Definition	Number of outpatient health facility visits (e.g., to facilities or doctors) per person per year
Disaggregation(s)	Subnational Age Gender
Numerator	Total number of visits
Denominator	Per person in a given year
Preferred data source	Population-based survey; can also be collected through RHIS if the RHIS includes all facilities in the country (public and private)
Rationale	Utilization of care can be a predictor of access to primary care. While cultural factors and incentive structures can play a role in how often people seek care, low utilization can signal issues related to access to care. For example, OECD average for doctor's consultation is between 6.5 and 6.8 visits per person in a year (OECD Health at a glance 2019). During public health events outpatient visit utilization needs frequent monitoring to assure timely detection of service disruption.
Reference(s)	National Committee for Quality Assurance: Measuring Quality, improving health care. Emergency Department Utilization (https://www.ncqa.org/hedis/measures/emergency-department-utilization/, accessed 23 August 2021). Agency for Healthcare Research and Quality. 2015. Measures of Care Coordination: Preventable Emergency Department Visits (https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/carecoordination/measure2.html, accessed 23 August 2021).
Existing data collection tool	Country health information systems The DHS have a health care utilization module though it is not part of their core module but can be accessed through individual country reports online. The Demographic and Health Surveys Program. Demographic and Health Surveys (https://dhsprogram.com/Methodology/Survey-Types/DHS.cfm, accessed 19 August 2021).

Indicator 71 Emergency unit visits

Indicator short name	**Emergency unit visits**
Indicator long name	Emergency unit visits per 1000 population
Domain	Access and availability
Sub-domain	Utilization of services
M/E domain	Outputs
Definition	Number of emergency department visits per 1 000 population
Disaggregation(s)	Subnational Age Gender
Numerator	Number of patients who seek care at the emergency department
Denominator	Per 1 000 population
Preferred data source	RHIS – if the RHIS included all facilities offering emergency unit services in the country (public and private) Could also be collected through population-based survey
Rationale	Utilization of emergency primarily shows the access to emergency services for acute time-sensitive conditions. However, in some settings emergency services can be used for preventable or treatable conditions. It is important to capture this, as emergency department services are costly services that can burden the health system if used for non-time-sensitive conditions. During public health events emergency unit utilization needs frequent monitoring to assure timely detection of service disruption.
Reference(s)	National Committee for Quality Assurance: Measuring Quality, improving health care. Emergency Department Utilization (https://www.ncqa.org/hedis/measures/emergency-department-utilization/, accessed 23 August 2021). Agency for Healthcare Research and Quality. 2015. Measures of Care Coordination: Preventable Emergency Department Visits (https://www.ahrq.gov/research/findings/nhqrdr/chartbooks/carecoordination/measure2.html, accessed 23 August 2021).
Existing data collection tool	Country health information systems

Indicator 72 Hospital discharges

Indicator short name	**Hospital discharges**
Indicator long name	Hospital discharges per 1 000 population
Domain	Access and availability
Sub-domain	Utilization of services
M/E domain	Outputs
Definition	Number of patients who are admitted to or leave a hospital after staying at least one night per 1 000 population (includes death following inpatient care but excludes same-day discharges)
Disaggregation(s)	Subnational Age Gender
Numerator	Number of patients who are admitted or leave a hospital after staying at least one night
Denominator	Per 1 000 population
Preferred data source	RHIS - if the RHIS included all facilities offering inpatient services in the country (public and private) Population based survey
Rationale	Hospital admissions (discharges) is another measure of utilization of health services. High hospital admission/ discharge rates can also signal a failure of PHC service delivery that has necessitated hospital admissions (a measure of this is also captured in the indicator "admissions for ambulatory-sensitive conditions". During public health events hospital admissions need frequent monitoring to assure timely detection of service disruption.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems

Access and availability

Indicator 73 Leading diagnoses (primary care/outpatient visits, inpatient diagnoses at discharge)

Indicator short name	**Leading diagnoses (primary care/outpatient visits, inpatient diagnoses at discharge)**
Indicator long name	Leading diagnoses for primary care/outpatient visit, inpatient diagnoses at discharge
Domain	Access and availability
Sub-domain	Utilization of services
M/E domain	Outputs
Definition	Number, Rate per 1 000 population and percentage distribution of the main diagnostic categories
Disaggregation(s)	Subnational Age Gender Service type: outpatient, inpatient discharges
Numerator	Number of new cases /discharges by diagnosis
Denominator	Rate: Total population; Percentage distribution: total number of outpatient visits; total number of discharge diagnoses
Preferred data source	RHIS
Rationale	Leading diagnoses captures the key conditions seen by service providers. This information is important for PHC services as it can support targeting of health services as well as guide preventive efforts at the population level. During public health events, utilization for leading diagnosis need frequent monitoring to assure timely detection of service disruption. (Note that these rates are different from the incidence and/or prevalence of the conditions in the population.)
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021).
Existing data collection tool	Country health information systems

2.13 Quality care indicators

Quality care

Indicator 74 Patient-reported experiences

Indicator short name	**Patient-reported experiences**
Indicator long name	Index of patient-reported experiences (including in primary care facilities)
Domain	Quality care
Sub-domain	Core primary care functions (first-contact accessibility, continuity, comprehensiveness, coordination, people-centredness)
M/E domain	Outputs
Definition	Percentage of patients that meet the key attributes of patient experience that include first-contact accessibility, continuity, coordination and people-centredness Patient-reported experiences addresses some of the key domains of core primary care functions through the lens of the patient. It includes the following domains: • First contact accessibility Where appointment systems are in place: ▪ Ease of appointment booking ▪ Waiting time for appointment (in settings where this can be measured) Where appointment systems are not in place: ▪ Non-use of care due to perceived length of waiting time for consultation • Continuity ▪ Percentage of patients who saw the same health provider (includes a primary care practice with a single or multiple clinicians) ▪ Percentage of patients who reported their provider having knowledge of their prior visits and test results • Coordination ▪ Percentage of patients with two or more conditions that reported to have one provider coordinating care • People-centredness ▪ Communication: percentage of patients who reported their providers provided clear explanations ▪ Respect ▪ Percentage of patients who reported their provider communicated with respect as their last visit ▪ Percentage of patients who reported respectful communication from other clinic staff ▪ Autonomy: Percentage of patients who are provided with information on treatment options and are consulted about preferences ▪ Confidentiality: Percentage of patients who reported they were satisfied with the level of confidentiality provided during their consultation. ▪ Social support received during stay at facility (esp. in hospitals) (In relation to patient-experiences, patient-reported outcome measures are also reported)
Disaggregation(s)	When collected through population-based survey and facility surveys: Age Gender Subnational Urban/rural For exit interview during facility surveys only: Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.)

Numerator	Number of key attributes that are met (overall and by domain)
Denominator	Total number of patients interviewed
Preferred data source	Population-based survey or patient survey (as part of an exit-interview during a facility survey or a separate visit-follow-up patient questionnaire)
Rationale	Patient-reported experiences provide critical insight into the quality of care received. The experience of the patient is an important quality outcome in its own right that can complement other, more commonly used clinical measures in building a picture of whether quality care was received. Such data, especially when disaggregated into specific aspects such as those outlined in the indicator definition, can be used to inform health workers and health service leadership on key quality challenges within the service and to support design and monitoring of quality improvement efforts. A comprehensive understanding of the patient perspective on care received requires insight into the three inter-related areas listed within the definition. Patient experience data informs descriptively from the patient perspective on the care received, with those same aspects explored from a patient satisfaction angle to understand the degree to which patients believe their expectations were met during their experience. Similarly, the focus on health system responsiveness assesses the ability of the health system to meet the legitimate expectations of the population regarding the non-medical and non-financial aspects of care, a factor which has been found to improve other measures of health, for example through increasing compliance and care seeking behaviour. This indicator aims to broadly reflect perceptions of health care from the patient perspective, described across three categories: patient experience, patient satisfaction and health system responsiveness. For the purposes of this composite indicator, a limited number of subcomponents have been included under each category. They reflect key primary care components relevant across all settings. However, when collecting data on these subcomponents it may be helpful to select additional subcomponents for each of these three categories to provide further detail on patient perceptions that can support monitoring, evaluation and decision-making, relevant to the local setting.
Reference(s)	Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021). Johns Hopkins Primary Care Policy Center Primary Care Assessment Tools (https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-primary-care-policy-center/pca_tools.html, accessed 19 August 2021).
Existing data collection tool	Patient-reported indicator survey (PaRIS) from OECD measure these domains. OECD. Patient-reported indicator survey (PaRIS). Patient and Provider Questionnaires. Technical Materials 2021 (https://www.oecd.org/health/paris/, accessed 18 September 2021). To note: WHO is working with partners on adapting these measures for broader applicability.

Indicator 75 People's perceptions of health system and services

Indicator short name	**People's perceptions of health system and services**
Indicator long name	People's perceptions of health system and services
Domain	Quality care
Sub-domain	Core primary care functions (first-contact accessibility, continuity, comprehensiveness, coordination, people-centredness)
M/E domain	Outputs
Definition	Percentage of people that have positive perception of health system and services that include the following domains: • Perception of the public health system • Perceptions of the overall health systems • Expectations of health systems quality • Use and non-use of care A score is generated per domain based on the number of domain elements present, then an overall general community perceptions of health systems score is calculated based on the mean of the domains.
Disaggregation(s)	Provider type (where care was sought) – public, private, other Wealth quintile Education Gender Age
Numerator	Number of people that have positive perception of health system and services
Denominator	Total number of people interviewed for the survey
Preferred data source	Population-based survey
Rationale	Patient experiences are important to assess and improve the quality of care provided. Patient experiences can influence care-seeking behaviour. However, beyond the actual experiences that drive care-seeking, there is also the population's expectation for the quality of care as well as their overall perspectives on the health system, which can also be drivers for care-seeking.
Reference(s)	Voice, agency, empowerment-handbook on social participation for universal health coverage. Geneva: World Health Organization; 2021 (https://www.who.int/publications/i/item/9789240027794, accessed 27 September 2021). Community Engagement: A health promotion guide for universal health coverage in the hands of the people. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/9789240010529, accessed 27 September 2021). Primary Health Care Performance Initiative. Primary Health Care Progression Model Assessment Tool. 2019 (https://improvingphc.org/sites/default/files/PHC-Progression%20Model%202019-04-04_FINAL.pdf; accessed 20 April 2021). Margaret E Kruk, Anna D Gage, Catherine Arsenault, Keely Jordan, Hannah H Leslie, Sanam Roder-DeWan, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. The Lancet Global Health Commission| Volume 6, Issue 11, E1196-E1252, November 01, 2018 (DOI:https://doi.org/10.1016/S2214-109X(18)30386-3, accessed 26 September 2021).
Existing data collection tool	There is a measure of community needs, perceptions and demand through a community assessment tool developed by WHO to measure health service capacity assessment. Community needs, perceptions and demand: community assessment tool. Geneva: World Health Organization; 2021 (https://apps.who.int/iris/handle/10665/339388, accessed 19 August 2021). To note: WHO is currently revising its measurement and methodology to incorporate additional elements of PHC measurement.

Quality care

Indicator 76 Diagnostic accuracy (provider knowledge)

Indicator short name	**Diagnostic accuracy (provider knowledge)**
Indicator long name	Diagnostic accuracy (provider knowledge)
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Percentage of cases correctly diagnosed out of the number of patients examined, as observed through clinical vignettes on multiple common conditions, including patients with multimorbidity
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural Cadre (e.g., doctor, clinical officer, nurse, CHW, etc.) Tracer condition
Numerator	Sum of the total number of correct diagnoses identified
Denominator	Number of patients examined
Preferred data source	Patient-provider observations or record reviews during facility surveys
Rationale	PHC providers face high patient volumes and have to make decisions under considerable uncertainty. Patients present with common conditions that are often difficult to differentiate. A diagnostic error happens when a provider misdiagnoses a patient or misses diagnosing a patient. Diagnostic error can lead to patient harm and is a key component of patient safety. Accurate diagnosis is fundamental in providing quality and appropriate care.
Reference(s)	World Health Organization. UHC Compendium Bank. Service Delivery Indicators (https://www.who.int/universal-health-coverage/compendium,https://www.sdindicators.org/, accessed 17 August 2021). Operational framework for primary health care: transforming vision into action. Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020 (https://www.who.int/publications/i/item/9789240017832, accessed 17 August 2021).
Existing data collection tool	Currently the World Bank's Service Delivery Indicator survey measures diagnostic accuracy for the following five clinical presentations: (i) acute diarrhoea; (ii) pneumonia; (iii) diabetes mellitus; (iv) pulmonary tuberculosis; (v) malaria with anaemia. World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Indicator 77 Adherence to clinical standards for tracer services

Indicator short name	**Adherence to clinical standards for tracer services**
Indicator long name	Adherence to clinical standards/ guidelines for primary care tracer services (family planning, antenatal care, sick child care, hypertension, diabetes) based on observed visits (percentage of tracer services adhering to standards)
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Adherence to clinical guidelines measures the number of relevant history and physical examination questions asked and documented by a provider during a clinical encounter compared to the total number of relevant history and examination questions that should have been asked, examined through clinical vignettes. Alternatively, could be examined through exit interviews or record reviews
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural Cadre (e.g., doctor, clinical officer, nurse, CHW etc.)
Numerator	Total number of relevant history and examination questions asked by the provider
Denominator	Total number of relevant history and examination questions that should have been asked by the provider
Preferred data source	Facility survey (patient-provider observations or record review)
Rationale	Measuring adherence to practice guidelines is a measure of quality of care. Adherence to clinical guidelines improves patient outcomes. However, there is often a gap between clinical standards and actual provider practice. By examining adherence to clinical guidelines for a tracer set of commonly occurring diseases and conditions (services involving women and children and noncommunicable diseases) demonstrates if providers are providing health services according to standards. The selection of these tracer services/diseases also shows that if providers have difficulty in meeting the clinical standards for commonly presenting diseases and conditions, they will also have problems with other, less-common diseases.
Reference(s)	World Health Organization. UHC Compendium (https://www.who.int/universal-health-coverage/compendium, https://www.sdindicators.org/, accessed 17 August 2021).
Existing data collection tool	This information is partially collected through existing health facility survey tools such as World Health Organization's SARA and HHFA, World Bank's SDI, and DHS program's SPA. World Health Organization. Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Bank. Service Delivery Indicators (https://datatopics.worldbank.org/sdi/, accessed 19 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Indicator 78 30-day hospital case fatality rate (for acute myocardial infarction or stroke)

Indicator short name	**30-day hospital case fatality rate (for acute myocardial infarction or stroke)**
Indicator long name	30-day hospital case fatality rate (for acute myocardial infarction or stroke)
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Percentage of hospital inpatients with primary diagnosis of acute myocardial infarction or stroke who died within 30 days after admission
Disaggregation(s)	Cause Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural Gender Age
Numerator	Number of deaths in any hospital and out of hospital that occurred within 30 days of the admission date of the denominator cases.
Denominator	Number of admissions to hospital for acute non-elective (urgent) care with a primary diagnosis of acute myocardial infarction or stroke in the specified year.
Preferred data source	Recommended to be collected through routine health information system (RHIS) but can also be collected through a record review during a facility survey
Rationale	Thirty-day hospital case fatality rate or morality following acute myocardial infarction or stroke is a measure of quality of acute care and measures and the provision of appropriate care in hospitals, but it also measures the process of travel/transport to the hospital in a timely manner, where a weakness in emergency transport systems can have an impact on mortality rates. Variations in rates can be due to the quality of care provided, access, or both.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information system

Indicator 79 Avoidable complications (lower limb amputation in diabetes)

Indicator short name	**Avoidable complications (lower limb amputation in diabetes)**
Indicator long name	Avoidable complications (Lower limb amputation in diabetes)
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Admissions who had a major lower extremity amputation as a percentage of population age 15 and older with diabetes
Disaggregation(s)	Age Gender Subnational
Numerator	Number of admissions with a procedure code of major lower extremity amputation and a diagnosis code of diabetes in any field in the specified year
Denominator	Per 100 000 population
Preferred data source	Recommended to be collected through RHIS but can also be collected through a record review during a facility survey
Rationale	Poor control of the level of glucose in the blood over the short term can lead to vomiting, dehydration and even cause coma, whereas sustained high levels of blood glucose over several years can result in serious diseases with ongoing consequences for a person's health and well-being. For example, diabetes can cause nerve damage and poor blood circulation over time. This indicator measures the inability of the primary care system to manage patients with diabetes in primary care and avoid amputation.
Reference(s)	Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019 (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information system

Indicator 80 Hospital readmission rates for tracer conditions

Indicator short name	**Hospital readmission rates for tracer conditions**
Indicator long name	Hospital readmission rates for tracer conditions
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Percentage of unplanned and unexpected hospital readmissions for tracer conditions (acute myocardial infarction, pneumonia, asthma, diabetes, surgical site infections)
Disaggregation(s)	Tracer condition Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals Managing authority (public/private) Subnational Urban/rural Age Gender
Numerator	Number of admissions for acute myocardial infarction, pneumonia, asthma, diabetes, surgical site infections with an unexpected and unplanned admission within 30 days of discharge
Denominator	Total number of admissions for acute myocardial infarction, pneumonia, asthma, diabetes, surgical site infections
Preferred data source	Recommended to be collected through RHIS but can also be collected through a record review during a facility survey
Rationale	Hospital readmission is a key measure of quality of care. Reducing preventable hospital readmission is important both as a measure of quality of care given (improving effectiveness of care) as well as a measure of managing health care costs. While some readmissions are unavoidable or necessary, hospital readmission demonstrates a lack of linkage with PHC service providers for continuity of care for discharged patients.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Agency for Health care Research and Quality (https://www.ahrq.gov/topics/hospital-readmissions.html, accessed 30 August 2021).
Existing data collection tool	Country health information system

Quality care

Indicator 81 Admissions for ambulatory care sensitive conditions

Indicator short name	**Admissions for ambulatory care sensitive conditions**
Indicator long name	Admissions for ambulatory care sensitive conditions (asthma, chronic obstructive pulmonary disease, diabetes, congestive heart failure, hypertension)
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Rate of admission with ambulatory care sensitive conditions, including asthma, or chronic obstructive pulmonary diseases, diabetes, congestive heart failure, and hypertension per 100 000 population in a specified year and as percentage of all hospitalizations.
Disaggregation(s)	Tracer condition Sub-national Gender Age
Numerator	All non-maternal/non-neonatal hospital admissions with a principal diagnosis of asthma, or chronic obstructive pulmonary diseases, congestive heart failure, hypertension, or diabetes in a specified year.
Denominator	Population count and total number of inpatient admissions
Preferred data source	RHIS (inpatient)
Rationale	A high rate of admissions for avoidable hospital admissions could identify problems related to access to health services and the quality of primary care. Additionally, it can be used for comparative analysis between health models with different degrees of development of primary care and for monitoring the evolution and functioning of the health system.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information system

Indicator 82 Prescribing practices for antibiotics

Indicator short name	**Prescribing practices for antibiotics**
Indicator long name	Overall volume of antibiotics for systemic use prescribed
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	Overall volume of antibiotics for systemic use prescribed
Disaggregation(s)	Subnational
Numerator	Sum of defined daily dose of all antibiotic prescriptions for systemic use (ATC code J01)
Denominator	Total population captured in prescription database in the specified year
Preferred data source	Prescription database
Rationale	Prescribing practices can be used to assess both health care quality (safety) as well as efficiency as the over-, under- or misuse of antibiotics can cause negative health consequences at both individual and population levels (e.g., antibiotic resistance) and also lead to waste.
Reference(s)	Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019 (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021). World Health Organization. Anatomical Therapeutic Chemical (ATC) Classification System (https://www.who.int/tools/atc-ddd-toolkit/atc-classification, accessed 26 August 2021).
Existing data collection tool	Country health information system

Indicator 83 Proportion of people 65 years and over prescribed antipsychotics

Indicator short name	**Proportion of people 65 years and over prescribed antipsychotics**
Indicator long name	Proportion of people 65 years and over prescribed antipsychotics in the reference year
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	All persons 65 years and over (on the first day of the reference year) in the prescribing database (5 year age groups) that show at least one prescription for antipsychotics in the reference year
Disaggregation(s)	Subnational
Numerator	Number of individuals ≥65 years on first day of reference year with ≥1 prescription for any antipsychotic medication (ATC codes N05A) prescribed during the reference year, excluding prescriptions for antipsychotic medications registered through in-patient hospital prescription registries
Denominator	Number of individuals ≥65 years of age on first day of reference year in the national prescription database in the reference year
Preferred data source	Prescription database
Rationale	Despite widespread clinical agreement that antipsychotic medications should not be used to manage most difficult behaviour in dementia, rates of antipsychotic prescribing vary by a factor of more than two across the OECD. On average, one in twenty people aged 65 and over receives a prescription of antipsychotics across OECD countries. Medication review by a trained health care professional, especially to reduce psychotropic medication, has been shown to reduce falls.
Reference(s)	Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019 (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021). Health Care Quality and Outcomes (HCQO). 2020-21 Indicator Definitions (https://www.oecd.org/els/health-systems/Definitions-of-Health-Care-Quality-Outcomes.pdf, accessed 4 October 2021). World Health Organization. Anatomical Therapeutic Chemical (ATC) Classification System (https://www.who.int/tools/atc-ddd-toolkit/atc-classification, accessed 26 August 2021). Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization; 2017 (https://www.who.int/publications/i/item/9789241550109, accessed 11 February 2022).
Existing data collection tool	Country health information system

Quality care

Indicator 84 Provider caseload

Indicator short name	**Provider caseload**
Indicator long name	Provider caseload (including primary care)
Domain	Quality care
Sub-domain	Efficiency
M/E domain	Processes
Definition	Average number of outpatient service units provided by a given health worker in a specified period (e.g., working day, year) Service units are defined according to the health service model, e.g., outpatient consultations by physicians; ANC consultations by midwives; immunization consultations by nurses
Disaggregation(s)	Facility type (as relevant to context): including primary care facilities (e.g., GP practices, health centres, community health posts), first-level hospitals, second-level hospitals, specialty hospitals, long-term care facilities, continuing care facilities, etc.) Managing authority: public, private Subnational Urban/rural Cadre (e.g., nurse, midwife, physician, community health worker, etc.)
Numerator	Number of service units provided in a specified period (e.g., working day, year)
Denominator	Number of workers providing the service X number. of available working days in the same period
Preferred data source	Facility survey - Record review
Rationale	Provider caseload can affect quality of care. Health worker shortages may result in increased caseloads per provider, potentially compromising service quality. Conversely, low caseloads can also contribute to decreased quality of care (e.g., through decreased provider motivation, increased absenteeism, and fewer opportunities to practice skills) or serve as a sign of poor availability of care or services.
Reference(s)	Toolkit for analysis and use of routine health facility data. Integrated health services analysis: national level. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/rhis-modules/national-guidance_2021_01_21_final.pdf?sfvrsn=28365283_5, accessed 19 August 2021). Primary health care performance initiative Indicator Library (https://improvingphc.org/content/indicator-library, accessed 26 August 2021). WISN – Workload indicators of staffing need. User's manual. Geneva: World Health Organization; 2010 (https://www.who.int/workforcealliance/knowledge/toolkit/17/en/, accessed 4 October 2021).
Existing data collection tool	Country health information systems or from existing health facility survey tools such as World Health Organization's HHFA and World Bank's SDI. World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). World Bank. Service Delivery Indicators (https://www.sdindicators.org/, accessed 19 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement and will provide recommended scoring methodology.

Quality care

Indicator 85 Bed occupancy

Indicator short name	**Bed occupancy**
Indicator long name	Bed occupancy
Domain	Quality care
Sub-domain	Efficiency
M/E domain	Processes
Definition	Percentage of available beds that have been occupied over a given period
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals Managing authority (public/private) Subnational Urban/rural
Numerator	Number of occupied bed-days
Denominator	Number of available bed-days
Preferred data source	RHIS
Rationale	Bed occupancy rate is a measure of resource utilization rate and resources available for delivering services to inpatients. Bed occupancy is affected by different factors such as hospital size and types of services offered at the hospital. There are also demand factors that can affect occupancy rates. The aim is not to achieve 100 percent occupancy rates. Bed occupancy levels above 85% can lead to bed shortages and also higher levels of infections. For OECD countries, the average bed occupancy rate in 2017 was 75%. Beds represent major capital investments that should be optimized. Hence, a low occupancy rate indicates a poor utilization of scarce resources and hence an efficiency issue. It can also indicate poor confidence in services or concerns over affordability of hospital services. Conversely, an average occupancy rate above a threshold (i.e., 85% to 90%) signals issues with access to hospital services and risk of volume congestion. It means some hospitals or departments are in full occupancy or above and hence not able to cope with any surge in demand and deteriorating quality. When occupancy rates are high, interventions to increase patient turnover - reducing length of stay and avoiding inappropriate admissions - have an impact on caseload and requires adaptation of staffing norms per bed.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Toolkit for analysis and use of routine health facility data. Integrated health services analysis: national level. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/rhis-modules/national-guidance_2021_01_21_final.pdf?sfvrsn=28365283_5, accessed 19 August 2021).
Existing data collection tool	Country health information systems

Quality care

Indicator 86 Cancer stage at diagnosis (by cancer)

Indicator short name	**Cancer stage at diagnosis (by cancer)**
Indicator long name	Cancer stage at diagnosis (by cancer)
Domain	Quality care
Sub-domain	Timely access
M/E domain	Outputs
Definition	Percentage of all stageable cancers diagnosed that are recorded as presenting as a Stage 1 or Stage 2 in a given year
Disaggregation(s)	Gender Cancer type
Numerator	Number of cancers presenting as a Stage 1 and Stage 2
Denominator	All stageable cancer cases in a year
Preferred data source	Cancer registry
Rationale	Cancer diagnosis at a higher stage is associated with increased morbidity and mortality. A higher average stage at diagnosis may reflect problems with prevention and screening and/or timely access to testing, which are key parts of primary care service delivery.
Reference(s)	National Cancer Registration and Analysis Service. http://www.ncin.org.uk/cancer_type_and_topic_specific_work/topic_specific_work/cancer_outcome_metrics, accessed 23 August 2021).
Existing data collection tool	Country health information systems

Quality care

Indicator 87 Waiting time to elective surgery

Indicator short name	**Waiting time to elective surgery**
Indicator long name	Waiting time to elective surgery (for tracers)
Domain	Quality care
Sub-domain	Timely access
M/E domain	Processes
Definition	Average number of days that patients have been waiting for elective procedures (i.e., non-urgent) surgeries – cataract, coronary angioplasty, hip replacement, knee replacement in a given period This measure refers to the time between when the provider adds the patient to a waiting list for the procedure and the actual date of the procedure
Disaggregation(s)	Type of procedure Facility type (as relevant to context): first-level hospitals, second-level hospitals Managing authority: public, private Urban/rural Gender
Numerator	Average number of days that patients have been waiting for elective procedure (i.e., non-urgent) surgeries – cataract, coronary angioplasty, hip replacement, knee replacement, skin biopsies
Denominator	Not applicable
Preferred data source	RHIS (Waiting time management systems)
Rationale	According to Sanmartin (2003) as cited by OECD (Health at a Glance 2011: OECD Indicators), "Excessive waiting times to see a doctor or for non-emergency surgery can sometimes lead to adverse health effects such as stress, anxiety or pain." This measures a health system's performance in terms of providing timely access to essential health services to individuals in need.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2011: OECD Indicators. Paris: OECD Publishing; 2011 (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2011_health_glance-2011-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems

2.14 Additional hospital-oriented indicators

Additional hospital-oriented indicators

Indicator A — Bed density (inpatient only)

Indicator short name	**Bed density (inpatient only)**
Indicator long name	Bed density (by facility type, ward, managing authority)
Domain	Physical infrastructure
Sub-domain	Physical infrastructure
M/E domain	Inputs
Definition	Total number of hospitals beds per 1 000 population
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, long-term care, etc. Managing authority: public, private Subnational Urban/rural Type of bed: observation, inpatient, type/ward including ICU
Numerator	Total number of hospitals beds (excluding labour and delivery beds)
Denominator	Total population
Preferred data source	RHIS, facility census, other routine information data sources
Rationale	Hospital beds are used to indicate the availability of inpatient services. It is important to note that it is not sufficient to just increase the number of hospital beds to meet inpatient service needs. In OECD countries, the average bed density is 4.7 hospital beds per 1 000 population. However, a greater supply of beds has also been shown to lead to higher admission rates. The right number of beds will be dependent on different contexts considering occupancy levels.
Reference(s)	2018 Global reference list of 100 core health indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/bitstream/handle/10665/259951/WHO-HIS-IER-GPM-2018.1-eng.pdf?sequence=1&isAllowed=y, accessed 16 August 2021). National Institute of Healthcare Excellence. Chapter 39 Bed occupancy. Nice; 2018 (https://www.nice.org.uk/guidance/ng94/evidence/39.bed-occupancy-pdf-172397464704, accessed 4 October 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019 (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 3 September 2021).
Existing data collection tool	While the preferred data source is RHIS, existing global facility survey tools such as World Health Organization's SARA and HHFA and DHS program's SPA also measure this indicator fully or partially. World Health Organization's Service Availability and Readiness Assessment (https://www.who.int/data/data-collection-tools/service-availability-and-readiness-assessment-(sara)?ua=1, accessed 16 August 2021). The DHS Program. Service Provision Assessment. September 2020 (https://dhsprogram.com/publications/publication-spaq1-spa-questionnaires-and-manuals.cfm, accessed 18 August 2021). World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://www.who.int/data/data-collection-tools/harmonized-health-facility-assessment/introduction, accessed 16 August 2021). To note: WHO is currently revising its facility survey modules to incorporate additional elements of PHC measurement.

Additional hospital-oriented indicators

Indicator B — Institutional mortality

Indicator short name	**Institutional mortality**
Indicator long name	Institutional mortality rates all causes
Domain	Quality care
Sub-domain	Effectiveness
M/E domain	Outputs
Definition	Inpatient deaths in health facilities (all causes) per 100 discharges
Disaggregation(s)	Cause -of- death Age (minimum 0-4 and 5+ years) Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private Subnational Urban/rural
Numerator	Number of inpatient deaths X 100
Denominator	Number of discharges (discharges also include deaths)
Preferred data source	RHIS, death surveillance and response systems
Rationale	This indicator is an important outcome measure of quality and safety of care. However, it should also be interpreted with care, as institutional mortality is influenced by a number of factors such as hospital level (higher level referral hospitals received more complicated cases) and transport time to reach the facility.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Toolkit for analysis and use of routine health facility data. Integrated health services analysis: national level. Geneva: World Health Organization; 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/rhis-modules/national-guidance_2021_01_21_final.pdf?sfvrsn=28365283_5, accessed 19 August 2021).
Existing data collection tool	Country routine information systems

Additional hospital-oriented indicators

Indicator C — Caesarean section rate

Indicator short name	**Caesarean section rate**
Indicator long name	Caesarean section rate
Domain	Quality
Sub-domain	Safety
M/E domain	Outputs
Definition	Number of caesarean deliveries performed per 100 live births
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, etc. Managing authority: public, private Subnational Urban/rural Age Education (in population-based surveys)
Numerator	Number of live births delivered by caesarean section in a given time period
Denominator	Total number of live births in the same time period X 100
Preferred data source	Routine health information system (RHIS) but can also be collected through a population-based survey or through a record review during a facility survey.
Rationale	The percentage of births by caesarean section is an indicator of access to and use of emergency health care during childbirth. However, it has also being been more frequently selected as the mode of delivery due to the convenience it offers. There is evidence that there is increased risk for complications for subsequent deliveries. While it is critical to have this life-saving procedure available for reducing maternal and newborn mortality, there is diminishing returns on mortality reduction when c-section rates are higher than 10% at the population level, according to WHO.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems This indicator is also collected through population-based surveys such as the Demographic Health Survey and UNICEF's Multiple indicator cluster survey (MICS). The Demographic and Health Surveys Program. Demographic and Health Surveys (https://dhsprogram.com/Methodology/Survey-Types/DHS.cfm, accessed 19 August 2021). UNICEF. Multiple Indicator Cluster Survey. 2021 (https://mics.unicef.org/, accessed 19 August 2021).

Additional hospital-oriented indicators

Indicator D — Postoperative sepsis

Indicator short name	**Postoperative sepsis**
Indicator long name	Postoperative sepsis
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	Percentage of discharges with postoperative sepsis among abdominopelvic discharges only
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private Subnational
Numerator	Discharges among cases defined in the denominator with ICD code for sepsis in a secondary diagnosis filed during the surgical admission
Denominator	Total number of abdominopelvic surgical discharges only.
Preferred data source	Recommended to be collected through RHIS but can also be collected through a special study
Rationale	Patient safety remains one of the most pressing health issues for public education and further policy action.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems. World Health Organization's HHFA has questions that ask if a facility collects this information routinely. If this information is not collected routinely, it can be collected as a special study from a sampling of hospitals. World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/hhfa/hhfa_-questionnaire_combined_core_2021.03.07.pdf?sfvrsn=698754fa_5&download=true, accessed 16 August 2021).

Additional hospital-oriented indicators

Indicator E — Postoperative pulmonary embolism

Indicator short name	**Postoperative pulmonary embolism**
Indicator long name	Postoperative pulmonary embolism
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	Percentage of discharges with pulmonary embolism among all hip and knee replacement discharges
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private Subnational
Numerator	Discharges among cases defined in the denominator with ICD code for pulmonary embolism in a secondary diagnosis field during the surgical admission
Denominator	Hip- and knee-replacement discharges
Preferred data source	Recommended to be collected through RHIS but can also be collected through a special study
Rationale	Patient safety remains one of the most pressing health issues for public education and further policy action.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018. (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems. World Health Organization's HHFA has questions that ask if a facility collects this information routinely. If this information is not collected routinely, it can be collected as a special study from a sampling of hospitals. World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/hhfa/hhfa_-questionnaire_combined_core_2021.03.07.pdf?sfvrsn=698754fa_5&download=true, accessed 16 August 2021).

Additional hospital-oriented indicators

Indicator F — Postoperative deep vein thrombosis

Indicator short name	**Postoperative deep vein thrombosis**
Indicator long name	Postoperative deep vein thrombosis
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	Percentage of discharges with deep vein thrombosis among all hip and knee replacement discharges
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private Subnational
Numerator	Discharges among cases defined in the denominator with ICD code for deep vein thrombosis in a secondary diagnosis field during the surgical admission
Denominator	Hip- and knee-replacement discharges
Preferred data source	Recommended to be collected through RHIS but can also be collected through a special study
Rationale	Patient safety remains one of the most pressing health issues for public education and further policy action.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021). Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems. World Health Organization's HHFA has questions that ask if a facility collects this information routinely. If this information is not collected routinely, it can be collected as a special study from a sampling of hospitals. World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/hhfa/hhfa_-questionnaire_combined_core_2021.03.07.pdf?sfvrsn=698754fa_5&download=true, accessed 16 August 2021).

Additional hospital-oriented indicators

Indicator G — Perioperative mortality rate

Indicator short name	**Perioperative mortality rate**
Indicator long name	Perioperative mortality rate
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	All-cause death rate prior to discharge or within 30 days of procedure among patients having one or more procedures in an operating theatre during the relevant admission.
Disaggregation(s)	Emergency versus elective surgery Tracer condition Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private Subnational
Numerator	Number of deaths among patients having one or more procedures in an operating theatre during the relevant admission
Denominator	Total number of surgical procedures in an operating theatre
Preferred data source	Recommended to be collected through RHIS but can also be collected through a special study
Rationale	This indicator is an important outcome measure of access to safe surgery and anaesthesia. It also provides information on the volume of surgeries being conducted. Having the flexibility of measuring deaths before discharge or within 30 days of procedure allows lower-income countries to collect this information.
Reference(s)	2018 Global Reference List of 100 Core Health Indicators (plus health-related SDGs). Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/259951, accessed 20 April 2021).
Existing data collection tool	Country health information systems Country health information systems. World Health Organization's HHFA has questions that ask if a facility collects this information routinely. If this information is not collected routinely, it can be collected as a special study from a sampling of hospitals. World Health Organization. Harmonized Health Facility Assessment. March 2021 (https://cdn.who.int/media/docs/default-source/world-health-data-platform/hhfa/hhfa_-questionnaire_combined_core_2021.03.07.pdf?sfvrsn=698754fa_5&download=true, accessed 16 August 2021).

Additional hospital-oriented indicators

Indicator H — Hospital-acquired infections

Indicator short name	**Hospital-acquired infections**
Indicator long name	Hospital-acquired infections
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	Percentage of inpatient discharges with at least one health care-associated infection (which is relevant to country context)
Disaggregation(s)	Tracer condition Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private
Numerator	Number of hospitalised patients with at least one health care-associated infection
Denominator	Total number of inpatient discharges
Preferred data source	RHIS
Rationale	Patient safety remains one of the most pressing health issues for public education and further policy action. Hospital -acquired infections are very costly and can put considerable strain on hospital budgets. In OECD countries, it was found that 6% of public hospital budgets went toward hospital-acquired infections.
Reference(s)	Health at a Glance 2019: OECD Indicators. Paris: OECD Publishing; 2019. https://doi.org/10.1787/4dd50c09-en (https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en, accessed 20 April 2021).
Existing data collection tool	Country health information systems or existing health facility survey tools such as European Centre for Disease Prevention and control point prevalence survey. European centre for Disease Prevention and Control. Health care-associated infections and antimicrobial use point prevalence survey database (https://www.ecdc.europa.eu/en/healthcare-associated-infections-acute-care-hospitals/surveillance-disease-data/database, accessed 26 August 2021).

Additional hospital-oriented indicators

Indicator	Coverage of timely emergency resuscitation at first-level hospitals
Indicator short name	**Coverage of timely emergency resuscitation at first-level hospitals**
Indicator long name	Coverage of timely emergency resuscitation at first-level hospitals
Domain	Quality care
Sub-domain	Safety
M/E domain	Outputs
Definition	Proportion of adults and children [at first-level hospitals] admitted or transferred with shock from any cause who received oxygen and/or intravenous volume in the emergency unit prior to admission or transfer
Disaggregation(s)	Facility type (as relevant to context): first-level hospitals, second-level hospitals, specialty hospitals, etc. Managing authority: public, private Subnational
Numerator	Number of patients [at first-level hospitals] admitted or transferred with shock who receive any oxygen or intravenous volume (fluids or blood) in the emergency unit prior to admission or transfer
Denominator	All patients [at first-level hospitals] admitted/transferred with shock from any cause
Preferred data source	RHIS or through special study
Rationale	Coverage of timely emergency resuscitation helps to assess access to emergency care services as first-contact care.
Reference(s)	World Health Organization. WHO Emergency Care System Framework (https://www.who.int/publications/i/item/who-emergency-care-system-framework, accessed 17 August 2021).
Existing data collection tool	Country health information system

3. Cross-cutting indicators for quality, equity and resilience

3.1 Quality indicators

Table 3.1
Monitoring quality across PHC measurement framework

Domain/subdomain	Indicators	Quality consideration
Governance		
Governance and policy frameworks	Existence of national health policy oriented to PHC and UHC	Embeds quality as a key part of PHC delivery
	Existence of policy, strategy or plan for improvement of quality and safety	Sets forth the national plan for quality and safety
Physical infrastructure		
	Availability of basic WASH amenities	With attention to infection prevention --- a necessary prerequisite for the delivery of quality services
	Availability of power	Necessary for life-saving equipment and life-saving processes - a prerequisite for quality
	Availability of communications	Life-saving process - a prerequisite for quality
	Access to emergency transport for interfacility transfer	Allows access to necessary care when care is not available at site
Health workforce		
	Health worker density and distribution	Necessary for delivery of health care services
	Accreditation mechanism for education and training institutions	With attention to medical education meeting standards to deliver quality care
	National systems for continuing professional development	Emphasizes knowledge building and relevance in order to meet changing health care standards
Medicines and other health products		
	Regulatory mechanisms for medicines	Monitors quality standards for medicines
	Availability of essential medicines	Availability of medicines is a necessary prerequisite for delivery of quality services
	Availability of essential in vitro diagnostics	Availability of diagnostics is a necessary prerequisite for delivery of quality services
	Availability of priority medical equipment and other medical devices	Availability of devices/essential technologies is a necessary prerequisite for delivery of quality services
Health information		
	Percentage of facilities using comprehensive patient records	Necessary for monitoring continuity of care –– a prerequisite for quality
Digital technologies for health		
	Capacity for data linkages	Necessary for monitoring continuity of care –– a prerequisite for quality
Models of care		
Selection and planning of services	Service package meeting criteria	Standards-based service packages are necessary to deliver and maintain quality services
Service design	Protocols for patient transfer, referral and counter-referral	Systems to aid people in getting appropriate care are a prerequisite for quality
Organization and facility management	Existence of supportive supervision system	Ongoing supervision is a key part of quality improvement
Systems for improving quality of care		
	Percentage of facilities with systems to support quality improvement	Examines in-facility prerequisites for quality

Domain/subdomain	Indicators	Quality consideration
Access and availability		
Service availability and readiness	Percentage of facilities offering services according to nationally defined service package	Service availability is a prerequisite for quality
	Provider availability (absence rate)	Presence of trained provider to deliver services is a prerequisite of quality
	Percentage of facilities meeting minimum standards to deliver tracer services	Readiness of facility to deliver services is a prerequisite for quality
Quality care		
Core primary care functions	Patient- reported experience	Patient experiences and satisfaction with health system responsiveness are critical to quality of care
(first-contact accessibility, continuity, comprehensiveness, coordination, people-centredness)	Community perceptions of health system and services	Perceptions and knowledge are key factors in determining care-seeking behaviours
Effectiveness	Diagnostic accuracy (provider knowledge)	Provider knowledge to accurately diagnose is an intrinsic part of quality of care
	Adherence to clinical standards for tracer conditions	Measures provider ability to deliver quality services against established standards
	30-day hospital case fatality rate (for acute myocardial infarction or stroke)**	Reflects the processes of care, including timely transport of patients and effective medical intervention
	Avoidable complications (lower -limb amputation in diabetes)	Measures the inability of the primary care system to manage patients with diabetes in primary care and avoid amputation
	Hospital readmission rate for tracer conditions**	Improper/ineffective care can the first time can lead to increased readmissions
	Admissions for ambulatory care sensitive conditions	Identifies problems related to access to- and quality of primary care services
Safety	Prescribing practices for antibiotics	Over- or under-prescribing can lead to negative health consequences
	Proportion of people 65 years and over prescribed antipsychotics	Polypharmacy can have negative impact on health outcomes
	Caesarean section rate	It is a life-saving measure but over-use can also have a negative effect
Efficiency	Provider caseload	Can lead both to compromised quality of service and workflow management issues
	Bed occupancy**	Too high or too low can indicate poor planning and can result in gap in service provision or wasted resources
Timely access	Cancer stage at diagnosis (by cancer)	A higher stage at diagnosis can reflect problems with prevention and screening and/or timely access to testing.
	Waiting time for elective surgery	Longer wait time can have adverse health effects. Timely access is a critical component of quality of care.

** Hospital-oriented indicators considered important for broader PHC monitoring and relevant in terms of inter-relations with primary care

3.2 Equity indicators

Table 3.2
Monitoring equity across PHC measurement framework

Domain/Subdomain	Indicators	Equity consideration
Governance		
Political commitment and leadership	Existence of right- to -health legislation	Legally recognized access to rights for all individuals
Governance and policy frameworks	Existence of national health policy oriented to PHC and UHC	Criteria for policy includes and highlights equity-oriented, gender-responsive and human rights-based health services
Engagement with communities and other multisectoral stakeholders	Coordination mechanisms with multistakeholder participation and community engagement	With due attention to gender issues and involvement of populations experiencing vulnerability
Adjustment to population needs		
Monitoring and evaluation	Priority setting is informed by data and evidence	With attention to improving health equity, gender responsiveness, and ensuring the right to health
Financing		
Funding and allocation of resources	Per capita total health expenditure (and PHC -specific)	With attention to populations experiencing vulnerability
	Sources of expenditure on health (and PHC -specific)	With attention to populations experiencing vulnerability and prevention of affordability-related barriers
Purchasing and payment systems	Services included in HBP (including primary care)	Emphasis on promoting equity and gender responsiveness
	Purchasing and provider payment methods are in place (including primary care)	Emphasises promotion of equity, and prevention of financial hardship
Health workforce		
	Health worker density and distribution	With attention to availability of health workforce in rural and sparsely populated areas
Models of care		
Selection and planning of services	Service package meeting criteria	With attention to populations experiencing vulnerability
	Roles and functions of service delivery platforms and settings defined	With attention to populations experiencing vulnerability
Community linkages and engagement	Collaboration between facility-based and community-based service providers	With attention to adequate resourcing of community-based services
	Community engagement in service planning and organization	Supports decision-making power of communities.
	Proactive population outreach	Emphasis on access to prevention and promotion activities to vulnerable populations
Access and availability		
Accessibility, affordability, acceptability	Geographical access to services	Measures geographical access to services, especially in rural and remote areas
	Perceived barriers to access (geographical, financial, sociocultural)	Determines barriers to access for vulnerable populations
	Access to emergency surgery	Measures geographical access to services, especially in rural and remote areas
	Existence of system of post-crash care	With attention to rural and remote areas

Domain/Subdomain	Indicators	Equity consideration
Quality care		
Core primary care functions (first-contact accessibility, continuity, comprehensiveness, coordination, people-centredness)	Community perceptions of health system and services	With emphasis on populations experiencing vulnerability

3.3 Resilience indicators

Table 3.3

Monitoring resilience across PHC measurement framework

Domain/subdomain	Indicators	Resilience consideration
Governance		
Political commitment and leadership	Health in All Policies with multisectoral coordination	Coordination ensures better preparedness
Governance and policy frameworks	Existence of health emergency and disaster risk management strategies	A plan is a prerequisite for successful implementation
	Institutional capacity to meet essential public health functions and operations	Strong institutions are necessary for a resilient system
Engagement with communities and other multisectoral stakeholders	Coordination mechanisms with multistakeholder participation and community engagement	Support of communities and other sectors are key factors of resilient systems
Engagement with private sector providers	Evidence of effective stewardship of mixed health systems	Involvement of private sector, especially in crisis management, strengthens resilience
Finance		
Funding and allocation of resources	Government PHC spending as percentage of government health expenditure	Strong PHC system bolsters health during crisis
	Contingency funds available for emergencies	Funds available during times of crisis
Purchasing and payment systems	Purchasing and provider payment methods are in place (including primary care)	Ensures health needs of the population are met
Physical infrastructure		
	Availability of basic WASH amenities	With attention to IPC
	Availability of power	Allows for use of necessary for life-saving equipment and life-saving processes
	Availability of communications	Necessary for external contact, especially for life-saving communications
	Access to emergency transport for interfacility transfer	Allows access to necessary care, especially during crisis
Health workforce		
	Health worker density and distribution	Necessary for delivery of health care services
Medicines and other health products		
	Availability of essential medicines	Availability of medicines is a necessary prerequisite for maintaining core public health functions
	Availability of essential in vitro diagnostics	Availability of diagnostics is a necessary prerequisite for maintaining core public health functions
	Availability of priority medical equipment and other medical devices	Availability of devices and essential technologies is a necessary prerequisite for resilient health care
Health information		
Information systems	Completeness of reporting by facilities	Facilities able to report are also able to deliver some level of care. Lower levels of reporting can signal other underlying problems.
Surveillance	Existence of effective surveillance system	An effective surveillance system provides early warning of emerging threats and is a necessary prerequisite for a resilient system

Models of care		
Selection and planning of services	Service package meeting criteria	Standards-based service packages are necessary to deliver and maintain quality services
Community linkages and engagement	Community engagement in service planning and organization	Active engagement of community in health service delivery ensures continuity, maintenance and use of services during crisis
Resilient health facilities and services		
	Percentage of facilities meeting criteria for resilient health facilities and services	Measures readiness of facilities to withstand crisis
Access and availability		
Service availability and readiness	Provider availability (absence rate)	With attention to presence of trained provider to deliver services
	Percentage of facilities meeting minimum standards to deliver tracer services	With attention to ability/readiness of a facility to deliver quality care
Utilization of services	Outpatient visits	Monitors utilization during crisis and provides a proxy measure of access and use during crisis
Quality care		
Effectiveness	Adherence to clinical standards for tracer conditions	Standards-based practices are necessary for strong health care systems that can withstand crisis

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