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Health Benefits Packages Monitoring

A Global Public Good

ABHA MEHNDIRATTA · URSULA GIEDION · ADRIAN GHEORGHE · MARTIN SABIGNOSO

Abstract

Health Benefits Packages (HBP) define which health services are covered, for whom, and under what financial conditions. HBPs are a key policy tool for advancing Universal Health Coverage (UHC), but there is often a gap between the services promised on paper and those delivered in practice. This paper argues that a critical yet underutilized lever to close this gap is systematic HBP monitoring (HBPM), which can improve accountability, identify bottlenecks, and ensure that entitlements translate into real access.

The paper develops a conceptual framework for HBPM, drawing on insights from expert consultations, a review of the relevant literature and of country practices, and an assessment of gaps in existing guidance on the design and monitoring of HBPs. It explains why HBPM matters and introduces eight foundational principles, reflected into three mutually reinforcing building blocks—institutional design, indicators, and health information systems (HIS). The paper also presents practical considerations and implementation steps for each building block. The framework is accompanied by an HBPM Maturity Assessment Tool (HBPM MAT), presented in a separate working paper, which helps countries identify gaps and priorities for strengthening their HBPM systems.

The principles and building blocks set out in this framework are intentionally aspirational, reflecting an ideal toward which HBPM systems can evolve. They are intended as a structured vision that countries can use to guide progressive strengthening in ways that align with their context and capacity. By grounding monitoring systems in clear principles, aligning them with decision-making cycles, and embedding them within robust institutional arrangements and HIS, countries can transform HBPM from a technical exercise into a strategic instrument for health system governance and HBP implementation.

Systematic monitoring enables countries not only to assess implementation, but also to inform HBP revisions, strengthen accountability, support continuous improvement, and ensure that HBPs contribute effectively to UHC.

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Health Benefits Packages Monitoring: A Global Public Good

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Acronyms

AI	Artificial Intelligence
AUGE	Acceso Universal con Garantías Explícitas
DHIS	District Health Information System
EPHS	Essential Packages of Health Services
EHR	Electronic Health Records
GES	Garantías Explícitas en Salud
HBP	Health Benefits Package
HBPM	Health Benefits Package Monitoring
HBPM MAT	Health Benefits Package Monitoring Maturity Assessment Tool
HIS	Health Information Systems
HTA	Health Technology Assessment
ICD	International Classification of Diseases
NHSO	National Health Security Office, Thailand
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SNOMED	Systematized Nomenclature of Medicine
UHC	Universal Health Coverage

Glossary

Health Benefits Packages (HBPs): The selection of health services that is being provided, at a certain coverage of costs and of population (Joint Learning Network for Universal Health Coverage, 2022).

HBP updating cycle: The Health Benefits Package (HBP) updating cycle is the regular process of reviewing and adjusting the design and implementation of the package. This includes revising the scope, content, structure and language of the package, as well as revising implementation features such as the beneficiary population, provider payment rates and mechanisms, the budget envelope, and the communication and information mechanisms (see the definition of 'direct enablers' above). The goal of the cycle is to ensure that the package evolves alongside changing health needs, system priorities and available resources.

HBP decision space: The HBP decision space refers to the institutional boundaries within which decisions about the HBP updating design and implementation are made—such as intervention and service coverage, benefit design, rate setting, operational rollout, and course corrections. These are typically led by teams or institutions responsible for HBP implementation and updating. Also note that this decision space cuts across sectors (horizontally)—such as financing, service delivery, and benefit design—and across institutional levels (vertically) from national and subnational levels to provider level, underscoring the need for coordination in HBPM design.

Direct enablers: Policy tools and processes that directly support the implementation, delivery, and monitoring of services included in the HBP, such as sufficient budget allocation, user enrolment plan, costs and purchasing mechanisms and health information systems (HIS) directly related to the HBP.

Structural enablers: refers to the broader policy, governance, and institutional components of the health system that create the conditions for the effective design, implementation, and sustainability of the HBP, including legal frameworks, public financial management, health infrastructure or human resources.

Clinical guidance documents: refers to clinical practice guidelines and care pathways collectively.

Clinical practice guidelines: Statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options (Institute of Medicine, 2011). They answer the question of "what to do" and are used by providers.

Clinical pathways (also called care pathways or clinical workflows): Clinical pathways are structured, multidisciplinary plans of care that meet at least three of the following four criteria: 1) Used to translate guidelines or evidence into local practice. 2) Include detailed, step-by-step actions in a plan, pathway, algorithm, guideline, protocol, or other "inventory of actions." 3) Specify timeframes or criteria-based progression (i.e., steps taken when designated criteria are met) 4) Aim to standardize care for a specific clinical problem, procedure, or episode of healthcare in a defined population (Kinsman et al., 2010).

1. Introduction

This paper presents a conceptual framework for Health Benefits Package Monitoring (HBPM). Its purpose is to explain why HBPM matters, to introduce key foundational principles, and to outline the main building blocks that guide HBPM—institutional design, indicators, and health information systems (HIS). An accompanying working paper presents an HBPM Maturity Assessment Tool (HBPM MAT), which relies on the concepts and elements developed in this paper.

The conceptual framework draws on insights from expert consultations, a review of the relevant literature and of country practices, and an assessment of gaps in existing guidance on the design and monitoring of health benefits packages (HBPs). These inputs shaped the development of the framework and informed the selection and articulation of its core components.

The HBPM framework proposed in this document, together with its basic principles and the key considerations for strengthening its building blocks—indicators, institutions, and information systems—presents a system toward which countries may aspire to evolve, and which might help to identify opportunities for improvement. Where a country stands exactly, however, will depend on each country's specific context and capacities. In addition, for simplicity, the framework proposed here does not address the additional issues and requirements that arise when different HBPs coexist within a health system.

The document is organized into five chapters. Following this introduction, the next chapter explains the importance of monitoring health benefit plans, outlines the fundamental principles that should guide the design or strengthening of a HBPM system, and examines how HBP monitoring can inform and influence decision-making to help bridge the gap between health benefit plan objectives and outcomes. Subsequent chapters 3–5 provide details on the building blocks for effective HBPM that include selecting fit-for-purpose indicators, developing a solid institutional framework and ensuring an aligned health information system.

2. The case for HBPM: Importance and foundational principles

2.1. Rationale

Universal Health Coverage (UHC) is a common goal of most health systems. Although HBPs are widely recognized as a key tool for advancing UHC, they are rarely monitored. This is despite the existence of compelling reasons for doing so.

First, monitoring helps to **assess whether HBP goals are being achieved**. This is the starting point for any policy meant to close the gap between promise and reality.

Second, a HBP is a promise that the government makes to the population. By monitoring it and showing what is being achieved and where there are still obstacles that need to be overcome, monitoring HBPs **increases accountability and public trust** in the health system.

Third, monitoring **helps to identify obstacles** to achieving HBP goals especially if it looks at both outcomes and enablers that shape HBP performance. It helps identify whether shortfalls are due to design flaws—such as vague benefit definitions or unrealistic payment rates—or to implementation challenges, such as workforce shortages, supply-chain disruptions, or weak information systems. Insights from the broader implementation science literature show how such diagnostic monitoring supports timely course correction and learning within systems (Oh et al., 2021).

Fourth, it helps **securing political support.** Monitoring is essential for sustaining political support because policymakers will only continue to back an HBP or a Health Technology Assessment (HTA) process when they can see credible, measurable evidence that it delivers the results it promises (Giedion et al., 2024).

The evidence base on HBPM remains thin and fragmented—see Annex 1 for an overview. Several cross-cutting messages emerge from the literature, which are reflected in the conceptual framework:

- Countries seem to lack structured guidance, standards, and institutionalized processes for monitoring the implementation of HBPs or essential service packages.
- Where monitoring systems are more advanced—as seen in Chile or Argentina—they rely on clear institutional responsibilities, dedicated information systems, and explicit links between monitoring, accountability, financing, and performance management.
- Literature from health benefits package, priority setting and HTA further shows that monitoring must be embedded within broader governance arrangements, with routine feedback loops that ensure decisions are implemented, assessed, and revised.
- Finally, several studies highlight that effective monitoring requires sustained managerial and technical capacity, without which systems remain partial or underused.

2.2. Key principles for effective health benefits package monitoring

The conceptual framework presented in this paper is anchored in eight foundational principles that define what must be in place for HBPM to work effectively (Table 1). These principles are the basis of both the conceptual framework and the accompanying HBPM MAT, and they also serve as a reference for countries as they design or strengthen their HBPM systems. They are not expected to be fully met—either collectively or individually—in most settings, but they offer a clear and coherent vision toward which HBPM systems can progressively evolve.

TABLE 1. Eight foundational principles for HBPM

Principle	Description
Principle 1 Clearly and explicitly defined HBP	Monitoring depends on clearly defined HBP goals and on a well-defined and explicit package—what's covered with what quality, for whom, where services are available, and under what conditions of financial protection—enabling monitoring of actual access.
Principle 2 Clinical Practice Guidelines as a foundation for HBP content and monitoring	Clinical guidelines and care pathways provide the technical foundation for structuring and operationalizing HBPs. Aligning the services included in the HBP with recommendations in evidence-based clinical practice guidelines enables consistent implementation of appropriate clinical care and creates a reference point for systematic monitoring of service coverage and quality across the continuum of care.
Principle 3 Link monitoring to the HBP updating cycle and related decision space	For HBPM to be effective, it must generate evidence that aligns not just with what is measurable, but with what is actionable within the HBP updating cycle. Monitoring should feed directly into decisions across the design, implementation and updating of HBP.
Principle 4 Focus of monitoring domains: HBP Goals and Direct Enablers	Monitoring should concentrate on HBP-specific goals as well as on the direct enablers being addressed during the HBP updating cycle. While goals capture the intended outcomes of the package, focusing on direct enablers ensures attention to the operational factors that truly drive HBP's performance. Together, these two domains provide a complementary perspective that links strategic objectives with the conditions required for their achievement.
Principle 5 Strategic and targeted indicator selection	Within each priority domain, monitoring should focus on tracer indicators that are most valuable for decision-making related to updating the HBP, avoiding unnecessary measures and ensuring each indicator has a clear policy purpose.
Principle 6 Feasible and phased monitoring	Monitoring should start with a scope that is feasible and realistically manageable with existing capacity and scale up progressively as systems mature. This principle of graduality applies across all three pillars of HBPM—indicators, health information systems (HIS), and institutional arrangements—ensuring that early efforts remain manageable while creating space for adaptive learning and sustainable scale-up.
Principle 7 HBPM aligned with national HIS strategy	HBP monitoring should strengthen, not bypass, national data governance and HIS policies, ensuring sustainability and avoiding parallel systems, including standards for data quality, interoperability and progressive digitalization to enable real-time, scalable monitoring.
Principle 8 Institutionalization and multi-level governance of HBPM	Effective HBPM requires robust institutionalization embedded in national frameworks, with clear mandates, sustainable financing, capacity-building, and accountability mechanisms across all levels. A solid institutional backbone—anchored in a clear vision, legal frameworks, and managerial capacity—ensures coherence and long-term, while integration into multi-level governance arrangements guarantees responsiveness to subnational implementation and feedback.

Source: The authors.

Based on the eight foundational principles above, the HBPM framework consists of three pillars, or domains, which will be introduced in subsequent chapters of the paper: HBPM indicators (what to measure—Chapter 3), HBPM institutions (who is responsible for measuring—Chapter 4), and HBP-related HIS (how data are produced, managed and used—Chapter 5). Together, these domains form the foundation for assessing the monitoring of an HBP.

2.3. The scope of HBPM

HBPM is only effective when its scope is focused, actionable, feasible, and aligned with the policy levers that HBP teams can influence. Defining this scope requires translating the earlier principles into practical boundaries—prioritizing domains where monitoring information can guide decisions (Principle 3) and concentrating on what is both important (Principle 5) and feasible to track (Principle 6).

Within these boundaries, HBPM should provide a clear understanding of how well the HBP is performing and the factors influencing performance. This requires tracking two core categories of indicators (Principle 4). The first relates to HBP goals, typically aligned with UHC objectives, including effective service coverage, quality of care, equity, and financial protection for services within the HBP. These indicators show whether the benefits promised on paper translate into services delivered in practice.

The second category relates to HBP enablers, which capture the conditions needed for the HBP to be implemented as intended. Enablers fall into two groups.

- **Direct enablers,** such as budgets, payment rates, purchasing mechanisms, enrolment processes, and HBP-specific information systems or HBP-related information components integrated within the broader national HIS, are policy tools and operational processes within the mandate of HBP teams and can be adjusted through HBP design, revision, and implementation efforts.
- **Structural enablers,** such as workforce, infrastructure, supply chains, and broader governance or financing arrangements, shape the wider system environment but fall outside the direct control of HBP teams.

While both types of enablers influence HBP performance, HBPM should prioritize direct enablers, with structural enablers monitored through broader system-level mechanisms. A clear distinction between these two types of enablers is essential for determining the appropriate scope of HBPM, thereby helping to delineate what falls within HBPM's remit and what should be addressed through wider health system monitoring. Annex 2 provides examples and more details on the differences between direct and structural enablers.

2.4. UHC monitoring and HBPM: overlaps and differences

UHC aims to ensure that all people can access the health services they need, at good quality, without suffering financial hardship. Over the past decade, countries have increasingly adopted UHC monitoring frameworks, and results are now routinely reported at national and global levels. Given that HBPs can be seen as one way of operationalizing UHC goals within a country's specific policy choices—and tend to pursue the same objectives—an important question arises: *why is a separate monitoring framework for HBPs needed when UHC monitoring already exists?*

The answer lies in how the two approaches differ in focus and function. UHC monitoring provides a broad, system-wide view of how a country is progressing overall in expanding service access, improving quality, and ensuring financial protection. Its indicators are high-level and designed for cross-country comparability, allowing governments and global partners to track long-term progress. HBP monitoring, by contrast, is more operational and context specific. It focuses on how a nationally defined set of benefits is implemented in practice and assesses whether the services included in the package are being delivered to everyone who is entitled to them, at adequate quality, and without financial hardship. In addition to outcomes, HBPM examines the enablers that shape service delivery, such as budget allocations, payment rates and purchasing arrangements, and communication about entitlements.

In essence, HBPM translates broad UHC ambitions into actionable, country-specific questions about what is guaranteed, how it is delivered, and what enables or constrains implementation. Further details on similarities and differences between UHC monitoring and HBPM are presented in Annex 3.

2.5. The decision space informed by HBPM

The **decision space** for a HBP refers to the set of decisions that HBP decision-makers are authorized and able to take, and therefore the scope within which HBPM can inform action. It identifies what aspects of the package can be adjusted in practice and what lies outside the remit of those responsible for its design and implementation.

This decision space operates both horizontally, across functions such as financing, service delivery, and benefit design, and vertically, across levels of governance from national institutions to providers. These multiple layers shape how information flows and how decisions are coordinated, underscoring the need for HBPM systems that are coherent across actors and levels. The concept aligns with the earlier distinction between direct and structural enablers and for HBPM to focus on areas where HBP decision-makers have direct influence. The health system outside their direct control should be monitored through existing broader system-level mechanisms.

2.6. The HBP updating cycle

The HBP updating cycle is the structured, iterative process through which decisions about the package are prepared, taken, and implemented. It determines when specific choices arise and therefore the key points at which HBPM can inform action. At the core of the cycle is the need to align the HBP with its overarching goals—often linked to progress toward UHC. Achieving this alignment requires a process that goes beyond defining "what's in and what's out"; it must also address the operational conditions necessary for the package to be delivered as intended and to evolve over time.

The need for a broader, system-wide approach to HBP updating was first articulated by Glassman et al. (2017). Their work shifted the focus from a predominantly HTA-driven inclusion/exclusion

exercise toward a more dynamic and comprehensive process that considers design, implementation, financing, and the institutional mechanisms needed to monitor performance and adjust the package over time. This perspective emphasized that HBPs must not only be evidence-informed on paper but also supported by structures that enable ongoing assessment and course correction in pursuit of HBP goals.

Building on this foundation, India's National Health Authority proposed an updating cycle, which offers a more operational and generalized framework for structuring HBP design and implementation decisions (Ayushman Bharat Pradhan Mantri Jan Arogya Yojana Health Benefits Package Manual Part 2, National Health Authority, 2026). We have further refined the framework into an eight-step updating cycle and described its implications for HBPM. Each step can be viewed as a "control knob" that decision-makers can adjust to guide the evolution of the HBP. Data collected through HBPM along the eight steps can support evidence-informed decision-making at each step of the HBP updating cycle. This ensures that the data generated by HBPM is tied directly to practical decisions. Table 2 illustrates how decision-relevant HBPM must be and sets the stage for the following chapters, which detail the indicators, institutional arrangements, and information systems required to support it.

TABLE 2. Monitoring data to inform the HBP updating cycle

Updating Step	Input from Monitoring Data	Goal of the HBP Step Achieved by Using Monitoring Data
1. Assess Whether the HBP is on Track (Situation Analysis and Scoping Phase)	• Monitoring data HBP strategic goals (usually access with quality and financial protection) with a focus on a set of priority interventions within the HBP to increase feasibility. • Monitoring reports containing stakeholder feedback on payment rates, grievances, implementation challenges, fraud, etc.	• Identify gaps in achieving HBP goals and explore their potential causes (e.g., insufficient budget, cost/rate mismatch, inadequate human resources or infrastructure, inefficiencies). • Use these findings to define the scope of HBP revisions accordingly.
2. Prioritize Topics for Inclusion or Exclusion	• Monitoring reports on potential exclusions or new inclusions (through ongoing horizon scanning and stakeholder feedback). • Monitoring data on effective coverage of essential interventions within the same care pathway as any new topics considered for inclusion.	• Produce a list of topics that are candidates for inclusion/exclusion from the HBP.
3. Evaluate and Appraise Proposed Services (HTA Phase)	• Effective coverage and cost data of essential interventions within the same clinical care pathway to calculate the opportunity cost of closing the coverage gap for existing essential interventions versus introducing new ones.	• Produce a compiled report on adaptive and/or traditional HTAs conducted on topics proposed for HBP inclusion and on any revision of previously conducted HTA analyses considering new evidence. • Compare the opportunity cost of introducing new interventions versus closing the coverage gap for existing essential interventions in same clinical care pathway.

(Continued)

TABLE 2. (Continued)

Updating Step	Input from Monitoring Data	Goal of the HBP Step Achieved by Using Monitoring Data
4. Review Reimbursement Rates, Payment Structures, and Methods	• Normative or empirical cost data to estimate average costs and variations between patient sub-groups for rate-setting. • Market survey data to identify prices acceptable to providers. • Data from healthcare price index to carry out inflationary adjustments to cost data and prices.	• Propose a revised schedule of HBP reimbursement rates and rate structures for providers, covering both new and existing interventions, that promote the efficient and quality provision of HBP services.
5. Assess Fiscal Impact and Budget Envelope	• Monitoring data on expenditure, prices, demand related to HBP.	• Assess the financial sustainability of the HBP and the fiscal impact of proposed changes (increasing effective coverage, inclusions/ exclusions, changes in population coverage, rate levels and structures etc.) • Ensure alignment of HBP with the available budget.
6. Conduct deliberations and Stakeholder Consultations	• Monitoring data collected for Steps 1–5.	• Recommend HBP updates based on transparent deliberations after review of evidence from previous steps, including coverage improvements, new services, rate adjustments, and fiscal impact.
7. Develop the Implementation Plan	• Effective coverage, financial protection, quality and equity data to identify interventions with inadequate performance to inform focused implementation planning and HBP awareness among key stakeholders. • Empirical and/or normative cost data to detect efficiency gaps (cost drivers) that can be addressed through better price negotiation and procurement during implementation.	• Establish an operational framework for effective coverage, quality care and equitable HBP implementation-especially for essential interventions, addressing system adjustments such as provider empanelment, reliable supply chains, capacity-building, IT system updates (e.g., coding), pooled procurement/price negotiation and communication strategies.
8. Establish the Monitoring System	• Data listed above for all steps to inform the new updating cycle.	• Establish a monitoring system that collects critical data to assess whether the HBP is on track and to identify design or implementation features that may require adjustment. This will inform subsequent HBP updating cycles.

Notes: Generating *de novo* evidence or collecting existing evidence using traditional or adaptive HTA methods is required in this step for new topics evaluated. Although this type of data is a critical input, it is not part of routine monitoring.
Source: The authors.

3. Fit-for-purpose indicators for effective HBPM

The design and use of indicators constitute one of the three pillars of an effective HBPM system, alongside a solid institutional framework (see Chapter 4) and a well-functioning HIS (see Chapter 5). HBPM indicators are derived from HBP objectives and are used to monitor HBP performance and support decision-making throughout the HBP updating cycle. Monitoring HBPs goes beyond routine data collection and reporting: it requires a strategic, phased, and system-aligned approach

to selecting or designing indicators rooted in the principles of HBPM. Table 3 summarizes how the foundational principles (Table 1) inform the indicators building block of the HBPM framework.

TABLE 3. How the foundational principles of HBPM inform the indicators building block

Foundational Principle	Implications for HBPM Indicators
Principle 1—Clearly and explicitly defined HBP	Defines what indicators should measure in terms of population coverage, services included, quality expectations and financial protection commitments.
Principle 2—Clinical practice guidelines as a foundation for HBP content and monitoring	Ensures indicators reflect evidence-based service delivery, including relevant quality-of-care dimensions, and allow monitoring across the care pathway.
Principle 3—Link monitoring to the HBP updating cycle and related decision space	Ensures indicators inform concrete policy decisions, such as revising services, redirecting funds or adjusting implementation strategies.
Principle 4—Focus of monitoring domains: HBP goals and direct enablers	Ensures monitoring captures both progress toward HBP goals and the direct enablers influencing implementation, making monitoring relevant and purposeful.
Principle 5—Strategic and targeted indicator selection	The indicator selection must balance strategic value with technical feasibility.
Principle 6—Feasible and phased monitoring	Allows indicators to evolve as health system data systems and institutional capacity mature.
Principle 7—HBPM aligned with national HIS strategy	Ensures that HBPM indicators are aligned with national HIS strategies and build on existing data systems and reporting processes rather than creating parallel systems.
Principle 8—Institutionalization and multi-level governance of HBPM	Anchors indicators within governance and accountability mechanisms that support their interpretation, communication and use in decision-making.

Source: The authors.

Building on these principles, the remainder of the chapter outlines key considerations for developing fit-for-purpose HBPM indicators. These help translate the conceptual foundations into practical guidance for selecting indicators that address policy-relevant questions, defining them operationally, and ensuring that their data collection is aligned with existing HIS.

3.1. Defining the key questions that HBPM indicators should inform

At each stage of the updating cycle, the selection and use of indicators should be guided by targeted questions addressing both health system goals and the direct enablers that influence implementation. For example, questions may be used to assess whether people who need services included in the HBP are able to access them, whether financial protection gaps are identified, whether coverage and utilization patterns reveal inequities, and whether services included in the HBP are delivered with the expected quality. Questions related to direct enablers may examine whether facilities have the capacity to deliver the services included in the HBP, whether data reporting systems function reliably, and whether governance and accountability mechanisms support the use of monitoring results in decision-making.

A comprehensive set of illustrative guiding questions for selecting appropriate indicators across the HBP updating cycle is in Annex 4.

3.2. Creating indicators based on the defined questions

Indicator development for the HBPM system should be structured around the clearly defined guiding questions (section 3.1 above) to ensure monitoring generates decision-relevant evidence rather than being driven by data availability alone. These indicators should:

- be anchored in a clearly and explicitly defined HBP so that access and performance can be meaningfully tracked (Principle 1);
- align with evidence-based clinical practice guidelines to enable systematic monitoring of service coverage and quality across the care pathway (Principle 2);
- be explicitly linked to the HBP policy and updating cycle and designed to inform concrete decisions (Principle 3); and
- focus on a limited set of strategic indicators that track both HBP goals (coverage, quality, equity, financial protection) and their direct enablers (service readiness, purchasing, readiness, enrollment), ensuring relevance and policy coherence (Principle 4).

Table 4 presents illustrative HBPM indicators for health system goals and direct enablers, which can inform decisions throughout the HBP updating cycle. More indicator examples for each step in the updating cycle are in Annex 5.

TABLE 4. Illustrative HBPM monitoring indicators aligned with the HBP updating cycle

HBP Policy Step	Domain	Indicator Examples
1. ***Assess whether the HBP is on track*** (Situation Analysis)	**HBP Goals**	– % of eligible population receiving at least one HBP-covered service in past 12 months – % of referred cases receiving required HBP-covered service within expected timeframe
	Direct Enablers	– % of population aware of their HBP entitlements – % of facilities formally participating in the HBP
2. ***Conduct Topic Prioritization***	**HBP Goals**	– % of population reporting unmet need for services that are not covered by the HBP – % of users satisfied with availability and responsiveness of currently covered services
	Direct Enablers	– Number of non-covered services generating legal claims or repeated complaints – % of facilities using own-source revenues to fund non-covered services
3. ***Evaluate and Appraise (HTA)***	**HBP Goals**	– Effective coverage rate of essential HBP-covered services in same clinical pathway as evaluated service
	Direct Enablers	– Estimated cost per case for proposed interventions

(Continued)

TABLE 4. (Continued)

HBP Policy Step	Domain	Indicator Examples
4. ***Review reimbursement rates and payment mechanisms***	**HBP Goals**	– Change in service utilization following reimbursement adjustment
	Direct Enablers	– Average reimbursement as % of actual unit cost – % of services with updated cost estimates aligned with payment revisions
5. ***Assess fiscal impact and budget envelope***	**HBP Goals**	– Per capita expenditure on HBP-covered services – % of population receiving full course of HBP-covered care without interruption
	Direct Enablers	– % of total health budget allocated to the HBP – % of HBP budget executed compared to plan
6. ***Deliberate and hold stakeholder consultations***	**HBP Goals**	– % of proposed HBP changes derived from user and provider feedback
	Direct Enablers	– Existence of feedback mechanisms for different stakeholder groups – Number of formal consultation events during HBP updating cycle – Frequency of consultations per HBP updating cycle
7. ***Develop Implementation Plan***	**HBP Goals**	– % coverage of essential HBP services – % of essential HBP services operational in all geographic areas
	Direct Enablers	– % of population enrolled and identified as HBP beneficiary – % of facilities formally empaneled and operational for HBP delivery
8. ***Establish Monitoring System***	**HBP Goals**	– % of HBP policy decisions in last 12 months supported by data from the monitoring system
	Direct Enablers	– Existence of an integrated monitoring framework covering all steps of the HBP cycle – % of facilities submitting timely and complete HBP service reports

Source: The authors.

Examples of country experiences illustrating how purposeful monitoring can support HBP implementation and revision include **Argentina's** Programa Sumar that tracks effective coverage through tracer indicators organized by life stage and linked to prioritized services, while also monitoring key enablers such as population enrollment and the timeliness of payments to health facilities (Sabignoso et al., 2014; Sabignoso et al., 2020; Ministerio de Salud, 2014). Similarly, **Thailand's** National Health Security Office (NHSO) has used performance indicators to inform decisions about expanding services—for instance, monitoring the reach and outcomes of peritoneal dialysis played a key role in scaling its inclusion in the UHC benefits package (Chuengsaman et al., 2017).

It is to be noted that some indicators may contribute across multiple policy steps and monitoring dimensions by supporting decision-making, tracking performance, or strengthening accountability mechanisms. For example:

- **Coverage of essential interventions within clinical pathways**: the proportion of individuals with a specific health condition receiving the corresponding HBP-covered intervention (e.g., percent of breast cancer patients receiving mastectomy or chemotherapy) can inform the assessment of current performance and trends (step 1) and guide prioritization decisions (step 2).
- **Delayed provider payments:** Percentage of providers reporting delayed payments beyond contractual terms is relevant for reviewing payment mechanisms (step 4), evaluating fiscal execution (step 5), and monitoring implementation bottlenecks (step 8).
- **Use of output-based payment methods:** Percentage of HBP spending using output-based payment methods contributes to analyzing financing efficiency (step 4) and monitoring structural enablers of service delivery.

When designing indicator matrices, countries are encouraged to recognize and leverage such cross-cutting indicators to improve coherence and efficiency across the HBP policy and update cycle.

3.3. Developing detailed operational definitions with phased complexity

Operational definitions are developed by balancing strategic value with technical feasibility (Principle 5) and adhering to SMART (Specific, Measurable, Achievable, Relevant and Time-bound) criteria—to support accountability, adaptive management, and continuous improvement of the HBP over time. According to SMART principles (Doran, 1981), good indicators should be:

- **Specific:** Focused on a clearly defined concept or question, such as whether a particular HBP-covered service is being delivered to the intended population.
- **Measurable:** Quantifiable using reliable data sources, with clearly defined units and methods of calculation.
- **Achievable:** Realistic to collect and use within the constraints of the country's institutional and technical capacity.
- **Relevant:** Aligned with the goals and operational scope of the HBPM, including its role in supporting the updating, implementation, and evaluation of the HBP.
- **Time-bound:** Able to detect and reflect change over defined time periods, enabling periodic performance reviews and timely management of the HBP life cycle.

Table 5 provides an example of an indicator that fully meets the SMART criteria, illustrating how strategic and technically sound monitoring can be implemented in practice. Starting with a core, high-value set of indicators using existing systems is sensible, and more granular, sophisticated indicators can be added as capacity grows (Principle 6).

TABLE 5. Comparison and evolution toward advanced integrated monitoring of diabetes care

SMART Attribute	Basic Indicator	Advanced Indicator (Integrated Diabetes Care)
Specific	Adults with type 2 diabetes attending **urban PHC clinics**; HbA1c testing	Adults with type 2 diabetes receiving care across **primary and specialist levels**; includes consultations, lab testing, and medication
Measurable	Data sourced from the primary health care information system	Data captured via **interoperable electronic health records (EHR)**, integrating consultations, laboratory results, and pharmacy dispensing data
Achievable	Target of 45% based on ~35% baseline; feasible with existing capacity	**55% target could be** feasible *in health systems with mature information infrastructures that enable patient stratification, service coordination, and comprehensive clinical data sharing across providers*
Relevant	Focused on glycemic control, aligned with HBP prioritization of **type 2 diabetes**	Addresses **continuity and quality** of care through protocol-based comprehensive services
Time-bound	Measured **annually**, reviewed **quarterly**	Maintains **quarterly review**, tracking a **full care package** over 12 months

Source: The authors.

The ability of a country to evolve its HBPM indicators, from basic service coverage to more advanced metrics of effectiveness, quality, and financial protection, is not only a technical process but fundamentally an institutional one. As will be detailed in Chapter 4, the design and evolution of indicators is shaped by the strength of the foundational institutional components that underpin a robust monitoring system (Principle 8).

3.4. Aligning indicator data collection with the HIS infrastructure

Leveraging existing HIS platforms and institutional arrangements (Principle 7) to construct indicators, avoids the creation of parallel systems (Chapter 5). This promotes sustainability, reduces the reporting burden, and facilitates integration into national HIS (e.g., insurance claims platforms or electronic medical records). Indicators should be collected using standard terminology and coding (e.g., International Classification of Diseases (ICD), Systematized Nomenclature of Medicine (SNOMED), etc.) that supports comparability across levels and over time. Digitized systems enable automated reporting and reduce data collection burden.

Country experiences illustrate how national HIS can support monitoring of HBP implementation. **Estonia**, for example, nationally integrated digital health ecosystem—including electronic health records, e-prescriptions and digital claims management—enables routinely collected data on service utilization, prescribing patterns and provider performance to support purchasing, quality improvement and performance monitoring (World Health Organization, 2023). **Thailand** similarly relies on multiple data sources—including national surveys, administrative records, disease

registries, and research studies—to monitor the core dimensions of UHC: population coverage, service coverage, and financial risk protection (Witthayapipopsakul et al., 2019).

3.5. From principles to maturity assessments

From this chapter, several elements emerge as essential for achieving maturity in HBPM:

- The HBP is defined clearly and explicitly.
- A formally endorsed HBPM framework with clear goals is in place, with monitoring goals aligned to the HBP.
- HBPM indicators are aligned with the HBP.
- HBPM indicators are linked to the HBP updating cycle.
- HBPM indicator definitions are SMART, standardized and harmonized with the national HIS.

These core elements are reflected directly in the accompanying HBPM MAT as **maturity statements 1–6**. Each maturity statement is explained in detail and made measurable through a set of observable attributes and verification questions that emerge directly from the steps described in this chapter.

4. A solid institutional framework to make HBPM work

The institutional framework for HBPM can be defined as the set of rules, functions, and organizational arrangements developed to monitor an HBP. This framework provides an institutional platform that enables monitoring to be feasible and sustainable throughout the HBP updating cycle.

Several foundational principles (Table 1) are particularly relevant for the institutional design of HBPM. Table 6 summarizes how these principles inform the institutional arrangements required to ensure that monitoring is embedded within governance structures and supports effective decision-making across the HBP updating cycle.

TABLE 6. How foundational principles inform the institutional design of HBPM

Foundational Principle	Implications for the Institutional Design of HBPM
Principle 3—Link monitoring to the HBP updating cycle and related decision space	Since the primary purpose of HBPM is to inform HBP design, implementation, and revision, its institutional framework should be fully integrated into the HBP updating cycle. This requires rules, institutional mandates, coordination mechanisms, and procedures that connect monitoring findings with HBP updating processes.
Principle 6— Feasible and phased monitoring	HBPM can be developed gradually. The initial stage should focus on creating the institutional conditions required to monitor HBP objectives and their main enablers. As experience accumulates and implementation mechanisms mature, the monitoring framework can progressively expand and become more sophisticated.

(Continued)

TABLE 6. (Continued)

Foundational Principle	Implications for the Institutional Design of HBPM
Principle 7—HBPM aligned with national HIS strategy	HBPM must not operate separately from the national health information strategy. The institution responsible for managing the HBP needs to align its data collection requirements with the rules, standards, and instruments established by the national information strategy. This alignment broadens the scope of HBP monitoring and strengthens its long-term sustainability.
Principle 8—Institutionalization and multilevel governance of HBPM	Institutionalized HBPM requires clear mandates, well-assigned responsibilities, and coordination mechanisms among the institutions and levels of government involved in HBP management. It also requires sustainable financing, management capacity, and accountability mechanisms. Together, these elements create the conditions for monitoring results to inform decision-making across all institutions responsible for managing the HBP.

Source: The authors.

Building on these principles, the following sections present key considerations for establishing a robust institutional framework for HBPM.

4.1. Defining the vision and purpose of HBPM

The first consideration in building the institutional framework for HBPM is to define its vision and purpose explicitly. These definitions promote a common understanding of HBPM among all stakeholders while providing strategic direction for the technical and institutional decisions involved in its development. They also help ensure that HBPM evolves consistently and remains focused on generating evidence and actionable information to support decision-making throughout the HBP updating cycle (Glassman et al., 2017).

The vision and purpose of HBPM should be formally established through official regulations, technical guidelines, or operational manuals. For example, a country may define the vision of HBPM as ensuring that the HBP achieves its objectives of improving population health and financial protection, while continuously adapting its coverage to the evolving health needs of the population. Following the same example, its purpose could be defined as generating timely and actionable information to support decision-making throughout the HBP updating cycle (Principle 3), while also strengthening transparency and performance management across the health system.

When the vision and purpose of HBPM are not clearly defined and effectively communicated, its strategic focus is weakened, and several undesirable consequences may arise:

- **Generating information that does not improve HBP management.** Without a clear vision and purpose, data collection and reporting may become a bureaucratic exercise disconnected from HBP management processes. The information generated is of limited value for those responsible for implementing the HBP. In many cases, data collection

becomes a box-ticking exercise, a formal requirement that discourages reflection and reduces monitoring to a set of administrative tasks.

- **Reducing confidence in HBPM.** When the purpose of HBPM is not clearly communicated, monitoring activities may be misunderstood or perceived as administrative requirements with little strategic value for improving HBP performance.
- **Creating fragmented information systems and reporting processes.** The lack of a clear purpose may lead to the coexistence of multiple information systems and reporting processes that overlap rather than complement one another. This fragmentation increases the reporting burden placed on health teams and ultimately compromises data quality. Institutions responsible for managing the HBP often move in different directions, collecting and using data based on their own priorities, limiting data integration and its strategic use.
- **Losing focus on national priorities.** In the absence of a nationally defined vision for HBPM, monitoring efforts often shift toward the priorities of donors or international agencies rather than the objectives of the HBP itself. This weakens national stewardship and limits the evolution of the HBP in response to the population's health needs.
- **Weakening institutional engagement.** Institutions responsible for HBP management, particularly subnational governments and health financing agencies, are less likely to engage in monitoring activities when they do not recognize their strategic value.

4.2. Assigning clear roles and responsibilities

A strong institutional framework for HBPM must be built on clearly defined and well-assigned roles and responsibilities across all actors involved, from national institutions and technical units to health facilities (Principle 8). Implementing monitoring regularly requires that every actor involved properly understands who is responsible for each component of HBP monitoring (Brinkerhoff, 2004).

Monitoring a HBP typically involves a broad range of institutions, including Ministries of Health, National Health Insurance agencies, regulatory authorities, National Statistics Offices, subnational health authorities, and health service providers, among others. Each of these actors must understand not only their own monitoring responsibilities but also how their role contributes to the functioning of the HBPM system as a whole.

A good practice is to map all relevant stakeholders and explicitly define their responsibilities. This prevents duplication and institutional gaps, and ensures that each monitoring function is assigned to institutions with an appropriate mandate and the necessary capacities (Organisation for Economic Co-operation and Development, 2018).

Actors involved in HBPM perform different functions. Some are responsible for collecting and reporting data. Others integrate, process, interpret, and transform those data into findings and

assessments that support HBP updating decisions. Distinguishing these functions is essential for organizing information flows and ensuring that institutional responsibilities are aligned with technical and operational capacities.

Table 7 summarizes the main functions commonly performed by the institutions involved in an HBPM system. Developing a mapping exercise based on this structure can help countries design or review the allocation of roles and responsibilities across the institutions participating in HBPM.

TABLE 7. Mapping actors, roles, and responsibilities for the institutional design of HBP

Function	Main Actors	Main Responsibilities	Main Activities
1. Strategic leadership	Ministry of Health, Regulatory Authorities, National Planning Agencies	Provide the strategic direction of HBPM; define institutional roles and responsibilities; establish the overall monitoring approach; align monitoring with national health priorities and the national HIS strategy; promote institutionalization and long-term sustainability.	Define national HBPM priorities consistent with health system objectives; develop the necessary regulations and operational procedures; coordinate and oversee monitoring activities across participating institutions; build integration with the national health information strategy.
2. Operational coordination	HBP Management Units, Monitoring and Evaluation Departments	Develop the indicator framework; coordinate data collection, integration, and use; generate actionable information throughout the HBP updating cycle; promote continuous learning and the progressive improvement of the monitoring system.	Operationalize indicator monitoring; develop operational manuals and technical guidance; provide training and technical assistance; coordinate integration with HIS; produce reports tailored to different audiences.
3. Data production and HIS management	HIS Departments, National Statistics Offices, Information Technology Units, Citizen Service Units, Health Facilities	Collect, process, and report timely, high-quality data to support HBP management while complying with national standards.	Operate information systems and conduct surveys or data collection activities required for HBPM; maintain and adapt information systems and infrastructure in accordance with national standards for interoperability, security, and data quality.
4. Financial monitoring and economic analysis	Health Insurance Agencies, Health Financing Programs, Budget Departments within Ministries of Health, Health Economics Units	Monitor financial flows; assess efficiency and cost-effectiveness; provide evidence for budgeting decisions; monitor financial enablers and cost-related aspects associated with HBP objectives.	Monitor HBP expenditures and investments; assess financing gaps; analyse cost drivers; contribute to budgeting and accountability processes; manage financial dashboards; assess the long-term sustainability of the HBP.
5. Use of monitoring results for decision-making and accountability	HBP managers, national health authorities, subnational health authorities, health facilities	Transform monitoring results on HBP objectives and enablers into better policy decisions, stronger performance management, and improved patient care. Promote transparency and accountability throughout the health system.	Incorporate monitoring findings throughout the HBP updating cycle. Disseminate results through different communication channels to inform decision-making, increase accountability, and improve transparency for both citizens and health system managers.

Source: The authors.

4.3. Establishing a sound legal and procedural framework

Developing a strong legal and procedural framework is a cornerstone of HBPM institutionalization. It helps establish monitoring as a formally recognized function, institutionally legitimized and embedded within the governance arrangements of the health system (Giedion et al., 2024). In practice, this framework defines the mandates, rules, and operational procedures required to implement monitoring systematically and as a core component of the HBP updating cycle.

Establishing a legal mandate for HBP monitoring

Monitoring both HBP objectives and their direct enablers should be clearly reflected in the legislation or in written policies. The legislation or policy should also specify the responsibilities of participating institutions, including the obligation of health providers and health insurance agencies to collect and report the required information, as well as the responsibility of the Ministry of Health to produce and regularly publish HBP monitoring reports.

Several countries have developed strong legal frameworks for HBP monitoring, with clear mandates, well-defined institutional responsibilities, and appropriately established information management processes. In **Chile**, Health Reform Law No. 19.966, which created the Acceso Universal con Garantías Explícitas—Garantías Explícitas en Salud (AUGE-GES) plan, requires the Ministry of Health to monitor compliance with the Explicit Health Guarantees. In the Philippines, the Universal Health Care Act (Republic Act No. 11223) establishes the coordination between PhilHealth and the Department of Health, while its implementing regulations specify their respective monitoring responsibilities. In **Argentina**, the Programa Sumar defines the monitoring framework for its HBP through its Operational Manual and the agreements signed between the national government and the provinces. These documents specify, in considerable detail, the indicators, data collection procedures, reporting frequency, and verification mechanisms used to monitor the HBP (Sabignoso et al., 2014; Sabignoso et al., 2020).

Experience across countries suggests that, without a well-established legal mandate, HBPM is likely to become an informal and non-systematic practice that is vulnerable to changes in government. As a result, institutional responsibilities may not be fully assumed, monitoring reports may become irregular, and accountability may weaken. Legal anchoring strengthens both the implementation and continuity of monitoring. It also helps preserve its stability across changes in government and, where relevant, during interruptions in external funding (Organisation for Economic Co-operation and Development, 2018).

Legally linking HBPM to the HBP updating cycle

Ideally, the legal or procedural framework supporting HBPM should formally establish its link with the HBP updating cycle. It should also require that monitoring results be used throughout the HBP updating process, specifying institutional responsibilities, the frequency of reviews, the content and format of monitoring reports, and the mechanisms through which monitoring findings are incorporated into decision-making (Glassman et al., 2017).

Thailand provides a practical example of this approach. The National Health Security Act B.E. 2545 (2002) assigns the National Health Security Board responsibility for defining and revising the scope of services included in the Universal Coverage Scheme benefit package. It also requires the NHSO to monitor service performance and regularly report its findings to the relevant authorities.

Establishing this link through the legal framework promotes the effective use of monitoring findings in HBP management. It helps ensure that HBP updates remain aligned with population health needs and health system performance, while reinforcing accountability and transparency throughout the review process.

Regulating data governance, privacy, and ethical safeguards

The legal or procedural framework should also establish how monitoring data are governed, integrated, and protected. These provisions should define the rules for data access, exchange, use, and custodianship across participating institutions. Together, they provide a clear framework for sharing and using monitoring data across the health system.

This framework should be complemented by operational procedures that strengthen safeguards for privacy and data confidentiality, while defining the interoperability standards required to enable effective information exchange across institutions supporting HBPM. The European Union's General Data Protection Regulation demonstrates how legal standards can enable the responsible use of information for policymaking while ensuring appropriate protection of personal data.

Without these legal and procedural safeguards, monitoring systems often face significant risks affecting both the availability and the appropriate use of information. These challenges are discussed in the following sections.

4.4. Strategic management of HIS

Chapter 5 examines the technical and operational dimensions of HIS, including data architecture, system design, and interoperability. These elements provide the technical foundation for HBP monitoring. This section focuses instead on the institutional arrangements required to ensure that HIS effectively support HBPM. HBPM must not operate separately from the national health information strategy. The institution responsible for managing the HBP needs to align its data collection requirements with the rules, standards, and instruments established by the national information strategy to ensure its long-term sustainability (Principle 7).

A strong institutional framework is also essential to establish effective governance and coordination of HIS. Managing these systems goes well beyond technical considerations. Effective governance depends on a shared vision, clearly assigned responsibilities, and coordination mechanisms across the institutions involved. It ensures that existing information platforms are aligned, interoperable,

and capable of integrating clinical records, administrative databases, and population surveys into a coherent strategy that supports HBPM (Sparkes et al., 2024).

Leadership is equally important. A designated institution is needed to coordinate governance, establish common standards, and oversee data collection in line with HBPM priorities. Close collaboration is needed among health authorities, financing institutions, national statistics offices, subnational governments, and health service providers, all of whom generate and use health information. Formal agreements should establish the conditions for information sharing, institutional coordination, and the fulfillment of each institution's responsibilities.

Data do not improve health systems; the decisions they inform do. For HBPM to be effective, the information generated through monitoring must lead to action and continuous improvement. The HBP Implementation Unit—or its equivalent—plays a central role by ensuring that monitoring results are translated into better management decisions and more effective HBP updates.

Generating information is only the first step, as its real value depends on whether it reaches decision-makers and whether institutional mechanisms are in place to enable its systematic use.

Data use and reporting

Different actors involved in HBP implementation require different types of information from the monitoring system. Their information needs, reporting frequency, areas of interest, and preferred formats are not the same. National health authorities responsible for policymaking require concise executive reports highlighting trends, risks, and achievements. Subnational managers need operational dashboards that allow them to monitor the performance of health facilities and identify gaps in service delivery, medicines, and essential supplies. Health service providers require simple, automated, and visual reports that help them manage their target population and improve service delivery. Citizens, in turn, need information presented in clear and accessible language to improve transparency and public trust.

Designing information outputs is just as important as producing the data themselves. Monitoring systems are more effective when they use tailored reporting approaches that make information both accessible and useful for each audience.

The Province of La Rioja, in **Argentina**, offers a concrete case. The Primary Health Care Results-Based Management System (SGRC) integrates information already collected through existing systems—including the Programa Sumar claims database and electronic health records—and transforms these data into management dashboards for each health facility. This enables health teams to identify priority populations, monitor effective coverage of HBP services, and implement targeted outreach strategies and service improvements (Vergara et al., 2025).

Governance for data use

Governance determines which data should be prioritized and how they should be shared, standardized, validated, protected, and used. The governance framework for HIS should ensure the following:

- Clearly assigned roles and responsibilities for all key information management functions across the different levels of the health system.
- Interinstitutional and multilevel coordination mechanisms that organize regular interaction among participating institutions and different levels of government.
- Institutionalized feedback mechanisms that ensure monitoring findings are translated into timely actions by all actors involved.
- Ethical safeguards to protect data confidentiality through robust access controls and secure systems for data storage and processing.

In general, the unit responsible for HBP implementation plays the central coordinating role in this governance model, ensuring that monitoring results are regularly reviewed and used to inform HBP updating.

Thailand's governance arrangements also link monitoring activities with HBP updating processes at both provincial and district levels (Witthayapipopsakul et al., 2019). Within the NHSO, monitoring is embedded in regular review processes involving the different actors responsible for HBP implementation. As a result, monitoring findings are used not only to identify opportunities for local improvement but also to inform policy adjustments and support HBP updating at the national level.

Embedding accountability mechanisms

The governance framework needs to institutionalize accountability mechanisms that help translate monitoring findings into concrete improvements. Examples include:

- Linking key indicators to management agreements or resource allocation mechanisms so that performance has tangible consequences for performance assessment or financing.
- Using monitoring findings to guide supervision and technical assistance activities aimed at strengthening the capacities of HBP implementers.
- Publishing HBP implementation results through public reporting platforms to increase transparency and citizen engagement.

Chile's GES program is a case in point. Information on compliance with Explicit Health Guarantees is used to trigger corrective actions and produce public performance reports. This approach has promoted accountability by linking monitoring results to both management decisions and public scrutiny (Ministry of Health of Chile, 2021; Bitran, 2013; Ministerio de Salud de Chile, 2020).

HBPM can also be supported through the use of artificial intelligence (AI), which makes it possible to analyze large volumes of data and facilitate the early identification of problems, risks, and

opportunities for improvement. However, its usefulness depends on the existence of a robust data governance policy that ensures data availability, standardization, and reliability. AI should support human judgment rather than replace it. These issues are discussed in greater detail in Chapter 5.

Integration with the digital health strategy

Over the past decades, many countries have made significant investments in digital health. This represents a major opportunity to strengthen the capacity of health systems to collect, integrate, and use data for better decision-making. At the same time, it creates the challenge of ensuring that these gains in data availability become fully integrated into HBP management processes.

Uruguay illustrates this challenge (Friedmann, 2022; Government of Uruguay, 2024). The country has developed one of the most advanced national electronic health records (EHR) strategies in the Latin American region, enabling the secure exchange of clinical information across all public and private health service providers. However, monitoring of the country's HBP (PIAS) continues to rely largely on data collection processes that remain separate from the EHR system. The country is currently working to bridge this gap by better integrating its digital health strategy with its HBP monitoring framework.

This example highlights the importance of building effective links between digital health strategies and health policies such as dynamic HBP management. Digital health is not an end in itself; its true value lies in elevating the management capacity of the health system. This includes improving the monitoring of the HBP.

4.5. Managerial and technical capacity

HBPM cannot be built without adequate managerial and technical capacity across all institutions involved in HBP management. HBPM capacity can be developed gradually. The initial stage should focus on creating the institutional conditions required to monitor HBP objectives and their main enablers. As experience accumulates and implementation mechanisms mature, the monitoring framework can progressively expand and become more sophisticated (Principle 6).

From indicator selection and data management to data analysis, dissemination of findings, and implementation of corrective actions, HBPM requires qualified human resources, effective coordination structures, and a culture that promotes continuous learning. As noted by Glassman et al. (2017), sustained investment in these capacities is a cornerstone of HBP monitoring institutionalization, enabling countries to implement, improve, and continuously adapt HBPM to the evolving needs of the health system.

Managerial and technical capacity for HBPM comprises three complementary dimensions:

- Technical capacity. The competencies required to manage HIS, conduct analyses, and produce reliable evidence to support policy decisions.

- Managerial capacity. The skills needed for planning, coordination, and performance management, ensuring that monitoring activities are effectively implemented across institutions and levels of the health system.
- Institutional coordination capacity. The ability to coordinate monitoring functions across organizations and align them with HBP decision-making processes.

Countries can strengthen HBPM by establishing dedicated capacity-building programs. These initiatives can be implemented progressively and supported through partnerships with universities and other institutions providing training or technical assistance. Priority areas include data standardization, interoperability, and information analysis. As institutional monitoring capacities mature, HBPM gradually evolves from a technical reporting exercise into an adaptive governance instrument for the health system (Brinkerhoff, 2004; Organisation for Economic Co-operation and Development, 2018).

Capacity-building efforts should also be accompanied by appropriate operational conditions, including dedicated human resources, specific budget allocations, functional information systems, and secure data management infrastructure. These conditions enable monitoring activities to become routine rather than occasional and ensure that staff have both the tools and the time required to act on monitoring findings.

When managerial and technical capacities are weak, HBPM cannot be fully implemented or institutionalized. Data are often misinterpreted or remain underused. Managers are less able to identify and implement corrective actions, and the health system's ability to learn and adapt becomes limited. Limited institutional capacity often results in fragmented monitoring efforts and undermines the credibility of health policies.

International experience confirms how managerial and technical capacities can be progressively developed as an integral component of HBPM systems. **Thailand's** NHSO gradually expanded the institutional and analytical processes supporting HBP updating, moving from an initial claims-processing approach toward a more comprehensive monitoring system covering service utilization, provider performance, and budgetary impact (Witthayapipopsakul et al., 2019; Tangcharoensathien et al., 2020).

Investments in staff training, specialized analytical teams, and HIS enabled **Thailand** to establish an annual review process in which monitoring data directly inform revisions of the Universal Coverage Scheme benefit package. Collaboration with universities and external technical partners has also strengthened analytical capacity and methodological development.

Institutional capacity development is also visible in **Argentina's** Programa Sumar. Its results-based financing model requires provinces and health providers to report standardized indicators linked to the HBP. Since its implementation, the program has established provincial monitoring units and developed a nationwide training strategy targeting both local HBP managers and leaders responsible

for HIS. Continuous technical assistance, performance feedback, and financial incentives have contributed to promoting the systematic use of monitoring information to support decision-making and improve service delivery (Sabignoso et al., 2024).

4.6. Ensuring sustainable and adequate financial resources

A core requirement for developing a strong HBPM system is the availability of adequate and predictable financial resources. Monitoring activities tend to weaken or become discontinuous when they depend on temporary funding or external projects. Including HBPM activities within regular budget allocations help sustain monitoring over time (World Health Organization, 2024).

In some cases, monitoring systems go through cycles of expansion and decline because dedicated funding is unavailable or because they rely heavily on external sources. This severely affects their development and long-term sustainability. A common example is the discontinuation of donor-funded information systems once external projects come to an end.

By contrast, countries that have provided adequate funding for monitoring activities have been able to develop and sustain their HBPM systems. **Thailand**, for example, finances monitoring activities through the operational budget of the National Health Security Office, ensuring their continuity and alignment with the strategic purchasing functions of the Universal Coverage Scheme (Tangcharoensathien et al., 2018). **Argentina's** Programa Sumar included dedicated budget allocations for monitoring, evaluation, and audit activities from its inception. This made it possible to establish national and provincial monitoring teams, develop digital tools, and maintain an ongoing program of training and technical assistance (Sabignoso et al., 2024).

These allocations need to cover all activities related to monitoring, from data collection to data analysis and dissemination. They should also support digital infrastructure, HIS, and the training of the technical teams involved. Budget allocations should also include resources to strengthen monitoring capacity at both national and subnational levels.

In summary, integrating HBPM into regular budget cycles and medium-term expenditure frameworks helps institutionalize monitoring as a permanent government function rather than a temporary project (World Health Organization, 2021).

4.7. Communicating and disseminating results to key stakeholders

Transparent communication of HBPM results is essential to strengthen both HBP updating decisions and public trust in this policy. Monitoring results need to be communicated to policymakers, health service providers, civil society organizations, and citizens. In this way, monitoring can become a platform for dialogue among the main stakeholders and help build a shared vision and strategy for improving HBP objectives.

HBPM cannot be expected to have a meaningful influence on decision-making if its findings are communicated poorly, irregularly, or only to administrative or technical audiences. Limited transparency discourages the use of evidence to improve HBP updating and weakens trust among the institutions responsible for its implementation. The absence of regular feedback mechanisms from users and other stakeholders also reduces the system's ability to identify and address implementation problems. Over time, these limitations could undermine not only the legitimacy of the monitoring system but also the credibility of the HBP itself (Glassman et al., 2017; Organisation for Economic Co-operation and Development, 2018).

Communication is an integral part of the HBPM institutional framework rather than an additional activity. This requires regular procedures for communicating results to different audiences using formats suited to their needs. For policymakers, information should support HBP updates and management decisions. Health service providers need reports that provide actionable information to improve service delivery. Citizens, in turn, need clear information on whether guaranteed services are accessible, of good quality, and provide adequate financial protection (Brinkerhoff, 2004).

Communication should not be limited to disseminating results. It also needs to create opportunities for people and institutions to share their experience and provide feedback on HBP implementation. Incorporating these mechanisms increases accountability and enables monitoring to become a tool for learning and continuous improvement (Fox, 2015; Brinkerhoff, 2004).

Several countries have shown how communication mechanisms can strengthen accountability and support continuous policy improvement. In **Chile**, the Ministry of Health is legally required to publish an annual report on compliance with the Explicit Health Guarantees established under the AUGE-GES Law (Law No. 19,966, Article 23). These reports present the performance of the system in terms of the timeliness and quality of guaranteed services, as well as inequalities across services and territories. They are also used to revise clinical protocols, inform resource allocation, and plan technical assistance. In **Thailand**, public participation is an integral part of the management of the Universal Coverage Scheme. The National Health Security Office organizes annual public hearings to gather users' views and incorporates them into the management and updating of the HBP. These mechanisms have reinforced both accountability and public participation (Tangcharoensathien et al., 2018; Kantamaturapoj et al., 2020).

4.8. Securing political support

Political support is another critical factor in developing a strong institutional framework for HBPM. Commitment from senior health authorities reinforces the priority given to monitoring activities while increasing their visibility and legitimacy.

Political commitment and institutionalization reinforce one another. Strong institutions help maintain political attention on a policy, while sustained political support provides those institutions with the authority and resources they need to fulfil their role.

Sustained political support does not occur on its own. It requires taking advantage of opportunities such as changes in government, reforms, health crises, or increases in public funding to expand the institutional and monitoring capacities needed to support progress towards universal health coverage (Reich et al., 2016). It also requires building broad support among the institutions that use monitoring information—including citizens—so that its value extends beyond a particular administration and endures despite changes in political priorities.

Country experience shows different ways of building and sustaining political support for HBPM. In **Thailand**, the NHSO uses monitoring results from the Universal Coverage Scheme to produce annual reports reviewed by parliamentary committees and the public, helping sustain political support and program financing across successive governments (Government of Thailand, 2002). **Chile's** AUGE-GES system formally links monitoring findings to high-level policy decisions through periodic reviews of prioritized conditions submitted to the President and Parliament. In Estonia, regular reports on the performance and financial sustainability of the Health Insurance Fund, together with public dashboards and other communication mechanisms, have strengthened political oversight and public support for HBP updates (Kasekamp et al., 2025; Hanson et al., 2022).

The previous sections have shown that political commitment needs to be anchored in institutional mechanisms such as legal mandates, dedicated budget allocations, transparent reporting systems, and procedures that turn monitoring findings into routine organizational practices. Political will is inherently fragile and tends to weaken when it is not supported by permanent institutions.

Weakening political support is often reflected quickly in the functioning of HBPM. Budget cuts, interruptions in monitoring reports, or the suspension of review processes are early warning signs that undermine accountability and jeopardize the regular updating of the HBP.

4.9. Assessing the maturity of the HBPM institutional framework

The analysis presented in this chapter highlights a set of core elements that determine the maturity of the HBPM institutional framework. These include:

- Clearly defined mandates and responsibilities for all HBPM functions.
- Systematic use of monitoring results throughout the HBP updating cycle.
- Adequate and sustainable financial resources to support HBPM functions.
- Transparent communication of results to the main stakeholders.

Accordingly, the HBPM MAT addresses these elements, particularly within **Domain 3: HBPM Institutions (maturity statements 7–10).** Each maturity statement translates the principles presented in this chapter into concrete assessment criteria. It includes a set of observable attributes and verification questions that allow countries to assess its level of implementation. For example, the statement on institutional mandates examines whether HBPM roles are formally established, whether coordination mechanisms operate on a regular basis, and whether responsibilities are understood and fulfilled across the different levels of government.

5. Health Information Systems as a pillar of effective HBPM

HIS are much more than platforms for collecting data. They provide the infrastructure that allows health systems to turn routine information into evidence for management and decision-making. In the context of HBPM, this means generating the information needed to assess whether the HBP is achieving its intended results, identify implementation problems, and inform timely decisions on HBP management. HIS should therefore be treated as a strategic component of HBP design, implementation, and review.

The conceptual framework presented in this report combines indicators, which define what should be measured (Chapter 3), with institutional arrangements, which clarify who is responsible for producing, analyzing, and using information (Chapter 4). HIS complete this framework by making it possible to capture, integrate, and transform data into information that supports decision-making. Together, they connect the production of indicators with institutional responsibilities and the decisions made throughout the HBP updating cycle.

In practice, this involves close coordination between the unit responsible for implementing the HBP and the institutions that produce, manage, and use health information. These include digital health departments, statistical offices, health program managers, and health financing and purchasing agencies. Without such coordination, information may fail to support the decisions required to manage the HBP throughout its updating cycle.

Three principles (Table 1) are particularly important for guiding the development of HIS that support HBPM. Table 8 illustrates how these principles can guide the design of the HIS component of the conceptual framework.

TABLE 8. Principles for guiding the development of HIS to support HBPM

Foundational Principle	How it Guides HIS Development for HBPM
Principle 3. Link monitoring to the HBP updating cycle and related decision space	HIS should generate the information needed at the time decisions about the HBP are made. Their purpose is to provide timely evidence to support HBP design, improve implementation, and inform periodic revisions of the benefit package.
Principle 7. HBPM aligned with national HIS strategy	HBP monitoring should build on the existing national health information infrastructure, including its standards, digitalization processes, and interoperability mechanisms. Aligning with this strategy avoids the creation of fragmented parallel systems, improves data comparability, reduces the reporting burden, and contributes to the long-term sustainability of monitoring.
Principle 8. Institutionalization and multilevel governance of HBPM	HIS can effectively support HBP monitoring only when they are embedded within the institutional architecture of the health system. This involves clearly defined responsibilities, adequate and predictable financing, sufficient technical capacity, and effective coordination and accountability mechanisms across the different levels of government.

Source: The authors.

The purpose of this chapter is to help those involved in HBP implementation understand not only what components a health information system should include to support HBPM, but also how they can be designed, implemented, and sustained over time. The following sections outline five key steps for building a strong health information system to support HBP monitoring.

5.1. Defining a strategic vision for aligning HIS and HBPM

HIS should be strategically aligned with the overall objectives of the health system. They should also generate the information needed to assess the objectives of the benefit package and its main enablers throughout the HBP updating cycle.

Achieving this alignment starts with a clear definition of the monitoring information needed for decision making at each stage of the HBP cycle (Principle 3). This also requires interoperable information systems that avoid duplication and enable the integrated use of data, as well as governance arrangements that support accountability and coordination across participating institutions. Finally, feedback mechanisms are needed to ensure continuous interaction between those who produce information and those who use it, promoting an ongoing process of review and improvement.

HBPM can become an important driver of the development of HIS. A well-designed monitoring system creates demand for high-quality information, encouraging the evolution of HIS in line with national health priorities. By defining the information needed to assess health system performance and monitor progress towards health objectives, HBPM can help consolidate the strategic direction of HIS.

Without strong HIS, monitoring is likely to remain superficial and of limited value for HBP management. Conversely, without a strong HBPM system, investments in HIS may fail to respond to the information needs of health policy.

The experiences of **Estonia** and **Thailand** demonstrate how HIS and HBPM can reinforce one another. In Estonia, the national health information system provides a strong digital infrastructure for HBP monitoring. However, remaining interoperability gaps and the limited integration of HBPM requirements into the governance and architecture of the system have constrained its practical use for monitoring activities (Organisation for Economic Co-operation and Development, 2022). By contrast, in Thailand, the development of the health information system was deliberately shaped by the monitoring needs of the Universal Coverage Scheme. This made it possible to integrate information on coverage, access, and financial protection while supporting periodic HBP reviews and resource allocation decisions (Witthayapipopsakul et al., 2019; Tangcharoensathien et al., 2020).

These experiences show how strategic alignment between HIS and HBPM can create a virtuous cycle in which monitoring needs drive the development of HIS, while stronger HIS enhance HBP management and broader health policy implementation.

5.2. Assessing and aligning existing HIS to operationalize HBPM

The first step is to assess the existing health information system and determine how it will support HBP monitoring. This involves evaluating the maturity and readiness of the existing system, making the best possible use of available platforms, addressing existing gaps where necessary, and aligning HBPM with national health information policies and standards. The objective is to ensure that HBPM becomes part of a coherent health information ecosystem rather than developing as a parallel initiative.

Assessing and aligning existing HIS

As discussed in Chapter 3, the scope of monitoring should be aligned with the country's actual capacity to produce and use the required information. This means selecting a limited set of indicators that support decision-making (Principle 5), gradually expanding monitoring as institutional capacity and HIS mature (Principle 6), and developing HBPM in close alignment with the national HIS strategy to avoid parallel efforts and strengthen long-term sustainability (Principle 7).

Several tools are available to assess the maturity and readiness of national HIS to support HBP monitoring. Annex 6 presents examples of structured assessment methodologies designed to evaluate the different components of HIS and identify priority areas for strengthening.

Based on the most widely used assessment tools, the main steps for evaluating the maturity of HIS to support HBP monitoring are:

- Identify all relevant sources of information for HBPM, including facility records, administrative claims databases, disease registries, and household surveys.
- Check whether HBP indicator definitions are consistent with the available data.
- Identify problems related to data quality, such as incomplete reporting, inconsistent definitions, or delays in data submission.
- Review existing data verification mechanisms, including audits, supervision activities, and triangulation with independent data sources.
- Assess whether monitoring results are routinely used to inform decisions.

It is important that the unit responsible for implementing the HBP participates in this assessment. Its involvement from the outset helps ensure that monitoring responds to the management needs of the HBP and that the results are effectively used for decision-making.

Operationalizing the health information system for HBPM

Integrating HBPM with HIS requires concrete implementation actions. Priority actions include:

- Involve those responsible for HIS from the earliest stages of HBPM design.
- Develop protocols and procedures that facilitate interoperability across different information systems.

- Align HIS with service purchasing systems and administrative claims management systems.
- Incorporate HBP indicators into existing national platforms, such as District Health Information System 2 (DHIS2) or equivalent systems.
- Make use of other well-established systems, such as civil registration and vital statistics systems.
- Expand disease-specific monitoring systems to include services covered by the benefit package.
- Integrate information from procurement and supply chain management systems with service delivery indicators.

The unit responsible for HBP implementation should lead this coordination process. Its role is to coordinate the work of health information system managers, digital health authorities, and health program managers.

When a national HIS strategy is still under development

Not all countries have a mature national HIS strategy. In these settings, HBPM should not wait until such a strategy is fully in place before being developed. At the same time, it is important to avoid creating new parallel systems or making future integration more difficult. The following recommendations can help move in that direction.

- **Design with future integration in mind.** Use international standards—such as ICD, DHIS2, SNOMED Clinical Terms, and Health Level Seven—as well as modular architectures, so that the monitoring system can be easily integrated into a future national HIS strategy.
- **Promote cross-sector coordination.** Involve the national statistical office, digital health authorities, health financing units, and disease program managers during HBPM planning to build partnerships that facilitate future integration.
- **Generate early results.** Produce timely and reliable information on priority health policy issues, demonstrating from the outset the value of HBPM as a governance tool.
- **Link HBPM with broader data management initiatives.** Build on existing digital government projects, civil registration systems, and other data management initiatives when governance arrangements for health information are still limited.

These measures allow countries to develop HBPM while preserving future integration with the national HIS strategy.

5.3. Data generation and information flow

HBPM should be built, whenever possible, on information that the health system already generates routinely. Information on the use of services included in the HBP should be incorporated into the

Routine Health Information System, rather than being collected through parallel systems. This reduces the reporting burden, facilitates integration with other information systems, and increases the likelihood that the information needed for HBP management will be available.

Data sources

The main source of information for HBPM is the data routinely generated during service delivery. These include enrolment records, EHR, administrative claims, and consolidated facility reports.

Depending on monitoring needs, this information can be complemented by other sources, such as procurement and supply chain systems, human resources databases, household surveys, population censuses, civil registration systems, and vital statistics.

Using multiple data sources makes it possible to compare information across systems, identify inconsistencies, and better understand service coverage and equity gaps. As noted above, the objective is not to create new information systems but to make better use of those that already exist. The creation of parallel databases or reporting systems should be avoided and considered only in exceptional situations where appropriate information systems are not yet available.

Data quality

As discussed in Chapter 3, monitoring should focus on a limited set of high-value indicators that support decision-making. However, this is only possible if the information used is reliable.

For monitoring to be useful, data should be complete and timely. Otherwise, monitoring may lead to incorrect conclusions and affect decisions related to the HBP. This challenge exists at both national and subnational levels, where differences in indicator definitions, coding systems, or reporting frequency may hinder the comparability of results.

Data quality cannot be ensured solely through end-of-process checks. It should be built into every stage of the information cycle, from data collection to analysis and use (PAHO/WHO, 2019; World Health Organization, Gavi, The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2017).

In practice, this means using standardized indicator definitions, incorporating automated validation checks into digital platforms, providing feedback to those who generate the information, and including indicators that monitor data quality itself, such as the timeliness and completeness of reporting. These measures should form part of a continuous quality improvement process.

Service purchasing arrangements can also contribute to improving data quality. In **Argentina's** Programa Sumar, for example, intergovernmental transfers are conditional on the submission of information that is subsequently verified through external audits. This has contributed to improving

the quality of the records used for monitoring (Sabignoso et al., 2020). Similarly, **Chile's** GES program links medicine stock shortages directly to the monitoring of legal guarantees, creating incentives to improve the timeliness and accuracy of reporting (Ministerio de Salud de Chile, 2009).

Data flow

HBPM relies on information from multiple sources. Health facilities generate an important share of these data, but health financing agencies, administrative systems, population registries, and other relevant databases also make important contributions.

HBPM needs an information cycle rather than a simple linear flow of data. This includes defining what information each actor reports, who receives it, how it is integrated, and how it flows back into the system to support HBP management.

Information should reach, in a timely manner, those responsible for planning, financing, and updating the benefit package. Likewise, monitoring results should be fed back to those who generate the information in order to support improvements in management and service delivery.

The unit responsible for implementing the HBP should coordinate this process. Its role is to integrate information from the different sources, interpret the results, and ensure that they are used to inform decisions related to the benefit package.

In decentralized systems, this information cycle becomes even more important. Subnational governments not only report information but also use monitoring results to manage services and improve their performance.

5.4. Creating the conditions for effective HIS implementation

To support HBP implementation and revision on a sustained basis, HIS depend on a set of conditions that enable it to function effectively. Among the most important are common data standards, interoperability across information systems, electronic health records and other administrative databases, adequate infrastructure with trained human resources, sustainable financing, and, increasingly, the conditions needed to incorporate AI tools.

Data standards and interoperability

Interoperability makes it possible to integrate information from different systems and use it jointly for HBP monitoring. This requires adopting common classifications, nomenclatures, and coding systems, such as ICD, SNOMED, and HL7, so that information can be compared across services, institutions, and over time.

Once these standards are in place, information from different sources can be combined to support a wider range of analyses, integrate clinical, administrative, and financial data, and reduce duplication in data collection and reporting. Without common standards, different programs and institutions often generate information using different definitions, making integration more difficult and limiting its value for management.

Countries should develop a national data dictionary and adopt common definitions across all information systems related to the HBP. This is as much a governance decision as a technical one. When standards are shared across the entire system, HBP monitoring ceases to function as an isolated activity and becomes integrated into the broader health information system.

Integrating clinical and administrative information

EHR and administrative databases are two of the main sources of information for HBPM. When they can be integrated, they provide a more complete picture of HBP performance and facilitate the follow-up of individuals throughout the continuum of care.

EHR provide detailed clinical information for each patient, making it possible to identify gaps in care, assess continuity of care, and analyze differences in access to and quality of services. Their main strength is that information is generated at the point of care and can be used both for clinical management and for HBP monitoring.

Administrative databases complement this information with data on enrolment, service utilization, financing, claims, and the availability of medicines and other supplies. Combining these two sources makes it possible to build more comprehensive indicators and gain a better understanding of how the system performs.

Chile provides a practical example of how this integration can support HBP monitoring. Monitoring of the Explicit Health Guarantees (GES) combines information from the Health Guarantees Management Information System (SIGGES), which records each case from enrolment in the program through service delivery and financing, with the Monthly Statistical Reports (REM) produced by the Department of Health Statistics and Information (DEIS). In many health facilities, EHR feed these systems automatically. This allows the same information to be used both for individual patient follow-up and for assessing the performance of the GES program.

Infrastructure, capacity, and governance

A health information system can function effectively only if it is supported by adequate infrastructure, technical capacity, and governance arrangements (Principle 8). This includes reliable infrastructure, including connectivity, storage capacity, cloud services, and backup mechanisms that ensure continuity of the system. It also requires multidisciplinary teams, ranging from staff

responsible for data entry to specialists in data management, analytics, systems development, and decision support.

Health teams also need the capacity to analyze and use the information they generate. Having staff dedicated to interpreting data and translating it into information that supports management helps transform monitoring from an administrative task into a tool for improving service performance.

As HIS mature, the roles of these teams also evolve. Time devoted to manual data entry should progressively give way to data analysis, coordination among stakeholders, and support for both clinical and managerial decision-making.

Investments in infrastructure should be accompanied by training programs and capacity-building initiatives. Without people who are prepared to use information—and without governance arrangements that define responsibilities, coordinate the different actors, and promote the systematic use of data—even the best technologies will have limited impact. Infrastructure, technical capacity, and governance are complementary components of the same system and should be developed together.

Sustainable financing for HIS

Infrastructure, systems development, and workforce training all require continuous investment. Continuity is challenging, however, when funding comes from temporary projects, external sources, or when available resources are insufficient. Activities related to HIS should be incorporated into the regular health budget and supported by medium-term financial planning. This allows countries to plan investments, build capacity, and avoid interruptions that ultimately affect HBPM.

Experience from different countries shows that sustained domestic financing makes a difference. In **Thailand**, for example, the costs associated with HIS are included in the operational budget of the NHSO. Similarly, **Argentina's** Programa Sumar included dedicated budget lines for monitoring and evaluation activities from its inception. In both cases, stable financing allowed HIS to become a permanent component of HBP monitoring (Sabignoso et al., 2020).

The potential and prerequisites for the use of AI

AI can expand the capabilities of HIS for HBPM by helping to integrate large volumes of information, identify patterns, anticipate problems, and support decision-making. AI can also improve the quality of clinical records and coding processes through voice recognition tools and other applications that reduce administrative workload while promoting more complete and standardized data capture. However, AI will add value only if the underlying information system already has high-quality data, common standards, interoperability across data sources, and governance arrangements that define how data are generated, shared, and used.

HBPM can also play an important role in this process by defining what information is needed and what questions the indicators should answer. Such clarity can guide the development and application of AI tools toward concrete, relevant management and health policy challenges. AI should be viewed as a capability that builds on well-developed and well-governed HIS. The stronger these foundations are, the greater AI's contribution to HBPM can be.

5.5. Common challenges and how to address them

Implementing HIS for HBPM often involves similar challenges across countries. Many of these challenges can be anticipated if they are considered during system design rather than once monitoring is already in place. Table 9 summarizes some of the most common challenges and the main strategies for addressing them.

TABLE 9. Common challenges in implementing HIS for HBPM and possible response strategies

Challenge	Suggested Response
Partial assessment of the system	Assess the health information system as a whole rather than focusing on individual components. This helps identify interoperability, governance, and data quality issues that may not be apparent when systems are assessed separately.
Misaligned definitions and standards	Use common definitions, classifications, and coding systems to facilitate data integration and comparability.
Limited use of information	Incorporate monitoring results into management meetings, HBP review processes, and decision-making so that the information produced is used systematically.
Parallel systems	Integrate HBPM into existing HIS and avoid creating new databases unless they are strictly necessary.
Limited capacity at the subnational level	Strengthen infrastructure, workforce training, and analytical capacity so that monitoring results can also inform decision-making at the local level.
Fragmented governance	Define clear responsibilities and establish permanent coordination mechanisms among the institutions responsible for HIS, financing, and HBP implementation.
Lack of feedback mechanisms	Provide timely feedback to those who generate the data through dashboards, reports, or review meetings that support service improvement.
Dependence on external financing	Gradually incorporate health information system activities into the regular health budget and align external cooperation with national priorities.
Lack of data verification mechanisms	Complement routinely reported information with audits, automated validation procedures, and triangulation using other data sources.
Insufficient data protection	Establish clear rules governing data privacy, access, and use to strengthen trust in and the legitimacy of the system.

Source: The authors.

Most of the challenges involved in strengthening HIS for HBPM are not technological. In practice, they relate more often to governance, coordination across institutions, technical capacity, the use of information for decision-making, and the availability of stable financing. Addressing these challenges from the outset increases the likelihood that HBPM becomes part of routine management rather than remaining simply a reporting exercise.

5.6. Assessing the maturity of HIS for HBPM

The key elements presented in this chapter provide the basis for assessing the maturity of HIS that support HBPM. The most important include:

- HBPM uses standards, classifications, and coding systems that are aligned with national health information standards.
- HIS promote the systematic use of data through dashboards, feedback mechanisms, and other tools that support HBP management and revision.
- HIS are supported by sustainable financing and mechanisms that protect data privacy and ensure compliance with ethical principles.

These elements are incorporated into the **HBPM MAT through statements 11 to 13**. Each statement is supported by a set of observable attributes and verification questions that make it possible to evaluate the level of development of HIS and identify priorities for further strengthening.

6. Conclusion

Strengthening HBPM is essential to bridge the persistent gap between policy commitments and real-world service delivery on the path toward UHC. By grounding monitoring systems in clear principles, aligning them with decision-making cycles, and embedding them within robust institutional arrangements and HIS, countries can transform HBPM from a technical exercise into a strategic policy instrument.

When effectively implemented, HBPM not only enhances accountability and public trust but also enables continuous learning, adaptive policy refinement, and sustained political commitment. Ultimately, a well-functioning HBPM system ensures that HBPs are not merely aspirational documents but living frameworks that evolve with evidence and translate into equitable, accessible, high-quality care for all.

Annex 1. Summary points of a selection of papers referring to monitoring in the context of priority setting, HBP and HTA

This section does not present a systematic literature review; rather, it draws on a purposeful selection of publications identified as particularly relevant for understanding what the literature says about HBPM. Only a small number of studies examine HBP monitoring directly, and additional insights were derived from literature on priority setting and HTA. As such, available evidence is fragmented. Nonetheless, the selected papers offer useful perspectives that informed the refinement of concepts and helped identify gaps in existing practice. The table below summarizes these contributions.

Source	Relevance for HBPM Framework	Selection of Relevant Quotes
A. Studies Focusing Directly on HBP Monitoring		
Danforth et al. (2023)	Shows countries lack structured guidance for monitoring Essential Packages of Health Services (EPHS) implementation, underscoring the need for HBPM frameworks.	"There is a lack of guidance and standards for monitoring and evaluation (M&E) of EPHS implementation." (p.3)
Danforth et al. (2023)	Emphasizes that monitoring should enable early detection of implementation problems and rapid corrective action—central to HBPM.	"The EPHS monitoring framework should place relatively greater emphasis on policy processes and intermediate indicators so that emergent implementation shortfalls can be quickly identified and remediated." (p.3)
Bitran (2013)	Shows how monitoring in Chile systematically verifies whether legal guarantees are fulfilled and enforces compliance—mirroring HBPM's accountability function.	"The National Health Regulator (Superintendencia de Salud) has the responsibility to monitor compliance… and to sanction those insurers that fail to meet one or more guarantees." (p.22)
Giedion et al. (2014a)	Shows that systematic HBP monitoring is very limited in Latin America despite its importance.	"It would be more important to evaluate whether the prioritized services are really being provided adequately and to everyone who needs them; however, there is no institutional framework for monitoring and evaluation to find out whether what the HBP promises is provided to the population. Argentina and Chile are exceptions in this regard." (p.34)
Sabignoso et al. (2014)	Shows how Argentina has institutionalized a monitoring system combining supervision visits external audits, dashboards, and binding reports that explicit benefit plans require a monitoring and control system linked to financing and service delivery—aligned with HBPM's institutional and HIS pillars.	"The PN (Plan Nacer) incorporated a detailed monitoring and evaluation system into its design, which allows is to quantity the performance of both relationships between the national government the provinces as well as the provinces and the health care providers. In the agreements each province commits to a set of performance and coverage goals" (HBP in Argentina, Plan SUMAR) p. 216–217.
Giedion et al. (2014b)—R4D Chile Review	Illustrates how Chile has created a dedicated HIS systems (e.g., SIGGES) to monitor whether benefit guarantees are met in practice—similar to HBPM's HIS pillar discussed later in this document.	"To monitor compliance with AUGE guarantees in practice, a new information system was established… called SIGGES." (p.33)

(Continued)

Source	Relevance for HBPM Framework	Selection of Relevant Quotes
Glassman et al. (2017)	Notes that explicit HBPs should ideally be accompanied by a systematic process for HBP monitoring, though such processes are often missing.	"A process for monitoring implementation… would ideally be considered"
Alwan et al. (2023)	Frames priority setting, package design, and monitoring implementation as a dynamic process requiring sustained managerial and technical capacity—consistent with HBPM's institutional pillar discussed later in this document.	"Priority setting, package design and monitoring of implementation are part of a dynamic process… requiring managerial and technical capacity." (p.7)
B. Monitoring in Priority Setting		
Norheim (2014)	Shows that fair priority setting requires institutionalized mechanisms for critical assessment and revision—conceptually parallel to HBPM's accountability role.	"A fair process… has mechanisms for critical assessment and revision. The process itself should be institutionalized." (p.6)
Sharma et al. (2020)	Shows that priority-setting institutions must be linked to mechanisms ensuring decisions are implemented, monitored, and reviewed—reinforcing HBPM's role.	1. "There is a need for robust institutional arrangements to ensure that the results of priority setting are implemented, monitored and evaluated." (p.3) 2. "Mechanisms for implementing and reviewing decisions are essential to ensure that priority-setting processes translate into practice." (p.4)
C. Monitoring in Health Technology Assessment (HTA)		
Giedion et al. (2024)	Argues that sustained political commitment to HTA depends on monitoring HTA processes and results in concrete and measurable ways—parallel to HBPM's rationale.	"Securing commitment… depends on successfully convincing them that HTA delivers on its promises in concrete and measurable ways… countries… need to begin to monitor their processes and outcomes."
Frønsdal et al. (2010)	Shows HTA stakeholders already generate monitoring data on real-world technology use, though these data are often not fed back—analogous to the need of an explicit HBPM-HBP updating link.	"HTA stakeholders undertake a variety of monitoring activities… however, the quality of these data varies and is often not submitted to an HTA." (pp.309–310)
Heggie et al. (2021)	Shows that implementation guidance for complex interventions explicitly identifies dissemination, surveillance, monitoring, and long-term follow-up as core components—reinforcing monitoring as integral to evidence use.	"As part of the implementation element of a complex intervention, the UK Medical Research Council guidance highlights dissemination, surveillance and monitoring, and long-term follow-up as key issues to consider." (p.2)

Source: The authors.

Annex 2. Comparison of direct and structural enablers

Feature	Direct Enabler	Structural Enabler
Definition	Policy tools and processes that directly support the implementation, delivery, and monitoring of services included in the HBP, such as sufficient budget allocation, user enrolment plan, costs and purchasing mechanisms and HIS directly related to the HBP. Elements closely linked to the direct implementation of the HBP.	The broader policy, governance, and institutional components of the health system that create the conditions for the effective design, implementation, and sustainability of the HBP, including legal frameworks, public financial management, health infrastructure or human resources Broader system-level components that indirectly affect HBP success.
Focus	Operational and process-related.	System-wide infrastructure and capacity.
Examples	Utilization rates, reimbursement rates and purchasing mechanisms, HBP Communication plan.	Health infrastructure, workforce or supply chains.
Scope	Specific. What can be used to affect change through the HBP design and implementation updating effort.	Cross-cutting across the health system.
Timeframe of Influence	Short- to medium-term.	Medium- to long-term.
Responsibility	Often managed by HBP design, update and implementation teams.	Typically overseen by health system departments or ministries.
Role in Monitoring	Should be prioritized in HBPM.	Can be referenced or leveraged, but in general monitored separately.

Source: The authors.

Annex 3. Comparison of UHC and HBP monitoring frameworks

Element	UHC Monitoring[1]	HBPM	Overlap	Key Differences
1. Purpose	Tracks national and global progress toward UHC goals, including access, quality, and financial protection. Enables global and comparative assessment of progress towards UHC.	Tracks national progress towards HBP goals within the scope of a nationally defined list of benefits and provides evidence on factors enabling the achievement of these goals. Is meant to inform actual HBP related policy decisions.	Both aim to advance UHC goals and support evidence-informed policy.	UHC monitoring is global and macro level and is outcome focused. HBP is national, package specific and also considers factors enabling the achievement of HBP goals.
2. Scope & Focus	Focuses on most essential services, regardless of their inclusion in a benefit package; does not systematically monitor enablers of UHC.	Assesses/HBP goals in relation to the interventions included in the HBP, and systematically monitors key enablers such as budget allocation, costs, and purchasing mechanisms.	Both monitor UHC-related goals (access, quality, financial protection).	UHC focuses on essential interventions and population-wide; HBPM focuses on interventions included in the HBP and its beneficiaries and also monitors factors enabling goals of HBP.

(Continued)

Element	UHC Monitoring[1]	HBPM	Overlap	Key Differences
3. Indicators & Metrics	Uses aggregate indicators: SDG 3.8.1 (service coverage index) and 3.8.2 (financial protection).	Uses granular indicators: effective coverage, adherence to guidelines, cost gaps, out of pocket expenditure and direct enablers in relation to defined benefit package within the health system.	Both track coverage, quality and financial protection and may use some shared indicators.	UHC uses high-level metrics; HBPM includes operational and direct enabler-linked indicators.
4. Data Sources & HIS	Relies mainly on household surveys and modelled estimates for cross-country comparability. Some countries also use HIS and National Health Accounts.	Uses real-time administrative data, EHR, claims, costing, and provider records.	Both draw on routine health data and surveys.	UHC uses periodic, national-level data; HBPM uses operational, real-time data.
5. Users & Governance	Used by national policymakers, global agencies, and donors to inform UHC progress and advocacy.	Used by HBP implementers, payers, and program managers to guide package design, update and service delivery.	Both serve health sector decision-makers.	UHC monitoring is for strategic oversight and benchmarking while HBP monitoring is used for real-time operational decisions in relation with HBP policy.
6. Feedback & Policy Impact	Feeds into strategic planning and SDG accountability. Less connected to daily delivery processes.	Feeds into iterative HBP revisions, pricing, payment reform, and service readiness.	Both aim to inform continuous improvement in the health system.	UHC monitoring guides macro-level policy; HBP monitoring shapes day-to-day HBP implementation and update.

Source: The authors.

[1]Key references include the series of World Health Organization–World Bank *Tracking Universal Health Coverage: Global Monitoring Reports* (2013; 2017; 2021; 2023), together with the companion framework document *Monitoring Progress Towards Universal Health Coverage: Framework, Measures and Targets* (World Health Organization–World Bank, 2014), which set out the formal structure for global UHC monitoring and Boerma et al. 2014.

Annex 4. Illustrative guiding questions for selecting HBPM indicators across the updating cycle

A. Key Questions related to HBP goals

Access and coverage
• ***Are prioritized services in the HBP reaching the intended populations, especially underserved or disadvantaged groups?***
• ***What share of the target population is receiving these services?***
• ***What is the current effective coverage of essential services? (What is the size of the population in need, and how many are currently receiving the service?) Are there coverage gaps?***
Quality of care
• ***Are services being delivered in accordance with clinical practice guidelines?***
• ***Are there measurable improvements in quality-related outcomes?***
Financial protection
• ***To what extent is the HBP reducing out-of-pocket spending for covered services?***
• ***Are financial barriers to accessing services declining?***
Equity
• ***Are there disparities in access, quality, or financial protection across different population groups?***
• ***What are the utilization trends of services included in the HBP (by clinical specialty, region, facility type, patient demographics etc.)***
Cross-cutting
• ***What complaints have been raised regarding access, quality, out of pocket expenditure or denial of HBP services?***

Source: The authors.

B. Key Questions related to direct enablers

1. Assess Whether the HBP is on Track (Situation Analysis and Scoping Phase)
• ***Do service delivery actors (providers, facilities, staff) and citizens understand what services are covered and how to access them?***
• ***Are payment rates and purchasing arrangements functioning effectively from the perspective of frontline providers?***
• ***Where are the key implementation gaps located (by region, facility type, or population group), and what are their likely causes?***
2. Prioritize Topics for Inclusion or Exclusion
• ***Which currently non-covered services are generating frequent complaints or legal claims?***
• ***Are users facing high out-of-pocket payments for services not included in the HBP?***
• ***Which services are prioritized in local stakeholder consultations, and why?***
• ***Are facilities using their own-source revenues to finance excluded services, suggesting a mismatch between population needs and HBP scope?***
• ***Are excluded services part of peer countries' benefit packages?***
• ***Which excluded conditions are contributing to avoidable hospitalizations?***

(Continued)

3. Evaluate and Appraise Proposed Services (HTA Phase)

For interventions evaluated through Health Technology Assessment:

- ***What is the current effective coverage of essential services in same clinical care pathway?***
- ***What is the estimated opportunity cost of improving coverage of existing essential interventions versus introducing new one being evaluated?***
- ***What is the size of the population in need, and how many are currently receiving the service?***
- ***What would be the budget impact of scaling up this intervention?***

4. Review Reimbursement Rates, Payment Structures, and Methods

- ***What are unit costs of services/interventions in HBP?***
- ***What are the per-case costs?***
- ***How do delivery costs vary across regions?***
- ***Are reimbursement rates aligned with actual unit costs?***
- ***What is market process for services/interventions in HBP?***
- ***What is the Healthcare price index?***
- ***Have service costs or volumes changed since the last rate adjustment?***
- ***Are payment methods (e.g., output-based) incentivizing service delivery?***
- ***What is the delay between service delivery and reimbursement?***
- ***Are administrative costs for managing the HBP proportionate?***

5. Assess Fiscal Impact and Budget Envelope

- ***What share of the national health budget is allocated to the HBP?***
- ***What is the per capita spending on HBP services?***
- ***What proportion of HBP funding is domestic vs. donor-funded?***
- ***Is the HBP budget sufficient to meet the cost of delivering the promised services?***
- ***What is the HBP budget execution rate?***
- ***Are cost estimates up to date?***
- ***How is the budget distributed across preventive, outpatient and inpatient services and as per different clinical specialties?***

6. Conduct deliberations and Stakeholder Consultations

- ***How frequently are stakeholder consultations conducted?***
- ***Are stakeholders diverse and representative (providers, civil society, local governments)?***
- ***How is stakeholder feedback reflected in HBP decisions?***
- ***Is the consultation process documented and transparent?***

7. Develop the Implementation Plan

- ***Are enrolment and beneficiary identification systems functioning?***
- ***Are all eligible facilities participating?***
- ***Has staff been trained on the HBP?***
- ***Are there access barriers related to geography or facility characteristics?***
- ***Are supportive supervision visits being conducted?***
- ***Are preventive services delivered as expected?***
- ***Are users satisfied with the services provided?***

(Continued)

8. Establish the Monitoring System
• ***Is there a monitoring system in place to track all critical data required to support steps 1–7 of the HBP updating cycle? More specifically:***
• ***Are provider and patient surveys being conducted to capture feedback on service quality and access barriers?***
• ***Is there evidence that HTA results, cost data, and stakeholder inputs are informing policy decisions?***
• ***Are facilities reporting HBP service data in a timely and complete manner? Do they have the infrastructure and staff to do so?***
• ***Are supervisory visits validating reported data and providing feedback for improvement?***
• ***Is monitoring data being used to inform the next iteration of the HBP?***
• ***Is there documentation of how HTA findings, cost assessments, and stakeholder consultations influenced HBP decisions?***
• ***Are facilities reporting HBP service data in a timely and complete manner?***

Source: The authors.

Annex 5. Additional examples of HBPM indicators by HBP updating cycle step

HBP Policy Step	Domain	Indicator Examples
1. Assess whether the HBP is on track (Situation Analysis)	**HBP Goals**[1]	– % of eligible population enrolled in the HBP – % of eligible population receiving at least one HBP-covered service in past 12 months – % of referred cases receiving required HBP-covered service within expected timeframe – % of completed HBP-covered interventions with documented treatment resolution – % of inpatient discharges with complete documentation and follow-up instructions – % of patients incurring no out-of-pocket payment for HBP-covered services – Difference in HBP coverage rate between rural and urban populations – % of users reporting satisfaction with HBP services
	Direct Enablers	– % of population aware of their HBP entitlements – % of facilities formally participating in the HBP – % of staff trained on HBP service scope – Number of HBP-related complaints submitted
2. Conduct Topic Prioritization	**HBP Goals**	– % of population reporting unmet need for services that are not covered by the HBP – % of users satisfied with availability and responsiveness of currently covered services
	Direct Enablers	– % of local consultations identifying services excluded from HBP as priority gaps – Number of non-covered services generating legal claims or repeated complaints – % of facilities using own-source revenues to fund non-covered services.
3. Evaluate and Appraise (HTA)	**HBP Goals**	– Effective coverage rate of essential HBP-covered services in same clinical pathway as evaluated service
	Direct Enablers	– Estimated cost per case for proposed interventions – Budget impact estimate for scaling proposed service to full coverage – % of evaluated interventions with available budget impact analysis.

(Continued)

1 Countries are encouraged to adapt the indicators to reflect national priorities and implementation realities. For global reference, the following key sources are recommended: **Sustainable Development Goal (SDG) Indicator Metadata Repository**—Goal 3: Good Health and Well-being.

https://unstats.un.org/sdgs/metadata/?Goal=3 This site includes definitions, data sources, and methodological notes for each SDG 3 indicator, including 3.8.1 (service coverage) and 3.8.2 (financial protection). **WHO UHC Service Coverage Index (SCI)**.

https://www.who.int/data/gho/data/indicators/indicator-details/GHO/uhc-index-of-service-coverage This composite index covers 14 tracer indicators for essential health services and is updated regularly in collaboration with the World Bank. **WHO UHC Compendium of Health Interventions**. This resource provides a list of essential interventions to support the design and monitoring of HBPs, organized by disease area and health system function. https://www.who.int/publications/i/item/uhc-compendium.

HBP Policy Step	Domain	Indicator Examples
4. Review reimbursement rates and payment mechanisms	**HBP Goals**	– Change in service utilization following reimbursement adjustment
	Direct Enablers	– Average reimbursement as % of actual unit cost
		– % of services with updated cost estimates aligned with payment revisions
		– % of services with cost and volume data updated after latest payment revision
		– % of provider payments made prospectively vs. retrospectively
		– % of HBP spending using output-based payment methods (e.g., case-based, capitation)
		– Average time between service provision and reimbursement
		– % of providers reporting delayed payments beyond contractual terms
		– % of providers reporting improved service readiness following payment updates
5. Assess fiscal impact and budget envelope	**HBP Goals**	– Per capita expenditure on HBP-covered services
		– % of population receiving full course of HBP-covered care without interruption
	Direct Enablers	– % of total health budget allocated to the HBP
		– % of HBP budget executed compared to plan
		– % of HBP interventions with standardized cost estimates
		– Estimated gap between projected HBP cost and approved budget
		– Budget distribution across care levels (preventive, outpatient, inpatient)
		– % of HBP financing from domestic vs. external sources
6. Deliberate and hold stakeholder consultations	**HBP Goals**	– % of proposed HBP changes derived from user and provider feedback
	Direct Enablers	– Existence of feedback mechanisms for different stakeholder groups
		– Number of formal consultation events during HBP updating cycle
		– Frequency of consultations per HBP updating cycle
7. Develop Implementation Plan	**HBP Goals**	– % coverage of essential HBP services
		– % of essential HBP services operational in all geographic areas
	Direct Enablers	– % of population enrolled and identified as HBP beneficiary
		– % of facilities formally empaneled and operational for HBP delivery
		– % of geographic areas with access to essential HBP services
		– % of staff trained and equipped to deliver revised HBP
		– % of preventive services implemented as per guidelines
		– Frequency of supervision visits focused on HBP adherence
8. Establish Monitoring System	**HBP Goals**	– % of HBP policy decisions in last 12 months supported by data from the monitoring system
	Direct Enablers	– Existence of an integrated monitoring framework covering all steps of the HBP cycle
		– % of facilities submitting timely and complete HBP service reports
		– % of facilities with validated data through supervision or audit
		– % of health facilities with functional IT infrastructure for HBP monitoring
		– % of facilities receiving regular supervision for monitoring-related tasks
		– % of indicators tracked with nationally available data sources
		– Existence of mechanisms to collect user and provider feedback on data quality and service delivery
		– % of steps in the HBP cycle with defined indicators and reporting frequency
		– Frequency of HBP performance review based on indicator data

Annex 6. Structured approaches to evaluate HIS components and identify priority areas for strengthening

World Health Organization Implementation Guide to the Routine Health Information System (RHIS) Toolkit (2021). Provides a step-by-step methodology to strengthen RHIS as part of the national HIS, from system assessment to implementation of improvements. https://www.who.int/publications/i/item/9789240017832.

Information Systems for Health (IS4H) Toolkit & Maturity Assessment Tool—WHO/PAHO (2019). Provides a framework to guide the progressive development of public health information systems, from basic data organization to full implementation of governance, interoperability, and knowledge management. https://www.paho.org/ish/images/docs/about-IS4H-mm.pdf?ua=1.

Digital Health Assessment Toolkit—World Bank Group (2021). Integrates indicators from multiple frameworks to measure a country's readiness for digital health transformation, with qualitative and quantitative analysis across four key areas. Includes guide, scoring matrix, and interview templates. https://openknowledge.worldbank.org/handle/10986/36547.

HIS Interoperability Maturity Toolkit—MEASURE Evaluation & Health Data Collaborative (2019). Assesses and strengthens HIS interoperability through structured workshops and action plans, covering governance, human resources and IT infrastructure. https://www.measureevaluation.org/resources/tools/health-information-systems-interoperability-toolkit.

DHIS2 Tracker Analytics. Enables completeness, timeliness, and consistency checks of routine health data, supporting both program monitoring and national HIS integration. https://dhis2.org/tracker/.

PRISM Framework. Performance of Routine Information System Management (most recent update 2020). Evaluates technical, behavioral, and organizational determinants of HIS performance, supporting targeted interventions to strengthen routine data systems. https://www.measureevaluation.org/resources/publications/tr-20-367.

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