Implementing the primary health care approach

A synthesis of the primer

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Implementing the primary health care approach: a Primer

Policy-makers, practitioners and communities agree that primary health care (PHC) is uniquely placed to offer people care close to their home and the chance to be treated by professionals who understand their needs and preferences, as well as the context in which they live. They also agree that PHC is intrinsically linked to public health and an integral part of strengthening health systems to advance towards universal health coverage (UHC) – giving it a key role in efforts to secure access to high-quality, people-centred health services without financial hardship.

The values of primary health care – and the value of the continuity, comprehensiveness and coordination which PHC provides – were formally recognized by the global community in the Alma-Ata Declaration of 1978 and have been reaffirmed since by the Sustainable Development Goals and the Astana Declaration. More than that, countries acknowledge that PHC is crucial to shaping and reshaping health systems to make them sustainable.

PHC stands as the principal interface between the health system and communities – the locus where the formalized system meshes with people's lives. It is locally embedded and responsive, which makes it a bedrock of resilience. There is powerful evidence that a PHC orientation can prevent disease and promote public health, reducing pressures on the care system, and that it encourages integrated, more holistic care. It delivers better access and more equity, responding to and engaging communities, including the most marginalized, and empowering people to take charge of their own health. It is also clear that it promotes greater efficiency, moving care into lower cost settings and serving as a natural partner for multisectoral action on the broader determinants of health. However, and despite the weight of evidence of PHC's added value, it has been neglected.

The current "permacrisis" with its rising disease burden, the impacts of climate change and conflict may, perversely, represent an opportunity for PHC. As policy-makers' fears on how to finance and staff health and care services grow, they may act at last on the imperative for reform and invest substantially and decisively in PHC. Fulfilling the promise of PHC would drive countries towards UHC and improved health system performance. It would also enhance health security and resilience, and underpin a cost-effective approach to meeting people's needs – all of which are paramount concerns for countries which face mounting challenges and constrained resources.

This Primer or PHC Global Report understands PHC as a central policy priority and consolidates the global evidence that is needed to address practical implementation issues. It brings together the best practices and tacit knowledge that countries have generated through "natural experiments" in strengthening PHC with the more formal research and analysis.

As practitioners and policy-makers consider, plan and implement the transformation of their health systems this evidence review will help them to:

- make the case for investing in primary care and public health
- assess how to reorient models of care
- understand the strategic and operational PHC levers that can shift health systems towards PHC
- use governance, workforce and financing to incentivize change
- explore what works in different contexts
- identify enablers and barriers to change
- improve health system performance
- translate commitments to PHC into action.

The Primer and PHC Global Report conclude by highlighting the political will needed to achieve a real reorientation of health systems towards PHC. This publication can inform country reforms as its health system stewards seek to make the difference in quality, access, equity and financial protection; to foster the resilience to withstand shocks and adapt to environmental needs; and as they pave the way for the realization of UHC.

The Primer is organized in three parts:

- **Part I** explains the PHC approach, its history, core concepts and rationale, and draws out lessons for transformation.
- **Part II** addresses the 'operational levers of PHC' or dimensions that need to be addressed to make PHC work. It covers the operational and strategic levers of governance, financing and human resources for health, medicines, health technology, infrastructure and digital health, and their role in implementing change.
- **Part III** concludes by taking a cross-cutting view of the impacts of PHC on the health system and wider goals of efficiency, quality of care, equity, access, financial protection and health systems resilience, including in the face of climate change.

Part I

The PHC approach: foundations, history and concepts

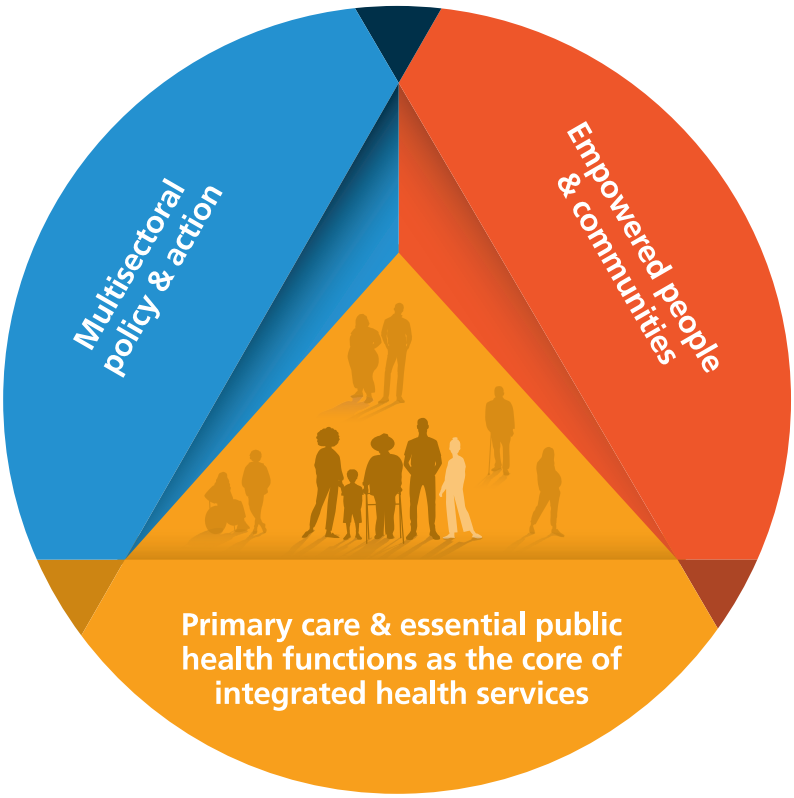
Chapter 1.
The PHC approach: an introduction

Katherine Rouleau, Dheepa Rajan, Juliane Winkelmann, Dionne Kringos,
Melitta Jakab, Faraz Khalid, Suszy Lessof, Denis Porignon and Gerard Schmets

PHC is the cornerstone of strong and resilient health systems. It shapes them so that they respond to people; offer quality, affordable care close to communities; and engage people in their own health and well-being (Fig. 1). Key messages include:

- PHC is fundamentally about delivering holistic, integrated health services.
- Person-centred primary care services and the population focus of public health are linked by PHC, which makes PHC a tool for stronger UHC, health security, health and well-being.
- PHC acts as a bridge between health care and community engagement and so supports access, participation and quality.
- Different sectors are brought together by PHC on policy and for action, fostering whole-system, whole-society thinking.
- PHC typically suffers in terms of resources in comparison with hospitals, but a PHC approach is not simply about shifting funds. Specialist settings can play a crucial role in a PHC-oriented system if they use their expertise, innovation and technology to support PHC and provided that they engage and communicate with primary care providers, referring patients back when the time is right.

Fig. 1 The PHC approach as a triangular pyramid



Source: Authors' compilation

Chapter 2.
Historical overview and unrealized potential of PHC

Erica Di Ruggiero, Thiago Trindade and Nyawira Gitahi

The history of PHC is one of consensus about its importance, debate about its feasibility and the failure to fully implement it. The reasons the PHC approach has not been rolled out despite the United Nations (UN) Sustainable Development Goals (2015), Alma-Ata (1978) and Astana (2018) offer important lessons for policy-makers today and for the future. Key messages include:

- Comprehensive implementation of PHC is an inherently political process that requires more than technical solutions.
- A clear long-term vision and consistent health system goals pursued throughout the political cycle mark out those countries that have implemented the PHC approach successfully.
- A combination of top-level leadership, political will and long-term vision is critical in bringing together the elements needed to develop and implement effective PHC, not least governance, human and financial resources, different sectors and civil society.
- Policy-makers can avoid some of the failings of the past by being aware of misconceptions and addressing the tensions that exist, such as:
  - the (widespread) perception of generalist, 'low tech' and community-led care as being less modern and of less value than specialist hospital care, which has tended to undermine PHC
  - the preference in some settings for 'selective' PHC approaches and vertical programming – as a response to donors' priorities – which has worked against a comprehensive, PHC orientation
  - the misguided sense of PHC as exclusively 'pro-poor' rather than for everyone (universalist) and the linked notion of PHC services being second-rate.
- Rising health care costs and concerns about sustainability have created a window of opportunity for PHC but it will inevitably be time-limited, which makes action particularly urgent.

Brazil: a horizontal approach to PHC and UHC

In the 1970s and 1980s, Brazil initiated a transformative journey towards **comprehensive PHC**. The "Health Reform Movement," consisting of public health researchers, democracy advocates, and healthcare professionals, led this charge. Recognizing health inequalities and the inefficiencies of the existing system, they seized the opportunity of Brazil's return to democracy and the 1988 constitution to champion the **Unified Health System** (Sistema Único de Saúde or SUS). The SUS was established in 1990 and **prioritized primary care and community engagement** to ensure equitable access.

1994 saw the birth of the Family Health Strategy, decentralizing primary health care through **multidisciplinary team**s and **community health agents**. This combined effort has been a resounding success, achieving nearly universal health coverage, enhancing health outcomes, and extending primary care to two-thirds of the population. Brazil's trajectory demonstrates the need for a long-term commitment and vision, with progress happening incrementally over time, yet kick-started by a window of opportunity seized by a wide range of stakeholders.

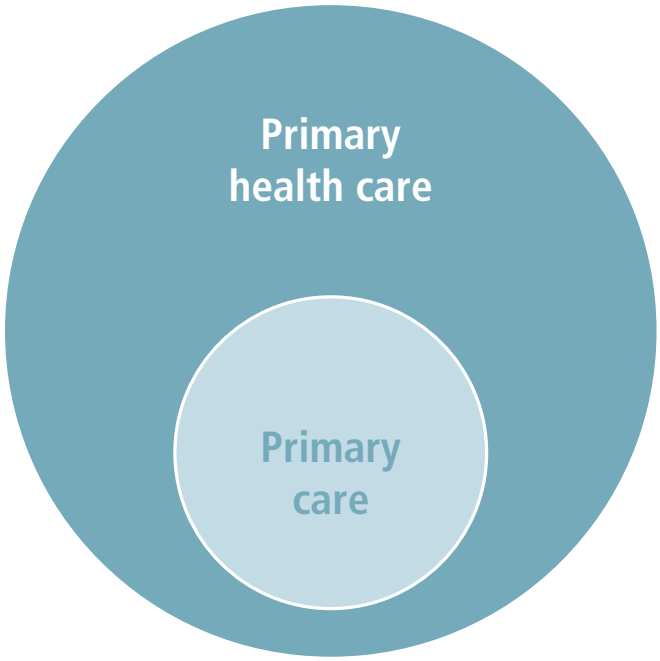
Chapter 3.
PHC: definitions, terminology and frameworks

Erica Barbazza, Luke Allen, Seye Abimbola and Dionne Kringos

"Primary health care" and "primary care" are related but distinct concepts (Fig. 2). Although they are often used interchangeably, they reflect different priorities and approaches. Clear definitions and consistent use of terms can help communication, allow actors to share lessons more effectively and make more explicit the complex actions and considerations required to strengthen PHC. Key messages include:

- PHC is a whole-of-society approach that strengthens health systems and maximizes the level and distribution of health and well-being. As in the Declarations of Alma-Ata and Astana, it shapes the whole health system by:
  - putting primary care and the essential public health functions together at the core of integrated health services
  - leveraging multisectoral policy and action
  - empowering people and communities as co-creators of their health.
- Primary care is at the heart of the services component of PHC but does not have the same whole-of-society breadth. Its four core characteristics are:
  - first contact access
  - continuity
  - comprehensiveness
  - coordination.
- The frameworks developed in light of the Astana Declaration tally with the definitions of PHC and give policy-makers and other system stakeholders tools to operationalize policy commitments and measure PHC performance.

Fig. 2 Primary care as a subset of PHC



Source: London School of Hygiene and Tropical Medicine, 2022

Chapter 4.
The PHC approach: rationale for orienting health systems

David Peiris, Tracey Naledi and Adelson Guaraci Jantsch

PHC is a worthwhile investment because it makes care more efficient and more equitable. More than that, PHC has a positive impact on overall health system performance, improving access, quality and patient satisfaction. Securing the political will to invest in PHC is complex, but the evidence shows that the long-term benefits of reorienting the system outweigh the costs. Key messages include:

- PHC improves services because it uses a full range of levers for better quality and access, as well as to ensure continuity, comprehensiveness and coordination.
- Efficiency is enhanced by PHC, which reduces unnecessary use of (costly) specialists and hospitals.
- Population health improves with long-term investment in PHC, which is linked to better health outcomes including for mental and child health and noncommunicable diseases (NCDs).
- PHC is provided in a trusted setting where the patient, family and community context are understood, which leads to higher user satisfaction and better self-reported health.
- PHC reduces financial hardship, narrows outcome gaps and improves equity, particularly when adequate funding, staffing and training allow it to reach underserved populations.
- Long-term commitment to PHC has a wider return on investment, keeping people well enough to work and stimulating economic productivity.
- Gender equity is promoted where PHC offers valued roles to women – provided they are given the right training and employment terms and if gender imbalances in seniority and pay are addressed.
- Emergency preparedness and resilience are reinforced by PHC's prevention function, the way it bridges individual and population-level approaches and its multidisciplinary approach, but also through the ties it creates with and within communities.

Ethiopia: improved health outcomes through sustained efforts and health sector investments

Over the past two decades, Ethiopia has undertaken significant PHC reforms, prominently featuring the **Health Extension Programme**. This initiative deployed community health workers into communities, offering 16 essential services encompassing **promotion, prevention, and curative care**, while also bolstering the construction of health facilities in communities. The transformative impact of this approach is evident in the **enhanced access to primary care and public health**, particularly benefiting marginalized rural populations. Between 2005 and 2010, primary care service coverage surged from 76.9% to 90%.

Additionally, antenatal care coverage rose from 27% in 2000 to 62% in 2016, and basic vaccination coverage increased from 14% to 36% during the same period. Life expectancy increased from 50.6 to 68.7 years between 2000 and 2019, surpassing regional averages Furthermore, under-5 mortality rates decreased from 123 per 1000 live births in 2005 to 59 in 2019.

Ethiopia's journey stands as a remarkable testament to the transformative potential of sustained political prioritization of primary health care as a means to achieve health system goals such as **access, quality, equity, people-centredness**, and overall **population health improvement**.

Chapter 5.
Integrating public health and primary care at the core of the PHC approach

Andrew D Pinto, Arnoldas Jurgutis, Q Jane Zhao, Vesna Petrič and Martin McKee

Public health and primary care add value to each other. Separating them because public health has a population perspective, while primary care typically focuses on the individual, is artificial and creates unnecessary barriers. PHC integrates both perspectives, encouraging greater efficiency and effectiveness, and creating the conditions for more community engagement and multisectoral action, so strengthening health systems and fostering resilience. Key messages include:

- Primary care and public health services have natural synergies (Fig. 3), particularly in the five key areas of:
  - health protection
  - health promotion
  - disease prevention
  - surveillance, monitoring and population health analysis
  - public health emergency preparedness and response.
- A PHC-oriented system can integrate primary care and public health in a range of ways from maintaining two distinct services but ensuring mutual awareness, through cooperation and collaboration, to full integration in a single, merged organization.
- Enabling the integration of two strands of health care delivery with different paradigms is not straightforward in practice. Country experiences highlight the importance of:
  - creating a clear shared vision, goals and mandates that public health and primary care co-own
  - acknowledging the distinct training, culture and ways of working in public health and primary care, and ensuring that change management and leadership styles acknowledge these differences
  - revisiting education and training to combine primary care and public health perspectives, and to make collaboration the norm
  - establishing shared data systems and shared protocols that bridge individual patient and community-level data and facilitate integration.
- Joint funding that minimizes or rules out any perception of competition for resources.

Fig. 3 Areas and degree of integration of primary care and public health

Source: Authors' compilation

Slovenia: integrating public health and primary care in practice

Slovenia's primary care and public health services primarily operate through a **network of public community-based primary health care centres**, where prevention and care coordination for people with chronic diseases are provided through multidisciplinary teams.

Recognizing the need to strengthen health promotion and disease prevention to address the growing burden of NCDs, Health Promotion Centres were introduced within the primary health care centres in 2002. They offer lifestyle interventions which **blend population and individual health approaches**, providing individual counselling to support people at risk or living with chronic conditions but with an eye on vulnerable groups and their specific needs. NCD screening programmes for adults over 30 years combine a population-based approach with tailored referral of at-risk individuals.

The Health Promotion Centres' comprehensive **preventive and health promotion services** delivered through a multidisciplinary team of family physicians, assistant nurses, community nurses, dieticians, kinesiologists, and psychologists, form the basis for a localized, community-based approach which addresses the **social determinants of health** and other needs of vulnerable individuals.

Chapter 6.
PHC-oriented models of care

Luke N Allen, Mary L Plummer, Archna Gupta, Marcel Venema, Faraz Khalid, Nuria Toro Polanco and Teri Reynolds

A model of care outlines where and how a set of services is delivered. Such models often develop ad hoc over time and health systems typically have multiple, interlinked models operating simultaneously across levels. This can cause fragmentation and inefficiency. A PHC-oriented model of care facilitates the delivery of comprehensive, integrated people-centred care, prevention and health promotion over the life course. Key messages include:

- Reorienting models of care towards PHC is a complex, long-term, iterative process but supports high-quality, responsive and more efficient care.
- There is no single "correct" model – national and local context are crucial, but country experience suggests effective processes include at least four domains:
  - selection and planning of services defines the package of care and identifies delivery channels; it allows planners to tackle integration across platforms, settings and levels, and to consider how to engage the public and/or private sectors
  - service design is a way of ensuring individuals are assigned to a primary care provider, building in desired practices, clinical guidelines and care pathways that promote primary care and encourage timely patient referral to acute services and effective counter-referral
  - getting organization and management right means strengthening professional management, leadership and supervision; building multidisciplinary teams; and encouraging community-based case management and coordination
  - community linkages and collaboration between facility and community-based providers are an asset as is involving communities in planning and organizing services and offering care and education in homes.

Islamic Republic of Iran: a strong network of CHWs and multidisciplinary teams allows a multi-tiered referral system

Over the last four decades, the **Islamic Republic of Iran** has progressively moved towards a PHC-oriented model of care through the creation of health networks and stronger integration of services.

Health reforms led to a **multi-tiered referral system**. "Health-houses" in villages offer first-contact care, staffed with a **community health worker** who refer people either for primary care services at rural health centres or for more specialized care at secondary level facilities. **Rural health centres** can refer patients to secondary care services, which are delivered through a **network of district health clinics**. Urban areas have a similar referral network involving health posts, health centres and district hospitals.

Multidisciplinary teams work within and across service delivery platforms. For example, community health workers collaborate with rural health centre staff to facilitate community engagement in planning and management of health services. Strong linkages between medical science universities and district hospitals ensure clinical practice guidelines which are both evidence-informed and responsive to community needs.

Part II

The PHC approach: implementation

Chapter 7.
Health governance

Sowmya Kadandale, Prateek Gupta, Sameen Siddiqi, Katja Rohrer-Herold, Dheepa Rajan, Anna Cocozza and David Clarke

Health governance is about how societies and actors develop and implement collective decisions, set priorities and determine policies in health systems, and addresses oversight, incentives and accountability. The governance of PHC has three critical aspects: decision-making autonomy at the local level, which facilitates responsiveness; policy frameworks and joint planning arrangements, which support service integration; and leadership, which fosters a culture of equity and quality assurance. Key messages include:

- Decentralizing decision-making autonomy matters for PHC because local units are best placed to improve access, equity and efficiency, and make services more people-centred and responsive. It works when local units have sufficient capacity and resources, and if there is clarity on authority, roles and accountability, including to local communities.
- Central coordination remains important as a way of reducing fragmentation and adjusting for the differences in capacities and resources between subnational units.
- Governance has an important, often critical, role in service integration because without policy frameworks and some clarification of roles and policy, joint planning and relationships between stakeholders and communities may not succeed.
- Quality assurance, regular monitoring and feedback loops are central to effective leadership and good governance because they prompt data-driven decision-making and action.
- Effective leadership supports quality for PHC.
- Including stakeholders and communities in identifying the root causes of performance issues and the possible solutions is key to coproducing quality improvement.
- Government engagement with the private sector can help ensure that private sector actions support the implementation of a PHC approach and public health goals.

Costa Rica: decentralized decision-making with a strong national steer

Costa Rica's highly effective PHC model excels in improving population health and ensuring widespread access. Its success hinges on a **decentralized, community-driven approach** that empowers **local decision-makers to tailor** health services to community needs.

Local hospitals and clinics maintain significant autonomy while aligning with national targets, creating a strong framework. National structures facilitate regional collaboration, sharing data, knowledge, and population responsibility among multidisciplinary teams.

Key to this approach are **community health boards** of locally-elected service users, civil society representatives and labour organizations. They serve as primary decision-makers in hospitals and larger clinics, accountable to their communities. They oversee service delivery, identify local health care needs, influence procurement, enhance service responsiveness, ensure financial performance, and foster community participation.

With autonomy, these boards independently manage budgets, performance contracts and clinic director selection in line with their accountability objective.

Chapter 8.
Health and care workforce

Juliane Winkelmann, Ana Paula Cavalcante de Oliveira, Claudia B Maier, Sunanda Ray and Gilles Dussault

The PHC workforce is expected to provide health promotion, prevention and public health services; deliver acute and chronic care; ensure continuity of care; and respond to patients' needs and expectations. Educating, attracting and retaining sufficient adequately-trained, motivated professionals is absolutely critical. Strategic planning, education, life-long training, recruitment, retention and distribution are essential. Key messages include:

- A strategic vision for a fit-for-purpose workforce ensures the acquisition of the right competencies and skills to achieve PHC. The vision needs to account for patient needs, context, service delivery and labour market trends, and build in flexibility for the future.
- Strategic planning of the PHC workforce must address:
  - workforce composition, deployment, distribution and management
  - the definition of scope of practice and roles, the division and transfer of tasks, and the development of multiprofessional teams
  - the adjustments in education, financing, employment practices and regulation to enable task-shifting.
- High-quality pre-service education and life-long training will have to evolve to enable the workforce to deliver effective PHC-oriented care and to (continue to) adapt to changing needs.
- Attractive working conditions and safe and supportive environments are crucial to recruiting and retaining the PHC workforce. Consideration must be given to the personal and professional implications of working in remote, rural settings, and gender inequities must be addressed as well.
- Developing an effective workforce for PHC-oriented systems requires a whole-of-government commitment, involvement of professional organizations, stakeholder support and community engagement.

The Netherlands: improving recruitment and retention, as well as patient care, with a nurse-led model

The Netherlands introduced an innovative nurse-led model, known as *Buurtzorg*, which was crafted by experienced district nurses to provide integrated, person-centered home-based care. Since its inception in 2006, this model has successfully linked social services, general practitioners, and various community providers to ensure seamless care, fostering trust and networking within neighborhoods.

The central element of Buurtzorg is nurse autonomy in clinical decision-making and **teamwork**. This working model allows nurses to concentrate on core care tasks, develop a holistic view of the patient and their families, and devise solutions that prioritize well-being. At the same time, it **fosters supportive work environments** resulting in both high patient and professional satisfaction as well as reduced overall costs of care.

Buurtzorg boasts low staff turnover and sick leave; it was awarded the best employer in the Netherlands for three consecutive years. Evaluations have consistently showed that Buurtzorg improved the support of patients with multimorbidity with proactive care. The productivity of nurses compared to other home care services is also higher. The Buurtzorg model underscores how autonomous nurse-led care embedded in multi-professional teams not only attracts health professionals but also improves recruitment and retention.

Chapter 9.
Health financing

Kara Hanson, Marcel Venema, Triin Habicht, Ewout van Ginneken, Xu Jin, Grace Achungura, Faraz Khalid, Beibei Yuan and Melitta Jakab

It is the role of health financing to mobilize sufficient resources to make PHC effective and, given the shortfall in public funding in so many settings, to seek to preserve access and equity, and protect patients from the (sometimes catastrophic) impacts of out-of-pocket payments. It is also a crucial tool in reorienting health systems towards a PHC approach giving policy-makers the levers to achieve change. Key messages include:

- Political will is the primary factor in securing financing for health and for PHC. It determines what share of public funds goes to primary rather than specialist care and the extent of out-of-pocket payments.
- Health financing arrangements can be designed to support (or drive) change to a PHC orientation. Policy levers include:
  - changing how revenue is collected, pooled and – most particularly – allocated
  - adjusting the population coverage and the services included in, or excluded from, benefit packages
  - aligning purchasing practice with health system goals
  - using a tailored blend of provider payment methods and targeted funding to incentivize PHC.
- PHC often relies on funding from multiple sources (government, insurance, donors), which undermines integration, and on out-of-pocket payments which are inequitable. Using pooled funds to pay for PHC reduces the financial burden on patients and the fragmentation of service delivery.
- Clearly defining and aligning comprehensive packages with public funding and incentives reduces the inappropriate use of expensive emergency and secondary care, and is cost-effective and equitable.
- Investing in good public financial management allows a timely flow of resources that facilitates continuity in service provision, provision of medicines and supplies, and the retention of staff.
- Provider autonomy – coupled with responsibility and accountability – encourages responsiveness to local needs.

Afghanistan: securing stable and predictable funding for health through the Afghanistan Reconstruction Trust Fund

As a fragile state, Afghanistan heavily relies on **external resources** to finance its health system. In 2013, the country established the Afghanistan Reconstruction Trust Fund (ARTF) to effectively pool and manage resources from various funding sources. The ARTF has proven to be a dependable and **consistent source of financing** for the Basic Package of Health Services and the Essential Package of Hospital Services, significantly reducing fragmentation within the health sector.

The stability and predictability of funding through the ARTF have enabled the Ministry of Public Health to establish a Contract and Grant Management Unit. This unit plays a pivotal role in leadership, governance, and oversight functions while facilitating coordination among health development partners and fostering health policy dialogues.

The ARTF is, however, heavily reliant on donor funding, with external sources contributing 20% of health spending, and domestic funds accounting for just 3%. The remainder came from out-of-pocket payments. The suspension of donor support following the Taliban takeover in 2021 created challenges, particularly in ensuring the payment of contracted NGOs. Nevertheless, many service delivery partners continued to deliver health services without payment.

Chapter 10.
Medicines and pharmaceutical services

Sabine Vogler, Christine Leopold, Fatima Suleman and Veronika J Wirtz

Equitable access to safe, effective and affordable medicines and vaccines is key to PHC. Yet the cost of medicines prescribed in primary care is a main driver of out-of-pocket expenditure in many countries, jeopardizing financial protection. Making appropriate, quality medicines and pharmaceutical services accessible depends on supply-chain management, prescribing and dispensing and, above all, on coverage policies (Fig. 4). Key messages include:

- Ensuring affordable access to medicines in PHC requires the use of public financing (benefit packages) to pay for essential medicines and systematic use of generic and biosimilar medicines to keep costs down.
- Medicines are more easily available if they are dispensed closer to patients and if community pharmacies can be integrated into primary care services.
- Improved stock management and procurement practices support access and efficiency.
- Closer coordination between community pharmacies and prescribers facilitates access to medicines and encourages responsible consumption.
- The appropriateness and acceptability of services can be strengthened by clear treatment guidelines; routine prescribing of generics; and shifting prescribing from specialized settings to primary care, all of which also support effective PHC.
- Training staff and strengthening processes will improve the quality of pharmaceutical services and help them respond better to population need.
- Involving patients, care-givers and communities; education programmes that foster medicine and vaccine literacy; and efforts to encourage responsible self-care and self-management of medication, all increase the effectiveness of PHC and foster community empowerment with all its associated benefits.

Fig. 4. Practical PHC-oriented policies help improve equitable access to medicines and pharmaceutical services for every dimension of access

Access dimensions for medicines and pharmaceutical services		PHC-oriented policies to improve access to medicines and pharmaceutical services
Affordability	Guarantee medicines coverage through public financing	• Guarantee coverage of prioritized medicines for PHC • Promote generic substitution & prescribing by international non-proprietary name
Availability	Ensure close-to-patients medicines and pharmaceutical service availability	• Ensure adequate medicine supplies • Secure geographic accessibility • Provide medicines and pharmaceutical services in primary care • Integrate pharmacy services as part of PHC • Foster collaboration & coordination between health professionals & settings
Acceptability	Engage patients and communities as part of PHC	• Involve patients in prioritizing medicines for PHC • Empower patients to manage their medication • Invest in medicines/vaccine literacy, including fostering trust in generics, biosimilars and vaccines
Appropriateness	Promote responsible prescribing and use	• Implement PHC treatment guidelines • Promote appropriate use of antibiotics through multisectoral collaboration

Colour coding indicating the links between the interventions and the three components of PHC

- Empowered people and communities (also includes defining patients' needs and community linkage and engagement)
- Primary care & essential public health functions at the core of integrated health services
- Multisectoral policies and actions

Source: Authors' compilation based on classification by Levesque, Harris & Russell, 2013

Chapter 11.
Health technologies

S Yunkap Kwankam, Akriti Mehta, Lucinda Cash-Gibson, Juliane Winkelmann and Dheepa Rajan

Misconceptions of PHC as 'naturally' low-tech are unhelpful. Technology has huge potential to address some of PHC's central concerns by enabling diagnosis and treatment in communities rather than secondary care; by improving integration; and by encouraging community engagement. PHC can benefit from everything from simple communication devices to complex imaging systems or decision support tools, robotics and assistive technologies. Key messages include:

- Harnessing the right technology can support both individual and population health.
- Using technology to facilitate early identification of risk factors and early diagnosis allows early intervention in local settings, at lower cost.
- Communication technologies such as email, mobile phone applications, telemedicine and digital health tools can overcome time and distance barriers to foster active involvement of patients and communities, and boost health literacy.
- Health technologies can be a driver of self-care, especially in prevention and disease monitoring. They are efficient, support patients in self-management and can increase their satisfaction.
- Integrated care and multisectoral collaboration are made more effective and efficient by technology-driven clinical support tools and referral systems that allow information-sharing and facilitate care coordination and continuity across primary, secondary, acute and long-term care.
- Technology helps planners to understand population needs, supports people-centred service design, promotes task-shifting and competency-sharing with non-physician cadres or by patients, and so contributes to better health service management.
- Country deployment of health technologies flags the importance of:
  - addressing the acceptability of technologies
  - buy-in (and provision of resources) from different levels of government
  - skills training for the relevant workforce and for patients
  - support services, management and maintenance
  - fostering trust in data privacy.

Mongolia: mobile health clinics bring PHC to vulnerable communities

Mongolia faces significant challenges in delivering health services to its dispersed, underserved rural populations, including nomadic groups, migrants, and unregistered individuals. In 2011, the People in Need project launched **mobile medical units** in six provinces, covering about 30% of Mongolia's population. These units, equipped with **modern diagnostic tools** and trained staff, provided primary care services in **remote areas**, including screenings, diagnostics, basic treatments, and referrals.

In 2016, the Mongolian government, with WHO support, expanded the use of mobile units across 21 provinces and six districts of the capital Ulaanbaatar. Coordination mechanisms were strengthened across service delivery settings, including mobile units, home visits and health facilities. By 2019, preventive health examinations reached 90% coverage of the population.

Crucially, the mobile unit network brought **health technology-driven primary care services** closer to the community, expanding **outreach services** during the COVID-19 pandemic and bolstering the country's pandemic management response.

Chapter 12.
Health infrastructure

Stephen Wright, Sally Hall Dykgraaf, S Yunkap Kwankam and Miranda Deeves

Infrastructure includes buildings and non-medical equipment, utilities and supply systems. Infrastructure needs and maintenance are sometimes neglected in primary care settings but patients care about the quality of PHC facilities. These have a direct impact on patient–provider interactions and patient satisfaction. They also significantly impact staff well-being and effectiveness. Key messages include:

- Basic requirements, including water, sanitation and hygiene (WASH), solid waste management and reliable electricity and internet connections, are a fundamental prerequisite for high-quality, primary care.
- High-quality infrastructure and good (evidence-based) design support the PHC approach, encouraging collaboration, staff and patient mental health and well-being. They facilitate efficiency and teamwork, and contribute to staff satisfaction, recruitment and retention. Infrastructure can also engage communities and build trust – but although this enables high-quality care, it cannot guarantee it.
- Investing in primary care infrastructure is typically less costly than hospital investment but still represents a major cost and has significant long-term implications, shaping provision for decades.
- Infrastructure investment must consider more than initial capital costs if it is to be appropriate and needs-responsive. It should take into account:
  - the medical and non-medical needs of individuals and communities
  - the likely pattern of future demand and of technological innovation
  - the implications of room layout and design
  - possible system shocks and how infrastructure might be adapted in response
  - reliability and maintenance costs over the whole life-cycle, including aspects of environmental impact (a more "value-based" approach).

Ghana: the crucial role of infrastructure design on quality of care

In 2020, **Ghana** launched the National Healthcare Quality Strategy, which established legal and regulatory frameworks for quality of care; **infection prevention and control (IPC); water, sanitation, and hygiene (WASH)**; and health care waste standards. One area embedded into the quality of care approach was **improving the built environment of PHC facilities** with upgrades on IPC and WASH. The country established an IPC/WASH Taskforce and a Ministry of Health Infrastructure Directorate which regulates health facilities on **waste management** standards and access to both primary and backup **water supplies** (reservoirs, boreholes, rainwater harvesting, and piped water).

Ghana has also integrated IPC/WASH training into pre-service and in-service education for the health workforce. These efforts led to notable progress, with the percentage of health facilities offering basic water services increasing from 48% in 2018 to 67% in 2021. Half of the facilities now provide **basic sanitation**, compared to only 38% three years ago, highlighting the crucial role of infrastructure in delivering quality healthcare.

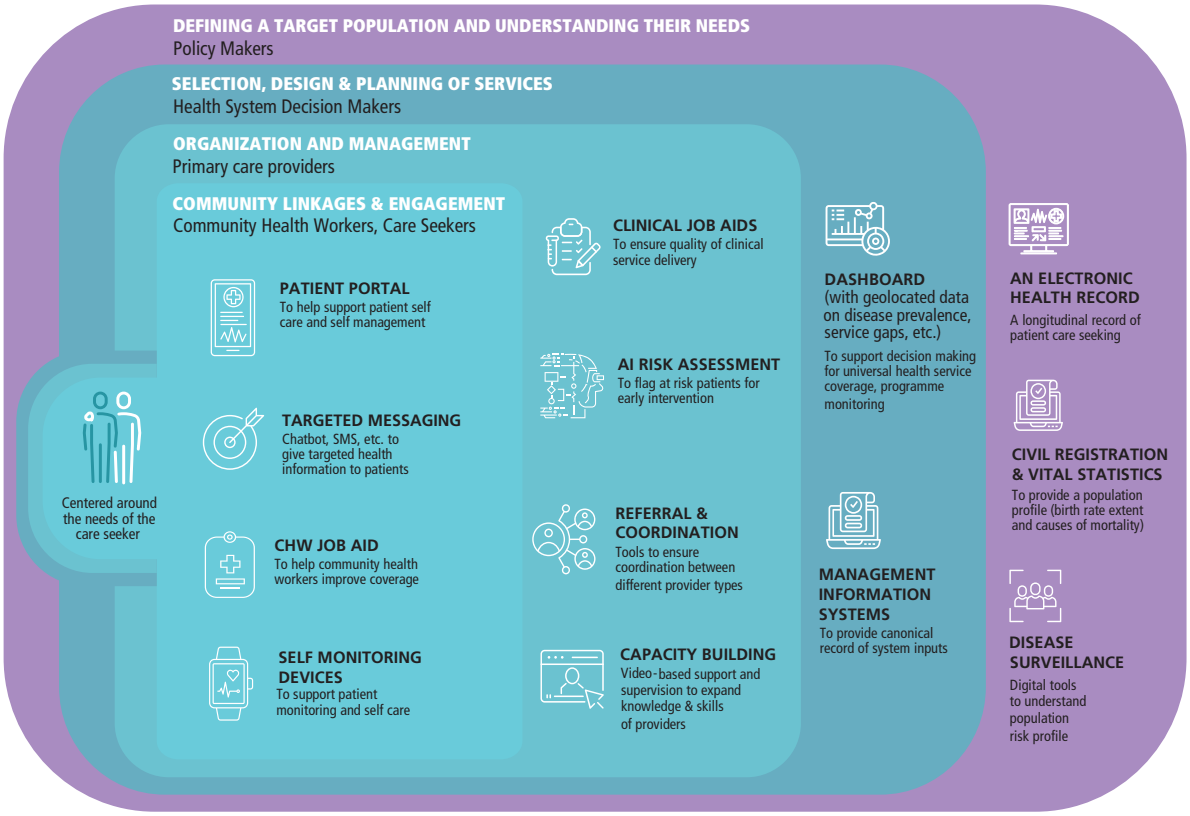
Chapter 13.
Information systems and digital solutions

Anna Schurmann, Ajil Joseph, Toni Dedeu and Girdhari Bora

Health and digital information systems, including eHealth, mHealth and artificial intelligence (AI), collect, store, process and distribute data (Fig. 5). The assessment of digital solutions is ongoing, but it is already clear that they play a critical role in understanding health needs, outcomes and care processes, and inform health planning. They can also help engage individuals and communities across the care continuum. However, their impact is limited unless they are aligned with the broader health system infrastructure and integrated into routine workflows. Key messages include:

- High-quality, reliable and trusted data – that is analysed, shared and interpreted – offers policy-makers necessary insights to implement a PHC approach. Integrated services also depend on efficient flows of high-quality data.
- Ensuring data that is "good enough" to support all stakeholders' decision-making and integration requires:
  - interoperable data systems with standardized data definitions
  - timely availability, which in turn means resourcing effective data entry and data pipelines
  - communicating the data in ways that are tailored to local decision-making processes, and which empower patients to participate in informed health care choices.
- E-registries, a unique identifier and automated quality checks are key tools in meeting system needs and fostering coordination and communication between patients, providers and decision-makers.
- Information and digital systems will best support a PHC approach when:
  - there is a comprehensive and resilient digital ecosystem in place
  - PHC objectives and a commitment to integration underpin the approach
  - this is developed and implemented mindful of inequalities in adoption and use.

Fig. 5. Delivering an integrated ecosystem of information systems and digital health solutions supports the PHC approach



Source: Authors' compilation

Part III

The PHC approach: impact on performance

Chapter 14.
The impact of PHC on efficiency and quality of care

Susanne Carai, Minhye Park, Anna Schurmann, Joao Breda, Natasha Azzopardi-Muscat and Martin Weber

Quality and efficiency are closely linked. Reforms that align health systems to the PHC approach also foster efficiency and quality including its dimensions of effectiveness, safety, satisfaction and trust. Key messages include:

- PHC can enhance quality because its focus on community engagement ideally helps identify health problems early, address them equitably and ensure continuity of care, improving outcomes and user satisfaction.
- The PHC approach encourages generalist-led, multidisciplinary teams, which helps to coordinate health and care workers and specialists, strengthening patient safety and encouraging a rationalized use of complex tests and treatments.
- Efficiency is boosted by a PHC orientation because PHC fosters public health, prevention and health promotion, all of which reduce the call for unnecessary, costly and potentially harmful specialist care and hospitalization.
- The PHC approach promotes more efficient resource allocation and utilization, while the impact on health outcomes and patient safety also contains costs.
- By improving relationships between facilities and communities, the PHC approach can enhance perceptions of quality and boost user satisfaction, increasing population trust in the health system and helping investments to translate into better population health.
- Country experiences highlight tools for quality and efficiency with PHC such as:
  - ensuring a combination of well-remunerated and trained health and care workers and allied health professionals
  - using PHC as a platform for priority areas such as mental health or nutrition
  - establishing effective communication between primary care teams and specialists, clear division of tasks and referral pathways
  - applying clinical decision support and electronic health records for PHC.

China: primary health care reform to improve efficiency and quality

In the 2000s, **China** embarked on a significant journey of primary healthcare reform, with a focused mission to enhance population health. This reform prioritized health promotion and the management of chronic diseases, implementing targeted measures to elevate the **quality of primary care**.

Key components of this effort included expanding primary care facilities, extending public coverage of primary care services, forging stronger connections between primary and secondary care facilities, and increasing government subsidies for public health services. These concerted actions resulted in notable improvements in access to and equity in primary care, ultimately translating into **better health outcomes** for the population.

As a result of these advancements, patients increasingly favored primary care, leading to higher utilization rates and elevated **user satisfaction**. Ongoing quality training and financial incentives for primary care providers contributed to patient satisfaction rates soaring to 91.5% by 2016, with rural patients reporting even higher levels of satisfaction compared to their urban counterparts. The presence of a family doctor became a marker of improved perceived **quality** of primary care, characterized by continuity, comprehensiveness, and heightened trust in health services. Furthermore, the implementation of electronic health records bolstered the **efficiency** of primary care delivery.

Chapter 15.
The impact of PHC on equity, access, and financial protection

Ana Lorena Ruano, Brian Li Han Wong, Juliane Winkelmann, Priyanka Saksena and Pablo Gaitán-Rossi

Despite global commitments to both PHC and to providing all people with quality, affordable and accessible health care, more than half of the world's population is not covered by essential health services, and paying out-of-pocket for health services causes widespread and severe financial hardship. PHC is a key strategy in enhancing equity, access and financial protection. Key messages include:

- Equitable access can be strengthened by effective PHC because:
  - it is rooted in the local area, offering services where people are and without long travel times
  - it understands communities and the way they use services, making it possible to tailor coverage to cultural, linguistic and socioeconomic contexts, and to include marginalized groups.
- PHC reforms have the potential to significantly reduce financial hardship policies but need careful consideration and to include:
  - comprehensive health benefit packages
  - essential health services, essential medicines and public health interventions.
- PHC is also an effective vehicle for publicly funded coverage for vulnerable groups. Specific interventions can tackle the affordability aspects of access for them.
- Country experience has identified PHC strategies that enhance access and equity, including:
  - organizing health services around first contact primary care – which works if individuals are assigned to a primary care provider (or 'empaneled')
  - including community health workers and managers, and task-shifting in multidisciplinary teams
  - making care more approachable and acceptable and therefore more available through community-based approaches such as mobile clinics and outreach services
  - using new technologies such as telemedicine to help bring comprehensive first contact care to remote and rural areas.

Spain: a health system with a high level of equity, access and financial protection

Spain's health system prioritizes primary care, focusing on preventive measures and health promotion to ensure **health equity**. General practitioners act as entry points for patients into the health system, with primary care teams delivering acute, chronic, and preventive care, promoting continuity. Spain stands out in Europe with one of the **lowest levels of unmet health needs**, characterized by **minimal income-related disparities**.

At the heart of Spain's **equitable health system** is a vast network of health centres situated in communities offering primary care coverage for all residents with a comprehensive benefits package. Health care **access** is thus very good, with a **mere 1.6% of households facing financial hardship** when seeking care. Many services are free, without co-payments, with entitlements being residence-based. This inclusive approach ensures a system with a high level of equity, access, and financial protection.

Chapter 16.
The impact of PHC on resilience and environmental sustainability

Sara Allin, Miguel A González Block and Emily Vargas

Resilience is the ability to absorb, adapt and transform to cope with shocks and is critical to maintaining health system performance under stress. Resilience to climate change in the health system context implies addressing the health impacts of climate change and the impact the system itself has on the environment. PHC can be at the core of both. Key messages include:

- PHC's contribution to the health system's resilience revolves around its inherent strengths, including that:
  - PHC integrates primary care and essential public health, and supports actions on social and environmental determinants of health
  - linkages and networks across communities and sectors confer an ability to mobilize local and societal solidarity
  - PHC is already embedded in the communities most impacted by environmental, economic and health shocks – including the marginalized – and can support the harder-to-reach
  - the tradition of multidisciplinary teams working across boundaries offers a wide range of delivery options in an emergency
  - PHC fosters 'environmentally friendly' prevention and self-care; it uses resources efficiently by treating close to the community and prefers lower environmental impact technologies and interventions, so reduces the health system's carbon footprint.
- Investing in PHC will allow governments to bolster access to health services, reducing population vulnerability to shock and mitigating disruptions when shocks do occur.
- PHC provides efficient, local responses to extreme weather events, crisis-induced disease outbreaks and other climate change created health problems.
- Adapting prescribing and cutting emissions and waste can reduce PHC's own carbon footprint.
- PHC can use the trust it inspires in communities to raise awareness of links between behaviour and environmental impact, and promote action.

Canada: making the health sector more environmentally sustainable

Efforts to enhance the **environmental sustainability** of Canada's health system are gaining momentum. The federal government is leading the charge in raising awareness about the imperative for climate action, including addressing the health sector's contribution to greenhouse gas emissions.

Across Canada, collaborative initiatives involving researchers, practitioners, and government bodies are driving progress toward environmental sustainability. Since 2000, the Canadian Coalition for Green Health Care has played a pivotal role in assisting hospitals and health care organizations in **reducing their environmental impact**. This involves capacity-building efforts and regular reporting on trends aimed at making health systems more eco-friendly.

Notably, **medicines**, which rank as the second-largest polluters after hospitals, contribute to over a quarter of estimated greenhouse gas emissions in the Canadian health system. As a result, they have become a central focus of climate action initiatives, with a strong emphasis on reducing unnecessary prescribing.

Moreover, social prescribing, which has the potential to enhance environmental sustainability, is garnering increased attention in Canada.

Chapter 17.
Implementing the PHC approach: summary and conclusion

Dionne Kringos, Katherine Rouleau, Juliane Winkelmann, Faraz Khalid, Melitta Jakab and Dheepa Rajan

Strengthening PHC-oriented health systems is an essential step towards achieving universal health coverage. However, translating commitments into action requires an understanding of health systems and health system performance as well as the levers for change. Analysis of the evidence and country experiences offer practical lessons on how to implement PHC. Key messages include:

- The history and foundations of PHC help explain its potential, in particular:
  - the importance of integrating public health and primary care
  - its role in integrating health services for more holistic, equitable, person-centred care
  - the added value of links to people and communities, and the scope to empower them as co-creators of their health
  - its privileged position in terms of working across sectors and on the wider determinants of health.
- The operational levers are key to incentivizing a stronger PHC orientation with:
  - governance, including decentralized decision-making and leadership, to support the service integration and community engagement
  - workforce policies having a central role in enabling team working and fostering responsive care
  - well-designed financing mechanisms offering the means to prompt change
  - medicines, technologies, infrastructure and information systems all being powerful enablers of the PHC approach.

Reorienting health systems towards a PHC approach delivers huge benefits for overall health system performance and in particular for quality, access and equity, and for resilience.

- **Primary health care (PHC) is one of the most important concepts in public health – and also one of the most misunderstood.**

- **PHC-oriented models of care unite the person-centered orientation of primary care services and the population focus of essential public health functions.**

- **A primary health care approach**
  - ensures that integrated primary care and public health services are the first-contact interface between people and their health system, addressing health needs across a spectrum of health promotion, disease prevention, treatment, rehabilitation, palliative care and more
  - encourages action across sectors to address the social, economic, commercial and environmental determinants of health
  - engages communities to ensure greater responsiveness to their health needs, thereby empowering people to co-produce health.

- **PHC is the cornerstone of resilient health systems because its inherent features (such as close linkages to communities and understanding population and individual health needs) provide strong protection from shocks. This makes it critical for health security, and emergency preparedness and response.**

- **Progress toward the SDGs, UHC and health security all (therefore) demand investment in PHC.**

- **Reorienting health systems towards a PHC approach delivers huge benefits in terms of health system goals (quality, efficiency, equity, access, financial protection, and more). It requires a range of reforms and intervention but above all political commitment.**