TECHNICAL SERIES

ON PRIMARY HEALTH CARE

Quality in **primary health care**

Acknowledgements

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Executive summary

Inherent in universal health coverage is the need to think beyond improving access to services to also ensuring that those services are of good enough quality to be effective. While many elements of quality have been described over decades, there is growing acknowledgement that high-quality health services across the world should be effective, safe and people-centred. In addition, in order to realize the benefits of high-quality health care, health services should be timely, equitable, integrated and efficient.

Primary health care is central to delivering on the promise of high-quality universal health coverage. The three interrelated pillars of primary health care are: empowered people and engaged communities; multisectoral action for health; and health services that prioritize delivery of high-quality primary care and essential public health functions. While the ways that a primary health care approach promotes quality of care are well recognized, it is widely accepted that quality does not occur spontaneously. Indeed, embedding a culture of quality in primary health care lies at the heart of sustainable improvement in care.

The challenges to improving the quality of primary health care across the world are substantial. Six stand out. First, there is often a misunderstanding of what quality means and how methods to improve quality can be applied to primary health care to improve health system performance and health outcomes. Second, national strategic approaches to quality are often disconnected from local primary health care efforts – front-line realities faced by primary health care teams are often ignored when setting national directions. Third, efforts to measure indictors at the primary health care level are disconnected from improvement efforts; primary health care teams provide the information but effective feedback mechanisms are not in place. Fourth, efforts to improve quality at the primary health care level are not sufficiently integrated with overall health service delivery including district health teams and hospital-level care. Fifth, initiatives are often seen as projects that are time-bound and not embedded within a sustainable and longer-term approach to develop the quality of primary health care. Finally, evidence-based interventions that are adopted are not contextually relevant; too often, solutions to improve primary health care that are developed globally create challenges for primary health care at the local level.

This paper provides governments and policy-makers with an overview of the key issues of quality in primary health care and its importance to achieving the broad public health goals within universal health coverage. It makes the case for quality improvement as a core function of primary health care and provides the perspectives of different levels of the health system on improving quality in primary health care. Achieving change in quality of care is a complex endeavour which requires a multimodal approach that recognizes the specific challenges of individual settings, and values evidence, innovation and country experience. This report is not a comprehensive literature review, but instead cites a number of principles and interventions that can form part of efforts to achieve such change. It is largely based on the 2018 publication of the World Health Organization, Organisation for Economic Co-operation and Development, and The World Bank, and recent reports from the United States National Academies of Sciences and the Lancet Global Commission for High Quality Health Systems. Each of these three publications emphasizes the central role of quality in primary health care and universal health coverage. They highlight measures that have been proposed to improve quality and that have been reviewed by experts based on various criteria including their relevance to a wide variety of countries globally, their common consideration as options, the availability of evidence to guide selection and use, and whether they can be implemented at many levels, including primary care.

A systems perspective to building high-quality primary health care is fundamental. Fig. 1 illustrates the relationship between primary health care quality and universal health coverage and the health system environment.

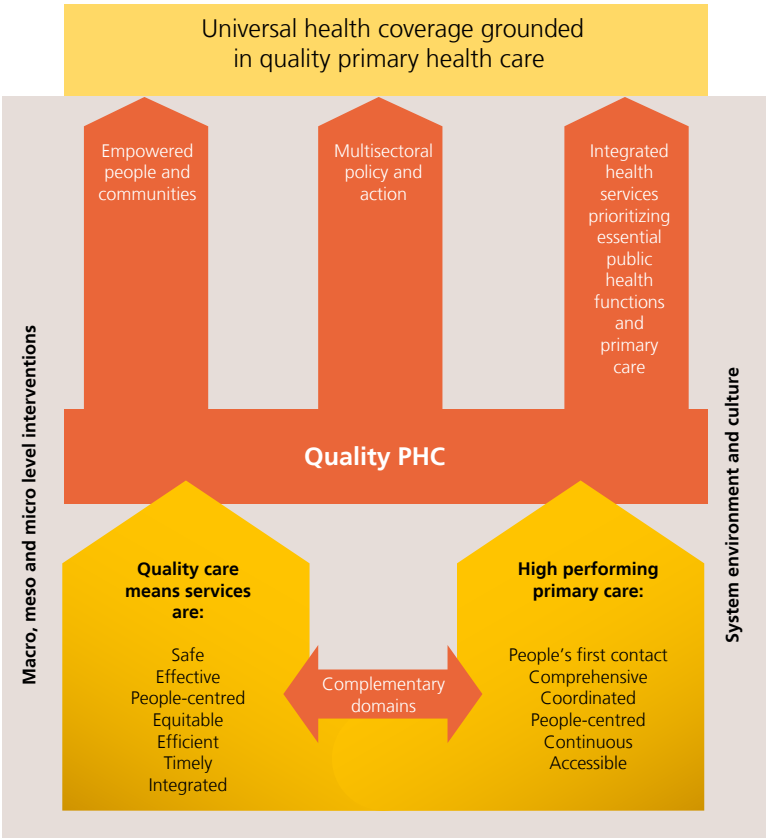


Fig. 1 Relationship between quality primary health care and achievement of universal health coverage

The quality of primary health care can be greatly affected by the prevailing culture and environment of the health system. There are a number of interventions to improve quality of care at the system level that create an enabling environment, including: national workforce strategies; registration and licensing mechanisms; external evaluation or accreditation; public reporting and benchmarking mechanisms; and national regulatory bodies for medicines, medical devices and other health products. Health information systems to measure and drive quality of care, and financing methods to support provision of high-quality care are also essential.

For health care to be truly people-centred, service users and communities need to play an active role in the design and delivery of health services to ensure local needs are met. At the same time, a national policy and strategy is needed to help structure efforts and drive progress including a national policy and strategy on quality to support improvement at the primary health care level.

No single actor will be able to effect all the necessary changes. Health systems managers and policy-makers need to take up the challenge to implement evidence-based primary care interventions that demonstrate improvement, measure against similar systems that are delivering the best primary health care performance, and promote systems and practices that will reduce harm to people. People are central to primary health care. They should

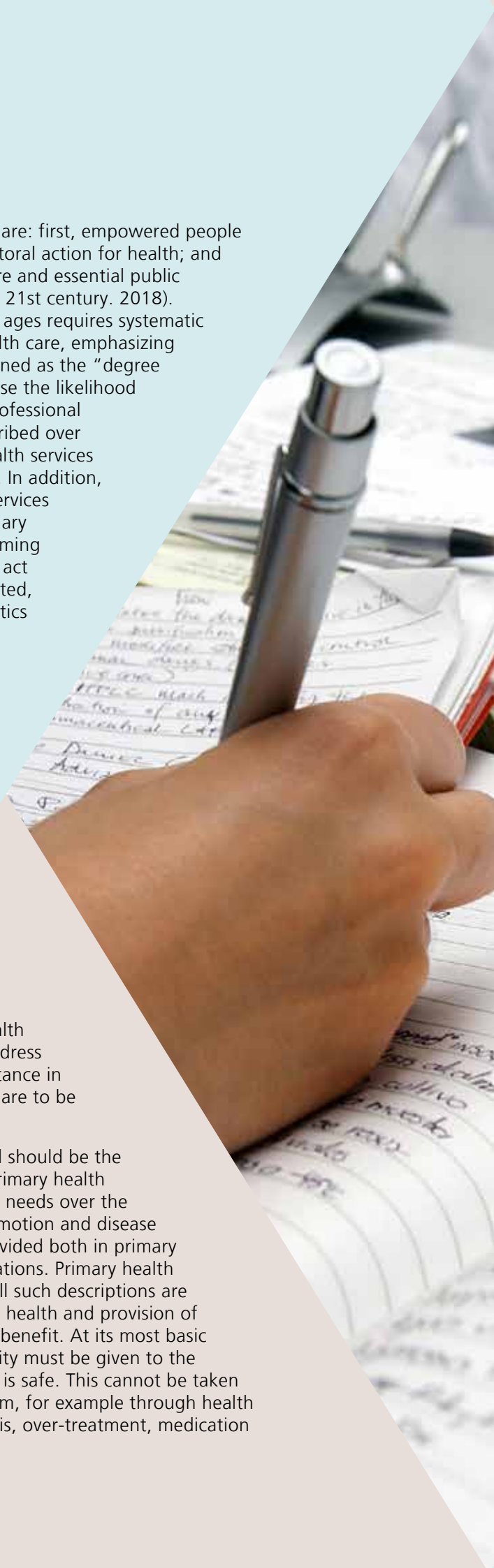
be empowered to actively engage in care to optimize their health, play a leading role in the design of new models of care to meet the needs of the local community, be informed that access to care that meets achievable modern standards of quality is their right, and receive support to manage their own long-term conditions. Primary health care workers can participate in quality measurement and improvement with their patients and should embrace a practice philosophy of teamwork with patients as partners in the delivery of care using data to demonstrate the effectiveness and safety of primary care. An integrated collaborative approach between actors is needed to have a demonstrable effect on the quality of primary health care. Central to all these endeavours is building capacity to improve quality across primary health care and creating a culture of quality and learning.

Building on these system-level considerations, some interventions for improving quality are described in this paper. These are clustered around three themes: reducing harm in primary health care; improving clinical care delivered in primary health care; and engaging and empowering the patient, family and community in primary health care. While these interventions provide an indication of where to start when selecting interventions to improve the quality of primary health care, they are not exhaustive and do not take full account of the reality of implementing them in different contexts where often many interconnected actions are required. This is where the learning agenda becomes critical. Decision-makers need to consider five key questions: what is working; why is it working; how is it working; who is it working for; and how can it be scaled up. Indeed, a learning system is a fundamental building block for efforts to drive quality in primary care in all settings. Needless to say – but important to reiterate – national drives on quality need to be informed by the realities of front-line health services, many of which are delivered through primary health care.

We find ourselves at a critical juncture as we look to future health systems. As the health community reaffirms the importance of primary health care to universal health coverage and population health, a series of recent reports have highlighted the pressing need for action on quality of care by providers, national authorities and the global community. Indeed, the WHO Director-General recently asked, "how could health care be anything other than high quality?" High-quality primary health care should be expected and delivered as standard, yet we know that this is often not the case. However, there is an emerging consensus on where to start based on strong evidence and country experiences. High-quality primary health care is central to universal health coverage, and concerted action across health systems can make it a reality.

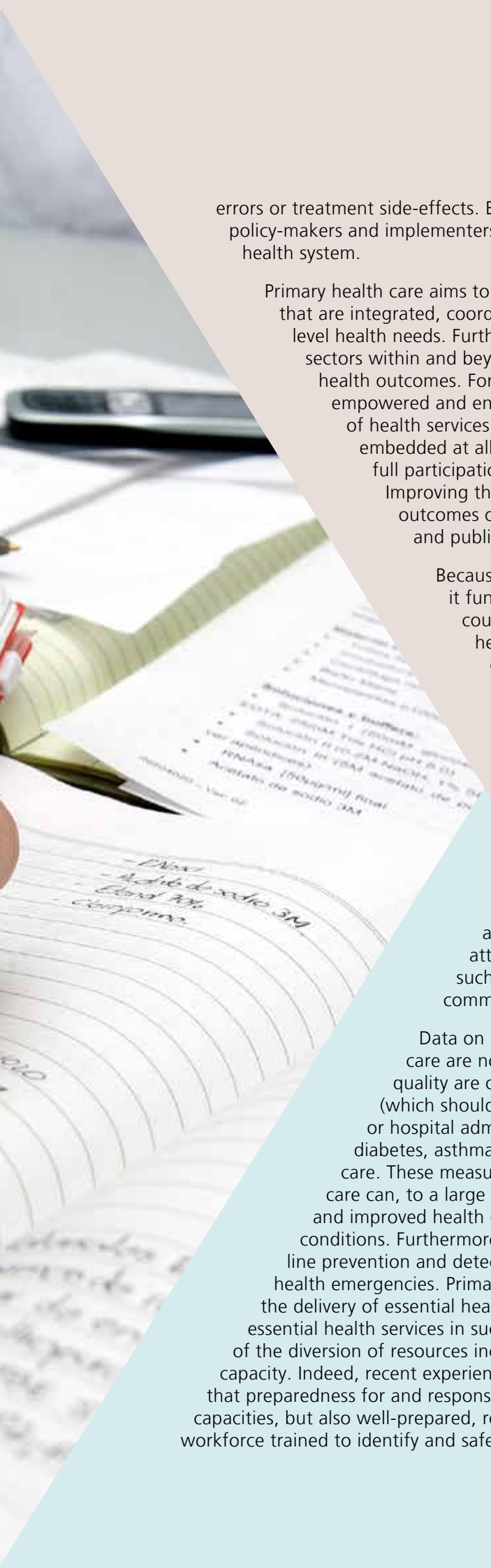
Background

The three essential, interrelated pillars for primary health care are: first, empowered people and engaged communities; second, multisectoral and intersectoral action for health; and third, health services that deliver both high-quality primary care and essential public health functions (WHO. A vision for primary health care in the 21st century. 2018). Achieving the goal of healthy lives and well-being for all at all ages requires systematic and coherent evidence-based actions to reinforce primary health care, emphasizing equity, efficiency and quality *(1)*. Quality of care has been defined as the "degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" *(2)*. While many quality elements have been described over decades, there is "growing acknowledgement that quality health services across the world should be effective, safe and people-centred. In addition, in order to realize the benefits of quality health care, health services should be timely, equitable, integrated and efficient" *(3)*. Primary care research has highlighted six characteristics of high-performing primary care systems. These include primary care systems that act as people's first contact and that are comprehensive, coordinated, people-centred, continuous and accessible *(4)*. The characteristics ascribed to high-quality primary care systems are mutually reinforcing.



Examining these foundational definitions immediately highlights the linkages between primary health care and quality. Importantly, high-quality primary health care incorporates two aspects of health services – primary care and essential public health functions – that are linked and mutually reinforcing. These health services are the first contact of people with the health system, and they should build trust with individuals and provide continuous and coordinated care that is people-centred and comprehensive. While not always evident in current models, the implicit focus on essential public health functions provides an opportunity for a wider population-based approach, linking population-based services to personal health services, and highlighting key activities in health protection, health promotion, disease prevention, surveillance and preparedness. Primary care is where most health services are delivered, and essential public health functions address health at a population level; clearly, quality is of critical importance in each of these components of primary care if health outcomes are to be optimized.

Primary health care is the entry point to the health system and should be the consistent point of care over the long term. The function of primary health care is to coordinate the care of people and their many health needs over the life course and across the continuum of care (from health promotion and disease prevention to treatment, rehabilitation and palliative care) provided both in primary care facilities and communities, and for individuals and populations. Primary health care can be described in many ways. However, consistent to all such descriptions are its values that are deeply rooted in a rights-based approach to health and provision of health services that are based on evidence of potential health benefit. At its most basic level, this requires that services first cause no harm, thus priority must be given to the essential structures and systems to ensure primary health care is safe. This cannot be taken for granted; all health services have the potential to cause harm, for example through health care-associated infection, antimicrobial resistance, misdiagnosis, over-treatment, medication



errors or treatment side-effects. Ensuring safety in primary health care is a vital; however, policy-makers and implementers must systematically address all areas of quality across the health system.

Primary health care aims to improve health outcomes through health services that are integrated, coordinated and respond to individual- and population-level health needs. Furthermore, collaboration and coordination with multiple sectors within and beyond health is particularly important to achieving positive health outcomes. For primary health care to be effective, people need to be empowered and engaged in the planning, implementation and evaluation of health services. Engagement of people and communities should be embedded at all levels: from system planning and governance through to full participation in clinical decisions and population health measures. Improving the quality of primary health care requires evaluation of the outcomes of multisectoral policies on health as well as of primary care and public health services.

Because primary health care is specific to the context in which it functions, it looks different in structure and delivery from country to country. For example, primary care and public health services are delivered in a variety of institutional and community settings; different aspects can be delivered by a range of health professionals, including doctors, nurses or community health workers. While traditional notions of primary care have often emphasized the role of the general practitioner or family physician, effective primary care is now being delivered in many settings by multidisciplinary teams to provide a comprehensive package of services in a more holistic model of care. High-performing multidisciplinary teams provide the range of skills and competencies – beyond traditional clinical skills – needed for delivery of high-quality care that puts people at its heart. Improving the quality of services requires equal attention to both clinical skills and non-clinical functions such as effective community engagement, leadership, communication and innovation.

Data on health outcomes and quality of services in primary health care are not widely available *(5,6)*. As a result, indirect measures of quality are often used, such as the prevalence of high blood pressure (which should be detected and effectively treated in primary care) or hospital admission rates for common, long-term conditions such as diabetes, asthma or heart failure that can be effectively treated in primary care. These measures point to the fact that high-quality primary health care can, to a large extent, contribute to the well-being of a population and improved health outcomes, especially for people living with long-term conditions. Furthermore, primary health care has a pivotal role in the front-line prevention and detection of and response to outbreaks and other public health emergencies. Primary health care also has an important role in maintaining the delivery of essential health services in the face of an emergency. Disruption of essential health services in such situations is a considerable threat to quality because of the diversion of resources including skilled workers, financial resources and leadership capacity. Indeed, recent experience from major public health emergencies has demonstrated that preparedness for and response to such events requires not only specialist and national capacities, but also well-prepared, routine quality primary care services with, for example, a workforce trained to identify and safely manage public health threats.

While recognizing these linkages between quality and primary health care, it is widely acknowledged that quality does not occur spontaneously. Several key features of a culture of quality are foundational *(7)* and are very much aligned with the principles of primary health care. Leadership is the first and foremost requirement of any quality improvement effort, without which all other endeavours risk failure. Transparency and openness about performance and results, including errors, is another key feature. Accountability and learning embedded within the system are also emphasized. Broadening and diversifying the skill base of multidisciplinary primary care teams through effective teamwork and fostering pride in care are increasingly recognized as central to a culture of quality. Perhaps, the unique and challenging aspect of improving quality of care is that it is about people. Aligning professional and organizational values in one's work, empowering individuals while recognizing complex systems and valuing compassionate care have been suggested as central to cultivating a culture of quality. Finally, coherence of quality efforts with service organization and planning is fundamental to an enhanced culture of quality, and helps to maintain a motivated and adequately resourced workforce that is empowered to prioritize quality *(3)*.

However, challenges to enhancing the quality of primary health care are considerable. Six stand out.

1. Misunderstanding often exists on what quality means and how quality methods can be applied to primary health care to improve health system performance and health outcomes.
2. National strategic approaches to quality are often disconnected from local primary health care efforts – front-line realities faced by primary health care teams are often ignored when setting national directions.
3. Measurement efforts to assess primary health care are disconnected from improvement efforts; primary health care teams provide the information but effective feedback mechanisms are not in place.
4. Efforts to enhance quality at the primary health care level are not sufficiently integrated with overall health service delivery including district health teams and hospital care.
5. Initiatives are often seen as projects that are time-bound and not embedded within a sustainable and longer-term approach to develop primary health care quality.
6. The evidence-based interventions that are adopted are not contextually relevant; too often, globally developed primary health care solutions cause local challenges within primary health care.

It is with this context in mind that this paper describes potential approaches governments and policy-makers can utilize in their endeavours to provide high-quality primary health care systems. Recognizing the gaps in understanding and improving quality in primary health care, this paper has the following objectives:

- To provide governments and policy-makers with an overview of the key issues of quality in primary health care and their importance to achieving broad public health goals within the context of universal health coverage;
- To make the case for ongoing quality improvement as a core function of primary health care; and
- To provide health systems perspective to improving quality in primary health care.

High-quality primary health care – the cornerstone of universal health coverage

Policy-makers are faced with competing priorities and pressures so quality has not always been a priority within health system planning. However, there is a strong case for ensuring quality in primary health care. Primary health care services account for a large and growing proportion of a country's health care provision, thus high-quality universal health coverage cannot be achieved without systematically addressing the quality of primary health care. Indeed, the original Declaration of Alma-Ata and the 2018 Declaration of Astana are grounded in the core principle of quality: the need for strong public health and high-quality primary care throughout people's lives, and the ability to provide effective, scientifically sound care, engage people and communities and address inequities. Given both the importance of quality within primary care provision and the key role of primary care providers in the delivery of care, primary health care needs to be at the heart of efforts to improve quality across health systems.

In addition to being the place where most health services are provided, primary health care has an important function in supporting the broader health system to deliver good-quality care, and is key to ensuring continuity of care, integration between different delivery platforms, and coordination of many functions that combine to create a high-quality care environment. Given the current epidemiological transitions towards increased noncommunicable disease, and the ageing populations in many countries, primary care services have to deal with increasing multimorbidity and complex presentations where provision of good-quality care is essential.

This is highlighted with the example of a patient with diabetes mellitus, a lifelong noncommunicable disease that causes high levels of blood sugar that can damage vital organs. A typical patient journey might involve: long-term medication use and self-management of blood sugar in the community; preventive measures to reduce risk of complications; secondary or tertiary care management of serious complications such as vascular or eye disease; ongoing measures to adapt to resultant disability; and potentially serious effects on social and family situations. Clearly, given the intensity and complexity of the health care required for such a patient, there is considerable scope for poor-quality care if this patient journey is not comprehensively and continuously managed, integrated and coordinated. Well-functioning primary care services have a key role to play, for example by utilizing person- and context-specific opportunities for health promotion and disease prevention, providing timely diagnosis, designing effective evidence-based management plans, and coordinating additional care in a "gate-keeping" capacity. Furthermore, primary health care teams can promote patient safety, for example by preventing inappropriate use of medicines, which may reduce potential exposure to hospitals, thus not only saving costs but also avoiding the possible risks related to hospital care. A primary care team is also well positioned to have a holistic picture of patients, including their complex medical and social backgrounds that can influence health outcomes, through working within a multidisciplinary team model that allows integration with community-based care and rehabilitation. In addition, primary health care services can address the wider determinants of health.

Managing this complex patient journey relies on high-quality primary health care services. Indeed, there is a common misconception that primary health care equates to minimal or non-specialist care, whereas good-quality or specialist care is delivered by secondary or tertiary providers. In fact, in well-performing health systems a quite different picture is evident: quality primary health care that combines health, social and patient expertise to provide coordinated, integrated, people-centred care is in itself a specialty necessary to support delivery of effective care across the entire health system. It is important to note here that many primary care services currently struggle to provide all these functions to a high standard, and may not have adopted such comprehensive and holistic models of people-centred care. Indeed, there may be resource implications to do so. However, this should not be discouraging. Investing in models that reorient care to focus on high-quality primary health care is likely to reap dividends both in terms of overall quality of care received by people which will result in better outcomes and enhanced efficiency, and cost-effectiveness of health care across the system.

Health system approach to building high-quality primary health care

For health care to be truly people-centred, as outlined in the Declaration of Astana, people and patients need to play an active role in the design and delivery of health services to ensure these meet local needs, especially at the community level. The WHO framework on integrated people-centred health services *(8)* calls for continuity and coordination of care, and emphasizes the importance of moving away from health systems designed around diseases and health institutions to those designed with people at their core. Reorienting care will require a shift in approach across the entire health system, not limited to individual providers. The key to achieving this is to reorient the model of care with a focus on prioritizing primary care and community services. It is estimated that throughout the course of a person's life, primary care can meet 80–90% of his/her health needs *(9)*. Indeed, strong primary care services are essential for reaching the entire population and guaranteeing universal access to high-quality services *(8)*.

It is important to recognize that the quality of primary health care can be greatly affected by the prevailing health system culture. Health systems are complex – they are interdependent, often working within and across various components at the micro, meso (sub-national) and macro (national) level. Health systems are adaptive – they change according to the local environment often because of demographic shifts, epidemiological trends, resource availability and onset of emergencies. As health systems move toward people-centred health services, a holistic and comprehensive approach is required to enhance the quality of services delivered.

Quality improvement can be applied in many settings. Focusing on change processes, a quality improvement intervention can be defined "as a change process in health care systems, services, or suppliers for the purpose of increasing the likelihood of optimal clinical quality of care measured by positive health outcomes for individuals and populations" *(7).* At the organizational level, a quality improvement intervention can be defined as "an organizational strategy that formally involves the analysis of process and outcomes data and the application of systematic efforts to improve performance" *(7*). At the service delivery level, quality improvement is the action of every person working to implement iterative measurable changes to make health services more effective, safe and people-centred (WHO, Service Delivery and Safety Department. Improving the quality of health services: tools and resources. 2018). But these approaches to quality improvement applied to primary health care need to be placed in the context of the environment of the health system. Recent analysis has shown that the majority of published literature on interventions on primary health care quality relates to activities at the micro level *(10)* (Fig. 2). While these are indeed important in changing staff and facility performance, there is a clear need for meso- and macro-level action, and for concerted efforts to build the evidence base around these. Macro-level activities can promote systemic change across all levels of the health system, while meso-level interventions can improve coordination, management, communication and learning between facilities. At all three levels, there is also considerable scope to improve the quality of essential public health functions.

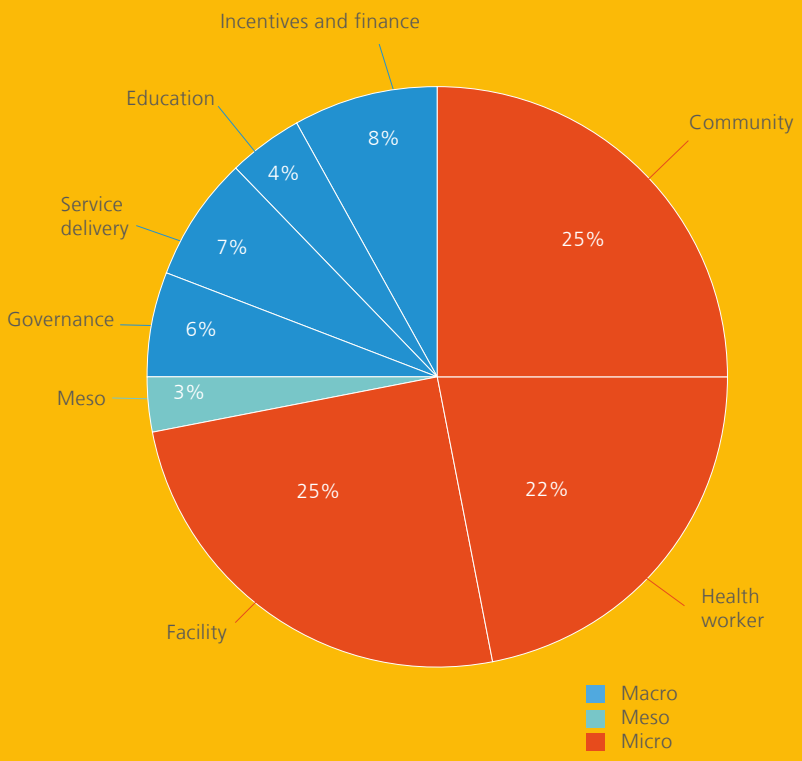


Fig. 2 Types of interventions and levels targeted to improve quality of primary health care according to published literature from 2008 to 2017. Adapted from Kruk et al. *(10)*

There are a number of evidence-based interventions at the health system level proven to improve quality of care that create an environment that supports quality *(3)*. These are summarized here. While they might seem simple, these interventions are far from simple to implement.

Underpinning all efforts to improve quality across the health system is leadership and governance. Strong commitment to and leadership for quality is required at all levels to ensure all stakeholders work together to create the enabling environment needed to provide high-quality primary health care.

An important health system influence on primary health care quality is the financing mechanism in place to fund care. Certain financing methods can support or hinder provision of good-quality care and need careful consideration depending on the specific needs and features of different settings. For example, while some settings have seen improvements in quality from certain performance-based payment initiatives, the evidence is unclear. Indeed, particularly in lower-resource contexts, it is important to recognize the potentially disruptive effect on health systems of inappropriate provider payment mechanisms, and the need for financing reforms to be aligned with overall health sector planning efforts and driven by local experience and evidence rather than donor agendas. It is also important to ensure that quality improvement activities themselves are allocated sufficient funding, and that this is recognized in national, subnational and institutional financial planning. Of vital importance to the equitable access to high-quality services is the need to reduce out-of-pocket spending; indeed, it is important to acknowledge that quality and access are not competing agendas but are mutually reliant. In countries aiming to link financing to population health needs, there will often be a natural shift towards provision of primary care services, and this can be an opportunity to embed quality within emerging models of primary care.

The quality of primary care services relies on a primary care workforce that is trained, supported and motivated to provide high-quality care. National workforce strategies can help address gaps in numbers, distribution and retention of health professionals, each of which is a challenge to primary care provision in many countries. Primary care is in itself a specialty and training of primary health care workers should be based on best available knowledge and should be regulated by national bodies. Support and monitoring of feedback on performance are also important to ensure a high-performing primary health care workforce. National bodies for registration and licensing of health professionals are an important component of a national quality system, and ensure essential professional standards are met by workers across the system.

Quality of care in primary care can also be supported through national or subnational mechanisms to ensure primary care facilities are accessible and well equipped. For example, many countries have established external evaluation or accreditation systems, which usually involve assessment of facilities against agreed minimum criteria. Other schemes that can encourage the provision of adequate facilities within the health system include public reporting and benchmarking mechanisms, which may increase accountability to the public and promote health system leadership.

Availability of good-quality medicines, medical devices and other health products in primary health care is vital, but ensuring their provision and correct use can be challenging. National policies and guidelines to guide manufacture, procurement, supply-chain development, surveillance and safe use may support the development of the required systems. There may also be a key role for national regulatory bodies.

Well designed health information systems can measure and influence the quality of care across health systems, and it is essential that primary health care is fully integrated within these efforts. However, many countries face challenges in moving to electronic health information systems. They are an important tool to provide up-to-date data that can drive improvement activities at the provider level and quality monitoring at the national and subnational level, and to assess people's health. National legislation may be needed to protect individual privacy while supporting the use of data for improvement and research. It is also important that national data systems are interoperable in view of the variety of providers and the need for data-sharing across the health system. Health information systems that collect data on primary health care quality could also link to public reporting and benchmarking systems, which could be a key driver of change.

Within all of these areas, national policies and strategies are needed that can help structure national efforts and drive progress. These may be specific to parts of the system – such as workforce or medicines – but there is also an important role for a national quality policy and strategy to support improvement at the primary health care level *(3,7)*. In the development of such national policies and strategies, primary health care stakeholders must be engaged as partners in co-design and implementation.

Interventions to improve quality in primary health care

According to the joint World Health Organization, Organisation for Economic Co-operation and Development, and The World Bank publication Delivering quality health services – a global imperative for universal health coverage, high-quality primary care services should be at the core of any health system *(3).* The report highlights that to achieve this, a number of elements must first be in place. These include structural features, for example a clean water source, reliable power and back-up capacity, adequate coverage by skilled health care workers, clear management responsibility and accountability, and reliable medical records systems. The broader health system as described earlier has an important influence on the provision of high-quality care and determines many of the factors that create the conditions for the success of quality efforts. However, within primary care, there is an important role for specific quality improvement interventions that can be applied to promote improvement.

The joint publication outlines a non-exhaustive list of illustrative interventions for improvements in care, which were selected based on their relevance to a wide variety of countries, their frequent current use, and the evidence for their effectiveness. Several of these interventions are outlined below and described in relation to their application in primary health care. While this list is a practical starting point, it is important to note that it does not represent all the interventions that might be effective in any given setting; indeed, countries should take account of the evidence and experience on all improvement interventions that might be relevant in their settings.

The success of the interventions listed below will vary greatly depending on the individual clinical setting, and is dependent on a number of factors including: availability of resources, provider buy-in and leadership support for the process, consistency in understanding and implementation of guidelines, the accuracy of the information in clinical records, and the effectiveness of feedback mechanisms. It is also important to note that making sustainable improvements in the quality of primary health care requires combinations of interventions addressing different dimensions of the care process and the broader context.

At all levels of the health care system, avoidable harm caused to patients as a result of their health care is unacceptable, yet in many settings it is widespread. Patient harm is the 14th leading cause of morbidity and mortality globally, comparable to diseases such a tuberculosis and malaria *(11)*. An estimated 25% of patients experience harm in the primary care setting in lower middle-income countries and up to 80% of events leading to harm are thought to be preventable *(12).*

As well as being a priority clinical and global public health concern, managing adverse events and treating the consequences of patient harm have substantial financial and resource implications for the health system as a whole *(13).* Harm can lead to loss of trust in the health care system by patients, as well as professional dissatisfaction for health care providers. As seen in the West African Ebola epidemic from 2013 to 2016, the loss of community trust that can result from lapses in basic patient safety measures can reduce utilization rates and hamper the efforts of health services to respond to public health emergencies.

Some of the interventions that are in use to reduce harm in primary health care are described below.

Inspection of primary care facilities against minimum safety standards can be implemented to ensure baseline capacity and resources to maintain a safe clinical environment. At the minimum, inspection standards can identify basic structural elements for quality, such as availability of clean water and safe facilities, but more advanced inspection procedures can also assess the process of care, for example whether infection prevention and control practices are routinely followed. Inspection across primary care can take many forms. For example, these can be governed by national or subnational bodies, and may form part of an independent external evaluation or accreditation system. Often, primary care comprises of many providers operating in different facilities and environments, so routine and comprehensive assessment can present challenges. However, participation in such a system also provides an opportunity to promote minimum standards across all primary care settings.

Standardized safety protocols and checklists are a basic measure that can be used to address many of the risks that threaten the well-being of patients and cause or contribute to avoidable suffering and harm, and can reduce clinical complications and mortality. These are usually simplified tools to promote best practices. For example, in a primary care centre, the use of hand hygiene protocols may help encourage this simple intervention that can help prevent the spread of infection. Similarly, in settings where primary care facilities play an important role in managing childbirth, WHO's safe childbirth checklist *(14)* provides a set of essential questions and actions that should be addressed at each stage of the birthing process. While the actions suggested in such protocols and checklists may seem simple, their potential effect on patient safety should not be underestimated. Indeed, experience from implementation of a checklist on safe surgery showed significant reductions in mortality and complications where effectively implemented *(15)*.

Adverse events include instances which indicate or may indicate that a patient has received poor quality care *(16).* Adverse event reporting is the documentation of an unwanted event that occurs as the result of a patient encounter with health services. Adverse event reporting can raise awareness, increase transparency and foster accountability for unsafe care. The process of reflection on the causes of adverse events provides an opportunity to learn from mistakes and prevent errors that have the potential to jeopardize patient safety in the future. In addition, lessons from adverse events can be shared between relevant stakeholders by developing a structured learning system, which can help prevent similar events in future. Within primary care settings, the success of adverse event reporting relies on development of a learning culture that promotes openness, health information systems that systematically capture such events, and coordination of the system to ensure systematic collection and sharing of learning from such events.

Improving clinical care delivered in primary care

Provision of high-quality primary care requires that providers are supported to deliver care in accordance with the best available knowledge. However, availability of knowledge on how to improve care is not enough; ensuring health professionals keep up-to-date on knowledge, and translating what is known to be effective into changes in practice in primary care have been widely cited as barriers to high-quality care. Several interventions that may help to bridge this "know-do" gap are outlined below.

Clinical decision support tools aim to enhance effective care by providing patient-specific information and knowledge to health care providers at appropriate times during the patient interaction. This can promote effective decision-making and enable different health providers to understand and deal with the broad and complex health problems encountered within primary health care. These tools are often electronic and provide the health professional with relevant evidence-based prompts, for example when selecting diagnostic tests or treatment options. However, clinical decision support tools do not necessarily depend on digital technologies; they can be as simple as a paper-based decision tree or diagnostic aide. Indeed, many countries experience difficulty in implementing digital technologies within primary care, so expanding the use of clinical decision support tools requires careful consideration. However, with ongoing digitalization and increasing widespread use of mobile technologies in many settings, there are opportunities to develop and integrate effective clinical decision support systems to improve primary health care practice.

Clinical standards, pathways and protocols are tools that have been used over several years to guide the implementation of evidence-based health care. In high-income settings, clinical pathways are increasingly used to improve care for conditions that are a substantial burden in a particular care setting. While such products are widely used in primary care throughout the world, it is important that they are tailored to the setting in which they are used so that they respond to the local burden of disease as well as the availability of diagnostic and treatment services. It is also important that standards, pathways and protocols are viewed in the wider context of designing people-centred care. Generic treatment pathways do not account for the complexity and preferences of individual patients, so primary care providers should be allowed to use them at their discretion as part of a broader, multimodal, people-centred approach.

Clinical audit and feedback involves structured assessment of clinical practice against established standards over a period of time, and is used to inform health professionals about clinical performance in order to facilitate improvement. Clinical audit can be used to support implementation of standards and clinical guidelines and increase adherence of health professionals to these guidelines. Implementation of audit and feedback can be done with

few resources, little reliance on technology, and limited training, so can be performed in nearly any primary care setting.

Morbidity and mortality reviews bring together clinical staff to review factors that may have contributed to adverse patient outcomes, such as complications resulting from treatment or the death of a patient. Such reviews are intended to promote active recognition of errors and provide an effective mechanism for collaborative reflection and learning within multidisciplinary primary care teams.

Collaborative and team-based improvement cycles that promote involvement of health care teams in their design and implementation can be well suited to primary care settings. Such methods can engage health workers in identifying improvement priorities and driving change. Building capacity in these methods within primary care teams may help to encourage ownership of the local quality improvement agenda and develop the institutional culture of quality required to sustain efforts.

Engaging and empowering the patient, family and community in primary care

People who are engaged and empowered are one of the pillars of primary health care. Given the unique role of primary care providers, they often serve as a bridge between services and communities. To embed people at the heart of evolving health systems will require fundamental shifts in models of care, governance and accountability arrangements, and the prevailing health system culture. A number of interventions relevant to primary care can assist with this health system transformation are outlined below.

Formalized community engagement and empowerment mechanisms can embed contributions of community members within efforts to improve population health and the performance of the health system. For example, in Uganda public primary care facilities are governed by health unit management committees which have community members directly contributing to facility management *(17).* Communities can in fact be empowered to codesign quality improvement efforts with the primary health care team.

Meaningful engagement relies on a range of approaches to enhance health literacy among the population because making appropriate decisions about care and service delivery requires people to have the capacity to obtain and understand the relevant information. Building such understanding can facilitate greater public accountability for health service performance. While building health literacy requires action across the health system, primary care providers have a key role in the provision of relevant and accessible information because they have a unique position within communities and should be the main point of contact with the formal health system.

Shared decision-making is an approach to care that responds to patient needs and preferences, changing traditional notions of the relationship between health professional and patient. The improved communication through this approach can facilitate more appropriate decisions about care. For example, a Cochrane review demonstrated more appropriate use of antibiotics for respiratory infections when shared decision-making is used in primary care *(18).* Application of shared decision-making approaches can be embedded within a drive for quality improvement in primary health care.

Peer support and expert patient groups can facilitate effective engagement by creating a space for people living with similar clinical conditions to share knowledge and experiences. Through the resultant emotional, social and practical support, patients are empowered to recognize and seek high-quality care. Primary care plays an important role in identifying patients for groups or even facilitating the establishment of local groups that address conditions of particular importance in that setting. Primary care also has a signpost role for patient self-management tools, which are technologies that can be used by patients and families to support assessment and management of health issues outside the health institution, for example at home. In primary care, while much of the decision-making process may occur within facilities, a large part of the care and treatment may take place outside the health institution, as patients medicate, convalesce or monitor their health from home. It follows, therefore, that tools to support the quality of this key part of the care journey can help optimize patient outcomes in primary care.

Within primary health care, due consideration should be given to patient experience of care when assessing quality and planning improvements. Many primary care providers are now systematically collecting patient opinions of care, and in some health systems these are used for performance-based financing or are published to improve accountability and guide patient choice of provider. Patient experience is of inherent importance to quality of care, both as an important outcome in itself and because those with more positive experiences are more engaged with their care, which contributes to better outcomes.

While the broad interventions described above provide an indication of where to start when selecting quality improvement interventions for primary health care, it is important to note that they are not complete and nor do they fully allow for the realities of implementation in different settings. Countries developing their own practical set of improvement interventions must therefore carefully select the most appropriate activities based on the specific needs and assets within each particular setting, and take account of the views of communities, health workers and health system leadership, and the evidence base. It is also important to note that for each of these interventions careful consideration must be given to the underlying factors that can promote their successful implementation, for example adequate training and support of health workers, information systems infrastructure, sustainable resourcing and support of leadership. This is where a national policy or strategy on quality can help define a clear and coherent pathway for the entire system. Furthermore, exploring these factors will require emphasis on the learning agenda to generate and share emerging experience and evidence. Quality improvement requires practical solutions to often complex issues in challenging health system environments so a robust evidence base may not always exist. The field is continuously evolving and a periodic synthesis of research is needed on what works for quality improvement, specifically in primary care, in order to provide an up-to-date evidence base that can facilitate the selection of appropriate interventions.

Measuring improvement in the quality of primary health care

Improving quality is always reliant on clear and accurate performance measurement data, whether at the level of individual patients, clinicians and carers, or the broader population or the system. Any drive to provide high-quality primary health care will be heavily dependent on ensuring measurement tools are fit for purpose. This remains a challenge given the complex nature of health care uptake and delivery in primary care, for example: first point of contact; demand-led care; acute and chronic care; people-centred holistic care across all specialty areas. Rural isolated practices and urban practices; areas of deprivation and affluence, sometimes within the same practice area. Multimorbidity; disease prevention, health education and health promotion with healthy people and sick patients of all ages, all socioeconomic groups and all levels of educational attainment. All this care is delivered by a dispersed system of individual clinics, some large with many health providers and some managed by just one. Measures clearly require careful selection to reflect the unique nature of primary care; for example, an aggregate of disease-specific measures is often not an accurate reflection of the overall quality of life that can be enhanced through good primary care.

Routine health management and information systems are a necessary component for transforming and improving the quality of health services provided through primary health care. Furthermore, when developing ways to improve primary care, the need for systems for data collection, measuring, reporting and feedback must be considered, taking into account global geographical variations in access to technology.

While most health information systems are not perfect, there is enormous potential for data collection and analysis of primary care which is greatly underdeveloped or underresourced. Complexities of the work of primary care and its associated health information systems can often hinder those aiming to establish methods to measure the quality of primary health care – the initial mapping of data and information available through routine health management and information systems is a natural first step. An insistence on simplicity in any additional measurement efforts is advisable. A basic principle – no measurement without clear links to improvement – can provide a check on the proliferation of measurement efforts in primary health care. Measures will certainly need to be refined through testing a preliminary set and then filling the gaps in measurement capacity. It is important to move forward strategically on primary health care measurement by reviewing global and expert indicator lists, cataloguing available national quality indicators and then defining key steps in the development of a national quality measurement framework that places a strong emphasis on primary health care. This should be seen in the context of an overall approach to quality at the national level while recognizing the very local nature of primary health care. Decision-makers at all levels need data and information to translate evidence to practice, to assess need and to assign resources for development or restructuring of services. This is where strong linkages between the measurement and improvement efforts are important, and should be part of the effort to enhance the culture of quality within primary health care.

Learning for primary health care

Primary health care depends on the production, analysis and interpretation of data to make evidence-informed decisions that respond to the needs of the individual and populations. Countries are assessing multiple approaches to improve the performance of their health system through primary health care: challenges, successes and lessons abound.

Continuous learning is crucial to improving the quality of primary health care and enabling a culture of quality. Improving the quality of primary care requires learning aimed at understanding iterative, adaptive changes that produce results. Such learning should take place both in the context of health care provision, and through sharing best practices within and between communities.

To translate data into effective action at the primary health care level and facilitate decision-making to improve overall health outcomes, decision-makers need to consider five key questions:

1. What is working—understanding the change package of interventions at the institutional and community levels that was applied and led to improved health outcomes;
2. Why is it working—determining if the improved results can be attributed to the package of interventions applied, and if any contributing factors enable the uptake of the proposed interventions;
3. How is it working—understanding the methods, causes, drivers and enablers of quality of care improvements at the facility and community level;
4. Who is it working for—understanding how quality of care interventions at the primary health care level affect different population groups;
5. How can it be scaled up—creating links between primary health care providers and the wider health system, and with services users. Utilizing information from the primary health care level to inform and possibly expand other efforts on quality.

A unique feature of primary health care is its ability to deliver care at both the institutional and community levels. For primary health care to provide high-quality services and drive health systems towards universal health coverage, learning must take place at both the institutional level and within communities. Focused attention on learning can facilitate an understanding of who to involve and engage in the design of primary health care community-based interventions and how primary health care can be improved in specific settings and communities. For example, in fragile, vulnerable and conflict settings, special attention is required to understand how primary health care can be improved to address the needs of the populations affected.

Moving forward – actions required

Many interconnected actions are required to enhance the quality of primary health care, as outlined in recent publications *(3,10,19)*.

All governments can drive quality efforts by having a well formulated national quality policy and strategy. Governments need to demonstrate accountability for quality within primary health care and ensure that reforms driven by the goal of universal health coverage build quality into the foundation of the system with a particular focus on primary health care. At the same time, governments need to ensure that health systems have an infrastructure of information and information technology capable of measuring and reporting the quality of primary health care. There is a clear need to: strengthen the partnerships between health providers and health users that drive quality in care; establish and sustain a primary health care professional workforce to deliver high-quality care; purchase, fund and commission primary health care based on the principle of value; and finance research on quality improvement within primary health care.

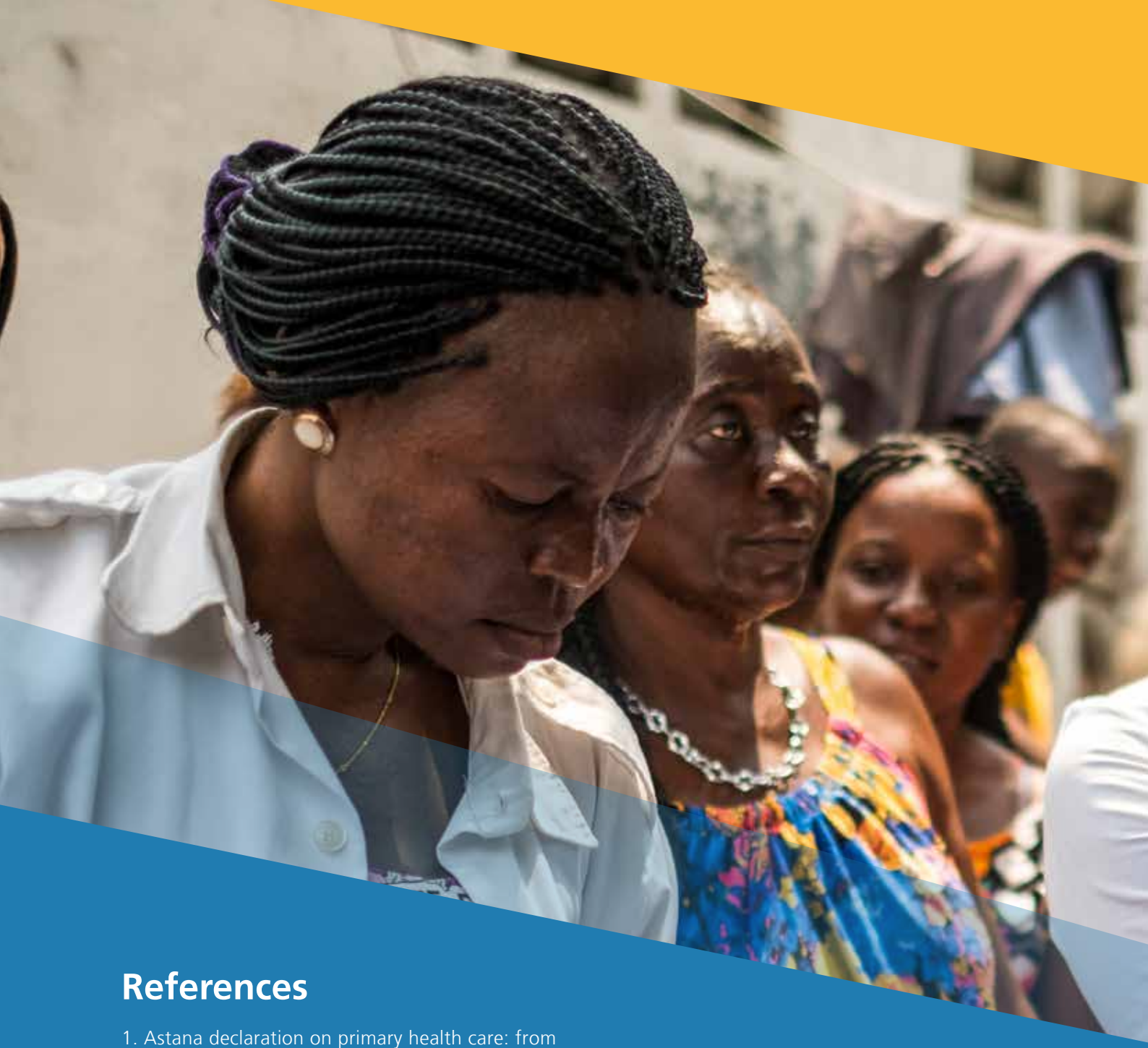
Health systems need to: implement evidence-based primary health care interventions that demonstrate improvement; measure against similar systems that are delivering the best primary health care performance; promote a culture within systems and practices that will reduce harm to patients; build primary health care resilience through a focus on quality to enable the prevention and detection of and response to health security threats; put in place the infrastructure for learning in primary health care; and facilitate knowledge management for improvement of primary health care.

People are central to primary health care and should: be empowered to actively engage in care to optimize their health; play a leading role in the design of new models of care to meet the needs of the local community; be informed that it is their right to have access to care that meets achievable modern standards of quality; and receive support, information and skills to manage their own long-term conditions. This is the core ethos of primary health care.

Primary health care workers are essential to the delivery of primary health care and can participate in quality measurement and improvement with their patients. They should embrace a practice philosophy of teamwork, see patients as partners in the delivery of care, and commit themselves to providing and using data to demonstrate the effectiveness and safety of primary health care.

As highlighted in the joint publication *(3)*, while no single actor will be able to effect all these changes, an integrated approach, in which different actors work together to achieve their part, will have a demonstrable effect on the quality of health care services around the world. Central to all these endeavours is building the capacity for quality improvement across primary health care and engaging with all involved to continuously build a culture of quality and learning. Needless to say – but important to reiterate – is the need for national drives on quality to be informed by the realities of front-line health services in primary health care.

We find ourselves at a critical moment as we consider how our future health systems will be organised and delivered. As the health community reaffirms the importance of primary health care to universal health coverage and population health, a series of reports *(3,10,19)* have highlighted the pressing need for action on quality of care by providers, national authorities and the global community. Indeed, the WHO Director-General recently asked, "how could health care be anything other than high quality?" *(20)*. High-quality primary health care should be expected and delivered as standard – yet we know that this is often not the case. However, there is an emerging consensus on where to start based on strong evidence and country experiences. High-quality primary health care is central to universal health coverage, and concerted action across health systems can make it a reality.



References

1. Astana declaration on primary health care: from Alma-Ata towards universal health coverage and the Sustainable Development Goals [DRAFT]. World Health Organization, 2018 (http://www.who.int/primary-health/conference-phc/DRAFT_Declaration_on_Primary_Health_Care_28_June_2018.pdf, accessed 24 September 2018).

2. Institute of Medicine (US) Committee on Quality of Health Care in America. Crossing the quality chasm: a new health system for the 21st century. Washington (DC): National Academies Press (US); 2001 (https://www.ncbi.nlm.nih.gov/books/NBK222274/pdf/Bookshelf_NBK222274.pdf, accessed 24 September 2018).

3. Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization, Organisation for Economic Co-operation and Development, and The World Bank; 2018 (http://apps.who.int/iris/bitstream/handle/10665/272465/9789241513906-eng.pdf?ua=1, accessed 24 September 2018

4. Starfield B1, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank Q. 2005;83:457–502. doi: 10.1111/j.1468-0009.2005.00409.x

5. Bitton A, Ratcliffe HL, Veillard JH, Kress DH, Barkley S, Kimball M, et al. Primary health care as a foundation for strengthening health systems in low- and middle-income countries. J Gen Intern Med. 2017;32(5):566–71. doi: 10.1007/s11606-016-3898-5

6. Shi L. The impact of primary care: a focused review. Scientifica (Cairo). 2012;2012:432892. doi: 10.6064/2012/432892

7. Handbook for national quality policy and strategy: a practical approach for developing policy and strategy to improve quality of care. Geneva: World Health Organization; 2018 (http://apps.who.int/iris/bitstream/handle/10665/272357/9789241565561-eng.pdf?ua=1, accessed 24 September 2018).

8. Framework on integrated people-centred health services: Report by the secretariat. Geneva: World Health Organization; 2016 (A69/39) (http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_39-en.pdf?ua=1, accessed 24 September 2018).

9. Primary Health Care [website]. Geneva: World Health Organization (http://www.who.int/primary-health/n/, accessed 24 September 2018).

10. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. Lancet Glob Health. 2018. doi: 10.1016/S2214-109X(18)30386-3.

11. 10 facts on patient safety. Geneva: World Health Organization; 2018 (http://www.who.int/features/factfiles/patient_safety/en/, accessed 24 September 2018).

12. The economics of patient safety in primary and ambulatory care. Paris: OECD; 2018 (https://www.oecd.org/health/health-systems/The-Economics-of-Patient-Safety-in-Primary-and-Ambulatory-Care-April2018.pdf, accessed 24 September 2018).

13. Jha AK, Larizgoitia I, Audera-Lopez C, Prasopa-Plaizier N, Waters H, Bates DW. The global burden of unsafe medical care: analytic modelling of observational studies. BMJ Qual Saf. 2013;22:809–15. doi: 10.1136/bmjqs-2012-001748

14. WHO safe childbirth checklist: before birth. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/handle/10665/199179/WHO_HIS_SDS_2015.26_eng.pdf?sequence=1, accessed 24 September 2018).

15. Safe surgery saves lives frequently asked questions. Patient Safety. Geneva: World Health Organization; 2014 (http://www.who.int/patientsafety/safesurgery/faq_introduction/en/#Q4, accessed 24 September 2018).

16. Walshe K, Bennett J, Ingram D. Using adverse events in healthcare quality improvement: results from a British acute hospital. Int J Health Care Qual Assur. 1995;8(1):7–14. doi: 10.1108/09526869510077979

17. Guidelines on health unit management committees for health center III. Kampala: Department of Quality Assurance, Ministry of Health, Republic of Uganda; 2003 (http://www.health.go.ug/docs/Guidelines%20on%20Health%20Unit%20management%20committees%20for%20Health%20Centre%20III%20%282003%29.pdf, accessed 24 September 2018).

18. Coxeter P, Del Mar CB, McGregor L, Beller EM, Hoffmann TC. Interventions to facilitate shared decision making to address antibiotic use for acute respiratory infections in primary care. Cochrane Database Syst Rev. 2015;(11):CD010907. doi: 10.1002/14651858.CD010907.pub2.

19. National Academies of Sciences, Engineering, and Medicine. Crossing the global quality chasm: improving health care worldwide. Washington (DC): The National Academies Press; 2018.

20. Ghebreyesus TA. How could health care be anything other than high quality? Lancet Glob Health. 2018. doi: 10.1016/S2214-109X(18)30394-2.

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