The Constitution of South Africa enshrines the right to quality health care and provides the basis for numerous policies and legislation aimed at improving access, eliminating inequalities and increasing health system safety. To date, quality initiatives have been unco-ordinated and fragmented across the public and private health sectors. In addition, lack of a sound action plan for implementation of quality-improvement strategies has led to limited impact on health services. There is need for a strategic framework to address policy issues, organise service delivery, and monitor the impact of initiatives seeking to improve quality outcomes.

This chapter outlines the development of a multilevel national strategic framework to institutionalise and guide planning, delivery and measurement of health systems quality in South Africa. A situational analysis was done of existing policies and implementation initiatives and lessons were learned from international case studies, providing a sound evidence base for implementation of the framework.

Lack of a sound action plan for implementation of quality-improvement strategies has led to limited impact on health services.
Introduction

Despite a clear agenda for quality health care and significant annual expenditure, health system shortcomings continue to endanger the health and lives of South African citizens, resulting in a loss of confidence among users. Discontent with service quality has escalated medico-legal claims, burdening both health services and healthcare professionals. In addition, poor quality is associated with patient safety hazards, duplication of efforts, variable standards of care, unsafe work areas, and labour grievances. Numerous quality challenges, including under- and over-utilisation of services, limited resources and inadequate referral procedures, are exacerbated by the high burden of disease and significant inequality between the public and private health sectors.

Evidence suggests that promoting healthcare quality improves health service access and health outcomes, and increases life expectancy. Indeed, the right to quality health care is enshrined in the South African Constitution, which provides the basis for multiple policies and legislation promoting sustained quality improvement. However, lack of a clear overarching quality strategy to drive health reform has limited translation of these policies into practice. To date, quality initiatives have been uncoordinated and fragmented, within the public and private health sectors.

Strategic frameworks promote a common understanding of the concept of quality in health system improvement (Box 1) and allow for consensus on national quality-of-care goals. The core concepts are based on Joseph Juran’s triad of quality planning, quality control and quality improvement. Quality planning includes policy decisions, with clear goals, responsibilities, resourcing and checks to ensure accountability. Quality control translates these plans into guidelines, measures, systems for professional oversight, and tools such as standards and checklists. Finally, quality improvement brings about the changes in individual practises, organisations and systems to achieve the quality goals and better health outcomes. Quality improvement is therefore a change process, which builds on a foundation of quality planning and quality control.

Quality frameworks provide guidance in addressing policy issues towards implementation of national healthcare imperatives, including universal access. Importantly, such frameworks allow for prioritisation of the full care pathway, namely promotion, prevention, treatment and rehabilitation, in order to improve health outcomes across a patient’s lifespan. Frameworks also provide a useful tool to measure and monitor the impact and outcome of quality-improvement strategies. In accordance with existing conceptual frameworks, healthcare quality is understood here in terms of structure, processes and health outcomes, and in terms of different dimensions such as safety, timeliness, equity, efficiency, effectiveness, access and patient-centredness.

In South Africa, establishment of a strategic framework is essential for institutionalisation of quality care at frontline management and national levels, and to synthesise interventions undertaken to date. Ideally, such a framework should be people-centred, adaptive to population-specific health needs, and be responsive to patient needs, providing comprehensive care in a safe and timely manner as well as accountability in all health system actions. Furthermore, frameworks should be informed by existing international models, guided by local improvement experience, and characterised by ongoing learning. Lastly, the framework process should be collaborative across sectors in order to address the social determinants of health. Multilevel frameworks are therefore needed to outline strategic and actionable approaches to improve quality of care towards universal health access.

This chapter outlines the processes that informed the development of a multilevel national strategic framework to institutionalise and guide planning, delivery and measurement of health system quality. A situational analysis of existing government policies, strategic documents and implementation initiatives (locally and abroad) in order to leverage best practice, and expert knowledge and key stakeholder engagement were conducted. The strengths and limitations of the proposed framework are discussed, and a roadmap for implementation is provided.

Box 1: Definition of key concepts applicable to quality assurance and quality improvement in health care and health systems, South Africa, 2018

Quality: “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes, which are consistent with current professional knowledge.”

Quality of care: “the safe, effective, patient-centred, timely, efficient and equitable provision of healthcare services to achieve desired health outcomes. It takes into account patient safety, meaning the prevention of harm to patients and it employs clinical governance processes to assure quality.”

High-quality care: “care that is safe, effective, people-centred, timely, efficient, equitable and integrated.”

Core dimensions of healthcare quality:

- Safe: care that avoids harm to people for whom the care is intended.
- Timely: care that reduces waiting times and sometimes harmful delays for both those who receive and those who give care.
- Equitable: care that does not vary in quality on the basis of age, sex, gender, race, ethnicity, geographical location, religion, socio-economic status, linguistic or political affiliation.
- Efficient: care that maximises the benefit of available resources and avoids waste.
- Effective: evidence-based healthcare services resulting in improved outcomes for those who need them.
- Accessible: health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need.
- People-centred: care that responds to individual preferences, needs and values.
- Integrated: care that is coordinated across levels and providers and makes available the full range of health services throughout the life course.

Quality planning (QP): a structured process for developing services that ensure population needs are met by the final outcome.

Quality assurance (QA): the oversight process, which includes adherence to standards and guidelines, or the arrangements and activities meant to safeguard, maintain, and promote quality of care.

Quality improvement (QI): a properly rationalised sequence of steps implementing evidence-based care, to make the changes that will lead to better patient outcomes (health), better system performance (care), and better professional development (learning).
A high-quality health system achieves equitable health outcomes and a long and healthy life for all. Such a health system is:

❖ Designed to prioritise health promotion and protection, and the prevention, treatment and rehabilitation of conditions that constitute South Africa’s disease burden.
❖ Accountable through effective leadership and governance.
❖ People-centred in its approach to realising good health by facilitating patient, provider and community participation in health attainment.
❖ Responsive to patient needs by providing comprehensive care in a timely and safe manner resulting in quality outcomes.
❖ Adaptive to changing health needs through the collection, analysis and dissemination of information.
❖ Equitable in the allocation and distribution of resources, ensuring quality health service delivery to all regardless of gender, sexual orientation, socio-economic status and/or geographical location.
❖ Collaborative with other sectors in addressing the social determinants of health.1,11

Methodology
An extensive literature review was done on healthcare quality in South Africa; this included definitions, concepts and measurements of quality, conceptual frameworks of quality, and country case studies. Interviews were also conducted with key health stakeholders in South Africa to ascertain the current situation in the country with regard to quality-improvement policies, strategies and implementation initiatives. A situational analysis was done based on a review of the initiatives implemented to date, both locally and abroad. The literature review and situational analysis were then used to draft a multilevel national strategic framework for a high-quality health system in the country. The draft framework was presented and discussed at a National Lancet Commission workshop on ‘measuring quality of health care’ for further stakeholder and expert input, which has subsequently been incorporated into the framework.

Review of South African policies and regulation on quality in health care
Health policy development and reform spanning two decades demonstrated an overall commitment on the part of government to improve health systems quality. In 1997, the White Paper on the Transformation of the Health System in South Africa set the foundation for development of a unified health system aimed at delivering quality health care for all citizens, using a primary health care (PHC) approach.15

The first Policy on Quality in Health Care (published in 2001, revised in 2007) communicated the strategic intent to unify goals for quality assurance, based on promotion of evidence-based decision making and actions to ensure proper healthcare service utilisation. In particular, this policy proposed development of quality assurance, including effective interventions and monitoring strategies across the public and private sectors, towards the national aim of quality improvement.3 In this context, a set of norms and standards was launched by the Quality Assurance Directorate of the National Department of Health (NDoH) in 2001.16 In addition, national and provincial regulations were published seeking to govern the licensing and operation of private hospitals. However, these policies lacked clear imperatives and requirements for implementation and monitoring of quality improvement initiatives.17 In 2003, the National Health Act18 recognised the need to ensure quality in health, yet the absence of a strong regulatory framework to set goals, standards and measure quality improvement persisted.

In 2010, the NDoH re-emphasised its commitment to prioritising health systems quality through the “10-Point Plan for Improvement of the Health Sector”19 and the Negotiated Service Delivery Agreement,20 which sought to implement key quality assurance activities towards improvement of patient care and satisfaction, as well as advancement of health facility accreditation. In 2012, the NDoH published the Quality Improvement Guide defining quality and how it should be tested, implemented and sustained.21 However, inadequate planning and monitoring of quality, compounded by low awareness of quality-of-care policies, limited the potential for translation of these guidelines into practice. In addition, interpretation of policies was complicated, and the activities, roles and responsibilities of different healthcare stakeholders was unclear.

In 2013, the independent Office for Health Standards Compliance (OHSC) was established to ensure compliance with national quality standards across the public and private sectors.22 The Norms and Standards Regulations, gazetted in 2018, further sought to promote quality services by providing a benchmark for compliance to be measured against.23 Multiple specific national guidelines were published in 2017 to further assist in the provision of quality health care. In addition, the National Health Insurance Policy (2017) articulated the need to ensure universal access to quality health care.2 The policies are in keeping with National Development Plan 2030 (NDP), which seeks to promote a shift in quality of healthcare vision, underpinned by goals of universal coverage and reduced disease burden.24

In summary, the past two decades has seen a number of policies and regulations aimed at quality assurance and quality improvement across both the public and private sectors, however, implementation of these initiatives has been poor.25 Importantly, the imperative to increase equal access has overshadowed an equal imperative, namely to ensure that the quality of service improves the health of recipients.

Lessons learned from implementation
The policies and regulations outlined above provided the basis for multiple initiatives, which sought to advance quality assurance and quality improvement. In the public sector, interventions were initially on health system strengthening and aimed to improve access and to re-engineer PHC. However, multiple subsequent initiatives extended this focus to include quality assurance through accreditation, standard setting and audits, as well as Council for Health Service Accreditation of South Africa (COHSASA), the OHSC, the Ideal Clinic Realisation and Maintenance programme (ICRM) and others, and quality improvement through donor-funded projects, Best Care Always, and the Integrated Clinical Services Management (ICSM) programme which developed from the Ideal Clinic initiative. Prior to regulations requiring compliance with National Core Standards (NCS) and the OHSC, some private hospital providers underwent voluntary accreditation at the facility level by COHSASA, and at an organisational level based on International Standards...
Organization (ISO) criteria. COHSASA which was established in 1993 and accredited by the International Society for Quality in Health Care (ISQua) as part of a global movement to drive improvement in safety and health care.\textsuperscript{26,27} had functioned as an accreditor for public and private facilities in South Africa. However, initial research did not support a direct relationship between accreditation and improvement in health outcomes in public facilities.\textsuperscript{28}

From a private sector funder perspective, the company Health Quality Assessment (HQA), established in 2000 as a non-profit organisation, also performed annual reviews of clinical quality for over half of medical schemes to assist in evaluating and improving the quality of health care received by members. Lastly, both private providers and funders have undertaken and published patient-experience surveys.\textsuperscript{17}

In 2008, the NDoH developed the National Core Standards (NCS) as the first national co-ordinated effort to benchmark, measure and enforce quality assurance across all health establishments.\textsuperscript{29} A baseline audit of public health facilities conducted in 2011 confirmed poor performance on vital measures in PHC facilities in particular.\textsuperscript{29}

The Best Care Always (BCA) campaign, established in 2009, provides an example of a voluntary initiative driven by a small committee of individual health professionals and endorsed by both public and private healthcare sectors. A primary study, conducted in South Africa, described the implementation and impact of a central-line-associated bloodstream infection prevention bundle in Netcare private hospitals between 2010 and 2016.\textsuperscript{30} The bundles were incorporated into the NCS for hospitals and have formed an integral component in antimicrobial stewardship when monitoring antibiotic use. More than 200 public and private hospitals participated in this initiative, by implementing at least one infection prevention and control bundle.\textsuperscript{30}

In 2013, the ICRM initiative was launched to address deficiencies in the quality of PHC and to lay the foundation for implementation of National Health Insurance (NHI).\textsuperscript{31,32} The ICRM provided clear targets for the inputs for clinics, including basic infrastructure such as electricity and water, appropriate physical space, equipment, staffing (based on Workload Indicator of Staffing Need (WISN)), policies, and information systems. These requirements were aligned with the OHSC national core standards, and targets set for clinics to achieve ‘Ideal Status’. The Integrated Clinical Services Management (ICSM) model developed out of the ICRM to shift to a more comprehensive quality improvement approach to health systems improvement.

Lastly, the Lancet National Commission was launched in May 2017 to provide guidance to achieving a high quality health system in South Africa in May 2017 following the launch of the Lancet Global Health Commission on High-quality Health Systems in the SDG Era. This was done to galvanise research and action on quality of care across health systems in lower-middle-income countries, and to expand the solution space to include structural solutions.\textsuperscript{25}

In summary, support from government and donor-funded partners has resulted in multiple initiatives and pilots implemented to date. However, despite important developments towards quality assurance and improvement, these projects have been largely uncoordinated and fragmented, failing to achieve scalability, integration and coherence.\textsuperscript{33} In addition, interventions to date have predominantly targeted facility level care, largely failed to focus on systemic factors, and have been characterised by poor monitoring and coordination between government and key role-players. Moreover, such approaches have focused primarily on quality assurance without addressing all of the quality-improvement spectrum.

Interviews with key healthcare stakeholders in South Africa emphasised that the differences between quality assurance and quality improvement are still not widely appreciated. Stakeholders expressed concerns about low levels of quality associated with patient safety hazards, duplication of efforts, variable standards of care, unsafe work areas and labour grievances. Despite this, they felt that initiatives to date were not necessarily driven by the need for improvement, and placed focus on improving clinical governance rather than changing the system in a broader setting.

They further confirmed that a lack of adequate mentorship as well as training of quality managers at provincial and district level led to a struggle in effecting change. Issues relating to quality improvement to date have been aggravated by lack of accountability on the part of line managers, since inspection and patient satisfaction results are reported directly to the NDoH or OHSC. Stakeholders have agreed that it is imperative to offer quality-improvement training to medical and non-medical personnel.

Conceptual models and lessons learnt from international frameworks

To date, multiple strategies, techniques and conceptual models have been proposed to support the development of frameworks for quality improvement. Conceptual models, such as those of the World Health Organization (WHO),\textsuperscript{6,12} Organisation for Economic Co-Operation and Development (OECD),\textsuperscript{34,35} Van Olmen et al.\textsuperscript{36} and Peabody et al.,\textsuperscript{37} provide valuable lessons and insights in developing a national framework. Health system frameworks in developed countries emphasise a patient- and family-centred approach to health care at the facility level. In comparison, healthcare systems in the developing world focus on population-based healthcare goals and quality improvement at community level. However, low- and middle-income countries often lack well-developed and informed frameworks to support quality improvement in health systems. Therefore, a review of existing conceptual models and strategic frameworks in other countries suggest that single-level programmatic changes are unlikely to create the groundswell necessary for organisational orientation towards quality care in South Africa.

A review was done of OECD countries. Quality improvement is a core component of a national health systems framework in countries like Ireland, with emphasis on development of support structures and leadership at multiple levels. In addition, staff engagement and the incorporation of measurement metrics are emphasised as drivers of quality improvement.\textsuperscript{11} In New Zealand, the health systems framework aims to improve quality, health equity, and best practices to obtain the greatest value from public health resource utilisation.\textsuperscript{38} Emphasis is placed on improving healthcare quality through commitment to ongoing learning, leadership, informed practice, and clearly defined responsibilities for all role-players.\textsuperscript{39} South Africa joined Brazil, Russia, India, and China (BRICS) in 2010 in an association of five emerging national economies. Insights gathered from the development and implementation of national strategies and frameworks for health system quality improvement in these developing nations may ultimately inform similar procedures
in South Africa. In Brazil, many healthcare organisations are now seeking quality certification through a process of accreditation.\textsuperscript{40} However, the government is yet to develop a quality framework to support such efforts. In Russia, federal and regional laws have supported transformation of the healthcare system, and government is committed to developing policies that emphasise greater primary care and transition to insurance-based health care. In 2006, a national policy was launched to improve the country's healthcare system through improved funding initiatives.\textsuperscript{41} However, no current or past frameworks exist to institutionalise quality improvement. In China, government investment continues to support expansion of health infrastructure and promotion of equal health access as well as universal health coverage. By 2014, the Chinese government had committed to collaborating with the World Bank Group and the WHO to improve policy formulation and deepen health reform towards people-centred, high-quality, integrative health care.\textsuperscript{42} In the same year, the Indian National Quality Assurance Framework was established to improve quality standards for district hospitals and community health centres. Guidelines were prepared to define relevant quality standards as well as a robust system of measuring these standards.\textsuperscript{43}

A review of country case studies from Ghana, Ethiopia, Mexico, Scotland and Nigeria which had developed National Quality Strategies since 2010 highlighted key lessons.\textsuperscript{44} These included the importance of building on earlier in-country quality work, linkages to existing policies, extensive stakeholder engagement, leadership and local ownership, capacity development and funding for sustainability.

In the African setting, Tanzania focused on Kaizen (an approach, named after the Japanese word for "improvement", with activities involving all employees to continuously improve all functions) and quality process methodology and techniques, but without a strategic framework.\textsuperscript{45} Uganda developed a Health Sector Quality Improvement Framework and Strategic Plan (2015/16–2019/20) to promote equal access to quality health care. The strategic objectives of this plan are to strengthen leadership capacity and support quality improvement, with emphasis on promoting innovation and evidence-based models of care. This framework requires evidence-based norms, standards, protocols and guidelines to identify gaps and measure performance improvement.\textsuperscript{46} In Ethiopia, the government established a roadmap, which focused on introduction of community-based health insurance, PHC coverage, expansion of human resources, and development of online learning platforms. The Ethiopian framework emphasises patient-centred health care that is safe, effective and accessible, as well as multiple inputs to improve performance. Similar to the OECD model, the framework is laid out across four stages of care for lifelong commitment to health. The framework also seeks to identify indicators across priority health areas, including maternal and child health, non-communicable diseases, infectious illness, and surgical services.\textsuperscript{47}

Development of a national strategic framework

Lack of an overarching framework to consolidate policy and integrate initiatives has led to limited impact on health systems quality and health outcomes in South Africa. Given the ideal of

Figure 1: Proposed National Strategic Framework for a high-quality health system in South Africa, 2018
attaining a high-quality health system as defined by the National Lancet Commission, and based on insight gathered from the policy review and strategic analysis, a strategic framework was developed for quality improvement in South African health systems, as illustrated in Figure 1.

The proposed framework is built on the values and principles of compassionate care, equity, social justice, ethics and accountability, and aligns with explicit national goals and population outcomes.

The framework provides quality perspectives around health systems, health care and health outcomes. Guided by Donabedian’s approach, the logic model for a quality health system included the design, inputs, processes, outputs, outcomes and impacts. Inputs included national regulations, policy and standards, as well as the WHO building blocks of financing, the health workforce, medicines and health technology, and service delivery. Process, output and outcome requirements were framed around a life course from primary prevention, early detection of disease, accessible and effective treatment, rehabilitation, as well as chronic and palliative care with continuity of care. Impacts included population health outcomes in terms of disease incidence, morbidity, mortality, and quality of life. These were set within the local context, taking socioeconomic and cultural determinants of health and the burden of disease into account.

Importantly, the design and implementation of the proposed framework encompassed the full spectrum of Juran’s trilogy for developing sustainable countrywide practices built on a strong evidence base. The framework incorporated the principles of quality planning as the structured process for ensuring that population needs are met. Quality assurance was incorporated to ensure that the impact of quality health care aligns with broader strategic goals; and standards and guidelines are adhered to with the ultimate goal of safeguarding, maintaining and promoting quality of care.

A strategic quality care framework would be fruitless without the inclusion of metrics to measure the attainment of intentions. Quality metrics apply to each section and element of the framework, as well as across its multiple dimensions. In accordance with the South African National Lancet Commission, the metrics included a focus on quality care that is safe, timely, equitable, efficient, ethical, accessible and patient-centred. These dimensions were applied across the logic model and key stages of the care pathway, as shown in Figure 2.

It is imperative that all key role-players who provide input (including government entities, regulatory bodies, public and private health sectors, as well as other sectors) form transdisciplinary relationships to form a cohesive and integrative health system. In addition, patient and population engagement was incorporated as a fundamental aspect of input to ensure a framework designed with population-based healthcare needs in mind.

**Actioning of the proposed framework**

The ultimate success of the proposed strategic quality framework is predicated upon a sound action plan for implementation. A number of challenges must be overcome in order to action the proposed framework including: fragmentation at national, subnational and facility level; poor coordination among implementing partners and government institutions; and competing priorities within the health sector and across multiple sectors impacting health.

The proposed framework addresses the shifting burden of disease in...
South Africa as well as socio-demographic, economic and cultural determinants of health as they relate to health service quality. It also strives to find a balance in addressing a heterogeneous landscape at varying stages of development for implementation of quality health services. These key aspects should be addressed during the implementation phase.

Conclusions

In South Africa, the successful implementation of universal health coverage via NHI necessitates a sound foundation of quality care across health systems. To date, policies and interventions have achieved moderate success, but a holistic approach is required to restore trust and confidence in health services across the public and private sectors. The proposed framework presented in this chapter builds on and complements current policies and initiatives, provides stakeholders with a common language of quality, as well as a tool to facilitate policy coherence and locate initiatives in the quality cycle. These developments may ultimately improve co-ordination and implementation of quality strategies at scale, and provide metrics to monitor and measure outcomes. The proposed framework has several important limitations, including the fact that it remains to be implemented and actioned. However, its strength lies in its incorporation of the full spectrum of Juran’s trilogy, and that it is built on sound evidence gathered from a review of best practices and lessons learned locally and abroad. The incorporation of metrics for monitoring and evaluation of outcomes will be an important strength in implementation. Lastly, the novelty of the proposed framework lies in the integration and coherence of quality concepts at population and health-system level, while still providing relevant guidance at facility and community level.

In conclusion, the WHO handbook for developing a National Quality Policy and Strategy (NQPS) can support efforts to institutionalise a culture of quality across the health system.12 The WHO reminder regarding challenges to overcome when implementing a National Quality Strategic Framework is valuable. Developing an integrated, comprehensive quality strategic framework focussing on the health needs of communities is critical given that the healthcare-seeking behaviours of people are key drivers in how quality is defined and actioned at the frontline.50 The proposal offered here should be consulted extensively, with further elucidation of each of the key components and the development of detailed metrics.

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