

Health system quality improvement strategy and implementation plan



**Global Alliance
for Health
and Social Compact**

CONSULTANCY ASSIGNMENT

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FINAL REPORT

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For further information on this report and the project please contact:

Global Alliance for Health and Social Compact

22 Billet Street Taunton, Somerset TA1 3NG
United Kingdom of Great Britain and Northern Ireland

UK Tel / +441823321177

UK Fax / +441823423400

E-mail: office@gahsc.net

Dr. Tatiana Paduraru

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Introduction

Everyone expects the best care possible when they fall ill and a health system should be able to meet this expectation at a reasonable cost. Over the last decade, health and social care services in Georgia have taken important steps to increase access to health care and now prioritizes people receiving the best possible and safe care when they need it.

Definitely, the financial resources available for health and social care services affect the quality of care, but other factors such as attitudes and the way services are designed are important determinants of quality of care, and internationally there is evidence to show that money is not the only determinant of high quality care. Moreover, low quality of care costs more, because of inefficiently spent resources that do not achieve the intended goal.

The National Quality Strategy represents an important opportunity to establish a shared understanding of quality and a commitment to place it at the center of health services in Georgia and is the translation of the identified need and strategic focus as outlined in Georgian Healthcare System State Concept 2014 - 2020, where quality of care and strategies to improve them are placed in the center of the new concept. The aim of the state policy in the healthcare sector is *“to increase life expectancy of Georgian population, reduce maternal and child mortality, improve health status and quality of life [...] through provision of universal access to quality medical services and modern pharmaceutical products, balanced distribution of financial burden and increasing financial protection in the healthcare sector, effective use of existing resources, adequate response to population’s health needs and development of flexible governance system”*.¹

The strategy sets out a new focus on priority areas for action related to improving quality of health care for citizens of Georgia. It emphasizes the Government commitment to pursuing the aims and goals of quality of safe, effective and person-centered care. The National Quality Strategy is the first of its kind and has been designed with the goal to establish a shared vision for healthcare quality in Georgia, set specific goals and objectives and make measurable progress with specific deliverables.

¹ Government of Georgia ordinance no 724, dated December 26, 2014. On Approval of Georgian Healthcare System State Concept 2014-2020 “Universal Healthcare and Quality Management for Protection of Patient Rights”

Einstein is reputed to have believed that ‘not everything that counts can be counted; not everything that can be counted counts’². What this means is that measurement of quality is one of the available quality improvement strategies, but needs to be used carefully, as it may have unintended consequences for reporting behaviors or may miss important aspects that may be extremely important but cannot be quantified.

Some areas of quality measurements are easily available and accessible. Areas amenable to measurement are clinical processes in primary care and inpatient care, as well as some care outcomes. Patient experiences are usually fairly easy to measure, yet they require periodic surveys and the interpretation of these measures need to be balanced with objective measures of quality of care. Safety indicators are highly sensitive to organizational culture and regulatory practices and can go easily underreported if blame is attached to reporting of errors, significant events and facility acquired infections.

Others are the areas that are very important in the overall architecture of health systems, but considered “hard-to-measure”, therefore left as an afterthought to be reassessed for feasibility later. Such areas are for example:

- co-ordination of care along individual patient pathways
- co-ordination of care in care planning
- the ability of general practice to support patients to manage their own conditions at home and across multiple care settings.

The purpose of this report is to provide an overview of types and hierarchy of quality indicators and approaches to select and measure them, to provide an approach to selecting different levels of indicators for Georgia and to provide for discussion and approval the lists of national quality outcome indicators for the overall health system and quality ambitions indicators to be applied at medical institution level.

² King’s Fund (2011). Quality of General Practice: Independent Inquiry into General Practices. Chapter 3. Defining and Measuring quality of care. <http://www.kingsfund.org.uk/sites/files/kf/Independent-inquiry-GP-3-defining-and-measuring-quality-general-practice-March-2011.pdf>

Assessment of gaps and opportunities in the healthcare system to implement quality framework in Georgia

Introductory Note

As part of the Service Agreement on State Procurement of Advisory Services between Ministry of Labour, Health and Social Affairs of Georgia and "Global Alliance for Health and Social Compact" the priority no 9: Developing health system quality improvement strategy and its implementation plan (including developing of indicators of quality assessment of health system and medical facilities.

The list of deliverables includes:

Deliverable 1: Assessment of gaps and opportunities health system to implement quality framework in Georgia

Deliverable 2: Develop National Quality Strategy

Deliverable 3: Develop a set of indicators for quality assessment of health system and medical facilities

Deliverable 4: Developing Implementation Plan to the National Quality Strategy and assign implementation roles and responsibilities.

This report represents deliverable no. 1: Assessment of gaps and opportunities health system to implement quality framework in Georgia

Background

As many other countries in the world, Georgia is undergoing a population and epidemic transition, with a decreasing share of adult and working age population and an increasingly ageing population, and a shift in the pattern of disease towards long-term conditions, and growing numbers of older people with multiple conditions and complex needs. At the same time, there are continuing public health challenges such as lifestyle factors: high smoking and alcohol use rates, and epidemics of some communicable diseases, such as Hepatitis C, TB and HIV and vaccine-preventable disease outbreaks, such as measles.

On the population side, increased public awareness, access to open sources of information, creates higher expectations and requirements around treatments, diagnostics and medicines.

On the supply side, there is still a hospital-centric and specialty-based service delivery model ill-fitted for multidisciplinary and coordinated long-term care, although a primary care reform is ongoing, especially in the rural areas. Significant disparities in geographic distribution of the primary care infrastructure and workforce misbalance is noted, with a significant shortage of nurses and other mid-level health workers, especially outside large cities, which challenge the overall ability to respond to these changes in demand. Developments in technology and in information and communications technology changes and provides for an opportunity to modernize how healthcare will be delivered in the very near future.

Given the ageing population and transition to non-communicable long-term conditions, total health expenditure will continue to grow and put fiscal pressure on the overall country budget in the coming decades, and health care costs will rise faster than health funding sources. Economic gains can be made by increasing a focus on preventative and anticipatory strategies and involving consumers in their health care (reducing demand on the health system) and changing the way health care services are delivered (changing supply mechanisms). Integrating technology, changing the way teams of health professional's work between and with each other, and regulating for patient safety are some of the strategies able to produce cost-benefits.

Adequate gains in safety and quality will require system reform rather than just quality improvement activities. Major issues such as approaches to access, service delivery and funding models need to be tackled, as current approaches to safety and quality do not allow it to guide the system reform required to improve the safety and quality of health care in the future.

The current ongoing debate on universal health coverage concentrating on access to services, financial protection and quality of care in Georgia provides an opportunity to launch the process of strengthening quality of care systems throughout the entire Georgian health sector, as expressed in its Healthcare System Concept for years 2014-2020³.

³ Government of Georgia ordinance no 724, dated December 26, 2014. On Approval of Georgian Healthcare System State Concept 2014-2020 "Universal Healthcare and Quality Management for Protection of Patient Rights"

Brief overview of international quality systems and movements

Internationally, the safety and quality movement in health care originated from research illustrating the large volume of potentially preventable harm occurring in hospitals and the high profile public inquiries where health systems were revealed as unsafe that increased the awareness of the public, professions and government. Quality improvement techniques were imported from industry and error research resulted in the understanding that “system factors” allow or prevent individuals from making errors. Deficiencies in quality of care represent neither the failure of professional compassion nor necessarily a lack of resources, and result from gaps in knowledge, inappropriate applications of available technology or the inability of organizations to change. Health care systems fail to align practitioner incentives and objectives, to measure clinical practice, or to link quality improvement to better health outcomes.

In the context of health systems, it is now increasingly the domain of patients, of a well-informed public and electorate, and of a competitive market which compares performance with other countries.

The notion of dimensions of quality was introduced to international audience by the US Institute of Medicine⁴. The usual six dimensions of quality are: **safety, effectiveness, appropriateness, consumer participation, access and efficiency**. The language and emphasis has changed over time, ranging through various dimensions of quality such as effectiveness, efficiency, equity, appropriateness and timeliness of services. New notions have included clinical effectiveness, patient centeredness, integrated care, clinical governance and patient safety. The ‘dimensions of quality’ were rapidly included in health policy documents internationally, underpinning various frameworks for strategic change and performance. Since then, in OECD countries, there has been a shift in both the awareness of, and, investment in safety and quality of health services. It is now supported by investment in safety and quality by both public and the private sector.

The more recent frameworks tend to be more linked to the activities required to make changes. Current strategic frameworks contain clearly defined goals, objectives, strategies, and actions and stress clinical improvement, accountability and measurement.

⁴ Committee on Quality of Health Care in America, Institute of Medicine (2001). Crossing the Quality Chasm: A New Health System for the 21st Century

Most countries have developed health-care regulation to fulfil government responsibility to protect patients and the public through licensing (of institutions and of professionals) and legislation for institutional internal systems. Many countries have supported the role of professionals, academics and researchers in self-regulation and improvement against evidence-based standards for health services. Another approach to quality management is based on International Organization for Standardization (ISO) industrial systems which the European Union (EU) has formally adopted for goods and products, and will likely extend into services including health care.

Another emerging area is the increased pressure and practice for public reporting of quality of care and performance due to demands for transparency and public accountability and growth of technology and information. Many countries have started increased public reporting of hospital performance and general practice and comparative ratings. This is a potentially powerful tool to increase demand for more quality. Major reasons for placing data in the public domain are to stimulate provider action (ie increase quality improvement activity); promote public trust; and support patient choice.

The modern tools of used in improving health outcomes are increasingly based on quality improvement paradigm away from quality inspection and quality assurance deemed to not produce changes in outcomes. There is increasingly more evidence that allow to “grade” the potential for impact of different quality strategies – which helps with prioritization when designing the quality strategy for the country.

The most powerful and with a high potential for improving patient outcomes are considered the following quality interventions:

- Use of practice guidelines and protocols and measuring compliance against them
- High volume of care
- Performance-based remuneration and recognition linked to public reporting and accountability (comparative rankings).

The areas with the least evidence for link to improving patient outcomes are those related to regulatory processes, such as licensing and permits and malpractice litigations. The rest of

interventions are with medium level of linkage between their implementation and link to better patient outcomes. Details are provided in table 1 below.

Situation analysis of quality framework in Georgia

This section provides an overview of policies, structures, methods and resources for quality and safety currently available in the Georgian health system. In the spirit of continuity of work and avoiding overlap, this assessment builds on findings identified by a World Bank consultant who has conducted a similar assessment of quality system in Georgia in 2013 and a follow-on report in 2014, therefore the scope of this section is to only provide a very brief overview and additional information or updates that has not been included in the other two reports, or where differences in opinions exist.^{5, 6}

Current regulatory and policy environment

A brief analysis of the health policy landscape illustrates several sector specific regulations developed to provide licenses and permits to inpatient facilities and certification of the health professionals and a few policies to provide national direction and alignment for minimal requirements for health services through technical regulations. Most strategic frameworks have been relatively recently developed within parliamentary and government processes to align and simplify the regulatory processes with the sector-wide privatization and deregulation process, through which 80% of hospitals became private entities and most medical personnel became private service providers.

The *Law of Georgia on Licenses and Permits*, adopted in May 2005 and amendments enacted in 2011 (and implementation mechanism to add permits to inpatient facilities in 2010 through the *Government Resolution no. 385*), establishes the terms of the provisions of Medical Activity Licensing and Permits for inpatient services, which significantly simplified the approach to procedures for licensing and permits compared to the situation before 2005. According to these provisions, health inpatient facilities receive permit for an indefinite term and no reassessment

⁵ Chan B (2014). Recommendations on the Development of Quality Improvement Organizations for the Republic of Georgia. Unpublished report

⁶ Chan B (2013). Towards Accreditation, Results-Based Payment and Comprehensive Quality Management System for the Republic of Georgia

requirements if activities do not change.⁷ The same goes for licensing of health professionals – it is received once, there are no mandatory license renewal mechanisms or requirements for continuing medical education foreseen.

The outpatient facilities that provide high-risk health services, namely surgery, OB/GYN, emergency, dermatology and venerology, nuclear medicine, dialysis, infectious diseases (including HIV and TB) and immunizations are regulated by technical regulations as described in Government Resolution no 359.⁸ Additionally, minimum requirements towards outpatient facilities infrastructure, equipment and services are set by MOHLSA in its order no 01-25/N from 2013⁹. Finally, the latest regulation provides a framework for inpatient safety and hospital acquired infections¹⁰. These regulations are based on notification by the outpatient facilities themselves about the start and end of activity and do not include mandatory on-site check.

A policy enacted by MoLHSA in 2012 established the internal minimum quality and safety requirements for inpatient facilities.¹¹ While it sets the requirements to establish quality committees, and staff and minimum requirements for facilities and structures and develop plans of actions, it does not specify in detail the processes that need to arise from the new structures, tasks and the types of activities to be implemented.

The MoLHSA has set improving quality of health services a strategic priority in a few areas: recertification (license renewal) of doctors and setting certification and professional development systems for nurses, to develop a framework for measuring quality of medical services, to set systems for adaptation and update of national guidelines and standards, to improve internal and external quality control mechanisms and introduce accreditation of healthcare facilities.¹²

⁷ Government Resolution no 385, dated December 17, 2010. Establishment of rules and terms of the provisions of Medical Activity Licensing and permits for inpatient services.

⁸ Government Resolution no 359, dated November 22, 2010. Approval of technical regulations on the activities of high-risk medical interventions (apply to surgery, OB/GYN, emergency, dermatology and venerology, nuclear medicine, dialysis, infectious diseases (including HIV and TB) and immunizations

⁹ Ministry of Labor, Health and Social Affairs Order no. 01-25/N dated June 19, 2013. Minimum requirements to medical interventions and outpatient service providers (title 21.10.2014 N01-76/N).

¹⁰ Ministry of Labour, Health and Social Affairs. Order N01-38 / N 7 September 2015. Nosocomial infections surveillance, prevention and approval of control rules.

¹¹ Ministry of Labor, Health and Social Affairs Order no. 01-63/N dated September 12, 2012. Requirements towards internal quality improvement and patient safety systems in inpatient medical facilities providing medical services

¹² Government of Georgia ordinance no 724, dated December 26, 2014. On Approval of Georgian Healthcare System State Concept 2014-2020 “Universal Healthcare and Quality Management for Protection of Patient Rights”

Organizational structure for quality management

Compared to the previous WB assessment of quality systems conducted in 2013, little change occurred in the organizations and structures involved in quality management. The table 1 below describes the structures and their role and responsibilities in quality management in Georgia.

The table 3 below provides a detailed list of identified gaps and opportunities for interventions, in order to institute a modern quality system of healthcare in Georgia, structured by different health system areas. Below are a few points that need more elaboration regarding effectiveness of current regulations, quality measurement and ongoing quality improvement work.

Inspections

The infrastructure of quality systems in health-care institutions is based largely on private initiative and very diverse, at different stages of development. The current external medical audit system is based on reported non-compliance rather than systematic examination of clinical priorities – a mechanism for financial control rather than clinical learning. This largely excludes assessment of clinical outcomes and makes little use of clinical indicators at facility levels.

The current inspections aim to identify errors and non-compliance in organizations through conducting planned inspections and by reviewing identified cases of liability by a Professional Development Council. According to interviews with representatives from State Regulatory Agency of Medical Activities about 200 such cases are identified every year in the past few years, yet it does not provide reliable data, nor there is perception that it leads to institutional quality and safety improvement. This is very much in line with international experience that shows that such incident-based inspections are disruptive, expensive and do not lead to systemic learning and organizational-wide quality improvement.

Quality measurement

Policy makers in Georgia lack good quality, reliable, meaningful and timely data on clinical processes inside health facilities necessary to ensure baseline and ongoing monitoring for areas where safety and quality improvement should occur. Some of these areas include process-level

measures, such as current clinical practices, compliance to clinical guidelines, consumer participation and experience of care, and specific health outcomes for tracer conditions. Overall, the current routine data collection system includes mostly structure and utilization measures (staff, facilities and number of visits, emergency and hospital admissions, number of surgeries, C-sections). Outcome level data exist in form of certain indicators collected from routine data (i.e vaccination rates, antenatal coverage, cancer staging at time of diagnosis, treatment outcomes for TB and adherence rates for HIV, mortality-based indicators, i.e. postoperative case-fatality rates, confidential inquiry into maternal deaths) and periodic surveys, such as reproductive health survey, reproductive age mortality study, STEPS survey on chronic disease risk factors, Integrated bio-behavioral surveys for HIV and others. Some data, although mandated, goes underreported, i.e. given the fine system for adverse incidents, reports on hospital-acquired infections are low.

Quality improvement initiatives

With support from USAID, two major initiatives (Health Quality Improvement and ASSIST in Reproductive and Maternal Child Health) have developed new approaches to quality, specifically implemented quality improvement collaborative and capacity building in demonstration region of Imereti and established processes and measures for improvement at regional/local level. This work was built on previous rounds of USAID support to development of clinical guidelines and strengthening professional associations. This regional work has resulted in significant improvement of the quality (effectiveness) of health care for selected NCDs for patients, as evidenced by end-of-project report, resulting in 99% compliance with screening, prevention of CVD risk factors, 89% compliance with management of acute coronary disease, and increase by 80% for compliance with COPD management¹³. The intervention has resulted in significant cost-effectiveness and savings of four times more than expenditures made. Despite the potential to save hundreds of millions of GEL, at a country scale, scale-up would require significant investments, although the estimations show that rollout would be less expensive compared to the first demonstration effort. As both project came to an end in 2015, sustainability of these initiatives is yet to be assessed. Some of the

¹³ USAID Assist Project. Technical Report. Scaling up, Sustaining and Institutionalizing Better Health Care in Georgia: Results and Strategic Recommendations from USAID Support for Improving Quality of Priority Clinical Conditions during 2012-2015.

institutionalized tools include developed national protocols, quality course at Tbilisi Medical University, CME modules on clinical subjects (i.e. tobacco cessation, dyslipidemia). A hospital accreditation working group comprising MoLHSA, the Georgian Hospital Association, and the other USAID projects developed accreditation /clinical certification standards for management of Acute myocardial infarction, Adult asthma and COPD, Pediatric asthma and Pediatric pneumonia. Some work has addressed the national level, such as policy development for developing a framework for national accreditation, and setting up a working group to develop national indicators and another group to review of non-compliant cases in the area of perinatal services.

The table 3 provides the overview of gaps by key building blocks for quality management.

Georgian National Quality Strategy for Years 2016-2020

The need for a National Quality Strategy

Georgia is undergoing a population and epidemic transition, with a decreasing share of adult and working age population, increasingly ageing population, a shift in the pattern of disease towards long-term conditions, and a growing numbers of older people with multiple conditions and complex needs. At the same time, there are continuing public health challenges, such as lifestyle factors: high smoking and alcohol use rates, and epidemics of some communicable diseases, such as Hepatitis C, TB and HIV and other infectious disease outbreaks, such as measles.

While progress has been made into improving health expectancy, in improving health outcomes in maternal and child health and advancing management of communicable diseases (TB, HIV, Hepatitis C and vaccine-preventable diseases), non-communicable diseases, such as cardio-vascular and cancers are the leading causes of mortality and require urgent action in improving screening, detection and clinical management of these key drivers of health outcomes and demand for redesign of health systems to improve prevention, early detection and coordination of care through multidisciplinary clinical team across levels of care.

The current service delivery model is still predominantly an acute care hospital-centric and specialty-based outpatient care model that is ill-fitted for the necessities of chronic non-communicable diseases requiring multidisciplinary and coordinated long-term care. Significant disparities in geographic distribution of the primary care infrastructure and workforce misbalance, with a significant shortage of nurses and other mid-level health workers, especially outside large cities, challenge the overall ability to respond to these changes in demand. Developments in technology and in information and communications technology changes and provides for an opportunity to modernize how healthcare will be delivered in the very near future.

Given the ageing population and transition to non-communicable long-term conditions, total health expenditure will continue to grow and put fiscal pressure on the overall country budget in the coming decades, and health care costs will rise faster than health funding sources. Economic gains can be made by increasing a focus on preventative and anticipatory strategies and involving consumers in their health care (reducing demand on the health system) and changing the way health care services are delivered (changing supply mechanisms). Integrating technology, changing the way teams of health professional's work between and with each other, and regulating for patient safety are some of the strategies able to produce cost-benefits. On the population side, increased public awareness, access to open sources of information, creates higher expectations and requirements around treatments, diagnostics and medicines.

The current regulatory mechanisms are mostly oriented towards quality assurance that have the role to control entry into the practice of health care through compliance with minimum requirements and have little impact on ensuring quality and no impact on improving the quality of care. At the same time, policy makers in Georgia lack good quality, meaningful and timely data on clinical processes inside health facilities necessary to ensure baseline and ongoing monitoring for areas where safety and quality improvement should occur. Many initiatives aiming to improve quality of care in Georgia have been implemented with support from external partners in demonstration sites and built a foundation to grow from. A few national-level initiatives have been initiated during 2014-2015 and it is time to take these successful experiences to national scale and set a common national vision and framework that engages all stakeholders.

The new quality strategy will help to improve quality and safety of health care through establishing specific goals and targets and pave the road to achieve them through a roadmap to implementation. It includes the best knowledge in this area and builds on experience of pioneering countries with advanced quality systems in establishing national goals and who have been successful in achieving them, such as the United States, the United Kingdom and Australia.

Underlying principles and values of the National Quality Strategy

The National Quality Strategy identifies a number of principles and values that are attributes of high-quality services, as quality of care is a balancing act of competing views and needs of patients, health care professionals, managers, insurers and policy makers.

Clinical excellence - excellence in service delivery and founded on evidence-based best practice to achieve improvement in quality of care and reduce variations;

Continuity of care - ensuring a coordinated approach to health and social care in all health and social care sectors, and ensuring continuity of care across the levels of care system and encourage and effective collaboration between clinicians, patients and others;

Empowerment and involvement - providing support to people to take greater responsibility for their own health, encouraging them to maintaining their good health and decrease risk behaviors and lead healthier lives;

Respect for patient choice – treating patients with respect and dignity, non-discriminatory services, compassionate care, clear communication and explanation about conditions and treatment, openness, honesty and responsibility, and joint clinical decisions, personalized care, fairness and consistency in service delivery;

Measureable improvements of quality – improving data collection and public reporting about clinical processes based on new electronic health systems; increased public engagement including via greater collection of patient reported information;

Accountability– ensuring transparency in use of public funds to achieve health outcomes and providing comparative performance and information about quality of care in different health facility to improve patient choice based on objective and comparative information.

Quality Vision

Quality vision: to deliver the highest quality, safe, effective and person-centred care services to people in Georgia in order to support people to live as long as possible with a high quality of life.

The selection of key priorities under each of the quality ambitions **Effective, Patient-Centered and Safe Care** is based on the following:

- They have a significant impact on the health and wellbeing of individuals, and on the healthcare system as a whole.
- They are feasible and have moderate associated costs, as they build on current systems
- They are based on international best practices, yet are responsive to specific contextual factors in Georgia
- They can be improved through implementation of evidence-based interventions and strategies
- They can be implemented through national action and collaboration.

The National Quality Strategy is designed to be an adaptable and a broad roadmap that will require the ongoing development of specific goals, measures, benchmarks, and initiatives, through a continued transparent collaborative process with all stakeholders.

In order to achieve this vision and ambitions, there is a need to start doing new things, do some things differently, focus on evidence-based activities with maximum benefit, reduce harmful variation of care and inefficient activities and involve the people to a greater extent in the process of care.

Quality Ambition 1

Effective care: appropriate treatments and services will be provided to everyone in need, wasteful or harmful variation in clinical practices will be eradicated, resulting in prevention and better management of primary drivers of premature deaths and key priority conditions and improved life with chronic conditions.

Priorities:

- A. Ensure high quality evidence-based prevention, early detection and appropriate clinical management for priority diseases (cardio-vascular diseases and selected cancers) and key priority areas (MCH, TB, Hepatitis C).
- B. Reduce unnecessary hospitalizations and improve outpatient management of key chronic conditions.

How it will be achieved:

- Implement major national strategies for non-communicable chronic diseases, including cardio-vascular disease, cancer and primary care and other key priority areas (MCH, TB, Hepatitis C).
- Enhance focus on preventative and anticipatory care (i.e. screening for risk factors, smoking brief interventions) through increased role of outpatient management and primary care into management of NCDs, including introduction of performance-based payments.
- Develop care pathways between primary, secondary and tertiary care, to deliver better coordinated and integrated care.
- Use guidelines to reduce inappropriate variation in delivery of care.
- Collect and analyze quality data and use resulted information to drive consistently improvements in quality of care.

How it will be measured:

- Monitor and report nationally on key priorities: clinical capacity to appropriately manage stroke and AMI, emergency hospital admission rates for ambulatory-sensitive conditions, success rate for TB.
- Monitor and report at facility level and establish national data collection and facility-based reporting on clinical data on key priority diseases (i.e number of patients assessed for key risk factors (glycemia, high cholesterol/ LDL, smoking, blood pressure), screening rates for early detectable cancers, appropriate management of hypertension, people assess for Hep C treatment, TB patients receiving outpatient-based treatment from day 1.
- Establish medical flowsheets and audits for key priority conditions: IMA, stroke, hypertension, cervical and breast cancers, maternal and under-1 child care, TB, Hepatitis C.

Quality Ambition 2

Person Centered Care: patients get care that is sensitive to their needs and respects their opinions, they receive information they can understand and are empowered to take decisions based on it and self-manage their health, they know their health rights and have a positive experience of care.

Priorities:

- A. Increase quality of information and engagement of patient into care decisions
- B. Increase patient role in self-management of disease
- C. Introduce patient-driven measures of quality and outcomes of care

How it will be achieved:

- Strengthen patient-centered organization of services (reduce waiting times, improve friendliness of services, appropriate signs necessary for orientation and access to and in health facility, quality of IEC available in inpatient and outpatient facilities).
- Provide care in line with minimal conditions to ensure patient rights (including informed consent, confidentiality, privacy, understandability of provided medical advice).
- Appropriately support people to manage their conditions and maintain their health, and to manage ill-health through appropriate information and quality improvement interventions.
- Introduce requirements for patient experience surveys at facility level as part of quality improvement processes and plan actions in response to results.

How it will be measured:

- Implement approach for measuring individual patients own assessments of the quality of the outcome of their healthcare episode in primary, secondary or emergency care, so that a patient-based measure of health outcomes and experience to drive improvement in the quality of healthcare services.
- Facility-based user surveys on patient experiences of care.
- Reports on patient shadowing – a methodology that involves accompanying the patient through their care experience from the moment they arrive at reception until they leave the building, including periods in waiting rooms and consultations.

Quality Ambition 3

Safe care: people receive health care without experiencing preventable harm while accessing healthcare and receive it in a safe and clean environment

Priorities:

- A. Minimization of harm from health care errors
- B. Ensuring a safe and clean environment in inpatient and outpatient facilities

How it will be achieved:

- Develop a new organizational safety culture: not a “blame-free” culture but one that balances learning with accountability.
- Conduct “significant event” audit: confidential inquiry into maternal and other preventable deaths, audit of patient safety incidents and “near misses”.
- Establish clinical learning processes for anonymous cases, to minimize individual blame and improve overall clinical processes.
- Improve infection control practices through ensure appropriate levels of infection control budgets and leadership, ensuring universal hand hygiene and universal precautions.
- Implement patient safety programmes in acute and primary care.

How it will be measured:

- Increasing reporting of healthcare associated infection directly (monitoring rates of MRSA and clostridium difficile) and through proxies (reporting infectious complications in NICU and ICU, surgical site infections, sepsis, catheter associated urinary tract infections)
- Introduce monitoring to identify “never events”, “significant events” and “near misses”.
- Monitor facility-based funding levels designed to support safety and quality: reporting on levels of funding for gloves, liquid soaps, paper towels, sufficient supplies for invasive interventions (i.e. endoscopy, surgery, OB/GYN, dental)
- Implementing patient safety programmes in acute and primary care
- Improve infection control practices –universal hand hygiene hand hygiene, safety from blood borne diseases (use of universal precautions and injection safety measures).

Overview of the Implementation plan

The National Quality Strategy provides a clear vision of **where** to get in the next 10 years; a high-level statement of **how** to get there; and how to know that there is **progress** in achieving the quality ambitions (*Deliverable 3: Indicators*).

The purpose of this section is to provide an overview of implementation process and the high-level interventions needed to achieve the Quality Vision and Quality Ambitions. A detailed implementation plan and approach to setting new institution arrangements will be provided as *Deliverable 4: Developing Implementation Plan to the National Quality Strategy*.

National Quality Outcome Indicators and Quality Ambitions Indicators

Overview of Quality Measurement

Quality indicators have been described as “*specific and measurable elements of medical practice that can be used to assess the quality of care*”.

The father of the movement to assessing quality of care is considered Donabedian, who back in 1988 considered that the most important consequences and markers of high-quality care were care outcomes. According to him, outcomes were more likely to be realized if structural arrangements and processes of care met quality standards and appropriate structures and processes were in place. The Figure 1 below presents the types of inputs, processes and outcomes that he proposed to be measured for quality of care.

Since then, the science around measuring quality of care has moved towards more focus of processes as the cornerstone, especially in the context of managing long-term conditions and continuity of care. A good quality indicator should define care that is attributable and within the control of the person who is delivering the care. For example, for primary care it is more common to measure symptoms, diagnoses and treatments rather than outcome measures, as is for inpatient facilities easier to measure numbers of treatments and procedures, admissions and readmissions and occurrence of incidents. While these may or may not be reflected in outcomes, they are essential elements of the quality of services that are the most amenable to change in quality improvement activities. Experiences when outcome measures are used to

measure quality of care at facility levels have been implemented with various success and have not necessarily been evidenced to produce improvements in patient outcomes.

Outcomes are important in quality measurement, but achieving outcomes depends on having appropriate structures and processes in place throughout all levels of care and are usually more readily available for the overall health system (and other factors, too, such as education, social and economic systems) than a single level of healthcare. Highest levels of outcomes, such as population health and overall preventable mortality rates are not 100% causally related to health system performance and quality of care.

The newer emerging evidence has proven that the best suited types of indicators to assess quality of care are process indicators, as evidenced in the table 1. Below.

Types of quality indicators

The types of measures that have been used in different parts of the world historically have been the following:

1. Population health measures - reflect both socio-economic factors and markers of health system effectiveness, i.e. infant mortality rates (to measure maternal health and obstetric care access and quality) and age-standardised mortality and measures of longevity (to measure social determinants and health system effectiveness).
2. Markers of health system effectiveness, i.e. age-standardised healthcare amenable mortality rates.
3. Health system outcome measures i.e. cancer survival, ambulatory care sensitive (potentially preventable) hospitalizations, complications and readmission rates, 30-day mortality rates for specific conditions or interventions.
4. Health system process measures i.e. rates of screening and vaccination.
5. Patient perspectives i.e. patient reported outcome measures (PROMs) and patient experience and satisfaction data.

Increasingly more authors differentiate quality from performance indicators. Usually *quality indicators* are used for the following purposes:

- Quality assurance

- Benchmarking and quality improvement
- Accreditation
- Regulation
- Public reporting

Performance indicators are used for:

- Strategic purchasing and contracting purposes,
- Pay for performance
- Incentivizing certain outcomes - performance management
- Informing patient choice

At the same time, in the past decade a plethora of indicators have been developed and some of them have been used interchangeably as quality or performance indicators, sometimes inappropriately. One extreme example is to use “*reducing TB incidence*” as a pay for performance outcome indicator for general practitioners, which can have an immediate side effect of underreporting and not identifying and screening patients for TB, therefore indicators of this caliber should not be used for pay-for-performance and can be meaningful only if used at national level. Another example which is still prevalent in use not as a performance indicator - *the number of patients detected in stages I-II of cancers*, which creates perverse incentives to misclassify patients with stage III to stage II, in order to get the bonus payments. *Reducing avoidable hospital admissions* is also one with potential for unintended consequences if it is used as benchmarking depending on the context. If the primary care and outpatient care levels are weak and there is a hospital-centric model of care, one of the unintended consequences can be to not hospitalize eligible patients and leave them without access to care or with access to substandard care.

Finally, some indicators need to capture quality and experience of care for patients across the whole clinical pathway and this tends to be difficult to develop measures for, but important in the context of coordination of care for chronic non-communicable diseases.

Data sources and methods

The range of data sources for quality indicators depends on what measures of quality are readily available and which need additional data sources or data collection methods. At national level,

the available information can be categorized into two broad categories: patient-level information and aggregated data. Examples of the main sources of data for measuring the quality are provided below.

National level statistics – they are able to provide usually only the highest level outcome indicators and are not the sensitive and specific QoC indicators.

Primary care practice and hospital patient records and statistics – they become informative and able to provide QoC data once disease registries are introduced and electronic health records are implemented. Data can be aggregated to examine hospital admissions and referral rates for individual health facilities by details such as diagnosis, procedure and patient demographics.

Data from public health facilities regarding safety – i.e. hospital associated infection (HAI) rates and indicators can be used for external quality monitoring.

Patient surveys – countries introduce general practice patient survey and hospital patient surveys to patients' access to and experience of services as well as generate patient reported outcomes as the key instrument able to provide data on patient-centeredness dimension of quality of care.

Audits – facility-based (internal) and national (external) clinical audits have been practiced as a data source for quality indicators across levels of care, i.e. analyzing cases of acute coronary syndrome/myocardial infarction, that allows assessing the practices of PHC, emergency and hospital in a single case management.

Datasets on pay for performance frameworks have been used to measure QoC indicators.

With introduction of **electronic prescribing of medicines** software, analysis of prescribing practices of general practitioners has been used for monitoring and benchmarking prescribing patterns across practices.

Proposed framework for quality of care indicators measurement in Georgia

Based on current international best practices and evidence, the consultant proposes three levels of quality indicators that pursue different purposes and meet different needs in a health system.

1. **National quality indicators** are high-level outcome indicators that have the main purpose to provide the ‘big picture’ or a screenshot of the country’s progress overall from year to year, or from measurement to measurement. They reflect the main dimensions of quality of care, are

mostly already available or easy to be produced by the current health information system, but should not be used for benchmarking.

2. **Quality Ambitions indicators** are those linked to specific quality goals and purposes of the National Quality Strategy, are level-of-care-specific and some of them will be introduced for the first time in the country. These indicators require targets and reporting, which in itself is a compelling intervention for safety and quality improvement, and can be changed or raised as compliance and performance improve.
3. **Facility-based quality indicators** are those used for local specific issues by quality improvement teams that are not necessarily directly linked to national level quality goals, which allows for meeting the local issues and priorities as identified at institutional level.

Methodology used to identify and propose quality indicators for Georgia

The consultant has applied the following approach to identify the best candidates for national quality outcome/process indicators:

1. Developed a list of internationally collected and validated national indicators from a few sources: OECD quality indicators, indicators used by quality systems and as part of national strategies in the United Kingdom, the United States and Australia, the pioneering countries in the field of measuring national quality of care.
2. Selected indicators available in Georgia that have been previously used in the Health System Performance Assessment conducted in 2013 and can be linked to quality.

This resulted in a list of 46 national quality outcome indicators. The consultant assigned assessment criteria for scoring these indicators as follows in table 1 below. The criteria were the following:

- **Relevance:** the importance of what is being measured in terms of the impact on health status and health costs, the country relevance and the susceptibility of the problem to intervention;
- **Feasibility:** realistic to the capacity to implement it as soon as possible, builds on current existing system of data collection and is not dependent on developing new data collection processes.
- **Additional costs:** the indicator requires additional costs of obtaining data for the measure.

- **Reliability:** the soundness of the measure in terms of its validity, and the probability to receive meaningful results.
- **Sensitivity to QoC:** if the collected indicators is attributable to health system only or if there are extraneous/ third factors that influence it.
- **Unintended consequences:** potential for gaming and misreporting of the indicator as well as potential for adversely influencing the medical practice.

The scoring system assigned a score from 1 to 3, as explained in the table 2.

Based on this scoring system, the consultant has scored and prioritized 26 indicators. Further, they have been grouped into three major categories corresponding to quality priorities: **Effective Care, Patient Centered Care, Safe Care** and have been grouped under common areas and priorities. The result is a fairly balanced list of 8 domains of quality outcome indicators, of which 4 relate to effectiveness, 2 to patient centeredness and 2 to safety. The levels of care to which they apply cover both specific to inpatient and outpatient care, as well as above level of care. Finally, the disease priorities include both MCH (maternal and child outcomes) and NCD (cancer and cardio-vascular), inpatient and outpatient.

Table 3 below reflects the indicator scoring and selection process

Proposed list of Quality Ambitions Indicators

To match the goals under quality ambitions, for each of them a list of level 2 indicators has been identified in the literature and proposed for the National Quality Strategy.

For *Goal 1: Effective Care* 11 indicators are proposed to measure the following priorities:

- C. Ensure high quality evidence-based prevention, early detection and appropriate clinical management for priority diseases (cardio-vascular and cervical and breast cancer) and key priority areas (MCH, TB, Hepatitis C).
- D. Reduce unnecessary hospitalizations and improve outpatient management of key chronic conditions.

As a follow-up, the consultant jointly with the MoLSHA working group will select and identify which indicators are readily to be collected in the first stage, and which will be included after

12-18 months, once, disease registries, audit and electronic health records are fully implemented at national level.

For *Goal 2: Patient-Centered Care*, 11 indicators are proposed to measure the following priorities:

- D. Increase quality of information and engagement of patient into care decisions
- E. Increase patient role in self-management of disease
- F. Introduce patient-driven measures of quality of care

As to data collection, currently no routine data source exists. The consultant suggests introducing a national patient survey on an annual basis – to measure patient experiences, involvement, satisfaction, and patient reported outcomes. In parallel, conducting regular patient surveys should be introduced at facility level as well, as one of the requirement of QI activities.

And finally for *Goal 3: Safe Care* a list of 8 indicators is proposed. They measure the two priorities:

- A. To minimize harm from health care errors
- B. To ensure a safe and clean environment.

One of the fundamental steps to achieving and sustaining this improvement is the shift from a blaming to a learning culture inside organizations, a product of individual and group beliefs, values, attitudes, perceptions, competencies, and patterns of behavior. In facilities that have a strong safety culture, health care providers trust their coworkers and leaders to support them when they identify and report a patient safety event. When trust is established, staff is more likely to report patient safety events, and hospitals can use these reports to inform their improvement efforts. Therefore, the list of indicators includes rates of reportable adverse incidents and never events and infectious complications of surgeries should start to increase in time, a sign of shift in culture. They will require a new data collection flows and establishing a central unit of collection.

And finally, level 1 facility-based indicators identified for specific quality measurements and local quality improvement should be determined, selected and described as part of Methodological Norms for Universal Health Coverage Program and other state Programs.

Implementation Plan to the National Quality Strategy and options for implementation roles and responsibilities

Background

The purpose of this document is to propose a draft Implementation Plan to National Quality Strategy for years 2016-2025 (NQS) and to provide an overview of the needed strategies and structures in place to implement the NQS.

The National Quality Strategy has the purpose to establish a shared understanding of quality and a commitment to place it at the center of health services and to create a strategic quality framework in Georgia. The quality vision is to deliver the highest quality, safe, effective and person-centered care services to people in Georgia in order to support people to live as long as possible with a high quality of life. The NQS will be a living document and will be subject to periodic review, to ensure it remains fit for purpose.

The NQS establishes three Quality Ambitions:

1. **Effective care:** appropriate treatments and services will be provided to everyone in need, wasteful or harmful variation in clinical practices will be eradicated, resulting in prevention and better management of primary drivers of premature deaths and key priority conditions and improved life with chronic conditions.
2. **Person Centered Care:** patients get care that is sensitive to their needs and respects their opinions, they receive information they can understand and are empowered to take decisions based on it and self-manage their health, and they know their health rights and have a positive experience of care.
3. **Safe care:** people receive health care without experiencing preventable harm while accessing healthcare and receive it in a safe and clean environment.

A draft implementation plan is proposed below as an operational tool to establish necessary steps, timelines and assign responsible.

Draft Implementation Plan for the National Quality Strategy 2016-2025

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|--|---|---|---|
| I. Vision and culture | | | |
| 1.1.Development and implementation of a national quality strategy with an implementation plan for years 2016-2025 | <ul style="list-style-type: none"> National quality strategy and implementation plan consulted, approved for implementation and operationalized. | Short-term Year 1 Start 2016-end 2025 | MOLHSA SRAMA Professional associations NCDC Health Organizations |
| 1.2.Transforming the culture – encouraging a new culture of process- and outcome-oriented quality improvement | <ul style="list-style-type: none"> Increasing number of adverse incidents and near misses reported Increased evidence of more effective complaints resolution and learning Improved levels of satisfaction by both staff and patients. | Medium-Long Term Start 2016-end 2025 | Health organizations MOLHSA SRAMA |
| II. Governance and institutional framework | | | |
| 2.1.Establish appropriate governance arrangements and institutional capacity to manage the quality components, with diverse independent roles | <ul style="list-style-type: none"> Governance structure for implementation of National Quality Strategy decided and formalized New institutional frameworks with clear separation of roles and responsibilities through adoption of new bodies/amendments to current responsibilities and appropriate funding levels established Staff hired and trained | Short-term Year 1-2 | MOLHSA SRAMA Professional associations NCDC |
| 2.2.Assign expanded roles and for implementing a broader | <ul style="list-style-type: none"> New institutional frameworks with clear separation of roles and responsibilities | Short-term Year 1-2 | MOLHSA SRAMA |

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|---|--|------------------------|--|
| range of quality management mechanisms to increase quality of care: routine and non-routine quality measurement, setting quality standards and external quality assessment, public reporting and accountability and quality improvement | through adoption of new bodies/amendments to current responsibilities and appropriate funding levels established <ul style="list-style-type: none"> • Staff hired and trained | | NCDC Medical education programs offering QM |
| 2.3.Institute national accreditation body for inpatient and outpatient health facilities | <ul style="list-style-type: none"> • New institutional framework with clear mandate for the role and sustainable funding mechanisms established and approved • Staff hired and trained | Short-term Year 1-2 | MOLHSA New entity |

III. Raising the standards - regulatory mechanisms and guidelines

| | | | |
|--|--|--------------------------|-------------------------------|
| 3.1.Update/develop new permits and technical regulations for healthcare facilities to meet the current needs | <p>New regulatory acts developed or current regulatory acts amended to:</p> <ul style="list-style-type: none"> • Introduce additional requirements related to governance and management • Introduce provisions related to situations when permits can be revoked • Introduce requirements for permits/technical regulations for all health organizations, including PHC and dental services | Medium term Years 1-5 | MOLHSA SRAMA |
|--|--|--------------------------|-------------------------------|

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|--|--|--------------------------|--|
| | <ul style="list-style-type: none"> Add requirements regarding quality processes, including safety and clinical effectiveness in a health care setting. | | |
| 3.2.Raising the clinical standards through instituting mechanisms for periodic revision and update of national protocols, developing short clinical aides, patient information aides and periodic measurement of compliance to the national standards | <ul style="list-style-type: none"> New regulatory acts developed to ensure periodic update of national clinical guidelines and their implementation at local level Number of national guidelines and protocols updated according to the planned timeline Mechanism to monitoring compliance to clinical protocols (facility-based audit) introduced | Medium term Years 1-5 | MOLHSA Professional associations Health organizations |
| 3.3.Update regulations for licensing of health professionals | <ul style="list-style-type: none"> New regulatory acts developed or current regulatory acts amended to introduce license renewal requirements and provisions | Medium term Years 1-5 | MOLHSA Ministry of education |
| 3.4.Introduce accreditation for undergraduate medical education mandatory for all medical education programs in the country | <ul style="list-style-type: none"> In collaboration with MoE, accreditation of programs for undergraduate medical education established | Medium term Years 1-5 | Ministry of education MOLHSA SRAMA |
| IV. Quality monitoring | | | |
| 4.1.Establish a framework of quality indicators structured according to levels (national | <ul style="list-style-type: none"> Framework of national quality outcome indicators (level 3) and | Short-term Year 1 | MoLHSA NCDC Health organizations |

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|---|---|---|---|
| outcome, national quality ambitions indicators and quality process indicators at different levels of care | quality ambitions indicators (level 2) finalized and integrated in the data collection systems. <ul style="list-style-type: none"> Sub-level indicators (level 1) developed, consulted approved and integrated for quality monitoring into methodological norms for UHC programs and other state programs Revisions and updates of indicators based on implementation experience | Medium-long term Years 2,4,6,8 | Integrated e-Health Unit |
| 4.2.Establish expanded set of data collection flows | <ul style="list-style-type: none"> Data collection methods defined and finalized Data analysis and presentation units established Revisions and updates of indicators based on implementation experience | Short-term Year 1 Medium-long term Years 2,4,6,8 | MoLHSA NCDC Health organizations |
| 4.3.Establish patient/disease registries, implement electronic health records and integrated e-health systems | <ul style="list-style-type: none"> Data needs described and introduced into the Integrated e-health system at facility level Patient-level data (patient/disease registries, facility-level data defined and data collection processes introduced. Revisions and updates of indicators based on implementation experience | Short-term Year 1-2 Medium-long term Years 2,4,6,8 | MoLHSA Integrated e-Health Unit Health organizations NCDC |

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|--|---|--|--|
| 4.4.Introduce systematic measurements of patient experience, patient engagement and patient reported outcomes through periodic surveys and routine collection at facility level | <ul style="list-style-type: none"> • Patient experience indicators and questions integrated into ongoing national population-based surveys (i.e. health modules of the National Household Budget Survey). • Patient surveys introduced at facility level. | Short-term Year 1-2 | MoLHSA NCDC Health organizations Assigned entity |
| 4.5.Establish a system to stimulate reporting of adverse events through changing the incentives for anonymous reporting | <ul style="list-style-type: none"> • Response and Learning System to register confidential reports of significant events established • Number of reported events by type and facility increases | Short-term Year 1 | MoLHSA |
| V. Public Reporting | | | |
| 5.1.To introduce public reporting of health facility level quality assessment results for health facilities as a way to increase accountability | <ul style="list-style-type: none"> • Summary of external quality reports and ratings published and open to the public for patient choice | Medium term Start Year 2 End Year 10 | Quality assessment entity |
| 5.2.Public reporting of annual reports on status of quality of care health facility level and develop new formats for data presentation for different audiences | <ul style="list-style-type: none"> • New formats for data presentation for different audiences (managers, health professionals, consumers) developed • Results of annual measurement of quality indicators published and open to the public | Short-term Year 1-2 Medium -long term Start Year 2 End Year 10 | MoLHSA Assigned entity |

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|-------------------|--|----------|-----------------------|
| | <ul style="list-style-type: none"> Results of patient experience surveys published and open to the public | | |

VI. Quality Improvement Capacity

| | | | |
|--|---|---|--|
| 6.1.Develop a national quality improvement implementation plan | <ul style="list-style-type: none"> National quality improvement plan consulted, agreed and approved by MOHLSA | Short-term Year 1 | MoLHSA Or Assigned entity for QI Health organizations |
| 6.2.Develop implementation tools for key priority diseases in line with quality ambitions | <ul style="list-style-type: none"> Number of QI support tools (i.e. decision trees, pathways, audit forms) developed and institutionalized | Short-term Year 1-3 | MoLHSA Assigned entity Health organizations |
| 6.3.Introduce QI interventions for priority clinical areas and quality ambitions at facility level in all regions | <ul style="list-style-type: none"> Number of regions introducing quality improvement activities at facility levels based on experience of USAID quality improvement projects | Short –long term Start Year 2 End Year 10 | Health organizations Regional/municipal authorities |
| 6.4.Capacity building of QI teams using the CME modules | <ul style="list-style-type: none"> Number of people trained in clinical QI during their CME | Short –long term Year 1-10 | Health organizations Medical education programs |
| 6.5.National QI campaigns in priority clinical areas | <ul style="list-style-type: none"> Patient support materials developed Communication channels established | Short –long term Years 2-10 | Assigned entity Health organizations Patient associations |

VII. External Quality Assurance

| | | | |
|--|--|------------------------|--|
| 7.1.Develop and implement external quality assessment processes | <ul style="list-style-type: none"> Establish and develop the general quality standards by level of health | Short-term Year 1-2 | Quality assessment entity MoLHSA |
|--|--|------------------------|--|

| Key interventions | Measure of achievement | Timeline | Responsible/ involved |
|--|---|--|----------------------------------|
| | services (i.e. inpatient, long-term, PHC, specialized) <ul style="list-style-type: none"> • Establish and develop tools for monitoring services on three dimensions of quality of care • Implement external quality assessments | Medium- to long-term Years 3-10 | |
| 7.2.Develop and implement accreditation standards and processes | <ul style="list-style-type: none"> • Establish and develop the general accreditation standards (for self-assessment and external assessment) • Develop clinical accreditation standards in key non-communicable areas • Introduce clinical accreditation standards (initially with perinatal services) • Implement accreditation of inpatient and outpatient facilities • Implement accreditation of clinical services | Medium-term Years 3-5 Short-medium-term Years 1-5 Medium- to long-term Years 2-10 | Quality assessment entity |
| 7.3.Expand the role of inspection and add the dimension of overall facility-level quality improvement to complaint-based inspections. | <ul style="list-style-type: none"> • Number of recommendations for facility-level quality improvement that have been formally followed up and re-inspection has shown a change. | Short- to long-term Years 2-10 | SRAMA |

Steering and implementation structures of the National Quality Strategy

To support the delivery of the NQS, it is necessary to establish an effective management and coordination structure, in order to maintain focus and monitor achievement of the quality ambitions and priorities. It is proposed that the MOLHSA establishes a Steering Group under its auspices, to oversee implementation of the NQS and to report on progress regularly to the government. Members of this steering group should be health professionals and recognized quality professionals, as well as users of health services and non-governmental organisations.

In line with proposed seven building blocks in the implementation plan, the consultant suggests establish 7 work-streams to further develop and operationalize the proposed draft activities with consultations and inputs from all stakeholders and relevant entities.

1. Vision and culture
2. Governance and institutional framework
3. Raising the standards - regulatory mechanisms and guidelines
4. Measuring and monitoring quality
5. Public Reporting
6. Quality Improvement Capacity
7. External Quality Assurance

Each of the working groups will then establish the targets and key deliverables for each phase (short-term, medium-term and long-term), identify the resource and input needs and preconditions. In addition to operationalizing and finalizing the Implementation Plan, the seven working groups could also be involved in the monitoring of implementation, updates and revisions it on a regular basis based on the results of monitoring the implementation.

Governance and options for quality institutional framework

External support to institutional frameworks for quality

Georgia has received previous external technical assistance to advise on models and the way forward to set up external quality management systems, including quality assessment and accreditation systems and outlining the core models, governance models and lists of responsibilities in two rounds: through the USAID Co-Reform project back in 2005-2006^{14, 15} and through a World Bank Project in 2013-2014^{16, 17}.

The USAID provided technical support to:

1. Develop the current regulatory system for Licensing and Permits - it has been partially implemented as proposed (except the provisions for re-licensing for both healthcare facilities and health professionals and inclusion into permits system of dental services and primary care practices).
2. Develop accreditation of healthcare providers and hospital accreditation standards. The consultant proposed to establish a non-governmental body and a voluntary accreditation program – it has not been implemented.

The World Bank provided technical support to:

1. Describe existing institutional frameworks in the world,
2. Establish roles, mandates and structure of a quality management entity a
3. Develop a high-level work plan.

The consultant advised on extended mandates of current institutions engaged in different aspects of quality and has advised on setting a National Quality Improvement Agency with 20 staff and an independent accreditation body outside MoLSHA with 5 people.

Yet, either model has not materialized yet into setting up any of the proposed institutional frameworks.

¹⁴ Schwark T (2005) for USAID CoReform. Concept for a hospital accreditation system in Georgia.

¹⁵ Schwark T (2006) for USAID CoReform. Concept for Healthcare permits, licensing and Accreditation in Georgia.

¹⁶ Chan B. (2013). Towards Accreditation, Results-Based Payment and a Comprehensive Quality Management System for the Republic of Georgia.

¹⁷ Chan B (2014). Recommendations on the Development of Quality Improvement Organizations for the Republic of Georgia.

With the approved Healthcare System State Concept for the years 2014-2020 that prioritizes access to and quality of health services, and with commitments taken by Georgia in its relationships with the European Union and the World Bank, setting up a framework for external quality assessment and advancing towards an accreditation system has become imperative. The in-country interviews with stakeholders highlighted the political commitment to achieve this goal, but concerns about feasibility and the need to develop it gradually and with a long-term perspective.

This section builds on previous technical assistance and updated current views and opinions and provides an overview of current institutional framework and setup around quality and develops a few options for moving forward.

As presented under Deliverable 1 assessment, the current quality mandate in the health system is incomplete and lacks a few key functions with the high and medium potential to improve quality of care:

- **Quality Planning** is performed with a mandate limited to regulation at the level of MoLSHA
- **Regulations and Standards** are developed by MoLHSA and implemented by State Regulatory Agency for Medical Activities and Professional Associations develop but do not update guidelines
- **Quality Measurement** is nearly non-existent, with only few structure measures and high-level outcome measures not specific to QoC available
- **Public Reporting** is limited to high-level outcome measures not specific to QoC and without providing information for consumer choice by facility level
- **Quality Improvement** is currently conducted with great variability and outside national framework – Quality Committees and managers are required in inpatient facilities, but their activities are not monitored and requirements for processes set and excellent QI activities have been shown to have significant impact on improving patient outcomes when done at facility/regional level (USAID projects).
- **Quality Assurance:** the current methods of are based on licensing and permits for indefinite terms and quality assessments are based on incidents and complaints and is not well regulated.
- **Accreditation** is in development phase for perinatal services.

Therefore, the strongest mechanisms for improving quality, such as quality measurement, public reporting, quality improvement at facility level and raising standards for care and accreditation are missing and need new structures and administrative processes. After having reviewed the current functions and flows, and literature review of models of QM systems in leader countries in the field and the options outlined by other consultants, as well as interviews with decision-makers in Georgia, the options are proposed, as outlined in the table below.

The consultant recommends **Option I** as a balance between Option II (setting up two independent bodies - National Quality Improvement Agency and national accreditation body, outsourcing public reporting and expanded role of current structures) due to high associated costs and insufficient staff able to implement at such scale, and option III of expanding and integrating the quality management roles in the existing structures with its current limitations.

Option I envisages to establish only one new independent body for external quality assessment, generically named the National Agency for Healthcare Quality Management (NAHQM) that in time will translate into full-fledged accreditation process, while integrating the other quality components management functions in the current structures.

The advantages and the reasons behind proposing this model are that:

1. The model follows the international best practices of establishing an independent body separately for setting quality standards and accreditation that does not combine other functions, therefore avoids conflicts and competing needs of other areas of quality systems.
2. The model allows for a gradual evolution and flexibility in forms of external quality assessments and reassessments to evolve to accreditation and reaccreditation processes in time. At the beginning, the requirement would be to register with the NAHQM and undergo external quality assessment, by using the model of the quality inspections conducted by Care Quality Commission in the UK.¹⁸
3. The proposed model of this body is a Public Entity with extended autonomy and independence – if such status is legally possible. The advantage is that it is not restricted in setting salaries as public employees and has the capacity to attract talent and setting high standards and operations, yet it is still a public authority. If such status is not possible, the client should choose an appropriate legal entity within possible options.

¹⁸ Care Quality Commission web site. <http://www.cqc.org.uk/>

4. The proposed the new entity ensures a broad representation and transparency practices in the decision-making through a balanced governance structure that cannot be monopolized, through establishing a Board comprising different stakeholders and interest groups, not only as an advisory body to the organization, but also with responsibilities to review and approve assessment reports. The decision-making is also shared between a President and a Director.
5. Given that it charges for its services and generates own resources, this entity is not fully reliant on public funding and is feasible and realistic for the Government to support.
6. The main team is quite compact, representing three units: Standard Setting Unit, Quality Assessment/Accreditation unit for hospitals and Quality Assessment/Accreditation unit for outpatient facilities/primary care units. They can be set all at once or in staggered phases depending on capacity to attract sufficient number of qualified staff.
7. The assessment work is outsourced to a national team of assessors hired on a fee-for-service needs-based basis. Transparent procedures for selection, capacity building and performance are established, as well provisions setting expectations / supervision for independence and ethics of assessments.
8. The proposed source of assessors is linked to capacity building of the quality management workforce and strengthening the national education capacity to train qualified assessors and quality management staff, through stimulating demand for such competencies in the country and quality-related career paths.

The draft normative act for Componence, responsibilities, organizational structure of the National Agency for Healthcare Quality Management is presented in Annex 1.

Under option 1, Quality Measurement is separated for level 1 and 2 indicators – they are to be collected through the integrated e-Health system and the analysis unit assigned for this role, while level 3 indicators are under NCDC’s mandate.

The undetermined entity is for the national reporting and learning system of significant events. This assignment needs to be carefully considered, by the work stream group, so that reporting is incentivized and learning prevails and no targeted punitive action follows anonymous reporting.

In this option, the public reporting functions is split between MoHLSA and NAHQM.

Finally, quality improvement component is managed and implemented through existing structures with enhanced roles. As the quality improvement work should mostly be happening at service provision level, the central unit is not needed to be extensive and has more of a coordination role, therefore in this model the national quality improvement is steered through one-two staff and ad-hoc working groups at MoLSHA, or unit at NAHQM and most capacity building and QI work is done at regional/facility level, by scaling up the USAID model used in demonstration sites.

Option II envisages that, in addition to NAHQM, to establish a Quality Improvement Agency, whose role would be to support quality improvement building block through capacity building, developing tools and decision supports and conducting QI campaigns, according to the model advised by the World Bank consultant. The advantage is that this function is separate from quality assurance and regulation and there is no risk of competing needs and conflicting roles of the same organization, the disadvantage is the additional operational costs associated to a new entity.

In this option, a third independent body is also foreseen, with the role of social accountability and public monitoring of health facility performance and quality of care assigned to a non-governmental independent organization, in the same spirit of increased transparency and accountability and avoiding vested interests in case of other entities, as well as better technical capacity for data analysis and presentation skills to different audiences. The disadvantage is that there needs to be openness and raw data sharing protocols established between the data collector unit and a non-governmental entity, as well as additional costs and sustainability concerns because of outsourcing of this function.

Option III does not foresee any new body established for any of the new quality building blocks, rather all roles are reassigned through expanded mandates to existing institutions. Within this model, all quality measuring and monitoring is assigned to NCDC (with a new established unit for this purpose), quality improvement is coordinated by the current quality staff at the MoLSHA while all the QI interventions are required to the health facilities to be conducted within the limits of their budgets and own resources and setting quality standards and external quality assessment is assigned to the State Regulatory Agency for Medical

Services, with establishment of additional departments if possible. While this is probably the least expensive model to implement, it is based on the assumption that the current structures have the capacity and the motivation for internal reforms and changing roles and this need to be confirmed by the entities themselves. At the same time, this model does not allow for institutional separation of external quality assessment and accreditation function from regulatory and inspection function and quality improvement is left with little steer and national presence.

Ultimately, it is up to the national stakeholders in the country to decide on the best combination and architecture that will best serve the ultimate goal of improved patient outcomes and quality of care.

Annex 1. Draft Normative Act

Componence, responsibilities, organizational structure of the National Agency for Healthcare Quality Management

I. Founding the National Agency for Healthcare Quality Management

The National Agency for Healthcare Quality Management (NAHQM) is a Independent Agency and Legal Entity Under Public Law and is specialized institution of the public central authority in the area of quality management which works under the Government/MoLSHA.

1. The NAHQM is an external assessment and accreditation body for medical institutions
2. The categories of healthcare institutions for accreditation are determined by NAHQM in coordination with MOLSHA.
3. The NAHQM is financed through own income and subventions form the public budget.

II. Goal, objectives and responsibilities of the NAHQM

4. The goal of NAHQM is to stimulate continuous quality improvement of healthcare services and patient safety, through standardization and quality assessment of health services and accreditation of healthcare facilities.
5. The objectives of NAHQM are the following:
 - a. To adopt quality standards in consensus with relevant institutions and organizations
 - b. To assess quality of health services offered by health providers at each level of healthcare
 - c. To ensure traceability of processes of health services offered to patients at facility level
 - d. To monitor continuity of quality of health services offered by health institutions
6. To achieve its main objectives, the NAHQM has the following responsibilities:
 - a. Takes part, in collaboration with MOLHSA in the development and implementation of National Quality Strategy in healthcare
 - b. Initiates projects of normative acts for harmonization of national legislation regarding quality of healthcare services with international regulations in the domain and promotes them within the Government;

- c. Develops procedures, standards, and methods for quality assessment and accreditation, with consultation with relevant bodies (MOLSHA, professional associations, patient associations etc.)
- d. Recognizes, in line with methodology developed by the President of the NAHQM, the bodies enabled to develop specialists in healthcare quality management in health institutions that enroll into quality assessment and accreditation processes implemented by NAHQM.
- e. Assesses, reassesses, accredits and reaccredits healthcare institutions and monitors quality assurance of health services at this level.
- f. Issues and withdraws accreditation certificate for healthcare facilities
- g. Initiates, promotes and implements research activities in the area of quality of healthcare services.

III. Governance structure and Functioning of NAHQM

7. The management of NAHQM is assured by:
 - a. The Board
 - b. The President of NAHQM
 - c. The Director
8. The Board is comprised of seven members who are designated by:
 - a. The Prime Minister/ Minister of LHSA
 - b. Professional Associations representing the Primary Care Physicians, Nurses and Midwives, Quality Professionals
 - c. Representatives of Health Facilities (Hospitals and Primary Care)
 - d. Health Insurance Companies
9. The members of the Board should meet the following criteria:
 - a. Should be holders of higher education diplomas and 10 year + work experience over in the areas of medicine, management, public and business administration, law, economy.
 - b. To have 3-year + experience in the area of health management
10. The members of the Board are designated by relevant bodies for a non-renewable mandate of 5 years.
11. The members of the Board have the obligation to respect professional secret and will sign Conflict of Interest and Confidentiality Declaration Forms.

12. The term of a member of the Board can be suspended before termination in the following situations:
 - a. Renouncing to membership
 - b. As a result of not fulfilling the obligations according to terms of reference, at the initiative of the President or other members
 - c. Significant deviations from legal provisions
 - d. The nominating body withdraws nomination
13. The Board elects through secret vote a Deputy President from the members of the Board
14. The Board meets regularly on a monthly/semester basis and ad-hoc on a needs-basis, at the request of the President or Deputy President
15. The Board meeting is legally valid if 5 out of 7 members are present.
16. The Board takes decisions if they are adopted with two thirds of its members.
17. The President of the Board can designate in his/her absence the Director to take part as a voting member in his/her name.
18. Other persons can be invited to meetings without voting rights.
19. The main responsibilities of the Board are the following:
 - a. Approve through decision and according to regulatory provisions, the accreditation of healthcare institutions based on the recommendations developed by specialized structures of the NAHQM
 - b. Approves procedures, standards, and methods for quality assessment and accreditation of healthcare institutions.
 - c. Approves the multiannual plans for quality assessment and accreditation proposed by the President
 - d. Establishes categories of quality assessment and accreditation of healthcare facilities
 - e. Reviews and approves the activity and financial reports of NAHQM
20. The NAHQM is led by the President, nominated/elected for a term of 5 years.
21. Early termination of the term can be in the following situations:
 - a. Through resignation
 - b. As a result of penal condemnation emitted by an irrevocable judicial decision
 - c. Impossibility to exercise responsibilities for a period of more than 90 days
 - d. Death
22. The President has the following responsibilities:

- a. Oversees implementation of the Board Decisions
- b. Emits decrees for accreditation of institutions on the base of accreditation reports submitted by specialized structures of the NAHQM
- c. Approves content and format and signs accreditation certificates
- d. Establishes guidelines for establishing, the nominal competence and the coordinator of the evaluation commissions for quality assessments and accreditation.
- e. Monitors implementation of quality assessment and accreditation processes to be in line with approved procedures
- f. Presents the multiannual quality assessment and accreditation plan to the Board.
- g. Approves the organizational framework human resource plan of the NAHQM
- h. Has the hiring and firing functions
- i. Approves career development and capacity building plan for the personnel
- j. Represents the NAHQM in relations with stakeholders and decision-makers.
- k. Ensures budget development and expenditure plans and is responsible for budget execution.
- l. Approves financial reports
- m. Ensures compliance to fiscal and budget discipline
- n. Approves selection criteria for persons who have received the certificate of surveyor
- o. Approves organization of teams of surveyors and register of surveyors recognized by the NAHQM.
- p. Establishes transparent methods and competency criteria for expert selection.

23. The Director ensures executive management of NAHQM and coordinated the activity of assessment, reassessment accreditation reaccreditation and monitoring of healthcare institutions and exercises the responsibilities as assigned by the President.

24. The minimal requirements for the Director are the following:

- a. Higher education and work experience in medicine and/or public health
- b. Master degree in Public Health and/or Management

- c. Specialization in Quality Management is an asset
25. The Director should comply with legal provisions regarding Conflict of Interest and Incompatibility.
26. The NAHQM has the following specialized structures:
- a. Standards for Healthcare Services Unit – structure with responsibilities related to development and update of quality standards
 - b. Hospital Quality Assessment and Accreditation Unit – having the responsibility to coordinate quality assessments and develop accreditation report to be submitted for approval to the Board according to methodology developed by the Board
 - c. Outpatient Quality Assessment and Accreditation Unit – having the responsibility coordinate quality assessments and develop accreditation report to be submitted for approval to the Board according to methodology developed by the Board.
27. Standards for Healthcare Services Unit has the following responsibilities:
- a. Coordinated development of procedures, quality standards and methodology for quality assessment and reassessment , accreditation and reaccreditation and monitoring that are adapted to different types of healthcare facilities based on proven evidence methods and in collaboration with teams of experts
 - b. Coordinates the updates of quality standards and accreditation criteria in collaboration with teams of experts to keep pace with internal and international evolutions and evolving needs
 - c. Develops documentations and the necessary working tools necessary for the quality assessment and monitoring of healthcare institutions
 - d. Manages the database resulting from quality assessment and accreditation and uses it for internal analysis and public reporting
 - e. Develops and manages professional relations and affiliations to European and international institutions in the field of quality assessment and accreditation.
28. Hospital/Outpatient Quality Assessment and Accreditation Unit has the following responsibilities:

- a. Develops selection criteria for persons who would like to specialize in the field of quality management of health services and ensures implementation, together with the bodies recognized by NAHQM to provide education programs in quality management
- b. Develops selection criteria for persons eligible for inclusion in the team of surveyors and who obtain the certificate as evaluator of healthcare services
- c. Ensures, in collaboration with bodies recognized by NAHQM as providers of educational programs in quality management periodic assessment of assessors every three years, in order to maintain them in the team of surveyors.
- d. Manages the body of assessors
- e. Grants/withdraws certificates to assessors based on the above-mentioned processes.
- f. Periodically reviews structure and size of surveyors and develops a human resource development plan submitted to the President.
- g. Develops methodology and inclusion/exclusion criteria
- h. Submits for approval of the President of NAHQM the right to take part in assessment when deviations from Code of Conduct of Assessors, approved by the President, are observed.
- i. Develops methodology and inclusion/exclusion criteria for coordinators of assessors.
- j. Develops annual plan for quality assessment and accreditation.
- k. Establishes a designated person responsible for communication with assessed healthcare facility
- l. Coordinates accreditation commissions
- m. Takes part in the commission receiving the services of teams of assessors;
- n. Submits for review to the Board audit of activity by the members of accreditation commissions when it registers special situations that may lead to compromising the assessment process
- o. Analyzes, based on the report the conformity of assessed health facility to standards
- p. Develops accreditation report
- q. Submits the accreditation reports for approval to the Board.

29. The NAHQM uses assessors for healthcare services recognized according to internal criteria as established by the President.
30. The assessment teams are composed of 4 to 9 members for each healthcare facility depending on the size, complexity and specifics of it
31. The assessment team is established by a decision and have the following componence:
 - a. Head of the assessment team, staff of the NAHQM
 - b. Coordinator of the assessment team, one of the recognized assessors selected for this purpose who coordinated the activity of the assessment team during assessment.
 - c. Depending on the complexity 2 to 7 assessors from the list of recognized assessors by NAHQM
32. The assessment team has the following responsibilities:
 - a. Analyses the way the activity of healthcare facilities complies with standards
 - b. Develops the assessment report
 - c. Submits to NAHQM all necessary data
 - d. Ensures providing feedback to the management of healthcare facility on findings and specific priorities for quality improvement at facility level.
 - e. Formally sends the assessment report to the management of the health facility for clarification of inconsistencies
 - f. Submits the report to the specialized unit within NAHQM.
33. Organizational structure and staff remuneration is based on the following provisions:
 - a. The organizational chart is presented in the Annex and can be changed based on the Board decision.
 - b. The staff of the NAHQM is contract-based.
 - c. Assessors are contracted based on a service agreements calculated in number of days dedicated to an assessment. Costs of transportation and per-diems are covered from the NAHQM budget.
 - d. The President can also recur to experts selected on professional criteria according to procedures established by NAHQM.
 - e. Assessors are contracted based on a service agreements and estimation of volume of work.

IV. Funding of capital and recurrent costs of NAHQM

Funding of capital and current expenditures is ensured from own sources of income and subsidies received from the public budget.

Own sources of income include:

- Fee-for-service for Quality assessment/re-assessment paid by health facilities
- Fee-for-service for accreditation/reaccreditation paid by health facilities
- External non-reimbursable funds (i.e. international grants)
- Publishing and selling of books, booklets and other types of publications and specialized materials
- Donations and sponsorships
- Other sources of income in line with national regulations

Unused sources of funds by the end of fiscal year will be committed for the next year for the same destinations, according to existing legal provisions.

LIST OF FIGURES AND TABLES

Table 1: Quality management interventions and their potential for improving patient outcomes

| Tool | Description | Potential impact |
|---|--|------------------|
| Policies that influence provider behavior by altering the structural conditions of organization and finance or redesign of health care systems | | |
| National and Local Clinical Guidelines | <ul style="list-style-type: none"> Evidence-based clinical guidelines are used to ensure high-quality care, better health outcomes, and cost-effective treatments. Including physicians in the development and review of guidelines has proved effective in process of implementing guidelines. | High |
| Quality measurement and reporting | <ul style="list-style-type: none"> There is evidence that measuring quality of care improves performance and compliance with standards of care. Only the intent to measure is able to improve quality of care according to some research. | High |
| Accreditation | <ul style="list-style-type: none"> Facility accreditation can provide regulatory pressure for improvement Meta-analysis in 2012 - evidence that accreditation improved process activities in health centers but no evidence that programs are linked to improvements in health outcomes. Initial improvements tend to level off and maintaining quality requires new and innovative approaches | Medium |
| Professional Oversight | <ul style="list-style-type: none"> Performance of providers in facilities where workers were reviewed was significantly better than in comparable facilities that did not adopt the reviews. Others assert that the “quality by inspection” environment leads to an antagonistic relationship between workers and managers precludes cooperative problem solving and continuous improvement | Medium |
| Organizational Change | <ul style="list-style-type: none"> Organizational change in the health care system has been shown to influence quality of care and to further the six aims by focusing on the continual design and redesign of systems. Design and redesign interventions assume that simply adding a new resource or a new process in isolation will not improve care because better care is the product of many processes. | Medium |
| Internal enabling environment | <ul style="list-style-type: none"> Creating the right environment for change involves leadership and leadership training, clinicians empowered to make quality improvement decisions, and resources for quality improvement planning activities | Medium |

| Tool | Description | Potential impact |
|---|--|------------------|
| Total Quality Management in health care | <ul style="list-style-type: none"> Application of business management practices to design and redesign systems for continuous quality improvement have been effectively adapted for health systems | Medium |
| Collaborative Improvement Model | <ul style="list-style-type: none"> This approach strikes a pragmatic balance between the need for action and the need to be scientifically grounded. It addresses complex systemic processes within health care systems and has facilitated the scale-up of quality improvements. | Medium |
| Plan-Do-Study-Act cycle | <ul style="list-style-type: none"> The Plan-Do-Study-Act (PDSA) cycle calls for action-oriented learning in quality improve improvement. Team members using the PDSA model design a quality-improvement intervention (plan), implement it on a small scale (do), evaluate the results (study), and implement or alter the intervention accordingly (act). | Medium |
| Targeted Education and Professional Retraining | <ul style="list-style-type: none"> Continuing medical education neither changes clinical practice nor advances health outcomes. Newer techniques—targeted education, case-based learning, and interactive and multi-model teaching techniques—have had some success. | Medium |
| Legal Mandates and Administrative Regulations | <ul style="list-style-type: none"> Licensing of professionals and facilities; formal delineation of functions of various types of health workers control entry into the practice of health care and bar unqualified persons from practicing rather than ensuring quality among those who are allowed to practice. | Low |
| Malpractice Litigation to Enforce Legal Mandates | <ul style="list-style-type: none"> Malpractice litigation must rely on adequate legal and judicial systems, which are deficient in most developing countries | Low |
| Strategies that directly target provider behavior at the individual or the group level | | |
| High Volume of Care | <ul style="list-style-type: none"> Evidence exists that a high volume of care by individuals or institutions leads to better health outcomes. Physician experience and practice lead to fewer complications, less resource use, and better quality for a variety of procedures. | High |
| Performance-Based Remuneration | <ul style="list-style-type: none"> Potentially powerful instrument for accelerating quality improvements involves making payments directly to providers | High |

| Tool | Description | Potential impact |
|---|--|------------------|
| | <p>who meet quality standards that are based on process indicators associated with favorable patient outcomes.</p> <ul style="list-style-type: none"> Systems that tie performance to remuneration use relatively small incentives—equivalent to 3 to 10 percent of the provider's total compensation. Reputation is affected when public reporting accompanies P4P. The specifics of the schemes matter | |
| Performance-Based Professional Recognition | <ul style="list-style-type: none"> Non-monetary incentives, such as public recognition or disclosure, administrative privileges, and awards from professional organizations, can promote improvements in quality. | High |
| Training with Peer Review Feedback | <ul style="list-style-type: none"> Physician retraining on specific clinical cases, combined with the concurrent creation of a peer-review structure | Medium |

Source: Adapted from Peabody JW, Taguiwalo MM, Robalino DA., et al (2006). Improving the Quality of Care in Developing Countries. Disease Control Priorities in Developing Countries. 2nd edition. Chapter 70. The International Bank for Reconstruction and Development/The World Bank Group.

Table 2: Key organizations involved in quality management in Georgia, 2015

| Organization | Role |
|---|--|
| MOLHSA – Quality Working Group and staff | <ul style="list-style-type: none"> A full-time person has been hired in 2015 to manage the Quality Improvement The Regulation Division sets policies for regulatory processes Quality Working Group was established to set national quality priorities and develop the national quality indicator set |
| MOLHSA – Social Service Agency | <ul style="list-style-type: none"> Collects administrative and financial data that is the basis for contracting health services to inpatient and outpatient facilities. |
| State Regulatory Agency for Medical Activities | <ul style="list-style-type: none"> Issues permits and licenses to practice for inpatient facilities Checks conformity of outpatient facilities to technical regulations – planned inspections Inspects organizations based on adverse incidents and complaints |
| NCDC | <ul style="list-style-type: none"> Collects disease surveillance data and maternal and child and hospital-based mortality. Starting with 2016, it will |

| | |
|---|---|
| | <p>manage mortality registration database (transfer form Vital Statistics Department under Ministry of Justice).</p> <ul style="list-style-type: none"> • Collects and reports on program-specific data for TB, HIV, including outcomes. Under Electronic Integrated Disease Surveillance System, monitors and reports on human infectious diseases. • Cancer registry introduced in 2015. • Transition to electronic-based reporting in 2014 and scale-up in 2015 |
| Health Organisations - Quality management committees | <ul style="list-style-type: none"> • Starting with 2012, formal quality management structures and quality managers in health facilities required by technical regulation. |
| Professional associations | <ul style="list-style-type: none"> • Role in developing national clinical guidelines • Involved as experts in incident reports for independent case audit. |

Table 3: Root causes for gaps in quality and opportunities in quality management in Georgia

| Gaps | Opportunities |
|--|--|
| I. Vision and culture | |
| Lack of a common and shared vision and national planning of quality in health care system | Development of a national quality strategy with an implementation plan |
| The current attitude of organizations to stronger quality is perceived as unnecessary control that threatens “business”, therefore there is resistance to transparency. Organizational practices for quality and consumer participation are formal and at an initial stage of development | Transforming the culture – encouraging a new culture of process-oriented quality improvement aiming to improve patient experiences and health outcomes aiming both providers and users of health services and reduce the culture of blaming individual service providers and facilities. |
| II. Governance and Institutional framework | |
| Restricted institutional capacity and division of roles, responsibilities and administrative processes for quality systems | Establish appropriate governance arrangements and institutional capacity to manage the national quality strategy, with diverse independent roles |
| Limited scope of current quality mandates at national level | Implementing a broader range of quality management mechanisms to increase quality of care: routine and non-routine quality |

| Gaps | Opportunities |
|---|--|
| | measurement, public reporting and accountability and performance-based incentives, quality improvement |
| No current external quality assessment and accreditation mechanisms for health organizations | Institute national accreditation body for both inpatient and outpatient health facilities |

III. Raising the standards - regulatory mechanisms and guidelines

| | |
|--|--|
| Current permits and technical regulations are lean on assessing processes and are mostly focused on structure evaluation and have limited scope | <ul style="list-style-type: none"> • Introduce additional requirements related to governance and management • Introduce provisions related to situations when permits can be revoked • Introduce requirements for permits/technical regulations for all health organisations including PHC and dental services • Add requirements regarding quality processes, including safety and clinical effectiveness in a health care setting. |
| Current standards are not updated and no active monitoring of compliance is not a common practice | Raising the clinical standards through instituting mechanisms for periodic revision and update of national protocols, developing short clinical aides, patient information aides and periodic measurement of compliance to the national standards. (MoLHSA and professional associations) |
| Competencies of medical workforce are not assessed on a regular basis after licensing | Recertification (license renewal) requirements for continuous medical education for physicians introduced |
| Medical education programs are of unassessed quality and outside systematic quality assessment (they are under Ministry of Education) | Introduce accreditation for undergraduate medical education mandatory for all medical education programs in the country. |

IV. Quality monitoring

| | |
|---|---|
| No national framework to systematically measure quality of all health services at process and outcome levels | Establish a framework of quality indicators at outcome and process levels at different levels of care |
|---|---|

| Gaps | Opportunities |
|--|--|
| The current M&E system lacks sufficient detailed information on process and specific outcomes and does not produce reports packaged differently for different audiences. | Establish expanded set of data collection flows and develop new formats for data presentation for different audiences |
| Insufficient data sources at service provision level | Establish patient/disease registries, implement electronic health records and integrated e-health systems |
| No data sources for patient experience, patient engagement and patient reported outcomes | Introduce systematic measurements of patient experience, patient engagement and patient reported outcomes through periodic surveys and routine collection at facility level |
| Low registration of adverse events | Increase the reporting of adverse events through changing the incentives and changing the blame culture |
| V. Public reporting | |
| Public reporting of performance of health care system overall and at facility level is not a current practice | There is a need to move towards public reporting of health facility performance and quality assessments and progress for health facilities as a way to increase accountability |
| VI. Quality improvement capacity | |
| No national quality improvement structure, though quality management committees exist at inpatient level and regional pilots on quality improvement supported through external aid. | <ul style="list-style-type: none"> • Design an quality improvement framework and national coordination for quality improvement • Develop implementation tools for key priority diseases in line with quality ambitions • Introducing QI interventions at facility level in all regions at facility level • Capacity building of QI teams • National QI campaigns in priority clinical areas |
| VII. External Quality Assurance | |

| Gaps | Opportunities |
|---|---|
| Quality assurance – based on inspection of compliance with infrastructure and minimal process and clinical standards and incident reporting | <ul style="list-style-type: none"> Need to extend the mandate to cover on-going compliance with quality standards through external quality assessments, Develop general and clinical accreditation programs Expand the scope of current regulations to cover clinical standards as well. |

Table 4: Proposed National Quality Outcome Indicators (level 3)

| No | Domain | Indicator Group | Specific Indicator | Levels of care |
|----|----------|---|---|----------------|
| 1 | MCH | Vaccination rates | Vaccination against diptheria, tetanus and pertussis, children aged 1 | PHC |
| | | | Vaccination against measles, children aged 1 | PHC |
| | | | Vaccination against hepatitis B, children aged 1 | PHC |
| 2 | MCH | Child and Maternal Mortality Rates | Infant Mortality Rate per 1,000 Live births | All |
| | | | Children (under 5) Mortality Rate per 1,000 Live Births | All |
| | | | Maternal Mortality Rate per 100,000 Live Births | All |
| 3 | NCD | Cancer mortality rates | Cervical cancer mortality | All |
| | | | Breast cancer mortality in women | All |
| | | | Colorectal cancer mortality | All |
| | | Cancer survival rates | Breast cancer five-year relative survival | All |
| | | | Colorectal cancer, five-year relative survival | All |
| | | | Colorectal cancer, five-year relative survival by gender | All |
| 4 | Hospital | Clinical outcomes in inpatient facilities | Cervical cancer five-year relative survival | All |
| | | | Death in low-mortality Diagnosis Related Groups (DRGs) | Acute care |
| | | | Hospital standardised mortality ratio (HSMR) | Acute care |
| | | | In-hospital mortality for: a) acute myocardial infarction (AMI) b) stroke c) pneumonia | Acute care |

| No | | Domain | Indicator Group | Specific Indicator | Levels of care |
|----|--|-----------------------|------------------------------------|--|----------------|
| | | | | Unplanned/unexpected 30-day hospital readmission of patients discharged following management of: a) acute myocardial infarction (AMI) b) paediatric tonsillectomy and adenoidectomy | Acute care |
| 5 | | Patient centered | Patient satisfaction | The percentage of respondents to the GP patient survey who stated that the last time they saw or spoke to a GP, the GP was good or very good at treating them with care and concern | PHC |
| | | | | The percentage of respondents to the facility based patient survey who described the overall experience of their last contact with health facility as fairly good or very good | All |
| 6 | | Patient centered care | Patient engagement | The percentage of respondents to the GP patient survey who stated that the last time they saw or spoke to a GP, the GP was good or very good at involving them in decisions about their care | PHC |
| | | | | Regular doctor providing easy-to-understand explanations | All |
| | | | | The proportion of clients (and/or carers) who have discussed information about the purpose, treatment options, benefits, risks and costs of care, with a health practitioner | All |
| 7 | | MCH | Patient safety from avoidable harm | Post-Caesarian Section Peritonitis | Acute care |
| | | | | Obstetric Trauma | Acute care |
| 8 | | Avoidable infections | Hospital associated infection | Healthcare associated Staphylococcus aureus bacteraemia (SAB) | Acute care |
| | | | | Clostridium difficile infection (CDI). | Acute care |

Table 5: Reinterpreted Framework for Assessing Quality of Care according to Donabedian dimensions

| Type | Description |
|------------------|--|
| Structure | <ul style="list-style-type: none"> Capital equipment and staffing levels, budgets and expenditures, facility inventories of drugs and supplies service utilization. Easiest to obtain and commonly used Not causally related to better health outcomes. Often beside the point |
| Process | <ul style="list-style-type: none"> Ubiquity, measurability, and linkage to health outcomes Preferred way to assess quality Emerging evidence about which process measures lead to better health outcomes. Measuring process is more difficult |
| Outcome | <ul style="list-style-type: none"> Outcomes alone are not an efficient way to measure because: <ol style="list-style-type: none"> Quality conundrum: a patient may receive poor-quality care but may recover fully, or a patient may receive high-quality care and still not recover. Adverse health outcomes are relatively rare. |

Source: Peabody JW, Taguiwalo MM, Robalino DA., et al (2006). Improving the Quality of Care in Developing Countries. Disease Control Priorities in Developing Countries. 2nd edition. Chapter 70. The International Bank for Reconstruction and Development/The World Bank Group.

Table 6: Scoring criteria for selecting national quality outcome indicators

| Criteria | Scoring | | |
|--------------------------------|------------------|-------------|------|
| | 1 | 2 | 3 |
| Relevance | Low | Medium | High |
| Feasibility | Challenging | Medium | Easy |
| Additional costs | Yes, significant | Yes, medium | No |
| Reliability | Low | Medium | High |
| Sensitivity to QoC | Low | Medium | High |
| Unintended consequences | Low | Medium | High |

Table 7: Current functions and division of roles and responsibilities among institutions

| | Current Situation in Georgia |
|--|--|
| Quality planning and strategic framework | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • Quality Working Group |
| Regulations and Standards Development | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • Professional associations: Clinical Guidelines |
| Quality measurement | <ul style="list-style-type: none"> • NCDC - High-level outcomes, no processes yet |
| Public Reporting | <ul style="list-style-type: none"> • Limited to high-level outcomes |
| Quality improvement | <ul style="list-style-type: none"> • Health Organisations - Quality management committees and local initiatives for quality management • USAID projects (URC, JSI) |
| Quality assurance: permits, licensing and inspections | <ul style="list-style-type: none"> • State Regulatory Agency for Medical Activities (SRAMA) |
| External Quality Assessment | <ul style="list-style-type: none"> • Limited - State Regulatory Agency for Medical Activities and experts from Professional Associations on a case-by-case basis |
| Accreditation | <ul style="list-style-type: none"> • None • Pilot project for hospital accreditation for perinatal care |

Table 8: Proposed models for roles and responsibilities among current structures and new structures

| Components | Option I –NAQHM and expanded functions of current | Option II – new separate bodies | Option III – integrated in current structures |
|---|--|--|--|
| Quality planning and strategic framework | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • Steering Group of the National Quality Strategy | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • Steering Group of the National Quality Strategy | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • Steering Group of the National Quality Strategy |
| Regulations and Standards | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • NAQHM – quality standards • Professional associations: New/Updated national guidelines and clinical protocols | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • NAQHM – quality standards • Professional associations: New/Updated national guidelines and clinical protocols | <ul style="list-style-type: none"> • MoLHSA: Regulatory Division • State Regulatory Agency for Medical Activities – setting quality standards • Professional associations: New/Updated national guidelines and clinical protocols |
| Quality Monitoring | <ul style="list-style-type: none"> • Process indicators- Integrated e-Health system unit • Outcomes and infection safety - NCDC • Reporting and learning system - significant events- TBD | <ul style="list-style-type: none"> • Process indicators- Integrated e-Health system unit • Outcomes and infection safety - NCDC • Reporting and learning system - significant events- TBD | <ul style="list-style-type: none"> • NCDC – all quality measuring from integrated e-Health system unit |
| Public Reporting on Quality | <ul style="list-style-type: none"> • MoHLSA: Integrated e-Health system unit quality indicators • NAQHM – assessments and ratings | <ul style="list-style-type: none"> • Independent body to monitor and report on quality and performance | <ul style="list-style-type: none"> • NCDC – all quality reporting |
| Quality Improvement | <ul style="list-style-type: none"> • MoHLSA – coordination and planning capacity • NAQHM – setting QI framework | <ul style="list-style-type: none"> • National quality improvement agency (Ben Chan model) | <ul style="list-style-type: none"> • MoHLSA – coordination and planning capacity |

| Components | Option I –NAQHM and expanded functions of current | Option II – new separate bodies | Option III – integrated in current structures |
|--|--|--|---|
| | <ul style="list-style-type: none"> Professional association of workers in QI | | <ul style="list-style-type: none"> Devolution to regional/facility quality improvement teams (USAID model) |
| Quality assurance: permits, licensing and inspections | <ul style="list-style-type: none"> State Continue licensing and permits Introduce re-licensure of facilities and doctors | <ul style="list-style-type: none"> State Regulatory Agency for Medical Activities | <ul style="list-style-type: none"> State Regulatory Agency for Medical Activities |
| External Quality Assessment | <ul style="list-style-type: none"> NAQHM | <ul style="list-style-type: none"> NAQHM | <ul style="list-style-type: none"> State Regulatory Agency for Medical Activities |
| Accreditation | <ul style="list-style-type: none"> NAQHM | <ul style="list-style-type: none"> NAQHM | <ul style="list-style-type: none"> State Regulatory Agency for Medical Activities |

Table 9: Selection process and scoring of National Quality Outcome Indicators

| No | Domain | Levels of care | Indicator | Reference | Relevance | Feasibility | Additional costs | Reliability | Sensitivity for QoC | Unintended consequences | Total score |
|----|---------------|----------------|--|-----------|-----------|-------------|------------------|-------------|---------------------|-------------------------|-------------|
| 1 | Effectiveness | PHC | Vaccination against diphtheria, tetanus and pertussis, children aged 1 | OECD | 3 | 3 | 3 | 3 | 3 | 3 | 18 |
| 2 | Effectiveness | PHC | Vaccination against measles, children aged 1 | OECD | 3 | 3 | 3 | 3 | 3 | 3 | 18 |
| 3 | Effectiveness | PHC | Vaccination against hepatitis B, children aged 1 | OECD | 3 | 3 | 3 | 3 | 3 | 3 | 18 |
| 4 | Effectiveness | All | Infant Mortality Rate per 1,000 Live births | Georgia | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 5 | Effectiveness | All | Maternal Mortality Rate per 100,000 Live Births | Georgia | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 6 | Effectiveness | All | Children (under 5) Mortality Rate per 1,000 Live Births | Georgia | 3 | 3 | 3 | 3 | 1 | 3 | 16 |
| 7 | Effectiveness | Acute care | Obstetric trauma, vaginal delivery without instrument | OECD | 3 | 3 | 3 | 2 | 3 | 3 | 17 |
| 8 | Effectiveness | Acute care | Obstetric Trauma | Georgia | 3 | 3 | 3 | 3 | 3 | 2 | 17 |
| 9 | Effectiveness | All | Cervical cancer mortality | OECD | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 10 | Effectiveness | All | Breast cancer five-year relative survival | OECD | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 11 | Effectiveness | All | Breast cancer mortality in women | OECD | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 12 | Effectiveness | All | Colorectal cancer, five-year relative survival | OECD | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 13 | Effectiveness | All | Colorectal cancer, five-year relative survival by gender | OECD | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 14 | Effectiveness | All | Colorectal cancer mortality | OECD | 3 | 3 | 3 | 3 | 2 | 3 | 17 |
| 15 | Effectiveness | All | Cervical cancer five-year relative survival | OECD | 3 | 3 | 3 | 3 | 2 | 2 | 16 |
| 16 | Effectiveness | Acute care | Death in low-mortality Diagnosis Related Groups (DRGs) | Australia | 3 | 3 | 3 | 3 | 2 | 3 | 17 |

| No | Domain | Levels of care | Indicator | Reference | Relevance | Feasibility | Additional costs | Reliability | Sensitivity for QoC | Unintended consequences | Total score |
|----|------------------|----------------|---|-----------|-----------|-------------|------------------|-------------|---------------------|-------------------------|-------------|
| 17 | Effectiveness | Acute care | Hospital standardised mortality ratio (HSMR) | Australia | 3 | 3 | 3 | 3 | 2 | 2 | 16 |
| 18 | Effectiveness | Acute care | In-hospital mortality for: a) acute myocardial infarction (AMI) b) stroke c) fractured neck of femur, and d) pneumonia | Australia | 3 | 2 | 3 | 3 | 2 | 2 | 15 |
| 19 | Effectiveness | Acute care | Unplanned/unexpected hospital readmission of patients discharged following management of: a) acute myocardial infarction (AMI) b) knee replacements c) hip replacements d) paediatric tonsillectomy and adenoidectomy | Australia | 3 | 3 | 3 | 3 | 1 | 3 | 16 |
| 20 | Effectiveness | All | Excess mortality from schizophrenia | OECD | 1 | 3 | 3 | 3 | 1 | 3 | 14 |
| 21 | Effectiveness | All | Excess mortality from bipolar disorder | OECD | 1 | 3 | 3 | 3 | 1 | 3 | 14 |
| 22 | Effectiveness | PHC | Influenza vaccination coverage, population aged 65 and over | OECD | 1 | 2 | 2 | 3 | 3 | 3 | 14 |
| 23 | Effectiveness | Acute care | Obstetric trauma, vaginal delivery with instrument | OECD | 3 | 3 | 3 | 2 | 3 | 1 | 15 |
| 24 | Patient Centered | PHC | The percentage of respondents to the GP patient survey who stated that the last time they saw or spoke to a GP, the GP was good or very good at involving them in decisions about their care | QOF/IQI | 3 | 3 | 1 | 3 | 3 | 3 | 16 |

| No | Domain | Levels of care | Indicator | Reference | Relevance | Feasibility | Additional costs | Reliability | Sensitivity for QoC | Unintended consequences | Total score |
|----|------------------|----------------|--|-----------|-----------|-------------|------------------|-------------|---------------------|-------------------------|-------------|
| 25 | Patient Centered | PHC | The percentage of respondents to the GP patient survey who stated that the last time they saw or spoke to a GP, the GP was good or very good at treating them with care and concern | QOF/IQI | 3 | 3 | 1 | 3 | 3 | 3 | 16 |
| 26 | Patient Centered | PHC | The percentage of respondents to the GP patient survey who described the overall experience of their GP surgery as fairly good or very good | QOF/IQI | 3 | 3 | 1 | 3 | 3 | 3 | 16 |
| 27 | Patient Centered | PHC/Outpatient | Regular doctor providing easy-to-understand explanations | OECD | 3 | 3 | 1 | 3 | 3 | 3 | 16 |
| 28 | Patient Centered | PHC | The proportion of clients (and/or carers) who have discussed information about the purpose, treatment options, benefits, risks and costs of care, with a health practitioner | Australia | 3 | 3 | 1 | 3 | 3 | 3 | 16 |
| 29 | Patient Centered | PHC | The percentage of respondents to the GP patient survey who stated that the last time they saw or spoke to a nurse, the nurse was good or very good at involving them in decisions about their care | QOF/IQI | 2 | 3 | 1 | 3 | 3 | 3 | 15 |
| 30 | Patient Centered | PHC | The percentage of respondents to the GP patient survey who were 'Very satisfied' or 'Fairly satisfied' with their GP practice opening hours | QOF/IQI | 3 | 3 | 1 | 3 | 2 | 3 | 15 |
| 31 | Patient Centered | PHC/Outpatient | Regular doctor spending enough time with patient in consultation | OECD | 3 | 3 | 1 | 2 | 3 | 3 | 15 |

| No | Domain | Levels of care | Indicator | Reference | Relevance | Feasibility | Additional costs | Reliability | Sensitivity for QoC | Unintended consequences | Total score |
|----|------------------|----------------|--|-----------|-----------|-------------|------------------|-------------|---------------------|-------------------------|-------------|
| 32 | Patient Centered | PHC/Outpatient | Regular doctor giving opportunity to ask questions or raise concerns | OECD | 3 | 3 | 1 | 2 | 3 | 3 | 15 |
| 33 | Patient Centered | PHC/Outpatient | Regular doctor involving patient in decisions about care and treatment | OECD | 3 | 3 | 1 | 2 | 3 | 3 | 15 |
| 34 | Patient Centered | Transition | Percentage of patients asked for feedback | USA/NQS | 3 | 3 | 1 | 2 | 3 | 3 | 15 |
| 35 | Patient Centered | PHC | The percentage of respondents to the GP patient survey who gave a positive answer to 'Generally, how easy is it to get through to someone at your GP surgery on the phone?' | QOF/IQI | 2 | 3 | 1 | 3 | 2 | 3 | 14 |
| 36 | Patient Centered | PHC | The proportion of regular clients who have completed a validated self-rated health status instrument that informs their health care | Australia | 1 | 3 | 1 | 2 | 3 | 3 | 13 |
| 37 | Patient Centered | PHC | The proportion of regular clients who have been given a patient experience survey within the previous 12 months, (using a standard patient experience instrument that informs the service's quality improvement) | Australia | 2 | 2 | 1 | 2 | 3 | 3 | 13 |
| 38 | Patient Centered | PHC | The proportion of regular clients who have responded to a patient experience survey within the previous 12 months (using a standard patient experience instrument, that informs the service's quality improvement) | Australia | 2 | 2 | 1 | 2 | 3 | 3 | 13 |

| No | Domain | Levels of care | Indicator | Reference | Relevance | Feasibility | Additional costs | Reliability | Sensitivity for QoC | Unintended consequences | Total score |
|----|------------------|---------------------|---|-----------|-----------|-------------|------------------|-------------|---------------------|-------------------------|-------------|
| 39 | Patient Centered | PHC | The proportion of regular clients who are very satisfied with specified elements of their patient experience within the previous 12 months (using a standard patient experience instrument) | Australia | 2 | 2 | 1 | 2 | 3 | 3 | 13 |
| 40 | Patient Centered | PHC | The proportion of client and carer complaints responded to within the service's nominated timeframe from receipt of complaint | Australia | 2 | 2 | 1 | 2 | 3 | 3 | 13 |
| 41 | Patient Centered | PHC | The proportion of clients who have been invited to contribute to quality improvement activities based on the results of the patient experience survey | Australia | 2 | 1 | 1 | 2 | 2 | 3 | 11 |
| 42 | Safety | Acute care | Post-Caesarian Section Peritonitis | Georgia | 3 | 3 | 3 | 3 | 3 | 1 | 16 |
| 43 | Safety | Acute care | Rates of healthcare associated Staphylococcus aureus bacteraemia (SAB) | Australia | 3 | 2 | 2 | 1 | 3 | 2 | 13 |
| 44 | Safety | Acute care | Rates of Clostridium difficile infection (CDI) | Australia | 3 | 2 | 2 | 1 | 3 | 2 | 13 |
| 45 | Safety | All | Incidence of serious adverse medication events | USA/NQS | 2 | 1 | 1 | 1 | 3 | 3 | 11 |
| 46 | Safety | Acute and long-term | Standardized infection ratio for central line-associated blood stream infection as reported by CDC's National Healthcare Safety Network | USA/NQS | 2 | 1 | 1 | 1 | 3 | 3 | 11 |

Table 10: Proposed Indicators: Goal 1 –Effective Care

| No | Type | Levels of care | Indicator | Method |
|----|-----------|----------------|---|--|
| 1 | Structure | PHC | The primary care/outpatient facility can produce a register of patients with established hypertension, coronary heart disease, cancers, TB, Hepatitis C, pregnant women and children under 1 and registers of people eligible and screened for NCDs | Reporting through Integrated e-Health |
| 2 | Process | PHC | Proportion of people on the list of a GP who have a record of at least one visit to their GP in 12 months | Reporting through Integrated e-Health |
| 3 | Process | PHC/Outpatient | Proportion of eligible people who are screened and have record of: <ul style="list-style-type: none"> • Mammography screening in women aged 50- 69, Cervical cancer screening in women aged 25-49 and 50-64 • The percentage of patients whose notes record smoking status in the preceding 12 months • Records of screening for glycaemia, cholesterol/LDL • Record of blood pressure measurement • Screening for Hepatitis C | Reporting through Integrated e-Health Or Audit |
| 4 | Process | PHC/Outpatient | Pregnant women who had at least 4 antenatal visits | Reporting through Integrated e-Health Or Audit |
| 5 | Process | PHC/Outpatient | Number of newborns seen by a primary care team in the first week after discharge from maternity | Reporting through Integrated e-Health Or Audit |
| 6 | Process | PHC | Percentage of patients who received evidence-based smoking cessation services (e.g., medications) | Reporting through Integrated e-Health Or Audit |
| 7 | Structure | Inpatient | Acute units with 5/6 key characteristics (continuous physiological monitoring; access to scanning within 3 hours of admission/24 hour brain imaging; policy for direct admission from A&E; specialist ward round at least 5 times a week; acute stroke protocols/guidelines) | Reporting through Integrated e-Health Or Audit |

| | | | | |
|----|---------|------------------------------------|--|--|
| 8 | Process | Inpatient | Proportion of stroke patients given Aspirin or alternative e.g. clopidogrel within 48 hours of stroke (secondary prevention) | Reporting through Integrated e-Health Or Audit |
| 9 | Process | Inpatient | Percentage of patients following myocardial infarction discharged on aspirin/beta-blockers/statins/ACE inhibitors | Reporting through Integrated e-Health Or Audit |
| 10 | Process | Coordination and clinical pathways | The number of Emergency Admissions for 19 Ambulatory Care Sensitive Conditions per 1,000 population | Reporting through Integrated e-Health Or Audit |
| 11 | Process | Coordination and clinical pathways | Proportion of sensitive and DR- TB cases hospitalized | Reporting through Integrated e-Health Or Audit |

Table 11: Proposed Indicators: Goal 1 –Patient centered care

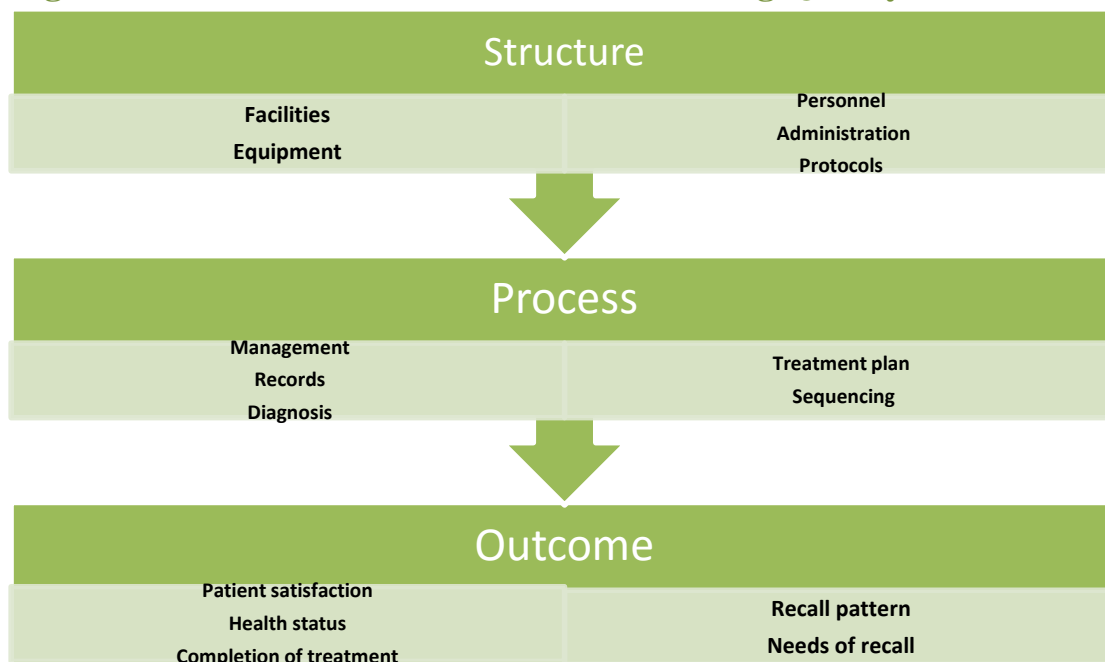
| No | Domain | Level of care | Indicator | Method |
|----|---------|-----------------|--|----------------|
| 1 | Process | All | The proportion of regular clients who have been given a patient experience survey within the previous 12 months (using a standard patient experience instrument that informs the service's quality improvement). | Patient survey |
| 2 | Process | PHC | The percentage of respondents to the GP patient survey who stated that the last time they saw or spoke to a GP, the GP was good or very good at involving them in decisions about their care. | Patient survey |
| 3 | Process | Inpatient | The percentage of respondents to the inpatient survey who stated that at last hospital admission they have been informed (and signed informed consent) about the risks for an invasive procedure. | Patient survey |
| 4 | Process | PHC/ outpatient | The percentage of respondents to the outpatient survey who stated that their regular doctor maintains confidentiality and privacy | Patient survey |
| 5 | Process | PHC | The percentage of respondents who have seen/read/given meaningful information about healthy lifestyle/disease prevention/ management of their condition. | Patient survey |
| 6 | Process | PHC/ outpatient | Regular doctor involving patient in decisions about care and treatment. | Patient survey |
| 7 | Process | All | Percentage of patients asked for feedback | Patient survey |

| No | Domain | Level of care | Indicator | Method |
|----|---------|---------------|--|----------------|
| 8 | Process | PHC | The proportion of regular clients who have completed a validated self-rated health status instrument that informs their health care. | Patient survey |
| 9 | Process | PHC | The proportion of regular clients who have been given a patient experience survey within the previous 12 months, (using a standard patient experience instrument that informs the service's quality improvement). | Patient survey |
| 10 | Process | PHC | The proportion of client and carer complaints responded to within the service's nominated timeframe from receipt of complaint. | Patient survey |
| 11 | Outcome | All | The proportion of patients whose condition has improved, or stabilised (for conditions where improvement of stabilisation is expected) as measured through a validated self rated health status instrument that informs their individual care. | Patient survey |

Table 12: Proposed Indicators: Goal 3 –Safe Care

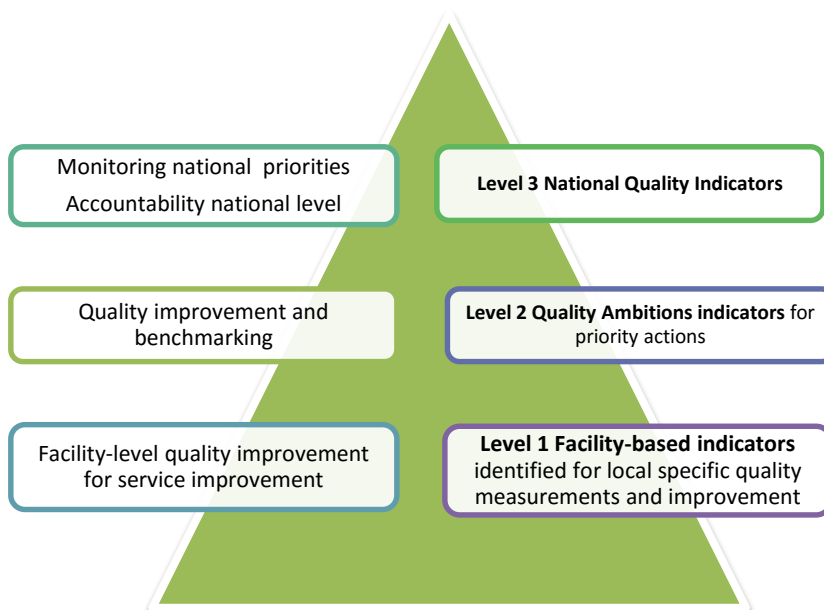
| No | Domain | Levels of care | Indicator | Method |
|----|-----------|----------------|---|-------------------|
| 1 | Structure | All | The proportion of the staff who have received infection control training within the previous 12 months | Routine reporting |
| 2 | Structure | All | Level of funding for infection control supplies: handwashing (soap and paper towels), gloves, supplies for invasive interventions | Routine reporting |
| 3 | Structure | All | Availability of hand washing facilities | Audit |
| 4 | Process | Inpatient | Surgical site infections | Routine reporting |
| 5 | Process | Inpatient | Consistent reporting of patient safety events (i.e. near misses or errors, and adverse events) that result in harm that were submitted to the Reporting and Learning System (RLS) | Routine reporting |
| 6 | Process | Inpatient | Rate of reporting of never events that were submitted to a national Reporting and Learning System | Routine reporting |
| 7 | Process | Inpatient | The proportion of the service's documented patient safety incidents (i.e. near misses or errors, and adverse events that result in harm) where an investigation and learning process has been completed | Routine reporting |
| 8 | Process | Inpatient | The proportion of the service's documented patient safety incidents where action is taken to reduce risks identified through the investigation | Routine reporting |

Figure 1: Donabedian Framework for Assessing Quality of Care



Source: Adapted from Donabedian (1988) . The Quality of Care: How Can It Be Assessed? *JAMA*. 1988;260 (12):1743-1748

Figure 2: Hierarchy of quality indicators depending on their purpose



Source: Adapted from Department of Health of the National Health System of the United Kingdom (2015). Quality Pyramid. Overview of Quality Indicators Framework.

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