Quality of care review in Kyrgyzstan

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Abstract

Many policies, institutions and mechanisms for improving quality are present in Kyrgyzstan. However, quality is driven by top-down approach rather than inherent in the work of clinical teams and embedded in training and continuing professional development. The recently established quality committees at the facility provide a potential platform for improvement. External assessment and inspection provide little support for organizational development, benchmarking, improving performance or public accountability and routinely collected data on the management of patients and facilities are not generally shared. There is an evident priority to coordinate existing activities and learning across vertical programmes and between key stakeholders, starting with a common vision of the dimensions and principles of quality improvement.

Keywords

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Abbreviations and accronyms

AGREE   Appraisal of Guidelines for Research and Evaluation

ICD   International Classification of Diseases

UNFPA   United Nations Population Fund

UNICEF   United Nations Children's Fund

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Acknowledgments

Executive summary

This review of the quality of care in Kyrgyzstan was undertaken during 2017. The sources of information included available topical documents, interviews and discussions. A questionnaire was used to identify existing quality policy, institutions, methods and resources for quality.

The review confirms that many policies, institutions and mechanisms for improving quality are present in Kyrgyzstan. These are primarily visible in legislation, orders and initiatives. Many of these have not been fully implemented, integrated across the health system or systematically evaluated.

Overall, in Kyrgyzstan, quality is driven by top-down command, external inspection and mandatory committees at the facility level; rather than inherent in the work of clinical teams or embedded in training and continuing professional development. Problems in health services delivery are not systematically identified and analysed for learning and improvement. The complications of care and adverse clinical outcomes are grossly underreported at the local level and largely inadequately managed at the national level.

Since 1996, a succession of strategic plans has promoted clinical effectiveness and respect for patients' rights, focusing on maternal and child health, primary health care and cardiovascular disease. The concept of the quality of medical services 2004–2008 was based on the national development framework, the Manas health reform programme and the recommendations of the Council of Europe on quality improvement systems in health care. This translated into Ministry of Health orders on local committee structures in health-care organizations and public health services. Most recently, the Ministry of Health Order No. 454 of 4 August 2015 prescribed quality structures at the facility and clinical team levels and regulations on clinical auditing.

Many existing quality initiatives are fragmented in vertical programmes and pilot locations. The Ministry of Health delegated responsibility for coordinating quality to a dedicated unit within the Ministry. This unit was abolished in the reorganization of in 2017. Many people now identify the Mandatory Health Insurance Fund to be responsible for the quality of care. National specialist hospitals contribute to developing clinical guidelines but have no authority or resources for supervising implementation or for monitoring and evaluation in general.

External assessment and inspection by the Mandatory Health Insurance Fund and by the Medical Accreditation Commission exercise central control but provide little support for organizational development, benchmarking, improving performance or public accountability. Apart from surveillance of communicable diseases and regulation of medical products and devices, there is weak monitoring of patient safety and no analysis of adverse events and near misses. Quality councils have little support in terms of tools, statistical benchmarks or local patient-based data for systematic peer review and improvement. Clinical

guidelines and protocols are not readily accessible across all specialties and primary care; many do not provide statistical indicators or audit criteria for monitoring.

Routinely collected data on the management of patients and facilities are not generally shared between central authorities, critically analysed or fed back to health-care providers for data validation, self-governance or benchmarking. The quality of clinical coding varies widely between institutions; comorbidities and complications are not systematically analysed even if they are documented on the clinical information form.

Donor-funded projects have provided an introduction to the skills and knowledge required for all personnel to share responsibility, but these are not widely shared and are not embedded in the curriculum for basic training or for continuing education.

There is an evident priority to coordinate existing activities and learning across vertical programmes and between key stakeholders, starting with a common vision for quality. This vision could form the basis for embedding quality in strategic planning, financing and implementation. Priorities for investment should support learning from pilots and include resources for horizontal integration, such as systems for clinical guidelines, for organizational development and for sharing information and learning.

1. Introduction

Quality of care is a central topic in the United Nations Sustainable Development Goals. Target 3.8, on achieving universal health coverage, requires access to health services that are safe, effective and acceptable to all people and communities. In the WHO European Region, Health 2020 focuses on people-centred health systems for improved health outcomes. The European Framework for Action on Integrated Health Services Delivery, adopted in 2016, identified improving performance as a key to transforming services delivery[1].

Policy context

The health system in Kyrgyzstan continued its development under the national Den Sooluk strategy, which was extended until 2018. Complex issues related to the quality of care as important components for continuing reforms are raised and discussed at various policy dialogue platforms of national stakeholders and development partners in the health sector. Rapid reviews have noted the existing islands of good practice, and in recent decades, various areas have been addressed, such as clinical practice guidelines and policies. Many current initiatives and actions for improvement are fragmented and need more systematic mapping to identify, coordinate and plan for improvement in this resource-limited setting.

In recent joint annual reviews, stakeholders have raised questions about the quality of care and need for a comprehensive overview. This report seeks to provide that comprehensive overview.

Methods

Based on the guidance published in 2002 on national quality policies *(1)*, the data for this report was gathered through bilateral and multilateral meetings and interviews. Visits were used to supplement information obtained from existing reports and documents to complete a questionnaire. The questionnaire aimed to identify national policies, organization, methods and resources relevant to quality of care.

Separate visits were made to hospitals and primary health care centres to identify evidence that local quality structures are in place and that they are effective in systematically assessing and improving service delivery.

Further information was gathered during the joint annual review of the Den Sooluk in April 2017 and the thematic review of integrated health services in June 2017. This report is based on information gathered until December 2017 but occasionally updates the situation in 2018.

[1] Strengthening people-centred health systems in the WHO European Region: framework for action on integrated health services delivery. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0004/315787/66wd15e_FFA_IHSD_160535.pdf).

2. Policies and strategies related to quality

A series of strategic plans have driven health reform and progress towards improving quality of care.

The **Manas programme (1996–2006)** aimed to introduce:

- mechanisms to protect patients' rights;
- the development of clinical guidelines;
- a health information centre to collate financial, clinical, epidemiological and quality data for monitoring and improving the performance of the health system; and
- regulatory and legal frameworks for managing the quality of care.

The **Manas Taalimi programme (2006–2010)** aimed to introduce:

- internal systems in health-care facilities to improve the quality of service delivery;
- promotion of the principles of evidence-based medicine;
- reduced hospital infections and improved medical waste management; and
- improvement in graduate, postgraduate and continuing education.

The **Den Sooluk programme** *(2)* (2011–2016 and extended until 2018) aimed to:

- put people and communities at the centre of the health system;
- concentrate on producing clinical results and population health gain;
- remove barriers to better health;
- improve health outcomes, specifically in cardiovascular diseases, maternal and child health, tuberculosis (TB) and HIV infection;
- integrate vertical programmes into the general system of health services delivery; and
- expand the autonomy of health-care providers to improve management systems and to make better use of existing resources.

During this period, the Government of Kyrgyzstan issued Decree No. 603 of 3 September 2012 on typical standard of state and municipal services that describes a "passport" of state service. In 2014, Kyrgyzstan adopted a law on state and municipal services as a legislative basis for developing standards for state services and assessing the quality of services, including health services. The Den Sooluk programme is being extended through 2018 to focus on:

- the quality of maternal and child health care;
- results-based purchasing of primary health care;
- integrating cardiovascular diseases, HIV and TB into primary health care;
- reforming clinical training, including extending the role of nurses;
- clinical information systems and electronic patient records; and
- developing a new fourth health strategy for 2019–2024.

Concept of the quality of medical services 2004–2008. The concept of the quality of medical services 2004–2008 *(3)* was based on the national development framework towards 2010 *(4)*, the Health Law *(5)*, the Manas Health Reform Programme and the 1997 recommendations of the Council of Europe on quality improvement systems in health care *(6)*. The principles of the concept included:

- preserving and promoting health;
- ensuring that the population has access to high-quality professional medical and preventive care;
- developing quality standards, supervision and monitoring their observance
- ensuring the active cooperation of all stakeholders;
- continually improving quality management systems; and
- applying methods and tools of quality management in making managerial decisions.

The main strategic directions of the concept were:

- the professional competence of medical workers;
- the motivation of medical workers to improve quality;
- ensuring information for implementing high-quality professional activities;
- ensuring population access to health resources and information on health protection and promotion; and
- developing and improving regulatory mechanisms.

Quality and safety of health care in health-care organizations, 2012. The Ministry of Health Order No. 641 of 2012 on the model provision for the committee for quality and safety in health-care organizations *(7)* aimed to ensure continual improvement in the quality of health services and to avoid structures that duplicate functions. This replaced clause 3 of Order No. 146 of 2006 on the Committee for Quality and Safety of Health Care in the organization of public health services of medical-prophylactic profile.

Quality management systems in health-care organizations, 2015. Preparation for a national quality plan stalled in 2015 because of lack of budget and Ministry of Health support, but UNICEF continued to sponsor the development of quality management systems in maternal and child health care, which led to the Ministry of Health Order No. 454 of 4 August 2015 on the improvement of the quality management system in the health-care organizations *(8)*. This ordered:

- meso- and micro-level quality structures – a department for quality management and divisional technical units;
- regulations on clinical auditing;
- job descriptions for experts in health-care facilities, including quality management, occupational safety and health, clinical pharmacology and infection control; and
- experts introduced into quality committees, including clinical pharmacology and equipment technicians.

Regulations on clinical auditing recommended the use of systematic criterion-based auditing as a cycle of learning and improving health care.

Development projects

Several initiatives, funded primarily by development partners, sought to translate the intentions of the strategic plans into action in pilot sites. These illustrate many common features of a comprehensive quality system at the level of patient care and at the level of health-care facilities. This section describes the examples of key activities that became the focus of various areas and projects. The key activities in maternal and child health were:

- service planning: strategic planning for developing perinatal services;
- clinical protocols and guidelines: labour induction, postpartum haemorrhage, neonatal care and management and cerebral palsy among children;
- patient registries: surveillance system for congenital malformations, registry of neural tube defects and computerized immunization information system;
- staff capacity and skills: training health workers on approved clinical protocols on maternal and newborn health;
- monitoring and evaluation: centre for integrated monitoring and analysis of sector-wide approach performance, unification of monitoring tools for maternal and child health and analysis of results of monitoring visits in maternal and child health;
- supervision: advisory system of health-care provision and electronic database of national experts;
- quality care improvement tools: introducing and implementing confidential enquiry into maternal deaths and near-miss case review;
- quality care assessments: UNFPA conducted and supported two quality care assessments in maternal and newborn health in 2012 and 2014;
- introduction of emergency obstetric care standards: two workshops on setting clinical standards for maternity and emergency obstetric care were held with the support of UNFPA, and follow-up action plans were developed; and
- standards for youth-friendly health services are being developed with the support of UNFPA; UNFPA supported the development of the Ministry of Health Order on improvement of reproductive health services for adolescents of 22 May 17 and is supporting the development of standards for state health services for adolescents in the country.

Fig. 1. Maternal mortality rates: deaths per 100 000 live births, 2006–2016
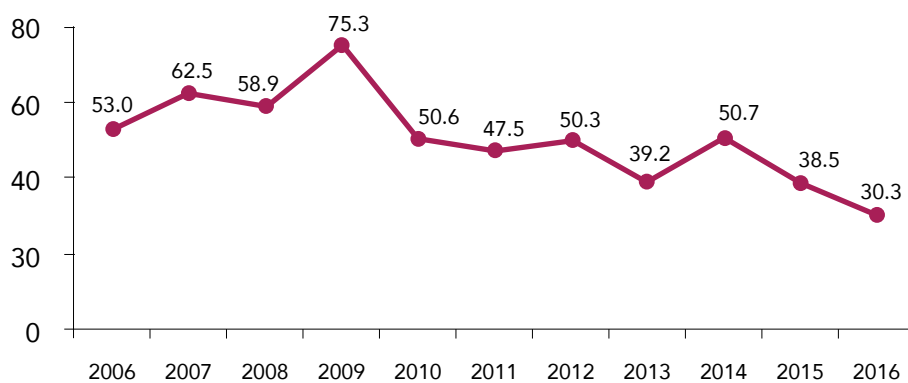
Source: *(30)*

The key activities in cardiovascular diseases were:

- service planning: implementation of the basic activities package for noncommunicable diseases (WHO package of essential noncommunicable disease interventions -PEN); emergency health care for people with acute coronary syndrome and acute impairment of cerebral circulation;
- clinical protocols and guidelines: assessment of the pathways for infarction and strokes;
- patient registries: monitoring the registry for diabetes;
- staff capacity and skills: evidence-based health care for doctors and nurses on cardiovascular diseases, diabetes and tobacco addiction; pre-hospital care, diagnosis and treatment of cerebral stroke; diagnosis and treatment of acute coronary syndrome; management of cardiovascular diseases (hypertension) and diabetes; and thrombolysis therapy;
- health literacy: increasing the population's awareness on preventing cardiovascular diseases and identifying elevated blood pressure; healthy lifestyle; press conferences on noncommunicable disease issues (diabetes, smoking, etc.);
- legislation: tobacco control and marketing;
- indicators: mortality from cardiovascular diseases by sex and age (per 100 000 population); hospital deaths from acute myocardial infarction and number of people who had repeat acute myocardial infarction; and the incidence of complications among people with diabetes; and
- epidemiology: WHO STEPwise approach to surveillance research on the surveillance of risk factors of noncommunicable diseases.

Fig. 2. Mortality from cardiovascular diseases per 100 000 population, 2011–2016
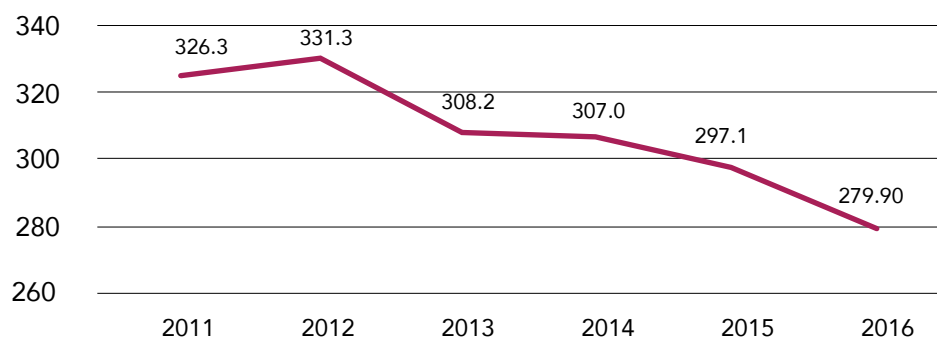
Source: *(30)*

The Health Facilities Autonomy Project, funded by the Swiss Agency for Development and Cooperation (2013–2018), aims to improve the efficiency and quality of health care by increasing the autonomy of the health-care facilities in service provision *(9)*. A model of management autonomy is being piloted in three provinces of the Issyk-Kul oblast to increase the capacity of facilities to restructure, reallocate resources and manage changes that are essential to improvement. The project focuses on the following areas:

- service planning: rayon health-care councils established and infrastructure and equipment to be consistent with the types of services provided;
- management capacity: decentralizing decisions regarding resources, results and management process; streamlining the appointment

and dismissing of managers; expanding independence in spending budget funds and earning income; and eliminating barriers to reallocating staff positions;

- incentives: primary health care financing incentives for the volume and quality of health care; remuneration of health-care personnel based on results; and strengthening mechanisms of financing and payment for health-care services;
- data collection: using the clinical information form database for preparing informative reports and verifying the reliability of quantitative performance indicators; and
- accountability: transparency in public reporting on the provision of services.

The first component of a World Bank results-based financing project for performance-based payments and enhanced supervision for quality of care is funding a randomized controlled trial to assess two alternatives for improving the quality of secondary care at the rayon hospital level: an enhanced supervision scheme using a balanced scorecard to assess quality at the facility level, together with a performance-based payment made against facility results; and an enhanced supervision scheme using a balanced scorecard alone without performance-based payments *(10)*.

Overall, almost all components of an effective national programme for quality management are already evident in Kyrgyzstan. However, they are fragmented in vertical programmes and pilot locations, and there is no central capacity for coordinated development. There are many initiatives but little coordination, feedback and learning across the system.

Much of the sector-wide approach procurement focuses on inputs: facilities, equipment, clinical protocols, and training. The Health Facilities Autonomy Project focuses on developing internal systems and a capacity for changing the behaviour of individuals and of organizations.

The successive strategic plans have implied but not explicitly targeted a shift in culture from top-down command and control towards increased self-governance:

- from downwards control to upwards accountability;
- from legal direction to self-regulation;
- from administration to management;
- from inspection to peer review;
- from line budgeting to strategic purchasing; and
- from punishing non-compliance to rewarding achievement.

The next strategic plan should aim to develop a national framework for quality across the health system to enable the coordination, integration and extension of current and future initiatives. Order 454/2015 did not define the scope of quality in health services or principles of improvement, or identify national support for local systems, training, data or information. The content, implementation and impact of the 2015 order should be evaluated to determine the contribution of normative documents to a comprehensive national plan. This plan should be consistent with vertical and horizontal programmes, especially Information and communications strategy.

3. Institutions relevant to quality

Ministry of Health

Frequent change of top management led to inconsistencies in determining the direction of reform and created difficulties in accumulating sufficient knowledge and skills necessary for effective management. In general, the responsibilities of the Ministry of Health remained the same, except for the delegation of some functions related to financing to the Mandatory Health Insurance Fund. This increased the volume of work for the Ministry of Health, including determination of policy, provision of health services, responsibility for sector financing and solving current problems put an overburden that led to efficiencies on strategic planning and management.

Coordination of quality improvement was assigned in 2013 to a unit planned to include five staff members within the Ministry of Health. The Ministry of Health Order No. 454 of 4 August 2015 assigned responsibilities for quality within health facilities but not within the Ministry of Health. In February 2017, the organizational structure of the Ministry of Health was revised and the quality unit was abolished together with other units. The one remaining officer is now attached to the department of health services delivery and drugs.

There is no unit in Ministry of Health to coordinate evidence-based medicine, but one part-time consultant is available. There is no national quality advisory group representing consumers, providers, insurers and professions.

No published annual reports identify quality activities and quantified improvements in performance of the health system. The Republican Medical Information Centre[2] publishes a large volume of statistical data in tabular form, but there is no analysis or interpretation to convert data to information or to report back comparative performance results to clinicians and managers at the meso- and micro levels for learning and improvement.

Mandatory Health Insurance Fund

The Mandatory Health Insurance Fund aims to raise quality through external control, financial incentives in annual contracts and indicators. The Mandatory Health Insurance Fund and local authorities give no financial advantage to performance in terms of outcome measures of clinical effectiveness, patient safety or patient experience or in terms of differentiated accreditation status. The Mandatory Health Insurance Fund does not build accreditation grading into reimbursement or tariff formulas, although 1% of hospitals are in the top category and the rest are divided equally among second and third.

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[2] The Republic Medical Information Center existed in 2017 when the information for this report was gathered. It has since been superseded by the Republican eHealth Information Center.

The Mandatory Health Insurance Fund does not pay for "comorbidities and complications", thus excluding some of the most common metrics of case mix and quality in hospitals. Until challenged by development partners on the issue of short stays for children, the Mandatory Health Insurance Fund did not reimburse hospital stays of less than three days; removing this exclusion for everyone was intended to promote better use of beds and more use of day care.

Under the 2015 fee schedule, all cardiovascular disease cases (International Classification of Diseases -ICD- codes G45 and I60–68.8) are reimbursed at the same price regardless of complexity, cost or outcome. There is no differentiation between haemorrhagic and ischaemic stroke despite the significant difference in clinical management and outcome.

From 2013, the Results Based Financing Project of the World Bank (10) compared performance in three hospital groups (intervention, monitoring and control) using an assessment checklist (based on Medical Accreditation Commission standards): management and infection control; training and clinical management; patient satisfaction; quality assurance structure; surgery; maternity; and children. The results are not specified in terms of clinical outcome or patient safety.

In primary health care, the Results Based Financing Project for facility autonomy uses four indicators (balanced scorecard): monitoring the health of children; antenatal care; detection and treatment of hypertension; and tuberculosis.

Nongovernmental organizations

The United States Agency for International Development has also supported several non-profit organizations, including the Kyrgyz Family Group Practice and Nursing Association and the Kyrgyz Hospital Association to step up into the role of true professional associations as representatives and supporters of their constituents *(12)*.

The Kyrgyz Hospital Association and the Kyrgyz Association of Family Doctors and Nurses have been active in Ministry of Health councils and working groups such as on health policy, manager appointments and an evaluation of performance of health-care facilities undertaken in 2015. Many of the 80 medical specialty associations have now merged into the Kyrgyzstan Medical Association.

Professional associations are already involved in certifying health-care professionals and in setting and evaluating health-care standards to be consistent between specialties and across the country; professional peer pressure should become a primary driver for improvement.

Health facilities

The Ministry of Health Order No. 454 of 4 August 2015 prescribed a structure of committees and departments for quality management in each facility and technical working groups at the level of structural units. There has been no formal evaluation of the effectiveness of this structure but a small sample of sites shows that committees exist, meet and keep records of issues and actions. In several instances, these records were handwritten, leaving doubt about how effectively they are disseminated for learning or reported to management.

In these instances, no systematic methods were evident, no statistical data were routinely used and very few improvements were quantified. This suggests the need for more technical assistance with internal audit and performance measurement, such as clinical audit templates and routine clinical indicators derived from existing data systems.

The quality committees are not trained in quality improvement tools and the mechanisms for implementing clinical protocols and guidelines into the activities of health workers are not worked out.

4. Governance and management of quality

Services management

Currently, managers are limited by the rules of the Ministry of Finance and Mandatory Health Insurance Fund; any savings in one year are deducted from the budget of the next year, giving no incentive for saving money.

Formal management training is not a requirement for appointment to senior management positions; these are at the discretion of the Minister. Few training courses are available.

The inspectorates and Medical Accreditation Commission assess compliance against criteria for internal management systems, but training and facilitation are not their responsibility; no body offers organizational development or technical assistance towards meeting the standards required for operational systems and quality management. Some systems, such as for medication safety (such as the documented check of emergency drugs), collection of biomedical waste (such as by ward personnel) and resuscitation (equipment, training and procedures) appear to be weak.

Quality management

Based on the Ministry of Health Order No. 454 of 4 August 2015, quality councils govern executive quality units (paid staff members) to coordinate technical groups. Quality councils issue an annual work plan in January. There is some evidence of activity of these structures but little evidence of systematic evaluation, performance measurement, learning or improvement.

The Ministry of Health Order No. 454 of 4 August 2015 defines quality council reports to management. Statistical reports (forms 12 and 14) are sent to local authorities and to the Republican Medical Information Centre. Territorial branches of the Mandatory Health Insurance Fund use these statistical reports to monitor contract indicators, but there is no regular feedback to facilities for learning or comparison between them.

Heads of health facilities are responsible for demonstrating compliance with quality procedures but are subjected to multiple external inspections looking for punishable errors and non-compliance; none of these focus on rewarding performance in terms of clinical outcome or on reducing adverse events and complications.

Risk management

Patient safety is not a priority. Safety in terms of environment and occupational health has been explicit in the responsibilities of quality councils since the Ministry of Health Order No. 641 of 2012. Public health is responsible for the safety of the community, including managing the risk of major emergencies and communicable diseases and monitoring infection associated with health services.

There is no national system for coordination or for reporting and learning from adverse patient events and near misses and no guidance on risk assessment and management systems (with the notable exception of maternal and child health). Even events designated as "reportable" are systematically underreported due to a culture of blame and punishment rather than learning.

Based on data received by the Mandatory Health Insurance Fund in 2016, 0.55% of surgical procedures were associated with postoperative complications; a global review of 30-day post-operative complication rates in 2013 reported a national range from 5.8 to 43.5 per 1000 operations depending on definitions (16). The percentage mortality in 4688 planned operations in 2016 was reported as zero in Kyrgyzstan; an analysis of hospitals in England over three years calculated an overall mortality rate of 6.7 per 1000 planned operations in 2013 (17).

Good examples of improving quality by reducing risk come from maternal and child health, where the Ministry of Health has begun to implement the WHO recommended beyond-the-numbers approach by introducing confidential enquiries into maternal deaths and near-miss case reviews. Another example is the efforts to improve the registration of infections in pregnancy.

Clinical governance

Clinical governance is a mechanism for involving all clinical staff in improving clinical practice and patient safety, for integrating with management systems and clinical supervision across the health system.

Technical and working groups are responsible for managing quality at the level of units but the participation of all members of clinical teams in peer review and evaluating their own work (beyond controlling hospital-acquired infections) is unclear.

Arrangements for expert specialist advice and clinical supervision vary between specialties. Tertiary centres develop clinical standards and provide training but have no defined responsibility for monitoring, evaluating or supervising services in secondary and primary care.

One exception is the National Centre for Maternity and Childhood Protection, which has an organization and methods unit that observes data across the country and reports to the Ministry of Health quarterly. UNICEF has adapted the WHO assessment tool (which includes the baby-friendly hospital criteria) for quarterly visits by a multidisciplinary team of six for one or two days. UNFPA adapted two quality care tools: hospital care for mothers and newborn babies: quality assessment and improvement tool and the assessment tool for the quality of outpatient antepartum and postpartum care for women and newborns. UNFPA and the Ministry of Health have organized supportive supervisory visits of multidisciplinary teams to maternities to improve the quality of care for mothers and newborns.

Other national centres have been funded to monitor the performance of specialties: cardiology, tuberculosis and narcology. They can ask the Republican Medical Information Centre for ad hoc reports, access Excel files on the Republican Health Information Centre website and annual compendium of statistics, but they do not receive any routine statistical reports on their specialty. The Mandatory Health Insurance Fund and Medical Accreditation Commission carry out clinical supervision.

Lejnev & Kuttumuratova *(25)* recommended in 2009 that supervision in maternal and child health be strengthened by:

- more effective use of local information
- sustainable internal supervision
- national policy on supervision and supervisory skills reinforcement
- integrated supervision as a tool for improving quality of care, including:
    - national coordination committee on the quality of care and supervision
    - comprehensive national policy on supportive supervision in the country
    - tools and guides to carry out effective supervisory encounters and visits
    - consolidated list of essential indicators and monitoring key pro gramme activities.

Similar support should be available to other specialties across the health system.Data for monitoring the performance of clinical services are available on request but are not routinely provided for the purpose of audit or supervision. Trends such as the recent rise in hospital mortality from acute myocardial infarction should be investigated.

Fig. 3. Trend in hospital mortality from acute myocardial infarction, 2012–2016
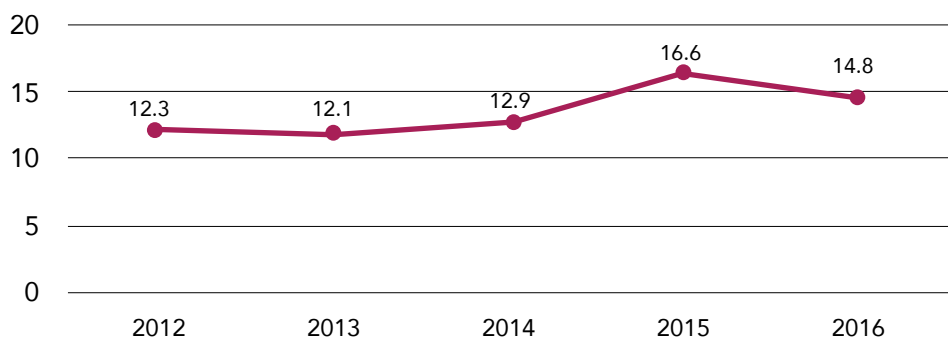
Source: *(31)*

By Ministry of Health decision, some functions might be delegated to professional medical public organizations and associations (trade unions). The Ministry of Health does involve professional associations in developing clinical protocols and guidelines, monitoring their implementation, providing practical assistance and training health facilities. In addition, professional associations participate in analysing cases of poor-quality health care. Tertiary health facilities limit themselves by participating in developing clinical protocols and guidelines. They do not perform the analytical work, monitoring changes in statistical data.

Public health management

The public health service has been reorganized to extend from surveillance functions to disease prevention. The public health unit of the Ministry of Health comprises six departments: health promotion, HIV, immunization, prevention, quarantine and infection control – basically health promotion and communicable diseases rather than population health. The division of functions and responsibilities between sectors in public health has resulted in overlaps and lack of clarity of real functions and responsibilities, gaps and duplication.

5. Mechanisms and methods for improving quality

Rights of patients

Patients' rights are defined by Chapter 9 of the 2005 Health Protection Law. The rights of access to funded care are prominently displayed in the front halls of health-care facilities. The rights to privacy, confidentiality, information and dignity are less evident. Standard forms for consent to surgery do not specify the procedure or anaesthetic technique or identify who has explained the potential risks involved.

Complaint boxes are available in facilities and are well used; facility managers and the Mandatory Health Insurance Fund devote much time to handling complaints. The Mandatory Health Insurance Fund conducts regular questionnaire surveys of patients' opinions on the quality of health and preventive care, taking a sample of at least 5% of inpatients and primary care. The results of patient surveys are analysed, reported back to health providers and taken into account when concluding contracts with the Mandatory Health Insurance Fund.

Some information leaflets are available to patients, but simple explanations of evidence-based guidelines are not routinely included in national protocols. Under the eHealth programme, more information will be available to the information technology–literate public. Currently, the Medical Accreditation Commission reports accreditation decisions to the Ministry of Health but the information is not made available on the public website; the Ministry of Health website provides very little information to promote health literacy and education or to report on the performance of health-care facilities or the health system overall.

Statutory mechanisms to ensure safety

Public sector facilities are exempted from institutional licensing. Private health facilities and pharmacies are licensed according to compliance with government regulations, enhanced by technical criteria from nongovernmental organizations and public health. Licences are permanent, but a pharmacy team and four hospital inspectors carry out check-ups every 6–12 months at public expense. In many countries, monitoring, inspection and relicensing of the private sector generate income to cover the operating costs of the programme.

All health facilities are subject to infection control inspections every three months, Mandatory Health Insurance Fund inspections and hygiene inspections every six months and public health monitoring and evaluation, pharmacy inspection by the Drug Regulation Authority and Ministry of Health appraisal of managers every year.

A joint decree of 2016 by the Ministry of Health and the Mandatory Health Insurance Fund stipulates the procedures for on-site validation of reimbursement claims. A total of 36 trained experts from territorial branches of the Mandatory Health

Insurance Fund visit facilities twice a year to examine a 1% sample of primary health care records and 3% (or 100 cases) of hospital records. No disease-, procedure- or theme-specific studies use criterion-based auditing to standardize and simplify the assessment of homogeneous case mixes but there are plans to focus attention on high-risk institutions, which are identified by analysing the Mandatory Health Insurance Fund database. This would encourage institutions to monitor their own performance more carefully and to demonstrate the effectiveness of their internal governance.

External quality assessment and improvement initiatives

Health-care standards. The Ministry of Health order 183/2016 on approval and implementation of state standards aims to establish user-friendly standards for health providers, using an 18-section template. The Ministry of Health and UNFPA have applied this to develop a draft for services for adolescents 10–19 years old, in consultation with service managers but without input from other stakeholders such as the Medical Accreditation Commission, Mandatory Health Insurance Fund or service users.

Health facilities. The Medical Accreditation Commission began inside the Ministry of Health, funded by the United States Agency for International Development, as a combination of licensing and accreditation. At that stage, recognition by Medical Accreditation Commission was a requirement for contracting with the Mandatory Health Insurance Fund, but the Medical Accreditation Commission later split into a licensing committee by the Ministry of Health and an accreditation committee as a nongovernmental body. In about 2005, the Ministry confined licensing to the private sector.

Recognition by the Medical Accreditation Commission is mandatory for contracting with the Mandatory Health Insurance Fund, which contributes 15% of health facility income. The Medical Accreditation Commission has a fixed three-year cycle. The International Society for Quality in Healthcare accredited the accreditation standards internationally for five years from 2013 but the organization itself does not meet the criteria for an independent nongovernmental body; it was founded by the Ministry of Health and the deputy minister is permanent chair of the multi-stakeholder steering group.

The United States Agency for International Development and GIZ-Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH no longer fund the Medical Accreditation Commission, which is now financially self-sufficient despite 48% of income being spent on salaries. Lack of a Ministry of Education licence prevents income generation from training courses, which are significant income streams for many national accreditation organizations. The Medical Accreditation Commission remit does not include organizational development or facilitation to meet accreditation standards; this could be the role of specialist associations.

Medical laboratories. There is no national external quality assurance system for medical laboratories. A working group has been established to review and rationalize laboratories, aiming for a strategic development plan in 2018. Optimization has already led to withdrawing microbiology from district hospitals. The central reference laboratory is now preparing for ISO 15189 certification, and the Medical Accreditation Commission is working with the Laboratory

Coordination Council to develop standards compatible with ISO 15189.

Clinical practice

Despite the abundant evidence that publishing clinical guidelines and carrying out classroom training have almost no effect on clinical practice, these investments are frequently repeated.

Evidence-based guidelines and protocols. Manas Taalimi envisaged the development of clinical protocols by professional medical associations, national centres, research institutes and republican organizations with the Ministry of Health, which would remain in charge of coordinating and introducing the guidance. A series of booklets sponsored by the Swiss Red Cross promote evidence-based procedures and practices for infection control, including the rational use of antibiotics for prophylaxis in surgery.

Some clinical guidelines are developed by large, unpaid working groups appointed by the Ministry of Health and coordinated by one part-time consultant. The guidelines are accessible (to clinicians but not to the public) on the Ministry of Health website, but the development procedures are not visible online.

Guidelines exist for most of the Den Sooluk priority areas (maternal and child health, tuberculosis and hypertension) but little coverage of others such as surgery and neurology. Compliance with clinical protocols and guidelines, when available, is a key dimension of the validation process used by the Mandatory Health Insurance Fund, but they are little used for internal auditing, for which the quality committees are responsible. If quality committees did this effectively, the burden of external inspection could be reduced to verifying the system of clinical governance. If guidelines were developed according to the international AGREE II Convention *(26)*, they would be accompanied by a simple set of criteria for auditing patient records and statistical indicators for routine monitoring. Many countries reduce the burden of guideline development by adopting a standard procedure for importing guidelines from international authorities, appropriately modified according to local culture, ethnicity, epidemiology and economics.

Clinical auditing. Appendix 4 of the Ministry of Health Order No. 454 of 4 August 2015 (regulations on clinical auditing) describes criterion-based auditing. Little evidence indicates that this has been put to use in health facilities.

Measurement of the quality of stroke and acute coronary syndrome care as a part of a process of quality improvement is scarce … [Ambulance] registry data are not used to provide feedback to clinicians, and their use by policy-makers for strategy planning in acute coronary syndrome and stroke care is unclear *(27)*.

Audit of clinical practice against clinical guidelines is deemed to be the responsibility of the Mandatory Health Insurance Fund inspectors and not the clinicians themselves.

Changing clinical practice. Despite the publication and distribution of clinical guidelines and classroom training in their use, compliance is generally low. Lack of scheduled time for peer review, comparative performance data and feedback from external review, relevant clinical evidence and financial incentives may explain much of this low uptake. Very few specific quality measures are

routinely available for performance feedback to managers or clinicians even where the basic data on facility systems are available. The Republican Medical Information Centre generates numerous routine and ad hoc reports under the guidance of the National Statistics Committee but does not currently have the capacity or responsibility for analysing, interpreting or graphically presenting the data received. The Mandatory Health Insurance Fund data system is used by both funders and medical specialists of the Mandatory Health Insurance Fund, who assess activities at the facility level for the purpose of feedback or improvement. The facilities themselves cannot directly access the data.

6. Technical support for quality systems

Information systems

National strategy. Joint annual review priorities for 2016 included introducing and developing health and clinical information systems to support clinical work and to improve quality. Joint annual review Resolution 134/2016 approved the eHealth strategy and action plan for 2016–2020 to centralize electronic patient records, patient administration, information and references – and to establish interaction with each health facility. Each facility will have to procure hardware and systems to interface with the national centre. This should include defining who is responsible for data quality, analysing and interpreting aggregated data and feeding back to the sources for verification and learning.

Data collection. Patient-based data for communicable diseases and a few specific conditions such as iron and iodine deficiency and cancer derive from forms #12 (primary health care) and #14 (hospital), which are completed using MedStat software for local use, for submission to the Mandatory Health Insurance Fund, for contract purposes and for statistical processing and aggregation via the Republican Medical Information Centre branches.

In anticipation of computer-based information systems, the minimum data set in forms #12 and #14 is being reviewed. To enable depth of coding and international comparison, the data fields for diagnoses, procedures, comorbidities and complications should be expanded; currently only one field is available for complications. A new clinical statistics form now being piloted does not identify the family doctor or primary care centre or the time of the surgical procedure; these are important for routine indicators such as avoidable hospital admissions and delay in intervention such as cardiac catheterization and hip fracture.

Quality committees are responsible for monitoring adverse events but there is no mechanism for sharing incidents and learning with other health facilities. National definitions of reportable events should include the corresponding ICD codes. Fear of reprisals keeps reporting of and learning from adverse events low.

Hospital doctors perform clinical coding according to ICD-10 without computer assistance or systematic recoding. The average number of ICD codes per discharge, commonly used as a measure of the depth of coding, is not monitored. At the population level, parallel reporting systems give conflicting results, such as for immunizations reported to a republican centre compared with a demographic survey (5–7%).

Fig. 4. Variation in hospital mortality trends in the oblasts, 2012–2016
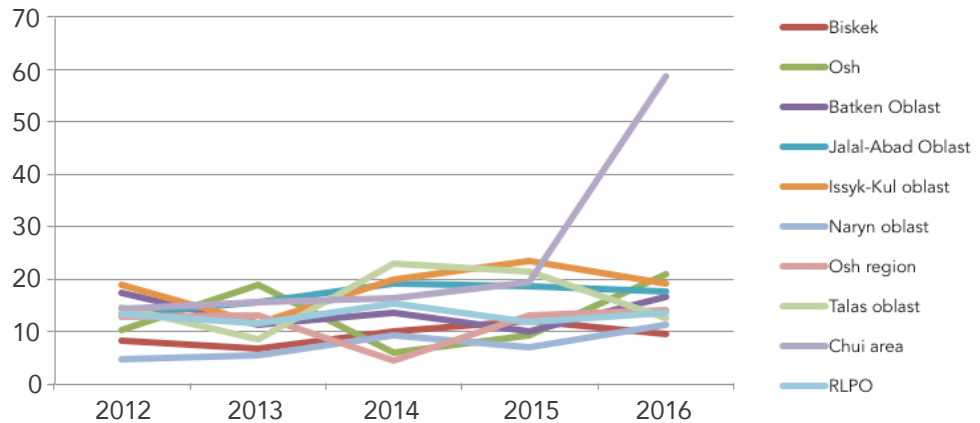
Source: *(32)*

The quality of clinical coding may be measured by the use of non-specific dump codes, which do not discriminate between similar conditions that may vary in causes, outcomes or costs and require accurate diagnosis to make decisions on clinical management. Most stroke cases are not coded to reflect the crucial difference between ischaemic and haemorrhagic pathology (Table 1).

Another test of coding accuracy is the relative incidence of differential diagnoses such as invasive versus non-invasive cervical cancer or types of stroke; these ratios tend to be consistent within defined populations. In the United Kingdom, 89% of all strokes are diagnosed as thrombotic; in Kyrgyzstan (of those coded specifically) the figure was 24% in 2011 and 51% in 2014.

Table 1. ICD coding of stroke mortality per 100 000 population, 2011 and 2014

	2011	2014
ICD-10 61.0: haemorrhagic stroke	7.83	4.8
ICD-10 63.0: ischaemic stroke	2.46	5.1
ICD-10 64.0: haemorrhagic stroke	68.7	58.3

Source: Kyrgyzstan [online database] *(28).*

Data to information. The Republican Medical Information Centre does not have capacity or responsibility for analysing, interpreting or graphically presenting the data received. Raw data are published in dense numerical tables, such as in Fig. 5.

Fig. 5. How annual reports present data

Место рождения	Общее число недоношенных живорожденных	из них имели перинатальную патологию (P00-P96)	отдельные состояния, возникающие в перинатальном периоде (согласно МКБ -10)					умерло от перинатальных причин в неонатальном периоде (основная причина смерти)
			P10, P11, P14	P20, P21	P52	P90	P91	
г.Бишкек / Bishkek с НЦ охраны материнства и детства	1371	1011	4	8	20	19	0	253
на 1000 родившихся живыми / per 1000 livebirths	1000.0	737.4	2.9	5.8	14.6	13.9	0.0	184.5
Родильный дом № 1	16	15	0	0	0	0	0	10
на 1000 родившихся живыми / per 1000 livebirths	1000.0	937.5	0.0	0.0	0.0	0.0	0.0	625.0
Клинический родильный дом № 2	279	52	4	8	20	19	0	14
на 1000 родившихся живыми / per 1000 livebirths	1000.0	186.4	14.3	28.7	71.7	68.1	0.0	50.2
Городской перинатальный центр	690	614	0	0	0	0	0	113
на 1000 родившихся живыми / per 1000 livebirths	1000.0	889.9	0.0	0.0	0.0	0.0	0.0	163.8
НЦ охраны материнства и детства	386	330	0	0	0	0	0	116
на 1000 родившихся живыми / per 1000 livebirths	1000.0	854.9	0.0	0.0	0.0	0.0	0.0	300.5
Городская гинекологическая больница, хозрасчетное отделение	0	0	0	0	0	0	0	0
на 1000 родившихся живыми / per 1000 livebirths	1000.0							
г.Ош/ Osh	327	127	0	0	0	1	0	30
Филиал ГТБ № 2	327	127	0	0	0	1	0	30
на 1000 родившихся живыми / per 1000 livebirths	1000.0	388.4	0.0	0.0	0.0	3.1	0.0	91.7
Баткенская область /Batken oblast	375	293	0	0	0	0	0	72
на 1000 родившихся живыми / per 1000 livebirths	1000.0	781.3	0.0	0.0	0.0	0.0	0.0	192.0
Баткенский район / Batken rayon	103	80	0	0	0	0	0	35
на 1000 родившихся живыми / per 1000 livebirths	1000.0	776.7	0.0	0.0	0.0	0.0	0.0	339.8
Баткенская ООБ	102	80	0	0	0	0	0	35
на 1000 родившихся живыми / per 1000 livebirths	1000.0	784.3	0.0	0.0	0.0	0.0	0.0	343.1
ЦОВП Самаркандек	1	0	0	0	0	0	0	0
на 1000 родившихся живыми / per 1000 livebirths	1000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: *(33)*

Data could be presented graphically to show patterns of results and obvious data errors.

Fig. 6. shows wide variation between rayons (districts) in clinical outcome. This may be an artefact resulting from incomplete recording of live births, stillbirths or both, but a hospital with nearly 4000 deliveries a year is unlikely to have no stillbirths.

Fig. 6. Presenting data as information: stillbirths and total births by rayon, 2014
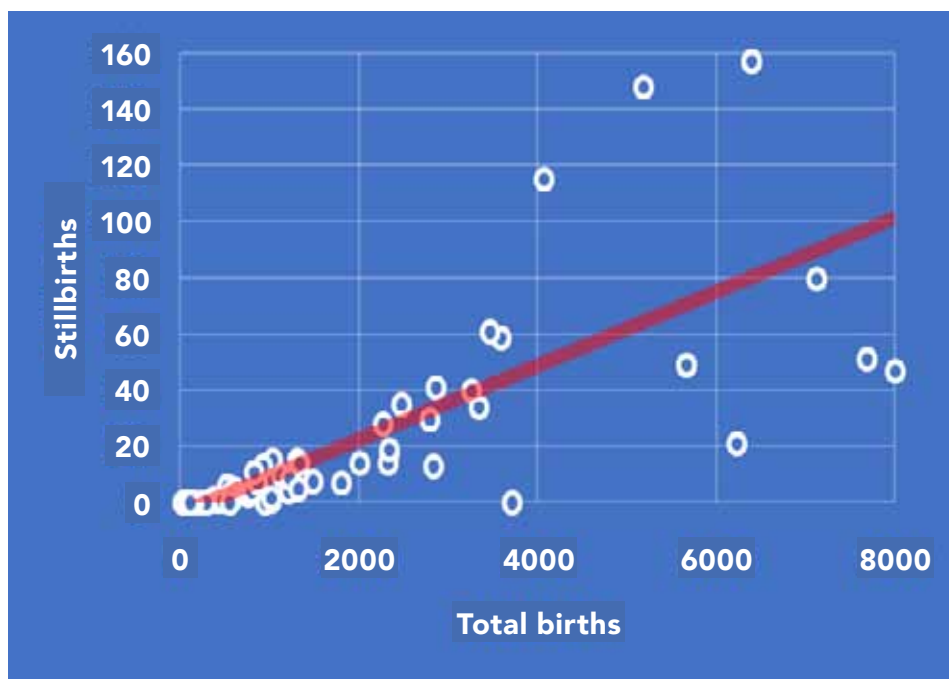
Source: *(33)*

Feedback, learning and improvement. The Republican Medical Information Centre generates numerous routine and ad hoc reports under the direction of the National Statistics Committee but has not tested the capacity of the existing patient-based hospital data set to produce reliable comparative measures of clinical performance. Ability to use existing information system to identify problems and track changes is an important part in improving quality.

Performance indicators

The aims and definitions of indicators and of performance vary widely between the users and contexts of health. To be compatible and transferable between specialties, services and health facilities, indicators must follow common conventions such as the Health Information and Quality Authority in Ireland or the Organisation for Economic Co-operation and Development-OECD in France. Clinical guidelines adopted do not consistently include clinical indicators for monitoring compliance such as using patient-based hospital discharge data. The Ministry of Health has an approved list of quality indicators defined in the Ministry of Health Order No. 454 of 4 August 2015 on quality management.

Training for improving quality

As with clinical guidelines and standard operating procedures, much investment in training has come from development partners. Despite numerous targeted training programmes in various pilot sites, enthusiastic understanding for quality is generally rare and largely absent for patient safety.

Although evidence-based medicine was adopted early in the Manas Taalimi strategy, the concepts and implications of research-based clinical practice and relevant techniques of quality improvement are not systematically incorporated in the curriculum, teaching and examination of clinical undergraduates. Some elements of epidemiology are taught in public health modules and infection control.

State educational standards approved by the Ministry of Education in 2015 are general guidance for all training institutions but do not include a statement of knowledge and competencies required by health professionals or define the content of training curriculum. Three government institutions and about 10 private institutions develop their own curriculum and teaching programmes in conjunction with the Ministry of Education.

Manas Taalimi also envisaged, but did not achieve, including clinical protocols in the curricula of postgraduate and continuing medical education and a system of monitoring the introduction for clinical protocols and guidelines.

Resource centre

There is currently no dedicated resource centre, archive or clearinghouse to collect and exchange information on the theory and practice of standards, measurements and improvement that is accessible to all health personnel.

7. Recommendations

Values and policy related to quality. The successor to Den Sooluk should define explicitly the values behind strategic planning and the expected results in terms of cultural change. Learning from pilot projects must be shared between clinical services, professional tribes and geographic boundaries. This will require a common understanding at national level of key elements, including:

- the scope and dimensions of quality in health care, including clinical effectiveness, patient safety and patient experience, linking structure, process and outcome;
- principles of improvement: developing standards, assessing compliance and managing change and completing the cycle of improvement;
- organization and structures for quality at all levels of the health system;
- validated methods and tools for improvement; and
- essential support: organizational development, clinical supervision; skills and learning and data and information.

Design a national framework for quality to stimulate and organize national efforts to secure high-level commitment for quality and to ensure partner alignment *(11)*.

Institutions for quality. Within the definitions of the national framework for quality, responsibilities should be clearly defined within and between central agencies, especially the Ministry of Health and the Mandatory Health Insurance Fund. The time, authority, skills and resources required to carry out these responsibilities should be identified and budgeted.

Incentive for quality improvements. The Mandatory Health Insurance Fund should reward performance in terms of nationally agreed outcome measures of clinical effectiveness, patient safety and patient experience and of compliance with evidence-based processes. The Mandatory Health Insurance Fund should use the patient-based data on complications and comorbidities for feedback, learning or improvement. These data are central to managing risk, adjusting the case mix and interpreting clinical outcome.

Nongovernmental organizations. Professional health-care associations should be encouraged and supported to design, maintain and account for systems of clinical governance. The European Union of Medical Specialists, a nongovernmental organization, has published a series of guidance documents to encourage peer review and self-regulation, including Basel Declaration (2001) – continuing professional development as a form of quality improvement *(13); Promoting good medical care (14); and Budapest Declaration on Ensuring the Quality of Medical Care (15)*.

Health facilities. The national quality framework should define the sources of support required for internal   quality systems, including skills, practical tools, routine data reports and management, technical and clerical assistance.

Service management. Health facility managers should be given the authority, skills, information and tools to respond to internal quality systems, learning from peers and guidance from national and international experience. Senior managers should be appointed, appraised and reappointed based on evidence of training, experience and competence in the general management of health-care facilities. The Medical Accreditation Commission, or another designated body, should be authorized and enabled to facilitate organizational development and standardize management systems in health-care facilities.

Quality management. Evidence of variation in standardized measures of performance within and between health facilities is a prime stimulant for clinicians and managers to pursue excellence. National databases should be required either to feed back analysis of data aggregated from routine reporting systems to individual health facilities and clinical specialties or to share the data with another competent agency for this purpose.

Risk management. Patient safety should be embedded in the national strategy and plan for improving quality by identifying responsibility for central coordination, developing an effective system for reporting and learning and providing tools and systems for implementation. The WHO patient safety website *(18)* offers a wide range of tools and guides including *WHO multi-professional patient safety curriculum guide (19), WHO safe childbirth checklist (20), WHO surgical safety checklist (21) and Technical Series on Safer Primary Care (22)*. Most of these are also available in Russian, such as WHO guidelines on hand hygiene in health care *(23)*.

Clinical governance. A national centre should be identified for each clinical specialty with responsibility, authority, resources and information for peer monitoring, learning and improvement.

Public health. The responsibilities of public health should be extended to monitor all aspects of population health, including clinical epidemiology and interpreting and presenting data indicating trends and variation across the health system. Reform of state supervision of public health should move to a model focused on preventing disease, promoting healthy lifestyles and counteracting risks. This should include active health governance such as through monitoring population health outcomes, noncommunicable disease surveillance, clinical epidemiology, hospital-acquired infections and antibiotic resistance.

Statutory mechanisms to ensure safety. Statutory licensing and periodic relicensing against national minimum standards of safety should be applied equally to all health providers in both the private and public sector to fulfil the government's responsibilities for stewardship and public protection. The national quality strategy should differentiate between statutory licensing of institutions by inspection against minimum standards of safety for the purpose of publicprotection and provide incentives for accreditation by peer review against standards of excellence for the purpose of clinical and organizational development.

Health facilities. The Medical Accreditation Commission should be established as an independent assessor of compliance with national standards of excellence with responsibilities for organizational development and improving internal management systems. External assessments should progressively move towards validation rather than duplication of effective internal quality systems to reduce the burden and cost of external inspection and to reward the development of self-governance. Recognition of clinical specialty services through peer review, supervision or clinical service accreditation requires technical capacity beyond that

of the generic Medical Accreditation Commission; this should be the aim of clinical governance, involving national institutions and nongovernmental organizations.

Medical laboratories. All medical laboratories should have access to and participate in external quality assurance systems based on central reference laboratories to reduce variation in testing and interpreting results. The standards for accreditation of laboratories should comply with ISO 15189.

Rights of patients. The rights of patients to information, privacy, dignity, choice and participation in their own care should be more widely publicized. Standardized systems for managing complaints and standardized tools for assessing patient experiences should be established and operated in all health facilities. Summary results of the external assessment of health facilities should be publicly available on the Ministry of Health website.

Evidence-based guidelines and protocols. The development, importation and revision of clinical guidelines and pathways should be funded and programmed equitably to meet the needs and priorities of clinical specialties. Protocols, guidelines and pathways should comply with international AGREE principles and include specific criteria for clinical records auditing, standardized indicators based on routinely available data and, for common conditions, the summary of advice to be given to patients.

Clinical auditing. Clinical auditing should focus on agreed priority topics (high cost, risk, volume and amenable to change), using systematic sampling of case records to assess compliance with evidence-based criteria to quantify patterns of clinical practice and identify actions for improvement and follow-up by repeat audit.

Training for improving quality. The knowledge, attitudes and skills required for improving quality and safety in clinical practice – including numeracy – should be defined in the national curriculum for basic training, taught and examined in all schools and approved by the Ministry of Education.

National strategy. The national eHealth strategy should establish common standards for data definitions, capture and transmission to facilitate exchange between databases and to ensure that consistent information is provided to clinicians, managers and planners. The Republican eHealth Centre and the Mandatory Health Insurance Fund should share procedures to verify the accuracy and completeness of patient-based data capture and clinical coding and to investigate and correct systematic discrepancies.

Data to information. Formal publications of statistical data should use graphics to highlight key messages.

Feedback, learning and improvement. Routinely reported data should be fed back to the original sources to confirm their accuracy, to encourage improvement in process and outcome and to demonstrate variation in performance among peer groups.

Performance indicators. Indicators should be selected to measure specific national objectives such as access to services and resource utilization and should be developed using established procedures.

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Annex: Elements for a national quality framework

Existing policy directions

For more than 20 years, successive strategic plans have identified components of a national programme including:

- Manas (1996–2006): patients' rights, clinical guidelines and regulatory and legal frameworks for quality of care;
- Manas Taalimi (2006–2010): internal quality systems, evidence-based medicine, infection control and medical education; and
- Den Sooluk (2011–2016, extended until 2018): people-centred services, focus on clinical and population results, integration of vertical programmes, management autonomy, results-based financing in primary care and clinical information systems.

The Ministry of Health Order No. 454 of 4 August 2015 defined structures and processes for local health providers.

The thematic review held in December 2017 provides basis for identifying future strategic directions *(29)*. Recommendations related directly to the quality of care included:

- adopting a national framework and plan for quality of care to ensure high-level commitment and stakeholder alignment;
- developing a national structure and system for managing quality;
- integrating improvement in the quality of care into strategic purchasing;
- using and sharing existing data to identify variation and trends in the quality of service;
- developing the use of clinical guidelines and protocols for internal audits and clinical indicators; and
- involving professional associations and patient groups in the process of developing national clinical guidelines and protocols.

Purpose

A framework document should aim to identify the values, objectives, responsibilities and principles for improving quality of care to:

- stimulate and organize national efforts for improvement
- secure high-level commitment for quality
- ensure the alignment of national and international partners
- provide a stable basis for strategic and operational planning.

Content

A national framework document could include description of existing policy directions in the quality of care, scope and dimensions, common cultural values, stakeholders and partner organizations, principles of setting standards, measurement and improvement, principles of quality systems and methods.

Principles for integrating quality systems

Systemic improvement requires collaboration and coordination of multiple stakeholders, participants and agencies. Each must share a common vision and recognize the value of their contribution (Fig. 7).

Fig. 7. Integrating quality systems
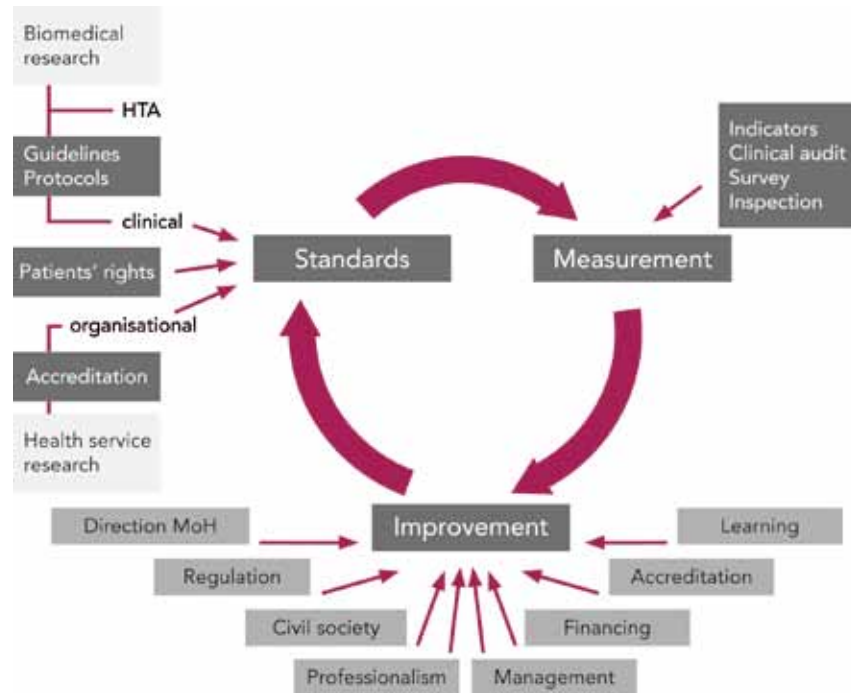
Source: Author

Autonomy and accountability

In the domain of clinical governance, the themes could be:

- supporting professional associations in designing, maintaining and accounting for systems of self-governance;
- identifying a national centre for each major clinical specialty with responsibility, authority and information for learning and improvement; and
- leadership of republican institutions and nongovernmental organizations in improvement through peer review and supervision.
- In the domain of management development, the themes could be:
- giving health-care facility managers authority, skills, information and tools to respond to internal quality systems, comparative benchmarking and national experience (recommendation 9); and
- defining responsibilities for quality and safety within and between central agencies, especially the Ministry of Health and Mandatory Health Insurance Fund.

Rights of patients

In the domain of patients' rights, the themes could be:

- publishing the rights of patients to information, privacy, dignity, choice and participation in their own care in health-care institutions and on accessible websites:
- developing and operating standardized systems for managing complaints

and patient survey tools in all health-care facilities;

- publishing summary results of external assessment and performance measures of health-care facilities on the Ministry of Health website; and
- developing health literacy; enabling patients to recognize and respond to medical emergencies.

Health-care standards

In the domain of health-care standards, the themes could be:

- funding a programme of health technology assessment to develop, implement and evaluate guidelines according to evidence of priorities of clinical specialties and patient pathways;
- protocols, guidelines and pathways should comply with international AGREE principles and include specific criteria for clinical records auditing, standardized indicators based on routinely available data and, for common conditions, the summary of advice for giving to patients;
- focusing clinical audit on priority topics (high cost, risk, volume and wide variation) using systematic sampling to quantify patterns of practice; and
- shifting the balance of external and internal auditing: peer review, supervision and clinical governance are more effective in changing clinical practice than external inspection and punishment for non-compliance.

Institutional development

In the domain of institutional development, the themes could be:

- applying statutory inspection for compliance with minimum safety standards to the private and public sectors;
- authorizing the Medical Accreditation Commission as an independent assessor of compliance with national standards of organizational excellence;
- designating the Medical Accreditation Commission, or another body, to facilitate organizational development and improvement of internal management systems; and
- progressively moving external assessment towards validation and supportive supervision rather than duplicating effective internal quality systems.

Information and learning

In the domain of information and learning, the themes could be:

- developing national standards for data definitions, data capture and exchange between databases to ensure that consistent information is provided to clinicians, managers and planners;
- defining standard procedures to verify the accuracy and completeness of patient-based data capture and clinical coding;
- routinely analysing patient-based data on comorbidity and complications for feedback, learning and improvement;
- using evidence of variation in performance within and between health-care facilities to stimulate clinicians and managers to improve;
- ensuring that routinely reported data are fed back to teams and institutions to confirm their accuracy and to encourage the improvement of process and outcome;
- selecting and developing performance indicators according to validated procedures to measure specific national and institutional objectives;
- for comparison across borders, using measures that are compatible with international indicators such as those used by WHO and the Organisation

for Economic Co-operation and Development-OECD;

- using graphics in formal publications of statistical data to highlight key messages and to avoid dense pages of numbers; and
- questioning systematic underreporting of incidents and complications at all levels.

Enablers

In the domain of enabling a quality framework, the themes could be:

- explicitly defining the values behind strategic planning and the expected results in terms of cultural change;
- making patient safety a priority in the national vision for quality;
- financially rewarding performance in terms of clinical process and outcome, patient safety and patient experience;
- ensuring that the national curriculum requires quality and safety to be taught in basic training in all schools approved by the Ministry of Education; and
- defining in national plans the essential support and funding for internal quality systems: skills, tools, data and technical assistance.

Pilot audits

As a further step towards understanding the strengths and weaknesses of existing quality systems, it is proposed to conduct national audits of selected tracer conditions.

Purpose of audits

The design of these audits will aim to test the capacity of existing systems and to provide a model for clinically led evaluation and peer review at the health-care facility level.

The aims of pilot studies at the national level are:

- to identify and engage relevant stakeholders and partners;
- to test the availability and reliability of routinely collected data;
- to test the capacity of the Republican eHealth Centre to generate tailored reports and comparative indicators;
- to test compliance of national clinical protocols with international conventions;
- to explore potential clinical leadership of republican hospitals in relevant specialties;
- to validate aggregated data consistent with Organisation for Economic Co-operation and Development-OECD measures; and
- to develop validated, standardized indicators for comparison over time and between facilities.
- The aims of pilot studies at the institutional level are:
- to test the functionality of criterion-based auditing in hospitals and primary health care;
- to train clinicians and quality coordinators in criterion-based clinical auditing;
- to test the capacity of facility systems to retrieve relevant case records;
- to test the capacity of the diagnosis-related group system to support internal clinical auditing; and
- to identify factors associated with variation in clinical process and outcome.

The aims of systematic internal medical auditing are:

- to identify variation in clinical practice;
- to assess the completeness of clinical recording;
- to provide an objective basis for participating clinicians to discuss the use of evidence-based clinical guidelines; and
- to provide feedback, improvement and learning for individuals and organizations.

Criteria for selecting clinical issues

Priorities should be set for selected conditions according to the population burden of disease or disability in terms of cost, risk, volume or wide variation. Cardiovascular disease and maternal and child health deserve priority because:

- they are established causes of concern
- they are amenable to improvement
- they involve pathways of care from prevention through primary care to hospitals
- guidelines and protocols are well established
- relevant data are readily available from routine sources.

Study design

Depending on the clinical condition or service selected, a national audit could be based on:

- statistical analysis of trends and variation in the existing data systems
- criterion-based auditing of stratified samples of patient records
- organizational auditing of facilities and operational procedures.

Practical steps would include:

- identifying and exploring existing patient-based and population-based data
- identifying of clinical guidelines and protocols currently in use
- developing criteria for clinical record review
- implementing procedures for stratified sampling and data collection
- training staff in criterion-based auditing
- implementing procedures for aggregation and analysis of data
- making arrangements for feedback, discussion and learning.

The process, findings and conclusions of any national audit should help to identify priorities and opportunities for improvement that may apply at the local and system levels. They should therefore provide evidence for a national roadmap for quality development.

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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