



1. Project Data

Project ID
P101928

Project Name
HLTH SEC TECH (JERP)

Country
Kazakhstan

Practice Area(Lead)
Health, Nutrition & Population

L/C/TF Number(s)
IBRD-48830

Closing Date (Original)
30-Jun-2013

Total Project Cost (USD)
296,700,000.00

Bank Approval Date
15-Jan-2008

Closing Date (Actual)
30-Jun-2017

| | IBRD/IDA (USD) | Grants (USD) |
|---------------------|-----------------------|---------------------|
| Original Commitment | 117,700,000.00 | 0.00 |
| Revised Commitment | 117,673,016.93 | 0.00 |
| Actual | 112,554,399.92 | 0.00 |

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2. Project Objectives and Components

a. Objectives

According to the Loan Agreement (p. 4), the project's objective was "to introduce international standards and build long-term institutional capacity in the Ministry of Health (MOH) and related healthcare institutions in support of key health sector reforms pursued by the Borrower in the context of the State Health Care Reform and Development Program." This Review considers the introduction of international standards and building of long-term institutional capacity to be outputs toward the project's outcome-oriented objective, "key health sector reforms pursued by the Borrower in the context of the State Health Care Reform and Development Program." The Project Appraisal Document (PAD, p. 7) stresses that the project "provides support to existing policy objectives," referring directly to the State Program. None of the project documents,



however, provides information on the contents of this State Program. A 2007 source quotes its overall objective: "creation of an effective health care delivery system based on the principles of solidarity and individuals assuming responsibility for health protection, and on the development of primary health care" (Maksut Kulzhanov and Bernd Rechel, "Kazakhstan: Health Systems Review," *Health Systems in Transition*, Vol. 9, No. 7, 2007, 158 pp., http://www.euro.who.int/__data/assets/pdf_file/0007/85498/E90977.pdf). The project team later sent a copy of the State Program confirming this overall objective. This Review integrates the State Program's objective into the project development objective.

Although outcome indicators were revised at an October 2012 restructuring, the project's objectives, outcome targets, and scope remained unchanged, and therefore a split rating is not performed.

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

The project contained seven components. According to the PAD (p. 14), these components were integral parts of the State Program's second phase (2008-2010). Many of the planned activities involved twinning relationships with international partners; the PAD (p. 16) highlighted the desirability of a limited number of carefully specified twinning relationships involving partners experienced in policy reforms similar to those envisioned in Kazakhstan.

1. Health Financing and Management (appraisal: US\$ 20.1 million; restructuring: US\$ 32.9 million; actual: US\$ 26.7 million). This component contained three subcomponents: (a) strengthening capacity for health policy and strategy formulation, through a twinning arrangement between an internationally recognized health policy agency and a newly established Economics and Policy Analysis unit in MOH; (b) strengthening budgeting, planning, and management in the health sector, through extension of that twinning arrangement to planning, budgeting, and purchasing functions in MOH and oblast health departments; and (c) management training and investment planning for the health sector, through development of health management training courses and centers at medical academies, on-the job training, the development of a health planning "atlas," and detailed master-planning exercises in four oblasts.

2. Health Care Quality Improvement (appraisal: US\$ 60 million; restructuring: US\$ 50.3 million; actual: US\$ 26.5 million). This component contained four subcomponents: (a) accreditation based on modernizing standards for health facilities, through contracting an internationally recognized accreditation body to review and print standards and to establish permanent institutional mechanisms for training of surveyors and quality managers; (b) upgrading of clinical practice and introduction of health technology assessment, through institution and capacity building as well as dissemination and implementation of 20 core clinical practice guidelines; (c) reform of laboratories, through a twinning arrangement (no equipment financing



was envisaged); and (d) reform of the blood transfusion system, through organizational reform, establishment of a quality control function, and training and study tours.

3. Reform of Medical Education and Medical Science (appraisal: US\$ 9.5 million; restructuring: US\$ 8.4 million; actual, US\$ 13.0 million). This component contained two subcomponents: (a) reform of undergraduate and continuing medical education, through upgrading of standards and procedures across the country's six medical universities; and (b) reform of medical science, by helping implement the MOH's Concept of Medical Science Reform to 2010, involving establishment of a competitive system for financing medical research, a system for patient protection in medical research, and introduction of internationally-recognized research management tools.

4. Health Information System Development (appraisal: US\$ 188.6 million; restructuring: US\$ 165.8 million; actual, US\$ 114.2 million). This component was to introduce a modern, integrated health information system to three oblasts and one city over a 3-4 year period, followed by rollout to the rest of the county in the subsequent 5-8 years. It was to finance a consolidated contract with an information technology provider to include technical assistance training, project management and communication services, and equipment procurement.

5. Pharmaceutical Policy Reform (appraisal: US\$ 4.2 million; restructuring: US\$ 18.6 million; actual, US\$ 24.0 million). This component was to improve the safety, efficiency, economy, quality, and affordability of pharmaceuticals in the country by supporting reforms in drug procurement, pricing, monitoring, information provision, benefit package design, and quality control.

6. Food Safety and World Trade Organization (WTO) Accession (appraisal: US\$ 8.7 million; restructuring: US\$ 11.0 million; actual, US\$ 7.1 million). This component was to introduce international sanitary and phytosanitary norms to support the country's WTO accession efforts, through harmonizing an agreed set of food safety standards and practice with international benchmarks, developing standards and specifications for food safety laboratories to comply with WTO requirements, and upgrading knowledge and skills of relevant staff.

7. Project Management (appraisal: US\$ 4.6 million; restructuring: US\$ 9.1 million; actual, US\$ 7.8 million). This component was to finance project management and monitoring and evaluation (M&E) activities, as well as a range of surveys for M&E, annual financial audits, and operating costs for the Project Implementation Support Team (PIST).

Project activities were updated at the October 2012 restructuring to reflect the government's new health strategy, Salamatti Kazakhstan (2011-2015). In addition, the restructuring was intended to solidify capacity building through the originally envisaged twinning arrangements, rather than the less extensive and comprehensive technical assistance and training that had been provided until that point. Implementation of disease management programs under the first component was oriented more specifically to strengthening the capacity of primary health care facilities to manage cardiovascular diseases, requiring increases in the investments in health management training and investment planning under the first component, and reform of continuing medical education under the third component. To strengthen facility planning, increased funding was allocated to standards modernization and reform of the blood transfusion system under the second component. The entire pharmaceutical policy reform component was scaled up to combat over-



prescription practices and a weak regulatory framework in the market for drugs that had been identified as barriers to the rational use of drugs. To support WTO accession, financing for the food safety component was increased. Finally, the project management component was allocated additional funds to support enhanced twinning arrangements. Allocations were also reduced for some activities, particularly laboratory and medical science reform, to compensate for cost over-estimation at appraisal. Financing for health technology assessment under the second component, and the entire health information system development component, were also scaled down because of a drop in equipment prices and investments from sources outside the project.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Cost: Total project costs were appraised at US\$ 296.1 million. Actual costs were US\$ 219.3 million. Significantly more than planned was spent on the health care quality improvement and pharmaceutical policy reform activities, and less than planned was spent on health information system development.

Financing: The project was to be financed by a Specific Investment Loan in the amount of US\$ 117.7 million. US\$ 27.0 million of the loan was cancelled in July 2015 due to savings achieved in operational costs and exchange rate fluctuations. US\$ 112.5 million was actually disbursed.

Borrower contribution: The government provided US\$ 106.8 million of a planned US\$ 178.4 million in co-financing.

Dates: The project was approved on January 15, 2008 and became effective on December 15, 2008. Its mid-term review took place in November 2011. On October 11, 2012, a level II restructuring: (i) extended the closing date from June 30, 2013 to December 31, 2015; and (ii) shifted activities in accordance with government priorities, amending the results framework and reallocating funds among components. On July 27, 2015, the closing date was again extended to June 30, 2017, to allow for completion of activities. The project closed on June 30, 2017.

3. Relevance of Objectives

Rationale

The project was responsive to country conditions and government policy at appraisal. Kazakhstan's health indicators were low for a country with rapidly increasing income. The State Health Care Reform and Development Program for 2005-2010 was ambitious, requiring interventions far beyond building facilities and buying equipment (for which the government had ample resources). The project's objective responded to complementary needs for human resource development, boosting of technical and managerial expertise, and long-term institutional capacity building. The objective remained strongly relevant to government strategy throughout, anchored in several whole-of-government reforms around public administration and public financial management. It is also well aligned with the current Country Partnership Strategy (2012-2017) and



its outcome for "sharpening the strategic approach to health reforms," as well as the current State Program of Health Care Development of Kazakhstan (2016-2019), which stresses development of more integrated and higher-quality health care, implementation of a national pharmaceutical policy, increased financial sustainability of the system, improved human resources for health care, and development of health sector infrastructure based on public-private partnerships and modern information technology.

The objective, however, was framed primarily in terms of outputs rather than outcomes. The desired outcomes of the government health reform program specified in the objective statement were not detailed anywhere in project documents (PAD, Restructuring Paper, or ICR). Furthermore, the government adopted new broad health strategies for the 2011-2015 and 2016-2019 periods, but the objective -- which specifically referred to the 2005-2010 strategy -- was not updated accordingly.

Rating
Modest

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

Key health sector reforms pursued by the Borrower in the context of the State Health Care Reform and Development Program, whose objective was the creation of an effective health care delivery system based on the principles of solidarity and individuals assuming responsibility for health protection, and on the development of primary health care

Rationale

Although the project's underlying theory of change was essentially sound, the articulation of it was relatively basic, despite the fact that the theory of change itself was quite complex and challenging to disentangle given the information provided in project documents. The ICR (p. 7) states that the project addressed "important bottlenecks" on the path to achievement of the intended outcomes of the State Program 2005-2010, "namely the implementation of comprehensive health care system reforms proposed by the Program." It does not, however, specify exactly what those reforms and bottlenecks were. Given the explanation of country context, however, it is reasonable to infer that the government had sufficient funds to cover construction, refurbishment, and equipment purchases, and that a solid and comprehensive national health care strategy was in place. The "bottlenecks" were therefore the outputs specified in the objective, providing a sustainable connection between material inputs and successful implementation of the strategy: introduction of international standards, and building of long-term institutional capacity in MOH and related healthcare institutions. The activities represented by the project's components were logically and plausibly connected to the introduction of standards and building of long-term institutional capacity throughout the sector, and those standards and capacity were key and necessary steps toward the implementation of the State Program's reforms (effective health care delivery and the development of primary care). Throughout each of the components, the use of international twinning arrangements as the main vehicle for implementation was a distinctive project feature (the twinning partners are specified in the ICR, pp. 83-85).



This modality effectively supported "learning by doing" through extended, intensive relationships that jointly reviewed international best practice, tailored options to the Kazakh context, formulated blueprints for implementation, and identified and addressed capacity needs.

Health financing and management

The project provided support for the establishment and functioning of MOH technical centers on health economics research, health management, provider reimbursement, monitoring and evaluation, standardization, human resources, e-Health, the pharmaceutical industry, and food safety. These centers, mostly housed under the umbrella of the Republican Center for Health Development, provided key technical and analytic inputs for policy making and M&E. The project trained 95,546 personnel (including more than 5,700 managers), exceeding the target of 63,066. Seven national analytical health policy reports were produced annually, exceeding the target of four reports. The MOH acquired a National Health Accounts (NHA) system based on Organisation for Economic Co-operation and Development System of Health Accounts methodology. Analytic reviews of health financing flows based on NHA were produced annually, disaggregated by national and sub-national levels, and disseminated among key stakeholders, meeting the target. These analyses informed key policy decisions, including increases in primary health care expenditures and alignment of spending between oblasts. As a result, the share of funding for primary health care as a percentage of total public health expenditures increased from 16% in 2011 to 36.3% in 2016, surpassing the target of 30%.

Financial risk protection did not improve, however, as health expenditures as a percentage of total household expenditures increased slightly, from 32.9% in 2010 to 35.3% in 2016, not reaching the target of 30%. The ICR (p. 16) attributed this result to the country's worsening economic situation during the 2015-2016 global economic crisis. It should be noted that only 6% of out-of-pocket expenditures in 2015 were spent on basic primary care and none on preventive care, suggesting that the system did not present barriers to essential care (the largest shares of out-of-pocket expenditures were on medications (37%), dentistry services (26%), and hospital care (15%)).

New professional standards were adopted in the health management training system, largely based on British models. New tools and standards for planning hospitals, laboratories, and primary health care facilities were formally adopted, meeting the target. All 16 oblasts adopted oblast-level health network master plans and used master plans for capital development aligned with international best practice as the basis for capital investment allocations, far exceeding the target of 4 oblasts. These master plans provided the roadmap for strengthening primary care, restructuring hospitals, reducing overcapacity, and accelerating development of hospital-replacement (day/ambulatory) care. To facilitate implementation of this roadmap, internationally accepted provider payment methods were implemented, including risk-adjusted capitation payments for primary health care services and diagnosis-related groups for hospitals. Performance-based payments for primary care workers increased from KZT 10.2 billion in 2013 to KZT 20.3 billion in 2014. Overcapacity in hospitals decreased, from 71/10,000 in 2011 to 58/10,000 in 2015, a level comparable with European Union (EU) countries. The number of patients treated in day hospitals increased by 23.5% from 2010 to 2014. The average length of hospital stay had decreased from 12.3 in 2008 to 10.3 days in 2016, and bed turnover (number of patients per bed, per year) increased from 25.4 in 2008 to 30.1 in 2016. While these latter results were not on par with EU averages, they indicated a substantial achievement in the post-



socialist context.

The project supported a change in the regulatory environment to increase the autonomy of health institutions, allowing for the introduction of new governance structures. More than half of health institutions changed their legal status from budget entities to more autonomously governed state enterprises, with more control over composition of services and budgets. The project also supported a change in national legislation removing a ban on privatization of health institutions, and development of a strategy for public-private partnerships in the health sector for 2013-2017. As a result, the share of private providers increased from 12% in 2010 to 27.4% in 2014.

Health care quality improvement

The project supported establishment of a national system for continuous development and review of evidence-based clinical practice guidelines, largely through a Center of Standardization and Health Technology Assessment set up in 2009. 20 guidelines were developed in each of five key clinical specialties; these guidelines provided the base for development of 750 clinical protocols. Over 50,000 copies of these protocols were published and disseminated to health facilities and are used in everyday practice. Evidence-based medicine units were set up in medical education institutions. More than 3,000 specialists were trained in development and assessment of clinical protocols.

Three evidence-based disease management programs, including incentives for health care providers and patients, were developed and endorsed by MOH, exceeding the target of two programs. Clinical practice guidelines for arterial hypertension, diabetes mellitus, and chronic heart failure were implemented in seven pilot oblasts as part of these programs, meeting the target, and nation-wide implementation began in 2018. However, as of the time of the ICR, the evidence-based incentives for providers had not been implemented, although disease management program implementation was among the mandatory requirements for accreditation of facilities providing outpatient care; incentives for patients had also not been implemented in full, although non-financial incentives and mutual obligations were part of the social contract between patients and providers for the chronic disease management program.

An Accreditation Center was established in 2009 and entered membership with full accreditation in the International Society for Quality (ISQua). More than 160 trainers and 3,500 specialists were trained in accreditation standards and procedures, with the training curriculum certified through 2018. ISQua certified national accreditation standards for inpatient care in 2012, for outpatient care in 2013, and for the training program for surveyors in 2013. A third edition of accreditation standards for inpatient, outpatient, and emergency care was renewed in 2015 and shared with ISQua for endorsement. A comprehensive external assessment of the Accreditation Center was conducted for compliance with ISQua requirements. 746 public health facilities were accredited by the Center in accordance with international standards (with a baseline of 20), far exceeding the target of 40.

A strategic plan for modernization of laboratory services was developed, along with guidelines for a quality management system. Five laboratories were prepared in accordance with international standards of quality management, and laboratory master plans were developed for all 16 oblasts. 180 specialists and 17 trainers were trained in quality improvement for laboratory services. An external quality control function for the blood



transfusion service was established (through the Scientific Production Center for Blood Transfusion), and 150 blood service specialists received training. The project also supported increased awareness on voluntary blood donations. The percentage of blood donations that are voluntary increased from 83% in 2011 to 92% in 2017, exceeding the target of 88%. The number of paid blood donations decreased from 38,800 in 2011 to 20,467 in 2017, exceeding the target of 33,400.

The project also supported physical infrastructure. 336 health facilities were constructed, renovated, or equipped, not reaching the target of 2,058. The ICR does not provide detail on these activities, but the project team later confirmed that these 336 facilities -- technical centers, health facilities in Astana and two oblasts, national and regional drug testing laboratories, and 11 food safety laboratories -- were mainly provided with equipment.

Reform of medical education and science

The project supported the development of the Republican Center for Knowledge and Skills Assessment in 2012. Through this Center, all 16 oblasts now have regional simulation centers for assessing the professional competencies of health specialists, and comprehensive testing of 3,680 internship graduates in seven specialties of eight medical universities was conducted. Independent assessment of the knowledge and skills of existing practitioners in maternal/child health and cardiovascular diseases was also conducted. Neither the ICR nor project team could confirm how many of these existing practitioners were assessed, but the project team stated that the assessments were implemented smoothly.

Criteria, procedures, and standards for accreditation of basic medical education programs were developed and implemented, and all six state medical universities achieved national accreditation. Five of the six received national accreditation of their educational programs, exceeding the target of two universities, and a national pool of 38 experts on medical education quality assurance was developed. New curricula were developed, including for general practitioners and nursing. New admissions standards were piloted, and a new skills assessment scheme was put in place for graduates and working health professionals. The project supported the development of new management models for medical education institutions, granting them increased autonomy; new supervisory bodies were trained in modern management techniques.

The project supported the development of a Concept for Medical Science Development through 2020 and a Strategy for Enhancing the Scientific and Innovative Capacity of Health Professionals through 2020. Independent systems for review and ranking of health research programs and institutions were created, and an accompanying information portal was launched. 695 people received domestic and international training in various technical areas of medical education and science.

Health information system development

20 information and communications technology (ICT) standards conforming with international standards, including interoperability, were endorsed by the Health ICT Regulatory body and published, thereby meeting the target (ICR, p. 38). Five functional ICT standards in line with major international functional standards were approved, meeting the target: electronic health records, electronic medical records, e-referral, electronic disease prevention, and e-prescription. An additional provisional national standard on collection of



clinical and administrative data was approved in 2016. Two of these standards have been legally adopted (ICR, p. 53).

In place of the planned Unified Health Information System, the project supported development of an e-Health system with a few key central components in four pilot facilities; this largely responded to a significant 2013 government shift in information technology (IT) policy (from an integrated/centralized health management information system, to decentralized e-Health development) and a corresponding 2015 MOH decision that IT equipment for all oblast-level health facilities had to be provided through local budgets, excluding these investments from the project's scope. Overall, the project trained more than 19,000 specialists and administrators in e-Health design, implementation and use, but its support for IT infrastructure in 296 facilities fell far short of the target of 2,000 (which had been ambitiously set according to the original plans for the Unified Health Information System). However, the project did contribute to the initial development of an electronic health records platform; according to the ICR (p. 19), the government has committed to financing that platform to completion in 2018.

Pharmaceutical policy reform

The project supported development of key strategic documents for the pharmaceutical sector and outpatient drug benefits, expanding significantly the list of drugs provided free for outpatient treatment as well as high-cost drugs for cancer, multiple sclerosis, and orphan diseases (defined as rare diseases that affect a small percentage of the population). More than 40,000 people were trained in various aspects of pharmaceutical policy reform. The sale of medicines in rural areas was organized through primary care facilities in more than 3000 villages and mobile pharmacy units. The MOH approved price-setting rules for drugs and medical supplies included in the State Guaranteed Free Health Care program in 2015, meeting the target of development and adoption of a drug price reference system. It also approved a National Drug Formulary (an official list giving details of prescribable medicines) based on the British National Formulary, with comprehensive and updated information on about 640 generic and 2,000 brand-name drugs; the project provided extensive training for development and maintenance of the formulary. A Center for Rational Use of Medicine, with 16 regional branches and a call center, was established to disseminate information on drug quality, use, effectiveness, and safety. The Drug Quality Testing Laboratory of the Drug Expertise Center was equipped by the project and fully accredited by the European Directorate for the Quality of Medicines, and Kazakhstan's membership in international pharmaceutical inspection bodies was initiated.

Food safety

Kazakhstan's food safety regulations were harmonized with international norms, including those of the WTO and Food and Agricultural Organization. Modern laboratory equipment and diagnostic tests were provided to food safety control laboratories for 11 regional centers of sanitary-epidemiological expertise, and 2,400 food safety and laboratory specialists were trained. Following a pilot in Karaganda oblast, a Hazard Analysis and Critical Control Point system (the monitoring system for identification and control of health hazards in food production, storage, and distribution) was implemented in 268 food industry enterprises in line with Customs Union technical regulations. The ICR (p. 23) reports that Kazakhstan's Central Asia Training Center on Food Safety has become a resource center for other countries in the region.



Rating

Substantial

Rationale

The project supported structural, legislative, and regulatory reforms to bring practice in Kazakhstan in line with international standards. Accreditation, evidence-based medicine, health technology assessments, quality and safety management systems, and reforms in university and continuing medical education were critical elements toward improving quality of health service delivery, as evidenced by the strengthening of primary care and adoption of evidence-based protocols. The implementation of disease management programs, development and introduction of clinical protocols, improvement in pharmaceutical benefits, new provider payment mechanisms, and health system master plans all contributed to the enhancement of primary care. Development of the e-Health system, although incomplete, will eventually enhance health care delivery. Project interventions in all these areas, supported through international twinning arrangements and conceptualized around the broad areas of introducing international standards and building long-term institutional capacity, have substantially enhanced the government's ability to meet its strategic goals of effective health care delivery and the development of primary health care. Achievement of the project's objective is therefore rated Substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

The PAD's economic analysis (pp. 104-109) covered three domains: the health sector, the government, and the economy/society as a whole. Project cost-effectiveness was analyzed using Healthy Years of Life Gained (HYLG, the difference between healthy years lost with and without the project), assuming a ten-year time horizon and three different discount rates: 4% (the rate for risk-free government bonds), 7% (the rate for deposits guaranteed by the government), and 10% (the rate for deposits in savings accounts in commercial banks). Savings were to accrue from reduced current hospital expenditures, reduction in hospital bed-days, access to free and subsidized medicines for consumers, and fiscal benefits from increased budget revenues due to additional personal income and social taxes. Under these assumptions, the Net Present Value ranged from US\$ 154.5 million to US\$ 310.8 million (base scenario US\$ 234.3 million), with an internal rate of return of 31.3% (range 23.6 - 38.0%) and a breakeven period of five years.

The ICR's analysis (pp. 69-77) used the same methodology and proceeds from the same assumptions. The total HYLG exceeded the PAD's projections by almost seven times, leading (over the nine-year project implementation period) to a Net Present Value of US\$ 902.1 million and an internal rate of return of 5.8 times the project's investment. No sensitivity analysis was included.



Allocative efficiency was substantial. Although the project was complex, its activities were targeted toward the kinds of capacity building, training, and development and implementation of standards that were key to realization of the country's broader health reform strategy. The interventions were wide-ranging and comprehensive, but they remained unified under the umbrella of capacity and standards development (specified as key outputs under the project's objective). They also responded appropriately to the country's disease burden (a high burden of non-communicable disease led to work on clinical practice guidelines and disease management protocols in this area), and to the overall structural inefficiencies in the health system (inadequate financing and quality of primary care, and excess capacity in hospitals).

There were early delays that contributed to some implementation inefficiencies, since the preparation of twinning arrangements took more time than anticipated. "Constant changes of MOH personnel" (ministers of health, project coordinators, and key institutional directors), a corruption investigation against the Minister of Health in 2010, and initially inadequate staffing of the PIST also contributed to early delays (ICR, pp. 25, 29). Eventually, the project's closing date was extended by 48 months, mostly due to the need to re-bid, deliver, and test IT packages, but implementation efficiency improved significantly after project restructuring. The restructuring, in a cost-effective manner, reallocated project proceeds toward newly identified priorities and away from activities that had become less relevant. Although the IT investments were initially a false start due to mid-course changes in the national health information policy, the project nonetheless contributed significantly to development of the platform for the new electronic medical records system.

Given the positive results of the economic analysis, strong allocative efficiency, and modest implementation delays whose impact was compensated by eventual contributions even by the component causing those delays, overall efficiency is rated Substantial.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

| | Rate Available? | Point value (%) | *Coverage/Scope (%) |
|--------------|-----------------|-----------------|---|
| Appraisal | ✓ | 31.30 | 100.00 <input type="checkbox"/> Not Applicable |
| ICR Estimate | | 0 | 0 <input type="checkbox"/> Not Applicable |

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Relevance of the project's objective is rated Modest. Although the objective was aligned with country



conditions, Bank strategy, and government strategy, it was framed in terms of outputs rather than outcomes, and project documents provided no information on the objectives of the country health reform strategy to which the project's objective explicitly refers. These latter objectives -- "creation of an effective health care delivery system based on the principles of solidarity and individuals assuming responsibility for health protection, and on the development of primary health care" -- were identified by IEG from another source (see Section 2a). Achievement of the project's objective is rated Substantial, as project-financed activities clearly led to significant progress toward the creation of an effective health care delivery system and improvements in primary care. Efficiency is also rated Substantial, with a high economic rate of return and strong allocative efficiency, albeit with some operational inefficiencies. Taken together, these ratings indicate moderate shortcomings in the project's preparation and implementation. Outcome is therefore rated Moderately Satisfactory.

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome

The human capacity and institutional frameworks developed under the project are likely to be sustained. Government commitment to the health sector has remained strong through periods of economic crisis, and health reform has enjoyed continuous support. Key legislative and regulatory achievements are therefore unlikely to be overturned. The project team stated in April 2018 that the Bank's flagship course on health system strengthening, tailored to the needs of the Kazakhstan reform agenda, had recently been organized by the Bank together with MOH for key stakeholders in the health sector. According to the project team, the discussions during the course indicated that the project's capacity-building efforts had created a critical mass of technically strong and reform-minded professionals, fluent in the reform process. In addition, based on technical advice received from the Bank in 2014 on the expediency and feasibility of implementing a mandatory social health insurance system, the country leadership had taken the decision to introduce such insurance and requested the preparation of a new project to support its implementation (the Social Health Insurance Project, US\$ 80 million, 2016-2021). Major remaining elements of health financing reform were expected to begin implementation on January 1, 2019.

The introduction of academic autonomy of universities, independent certification of professionals, and monitoring of the labor market has supported the establishment of a sustainable and responsive system of healthcare workforce development. The ICR (p. 35) questioned whether the government will continue to support the technical centers established under the Republican Center for Health Development, leading to concerns about sustainability of analytic capacity built under the project. The project team, however, clarified that MOH has developed and is implementing a concept of self-regulated organizations, based on which several of the technical centers established under the Center (Knowledge and Skills Assessment Center, Accreditation Center, etc.) have become recognized as self-sufficient, sustainable technical entities.

8. Assessment of Bank Performance



a. Quality-at-Entry

The project was based on work with MOH under a broader Joint Economic Research Program, from which a coordinated advisory/technical assistance program emerged. A 2004 flagship piece of Economic and Sector Work on health information systems also informed project design. After the state health reform program for 2005-2010 was put in place, it was clear that the government needed assistance with implementation rather than with policy dialogue or strategy development. The project's conceptualization and planned activities responded appropriately to these needs. The MOH prepared a detailed Feasibility Study for the project, with review/approval by a range of other ministries (education, justice, finance and economy, budget planning). Key lessons were learned from the experience of previous projects in the sector: the essential role of government commitment; the likely failure of overly prescriptive approaches; the need for financing to be comprehensive in order to avoid missteps during implementation; the key role of careful project management and stakeholder involvement during complex reforms; the high risk of large IT investments; and the effectiveness of properly designed twinning relationships and training. Risk assessment identified an extensive array of key technical, operational, and political risks (PAD, pp. 21-25), including heightened expectations from policy makers, risks related to Kazakh budget procedures, stakeholder resistance to change, inadequate capacity to support the development and implementation of the health information system, and pressure from domestic manufacturers for preferential treatment in state procurement. Mitigation measures were carefully and thoughtfully outlined. M&E design was appropriately linked to the monitoring of the State Program (see Section 9a).

However, the project's objectives were not adequately framed, and largely as a result, the initial results framework and indicators were inadequate (see Sections 3 and 9a). This moderate shortcoming results in a Quality at Entry rating of Moderately Satisfactory.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

Supervision was regular and appropriate, with candid and thorough status reporting throughout. The government and other stakeholders expressed appreciation for the Bank team's technical skills and advice related not only to the project, but also to broader sector reform issues (ICR, p. 34). The Borrower notes that decisions were made in a timely and effective manner (ICR, p. 90). The October-November 2011 mid-term review was used as an opportunity to highlight issues, identify measures to overcome challenges and delays, and eventually restructure the project. The results framework was amended to correct deficiencies with the intermediate and outcome indicators, but the expression of the project's development objective remained output-oriented and unclear. The Bank team coordinated well with development partners in the health sector, most notably the World Health Organization and United States Agency for International Development, exercising leadership to ensure consistent policy messages from these partners in health reform policy.

Quality of Supervision Rating

Satisfactory



Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The PAD's results framework (pp. 51-54) clearly linked project activities to the seven components, with data sources and indicators specified for each, but the theory of change was not clear with regard to tying the components to achievement of the objectives. In addition, there was a very large number (55) of intermediate outcome and output indicators, perhaps appropriate for such a comprehensive, complex project, but nonetheless challenging to monitor. Six outcome indicators were specified for measurement of achievement of the objectives, but each of them was far too broad and multidimensional to be measurable, and some addressed outcomes that were largely outside the scope of the project; for example, "improved quality and efficiency of medical care" would more appropriately have been an objective than an indicator, and it is not clear how the project intended specifically to measure quality and efficiency. Baselines and targets for the outcome indicators were not provided (but were very clearly specified for output indicators tied to the components and subcomponents).

Project monitoring was to be integrated with monitoring of implementation of the State Program, specifically tasked to the Monitoring, Medical Statistics and Analysis Unit of the Department of Strategic Development and International Cooperation of MOH. The PAD (pp. 16-17) also provided for broader monitoring of sector performance, to be carried out through a series of household surveys, provider and user surveys, pharmaceutical sector surveys, and the development of NHAs.

b. M&E Implementation

The MOH regularly collected data to track progress toward achievement of indicators, through regular MOH reporting, household surveys, and NHAs. At the October 2012 restructuring, six new PDO-level indicators replaced the originals, and the number of intermediate outcome/output indicators was reduced from 55 to a more manageable 19. The six new outcome indicators were more specific and measurable, were reasonable reflections of achievement of the project's objective (as framed in the State Program), and had baselines and targets. One exception was the outcome indicator on financial protection, which was dependent not only on project-related interventions but also many exogenous factors.

c. M&E Utilization

According to the ICR (p. 32), project monitoring and analysis was used not only as a management tool to inform project activities, but also to guide policy makers on prioritization within the reform agenda and to monitor the impact of policy reform on overall health sector performance.



M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

The project was rated environmental category C. No World Bank safeguard policies were triggered.

b. Fiduciary Compliance

Early delays in procurement were related to the limited technical capacity and staffing of the MOH and PIST, resulting in multiple rounds of revisions of technical documents. Two major IT contracts had to be re-bid twice because of a lack of fully responsive bids on one occasion, and concerns about possible collusion among bidders on the other. The Bank's procurement team organized several procurement workshops for the PIST to explain rules and procedures. According to the project team, following these workshops, and drawing on experience with the MOH in development of terms of reference, preparing evaluation reports, etc., procurement improved considerably. PIST developed an algorithm for conducting contract negotiations that reduced the time to complete negotiations from several weeks to 2-4 days.

According to the ICR (p. 33), financial management was satisfactory throughout the project period, with no issues identified. Quarterly financial reports were prepared and submitted in a timely manner. Audits were regular, timely, and unqualified.

c. Unintended impacts (Positive or Negative)

None reported.

d. Other

11. Ratings

| Ratings | ICR | IEG | Reason for Disagreements/Comment |
|---------|--------------|------------|----------------------------------|
| Outcome | Satisfactory | Moderately | Although the objective was |



| | | | |
|------------------|--------------|-------------------------|--|
| | | Satisfactory | aligned with country conditions, Bank strategy, and government strategy, it was framed in terms of outputs rather than outcomes, and project documents provided no information on the objectives of the country health reform strategy to which the project's objective explicitly refers. |
| Bank Performance | Satisfactory | Moderately Satisfactory | The project's objectives were not clearly framed, and largely as a result, the initial results framework and indicators were inadequate. |
| Quality of M&E | Modest | Modest | --- |
| Quality of ICR | | Substantial | --- |

12. Lessons

The ICR offers six key lessons, including the need for government commitment and consistency between a project and government reform plans; the importance of capacity-building for successive implementation of sequenced government reform programs; the role of careful project management during complex reforms; the utility of twinning arrangements for strengthening capacity of local partners; the need to be attentive to continuation of institutional capacity developed under the project; and the importance of monitoring and evaluating progress in implementing new technologies and tools, especially clinical protocols. IEG concurs with these lessons, adding the following:

A clear and outcome-oriented statement of project objectives is central to effective monitoring and evaluation of results. In this case, assessment was complicated by the lack of information about the country health reform strategy referenced in the development objective, and by the project documents' interpretation of results in terms of outputs rather than outcomes.

When coupled with adequate monitoring, review of lessons learned, and communication of achievements to key stakeholders in non-pilot areas, pilots can not only pave the way for reform but also change the mindset of those who may have opposed reforms. In this case, effective implementation of pilots of diagnosis-related groups, quality management systems, accreditation standards, disease management programs, and medical education helped to generate demand for country-wide reform.

Membership in international professional and accrediting bodies can be a key incentive for institutional reform. In this case, the opportunity to join international associations both enabled and motivated the acquisition of new knowledge and adoption of best practices in key areas.



13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is comprehensive. Its presentation of the project's costs and financing, components, and results framework (including indicators) both before and after restructuring is unusually clear, especially for such a complex project. It does not, however, provide key information on the content of the State Program for health reform (2005-2010) that was central to the project's objective; instead, it retrospectively recasts the objective in terms of the outputs of introduction of standards and building of long-term capacity. It rates efficacy based on achievement of indicator targets rather than on achievement of the objective. On balance, however, the strengths outweigh the shortcomings, and the quality of the ICR is rated Substantial.

a. Quality of ICR Rating

Substantial