EXECUTIVE SUMMARY

EVALUATION REPORT

MID-TERM EVALUATION • 2025 • MONGOLIA

Cardiology, Cardio-surgery and Telemedicine

LUXDEV
Luxembourg
Development Agency

This evaluation was commissioned by LuxDev, the Luxembourg Development Cooperation Agency and conducted independently by Management4health.

Please note that the analysis, opinions, and recommendations presented in this report are solely those of the author.

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NOTATION OF THE PROJECT CARDIOLOGY, CARDIOSURGERY AND TELEMEDECINE IN MONGOLIA

Criteria	Notes
Relevance	1
Coherence	2
Effectiveness	1
Efficiency	2
Sustainability	3
Project code	MON007
Report version	07.2025

Note : Scale from 1 (excellent results, significantly exceeding expectations) to 6 (development action unsuccessful or situation rather worse).

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Project overview

The "Cardiology, Cardiosurgery, and Telemedicine in Mongolia" (CCT Mongolia) project, also known as MON/007, is the latest phase of a long-standing collaboration between the governments of Mongolia and Luxembourg to address the country's high burden of cardiovascular diseases (CVDs). Running from October 2022 to September 2027 with a total budget of 8 560 000 EUR, the project seeks to improve the effectiveness and efficiency of national cardiovascular health services at all levels of care, thereby contributing to a reduction in cardiovascular diseases (CVD)-related morbidity and mortality.

Evaluation Framework, Design and Methodology

This mid-term evaluation (MTE) was commissioned by LuxDev and carried out by independent experts during the period April – June 2025. The evaluation aimed to assess project relevance, coherence, effectiveness, efficiency, impact, and sustainability based on OECD –DAC (Organisation of Economic Cooperation and Development – Development Assistance Committee) criteria, and to inform decision-making for the remainder of the implementation period. The evaluation covered all four result areas and involved document reviews, key informant interviews (KII), field visits, and participatory consultations. The evaluation adopted a mixed-methods approach, including quantitative analysis of project performance data and qualitative insights from stakeholders and direct observation. Tools used comprised semi-structured interviews, Focus Group Discussions (FGD), and thematic analysis.

Main Findings

The evaluation confirms that the project is delivering tangible outcomes across its four result areas. Through a combination of clinical capacity building, public outreach, institutional strengthening, and digital health innovation (the MN-Cardio application), "the Cardiology, Cardiosurgery and Telemedecine in Mongolia" (CCT Mongolia) project is effectively addressing systemic gaps in cardiovascular healthcare in Mongolia.

Result 1: Support to the National CVD Prevention Strategy

The national prevention strategy for CVDs was supported through public campaigns, a comprehensive set of Information Education and Communication (IEC) materials as well as strategic advice.

- A nationwide Knowledge, Attitude and Practice (KAP) survey was conducted, engaging 2 512 citizens to assess public awareness and behaviours related to CVD prevention
- A large number and variety of Information Education and Communication (IEC) materials was developed on different thematic areas directly or indirectly linked to CDVs and related risk factors (smoking habits, nutrition / overweight and obesity / dyslipidaemia, sedentary life style, etc.)
- The project engages with the general population through five major public health events, including World Heart Day, Heart Failure Awareness Day, and World Hypertension Day, among others. A wide range of awareness-raising activities were organised, reaching a total of 852 300 people.
- Blood pressure measuring devices were installed in nine public locations
- The revision by the Ministry of Health (MoH) of the National Plan for Cardiovascular Disease Prevention 2024–2027 and the updating of the Hypertension Roadmap was supported

Result 2: Strengthening surgical capacity and integrated cardiac care at National Cardiovascular Center (NCC)

Through formal training as well as on-site mentoring and coaching of the cardiosurgical team at the National Cardiovascular Centre (NCC) of the Shastin Central Hospital (SCH), the capacity for cardiosurgical interventions improved significantly, with a record number of complex surgeries performed in 2024: 422 open-heart surgeries within the international range of post-surgical mortality, a historic milestone in Mongolia.

- The project (including previous phases) contributed and still contributes to significantly enhanced clinical infrastructure and equipment (for Operating Rooms, Intensive Care Units (ICU), Outpatient Clinics) both at the central level of the NCC/ Shastin Central Hospital (SCH) and the

National Centre for Mother and Child Health (NCMCH) as well as provincial (aimag) and district hospitals.

- During the period subject to the mid-term evaluation (MTE), five capacity-building missions were conducted by international cardiosurgical expert teams comprising surgeons, perfusionists, and Cardiac Care Unit (CCU) and Operating Room (OR) nurses, fielded by the *Institut National de Chirurgie Cardiaque Interventionnelle* (INCCI) to train standard and introduce new surgical protocols and techniques.
- Short-term as well as long-term overseas training was provided to cardiac specialists.

Result 3: Strengthening cardiovascular services at all levels

Provincial and district-level CVD services were strengthened through continuous capacity-building efforts.

- The project delivered and continues delivering training to provincial and district cardiologists and other health professionals.
- CCT Mongolia developed and distributed guidelines for strengthening primary care cardiology services at Bag-Level Feldsher Points, Family Health Centre (FHC), and Soum Health Centres (SHC) and via the NCC, the project procured and deployed the necessary diagnostic and clinical equipment to rural health facilities.
- Conceptually, the project promoted the integration of cardiology services into broader primary healthcare structures and processes, e.g. through population based screening including e.g. screening for streptococcal angina in school children in cooperation with United Nations Children's Fund (UNICEF).

Result 4: Institutional development of the NCC

Institutionalisation of the NCC and the relaunch of the updated / overhauled telemedicine platform (MN-Cardio) have enhanced the health system's performance and reach (including remote rural areas) for early diagnosis and treatment of CVDs. Specifically, the project

- supported policy planning for NCC institutionalisation as a semi-autonomous centre located within the SCH but independent to a certain degree including the management of human and financial resources – a discussion that is still ongoing;
- assisted the NCC team in high-level dialogues with stakeholders to define future governance and financing models;
- facilitated "south-south" cooperation initiatives through missions to Laos; and
- promoted advanced telemedicine integration through updating and scale-up of the MN-Cardio platform.

It shall be noted in this context that the NCC, independent for the CCT Mongolia project, was and still is actively developing cooperation with various centres of excellence for the diagnosis and treatment of CVDs located in (South) Korea (Seoul National University Hospital - SNUH, Yonsei University Hospital, Cha Bundang Hospital) Taiwan (National University Hospital), China (Ruijin Hospital), Russia (Scientific Centre of Cardiovascular Surgery), Turkey (Dokuz Eylul University Hospital), and Germany (Bad Krozingen). This is certainly important when evaluating the sustainability of the NCC and the services they provide beyond the involvement of the CCT Mongolia project.

Conclusions and Development Assistance Committee (DAC) Criteria Ratings

The CCT Mongolia project demonstrates a high degree of relevance, effectiveness, and impact, underpinned by solid alignment with national policies and efficient use of resources. Institutionalisation of the NCC and decentralised care strengthening are pivotal accomplishments. While sustainability is progressing, it requires further support in Human Resources for Health (HRH) retention and financial planning.

 **Relevance**	1	The project aligns strongly with national health priorities and the Sustainable Development Goal (SDG) 3 objective. It addresses needs in CVD prevention, surgical capacity, and service integration.
 **Coherence**	2	CCT Mongolia complements other development partner (DP)and government initiatives without significant overlaps. Coordination is adequate, though scope exists for enhanced synergies with emerging partners such as the future Centre of Disease Control (CDC).
 **Effectiveness**	1	All four results are progressing well. Notable achievements include increased number of open-heart surgeries, a national Knowledge, Attitude and Practice (KAP) survey, expanded use of telemedicine, public outreach to over 100 000 citizens, and adoption of prevention policies and training.
 **Efficiency**	2	Despite delays with the procurement of medical equipment, the project has generally met implementation and budget targets. Collaboration mechanisms between Institut National de Chirurgie Cardiaque Interventionnelle (INCCI), SCH, the Ministry of Health (MoH) and LuxDev through the project's Steering Committee (SC) are functioning effectively.
 **Impact**	1	The intervention has demonstrated strong early outcomes, notably in surgical and interventional volume at the NCC, improved access to quality cardiology services at provincial (aimag) and district level, increased public health awareness (direct and indirect through e.g. Facebook sites of the individual healthcare facilities), and progress with the institutionalisation of the NCC. Global mortality trends seem to show a constant decline of disease specific mortality from 17,5/10 000 population in 2022 to 16,9 cases observed in 2024. However, it remains unclear to what extent the project's activities have contributed to this trend and whether it will be maintained in the coming years, considering the demographic change and epidemiological shift (towards higher incidences and prevalences of non-communicable diseases (NCDs)in general and CVD in particular).
 **Sustainability**	3	Institutional integration is improving, especially with NCC's development. Risks persist regarding staff retention and recurrent financing, specifically in Aimag and district hospitals and health centres. Furthermore, the great success of the various training programmes (maybe the single most important element of success since MON/001) could be at risk as the planned new project has a focus on construction and equipment of the new NCC building. Therefore, we (the evaluators) would like to highlight that the extension and seamless continuation of training are essential elements for future success. Telemedicine and the MN-Cardio platform show strong promise but require maintenance and support to be fully exploited.

Recommendations

The evaluation mission has formulated actionable recommendations to sustain and enhance project outcomes, mitigate existing risks, and inform strategic adjustments for the remainder of the CCT Mongolia Project' implementation period. These are grouped into two categories: those primarily for national stakeholders and those for LuxDev and other international partners.

Recommendations for national stakeholders (MoH/NCC/SCH)

- **Finalize and implement the NCC institutionalisation plan:** Clarify the legal status, governance and financial model of the NCC. *Expected impact:* Improved operational autonomy, financial sustainability and service continuity beyond the project's lifespan.
- **Develop a long-term human resources (HR) strategy:** Prioritize retention incentives, continuous professional development, and equitable deployment of trained staff across regions. *Expected impact*: Stabilized workforce, reduced turnover, and sustained technical capacity, especially in underserved areas and for professionals with specialty knowledge and competency (including e.g. perfusionists).
- **Enhance national advocacy for non-communicable diseases (NCDs) and cardiovascular health:** NCC to facilitate regular multi-stakeholder policy dialogue forums to support MoH in high-level health policy engagement. *Expected impact*: Increased political prioritisation and resource allocation for chronic disease prevention and control, specifically for CVDs.
- **Monitor and adapt implementation strategies based on regional disparities:** Use regional performance data to refine approaches in capacity building considering specific local challenges. *Expected impact*: Greater equity and more consistent progress across different geographic areas.
- **Scale up MN-Cardio and integrate it into the national digital health architecture:** Ensure full interoperability, user training, and inclusion in national e-health strategy. *Expected impact*: Strengthened telemedicine reach, better clinical data management, improved patient tracking and availability of epidemiological data on trends observed regarding the incidence and prevalence of NCDs in general and CVDs in particular.

Recommendations for LuxDev and International Partners

- **Finalize and implement the NCC institutionalisation plan:** Consider fielding an organisational development expert with health sector experience to support the process by providing examples of good practice and benchmarks from around the world.
- **Expand and institutionalize training and exchange programs:** Institutionalize partnerships with INCCI and other international partners as well as local academic institutions including e.g. National Center for Mother and Child Health (NCMCH), 2nd state hospital for ongoing professional development. In fact, the best training should come from wherever the NCC can get it. *Expected impact*: Long-term skills transfer, quality assurance in service delivery, and increased clinical specialization (both in terms of scope and volume).
- **Support alignment with broader international cooperation initiatives:** Foster strategic coordination with other development partners (DP) and global health actors working on NCDs in general and CVD diagnosis and treatment in particular, e.g. the WHO PEN approach (Package of Essential Noncommunicable Disease Interventions). *Expected impact*: Enhanced synergy, reduced duplication, and maximised impact of development cooperation.

Lessons Learned

The lessons learned through the implementation of the CCT Mongolia project provide valuable guidance not only for the successful completion of the current project but also for the design and planning of future health sector initiatives under international development cooperation with countries that have a similar socio-economic situation and that are particularly exposed to similar geographical and climate related challenges. Accordingly, the following lessons learned highlight key conditions for success and areas that need attention for projects in similar contexts.

- **A phased, multi-cycle approach enables long-term systemic impact:** Building on previous project cycles allows for continuity, trust-building, and gradual health system strengthening which is essential in complex reform environments involving both individual and institutional capacity building as well as behaviour change both in professionals as well as patients and the general population.
- **Integrated approaches to prevention and treatment yield better outcomes:** Addressing prevention, diagnosis, and interventions together enhances overall health impact and ensures more cohesive patient care pathways. It also enhances the credibility of preventive programmes when treatment options are available for those affected by the disease.
- **Telemedicine is a powerful tool for equitable service delivery:** Its effective use expands access to specialized care compliant with international standard quality requirements not only in the capital city but also in remote areas and thereby helps decentralize services (bringing them closer to the population in need).
- **Strong institutional partnerships ensure relevance and ownership**: Collaborating with well-established institutions and involving national entities like the SCH/NCC from the outset fosters national ownership and relevance. This approach also helped to avoid unnecessary expenditure for individual patients and the solidarity-based health insurance fund (HIF), as evidenced by the reduced number of clinically unjustified transfers to the national centre from peripheral hospitals and health centres. This promotes the rational use of limited resources. Investing in digital literacy and infrastructure, of course, is also crucial.
- **Continuous capacity building and international exchange boost resilience:** Long-term training strategies and knowledge exchange with institutions in countries facing similar challenges, and that have successfully overcome problems related to limited access to quality care (in general, and specifically for the diagnosis and treatment of CVDs), promote the development of adaptive and resilient health systems. The NCC extensively practises this approach (see the examples provided above), thus exploiting a wide scope of opportunities to strengthen the capacities and competencies of its staff and the institution.
- **Political commitment and policy alignment are vital for sustainability:** Success depends on integrating project outputs into national policies and institutions so that project results will be backed by sustained government support and resource allocation.