

## TC Document

### I. Basic Information for TC

▪ Country/Region:	BOLIVIA
▪ TC Name:	Support the implementation and maintenance model for the Bolivian hospital system
▪ TC Number:	BO-T1398
▪ Team Leader/Members:	Buscarons Cuesta, Luis (SCL/SPH) Team Leader; Amancaya Conde (CAN/CBO); Bendix, Willy (VPC/FMP); Delfs Ilieva, Isabel (SCL/SPH); Elliot Portal, Joyce (CAN/CBO); Jimenez Mosquera, Javier I. (LEG/SGO); Orellana, Miguel Angel (VPC/FMP); Schukkel, Fernanda Do Vale Caribe (VPC/FMP) Schukkel, Fernanda Do Vale Caribe (VPC/FMP)
▪ Taxonomy:	Operational Support
▪ Operation Supported by the TC:	BO-L1204.
▪ Date of TC Abstract authorization:	17 Jun 2022.
▪ Beneficiary:	Ministry of Health (MoH)
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Japan Special Fund(JSF)
▪ IDB Funding Requested:	US\$550,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months (execution period included)
▪ Required start date:	December 1 <sup>st</sup> 2022
▪ Types of consultants:	Firms & Individual consultants
▪ Prepared by Unit:	SCL/SPH-Social Protection & Health
▪ Unit of Disbursement Responsibility:	CAN/CBO-Country Office Bolivia
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Non
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Environmental sustainability; Productivity and innovation; Social inclusion and equality

### II. Description of the Associated Loan/Guarantee

- 2.1 The Government of Bolivia has requested the Inter-American Development Bank (IDB)'s assistance to finance the operation "Integral Strengthening of the Health Services Networks and the Nutrition Program in Bolivia" (BO-L1204), with the objective of strengthening the health care network to expand access and improve quality of care, improving the hospital management model, particularly related to facility and infrastructure maintenance, and enhancing the nutritional situation in a vulnerable population. To achieve this goal, project BO-L1204 will support investments in quality health infrastructure, innovative digital solutions in facility and infrastructure management, and integrated malnutrition health approach. The project profile was approved in 2019 and needs to be updated in early 2023, because the COVID-19 pandemic oriented the Bolivian financing needs towards other objectives.
- 2.2 Additionally the Technical Cooperation (TC) will support the operation "Support Program for Vulnerable Populations Affected by Coronavirus II" (5376/OC-BO) that was approved by the Bank's Board of Directors on October 20<sup>th</sup>, 2021, with the general objective of helping to ensure minimum levels of quality of life for vulnerable people in

Bolivia in the face of the crisis caused by COVID-19 with the sole initial specific objective of supporting minimum income levels for people affected by the pandemic in the immediate period and during recovery. However, given the repercussions of the fourth wave of COVID-19 cases experienced in the country and the forecast of a fifth wave, the Government of Bolivia, through note MPD/VIPFE/DGGFE/UOF-NE 0615/2022 requested the Bank to carry out modifications to subcomponent 1.2 of the Program in order to address deficiencies in the provision of immediate and essential health services that were interrupted or in a scenario of collapse due to the effects of the pandemic, same that include basic maternal and child care, the treatment and control of non-communicable diseases, and monitoring of patients affected by chronic diseases.

### **III. Objectives and Justification of the TC**

- 3.1 Challenges faced by the Bolivian health sector.** In the last years, the Government of Bolivia has made significant investments in health infrastructure, increasing the number of establishments in the public subsector from 1,973 in 2001 to 3,231 in 2017. Likewise, it has also increased the number of health professionals, mainly in rural areas, through the Program named “Mi Salud” with a community and intercultural health care approach. These advances made it possible for a significant increase in public health coverage, mainly for children under five years of age. Although these improvements, important challenges remain, particularly in the indigenous and rural areas. Life expectancy at birth in the country (75 years in 2019) is under the region average. Maternal and infant mortality rates (< 1 year of age) have declined but remain high, at 160 deaths/100,000 live births -one of the highest in the region- and 29 deaths/1,000 live births, respectively. The coverage of delivery in hospitals and the proportion of pregnant women who access prenatal check-ups in 2017 was 71.3% and 85.3%, respectively. Meanwhile, the burden of chronic illnesses such as cardiovascular diseases, diabetes, and cancers continues to grow, representing nowadays one of the main causes of death for both women and men. The situation in the sector has been aggravated by the current COVID-19 pandemic, evidencing its limited capacity in terms of human resources in health (mainly specialists), infrastructure, medical equipment, and supplies.
- 3.2 Deficits in health infrastructure management.** The Government of Bolivia has prioritized in recent years investment in health infrastructure. The National Hospital Plan (PNH) expects to build 49 new hospitals and proposes to introduce an infrastructure management model that implies important challenges regarding traditional regulations of the health sector. In the second semester of 2022 start-up of three new hospitals are planned. However, there is not enough capacity in the country that ensures the operation and maintenance of these centers, with highly and complex medical equipment and industrial facilities. The sustainability of the Bolivian hospital system demands reinforce the technical and organizational capacities of the hospital maintenance services.
- 3.3 Strengthening the health care network in Bolivia.** To address the above referenced challenges, the government of Bolivia has requested IDB's assistance to finance the operation BO-L1204 and, with the objective of strengthening the health care network to expand access and improve quality of care. To achieve this goal, project BO-L1204 will support investments in: (i) quality health infrastructure that is efficient, sustainable, and resilient against natural disasters and other risks in both, first (health centers) and second level (basic hospitals); (ii) implementation of an innovative infrastructure

management model -digital solution- that can improve efficiency, sustainability, and quality of health care; (iii) strengthening integrated health care lines in the primary level, including nutrition programs.

- 3.4 **The objective of the technical cooperation (TC).** The objective of this TC is to assist the preparation and implementation of operation BO-L1204 – in particular, the components of quality health infrastructure and innovative infrastructure management model and the activities aimed to improve the nutritional status of the vulnerable population. Likewise, assist the preparation and implementation of operation 5376/OC-BO in its health component.
- 3.5 **Bank's support to the health sector and lessons learned.** This TC builds upon the lessons learned from operations "Improved access to health services in Bolivia" (2822/BL-BO), "Improved Access to Health Services El Alto Bolivia" (3151/BL-BO), and "Program to improve accessibility to maternal and neonatal health services in Bolivia" (4612/BL-BO). From these experiences, the following lessons have been integrated into the new operation: (i) the complexity of the new hospital infrastructures make necessary knowledge transfer and technical support; and (ii) supporting Government's capacity building in areas related to the project to contribute to the effective implementation and the sustainability of interventions (e.g., environmental and social safeguards, principles of digital models).
- 3.6 **Donor's support.** This TC will review and incorporate lessons learned from the Municipal Institute of Medical Equipment (IME) in the municipality of Santa Cruz de la Sierra, which was created and supported by the Japan International Cooperation Agency (JICA). IME is responsible for the management of medical equipment in health establishments of first (62) and second level (five) of the municipality (until 2010 - before the implementation of the Law of Autonomies and Decentralization-, it was also responsible for the management of five tertiary hospitals). Further, in Cochabamba, the Japanese Technical School of Bolivian Health (1982) is supported too by JICA; this institution has been training mid-level technicians in Biomedical Equipment Maintenance since 2014. Also, the TC will promote the use of the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), developed through the collaboration of academia, industry, and national and local governments in Japan, to evaluate the environmental performance of new constructions during the design phase of the building(s). JICA plans to assist the Ministry of Health (MoH) in the development of policies and regulations related to the maintenance of medical equipment and health infrastructure.
- 3.7 From the JICA's experience the following lessons will be integrated into the new operation: (i) institutions as the IME Model can work well in departmental capital municipalities (La Paz, Cochabamba, Sucre, Oruro, etc.); (ii) the human resources members of the hospital infrastructure and maintenance units should not be limited to carrying out preventive and/or corrective maintenance activities, but should also participate in the procurement procedures, for example, giving assistance in the preparation of technical specifications, supervising the equipment reception and installation, preparing the equipment life sheets, etc.; and (iii) according to a study carried out in Santa Cruz, more than 70% of the human resource in the medical equipment maintenance area is trained as a medium or higher technician in some related technical area -electronics, electricity, mechanics, mainly- and less than 10% are medical engineers - these percentages should ideally be exchanged.

- 3.8 **Strategic alignment.** This operation is consistent with the Second Update to the Institutional Strategy (AB-3190-2) and is strategically aligned with the development challenges of Social Inclusion and Equality and Productivity and Innovation, as it promotes access to quality health care for the population, including those in the poorest income quintiles, and innovative digital solutions. This project is also aligned with the cross-cutting themes of Climate Change and Environmental Sustainability as the hospital maintenance model will allow the implementation of energy and health efficiency measures. Additionally, this operation is aligned with the Sector Framework for Health and Nutrition (GN-2735-12) and its priority that all people have timely access to quality health care. Additionally, it will contribute to the IDB Group's Corporate Results Framework (CRF) 2020-2023 (document GN-2727-12) by increasing the managerial capacity of the sector and increasing the number of people who benefit from health services, also consistent with the Health and Nutrition Sector Framework (document GN-2735-7). In addition, it is aligned with the Country Strategy with Bolivia (document GN-2843), contributing to improving public management and closing social gaps, since the program will improve the efficiency of the health system and facilitate accessibility to health services of equitable and timely manner to the most vulnerable population. The TC is also aligned with the objectives of the Japan Enhanced Initiative (JEI) Fund, in terms of increasing the health coverage of the Bolivian Health System.

#### **IV. Description of activities/components and budget**

- 4.1 **Component 1: Digital transformation to improve the efficiency and quality of maintenance in the health infrastructures and equipment maintenance (US\$125,000).** The objective of the component is to improve maintenance management through the implementation of digital tools. This component will implement institutional strengthening activities and key studies related to health infrastructure maintenance. For this purpose, it will finance the following activities: (i) systematization of hospital maintenance processes (preventive and corrective activities); (ii) development of a medical equipment and facilities database, identifying periodic preventive maintenance procedures; (iii) support a pilot implementation in one of the recent third level commissioned hospitals; and (iv) technical training(s) to strengthen technical, institutional, and operational capacities in the management of the hospital maintenance units. The following are expected products: (i) assessment of the medical equipment and infrastructure management at the municipal and hospital levels; (ii) systematized and parameterized maintenance procedures and equipment database; and (iii) training workshops. The expected result is an increased institutional capacity about - hospital maintenance.
- 4.2 **Component 2: Organizational development of the hospital maintenance unit or department (US\$70,000).** The objective of the component is to strengthen the organization of hospital maintenance units. This component will give technical assistance to the Minister of Health and the hospital management teams in developing the organizational structures and description of jobs positions and functions. For this purpose, it will finance the following activities: (i) design the organizational structure and human resource profiles; (ii) definition of the necessary equipment to assure operative infrastructure departments in the hospitals; and (iii) technical support and training of the hospital teams and an institutional steering team inside the MoH. The following are expected products: (i) setting-up of a National Advisory Committee in the MoH responsible for the development and regulations related to the hospital maintenance; (ii) organization model and job description proposal for hospital maintenance units; (iii) list of equipment needed in these mentioned units;

(iv) development of Municipality, Health Network, and Hospital maintenance plans; and (v) training workshops. The expected result is an increased operational maintenance capacity in hospitals, health networks, and municipalities increased.

- 4.3 **Component 3: Training and knowledge sharing and dissemination of results (US\$80,000).** The objective of the component is to increase the capacities of the human resources responsible for hospital maintenance. This component will finance: (i) one MoH technical note compiling the organizational standards, best practices, and recommendations to provide guidance in the sector; (ii) training on-site activities to disseminate the organizational model and the system inside the MoH and five hospitals recently commissioned; (iii) draw up a plan to improve training resources in the Bolivian technical training system. The following are expected products: (i) conceptual technical note; (ii) training workshops; and (iii) a proposal plan aimed to develop the national training capacities that may include, among other areas, a proposal to strengthening the Bolivian Japanese Technical School of Health of Andean Cooperation (Cochabamba and National School of Health) and its medium-technical training curriculum and a development proposal of the Specialization Curriculum in Biomedical and/or Clinical Engineering. The expected result is increased medical maintenance training capabilities of the country.
- 4.4 **Component 4: Update a national strategy to reduce vulnerable population malnutrition (US\$65,000).** The objective of the component is to update the national policies and regulations aimed to reduce malnutrition in the vulnerable population that will be implemented with the support of BO-L1204. This component will finance: (i) results and impact studies assessment and systematization of “Programa Malnutrición Cero 2007-2021”; (ii) developing a Municipal Atlas of the Bolivian Nutritional Potential Food; and (iii) drafting a New National Food and Nutrition Program proposal. The following are expected products: (i) results assessment of the past malnutrition program, Municipal Atlas of the Bolivian Nutritional Potential Food, and new National Nutrition Policies Proposals. The expected result is the national capacities to combat malnutrition increase.
- 4.5 **Component 5: Equipment gaps assessment in the Bolivian Health System (US\$85,000).** The COVID-19 pandemic has revealed the weak resolution capacity of the first and second level of care, causing third-level hospitals to collapse due to the increase in care demand and some cases interrupting the provision of essential care services. The objective of the component is to survey the need for medical-assistance equipment that allows an integral strengthening of the system. For this, a multiple consulting teams will be financed to carry out a diagnosis of the equipment gaps in all the country's health networks, with emphasis on the first and second level of care, although without ruling out the additional needs that the current third-level hospitals level may require. The expected product is a quantified diagnosis of investment needs in medical-assistance equipment, including the most appropriate technical specifications for it, to standardize maintenance procedures; This diagnosis will also include the identification of specific adaptation interventions in the facilities that such equipment may require. With this, the expected result is an improved institutional capacity to face the strengthening of the system. The financial gaps identified will be likely to be financed with loan operation 5376/OC-BO.
- 4.6 **Component 6: Support for starting the Executing Unit of the new program (US\$125,000).** The objective of the component is to facilitate the start of the activities of the 5376/OC-BO program in its health component and the achievement of eligibility in the shortest possible time. Hiring consultants to prepare the program's Operating

Regulations and to form the core of the new program's executing unit will be financed. The expected product is the 5376/OC-BO Project Execution Unit constituted. The expected result of the component is eligibility and start-up of activities for the new program as soon as it is approved by the Bank's Board of Directors.

- 4.7 **Total costs.** The total cost of this TC is US\$550,000, founded by Japan Enhanced Initiative for Quality Infrastructure, Resilience against Disaster and Health (JEI). These resources will finance individual consultancy services and/or firms for 36 months.

**Indicative Budget (US\$)**

Activity/Component	Description	JEI Total Funding
<b>Component 1:</b> Digital transformation to improve the quality maintenance in the health infrastructures	The objective of the component is to improve maintenance management through the implementation of digital tools.	125,000
<b>Component 2:</b> Organizational development of maintenance services in hospitals	The objective of the component is to strengthen the organization of hospital maintenance units.	70,000
<b>Component 3:</b> Training and knowledge sharing and dissemination of results	The objective of the component is to increase the capacities of the human resources responsible for hospital maintenance.	80,000
<b>Component 4:</b> Update national strategy to reduce vulnerable population malnutrition	The objective of the component is to update the national policies and regulations aimed to reduce malnutrition in the vulnerable population that will be implemented with the support of BO-L1204.	65,000
<b>Component 5:</b> Equipment gaps assessment in the Bolivian Health System	The objective of the component is to survey the need for medical-assistance equipment that allows an integral strengthening of the system.	85,000
<b>Component 6:</b> Support for starting the Executing Unit of the new program	The objective of the component is to facilitate the start of the activities of the 5376/OC-BO program in its health component and the achievement of eligibility in the shortest possible time.	125,000
<b>Total</b>		<b>550,000</b>

- 4.8 **Monitoring.** Monitoring of the progress and quality of the activities financed by this TC will be carried out directly by the IDB, through the Social Protection and Health Division (SCL/SPH). The TC team leader will be in charge of supervising and monitoring the appropriate execution of the project, with support from the operations analyst based in the country office. The Bank's institutional systems will be used to support this process

## V. Executing agency and execution structure

- 5.1 Based on a request from the Government of Bolivia, the executing agency of this TC will be the IDB, through SCL/SPH. The Bank will be executing this TC given the high level of complexity and technical expertise required to prepare the terms of reference of the studies and assessments involved, as well as to supervise their implementation. SCL/SPH has the capacity and technical expertise required to carry-out these processes. Additionally, the hiring of international consultants may be required, for which the IDB hiring process is more agile, reducing the risk of delays in execution.
- 5.2 The activities to be executed under this TC have been included in the Procurement Plan and will be executed in accordance with the procurement methods established

by the Bank, namely: (i) hiring of individual consultants, as established in AM-650 standards; (ii) contracting of consulting firms for services of an intellectual nature in accordance with the Policy for the Selection and Contracting of Companies for Operational Work executed by the Bank (document GN-2765-4) and its associated operating guidelines (OP-1155-4); and (iii) contracting of logistics services and other services other than consulting, in accordance with policy GN-2303-28.

## **VI. Major issues**

- 6.1 Two risks were identified and classified as medium-low: (i) if the hospital teams that are being trained do not receive support from the central level, they might not achieve the expected impact and engagement; and (ii) a high staff turnover of human resources can limit the consolidation of the model. To mitigate these risks, the Bank will support the minister of Health so that the maintenance of organizational structure is considered in the regulatory framework and hospital regulations.

## **VII. Exceptions to Bank policy**

- 7.1 This TC does not anticipate any exceptions to Bank policy.

## **VIII. Environmental and Social Strategy**

- 8.1 This Technical Cooperation does not intend to finance pre-feasibility or feasibility studies for specific investment projects or environmental and social studies associated with them; therefore, the requirements of the Bank's Environmental and Social Policy Framework (ESPF) do not apply to this TC.

### **Required Annexes:**

[Request from the Client - BO-T1398](#)

[Results Matrix - BO-T1398](#)

[Terms of Reference - BO-T1398](#)

[Procurement Plan - BO-T1398](#)