

TC Document

I. Basic Information for TC

▪ Country/Region:	PARAGUAY
▪ TC Name:	Support for Digital Transformation in Health
▪ TC Number:	PR-T1352
▪ Team Leader/Members:	Mac Arthur, Ian William (SCL/SPH) Team Leader; Avila, Krysia A (LEG/SGO); Fernandez Rivas Maria Jazmin (CSC/CPR); Guerra, Martha M. (SCL/SPH); Nelson, Jennifer A (SCL/SPH); Rocio Acosta (CSC/CPR)
▪ Taxonomy:	Operational Support
▪ Operation Supported by the TC:	PR-L1167.
▪ Date of TC Abstract authorization:	06 Oct 2023.
▪ Beneficiary:	Ministry of Public Health and Social Welfare
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Japan Special Fund(JSF)
▪ IDB Funding Requested:	US\$200,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	May 2024
▪ Types of consultants:	Firms and individual consultants
▪ Prepared by Unit:	SCL/SPH-Social Protection & Health
▪ Unit of Disbursement Responsibility:	CSC/CPR-Country Office Paraguay
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law

II. Description of the Associated Loan

- 2.1 On November 30, 2023, the loan 4872/OC-PR to finance the Program to Strengthen Integrated and Comprehensive Health Services Networks based on Primary Health Care became eligible for disbursement, and the start-up workshop will be held during February 2024. The program will strengthen health services networks base on primary health care in four departments of Paraguay, and it will also promote the strategy for the digital transformation (DT) in health through the implementation of the Hospital Information System (HIS) and development of norms for digital health.

III. Objectives and Justification

- 3.1 **Objective of the TC.** The objective of this TC is to provide technical assistance in the continued review and implementation of the roadmap for DT in the health sector in Paraguay. The TC will support the following activities: (i) consolidation and scale up of data interoperability activities in the health sector; and (ii) systematization and communication of key efforts regarding DT in health and updating and maintenance of the digital health roadmap. It will also contribute to the implementation of Component 2 of loan 4872/OC-PR.

- 3.2 **Digital health strategy.** For several years the IDB has been supporting Paraguay's efforts regarding DT in the health sector. The centerpiece of this strategy is the "roadmap for digital transformation," which the Ministry of Public Health and Social Welfare (MPHSW) approved in 2019. It presents the projects, processes, actions, and products for DT, organized in four components (governance and management, infrastructure, infostructure, and process components and health information) and encompassing an initial implementation period of six years. A cross-cutting area relates to "organizational" needs that require activities to improve implementation (for example, change management, training, team composition, etc.). The roadmap also identifies sources of financing for the different items of DT in health, including budget resources and donations from cooperating agencies. The inputs for the roadmap derived mainly from the 'Future State' workshops and the interviews and meetings held by the IDB team, which subsequently prepared the corresponding document.
- 3.3 **Strategy activities and implementation.** Paraguay has made significant progress regarding the implementation of the roadmap with IDB collaboration. With resources of approximately US\$9 million from the Digital Agenda Support Program (loan 4650/OC-PR), it installed connectivity and the HIS software in 110 health facilities (60 hospitals and 50 Family Health Units), and it recently allocated an additional US\$4.5 million to finance this initiative in another 105 Family Health Units. The HIS allows for streamlining and improvement of the quality of health care provision, collects data in real time, permits pharmacy stock monitoring, and records the clinical history of each patient, among other benefits. This loan will also support consultancies to help define the IT governance framework for the MPHSW and normative structure for digital health. Finally, with funds from BIDLab (US\$150,000), the IDB hired a firm to develop and pilot test an interoperability platform at the National Cancer Institute (INCAN) that integrated files from the HIS and the ambulatory care system (SAA) using a single viewer, seeking to improve continuity and quality of care for patients. To build on these successful experiences and advance along the DT roadmap, the MPHSW has requested technical cooperation from the IDB to finance strategic activities.
- 3.4 **Donor's support.** Considering Paraguay's high rates of maternal and neonatal mortality (approximately 84 maternal deaths per 100,000 live births), there is interest to strengthen the use of electronic health records (EHR) in maternal-child health. Given the experience of Japan in EHR for obstetrics/gynecology and its digital Maternal and Child Health Handbook ("BOSHI-TECHO" in Japanese), the project will coordinate with the Japan International Cooperation Agency (JICA) and search for opportunities to collaborate in these areas. A specific activity agreed on by the IDB and JICA is the implementation of a seminar on the digitalization experience of BOSHI-TECHO or another relevant technology in one or more beneficiary countries.
- 3.5 **Strategic alignment.** This TC is consistent with the Second Update of the Institutional Strategy (AB-3190-2) and is aligned with the following strategic priorities: (i) Social Inclusion and Equality, by supporting the improvement of the access and quality of public health and healthcare services; (ii) Institutional Capacity and Rule of Law, by improving administrative processes and services and strengthening institutional frameworks for DT of the health sector. The project is also aligned with the strategic objective of "improving the coverage and quality of social services" of the Country Strategy of the IDB Group with Paraguay 2019-2023 (GN-2958). TC activities will complement and facilitate investments made in DT in health through the IDB loans 4650/OC-PR Digital Agenda Support Program and 4872/OC-PR Program to

Strengthen Integrated and Comprehensive Health Services Networks Based on Primary Health Care. Specifically, the project will allow for enhanced utility of the HIS, to be financed with resources from loan 4872/OC-PR, through its efforts to achieve greater data interoperability. Requirements in the operational guidelines of the JEI and in the guidance note on visibility of Japan will be met by the operation.

IV. Description of activities/components and budget

- 4.1 This TC is organized in the following two components:
- 4.2 **Component 1: Strengthening of data interoperability in health.** This component will finance activities relating to improving the capability for health data interexchange to promote efficiency and continuity in patient case management. Specifically, it will fund (i) the review, consensus-building process, and approval of the system's business and data privacy and security architecture; (ii) support to the interoperability platform through the development of guides (including data model) and collaborative connectivity efforts (connectathons)¹; and (iii) access to the most extensive structured clinical vocabulary tool for use with electronic health records (SNOMED--Systematized Nomenclature of Medicine – Clinical Terms), through licensing and training. The main result of this component is a greater level of preparedness for making patient data available from different information systems.
- 4.3 **Component 2: Promotion of digital health transformation agenda and roadmap maintenance.** This component will focus on generating momentum for implementation of the digital health transformation, through improved visibility and continued monitoring of its initiatives. It will provide resources to fund: (i) assessment (case-study style) and information-sharing about strategic DT efforts, including improving connectivity in rural areas, scaling up with HIS, and design and deployment of the digital hospital concept at the National Cancer Institute (INCAN), the first interoperability platform in the health sector; and (ii) the updating and monitoring of the digital health transformation roadmap. The results of these actions include greater awareness and commitment regarding DT in health deriving from written and audiovisual materials on successful experiences and renewed agreement on the path forward because of the revised roadmap.
- 4.4 **Expected results.** The expected products of this TC include studies, assessments, proposals, and case studies. The main expected result is that it contributes to progress regarding the implementation of the digital health transformation roadmap and the operation PR-L1167, according to plan.
- 4.5 **Total costs.** The total cost of this TC will be US\$200,000, which will be financed by the Japan Enhanced Initiative for Quality Infrastructure, Resilience against Disaster and Health (JEI). There will be no local counterpart resources. The execution and disbursement period will be 36 months.

Indicative Budget (US\$)

Activity/Component	Description	IDB/JSF	Total Funding
Component 1. Strengthening of data interoperability in health	Structuring and preparation of the interoperability platform	120,000	120,000

¹ The connectathons will also serve as an opportunity to disseminate project activities and share knowledge.

Activity/Component	Description		IDB/JSF	Total Funding
Component 2. Promotion of digital health transformation agenda and roadmap maintenance	Generating commitment for digital health transformation	Case studies	45,000	45,000
		Roadmap management	35,000	35,000
	Subtotal		80,000	80,000
TOTAL			200,000	200,000

V. Executing agency and execution structure

- 5.1 The Executing Agency will be the Inter-American Development Bank through the Social Protection and Health Division (SCL/SPH). The Bank's execution was requested by the Government of Paraguay in agreement with the Bank's policy on technical cooperation (GN-2470-2) and the corresponding operational guidelines (OP-619-4). SCL/SPH has digital health specialists and a dedicated team with technical knowledge and extensive experience in the region, which will facilitate the preparation of terms of reference of the studies and assessments involved, as well as their implementation, the transfer of knowledge and lessons learned to this operation. Additionally, the IDB will facilitate coordination among the different actors involved in the DT in health, especially the Ministry of Information Technologies and Communication (MITIC), which financed HIS deployment in 110 health facilities.
- 5.2 **Procurement.** The procurement Plan (Annex IV) presents the expected procurement processes under the TC. The Bank will contract: (i) individual consultants in accordance with the guidelines set out in the AM-650; (ii) consulting firms for services of an intellectual nature according to GN-2765-4 and its Operational Guidelines (OP-1155-4); and (iii) logistics and other related services according to the Corporate Procurement Policy (GN-2303-28).
- 5.3 **Monitoring and Evaluation.** Monitoring the quality and progress of the TC will be carried out directly through IDB institutional systems by the SPH Team Leader with the support of the Project Team. The project's technical team will produce an annual report on the execution and results of the TC. The final products will also be reviewed by the Project Team to ensure the quality of products and services funded by this TC. Besides, the project's development objective, outcome and outputs indicators will also be monitored by the IDB in keeping with the Results Matrix of the TC.

VI. Major issues

- 6.1 Considering the numerous actors involved in the digital health transformation, there is a risk that a lack of coordination could lead to delays in execution as well as sub-optimal decisions. Therefore, there is a need to ensure regular interaction among various administrative and technical departments within the MPHSW as well as other key stakeholders, such as the MITIC. The TC will promote regular meetings amongst project's stakeholders to review the TC's implementation plan, discuss technical aspects related to the interventions, ensure the quality of decisions, and to identify and mitigate potential challenges.

VII. Exceptions to Bank policy

- 7.1 No exceptions to Bank policy are expected.

VIII. Environmental and Social Aspects

- 8.1 This TC will not finance feasibility or pre-feasibility studies of investment projects with associated environmental and social studies; therefore, it is excluded from the scope of the Bank's Environmental and Social Policy Framework (ESPF).

Required Annexes:

[Request from the Client_70939.pdf](#)

[Results Matrix_81034.pdf](#)

[Terms of Reference_78922.pdf](#)

[Procurement Plan_5492.pdf](#)