

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**URUGUAY**

**PROGRAM TO STRENGTHEN THE MANAGEMENT OF THE GOVERNMENT  
HEALTH SERVICES ADMINISTRATION**

**(UR-L1161)**

**LOAN PROPOSAL**

This document was prepared by the project team consisting of: Mario Sánchez (SCL/SPH), Project Team Leader; Ignacio Astorga (SCL/SPH); Krysia Ávila (LEG/SGO); Emilie Chapuis (VPC/FMP); Abel Cubas (VPC/FMP); Gianluca Cafagna (SCL/SPH); Roberto Fernández (IFD/ICS); Martha Guerra (SCL/SPH); and Valentina Tournier (CUR/CUR).

This document is being released to the public and distributed to the Bank's Board of Executive Directors simultaneously. This document has not been approved by the Board. Should the Board approve the document with amendments, a revised version will be made available to the public, thus superseding and replacing the original version.

## CONTENTS

### PROJECT SUMMARY

|      |   |    |
|------|---|----|
| I.   | DESCRIPTION AND RESULTS MONITORING .....                | 1  |
|      | A. Background, problems addressed, and rationale .....  | 1  |
|      | B. Objectives, components, and cost .....               | 7  |
|      | C. Key results indicators .....                         | 9  |
| II.  | FINANCING STRUCTURE AND MAIN RISKS .....                | 10 |
|      | A. Financing instrument .....                           | 10 |
|      | B. Environmental and social safeguard risks .....       | 10 |
|      | C. Fiduciary risks .....                                | 10 |
|      | D. Other risks and key issues .....                     | 11 |
| III. | IMPLEMENTATION AND MANAGEMENT PLAN .....                | 11 |
|      | A. Summary of implementation arrangements .....         | 11 |
|      | B. Summary of arrangements for monitoring results ..... | 15 |

## APPENDIXES

Proposed resolution

| <b>ANNEXES</b> |  |
|----------------|--|
| Annex I        | Summary Development Effectiveness Matrix |
| Annex II       | Results Matrix                           |
| Annex III      | Fiduciary Agreements and Requirements    |

| <b>REQUIRED LINKS</b> |   |
|-----------------------|---|
| 1.                    | <a href="#">Multiyear execution plan and annual work plan</a> |
| 2.                    | <a href="#">Monitoring and evaluation plan</a>                |
| 3.                    | <a href="#">Procurement plan</a>                              |

| <b>OPTIONAL LINKS</b> |  |
|-----------------------|--|
| 1.                    | <a href="#">Project economic analysis</a>                            |
| 2.                    | <a href="#">Operating Regulations</a>                                |
| 3.                    | <a href="#">Safeguard Policy Filter and Safeguard Screening Form</a> |

## ABBREVIATIONS

|        |  |
|--------|--|
| AGESIC | Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento [Agency for Electronic Government and the Information and Knowledge Society] |
| ASSE   | Administración de los Servicios de Salud del Estado [Government Health Services Administration]  |
| CCLIP  | Conditional credit line for investment projects  |
| FONASA | Fondo Nacional de Salud [National Health Fund]   |
| GRP    | Government Resource Planning   |
| HCEN   | Historia Clínica Electrónica Nacional [National Electronic Health Record]  |
| IAMC   | Institución de Atención Médica Colectiva [Collective Medical Assistance Institution]   |
| ICB    | International competitive bidding  |
| MEF    | Ministry of Economy and Finance  |
| MSP    | Ministry of Public Health  |
| NCB    | National competitive bidding   |
| OECD   | Organisation for Economic Co-operation and Development   |
| PEP    | Multiyear Execution Plan   |
| PMU    | Project management unit  |
| QCBS   | Quality and cost-based selection   |
| SIG    | Sistema de Información Gerencial [Management Information System]   |
| SIIF   | Sistema Integrado de Información Financiera [Integrated Financial Information System]  |
| SNIS   | Sistema Nacional Integrado de Salud [National Integrated Health System]  |
| SNS    | Seguro Nacional de Salud [National Health Insurance]   |
| TCR    | Tribunal de Cuentas de la República [National Audit Office]  |
| TOT    | Technical Output Team  |

**PROJECT SUMMARY**  
**URUGUAY**  
**PROGRAM TO STRENGTHEN THE MANAGEMENT OF THE GOVERNMENT HEALTH SERVICES ADMINISTRATION**  
**(UR-L1161)**

| Financial Terms and Conditions   |  |                             |  |                          |
|--|--|-----------------------------|--|--------------------------|
| <b>Borrower:</b>   |  |                             | <b>Flexible Financing Facility<sup>(a)</sup></b> |                          |
| Eastern Republic of Uruguay  |  |                             | <b>Amortization period:</b>                      | 25 years                 |
| <b>Executing agency:</b>   |  |                             | <b>Disbursement period:</b>                      | 5 years                  |
| Government Health Services Administration (ASSE)   |  |                             | <b>Grace period:</b>                             | 5.5 years <sup>(b)</sup> |
| <b>Source</b>  | <b>Amount (US\$)</b>                   | <b>%</b>                    | <b>Interest rate:</b>                            | LIBOR-based              |
| <b>IDB (Ordinary Capital):</b>   | 8,000,000                              | 84.2                        | <b>Credit fee:</b>                               | (c)                      |
|  |  |                             | <b>Inspection and supervision fee:</b>           | (c)                      |
| <b>Local:</b>  | 1,500,000                              | 15.8                        | <b>Weighted average life:</b>                    | 15.25 years              |
| <b>Total:</b>  | 9,500,000                              | 100                         | <b>Currency:</b>                                 | U.S. dollars             |
| Project at a Glance  |  |                             |  |                          |
| <p><b>Project objective/description:</b> The general objective of the program is to help make the production of public health services in Uruguay more effective and efficient. Specifically, the program would support the production and use of timely, reliable, and homogeneous information for decision-making by the healthcare and executing units of the Government Health Services Administration (ASSE), as well as the ASSE's central administration, the Ministry of Economy and Finance, and the Ministry of Public Health.</p>   |  |                             |  |                          |
| <p><b>Special contractual conditions precedent to the first disbursement of the loan:</b> (i) The borrower, through its executing agency, will provide evidence of: (a) the composition, structure, and launch of the Project Management Unit and appointment of its coordinator, as approved by the ASSE Board; (b) creation of a dedicated internal working group for the program, as approved by ASSE Board; and (c) the signing and entry into force of a management agreement between the ASSE's Administrative Department and the Project Management Unit, in accordance with the terms previously agreed with the Bank (paragraph 3.9); (ii) the signing and entry into force, in accordance with the terms previously agreed with the Bank, of an execution agreement between the ASSE and the borrower, through the Ministry of Economy and Finance, Ministry of Public Health, and the Agency for Electronic Government and the Information and Knowledge Society, that: (a) creates and determines the composition of the management and technical committees for the program, as well as their respective functions; and (b) specifies the process for budget allocations and transfer of resources between the Ministry of Economy and Finance and the ASSE (paragraph 3.10); and (iii) the entry into force, by means of an administrative act by the ASSE's General Management Department, of the <a href="#">program Operating Regulations</a>, in accordance with the terms previously agreed with the Bank (paragraph 3.11).</p> |  |                             |  |                          |
| <b>Exceptions to Bank policy:</b> None.  |  |                             |  |                          |
| Strategic Alignment  |  |                             |  |                          |
| <b>Challenges:<sup>(d)</sup></b>   | SI <input checked="" type="checkbox"/> | PI <input type="checkbox"/> | EI <input type="checkbox"/>                      |                          |
| <b>Crosscutting themes:<sup>(e)</sup></b>  | GD <input type="checkbox"/>            | CC <input type="checkbox"/> | IC <input checked="" type="checkbox"/>           |                          |

<sup>(a)</sup> Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency, interest rate, and commodity conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

<sup>(c)</sup> The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the relevant policies.

<sup>(d)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(e)</sup> GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problems addressed, and rationale

#### 1. The National Integrated Health System

- 1.1 **Health reform.** In 2005, Uruguay launched far-reaching reforms to its health system. As part of this process, the National Integrated Health System (SNIS) was created in 2007 with the primary objective of ensuring universal coverage for a range of services, irrespective of an individual's employment status or ability to pay.<sup>1</sup>
- 1.2 National Health Insurance (SNS) is one of the SNIS's key instruments. It pools the contributions of workers, employers, and the government into the National Health Fund (FONASA), which finances the list of services to which the entire population is explicitly entitled under the Integrated Healthcare Plan (PIAS). In 2018, more than 2.5 million people [1] (74% of the population) were covered by SNS, giving Uruguay one of the highest rates of health insurance coverage in Latin America.<sup>2</sup> FONASA beneficiaries may choose to enroll with a private comprehensive provider (either a private, nonprofit Collective Medical Assistance Institution (IAMC) or integrated private insurance) or with the Government Health Services Administration (ASSE). The National Health Board (JUNASA) is responsible for regulating and monitoring National Health Insurance.<sup>3</sup> SNS comprehensive providers receive a capitation payment for each FONASA member, adjusted for risk (age and sex), plus a payment for meeting care targets (around 9% of the capitation payment). Individuals who do not belong to FONASA (including those without formal employment or who are unemployed) may choose between paying out of pocket for coverage from a comprehensive provider or, alternatively—if they are low-income—enrolling in the free services provided by the ASSE. In 2018, 56.4% of Uruguay's population was enrolled with an IAMC. Of the 36 IAMCs belonging to the SNIS, the largest (in terms of coverage) currently has around 323,000 members. With almost 1.3 million members, the ASSE is the main provider under the SNIS.
- 1.3 **Health spending.** Total health spending and public health spending in Uruguay are among the highest in the region. As a percentage of GDP, total health spending rose from 8% to 9.5% between 2007 and 2018. The importance of the public sector has grown significantly as a result of a change in the financing model promoted by reforms: from 55% to 72% of total health spending over the same period [2]. Accordingly, out-of-pocket spending fell as a proportion of total health spending, from 24% in 2007 to 16% in 2015 [3] [4].
- 1.4 Fifteen-year projections for health spending in countries belonging to the Organisation for Economic Co-operation and Development—some of which have similar demographic profiles to Uruguay—conclude that health spending will increase by between one and two percentage points of GDP, and that spending will grow even more rapidly in countries that (like Uruguay) have public health systems based on mandatory insurance [5]. Against this backdrop, and given the more

---

<sup>1</sup> In the 2017 Continuous Household Survey, 98.5% of the Uruguayan population stated that they had established rights with one of the SNIS comprehensive providers [1].

<sup>2</sup> There are no differences in relative participation between males and females in FONASA or by type of provider [1].

<sup>3</sup> Made up of representatives of the Ministry of Public Health (MSP), Banco de Previsión Social, the Ministry of Economy and Finance (MEF), service providers, users, and workers.

restrictive fiscal context, Uruguay faces the need to identify strategies that will help to improve the efficiency of its health spending without sacrificing the quality of services provided through the SNIS.

## **2. The digital agenda in health**

- 1.5 **Digital Uruguay 2020.** Since 2006, the Digital Uruguay Agenda has consolidated priority initiatives aimed at achieving a digital transformation in government and has monitored their progress. The main responsibility of the Agency for Electronic Government and the Information and Knowledge Society (AGESIC) is to establish guidelines for this policy. The fourth stage of the policy—Digital Uruguay Agenda 2020—includes the following targets: (i) for all comprehensive health providers (public and private) to use the national electronic health record in at least three clinical areas; (ii) for all oncology services (public and private) to implement electronic oncology records; and (iii) for the regulatory and technical instruments needed to introduce electronic medical prescriptions to be available. AGESIC is responsible for overseeing the achievement of these objectives under the Salud.uy initiative.
- 1.6 **The National Electronic Health Record.** The National Electronic Health Record (HCEN) is a technology and services platform that allows for the regulated, secure, and almost real-time exchange of clinical data generated by providers' electronic health records.<sup>4</sup> The HCEN makes a citizen's health information accessible online to the team providing care, irrespective of the geographic location of the service and the health provider involved. According to the 2018 Information and Communication Technologies Survey carried out under the Salud.uy initiative, 74% of comprehensive health providers were already recording most or all of their services electronically.
- 1.7 **Vertical systems and cybersecurity.** The Salud.uy initiative also envisions the development and deployment of applications to supplement the HCEN for those providers that require this. Examples of this are the Electronic Oncology Record and the Integrated Diagnostic Imaging Network, which in 2017 were being used in more than 75% of ASSE imaging and oncology services. Also in 2017, AGESIC worked with health providers on the different preparations necessary to provide the guarantees for the exchange of clinical information through the HCEN. Outputs of this process include the development of a [Cybersecurity Framework for Health](#) and ethical hacking activities to detect possible vulnerabilities and improving cybersecurity.

## **3. The Government Health Services Administration (ASSE)**

- 1.8 **Membership and financing.** In 2018, 84% of ASSE members belonged to the two lowest income quintiles (62% to the first quintile) [2], and 76% lived outside Montevideo, where the most complex health services are concentrated. Around 36% of ASSE members are covered by FONASA,<sup>5</sup> while 59% receive free care financed

---

<sup>4</sup> Decree 242/017, issued in August 2017, regulates the management and exchange of health information and makes it mandatory for the country's public and private providers to maintain electronic health records and use the HCEN platform.

<sup>5</sup> In contrast, 92% of IAMC members were covered by FONASA in March 2019.

through the general budget.<sup>6</sup> In 2018, the ASSE executed a budget of US\$1.144 billion.<sup>7</sup>

- 1.9 **Organizational structure of the ASSE.** The health reforms established the Ministry of Public Health as the apex agency for the health system, while the ASSE, as a decentralized agency, is the main public provider of health services.<sup>8</sup> The ASSE has more than 900 healthcare units across the country, including 44 medium and high-complexity hospitals. Lower-complexity services (polyclinics and health centers) are organized into Primary Care Networks at the department level. The management of ASSE healthcare and administrative and financial processes is implemented by 68 executing units, most of which are hospitals and primary care networks. The ASSE central administration is also one of these units; it is responsible for the general coordination of all the other units.
- 1.10 **Human resources and pharmacies.** As of March 2019, the ASSE had almost 36,000 staff (administrative and clinical), of which 75% are permanent (“Rubro Cero,” or Category Zero) and the rest have been hired under private law through the ASSE Support Commission (22%) and the “Patronato del Psicópata” mental health trust (3%). Payroll accounts for around 61% of the ASSE budget. Meanwhile, 224 of the ASSE’s healthcare units are authorized to dispense medication, of which 41% have their own pharmacies. (The remainder must refer users to one of the units with a pharmacy.) Medications account for around 7.5% of the ASSE budget.

#### **4. Progress and challenges in the strategic use of information for managing the ASSE**

##### **a. Progress**

- 1.11 **Availability of service delivery information.** The ASSE has made significant progress in recent years in digitizing the healthcare and clinical information produced by its services. It is currently executing the “100% connectivity” project, which will allow all of its healthcare units to access the institution’s data communication network by March 2020. The ASSE has also succeeded in classifying and creating electronic records for the vast majority of its clinical events in the following healthcare services (interoperating with other SNIS providers within the framework of the HCEN): nonurgent outpatient services, oncology outpatient services, emergency and urgent care services, hospital admission services, surgery blocks, laboratories, and imaging services [7]. In addition, it has developed a management information service (SIG) that is based on a data warehouse with a business intelligence tool. The latter allows indicators to be calculated for pre-built and on-demand reports, using the information generated by its systems and organizational structure.
- 1.12 **Implementation of the purchasing and supply modules of the integrated administrative management system.** Since 2012, the AGESIC has been leading the implementation of an integrated administrative management system (Government Resource Planning (GRP)) within the framework of the Digital Uruguay

---

<sup>6</sup> The remainder belong to the police and military health services, while a smaller number pay enrollment contributions.

<sup>7</sup> In the same year, the budget executed by IAMC members was 1.25 times that of the ASSE [2].

<sup>8</sup> Law 18,161/2007.



Agenda. This resource planning and management system integrates budgetary, financial, accounting, and logistics information and is aimed at consolidating this type of information within government bodies, standardizing and enhancing the efficiency of processes, and promoting good practices. Beginning in November 2019, the ASSE will implement the purchasing and supply (stock management) modules of the GRP.

#### **b. Challenges**

- 1.13 **Standardizing and consolidating resource information.** Information on the ASSE's human resources (both administrative and clinical) is fragmented across multiple systems, some of which are based on obsolete information technology (IT) architecture. ASSE information regarding the geographic distribution and specializations of available personnel hours is distributed across seven different systems with different scopes and functionalities and different classifications of specializations. This complicates efforts to estimate available hours per specialist in each executing unit and care unit.<sup>9</sup>
- 1.14 Pharmacy and drug management information is also scattered across multiple systems with different functionalities and drug formularies.<sup>10</sup> None of these represents a reliable IT arrangement for the ASSE to manage costs or user medications.
- 1.15 At the same time, the ASSE lacks a systematized inventory of equipment and infrastructure, and there are no arrangements for managing maintenance and warranty expiry alerts. This creates difficulties for managing costs and increases the risk of discontinuities in health services.
- 1.16 Given such information gaps in terms of the availability and distribution of resources, the ASSE makes allocations at the level of cost centers that are cumbersome and dependent on the assumptions made.
- 1.17 **Integrating healthcare and resource information.** The issues described above with respect to the ASSE's IT systems for resources mean that such information is not entered into the SIG in a timely and reliable manner. This complicates the development of productivity and cost indicators by healthcare unit or type of service. At the same time, this system is based on a platform that (according to the ASSE's Information Systems Department) lacks the capacity to swiftly process greater data volumes resulting from the inclusion of resource information or an increase in the number of system users.
- 1.18 **Providing feedback to healthcare units and executing units.** The culture of information production in the ASSE is weighted more toward reporting than results-based management. The ASSE's healthcare units do not currently receive any systematic feedback based on the information that they produce. This lack of

---

<sup>9</sup> The Support Commission and Patronato del Psicópata have their own payroll and personnel management system. Payroll for permanent staff is managed using two systems. Sixty-five execution units use the PERSOTEC system for payroll, with separate systems for personnel management (more than 20 years old) and attendance tracking. A further three units use a different system for payroll and personnel management.

<sup>10</sup> ASSE healthcare units have seven different pharmacy and drug management systems, some of which date back to 2000.

feedback represents a lost opportunity to create incentives to report quality information in a timely manner and improve service management. The difficulties that the ASSE experiences in producing timely and reliable information about the way it invests its resources also causes it to be perceived as inefficient by two actors that are key in the SNIS (particularly in terms of budget management): JUNASA and the MEF.

- 1.19 **Using information to improve the management of healthcare services.** Indicators of healthcare service production and quality published by the MSP's National Information System show differences in performance between the ASSE and the IAMCs, as well as between ASSE departments. Although direct analysis of these indicators does not take into account differences in the socioeconomic characteristics of members or the geographic coverage of services, there is evidence to show that timely access to standardized indicators regarding production and productivity by healthcare units, as well as training in the interpretation of this information and technical assistance, can foster the implementation of continuous improvement processes to boost health service performance [12]. By way of example, a number of these differences in performance by type of provider or ASSE department are described below. Such differences can be modified by interventions of this nature.<sup>11</sup>
- 1.20 The proportion of women attending a prenatal check-up in the first trimester of pregnancy is a quality indicator for maternal and child health. Although the ASSE's performance with respect to this indicator improved from 59.3% to 71.9% between 2014 and 2018, there is still significant room for improvement: the average for the IAMCs is 91.2%. The average length of stay is an indicator of efficiency in the use of hospital beds, and in the case of medium-complexity hospitalization and intensive therapy, the average length of stay for the IAMCs is currently 43% and 39% lower, respectively.

## 5. Program logic and strategic alignment

- 1.21 **Program value added.** The program is envisioned as a strategy for organizational culture change, based on the promotion of results-based management that draws on information flowing from the ASSE's healthcare units to its management structures. The program also represents a platform for enriching the dialogue between the ASSE and the MSP and MEF, based on more comprehensive, timely, and higher-quality information on healthcare provision and resources. The execution structure for the program has been designed to reflect technical progress in implementing the GRP and the Salud.uy initiative.
- 1.22 **Bank operations and lessons learned.** The Bank is supporting the achievement of health sector targets included in Digital Uruguay Agenda 2020 through the conditional credit line for investment projects (CCLIP) "E-Government Management Program in the Health Sector" (document UR-X1009), under which two individual operations have so far been approved. The first has already been completed (3007/OC-UR), while the second has attained an 80% financial execution rate (4300/OC-UR). These operations have financed, among other things, the development and implementation of the HCEN and the Electronic Oncology Record

---

<sup>11</sup> The economic analysis annex ([optional link 1](#)) presents this information in greater detail and expands the evidence on interventions of this nature that have been effective in reducing the differences.

- and Integrated Diagnostic Imaging Network systems currently used by the ASSE. One of the lessons learned from these operations is the importance of implementing a change management strategy to support organizational changes based on the introduction of new IT tools. Component 3 of the program therefore proposes a consultancy to design and implement a change management strategy that will guide the implementation of the technological solutions envisioned in Component 1, as well as promoting the use of the management information system dashboards for ASSE healthcare and executing units proposed in Component 3.
- 1.23 Program design has benefited from the lessons learned and development of ASSE IT and management tools under two technical cooperation agreements, both of which are in the process of contract closure. These have supported the development of the SIG primary care module (ATN/OC-15001-UR) and the HCEN for emergency patients and hospital discharges (ATN/JF-13956-UR).
- 1.24 Implementation of the GRP is being supported in a number of government entities (including the ASSE) under the “Program to Strengthen Budget Management” (3398/OC-UR), which currently has a 77.5% financial execution rate. The implementation of this operation has yielded operational lessons regarding how to implement this type of IT tool in government agencies with diverse transactions and mixed organizational capacity. Execution arrangements for the program envision the creation of a technical committee that includes the participation of MEF technical specialists responsible for implementing the GRP, with a view to ensuring that lessons learned permeate the technical specifications for the IT solutions to be developed under Component 1.
- 1.25 Design of the operation has also benefited from the experience of the Mesoamerica Health Initiative (DE-97/09), which has generated useful tools and lessons learned for the implementation of continuous improvement processes in the health sector. As a result of this experience, Component 3 of the program includes continuous improvement pilot projects.
- 1.26 **Other lessons learned.** Program design has taken into account the factors identified in the literature as critical for the success of initiatives to develop information systems, as well as the most frequent causes of failed projects. Key factors that hinder success in information systems projects include the following: (i) insufficient user involvement in system design; (ii) a lack of managerial involvement; (iii) project complexity (particularly where the interventions target different organizations); (iv) poorly dimensioned projects that lack funding or realistic planning; (v) inadequate process reengineering or a failure to address organizational changes; and (vi) greater emphasis on technology than on organizational change [\[13\]](#).
- 1.27 **Coordination with Bank operations.** The program’s design and execution arrangements are consistent with, and will foster coordination with, two recently approved Bank operations and an additional one that is in preparation. The Budget and Financial Management Program (4705/OC-UR), which is executed by the MEF, is expected to finance the implementation of new GRP modules in different government entities, including one for equipment and infrastructure maintenance and another for cost centers. The “Strengthening Cybersecurity in Uruguay” program (4843/OC-UR), which is executed by the AGESIC, will strengthen that agency’s ability to support other government agencies in implementing data protection

- strategies. The third operation under the “E-Government Management Program in the Health Sector” CCLIP will finance, among other outputs, a new phase of the HCEN to facilitate population monitoring and the electronic prescription system.
- 1.28 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the development challenge of social inclusion and equality, through its focus on improving delivery of the health services received by ASSE users, who are overrepresented in the country’s low-income population. The program is also aligned with the crosscutting area of Institutional Capacity and Rule of Law, through its support for strengthening the management capacities of the main health service provider based on the development and promotion of IT instruments that provide ASSE healthcare units with access to timely, homogeneous, and quality information on their performance. In addition, the program will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) through the results matrix indicator “government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery.”
- 1.29 The program is aligned with the Country Strategy with Uruguay 2016-2020 (document GN-2836), as its support for the process of health reform is in keeping with the priority area of promoting equity and social inclusion. The operation is included in the Update to the Annex III of the 2019 Operational Program Report (document GN-2948-2).
- 1.30 The program is also consistent with the Health and Nutrition Sector Framework Document (document GN-2735-7), in that it supports the development of organizational change tools aimed at achieving the efficient management of public health spending to improve outcomes with available resources. Lastly, it is aligned with the Sector Strategy for Institutions for Growth and Social Welfare (document GN-2587-2), which prioritizes the strengthening of: (i) public sector management for service delivery that meets the demands of citizens; and (ii) e-Government to improve competitiveness and social integration.

## **B. Objectives, components, and cost**

- 1.31 **Program objective.** The general objective of the program is to help improve the effectiveness and efficiency of the production of public health services in Uruguay. Specifically, the program would support the production and use of timely, reliable, and homogeneous information for decision-making by the healthcare and executing units of the Government Health Services Administration (ASSE), as well as the ASSE’s central administration, the Ministry of Economy and Finance, and the Ministry of Public Health. The components of the program are as follows:
- 1.32 **Component 1: Resource management systems (US\$5.32 million).** The objective of this component is to standardize and expedite the resource information (on human resources, pharmacy and drug management, equipment and infrastructure, and costs) produced by the ASSE’s healthcare and executing units. As its first output, the component will finance the ASSE’s Integrated Human Resources System. Payroll systems for permanent staff will be merged (outside this program) as a first step towards developing the system. The system will incorporate both the management function for these resources and the attendance tracking function into the consolidated payroll system. Technical specifications will include interoperability

with the GRP so that the platform can include that cost category. This output also envisions implementation of the new system in all ASSE executing units.

- 1.33 The Integrated Pharmacy and Drug Management System will be the second output under this component. This system will be interoperable with the GRP purchasing and supply modules, the HCEN, and e-prescriptions, completing the traceability of medications by recording their use. The initial implementation of these modules in the ASSE and the future implementation of the GRP maintenance module will be complemented by a third output under this component: the Infrastructure and Equipment Inventory, which will facilitate the systematic management of the ASSE's inventory in these categories. Design of this inventory will in turn define the types and attributes of the equipment and infrastructure that will be managed using the GRP maintenance module. Facilitated by the development of the three outputs mentioned above, the component will finance implementation of the GRP cost management module in the ASSE as its fourth output, including the definition of these cost centers and the accounting rules for prorating administrative expenses and support units. To ensure interoperability between the different ASSE systems, the fifth output proposed under this component is the Integrated ASSE Master Data Platform, which will offer master tables for personnel, medications, healthcare units, equipment, infrastructure, and cost centers, among other things.
- 1.34 **Component 2: Management information system (US\$2.58 million).** The objective of this component is to use the Management Information System (SIG) to integrate the production of healthcare service information with the production of resource information, producing dashboards with specific indicators for use by the ASSE's healthcare units, the ASSE central administration, the MSP, and the MEF. This component will finance: (i) expansion of the SIG through the development of new modules for its business intelligence tool, facilitated by the information generated by the outputs under Component 1; and (ii) the development of dashboards by type of healthcare or executing unit, as well as for the ASSE central administration, the MSP, and the MEF.<sup>12</sup> This second output includes strengthening of the SIG IT infrastructure to ensure the technical viability of providing rapid access to a greater number of users.
- 1.35 **Component 3. Use of information for management (US\$1.2 million).** The objective of this component is to promote the use of SIG-generated information by the ASSE's healthcare and executing units, the MSP, and the MEF. This component will finance: (i) support for healthcare units in using information to improve service management, with a dedicated technical team for supporting these units in understanding and using the dashboards; (ii) the implementation of continuous improvement pilot projects, with specialized firms or institutes providing technical assistance to the healthcare units for the implementation of these processes, using

---

<sup>12</sup> The development of indicators for these dashboards is being supported by the Escuela Andaluza de Salud Pública, with resources from the technical cooperation operation "Strengthening the Effectiveness of ASSE Primary Care" (ATN/OC-15001-UR).

- the indicators in their respective dashboards as inputs;<sup>13</sup> and (iii) specific projects for using the information, as proposed by the MSP and MEF.
- 1.36 Four areas of high priority for the ASSE have been preliminarily identified for implementation of the continuous improvement pilot projects: (i) an increase in timely medical care for pregnancy in polyclinics belonging to lower-performing primary care networks; (ii) a reduction in waiting times in urgent and emergency care rooms in at least four hospitals; (iii) a reduction in the average length of stay in four hospitals; and (iv) a reduction in missed appointments in polyclinics belonging to one of the primary care networks (to be determined).<sup>14</sup>
- 1.37 **Administration, audit, and evaluation.** Four percent of the resources under the program will be used for administration, audit, and midterm and final evaluation expenses.
- 1.38 **Beneficiaries.** Given that the program fosters the improved production and use of information for decision-making across all of the ASSE's healthcare units, it stands to benefit the 1.3 million members of this government agency. The MEF and MSP will also benefit from implementation of the program, as they will have timely and reliable access to the information and this will help them to carry out their respective functions effectively.

### C. Key results indicators

- 1.39 **Expected outcomes.** In terms of outcomes, the program results matrix (Annex II) presents indicators that highlight the relevance of the outputs that will be developed, based on their use by the ASSE's healthcare units: (i) healthcare units that consult the SIG management dashboards at least three times per year; (ii) executing units that submit annual management plans based on their dashboards; and (iii) electronic prescriptions issued using the national e-prescription and a standard nomenclature. At the impact level, indicators have been chosen that will reflect the objectives of the continuous improvement pilot projects.
- 1.40 **Economic evaluation.** The Economic Analysis Annex ([optional link 1](#)) quantifies the ratio between the potential benefits of using information to improve the performance of ASSE health care units (based on the preliminary identification of a number of continuous improvement pilot projects) and the total cost of the program. The benefits of these indicative pilot projects are calculated as the potential savings created by: (i) avoidance of the cost of complications during pregnancy and childbirth, through an increase in timely medical care during pregnancy; (ii) a reduction in hospital admissions; (iii) a reduction in the cost of complications stemming from the amount of time taken to attend urgent cases in waiting rooms; and (iv) a reduction in the proportion of scheduled polyclinic appointments that are missed. According to the baseline scenario, which makes conservative assumptions regarding the effectiveness of the interventions, the benefit-cost ratio over five years

---

<sup>13</sup> As described in the Monitoring and Evaluation Annex ([required link 2](#)), the continuous improvement pilot projects will, by definition, have resources dedicated to the monitoring and evaluation of the achievements of these interventions. Paragraphs 3.17 and 3.18 provide further detail of the evaluation process under these pilot projects.

<sup>14</sup> Of the total number of medical appointments scheduled by the ASSE, 27.7% are missed, creating downtime for health teams and lost opportunities to reduce waiting times by providing appointments for other users.

is 1.15 (based on a discount rate of 3%). Sensitivity analyses based on other studies of the impact of the interventions confirm that the benefit-cost ratio is above one in all of the scenarios considered. In a scenario in which the benefit-cost ratio is one, the internal rate of return is 18%.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instrument

- 2.1 The total cost of the program is US\$9.5 million, of which US\$8 million will be financed by the Bank through a specific investment loan from the Bank's Ordinary Capital, with US\$1.5 million financed by a local counterpart contribution. This instrument is considered to be appropriate due to its fixed scope and the logical interdependence of its components.
- 2.2 Table 2.1 lays out the budget by component and Table 2.2 shows projected disbursements for both the IDB loan and the local counterpart contribution over the five-year period.

**Table 2.1. Estimated program costs (US\$ thousands)**

| Components                            | IDB          | Local counterpart | Total        |            |
|---------------------------------------|--------------|-------------------|--------------|------------|
|                                       |              |                   | Amount       | %          |
| 1. Resource management system         | 4,354        | 966               | 5,320        | 56         |
| 2. Management information system      | 2,212        | 368               | 2,580        | 27         |
| 3. Use of information for management  | 1,092        | 108               | 1,200        | 13         |
| Administration, evaluation, and audit | 342          | 58                | 400          | 4          |
| <b>Total</b>                          | <b>8,000</b> | <b>1,500</b>      | <b>9,500</b> | <b>100</b> |

**Table 2.2. Disbursement projections (US\$ thousands)**

| Source             | Year 1       | Year 2         | Year 3         | Year 4         | Year 5       | Total        |
|--------------------|--------------|----------------|----------------|----------------|--------------|--------------|
| IDB                | 659.0        | 3,399.4        | 2,644.7        | 1,026.0        | 270.8        | 8,000        |
| Local counterpart  | 113.6        | 643.7          | 527.7          | 169.8          | 45.3         | 1,500        |
| <b>Total</b>       | <b>772.6</b> | <b>4,043.1</b> | <b>3,172.4</b> | <b>1,195.8</b> | <b>316.1</b> | <b>9,500</b> |
| <b>Percent (%)</b> | <b>8</b>     | <b>43</b>      | <b>33</b>      | <b>13</b>      | <b>3</b>     | <b>100</b>   |

### B. Environmental and social safeguard risks

- 2.3 In accordance with the Bank's Environment and Safeguards Compliance Policy (operational policy OP-703), this has been classified as a Category "C" operation. No physical infrastructure components will be financed under the program, and no associated environmental or social risks are therefore anticipated.

### C. Fiduciary risks

- 2.4 Based on an analysis of institutional capacity using the Institutional Capacity Assessment System, the level of risk in procurement and financial management has been determined to be medium. The main determinants of this risk level are as follows: (i) the need to consolidate the strategic planning function in the ASSE; (ii) evidence of delays in procurement processes and payments in technical cooperation projects executed by the ASSE; and (iii) challenges relating to control capacity in activities at the level of the executing agencies. Should this risk materialize, this could lead to delays in execution or cost overruns. Section III describes the execution structure for the program, which has been designed to

address the first two risk determinants. In particular, it anticipates the signing of a management agreement between the ASSE's Administrative Department and the project management unit, establishing maximum response times for procurement and financial management processes. The activities planned under Component 3 include the hiring of a consulting firm in the area of change management, thus addressing the third risk determinant.

**D. Other risks and key issues**

- 2.5 **Development risks.** Four development risks have been identified, one of which is classified as high and the other three as medium. The high-level risk is that the outputs generated by the program will lack relevance or be too complex for the healthcare units to use due to: (i) the concentration of technical and IT capacity in the central administration; (ii) varying priorities and technical capacities among healthcare units; (iii) the prevailing culture in the ASSE that focuses on the use of information for reporting to more senior levels; and (iv) the emphasis that might be placed on technological issues rather than health issues, given the nature of the program. Strategies to mitigate this risk involve the implementation of change management activities and the regional deployment of technical teams to support the units included in Component 3, as well as governance arrangements for the program, which include coordination with other government agencies.
- 2.6 In terms of medium-level risks, three risks were identified relating to institutional coordination both within the ASSE and between the ASSE and other institutions: (i) the IT solutions planned under the project might be implemented in isolation by the ASSE unit directly responsible, rather than responding in a comprehensive manner to the needs of other units; (ii) the implementation of IT solutions outside the scope of the program (new GRP modules, e-prescribing) could be delayed due to the technical complexity of designing and implementing them; and (iii) given that arrangements for budget allocations are not included in the framework of the program, the program could fail to influence budget agreements between the ASSE central administration and its executing units, as well as between the ASSE and the MEF, thus reducing the program's impact by isolating it from the potential incentives that this dialogue may generate. The internal working group and the management and technical committees to be created as part of the execution arrangements for the program represent tools for mitigating these risks. These are reflected in the special contractual conditions described in paragraphs 3.9 and 3.10.
- 2.7 **Technical and financial sustainability.** The ASSE has the in-house technical capacity needed to manage and update the IT solutions that will be introduced under the program. At the same time, maintenance and administration costs for the systems are just a small proportion of the institution's budget. In addition, the program is in keeping with the priorities of the Digital Uruguay Agenda, making it part of a medium-term effort by the Uruguayan government.

### **III. IMPLEMENTATION AND MANAGEMENT PLAN**

**A. Summary of implementation arrangements**

- 3.1 **Borrower and executing agency.** The borrower for this operation will be the Eastern Republic of Uruguay, and the ASSE will perform the function of executing agency.



## 1. Execution mechanism

- 3.2 **Project management unit.** General program coordination will be the responsibility of the project management unit (PMU) that will be created in the ASSE's General Management Department. This unit will be led by a coordinator who will be appointed by the ASSE's General Management Department with the approval of the ASSE Board. The coordinator will supervise three technical employees exclusively dedicated to the program, who will be hired using program funds: (i) a monitoring and evaluation specialist with a background in health economics; (ii) a procurement management specialist; and (iii) a financial management specialist. The latter two positions will require prior experience with the Bank's policies and procedures.
- 3.3 The PMU will be responsible for, among other things: (i) preparing the technical specifications, terms of reference, and documentation for managing program procurement; (ii) preparing disbursement requests and documenting associated eligible expenditures, as well as preparing the documentation needed to process payments to suppliers contracted under the program; and (iii) preparing and implementing operational planning for the program, as well as producing progress reports and financial statements. Procurement and financial management processes will be executed by the ASSE's Administrative Department under the umbrella of the management agreement with the PMU, which will establish time frames for the implementation of the main processes.
- 3.4 **Internal working group and project technical teams.** An internal working group will be created as a body for planning and operational monitoring of the PMU. This group will consist of the PMU coordinator; the heads of the ASSE Healthcare, Human Resources, and Administrative Departments; and the head of the ASSE's Information Systems Division, which is attached to the General Management Department. The composition of this body serves the following objectives: (i) ensuring technical and operational coordination between the different ASSE departments and units; (ii) promoting implementation of the program as part of the functions of these departments and units. A Technical Output Team (TOT) will be created for each output planned under the program. The members of these teams will be exclusively dedicated to the program and may be hired using program funds. The TOTs will report for technical purposes to the functional department or unit indicated by the General Management Department, and for administrative purposes to the PMU (where team members have been hired using program funds). The PMU coordinator will call semimonthly meetings of the internal working group, and the leaders of the TOTs may participate in these meetings. The PMU, through its monitoring and evaluation technical specialist, will act as a secretariat to the working group.
- 3.5 **Management and technical committees.** To ensure that the program is consistent with budgetary and health priorities and the Uruguayan government's digital agenda, there will be a Management Committee for the program comprising the MEF (which will chair it), MSP, AGESIC, and ASSE. This committee will be responsible for establishing strategic guidelines for the program, approving annual work plans and disbursement plans, and monitoring the fulfillment of program objectives. One of the Management Committee's functions will be to approve specific operating regulations for the continuous improvement pilot projects, which will be included in an annex to the program Operating Regulations. Among other things, these specific operating

regulations are expected to include the following: (i) the areas of clinical or operational improvement that will be eligible for the pilot projects; and (ii) the eligibility or prioritization criteria for the ASSE healthcare units participating in the projects. A Technical Committee will also be created for the program, with the dual purpose of creating a venue for technical collaboration between different agencies, on one hand, and for ensuring technical consistency between the technological solutions designed under the program and those developed by other government agencies, on the other hand.<sup>15</sup> This committee will comprise the ASSE (which will chair it through the PMU), MEF, MSP, and AGESIC-Salud.uy., and it will be responsible for determining technical requirements and updating the multiyear execution plan.

- 3.6 **Cybersecurity.** The cybersecurity unit in the ASSE's Systems Division will participate in program execution through the Technical Committee meetings.
- 3.7 **Operating Regulations.** The program Operating Regulations will describe the functions of the PMU and the internal working group, as well as the relationship between the PMU and the management and technical committees.
- 3.8 **Special contractual conditions precedent to the first disbursement.** As discussed in the section on program risks (paragraphs 2.4 to 2.6), a series of contractual conditions have been identified as a tool for mitigating coordination risks both within the ASSE and between the ASSE and other government agencies.
- 3.9 **As a special contractual condition precedent to the first loan disbursement, the borrower, through its executing agency, will provide evidence of: (a) the composition, structure, and launch of the PMU and appointment of its coordinator, as approved by the ASSE Board; (b) creation of an internal working group for the program, as approved by ASSE Board; and (c) the signing and entry into force of a management agreement between the ASSE's Administrative Department and the PMU, in accordance with the terms previously agreed with the Bank.** This condition represents a mitigation action for program fiduciary risk, strengthening the strategic planning function in the ASSE and creating a mechanism to reduce the likelihood of delays in procurement and payment processes. The condition is also aimed at mitigating the development risk associated with the possibility that the IT solutions planned under the project might be implemented in isolation by the ASSE unit directly responsible, rather than responding in a comprehensive manner to the needs of other units.
- 3.10 **A further special condition precedent to the first loan disbursement will be the signing and entry into force, in accordance with the terms previously agreed with the Bank, of an execution agreement between the ASSE and the borrower, through the MEF, MSP, and AGESIC, that: (a) creates and determines the composition of the management and technical committees for the program, as well as their respective functions; and (b) specifies the process for budget allocations and resource transfers between the MEF and the ASSE.** This condition represents a mitigation action for the development risks associated with possible delays in the implementation of IT solutions outside the scope of the program (e-prescribing and GRP), as well as the possibility that the

---

<sup>15</sup> Including HCEN, e-prescribing, the GRP, and the MSP's Human Resources Control and Analysis System.

- program's rationale might be isolated from the potential budgetary incentives generated by the dialogue between the ASSE, the MEF, and the MSP.
- 3.11 **An additional special condition precedent to the first loan disbursement will be the entry into force, by means of an administrative act by the ASSE's General Management Department, of the program Operating Regulations, in accordance with the terms previously agreed with the Bank.** This condition will facilitate timely execution of the program and ensure that the details of its work plans are consistent with the provisions of the loan contract.
- 3.12 **Procurement of works, goods, and nonconsulting services.** Procurement financed wholly or in part with Bank resources will be conducted in accordance with the Policies for the Procurement of Goods and Works Financed by the IDB (document GN-2349-9) and Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9). The [procurement plan](#) contains details of the procurement contracts that will be implemented during the course of execution, as well as the procedures used by the Bank to review them.
- 3.13 **Direct contracting.** As established in the procurement plan, services relating to the development of the Integrated Human Resources Management System will be provided under a direct contract with the Uruguayan firm TILSOR, for an estimated value of US\$365,000. This is in accordance with Sections 3.10(a) and 3.11 of document GN-2350-9, which allows this method of selection for tasks that represent a natural continuation of previous work carried out by a firm, particularly where "continuity in the technical approach, experience acquired, and continued professional liability of the same consultant may make continuation with the initial consultant preferable to a new competition." [Annex III](#) describes the background to this direct contract.
- 3.14 **Disbursements.** The main disbursement modality will be advances of funds based on actual liquidity needs. These advances will preferably be made every six months, once reporting has been filed for at least 70%<sup>16</sup> of the amount in question. As documentary support, the accounting forms will need to be presented along with the financial planning spreadsheet. Documentation review will be carried out on an ex post basis. All disbursement requests will be submitted through the MEF, together with the corresponding accounting reports.
- 3.15 **Audit.** In accordance with the Financial Management Guidelines for IDB-financed Projects (document OP-273-12), the executing agency will submit audited program financial statements to the Bank within 120 days of the end of each fiscal year. The final audited financial statements for the program will be submitted within 120 days of the final disbursement date. The financial statements will be audited by the National Audit Office or by an independent audit firm eligible for Bank-financed programs.

---

<sup>16</sup> In accordance with the Financial Management Guidelines for IDB-financed Projects (document OP-273-12), this proportion is justified by the fact that payment processes are subject to preventive controls by the National Audit Office, in addition to those of the ASSE itself. This takes additional time and generally delays final payment, thus affecting the ASSE's ability to make new expenditure commitments and submit documentation to the Bank in support of new disbursement requests.

## **B. Summary of arrangements for monitoring results**

3.16 **Monitoring system.** The following instruments will be used with the aim of continuously analyzing whether progress in program execution is consistent with the fulfillment of targets for outputs and outcomes within the expected time frames and budgets:

- a. **Multiyear execution plan (PEP).** This plan is prepared based on a timeline for physical and financial execution of the outputs included in the Results Matrix, and it should encompass the full five-year program execution period. It is the main tool for monitoring program progress at the output level, and one of the Technical Committee's functions will be to conduct monthly monitoring of the PEP. The PMU will act as the technical secretariat for this committee and will be responsible for submitting any updates to the PEP approved by the committee to the Bank for its no objection. The initial update of the PEP will be prepared in the workshop to launch the program.
- b. **Semiannual progress reports.** Semiannual progress reports consolidate physical and financial progress under the program at the output level, as well as achievements at the level of outcomes and, where appropriate, impact. They should be submitted to the Bank by the executing agency within 30 days of the end of each six-month period. The format of the semiannual reports will be provided by the Bank in the launch workshop and will include: (i) progress in physical and financial execution at the output level in each six-month period, together with an analysis (where appropriate) of the reasons for significant divergences from that programmed for the period, as well as any corrective actions; (ii) progress towards targets for outcome indicators; (iii) the status of execution of the procurement plan; (iv) the status of financial execution of the budget; and (v) the status of execution of the evaluations planned in the monitoring and evaluation plan. Based on the semiannual progress reports, the Bank and the Technical Committee will meet at least twice each year to review progress under the program and the PEP update.
- c. **Midterm evaluation.** Program outcomes have been designed to reflect the relevance of the outputs, as indicated by the extent of their use by the ASSE's healthcare and executing units. To monitor this objective, once more than 50% of total program financing (including local counterpart funding) has been executed, the executing agency will submit to the Technical Committee and the Bank a qualitative evaluation report prepared by an individual consultant or external firm, financed using program funds. Based on field interviews with ASSE healthcare and executing units, this report will: (i) describe the status of implementation of the IT solutions developed under the program; (ii) analyze the units' perceptions of these systems; and (iii) describe the extent to which the information generated by these systems is used.
- d. **Annual work plan.** The executing agency will prepare an annual work plan for submission to the Bank at least 60 days before the start of each year (31 October of the prior year). The annual work plan should describe activities planned at the output level for the 12-month period.

- 3.17 **Evaluation.** The proposed evaluation will focus on the outcome indicators for the four continuous improvement pilot projects. The specific question to be answered through the evaluation is “how did the indicator change (before vs. after) in the locations (departments, hospitals, or polyclinics) where the pilot projects were implemented?” The program would be evaluated using the pre- and post-intervention methodology, comparing trends in the selected outcome indicators before and after the operation.
- 3.18 The means of verification for each indicator are described in the Results Matrix. Given that self-evaluation processes are a critical part of continuous improvement cycles, the costs of the evaluation are included in the budget for the pilot projects. As part of the pilot projects, a consulting firm will be hired to advise the targeted units regarding the specific steps that need to be taken to achieve the desired results, as well as the methodology and self-evaluation processes.

| Development Effectiveness Matrix   |   |   |
|--|---|---|
| Summary  |   | UR-L1161  |
| <b>I. Corporate and Country Priorities</b>   |   |   |
| <b>1. IDB Development Objectives</b>   |   |   |
| Development Challenges & Cross-cutting Themes  | -Social Inclusion and Equality<br>-Institutional Capacity and the Rule of Law   |   |
| Country Development Results Indicators   | -Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)* |   |
| <b>2. Country Development Objectives</b>   |   |   |
| Country Strategy Results Matrix  | GN-2836   | Support for health care reform  |
| Country Program Results Matrix   | GN-2948-2   | The intervention is included in the 2019 Operational Program.   |
| Relevance of this project to country development challenges (If not aligned to country strategy or country program)  |   |   |
| <b>II. Development Outcomes - Evaluability</b>   |   | Evaluable   |
| <b>3. Evidence-based Assessment &amp; Solution</b>   |   | 9.6   |
| 3.1 Program Diagnosis  |   | 3.0   |
| 3.2 Proposed Interventions or Solutions  |   | 3.6   |
| 3.3 Results Matrix Quality   |   | 3.0   |
| <b>4. Ex ante Economic Analysis</b>  |   | 10.0  |
| 4.1 Program has an ERR/NPV, or key outcomes identified for CEA   |   | 3.0   |
| 4.2 Identified and Quantified Benefits and Costs   |   | 3.0   |
| 4.3 Reasonable Assumptions   |   | 1.0   |
| 4.4 Sensitivity Analysis   |   | 2.0   |
| 4.5 Consistency with results matrix  |   | 1.0   |
| <b>5. Monitoring and Evaluation</b>  |   | 7.0   |
| 5.1 Monitoring Mechanisms  |   | 2.5   |
| 5.2 Evaluation Plan  |   | 4.5   |
| <b>III. Risks &amp; Mitigation Monitoring Matrix</b>   |   |   |
| Overall risks rate = magnitude of risks*likelihood   |   | Medium  |
| Identified risks have been rated for magnitude and likelihood  |   | Yes   |
| Mitigation measures have been identified for major risks   |   | Yes   |
| Mitigation measures have indicators for tracking their implementation  |   | Yes   |
| Environmental & social risk classification   |   | C   |
| <b>IV. IDB's Role - Additionality</b>  |   |   |
| The project relies on the use of country systems   |   |   |
| Fiduciary (VPC/FMP Criteria)   | Yes   | Financial Management: Budget, Treasury, Accounting and Reporting, External Control.<br>Procurement: Information System. |
| Non-Fiduciary  |   |   |
| The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:                            |   |   |
| Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project |   |   |

Note: (\*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The objective of this program consists in contributing to the efficiency and effectiveness of the public health system in Uruguay, in terms of the production of public services. To achieve this objective, the program considers three components which aim to (i) standardize and facilitate the production of information by care units and execution units, (ii) integrate the information coming from the care side and the resources side, and (iii) promote the use of the information. The vertical logic is consistent with the policy conditions and indicators presented in the results matrix. The results matrix includes indicators for the main outputs, outcomes and impacts. Indicators in the results matrix meet SMART criteria and include baseline values and targets, as well as the sources and means of verification that will be used to measure them. The project includes an economic analysis showing a benefit-cost ratio of 1.15 and a return rate of 18%. Lastly, given the lack of a control group, the project considers a before-after comparison methodology to study impacts of the program.

## RESULTS MATRIX

|                           |  |
|---------------------------|--|
| <b>Project objective:</b> | The general objective of the program is to help make the production of public health services in Uruguay more effective and efficient. Specifically, the program would support the production and use of timely, reliable, and homogenous information for decision-making by the healthcare and executing units of the Government Health Services Administration (ASSE), as well as the ASSE's central administration, the Ministry of Economy and Finance (MEF), and the Ministry of Public Health (MSP). |
|---------------------------|--|

## EXPECTED IMPACTS

| Indicator   | Unit of Measurement | Baseline | Baseline Year | Final Target 2024 | Means of Verification                    | Comments   |
|---|---------------------|----------|---------------|-------------------|--|--|
| <b>Impact: Make the production of public health services more effective and efficient</b>   |                     |          |               |                   |  |  |
| Impact 1. Women receiving medical care during the first trimester of pregnancy in departments participating in the ongoing improvement pilot projects | Percent (%)         | 65.6     | 2018          | 81                | ASSE management information system (SIG) | The baseline will be the average for the four ASSE departments with the lowest rates of timely medical care in pregnancy |
| Impact 2. Average length of hospital stay for intensive care in hospitals participating in the ongoing improvement pilot projects                     | Days                | 8.7      | 2018          | 8.0               | SIG                                      | The baseline will be the average for the ASSE  |
| Impact 3. Average waiting times in emergency rooms  | Minutes             | 140      | 2018          | 125               | SIG                                      | The baseline will be the average for the ASSE  |
| Impact 4. Average user absenteeism for scheduled appointments at polyclinics participating in the ongoing improvement pilot projects                  | Percent (%)         | 17.4     | 2018          | 17.0              | ASSE Appointment Management System       | The baseline will be the ASSE average for general care appointments  |

**EXPECTED OUTCOMES**

| Outcome indicators  | Unit of Measurement | Baseline | Baseline Year | 2020 | 2021 | 2022 | 2023 | 2024 | Final Target | Means of Verification  | Comments |
|---|---------------------|----------|---------------|------|------|------|------|------|--------------|------------------------|----------|
| <b>Specific objective: Promote the use of information on healthcare and ASSE resources by ASSE healthcare units</b> |                     |          |               |      |      |      |      |      |              |                        |          |
| Outcome 1. Healthcare units that consult the SIG management dashboards at least three times per year                | Percent (%)         | 0        | 2019          | 0    | 0    | 20   | 20   | 20   | 60           | SIG reports            |          |
| Outcome 2. Executing units that prepare annual management plans based on their dashboards                           | Percent (%)         | 0        | 2019          | 0    | 5    | 10   | 15   | 0    | 30           | Qualitative evaluation |          |
| Outcome 3. Electronic prescriptions issued using the national e-prescription with a standard nomenclature           | Percent (%)         | 0        | 2019          | 0    | 10   | 20   | 20   | 20   | 70           | HCEN statistics        |          |

**OUTPUTS**

| Outputs  | Unit of Measurement | Baseline | Baseline Year | 2020 | 2021 | 2022 | 2023 | 2024 | Final Target | Means of Verification       | Comments |
|--|---------------------|----------|---------------|------|------|------|------|------|--------------|-----------------------------|----------|
| <b>Component 1: Resource management systems</b>                                    |                     |          |               |      |      |      |      |      |              |                             |          |
| Output 1.1. Integrated Human Resources Management System developed and operating   | Systems             | 0        | 2019          | 0    | 0    | 0    | 0    | 1    | 1            | Semiannual progress reports |          |
| Output 1.2. Integrated Pharmacy and Drug Management System developed and operating | Systems             | 0        | 2019          | 0    | 0    | 0    | 1    | 0    | 1            | Semiannual progress reports |          |
| Output 1.3. Inventory of infrastructure and medical equipment completed            | Inventory           | 0        | 2019          | 0    | 1    | 0    | 0    | 0    | 1            | Semiannual progress reports |          |
| Output 1.4. GRP cost management model implemented                                  | Modules             | 0        | 2019          | 0    | 0    | 0    | 0    | 1    | 1            | Semiannual progress reports |          |
| Output 1.5. Integrated Master Data Platform developed and implemented              | Platform            | 1        | 2019          | 0    | 0    | 0    | 0    | 1    | 1            | Semiannual progress reports |          |



| Outputs   | Unit of Measurement | Baseline | Baseline Year | 2020 | 2021 | 2022 | 2023 | 2024 | Final Target | Means of Verification       | Comments  |
|---|---------------------|----------|---------------|------|------|------|------|------|--------------|-----------------------------|---|
| <b>Component 2: Management Information System (SIG)</b>             |                     |          |               |      |      |      |      |      |              |                             |   |
| Output 2.1. New SIG modules developed and operating                 | Modules             | 6        | 2019          | 0    | 5    | 3    | 3    | 3    | 20           | Semiannual progress reports |   |
| Output 2.2. Dashboards developed                                    | Dashboards          | 0        | 2019          | 0    | 4    | 6    | 2    | 0    | 12           | Semiannual progress reports | By type of healthcare and executing unit, for the MEF and for the MSP |
| <b>Component 3: Use of information for management</b>               |                     |          |               |      |      |      |      |      |              |                             |   |
| Output 3.1. Healthcare units trained in the use of their dashboards | Percent (%)         | 0        | 2019          | 0    | 0    | 20   | 30   | 20   | 70           | Semiannual progress reports |   |
| Output 3.2. Continuous improvement pilot projects implemented       | Pilot projects      | 0        | 2019          | 0    | 1    | 2    | 2    | 0    | 5            | Semiannual progress reports |   |
| Output 3.3. MEF project implemented                                 | Project             | 0        | 2019          | 0    | 1    | 0    | 0    | 0    | 1            | Semiannual progress reports |   |
| Output 3.4. MSP project implemented                                 | Project             | 0        | 2019          | 0    | 0    | 1    | 0    | 0    | 1            | Semiannual progress reports |   |

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

|                          |   |
|--------------------------|---|
| <b>Country:</b>          | Uruguay   |
| <b>Project number:</b>   | UR-L1161  |
| <b>Name:</b>             | Program to Strengthen the Management of the Government Health Services Administration |
| <b>Executing agency:</b> | Government Health Services Administration (ASSE)                                      |
| <b>Prepared by:</b>      | Abel Cuba and Emilie Chapuis (FMP/CUR)  |

### I. EXECUTIVE SUMMARY

- 1.1 The total cost of the program is US\$9.5 million, of which US\$8 million will be financed by the Bank through a specific investment loan from the Bank's Ordinary Capital and US\$1.5 million will be financed by a local counterpart contribution. The borrower for this operation will be the Eastern Republic of Uruguay and the ASSE will perform the function of executing agency. General program coordination will be the responsibility of the project management unit (PMU) that will be created within the ASSE's General Management Department.
- 1.2 The ASSE's organizational and administrative structure will be responsible for executing the operation and will operate in accordance with the stipulations in paragraph 2.1 et seq. of this Annex III, i.e. through a project management unit (PMU). The PMU will be staffed by technical and administrative personnel dedicated exclusively to the program, and it will coordinate fiduciary processes with the functional departments of the ASSE (particularly the Administrative Department) within the framework of a management agreement and as part of a governance structure led by a Management Committee and comprising also a Technical Committee and an internal ASSE working group.
- 1.3 The fiduciary agreements and requirements for the program are based on the results of the institutional capacity assessment undertaken in August 2019 using the Institutional Capacity Assessment System (ICAS) methodology. This analysis determined that the level of fiduciary risk for this operation is medium.

### II. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 2.1 The ASSE is the main health service provider within Uruguay's National Integrated Health System, particularly for the low-income population and in the country's interior. Created under Act 18,161, the ASSE is "a decentralized service with legal status that has its main domicile in the capital city of the Republic."
- 2.2 The executing agency's systems are as follows:
  - (i) **Budget.** The program will use the country budget system. The loan proceeds will be included in the budget and will be allocated based on an annual agreement with the Ministry of Economy and Finance (MEF) that encompasses both the loan proceeds and local counterpart funding.

- (ii) **Treasury.** A **special** account will be opened at the Central Bank of Uruguay for the administration of program resources. This account will be part of the Treasury Single Account and will specify the name of the program.
- (iii) **Accounting and financial reporting.** The ASSE will use its **institutional** accounting system in combination with the Integrated Financial Information System (SIIF).
- (iv) **Internal control.** ASSE expenditures and payments are subject to review by the National Audit Office (TCR), while legality is subject to review by accountants delegated by the TCR.
- (v) **External control.** Annual program audits may be carried out by the TCR or an independent audit firm. All such reviews will comply with International Audit Standards.

### III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 Based on an analysis of institutional capacity using the ICAS, the level of risk in procurement and financial management has been determined as medium. The main determinants of this risk level are as follows: (i) the need to consolidate the strategic planning function in the ASSE; (ii) evidence of delays in procurement processes and payments in technical cooperation projects executed by the ASSE; and (iii) challenges relating to control capacity in activities at the executing unit level. Should this risk materialize, this could lead to delays in execution or cost overruns. Section III of the Proposal for Operations Development describes the execution structure for the program, which has been designed to address the first two risk determinants. In particular, it anticipates the signing of a management agreement between the ASSE's Administrative Department and the PMU, establishing maximum response times for procurement and financial management processes. The activities planned under Component 3 of the Proposal for Operations Development include the hiring of a consulting firm in the area of change management, addressing the third risk determinant.
- 3.2 A PMU will be created with human resources dedicated to executing fiduciary activities for the operation, including procurement and financial management. The staff dedicated to the PMU will have knowledge of the Bank's policies and procedures and will work together with the Economic and Financial Division and the Material Resources Division (both of which are attached to the ASSE's Administrative Department) within the framework of a management agreement that will ensure the fluid and efficient management of fiduciary activities. The PMU will be responsible for general program coordination and the following tasks in particular: (i) preparing the technical specifications, terms of reference, and documentation necessary for managing program procurement; (ii) preparing disbursement requests and documenting associated eligible expenditures, as well as preparing the documentation needed to process payments to suppliers contracted under the program; and (iii) preparing and implementing operational planning for the program, as well as producing progress reports and financial statements.

#### IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF CONTRACTS

- 4.1 **Exchange rate:** For accounting in U.S. dollars, the exchange rate on the effective date of the ASSE's payments to contractors will be used, with specification of the conversion method indicated in Article 4.10(b)(ii) of the General Conditions of the Loan Contract.
- 4.2 **Audited financial statements:** The audited financial statements will be presented within 120 days of the close of each fiscal year. The terms of reference are to be agreed upon with the Bank, and the auditing firm must be acceptable to the Bank, specifying the time frame for submission indicated in Article 7.03 of the General Conditions of the Loan Contract.

#### V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 The Bank's current policies for the procurement of goods and works and the selection and contracting of consulting services will apply to planned procurement activities under this operation. Where the Bank has validated the country procurement system for use in Bank-financed operations, the executing agency may use these systems or subsystems to carry out procurement financed by the loan proceeds, in accordance with the terms of the Bank's validation and the applicable validated legislation and processes. The terms of the validation will be communicated in writing by the Bank to the borrower and the executing agency.
- 5.2 All procurement will be included in the procurement plan, which will cover an initial minimum period of 18 months, with annual updates thereafter. Before initiating procurement, this procurement plan must be registered, approved, and published in the Procurement Plan Execution System ([www.iniciativasepa.org](http://www.iniciativasepa.org)). Once registered, the plan will be updated annually, or whenever warranted due to substantial changes to the original plan.
- 5.3 Determination of the relevance of each expenditure (i.e. the scope of the terms of reference, technical specifications, and budget) is the responsibility of the Bank's project team leader and will, in all cases, require his/her no objection before the procurement process may begin, based on the operational criteria of the project team leader.
- 5.4 The thresholds applicable to bidding processes in Uruguay are as follows:

|                        | ICB          |                                  | NCB          |                                  | Shopping     |                                  | ISL           |
|------------------------|--------------|----------------------------------|--------------|----------------------------------|--------------|----------------------------------|---------------|
|                        | Public works | Goods and nonconsulting services | Public works | Goods and nonconsulting services | Public works | Goods and nonconsulting services | Consultancies |
| <b>(US\$ thousand)</b> | ≥ 5,000      | ≥ 500                            | ≤ 5,000      | ≤ 500                            | ≤ 250        | ≤ 50                             | ≥ 200         |

- 5.5 Planned procurements under this operation are included in the procurement plan for the loan and can be reviewed [here](#). Consistent with paragraph 5.8 of this Annex, all listed procurement will be subject to ex ante supervision unless the procurement plan states differently during project execution. Any modification to the supervision modality must be agreed in writing with the Bank.

5.6 The main contracts under this operation are as follows:

| Component | Name of contract  | Procurement method | Estimated amount (US\$): | Ex post/ex ante review: |
|-----------|---|--------------------|--------------------------|-------------------------|
| 2.2.4     | HW Datacenter licenses  | Shopping           | 360,000.00               | Ex ante                 |
| 1.1.2     | Development and implementation of customized human resource management processes in PERSOTEC              | DC                 | 360,000                  | Ex ante                 |
| 1.3.4     | Firm: IT development of Pharmacy and Drug Management System   | QCBS               | 1,800,000                | Ex ante                 |
| 2.2.2     | Firm: Customized development of Management Information System (dashboards and integrations)               | QCBS               | 1,800,000                | Ex ante                 |
| 1.1.3     | Consultancy: implementation and launch of the Integrated Human Resource Management System                 | 3 CVs              | 680,000                  | Ex ante                 |
| 4.1.3     | Consultants: Project coordination team (procurement, financial management, and monitoring and evaluation) | 3 CVs              | 320,000                  | Ex ante                 |

5.7 **Direct contracting:** As established in the procurement plan, services relating to the development of the human resource management system, including the consolidation and integration of platforms, will be provided under a direct contract with the Uruguayan firm TILSOR, for an estimated value of US\$365,000. This is in accordance with paragraphs 3.10(a) and 3.11 of document GN-2350-9, which allows this method of selection for tasks that represent a natural continuation of previous work carried out by a firm, particularly where “continuity in the technical approach, experience acquired, and continued professional liability of the same consultant may make continuation with the initial consultant preferable to a new competition.” According to the background information shared by the ASSE, TILSOR has been responsible for designing a customized system (PERSOTEC) based on the requirements of the Ministry of Public Health, and has managed the payroll programming processes that have been in use since 2008 with satisfactory results. As a result, the company (supported by officials responsible for operations in the Division for Remunerations and Human Resources Information Technology Operations) performs tasks that involve a high level of performance and knowledge of all of the processes. PERSOTEC has been continuously modified based on the requirements of the Administrative Management Department, Division for Remunerations and Human Resources Information Technology Operations, meeting existing rules and regulations and resolving all challenges in a satisfactory manner. Auxiliary modules have been incorporated to bridge gaps in other systems or to absorb tasks that could not be developed in the other systems.

5.8 **Procurement supervision:** Given the executing agency’s experience and performance, procurement activities will be subject to ex post review, with the exception of those cases in which ex ante supervision is justified and explicitly specified in the procurement plan. Ex post reviews will be conducted every

12 months in accordance with the program supervision plan. The following table sets out the thresholds applicable to the foregoing:<sup>1</sup>

| Threshold for Ex Post Review (US\$ thousands) |       |                     |
|---|-------|---------------------|
| Works   | Goods | Consulting Services |
| ≤ 5,000                                       | ≤ 500 | ≤ 200               |

- 5.9 **Records and files:** Project reports will be prepared and filed using the agreed forms or procedures that are described in program Operating Regulations<sup>2</sup> and are consistent with the relevant policy requirements.

## VI. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL MANAGEMENT

### A. Programming and budget

- 6.1 The ASSE follows budget rules that require the preparation and submission of a five-year budget to the executive branch; this is then consolidated by the MEF before 31 July of the first year of the government's term in office. Reallocations and any increases in the annual budget are prepared by the executive branch when it presents its accountability and budget execution statements. The program budget will be managed through the "Various Credits" budget line (Subsection 24, Executing Unit 29), which will include the Bank loan and local counterpart funding from general revenues.
- 6.2 The country's Integrated Financial Information System (SIIF) will be used to manage the program budget. The PMU, through the ASSE's Administrative Department, will arrange the program budget and local counterpart funding each year.

### B. Accounting and information systems

- 6.3 In addition to recording program transactions in the SIIF, the ASSE will use the institution's Contawin system for program accounting. Contawin allows accounting to be performed on a project basis, and a new independent database will be opened in the system for exclusive use in this program. Although two sets of records will be maintained, the Contawin and SIIF records will be reconciled periodically.
- 6.4 Program accounting will be consistent with International Accounting Standards. Specific book accounts will be determined that will be directly related to the program components and the outputs established for program monitoring (project monitoring reports).
- 6.5 The program financial statements, which will be issued periodically and audited annually, will comprise the following: (i) statement of cash received and disbursements made; and (ii) statement of cumulative investment, together with the respective explanatory notes.

<sup>1</sup> Note: Ex post review thresholds are applied based on the executing agency's fiduciary capacity. They may be modified by the Bank as a result of changes in fiduciary capacity.

<sup>2</sup> The draft project Operating Regulations may be reviewed [here](#).

**C. Disbursements and cash flow**

- 6.6 Program funds will be managed through the Treasury Single Account, to which end the National Treasury will open a special account at the Central Bank of Uruguay at the request of the ASSE. This account will receive the funds disbursed by the Bank, which will then be transferred to a specific bank account for the program at the State-owned commercial bank (Banco de la República Oriental del Uruguay) for purposes of making the corresponding payments.
- 6.7 Disbursements will be made in the form of advances of funds, based on actual liquidity needs and supported by adequate financial and disbursement projections. These advances will preferably be made every six months, once reporting has been filed for at least 70% of the amount in question.<sup>3</sup> As documentary support, the accounting forms will need to be presented along with the financial planning spreadsheet. The eDisbursements system will be used to process disbursement requests. The exchange rate for the conversion of local currency payments into the currency used for the loan will be the one prevailing on the date of payment. All disbursement requests will be submitted through the MEF, together with the corresponding accounting reports.

**D. Internal control and audit**

- 6.8 The internal control system is based on the country system defined in the laws and regulations currently in force. As established in the Consolidated Text on Accounting and Financial Administration, the TCR will exercise preventive intervention in all expenditures related to program implementation. The ASSE also has an internal audit team with an annual work plan.
- 6.9 With respect to institutional controls, given that the fiduciary processes will be carried out by the formal structures established in the ASSE, the staff responsible for fiduciary management in the coordination unit will maintain a direct relationship with counterparts in the different areas/units of the ASSE's Financial Department, in observance of an institutional management agreement that will establish processing times for program fiduciary processes. The program Operating Regulations will set out the operational aspects of these relationships and functioning that are covered by the provisions of the management agreement.

**E. External control and reports**

- 6.10 For the duration of the program disbursement period, the audited financial statements will be presented annually by 30 April of the following year. The last financial audit report for the program will be submitted within 120 days of the final disbursement date. The audit contract and corresponding terms of reference will be consistent with the Financial Management Guidelines set out in document OP-273-12. Audit costs will be financed using loan proceeds. The program audit may be conducted by the TCR or an independent audit firm.

---

<sup>3</sup> In accordance with the Financial Management Guidelines for IDB-financed Projects (document OP-273-12), this proportion is justified by the fact that payment processes are subject to preventive controls by the TCR, in addition to those of the ASSE itself. This takes additional time and generally delays final payment, thus affecting the ASSE's ability to make new expenditure commitments and submit documentation to the Bank in support of new disbursement requests.

**F. Financial supervision plan**

- 6.11 The financial supervision plan allows for participation in the meetings held to monitor the project's risk matrix, as well as in the review of the annual audit report. This could result in on-site visits to update knowledge of the internal systems.



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/19

Uruguay. Loan \_\_\_/OC-UR to the Eastern Republic of Uruguay  
Program to Strengthen the Management of ASSE

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Eastern Republic of Uruguay, as Borrower, for the purpose of granting it a financing aimed at cooperating in the execution of the Program to Strengthen the Management of ASSE. Such financing will be in the amount of up to US\$8,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_ \_\_\_\_\_ 2019)