

TC Document

I. Basic Information for TC

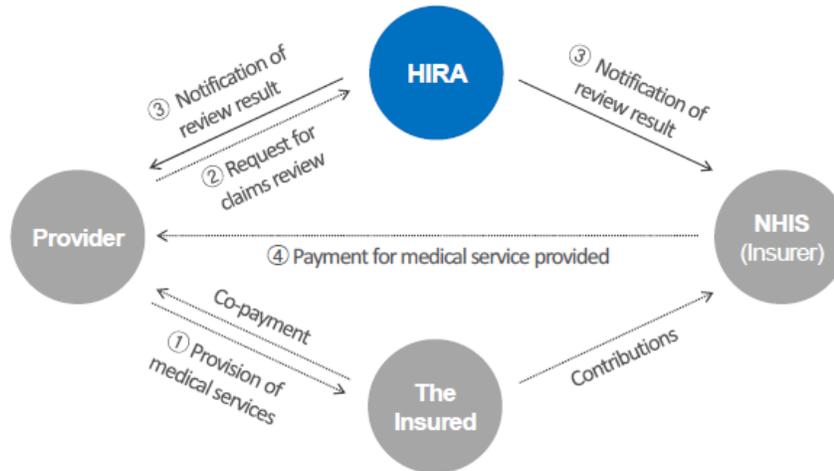
▪ Country/Region:	REGIONAL
▪ TC Name:	Knowledge Sharing between LAC and Korea In Healthcare Digital Transformation
▪ TC Number:	RG-T3498
▪ Team Leader/Members:	Tejerina, Luis R. (SCL/SPH) Team Leader; Nelson, Jennifer A (SCL/SPH) Alternate Team Leader; Centeno Lappas, Monica Clara Angelica (LEG/SGO); Delfs Ilieva, Isabel (SCL/SPH); Hwang, Euisu (SCL/SPH); Park, Mihwa (SCL/SPH)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	05 Jun 2019.
▪ Beneficiary:	Argentina, Brazil, Chile, Colombia, Costa Rica, Peru, Uruguay
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Korea Poverty Reduction Fund(KPR)
▪ IDB Funding Requested:	US\$500,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	24 months (both)
▪ Required start date:	November, 2019
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	SCL/SPH-Social Protection & Health
▪ Unit of Disbursement Responsibility:	SCL-Social Sector
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law

II. Objectives and Justification of the TC

- 2.1 The objective of this technical cooperation is to facilitate knowledge sharing between South Korea and health workers in the Latin America and Caribbean Region through virtual and in person training in the use of technology in the provision of specialized hospital services and the purchase of health services from private providers to increase efficiency in public spending.
- 2.2 Two of the major challenges in the region regarding healthcare are quality of care and efficiency. Latin American countries can increase the average life expectancy of people by four years while maintaining current health and medical spending levels if they have the efficiency of OECD countries. The potential of digital technologies to improve efficiency in health has been demonstrated, however, to reap the benefits from technology it is important to go beyond purchasing technology and to think about digital transformation. Digital transformation is more complex and requires changes in people, processes and technology. The complexity of the health sector and especially technology for health services has caused lagging progress in the digital transformation of the sector, especially in Latin America and the Caribbean (LAC). For example, of the 19 countries included in a 2016 study by the Pan-American Health

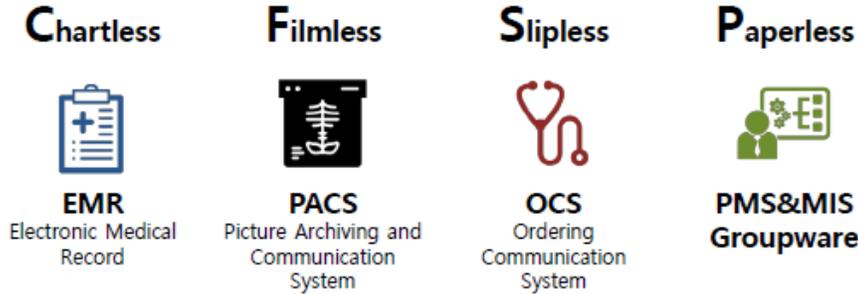
Organization (PAHO), only 52.6% have a national electronic health record (EHR) system and only 26.3% have legislation that supports the use of such systems. Furthermore, the data available are often of low quality and are fragmented across systems. These facts highlight the potential benefits from learning from outside the region regarding digital transformation in health. Asia, specifically South Korea has many world-class experiences on digitalization of healthcare that could benefit the region in terms of knowledge transfer.

- 2.3 Combined with a strong IT infrastructure, Korea's healthcare has achieved a high level of digitalization, which has led to improved quality and efficiency of health care services. All medical institutions in South Korea are contracted with a single state-run insurer, the National Health Insurance (NHI) and claims are reviewed by The Korea Health Insurance Review & Assessment Service (HIRA) which in 2017 handled 1.51 billion cases from 92,000 medical institutions and executed US\$72 billion. Through the use of advanced algorithms, HIRA is able to identify unnecessary care and prevent fraud by health care providers that, if unchecked, would drive up costs. Through the careful use of digital technology, HIRA has helped save US\$1.19 billion, compared to only US\$34 million of savings from on-site visits. Big data analysis is used not only for payment of medical expenses, but also for quality improvement of medical services and patient safety management. Using such accumulated data, the government decides which healthcare services to increase and how much more to spend. The system also benefits the patients by improving medical services through quality assessment.



- 2.4 At the level of health providers, South Korea also has successful experiences from which the region could learn. Since 2016, the country has created the legal base for the creation of Health Information Exchanges among medical institutions. In this environment, more than 90% of medical institutions have actively introduced Electronic medical records (EMRs). The Hospital Information System (HIS), built by Seoul National University Hospital Bundang (SNUBH), one of South Korea's top tertiary hospitals, was the first non-U.S. medical institution to receive Health Information and Management System Society (HIMSS) stage seven certification in 2010 and was recertified in 2016. As a fully digitalized hospital, SNUBH is using health information technology to improve quality of care in a more comprehensive manner. Via HIS, the hospital, physicians, and patient can share information and data which are linked to various devices, providing effective medical services. Furthermore,

clinical data warehouse (CDW) is linked with HIS, which enables the hospital to analyze data easily. SNUBH also has a training program through which about 300 people from 20 nationalities have already been trained annually in the areas of internal medicine, general surgery, obstetrics & gynecology.



- 2.5 The Social protection and health sector of the Bank has identified in its Approach to Digital Transformation: Guidelines and Recommendations the need to promote sustainability of digital investments through the support of regional networks to improve local capacity through training and knowledge exchange in health informatics. One such network is the *Red Americana de Cooperación para la Salud Electrónica (RACSEL)*, whose members (Costa Rica, Uruguay, Chile, Peru and Colombia) have developed a series of recommendations and guidelines for digital health. It is from this need that the opportunity for knowledge sharing and policy recommendations with a country as advanced in digital health as Korea was identified. Two additional countries have been added due to its high level of development in digital health (Argentina and Brazil are the only countries in the region along with Chile that have HIMSS level six certified hospitals in the region).
- 2.6 The program is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (AB-3008) and is strategically aligned with the development challenge of: Social inclusion and equality, Institutional capacity and rule of law, and productivity and Innovation by increasing efficiency, and quality of healthcare to the citizens of the region. The program is also aligned with the cross-cutting theme of: Institutional Capacity and Rule of Law by empowering management skills for public institutions related to health. The program is aligned to the indicator #2 “Beneficiaries receiving health services”, and the indicator #15 “Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery” of the Corporate Results Framework (CRF) 2016-2019 (GN-2727-6) since various government health related institutions and public hospitals will be strengthened through the education programs and leadership training supported by this TC. In addition, the TC is aligned with dimension four of the Health and Nutrition Sector Framework Document (GN-2735-7) as it aims to increase efficiency and leadership by health authorities.
- 2.7 The TC is also aligned to the Bank’s Country Strategy with all seven beneficiaries. One of the strategic areas of each beneficiary countries are aligned with the TC as the TC will support with strengthening the capacity of healthcare in the countries; Argentina (2016-2019) (i) strengthen the quality of primary health care services for prevention and early detection of noncommunicable chronic diseases;

Brazil (2019-2022) (i) Reduce social inequality and inequality of opportunity by enhancing public policy efficiency; Chile (2019-2022) (i) Improve social development, particularly in protection of children, families, and access to health, and promote an inclusive society as regards gender, indigenous peoples, older adults, and people with disabilities (Improved quality of healthcare and reduced public health risks); Colombia (2019-2022) (i) Pact for greater equity (Consolidate a sustainable and inclusive pension and health system); Costa Rica (2015-2018) (i) Strengthening the human capital accumulation strategy; Peru (2017-2021) (i) Institutional strengthening and delivery of basic services; and Uruguay (2016-2020) (i) Priority health programs; strengthening the first level of care, integrated health services networks, and ASSE and RIEPS leadership, strategic plan for health workers, better targeted financing (To improve the first level of health care). Through this TC, the countries will learn ways to improve quality of healthcare and efficiency of health services as the capacities of government authorities in charge of healthcare and major hospitals will be strengthened.

III. Description of activities/components and budget

- 3.1 This TC will provide access to two knowledge sharing programs for health practitioners from the region; and will be divided into three components: The first component will fund participation in an education program on how Korea's health insurance system and value-based payment system were designed. The second component will be a training program in hospital management in a digital hospital to share Korea's experience on how to create efficient health services and medical innovation. The third component will fund a set of recommendations and an evaluation of the results of the training programs.
- 3.2 **Component 1: Value-based purchasing in healthcare (US\$213,000).** This component will fund the participation of 15 healthcare workers from LAC in the two-week education program run by the The Health Insurance Review (HIRA) in Korea, and the National Health Insurance Corporation (NHI). Participants of this program will be policy makers and/or senior level health insurance practitioner from governments and relevant health insurance agencies from participating countries. Participants will learn about Korea's value-based purchasing experience and its implications from prominent experts inside and outside HIRA. Through this program, the participants will understand how to build and operate evidence based national health insurance management systems, and how to conduct strategic purchasing to achieve universal health coverage. Furthermore, they will learn re-engineering business tools to identify challenges and opportunities in their countries to move toward a "value-based health system". The course will include sessions on how to apply the lessons learned in LAC countries, and on-site visiting programs to related healthcare institutions such as hospitals, pharmacy, and drug manufacturers. The component will fund the participants' travel expenses and program expenses. After the training, HIRA will develop a regional policy recommendation for value-based purchasing in healthcare.
- 3.3 **Component 2: CEO Leadership Academy (US\$207,000).** This component will fund the participation of 20 hospital leaders from the region for a one-week course in South Korea. SUNBH, as a full digital hospital, will share its experience on how they have achieved digital transformation with LAC hospital leaders. Potential participants will preferably be senior executives from regional core hospitals, or general hospitals with over 150 beds. Participants will see the streamlined hospital operation and management of SNUBH through lectures and visits to core departments. They are

expected to learn about SNUBH’s hospital management, quality and patient safety, clinical management, and business strategies through this program. This course includes a session on healthcare information systems, focusing on the importance of information systems and digital transformation in successful management of hospitals for both providers and clients. SNUBH will demonstrate smart solutions including mobile EMR, Dashboards, bedside Stations, e-Consent forms, the patient portal, diabetes management, and so on. The component will fund the participants’ travel expenses and program expenses. After the training, SNUBH, will develop a regional policy recommendation for digital hospitals.

- 3.4 **Component 3: Policy Recommendations and Evaluation (US\$80,000).** Two individual consultants will be hired. One to coordinate logistics and a second one to evaluate the program at the end of the course to document how learning was implemented in each of the countries that were able to benefit from the training. The evaluation will be conducted through interviews and focus groups of participants.
- 3.5 The total cost of this TC will be US\$500,000, which will be financed by the Korea Poverty Reduction Fund (KPR).

Indicative Budget US\$

Activity/Component	Description	IDB Total Funding
Component 1: Value-based purchasing in healthcare	Includes travel costs for participants and fees for training	213,000
Component 2: CEO Leadership Academy	Includes travel costs for participants and fees for training	207,000
Component 3: Coordination and Evaluation	Hiring consultants for coordination and evaluation	80,000
Total		500,000

IV. Executing agency and execution structure

- 4.1 The Bank will execute the technical cooperation since it is a regional technical cooperation and a suitable agency with the capacity to execute could not be identified. The TC depends on direct coordination between specialists and their counterparts in each country. Moreover, sustainability of the project will not be affected by the Bank being the executing unit since it is expected that the Bank itself will disseminate and implement learning from this TC in future projects and will coordinate directly with beneficiary institutions. All activities to be executed under this TC have been included in the Procurement Plan (see Annex III) and will be contracted in accordance with Bank policies as follows: (a) AM-650 for Individual consultants; (b) GN-2765-1 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature and; (c) GN-2303-20 for logistics and other related services. The Health Insurance Review and the Seoul National University Hospital Bundang will be hired through single source selection for the training courses and development of policy recommendations. HIRA is exceptionally qualified for this service due to its use of artificial intelligence to minimize costs and it is the only agency in South Korea which provides health insurance review services, and that manages the value-based payment system. SNUBH also has exceptional qualifications since it is the first nonU.S-. hospital to achieve HIMSS level seven certification (¶2.4), and it is the leading hospital in digital hospital management in Korea.

V. Major issues

- 5.1 The project is based on knowledge transfer, for which it is very important to choose the right people in the right places and to follow up on trainees to ensure that training spreads beyond the trainees to other personnel and that lessons learned are actually implemented in the field. Among the main risks are that because the participants identified are not in areas where lessons learned are implemented knowledge does not directly transfer to improvements in the provision of services. Bank specialists will work with Government counterparts to identify the best candidates consistent with the profiles described in section III. Another risk is that the training provided is not applicable to the realities in the region given the gap in the use of technology between South Korea and LAC. To mitigate this risk surveys will be collected from participants and shared with the trainers to ensure that material is consistent with the realities of LAC countries in terms of resources.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to Bank Policy.

VII. Environmental and Social Strategy

- 7.1 The ESG classification for this operation is "C" since no negative environmental or socioeconomic impacts are expected. See filters [SPF](#) and [SSF](#)

Required Annexes:

[Results Matrix - RG-T3498](#)

[Terms of Reference - RG-T3498](#)

[Procurement Plan - RG-T3498](#)