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BRAZIL

**MODERNIZATION AND QUALITY IMPROVEMENT OF
HEALTH SERVICES NETWORKS IN BELO HORIZONTE
BETTER HEALTH BH**

BR-L1519

LOAN PROPOSAL

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LINKS	
REQUIRED	
1.	Multiyear execution plan / annual work plan
2.	Monitoring and evaluation plan
3.	Environmental and social management report (ESMR)
4.	Procurement plan
OPTIONAL	
1.	Economic analysis of the project
2.	Climate finance
3.	Environmental filters
4.	Draft Operating Regulations

ABBREVIATIONS

AWP	Annual work plan
CAPS	Centros de atenção psicossocial [psychosocial care centers]
CERSAM	Centro de referência em saúde mental [mental health referral center]
CERSAMI	Centro de referência em saúde mental infanto-juvenil [mental health referral center for children and youth]
CINT	Central de Internação [Hospital Admissions Center]
CGM	Contraloria Geral do Município [Office of the Municipal Comptroller General]
CNCDs	Chronic noncommunicable diseases
DATASUS	Departamento de Informática do Sistema Único de Saúde [Information Technology Department of the Unified Health System]
DVT	Deep vein thrombosis
ESA	Environmental and social analysis
ESMP	Environmental and social management plan
FHS	Family Health Strategy
GIS	Grupo de Inovação em Saúde [Health Innovation Group]
IBGE	Instituto Brasileiro de Geografia e Estatística [Brazilian Institute of Geography and Statistics]
HCN	Health care network
HICC	Hospital Infection Control Committee
HOB	Hospital Odilon Behrens [Odilon Behrens Hospital]
HVI	Health vulnerability index
LDO	Lei de Diretrizes Orçamentárias [Budgetary Guidelines Law]
LOA	Lei Orçamentária Annual [Annual Budget Law]
PGM	Procuradoria Geral do Município [Office of the Municipal Attorney General]
PHC	Primary health care
PMR	Progress monitoring report
PMU	Project management unit
PNPS	Política Nacional de Promoção da Saúde [National Health Promotion Policy]
PPA	Plano Plurianual [Multiyear Plan]
PPP	Public-private partnership
RIPSA	Rede Interagencial de Informações para a Saúde [Interagency Health Information Network]
SAD	Sistema de apoio à decisão [decision support system]
SAMU	Serviço de Atenção Móvel de Urgência [Mobile Urgent Care Service]
SIA-SUS	Sistema de Informações Ambulatoriais do Sistema Único de Saúde [Ambulatory Information System of the Unified Health System]
SIES	Sistema de Insumos Estratégicos [Strategic Inputs System]

SIH/SUS	Sistema de Informações Hospitalares do Sistema Único de Saúde [Hospital Information System of the Unified Health System]
SIM	Sistema de Informações de Mortalidade [Mortality Information System]
SINASC	Sistema de Informações sobre Nascidos Vivos [Live Birth Information System]
SISREDE	Sistema de Informação de Saúde em Rede [Networked Health Information System]
SISREG	Sistema de Centrais de Regulação [System of Regulation Centers]
SMOBI	Secretaria Municipal de Obras e Infraestrutura [Municipal Works and Infrastructure Department]
SMSA	Secretaria Municipal de Saúde [Municipal Health Department]
SOF	Sistema de Orçamento e Finanças [Budget and Finance System]
SUALOG	Subsecretaria de Administração e Logística [Office of the Undersecretary for Administration and Logistics]
SUDECAP	Superintendência de Desenvolvimento da Capital [Superintendency for Development of the Capital]
SUS	Sistema Único de Saúde [Unified Health System]
TCE/MG	Tribunal de Contas do Estado de Minas Gerais [State of Minas Gerais Audit Office]
UBS	Unidade básica de saúde [basic health unit]
UPA	Unidade de pronto atendimento [urgent care unit]

PROJECT SUMMARY

BRAZIL MODERNIZATION AND QUALITY IMPROVEMENT OF HEALTH SERVICES NETWORKS IN BELO HORIZONTE BETTER HEALTH BH (BR-L1519)

Financial Terms and Conditions				
Borrower: Município of Belo Horizonte			Flexible Financing Facility^(a)	
Guarantor: Federative Republic of Brazil			Amortization period:	25 years
Executing agency: Município of Belo Horizonte, acting through its Municipal Health Department (SMSA)			Disbursement period:	5 years
			Grace period:	5.5 years ^(b)
Source	Amount (US\$)	%	Interest rate:	LIBOR-based ^(d)
IDB (Ordinary Capital):	56 million	80	Credit fee:	^(c)
			Inspection and supervision fee:	^(c)
Local:	14 million	20	Weighted average life:	15.25 years
Total:	70 million	100	Approval currency:	U.S. dollars from the Ordinary Capital
Project at a Glance				
Program objective/description: The program objective is to contribute to the health of the population by increasing access to health services, as well as their quality and efficiency, in the Município of Belo Horizonte.				
Special conditions precedent to the first disbursement of the loan proceeds: (i) the program Operating Regulations have been approved on the terms agreed upon with the Bank; (ii) the following members of the project management unit (PMU), created within the executing agency, have been appointed: general coordinator, executive coordinator, and technical/environmental, administrative/financial, monitoring and evaluation, and procurement specialists; and (iii) the project's Special Bidding Commission has been created (see paragraph 3.6).				
Special contractual conditions for execution: See Annex B of the environmental and social management report (required link 3).				
Exceptions to Bank policy: None.				
Strategic Alignment				
Challenges:^(e)	SI	<input checked="" type="checkbox"/>	PI	<input type="checkbox"/>
Crosscutting issues:^(f)	GD	<input checked="" type="checkbox"/>	CC	<input checked="" type="checkbox"/>

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

^(b) 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.

^(c) The credit fee and the 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 relevant policies.

^(d) The original weighted average life may be shorter depending on the date of loan contract signature.

^(e) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(f) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. PROJECT DESCRIPTION AND RESULTS MONITORING

A. Background, problem to be addressed, and rationale

1. Social and health conditions

- 1.1 **Economic and social context.** Belo Horizonte has an estimated population of 2.5 million and the fourth largest gross domestic product (GDP) among Brazil's municípios. Around 44% of GDP and 28% of the population of the State of Minas Gerais is concentrated in the metropolitan region of Belo Horizonte. Belo Horizonte's sizeable representation in the economy belies sharp disparities in its social indicators with a municipal human development index (MHDI) ranging between 0.955 and 0.597.¹ In addition, in terms of the health vulnerability index (HVI)² of the nine municipal health districts, 47.5% of households in the most vulnerable health district (North) have a high or very high HVI, compared to only 12.8% in the least vulnerable district (Northwest).
- 1.2 **Health progress.** Between 2000 and 2010, life expectancy in Belo Horizonte rose from 72.0 to 76.4 years, above the figure for the country as a whole (73.3 years). The infant mortality rate has been reduced from 34.6 deaths per 1,000 live births in 1993 to 9.3 in 2016.³ Maternal mortality has also trended downward from 92.5 deaths per 100,000 live births in 1998 to 37.9 deaths in 2016, but there is still room to improve perinatal care in terms of quality and access for vulnerable groups.⁴ Coverage for the major vaccinations in children under the age of one varies between 85% and 98%, within the ranges necessary for the control of epidemics.
- 1.3 **Epidemiological/mortality profile.** A steady decline in birth and fertility rates and longer life expectancy are graying the population. The percentage of the population aged 65 or older grew from 4.7% to 8.7% between 1991 and 2010. This rapid demographic transition is accompanied by an increase in chronic noncommunicable diseases (CNCDs) in the morbidity/mortality burden. In 2016 CNCDs were responsible for approximately three out of every four deaths, led by circulatory system diseases (23.4%), neoplasias (20.6%), and respiratory diseases (11.0%). Communicable and mother and infant diseases are responsible for only 13% of deaths. In addition, external causes (accidents, assaults, etc.) represent 10% of deaths.⁵ Inequities in health conditions due to the socioeconomic status of the population of Belo Horizonte are reflected in indicators such as post-neonatal mortality, with a risk 2.5 times higher in areas with high and very high HVI.

¹ Atlas of Human Development in Brazil. 2013. United Nations Development Programme (UNDP), Instituto de Pesquisa Econômica Aplicada [Institute of Applied Economic Research] (IPEA), Fundação João Pinheiro (FJP).

² The HVI consists of indicators of sanitation, housing, education, income, social and urban conditions. Prefeitura Belo Horizonte. 2013. Índice de vulnerabilidade da saúde 2012 [health vulnerability index 2012]. Belo Horizonte.

³ As malnutrition and infectious, parasitic, and respiratory diseases, which are the main causes of post-neonatal mortality, decreased, the causes of neonatal deaths increased in relative terms, including premature birth, birth asphyxia, and neonatal infections.

⁴ The principal causes of maternal death are hypertensive syndrome (preeclampsia) and postpartum hemorrhage.

⁵ This figure is alarming in that most deaths are premature and, in principle, avoidable.

- 1.4 **Morbidity.** Taking hospitalizations as a proxy for morbidity, the most relevant conditions during the period 2012-2016 include external causes, circulatory diseases and neoplasias, all trending upward, as well as infectious diseases caused, in 2016, by a dengue epidemic. Common mental disorders such as anxiety and depression are an important cause of morbidity and may affect up to 16% of the population aged 15 or older,⁶ with a higher prevalence among women, less educated and lower income people, and those with chronic problems and diseases. The rate of these conditions among people treated at primary care centers in four large Brazilian capitals was above 50%.⁷
- 1.5 **Health challenges.** Belo Horizonte's social and health indicators reveal contrasts and splits characteristic of a large, diverse city. Although living conditions (MHDI, HVI, maternal-child mortality) have generally improved, the lags in some health districts are notable, and new challenges are mounting, including CNCDs associated with aging, mental health, maternal-child attention deficit in some groups, injuries from accidents and violence, and emerging and re-emerging communicable diseases.⁸

2. Challenges in service delivery

- 1.6 **Unified Health System.** Brazil's Sistema Único de Saúde [Unified Health System] (SUS) was created by the Constitution of 1988 with implementing regulations in 1990. The system provides comprehensive, universal access to health services, comanaged by the Ministry of Health, the states, and municípios. The Ministry of Health is the apex agency and sets national policy, the states are responsible for integrating services among regions and the supplemental delivery of more complex services, and the municípios are directly responsible for services to the population, as the exclusive providers of primary health care (PHC).
- 1.7 Belo Horizonte was one of the pioneering capitals in implementation of the SUS in Brazil. Since the early 1990s, it has been managing planning, contracting, payments, and oversight for all health services within its territory. As part of its strategic macroplanning, since 2009 Belo Horizonte has organized its health services through a health care networks (HCN) model on a local basis (recognizing different population profiles and thus providing differentiated services), emphasizing PHC as the core element in HCN efficiency.⁹ With this policy framework, Belo Horizonte has made gains in expanding service coverage and

⁶ Coordenação de Epidemiologia e Informação (CEInfo). 2017. Boletim ISA Capital 2015, No. 13, 2017: Transtornos mentais comuns na cidade de São Paulo [Common mental disorders in the City of São Paulo]. São Paulo: Municipal Health Department.

⁷ Almeida et.al. 2014. Estudio brasileño multicéntrico de trastornos mentales comunes en atención primaria: prevalencia y factores sociodemográficos relacionados [Brazilian multicentre study of common mental disorders in primary care: rates and related social and demographic factors]. Caderno de Saúde Pública 30(3):623-632.

⁸ Dengue, zika, chikungunya, and visceral leishmaniasis are very important from the standpoint of health surveillance and control of epidemics.

⁹ Teixeira M. G., S. S. M. Rates, and J. M. Ferreira. 2012. O coletivo de uma construção: o Sistema Único de Saúde de Belo Horizonte [The collective of a construction: the Unified Health System of Belo Horizonte]. Belo Horizonte: Rona Ed. Ltda.

currently has a broad, complex array of public health offerings.¹⁰ However, given the strong pressures caused by the high and rising burden of CNCDS¹¹ and budgetary constraints,¹² this network of services is facing challenges in responding to these new scenarios.

- 1.8 **Primary care.** In the SUS, primary health care (PHC) must coordinate and serve as gateway for the HCN in specific territories.¹³ In Belo Horizonte, PHC is structured according to the Family Health Strategy (FHS) model¹⁴ and has 588 FHS teams¹⁵ distributed according to the population's socioeconomic risk criteria,¹⁶ with a strong focus on prevention and health promotion.¹⁷ The município has gradually expanded PHC coverage to reach over 80% of the population. However, there are important challenges to ensuring that the PHC network will be able to sustain this broad coverage and volume of services with the required quality and efficiency. The infrastructure of the current network of basic health units (UBS)—health centers—is old and close to 75% of the UBS are housed in unsuitable buildings. In addition, their medical equipment is deteriorated and/or obsolete.¹⁸ These factors affect service access and quality. For example, there is a high incidence of congenital syphilis, of 10.7 cases per 1,000 live births, higher than the national average of 6.8.¹⁹ Studies also show that 51.3% of cases of pregnant women infected with syphilis were detected late (after the first trimester), revealing failures in access to quality prenatal services.²⁰ In addition, in 2017

¹⁰ The municipal health care network consists of 152 health centers, 9 urgent care units, 9 medical specialties centers, 5 secondary referral units, 29 hospitals, 15 support, diagnostic and therapy units, 13 counselling centers, 77 health gyms, 588 family health teams, and 302 oral health teams.

¹¹ Between 2008 and 2017, hospitalizations increased by 15%, and outpatient care increased by 53%, while between 2014 and 2017 the financial resources deployed remained constant in nominal terms.

¹² Studies show [impacts of the economic crisis on municipal revenue](#).

¹³ Vilaça Mendes, E. (2011). As redes de atenção à saúde [Health care networks]. Pan American Health Organization (PAHO) and Conselho Nacional de Secretários de Saúde [National Council of Health Departments] (CONASS): Brasília.

¹⁴ The evidence shows that the FHS is the most efficient strategy for PHC in Brazil. Macinko, J. et al. (2006). Evaluation of the impact of the Family Health Program on infant mortality in Brazil, 1990-2002. *Journal of Epidemiology and Community Health* 60(1):13-9; and Macinko, J. et al. (2007). Going to scale with community-based primary care: an analysis of the Family Health Program and infant mortality in Brazil, 1999-2004. *Social Science and Medicine* 65(10):2070-80.

¹⁵ The FHS core teams consist of a physician, a nurse, community health workers, and a nursing assistant and/or technician. The complete teams also have a dentist, a dental assistant, and/or an oral health technician.

¹⁶ The HVI criteria are applied.

¹⁷ In Belo Horizonte, spaces for physical activities have been incorporated in the PHC model, in line with the National Health Promotion Policy (PNPS), since 2005 when the health gyms were introduced. These are public gymnasiums with infrastructure, equipment, and staff qualified to guide these activities. Fernandes et al. (2017). Programa Academias da Saúde e a promoção da atividade física na cidade: a experiência de Belo Horizonte [The Health Academies Program and promotion of physical activity in the city: the experience of Belo Horizonte]. *Ciência e Saúde Coletiva*, 22(12):3903-14.

¹⁸ Survey completed by Belo Horizonte's Municipal Health Department (SMSA), Health Care Management Division.

¹⁹ DATASUS 2016.

²⁰ Nonato et al. (2015). Sífilis na gestação e fatores associados à sífilis congênita em Belo Horizonte-MG, 2010-2013 [Syphilis in pregnancy and factors associated with congenital syphilis in Belo Horizonte, Minas Gerais, 2010-2013]. *Epidemiologia e Serviços de Saúde* 24(4):681-694.

- hospitalizations that could have been avoided with adequate basic care amounted to 30% of the total, corroborating the significant room for improvement in PHC.
- 1.9 PHC, as the center of the organization of the HCNs, is responsible for a significant volume of direct services and coordination transactions with other levels of care. In Belo Horizonte, there were approximately 319,000 doctor visits per month in the UBS and 252,000 home visits per month by health and health surveillance agents. All these monitoring, clinical management, and surveillance data are entered in the official national information system (e-SUS), but still outside the individualized clinical compendium and the data recorded in the Networked Health Information System (SISREDE). SISREDE was developed in 2002 using technology that is now obsolete, with defects and high maintenance costs, and no option to add new functionalities to replace manual tasks in order to ensure greater reliability and agility in data consolidation.
- 1.10 **Health surveillance.** To safeguard gains at the primary care level, as well as the high vaccination rates, the cold chain is a crucial factor for ensuring the safety of immunobiologicals, in accordance with the guidelines established by the Ministry of Health. In 2017, up to 25% of a specific vaccine went to waste in the município, demonstrating the high impact of improper storage using outdated equipment with constant breakdowns and outages. In addition, reducing important zoonoses such as visceral leishmaniasis requires the expansion of vector and reservoir control²¹ in areas with the highest incidence. The health surveillance and vector control work of the family health teams was important in limiting the dengue and Zika virus epidemics in 2016. In 2016, health surveillance teams conducted more than 44,000 inspections of establishments to audit the services delivered to the public, and a major bottleneck was identified in the manual processing of data, contributing to errors and delays in the release of operating permits, which hampers the operations of businesses in the city.
- 1.11 **Specialized medium-complexity care.** In the context of the HCN model, the level of specialized care must be strengthened to guarantee continuity of care and increase the effectiveness of the health system. In Belo Horizonte, medium-complexity care is coordinated by primary care and provides specialized consultations, diagnostic testing, and outpatient procedures for a more integrated approach to care. In recent years, an imbalance has arisen between supply and demand for services at this level of care due to the expansion of basic care, increased demand for referred specialized care,²² and the increased prevalence of CNCDs and mental illnesses requiring longitudinal treatments with specialized consultations and therapies. The overburdening of specialized services can be seen in the waiting times, for example, of around six months for digestive endoscopy exams, and 15 months for a rheumatology consultation. Another factor

²¹ Studies by the Federal University of Minas Gerais indicate that approximately 50% of the incidence of visceral leishmaniasis is due to transmission by sandflies that have bitten infected street dogs and cats and then humans. The Municipal Health Department (SMSA) has adopted a policy of vaccinating and neutering these animals as a mechanism for reducing the potential “reservoir” of infection.

²² Vilaça Mendes, E. (2012). O cuidado das condições crônicas na atenção primária à saúde: o imperativo da consolidação da Estratégia da Saúde da Família [Chronic conditions in primary health care: the urgent need to consolidate the Family Health Strategy]. Brasília: OPAS, WHO, and CONASS.

putting pressure on this level of care is the limited treatment capacity of PHC,²³ resulting in unnecessary referrals to specialized care, generating inefficiencies and overutilization of these services.

- 1.12 Lastly, another important area for smooth operation of the HCN relates to rationalizing health care offerings, given the significant losses in procedures and consultations due to no-shows, often because of the way the Municipal Health Department (SMSA) records, communicates, and confirms scheduled appointments. Although the rate of patients not showing up for their appointments was successfully reduced from 27.6% in 2012 to 19.2% in 2017, there is still room for further improvement in the efficiency and capacity of the appointments management system.
- 1.13 **Mental health.** Starting in the 1980s, psychiatric reform in Brazil introduced a series of guidelines for the care of patients with mental disorders, notably the creation of services to replace the psychiatric hospital. In Belo Horizonte, these services are called mental health referral centers (CERSAMs)²⁴ and were created to handle emergencies and crises. The CERSAMs operate on a regionalized and hierarchical basis, facilitating follow-up treatment once the crisis is averted. Belo Horizonte has an extensive regionalized counselling network²⁵ that requires investments in its infrastructure to meet current and future demand. The CERSAMs in the Venda Nova and Oeste regions, both located in areas of high social vulnerability, have serious problems with their facilities, making it unfeasible to meet the high demand for services (nearly 1,200 consultations per month), which are provided on a 24-hour operating schedule. The lack of adequate physical conditions to care for psychiatric patients is one of the causes for the discontinuity of treatment, generating cost overruns and producing poor health outcomes.²⁶
- 1.14 **The urgent and emergency care network** consists of nine urgent care units (UPAs) and emergency departments at seven hospitals, supported by 38 units of the Mobile Urgent Care Service (SAMU). The quality of urgent care services is a life-or-death matter, but in Belo Horizonte the UPAs are overcrowded, partly due to problems transferring serious cases to referral hospitals.²⁷ The inability to transfer serious cases reduces the ability to treat less complicated emergencies that may grow worse due to delay, and increases costs. In addition, it has become common for the population to go to the UPAs, which operate 24 hours a day, for health

²³ PHC has an important role to play in the management of general morbidity, tracking and follow-up of chronic patients, and providing palliative care, reducing the demand for specialized care (Comin-Colet et. al. (2014). Eficacia de un programa integrado, hospital-atención primaria para la insuficiencia cardiaca: análisis poblacional sobre 56.742 pacientes [Effectiveness of an integrated hospital/primary care program for heart failure: population analysis on 56,742 patients]. *Revista Española de Cardiología* 67(4):283-93).

²⁴ The CERSAMs are similar to the psychosocial care centers (CAPS) in the mental health network, under the direction of the Ministry of Health.

²⁵ Belo Horizonte has eight CERSAMs, four CERSAMs for alcohol and drugs, three CERSAMs for children and youth, two shelters, and 33 therapeutic residences, where 58 mental health teams work.

²⁶ Oliveira et al. (2008). Saúde mental e a continuidade do cuidado em centros de saúde de Belo Horizonte [Mental health and continuity of care at health care centers in Belo Horizonte], *Revista de Saúde Pública* 42(4):707-16.

²⁷ More than 40% of hospitalization request processes take more than two days to complete.

problems that could be resolved by primary care. About 85% of the demand is categorized as nonurgent according to the Manchester Protocol, and, in fact, only 3.4% of the cases lead to a request for hospital admission.²⁸ To remedy these problems, the treatment capacity and operational efficiency of the UPAs need to be improved, in coordination with basic care and hospital care.

- 1.15 **Hospital care.** Belo Horizonte's hospital network consists of 29 charitable hospitals, municipal hospitals, and private hospitals that provide contracted services. There are 19,000 admissions on average each month, with 5,665 beds²⁹ and 44% of the demand comes from other municípios. However, lack of capacity also makes it necessary to refuse 1,825 outside requests per month. In addition, approximately 1,600 additional beds would be necessary to meet all the pent-up demand of the state's central macroregion.³⁰ In 2016, 34,510 elective surgeries were performed, but the waiting line was 28,246 patients in 2017 and may reach nearly 50,000.³¹ Efficient management of demand to improve the utilization of available resources requires regulating access to hospital beds, elective surgeries, consultations, and specialized diagnostic tests. Currently, Belo Horizonte has information systems for regulation, developed by the Ministry of Health or the município's data processing company. However, these tools are technologically outdated and pose problems associated with the technologies required for data security and quality controls. For this reason, greater access to hospital care requires not only expanding capacity but using installed supply more efficiently. Lastly, there is room to improve the quality of hospital care, as evidenced by the less-than-good performance on indicators such as the rate of central line-associated bloodstream infections in intensive care units of 7.7 infections per 1,000 central venous catheters per day.³²
- 1.16 **Odilon Behrens Municipal Hospital.** In addition to strengthening bed management in the hospital network, the município needs to increase the capacity of its most important facility, Odilon Behrens Hospital (HOB), which plays a key role in the care networks as the principal facility for medium- and high-complexity care referrals for the município and the health macroregion,³³ as well as a teaching hospital responsible for residency programs for more than 250 physicians and other professionals. The HOB has 530 beds, distributed across various wards (surgery, clinical, obstetric, pediatric, and others) and performs an annual average of 15,000 surgeries (including outpatient surgeries). It has close to 20,000 admissions per year and a monthly average of 27,000 consultations (60% emergencies). However, to maintain this volume of services and remain the leading referral hospital for the capital and its macroregion, the HOB needs to

²⁸ SMSA (2018). Panel of Strategic Indicators. Belo Horizonte.

²⁹ This amount has remained virtually unchanged for four years.

³⁰ The current program will not finance the installation of new beds directly, but will contribute to hospital efficiency, which may help to reduce this gap.

³¹ Average waiting time for elective surgery was 222 days in 2017.

³² For reference, the Australian and New Zealand Intensive Care Society sets a target of keeping this rate below one infection per 1,000 central venous catheters per day.

³³ The State of Minas Gerais has 13 health macroregions, and Belo Horizonte, its capital, belongs to the Central macroregion, with a population of 6.2 million inhabitants.

upgrade its technological systems, which are now obsolete and depreciated, compromising service access and quality.

- 1.17 The HOB is also an important referral service for handling high-risk deliveries in the maternal-child network of the Central macroregion as well as normal risk deliveries for 30% of the pregnant women in the Município of Belo Horizonte. Current demands lead to overcrowding in the wards, putting pregnant women and newborns at risk. The current hospital operates with outdated equipment that does not meet current health standards.
- 1.18 **Quality and efficiency in management of health networks.** As the apex agency of the health system, the SMSA has a few key roles, including data processing and analysis for policy formulation, promotion of efficiency through improved internal processes, and quality management.³⁴ In general, at all levels of care the information systems supporting SMSA operations are antiquated and often dependent on manual procedures and records. In addition, they are liable to break down, jeopardizing the reliability of data. These factors result in unreliable tracking of patients, poor CNCD management, overlapping care, and system inefficiency. In addition, there is no standardized cost centers system in the health units that could contribute to better management.³⁵ Lastly, there are no systematic mechanisms to provide tools and incentives for raising the quality of services, such as health services accreditation and quality certification.³⁶

3. Project strategy

- 1.19 **Belo Horizonte's response to health challenges.** Considering the many health challenges faced by the município in a context of limited resources,³⁷ the Municipal Government of Belo Horizonte has requested Bank support to finance key investments as part of the 2018-2021 Municipal Health Plan.
- 1.20 The program's interventions are aligned with the objectives of the plan's major focus areas: (i) to expand and strengthen care networks, starting with primary care, by promoting improvements in infrastructure; (ii) to prevent and reduce health risks through the integration of surveillance and promotion; (iii) to refine the specialized

³⁴ It is important to note that a review of the international literature (including Brazil) on public-private partnership projects in health reveals specific advantages in such variables as construction time, hospital efficiency, user satisfaction, and others. See Alonso, et al. (2015). *Menos cuentos, más evidencia: Asociaciones público-privada en la literatura científica* [Fewer stories, more evidence: public-private partnerships in the scientific literature]. Technical Note IDB-TN-882. Inter-American Development Bank: Washington, D.C.

³⁵ See, for example: McGlynn E. A. (2008). *Identifying, categorizing, and evaluating health care efficiency measures*. AHRQ Publication 08-0030. Rockville, Maryland: Agency for Healthcare Research and Quality.

³⁶ Brubakk, K., G. E. Vist, G. Bukholm, P. Barach, and O. Tjomsland (2015). A systematic review of hospital accreditation: the challenges of measuring complex intervention effects. *BMC Health Services Research* 15(1):1-10.

³⁷ Constitutional Amendment 29/2000 established that the states would devote at least 12% of their annual tax revenues to financing health, and the municípios, 15%. In addition, Constitutional Amendment 95/2016 created a health spending cap for the federal government by linking the amount of the annual budget to primary expenditure in the previous year, adjusted for inflation. Although state and national resources have declined in the financing since 2014, Belo Horizonte increased the execution of its current revenue in health from 21.8% in 2015 to 23.7% in 2017. In addition, the município's investment capacity fell from 4.3% of expenditure in 2014 to 0.3% in 2017.

health services; (iv) to strengthen urgent and emergency services and hospital care; and (v) to promote the modernization of technology and management. The program also seeks to address the priorities of increasing the quality of health services and the efficiency of spending.

- 1.21 **Basic care as backbone.** Compared with some large municípios that were late to join the FHS and have population coverages between 35% and 55%, Belo Horizonte ranks favorably in terms of basic care, reaching more than 80% of its population. However, for the FHS teams in Belo Horizonte to do their work effectively, the network of health centers needs strengthening through projects to renovate and build several of them, as well as replace medical equipment at the majority. Health surveillance is an essential function of basic care to detect, prevent, and control epidemics, and the SMSA needs to modernize it by providing equipment to ensure the integrity of the cold chain and data computerization and communications. The monitoring of epidemics and investigation of cases, as well as registration of properties and facilities, would benefit from the adoption of geospatial computerized technologies to improve the quality, effectiveness, and efficiency of analyses, planning, and execution of actions. All these interventions are being incorporated into this program.
- 1.22 **Increased capacity of specialized care.** Due to the high cost of specialized services, integrating their operation with basic care is critical in order to maximize their efficiency. The SMSA has been developing and implementing clinical protocols and lines of care and training the health services to strengthen the referral and counter-referral system, diagnostic capacity, and the introduction of procedures consistent with clinical standards.³⁸ Modernizing the systems for requesting and managing consultations and tests would also help to correct the imbalance between demand and supply. Even so, the fact that FHS coverage in Belo Horizonte is so high suggests that, compared with other settings, a reasonable portion of specialized care consultations are correctly referred from primary care. To satisfy unmet demand, the SMSA proposes expanding the supply of services, including investments in infrastructure and equipment. With the support of the program, the plan is to upgrade medical equipment at all operating specialized units and rebuild and equip two mental health care centers. A first step in improving information systems would be to replace part of the technological infrastructure.
- 1.23 **Optimized urgent and emergency services.** To reduce pressure on the urgent care system, it is necessary to improve procedures for referring low-risk cases to primary care, introduce updated clinical protocols, train professionals in these areas, and computerize administrative and care management systems. In addition, some UPAs must be rehabilitated by rebuilding and expanding their infrastructure and replacing their equipment. The program includes several of these approaches that not only will strengthen the UPAs but have positive repercussions in basic and hospital care.
- 1.24 **Expansion and enhancement of strategic hospital services.** Considering the key role of the Odilon Behrens Hospital (HOB) in Belo Horizonte's municipal health

³⁸ National Academies of Sciences, Engineering, and Medicine. 2015. Improving diagnosis in health care. Washington, D.C.: The National Academies Press.

services network, the hospital's obsolete equipment will be replaced, and equipment will be provided for its new maternity ward. In addition, counterpart resources will be used to finance the operation of the Doutor Célio de Castro Metropolitan Hospital under a public-private partnership (PPP).³⁹

- 1.25 **Modernization and integration of information systems.** The current computerized systems are to be replaced in primary, secondary, and hospital care and network regulation. The new system will make it possible to reduce manual data verification and compilation operations and to correct frequent failures that produce various disruptions and waste in health care activities. There are also plans to acquire the necessary IT infrastructure to use the system, such as computers, servers, network access points, etc. The integrated information technology solution also includes the modernization of electronic patient records, to encompass the set of care activities routinely performed by multiprofessional teams. In addition, new outpatient and hospital modules will be developed and installed for the access regulation system.
- 1.26 **Adoption of new management tools.** For more efficient resource utilization, the SMSA will provide health units with a cost management system. This is expected to facilitate the identification of activities and processes that could be redesigned to generate savings. At the same time, an initiative will be undertaken to improve the quality of health care services through a certification process that involves technical assistance to prepare the services to meet predetermined standards, followed by their independent measurement.
- 1.27 **Lessons learned and related operations.** This program joins the Bank's portfolio of five health-related operations now in execution in Brazil (loans 3051/OC-BR, 3262/OC-BR, 3703/OC-BR, 2586/OC-BR, and 3400/OC-BR) and two operations in the preparation phase: City of São Paulo Health Care Networks Restructuring and Quality Certification Project – *Avança Saúde SP* (loan BR-L1429) and Project to Improve the Care Model of the Paraíba Health Network (loan BR-L1518), with which it shares similar objectives and intervention strategies. These operations have yielded important lessons that have been incorporated into the design of this operation, notably the following: (i) the priority of reorganizing services into integrated networks with a focus on strengthening primary health care, to increase prevention and treatment effectiveness in a context of fiscal austerity (Components 1 and 2); (ii) the importance of instruments for tracking patient treatment, particularly the electronic clinical history, to reduce overlap and efficiently regulate access to medium- and high-complexity services (Component 3); and (iii) the importance of introducing proven mechanisms to improve cost-effectiveness service quality (Component 3).

³⁹ The Doutor Célio de Castro Metropolitan Hospital is a rearguard general hospital for urgent and emergency care, particularly for cerebrovascular accidents and trauma and specialties in clinical medicine, urology, orthopedics, general surgery, neurosurgery, and neurology. It was built in a high-HVI region with a high incidence of accidents and violent injuries and a lack of health services. The PPP contract assigned responsibility to the private-sector stakeholder for construction, clinical and administrative equipment and furniture, and delivery of support services (grey coat). The hospital is in the operational phase with 100% of the planned services, and all counterpart resources will contribute to financing the monthly compensation paid to the contracted consortium.

- 1.28 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and strategically aligned with the challenge of social inclusion and equality by expanding quality health services for the entire population, to reflect the burden of CNCDs. The program is also aligned with the crosscutting issues of: (i) gender equality and diversity (document GN-2800-8); and (ii) climate change and environmental sustainability through interventions in the area of maternal-child health and the use of environmentally sustainable construction techniques, respectively. Additionally, the program will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) by increasing the number of beneficiaries who receive health services. The program is also aligned with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5) by contributing to social inclusion through greater access to health care facilities, particularly in the most socioeconomically needy parts of the município. This program is aligned with the country strategy with Brazil 2016-2018 (document GN-2850) through the strategic objective of expanding and improving the PHC network, contributing to indicators of success such as reduced hospitalizations for conditions treatable through primary care and reduced hospitalizations for diabetes mellitus and its complications in the population aged 30-59. The program is also included in the Update of Annex III of the 2018 Operational Program Report (document GN-2915-2). Lastly, the program is consistent with the Health and Nutrition Sector Framework Document (document GN-2735-7) by contributing to improve the physical and technological health infrastructure and to strengthen the institutional capacity of the municipal health authority.
- 1.29 **Gender focus.** With regard to alignment with the above-mentioned gender policy, activities will be implemented to improve maternal-child care (particularly through support for high-risk pregnancies) and the management of chronic diseases, taking into account biological differences and gender roles in health care. The program Results Matrix will follow the performance of certain indicators broken down by gender.
- 1.30 **Climate change alignment.** The program is aligned with climate change through the allocation of resources to UBS works for which the “light steel frame” construction technique ([optional link 2](#)) is considered environmentally sustainable because of the following energy efficiency and water saving advantages: dry construction (water and energy savings); use of energy-saving lighting and presence sensors; rainwater capture for reuse; use of aluminum solar louvers on windows for appropriate sun aspect; light-colored facades; metal roofs with thermoacoustic protection and white material with low solar absorption; use of natural lighting and ventilation; use of recyclable construction material; and solar heating of water. Approximately 23.6% of the operation’s resources are invested in climate change mitigation activities, according to the [joint methodology of the multilateral development banks for estimating climate finance](#).⁴⁰ These resources contribute to the IDB Group’s goal of increasing the financing of climate change-related projects to 30% of total approvals by the end of 2020.

⁴⁰ <https://publications.iadb.org/handle/11319/8505>.

B. Objectives, components, and cost

- 1.31 **Objective.** The program objective is to contribute to the health of the population by increasing access to health services, as well as their quality and efficiency, in the Município of Belo Horizonte. The program will benefit all residents of Belo Horizonte, especially 2.1 million people in the município who use the Unified Health System (SUS), as well as users elsewhere in the State of Minas Gerais who seek care in Belo Horizonte. The operation has the following four components:
- 1.32 **Component 1. Strengthening of primary care networks and health surveillance (IDB US\$19.82 million).** This component will support the expansion and quality improvement of basic health care services allowing them to coordinate and serve as gateway to care, in accordance with national policy on health care networks. It will also support strengthening of the health surveillance system through technological modernization and promotion of its integration with other health services. The financed activities will include the reconstruction of approximately 10 basic health units (UBS) and the purchase of equipment, furniture, and furnishings for primary care and health surveillance in the most socioeconomically needy parts of the município, to expand services and remedy gaps in care and unequal access. Worn out and obsolete equipment will be upgraded at most units in the basic care network. The SMSA already has the basic designs for the works and the technical specifications for the equipment to be purchased. To maintain immunization levels and the availability of critical biological inputs,⁴¹ the necessary equipment will be purchased, and storage spaces built, for the municipal cold chain to preserve vaccines, serums, and immunoglobulin from the laboratory to the user (storage, transportation, distribution).
- 1.33 **Component 2. Consolidation and integration of specialized, emergency, and hospital services (IDB US\$18.40 million; Local US\$14.00 million).** The objective of this component is to reinforce strategic services to strengthen the medium- and high-complexity diagnostic network so it can better treat referrals from the primary care level and urgent/emergency care. The financed activities will include: (i) construction, repairs, and equipment for four urgent care units (UPAs); (ii) construction of two mental health care centers; (iii) new and replacement equipment for several Odilon Behrens Hospital (HOB) wards and specialized units; and (iv) operation of the Doutor Célio de Castro Municipal Hospital under the PPP arrangement, through financing of the monthly compensation paid to the consortium contracted with local counterpart funds.
- 1.34 **Component 3. Improvement of the management, quality, and efficiency of integrated networks (IDB US\$16.78 million).** The objective of this component is to increase the quality and efficiency of health services management. The activities financed with the program resources will include: (i) the integrated information technology solution, including software, hardware, and services; (ii) the project for strategic management of costs, quality, and efficiency of health care expenditure; and (iii) quality management and patient safety, through certification of services and introduction of the continuous improvement methodology.

⁴¹ Storage capacity in 2016 was 3.8 million units per year and is expected to double. This should improve efficiency in the handling of inputs and the corresponding costs.

- 1.35 **Component 4. Program administration and evaluation (IDB US\$1.00 million).** The actions under this component consist of program administration, management, evaluation, monitoring and audit.

C. Key results indicators

- 1.36 Impact indicators were identified for the operation that relate to the proposed interventions as a whole, as were outcome indicators more closely tied to each of the different components and benefited services. The impact indicators are the rate of premature mortality due to CNCDs and the rate of preventable hospitalizations (treatable through primary care), broken down by gender and with values that should decline as the program actions are implemented. Multiple outcome indicators were selected to monitor the potential effects of the investment lines, particularly the following: (i) percentage of primary care medical consultations with request for referral to specialized care; (ii) average waiting time for endoscopy; (iii) percentage of childbirths at the Odilon Behrens Hospital (HOB) for pregnant women referred; and (iv) percentage of consultations recorded in the patient's electronic medical record. The sector indicator "number of people who receive health services" was incorporated, which helps to measure the goal of the Corporate Results Framework.
- 1.37 **Economic analysis.** The strategies promoted in this operation are based on evidence regarding the effectiveness of the health care network model. Based on specific evidence for Brazil, the economic analysis quantifies the incremental benefits derived from the project's investments, including: (i) savings in hospital expenditure from fewer admissions for conditions treatable through basic care; (ii) productivity gains from reduced morbidity/mortality associated with increased coverage and quality of health network services; and (iii) gains from the implementation of lines of care. The analysis quantifies disability-adjusted life years (DALY) that can be saved through the implementation of investments in a context of integrated networks, looking at the increase in effective coverage and the time to achieve results. In the base case scenario of effective coverage with conservative assumptions in terms of the effectiveness of the interventions, over a five-year horizon the net present value (NPV) of the program at a discount rate of 3% is US\$43.9 million, and the internal rate of return (IRR) is 34.7%. In addition, the sensitivity analyses show that the benefit/cost ratio over 10 years is greater than one, even in less favorable scenarios.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 The program will be financed through a specific investment loan drawn on the Bank's Ordinary Capital under the Flexible Financing Facility (document FN-655-1). The disbursement period will be five years.⁴²

⁴² Disbursements are expected to be front-loaded during the first two years of the project due to the following factors: (i) the designs for the UBS works are ready, so the construction contracts can be tendered and awarded quickly; (ii) the UBS works are simple and can be completed quickly; (iii) the technical specifications are ready for the medical equipment to be purchased; and (iv) the procurement price list method can be used to procure the equipment, which is very fast.

Table 1. Costs of the operation (US\$)

Component	IDB	Local	Total
Component 1: Strengthening of primary care networks and health surveillance	19,820,000	0	19,820,000
Component 2. Consolidation and integration of specialized, emergency, and hospital services	18,400,000	14,000,000	32,400,000
Component 3. Improvement of the management, quality, and efficiency of integrated networks	16,780,000	0	16,780,000
Component 4. Program administration and evaluation	1,000,000	0	1,000,000
TOTAL	56,000,000	14,000,000	70,000,000

Table 2. Disbursement projection (US\$)

Financing	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
IDB (OC)	9,403,793	26,891,962	13,344,931	3,573,252	2,786,062	56,000,000
SMSA (Local)	2,346,743	3,513,410	3,500,000	3,486,590	1,153,257	14,000,000
Total	11,750,536	30,405,372	16,844,931	7,059,842	3,939,319	70,000,000
% IDB	16.8	48.0	23.8	6.4	5.0	100

B. Environmental and social safeguard risks

- 2.2 The program has been classified as category “B” under the Environment and Safeguards Compliance Policy (Operational Policy OP-703), since the environmental and social risks and impacts will be localized and temporary, and there are effective and known mitigation measures available in the construction and health sector. The main social and environmental risks and impacts of this operation are as follows: (i) in the construction phase, the generation of waste and rubble from demolition and construction and other conventional impacts of civil engineering works on this scale such as dust, noise, vibration, etc.; and (ii) in the operational phase, the generation of hospital wastewater, hospital solid waste, and patient, worker, and visitor exposure to infections.
- 2.3 The related mitigation measures are described in the environmental and social management plan (ESMP), which, once implemented, would mitigate these risks and impacts. As none of the works will be exposed to the risk of significant natural disasters, under the Disaster Risk Management Policy (Operational Policy OP-704), the type 1 disaster risk of the operation has been rated as low; type 2 risk does not apply to the program. The environmental and social analysis (ESA) and the ESMP for the program are ready and have been published on the Bank website. Additionally, nine meetings were held corresponding to a round of public consultations between 19 and 24 September 2018. These meetings have been meaningful, and their outcome does not necessitate any update to the socioenvironmental documents.
- 2.4 None of the works will generate involuntary resettlement of people or expropriations of land. The ESA/ESMP has confirmed that all works will be at facilities and on land located on public property, so there is no land or property to be purchased. The gender issue has been included in the studies conducted for the program, including vulnerable groups sharing in the benefits of the program, no

restrictions on women being employed during the execution and operation of each type of work, and women freely participating in consultations on the program's works, in compliance with applicable laws and regulations.

C. Fiduciary risks

- 2.5 When the Institutional Capacity Assessment Platform (ICAP) was applied at the risk workshop, a medium-high level risk was identified that procurements and disbursements could be delayed in the first year of execution, if the executing agency and the entities involved—the Superintendency for Development of the Capital (SUDECAP), Office of the Municipal Attorney General (PGM), and Office of the Undersecretary for Administration and Logistics (SUALOG)—failed to familiarize themselves with the Bank's procurement and financial policies until the program startup mission. This risk will be mitigated through training on the Bank's fiduciary policies and management of (fiduciary) knowledge for the members of the project management unit (PMU) and the other participating entities (see paragraphs 3.2 and 3.3).

D. Other project risks

- 2.6 The risk workshop held during the analysis mission identified three additional risks (one related to public management and governance and two related to development), rated medium-high and high, as well as their mitigation measures: (i) if the stakeholders involved in the program fail to agree, communicate, and coordinate, there could be a delay in decision-making in the first three years at variance with the initial planning of the program, leading to delay in the execution of Components 1, 2, and 3 for up to six months (mitigation: develop, approve, and implement a communication plan with stakeholders and encourage monthly strategic meetings to reach agreement and make decisions; (ii) if disruptions occur in the work of the operation/unit, the care provided, or other areas during rehabilitation of the 24-hour UPAs (three units: Oeste, Venta Nova, and Barreiro), the rehabilitation works could slow or stop, lengthening the time required to complete the works by three to six months (mitigation: develop a communication plan to raise awareness of UPA staff and end users, and prepare the works planning report for the contractor); and (iii) if the physical improvements and the procurement of medical/hospital equipment, furniture, and furnishings for the health units are not synchronized, there could be delays in the implementation schedule for Components 1, 2 and 3, resulting in a delay of at least six months in the delivery of the health units (mitigation: planning of the works to synchronize with the procurement of equipment, periodic management, preparation of the PHC strategy, and contracting with flexible supply orders).
- 2.7 **Sustainability.** The sustainability and maintenance of the infrastructure financed by the program will be assured by including resources in the annual budget of the SMSA Logistics Division, specifically the Office of Maintenance and Clinical Engineering. The construction technique planned for the UBS (Light Steel Frame, see paragraph 1.30) offers several advantages in terms of maintenance, including an extremely durable structure, with a potential useful life of more than

200 years,⁴³ and facilities that can be easily restored without breaking and mending masonry.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 **Executing agency.** The borrower will be the Município of Belo Horizonte, and the Federative Republic of Brazil will be guarantor of the borrower's financial obligations under the loan contract. The executing agency will be the Município of Belo Horizonte, acting through its Municipal Health Department (SMSA), which will establish the project management unit (PMU).⁴⁴ The PMU will have at least a general coordination area, an executive coordination area, and technical, environmental, administrative/financial (including project management, finance, and accounting), procurement (with a Special Bidding Commission), and monitoring and evaluation specialists. The SMSA will exercise technical direction over the PMU, given that the coordinators will come from its staff. The procurement of medical/hospital equipment will be the responsibility of the PMU technical coordination area, in conjunction with the Special Bidding Commission to be established before launching the first procurement process.
- 3.2 In addition, the Superintendency for Development of the Capital (SUDECAP) will be responsible for all works procurement processes from the preparation of requests for proposals to works management, supervision and oversight. The SUDECAP, which is associated with the Municipal Works and Infrastructure Department (SMOBI), manages and supervises the works under the Office of the Mayor⁴⁵ and has prior experience with the Bank, in the DRENURBS Program.
- 3.3 The Municipal Finance Department (SMFA), acting through the Office of the Undersecretary for Administration and Logistics (SUALOG), will participate in the program as the entity responsible for all procurements of goods and information technology hardware, according to the needs of the project. Thus, the country system will be used (electronic auction and/or price lists), according to its mandate.⁴⁶
- 3.4 The specific responsibilities of the PMU will cover all activities necessary for program execution, including: (i) serving as liaison for the project with the Bank; (ii) preparing, submitting, and implementing annual work plans (AWP) and financial plans; (iii) preparing budgets and disbursement requests; (iv) preparing and updating the multiyear execution plan (MEP), AWP, procurement plan, risk matrix, and project monitoring report (PMR); (v) performing program financial administration in accordance with accepted accounting principles and delivering

⁴³ Way, A. G., et al. (2009). Durability of light steel framing in residential building. Berkshire UK: The Steel Construction Institute.

⁴⁴ The PMU will be established prior to the first disbursement of the loan proceeds.

⁴⁵ Article 67 of Law 11,065/2017 establishes SUDECAP's mandate, which includes maintenance works and services for buildings and structures, as well as management of works and engineering services contracts signed by the município.

⁴⁶ Article 48 of Law 11,065/2017 establishes the mandate of the Secretaria Municipal de Fazenda [Municipal Finance Department] (SMFA) and Decree 16,739/2017 establishes the organizational structure of the SMFA, including all undersecretaries (Article 47 mentions the SUALOG) with their respective mandate.

audited financial statements; (vi) conducting procurement processes that result in the timely purchase of high-quality products and comply with Bank policies; (vii) ensuring consistent alignment of the program activities with the expected outcomes, as well as the periodic compilation of data for monitoring the Results Matrix indicators; and (viii) delivering six-monthly status reports.

- 3.5 **Program Operating Regulations.** The detailed policies, procedures, rules, and responsibilities of the PMU during program execution will be described in the program Operating Regulations, which will set standards and guidelines for the executing agency in all areas of program execution, including programming, execution and financial planning, fiduciary arrangements, monitoring and reports, and others. The program Operating Regulations will also describe the roles and means of coordination between the SMSA and the other municipal government entities involved, particularly with respect to the allocation of budgetary space, monitoring of program implementation, and the processing of any changes to activities and targets.
- 3.6 **As special contractual conditions precedent to the first disbursement of the loan proceeds: (i) the program Operating Regulations have been approved on the terms agreed upon with the Bank,** which is necessary to establish the guidelines and procedures to be followed by the executing agency for the successful execution of the program; **(ii) the following members of the project management unit (PMU), created within the executing agency, have been appointed: general coordinator, executive coordinator, and technical/environmental, administrative/financial, monitoring and evaluation, and procurement specialists,** which is considered essential to facilitate program execution from the outset and ensure compliance with Bank policies in their respective areas; and **(iii) the project's Special Bidding Commission has been created,** which is required to ensure sufficient support for the procurement function.
- 3.7 **Procurement.** The PMU will follow the Policies for the Procurement of Works and Goods Financed by the IDB (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9), as well as the provisions of the Fiduciary Agreements and Arrangements based on SMSA's fiduciary context as revealed through the institutional analysis of the executing agency. Based on that analysis, procurement will be subject to ex post review, except where ex ante supervision or direct contracting is warranted, as indicated in the procurement plan and financed in whole or part by the Bank. Some direct contracting may be incorporated into the procurement plan, if well justified and consistent with these policies. When procurements are executed using the country system, supervision will also be conducted using the country system.
- 3.8 **Disbursements and financial management.** The Bank will make disbursements to the executing agency under the advance of funds modality based on the program's liquidity needs, against current and anticipated commitments for a period of no less than 90 days and no more than 180 days. Disbursements will be made into a special bank account in the name of the program for exclusive use of the loan proceeds, as established in document OP-273-6, "Financial management guidelines for IDB-financed projects." The PMU will control the use of the advance

of funds and limit expenditure to planned and eligible activities. It will keep records of financial transactions in compliance with the Bank's fiduciary policies. When 80% of the funds advanced have been expended, the PMU may submit supporting documentation for the expenditures to the Bank for review and request a fresh disbursement.

- 3.9 **Retroactive financing and recognition of expenditures.** The Bank may retroactively finance up to US\$11.2 million as a charge against the loan proceeds (20% of the proposed loan amount), and recognize up to US\$2.8 million as a charge against the local contribution (20% of the estimated amount of the local contribution), in eligible expenditures incurred by the borrower prior to the loan approval date for contracting included in the procurement plan related to the integrated information technology solution, including software, hardware, and services, and the operation of the Doutor Célio de Castro Metropolitan Hospital, respectively, provided that requirements substantially similar to those established in the loan contract have been met. Such expenditures must have been incurred on or after 20 June 2018 (the project profile approval date) but not more than 18 months before the loan approval date.
- 3.10 **Audit.** The PMU will be responsible for delivering the following documents to the Bank: (i) audited financial statements for the program, to be delivered within 120 days after the close of each fiscal year; and (ii) final audited financial statements, to be delivered within 120 days after the program's last disbursement date. The audit of the program's activities and financial statements must be conducted by the State of Minas Gerais Audit Office (TCE/MG) or, if the TCE/MG is unavailable, by an independent external auditing firm acceptable to the Bank, engaged by the executing agency. Audits will be conducted in accordance with the Bank's guidelines and terms of reference for external audits. The audit will include an ex post review of disbursement and procurement processes, additional to the Bank's own actions and reviews.

B. Summary of arrangements for monitoring results

- 3.11 Program monitoring will use the following standard Bank instruments: (i) multiyear execution plan (MEP) and annual work plan (AWP); (ii) procurement plan; (iii) Results Matrix; (iv) progress monitoring report (PMR); and (v) audited financial statements. The executing agency, acting through the PMU, will deliver six-monthly status reports to the Bank within 60 days after the end of each calendar six-month period regarding: (i) performance in reaching the objectives and outcomes agreed upon in each AWP and in the PMR, including analysis and monitoring of risks and mitigation measures; (ii) the status of procurement plan execution and position; (iii) fulfillment of contractual conditions; and (iv) the status of financial execution. The report for the second half of each calendar year will also include: (i) the AWP and MEP for the following year; (ii) the updated procurement plan; and (iii) where necessary, the planned actions to implement the audit recommendations. The Results Matrix indicators will also be monitored on the basis of the information generated by the SMSA and reported in the Information Technology Department of the Unified Health System (DATASUS).
- 3.12 The program's impact will be evaluated using the synthetic controls methodology, which enables changes in the final outcome indicators of the Results Matrix to be compared with another set of Brazilian municipalities that do not receive investments

from the program. A synthetic control will be constructed for each indicator that by definition shows the same evolution as in the years prior to the intervention, so its future behavior serves as a counterfactual of what would happen in the absence of the program. The data necessary for the evaluation will be drawn from DATASUS,⁴⁷ which compiles information on a routine basis. Execution of the baseline is planned in the first year, and the final report in the fifth year. In addition, the program will have a midterm evaluation, to be delivered up to 90 days after 50% of the loan proceeds have been disbursed, or 36 months after the loan contract has entered into effect, whichever occurs first, and a final evaluation to be delivered to the Bank 90 days after the last disbursement. The program budget contains resources intended exclusively to finance all the evaluations.

⁴⁷ The data will come specifically from the Mortality Information System (SIM) and the Hospital Information System of the Unified Health System (SIH/SUS).

Development Effectiveness Matrix		
Summary		BR-L1519
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Gender Equality and Diversity -Climate Change and Environmental Sustainability	
Country Development Results Indicators	-Maternal mortality ratio (number of maternal deaths per 100,000 live births) -Beneficiaries receiving health services (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2850	Expand and improve the primary Health care network.
Country Program Results Matrix	GN-2915-2	The intervention is included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution	10.0	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	4.0	
3.3 Results Matrix Quality	3.0	
4. Ex ante Economic Analysis	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	
5. Monitoring and Evaluation	9.3	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	6.8	
III. Risks & Mitigation Monitoring Matrix		
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	B	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control. Procurement: Information System, Price Comparison, Contracting Individual Consultant, National Public Bidding.
Non-Fiduciary	Yes	Strategic Planning National System, Monitoring and Evaluation National System, Statistics National System.
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 the program is to improve the health conditions of the population of Belo Horizonte by increasing the access, quality and efficiency of health services. To achieve these objectives, the program supports the strengthening of primary care and health surveillance networks, the consolidation and integration of specialized, emergency and hospital services, improvement of management, quality and efficiency of integrated networks, and the administration and evaluation of the program. The project presents a cost-benefit analysis that supports the economic viability of the proposed activities, with a benefit / cost ratio of 1.35. The vertical logic presented in the POD is consistent with the indicators presented in the results matrix, and includes indicators for the main outputs, outcomes and impacts. Indicators meet SMART criteria and include baseline and target values as well as the sources and means of verification that will be used to measure them. The final impact indicators are the percentage of ambulatory case sensitive hospitalizations and the rate of premature mortality due to chronic noncommunicable diseases, both disaggregated by gender. The Project Coordination Unit, within the Health Innovation Group, will be in charge of the monitoring and evaluation of the program. The indicators of the results matrix will be reported using administrative data sources including DATASUS, SISREDE and SIASUS, amongst others. The project includes an impact evaluation that will use a synthetic control methodology, comparing the evolution of final outcome indicators in the municipality of Belo Horizonte against a synthetic control built with municipalities of more than half a million inhabitants in contiguous states, using data from DATASUS.

RESULTS MATRIX

Program objective:	The program objective is to contribute to the health of the population by increasing access to health services, as well as their quality and efficiency, in the Município of Belo Horizonte.
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EXPECTED IMPACT

Indicators	Unit of measure	Base-line	Base year	Year 5 Final target	Means of verification	Comments
Percentage of hospitalizations for conditions treatable through basic care – Women	/100 hospitalizations	30.3%	2017	27.6%	SIH/SUS	Number of hospitalizations for conditions treatable through basic care/number of clinical hospitalizations x 100 Pro-gender, Gender monitoring
Percentage of hospitalizations for conditions treatable through basic care – Men	/100 hospitalizations	28.9%	2017	26.4%	SIH/SUS	Number of hospitalizations for conditions treatable through basic care/number of clinical hospitalizations x 100 Pro-gender, Gender monitoring
Percentage of hospitalizations for conditions treatable through basic care – Total	/100 hospitalizations	29.6%	2017	27.0%	SIH/SUS	Number of hospitalizations for conditions treatable through basic care/number of clinical hospitalizations x 100
Rate of premature mortality due to CNCDs – Women	Deaths per 100,000 inhabitants	198.9	2017	194.1	SIM RIPSA (2015), IBGE	Number of deaths due to CNCDs in individuals aged 30-69 standardized by age/Resident population aged 30-69 x 100,000 Pro-gender, Gender monitoring
Rate of premature mortality due to CNCDs – Men	Deaths per 100,000 inhabitants	280.9	2017	274.2	SIM RIPSA (2015), IBGE	Number of deaths due to CNCDs in individuals aged 30-69 standardized by age/Resident population aged 30-69 x 100,000 Pro-gender, Gender monitoring
Rate of premature mortality due to CNCDs – Total	Deaths per 100,000 inhabitants	232.9	2017	227.5	SIM RIPSA (2015), IBGE	Number of deaths due to CNCDs in individuals aged 30-69 standardized by age/Resident population aged 30-69 x 100,000

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline	Base year	Final Target (Year 5)	Means of verification	Comments
Number of persons who receive health services	Person (millions)	3.5	2017	3.85	DATASUS	
Percentage of primary care medical consultations with request for referral to specialized care	Referrals/ 100 consultations	17.5%	2017	15.0%	SISREDE	Number of referrals to specialized care requested in medical consultations in the basic network/Total number of medical consultations in the basic network x 100
Monthly average time for distribution of vaccines for health units	Days	15	2017	7	SIES	Number of days between date when vaccines are received from the State of Minas Gerais Health Department (SES/MG) and the date of delivery to the last health center in monthly scheduling/12
Rate of cervical cytopathology examinations per woman	Examinations/ 3 women	29.0%	2017	37.0%	SIA-SUS/ IBGE	Number of cervical cytopathology examinations performed/Estimated female population aged 25-64 x 3 Pro-gender, Gender monitoring
Rate of hospitalization requests made with diagnosis of deep vein thrombosis (DVT)	Requests/ Hospitalizations	1.49	2017	1.33	CINT/SIH	Number of requests due to DVT/hospitalizations with diagnosis of DVT
Average waiting time for endoscopy	Months	5.2	2017	2.0	SISREG	Number of requests for endoscopy/Number of endoscopies offered
Percentage of caesarian deliveries in new mothers at more than 32 weeks and cephalic presentation in maternity ward of the Odilon Behrens Hospital (HOB)	/100 deliveries	29.0%	2017	20.0%	Perinatal Commission	Number of hospitalizations for caesarian delivery at the HOB in new mothers at more than 32 weeks and cephalic presentation /Total hospitalizations for delivery in new mothers at more than 32 weeks and cephalic presentation at the HOB Pro-gender, Gender monitoring
Percentage of childbirths at the Odilon Behrens Hospital (HOB) by pregnant women referred to maternity ward	/100 hospitalizations	61%	2017	75%	Perinatal Commission/ SINASC	Total births referred to HOB maternity ward and occurring there/Total births referred to HOB maternity ward x 100

Indicators	Unit of measure	Baseline	Base year	Final Target (Year 5)	Means of verification	Comments
Percentage of consultations entered into electronic record	/100 consultations	70%	2017	100%	E-SES/ CMD/SIA	Number of consultations with higher level professionals entered into electronic record/Number of consultations conducted with higher level professionals
Rate of central line-associated bloodstream infections in ICUs of hospitals prepared for quality certification	Infections/ 1,000 central venous catheters per day	7.7	2017	5.0	HICC of hospitals 100% SUS	Number of bloodstream infections (ICD A418 and A419)/Number of central venous catheters per day x 1,000
Percentage adherence to quality proposals in hospitals prepared for quality certification	/100 activities	0	2017	90%	Data collected by hospitals	Proposed quality activities completed within period/ Total proposed quality activities

OUTPUTS

Outputs	Unit of measure	Base-line	Base year	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	Year 4 (2022)	Year 5 (2023)	Final Target	Means of verification	Comments
Component 1. Strengthening of primary care networks and health surveillance											
UBSs constructed	UBS	0	2018	0	8	4	0	0	12	Annual audit report ¹	
UBSs equipped	UBS	0	2018	0	8	4	0	0	12	Annual audit report	
Academias da Cidade [sports centers] equipped	Academia da Cidade	0	2018	41	41	0	0	0	82	Annual audit report	
UBS in operation equipped	UBS	0	2018	70	70	0	0	0	140	Annual audit report	
District pharmacies in operation equipped	District pharmacy	0	2018	4	5	0	0	0	9	Annual audit report	

¹ The annual independent audit is a contractual requirement that involves the verification of financial statements and physical progress. The terms of reference for the audit will require the auditing entity to substantiate the physical outputs through review of legal documentation and visits to health facilities. This is an impartial and accurate way to confirm outputs.

Outputs	Unit of measure	Base-line	Base year	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	Year 4 (2022)	Year 5 (2023)	Final Target	Means of verification	Comments
Cold chain constructed	Cold chain	0	2018	0	0	1	0	0	1	Annual audit report	
Cold chain equipped	Cold chain	0	2018	0	0	1	0	0	1	Annual audit report	
Health units with videoconference installed	Health unit	0	2018	0	52	100	0	0	152	Annual audit report	
Component 2. Consolidation and integration of specialized, emergency, and hospital services											
UPAs constructed/renovated	UPA	0	2018	0	1	3	0	0	4	Annual audit report	
UPAs equipped	UPA	0	2018	0	1	3	0	0	4	Annual audit report	
UPAs in operation equipped	UPA	0	2018	0	5	0	0	0	5	Annual audit report	
Mobile Urgent Care Service (SAMU) support units equipped	SAMU unit	0	2018	0	21	0	0	0	21	Annual audit report	
CERSAMs renovated	CERSAM	0	2018	0	0	2	0	0	2	Annual audit report	
CERSAMs equipped	CERSAM	0	2018	0	0	2	0	0	2	Annual audit report	
Odilon Behrens general hospital equipped	Hospital	0	2018	0	0	1	0	0	1	Annual audit report	
Odilon Behrens new maternity ward equipped	Maternity	0	2018	0	0	0	0	1	1	Annual audit report	
Decision support systems (SADs) in operation equipped	SAD	0	2018	7	0	0	0	0	7	Annual audit report	
Specialized health units in operation equipped	Specialized health unit	0	2018	20	20	0	0	0	40	Annual audit report	
Component 3. Improvement of the management, quality, and efficiency of integrated networks											
Health units with technological solution implemented (including electronic record)	Health unit	0	2018	0	60	90	98	98	346	Annual audit report	
Health units with cost management implemented	Health unit	0	2018	0	0	30	30	20	80	Annual audit report	
Own network health units with quality certification	Health unit	0	2018	0	0	0	5	5	10	Annual audit report	

Outputs	Unit of measure	Baseline	Base year	Year 1 (2019)	Year 2 (2020)	Year 3 (2021)	Year 4 (2022)	Year 5 (2023)	Final Target	Means of verification	Comments
Component 4. Program administration and evaluation											
Midterm and final evaluation report	Report	0	2018	0	0	1	0	1	2	Annual audit report	
Impact evaluation reports	Report	0	2018	1	0	0	0	1	2	Annual audit report	
External audit reports	Report	0	2018	0	1	1	1	2	5	IDB records	
Consulting engagements and studies developed	Report	0	2018	0	1	1	1	1	4	Annual audit report	

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country: Brazil

Project number: BR-L1519

Name: Modernization and Quality Improvement of Health Services Networks in Belo Horizonte – Better Health BH

Executing agency: Município of Belo Horizonte, acting through its Municipal Health Department (SMSA)

Prepared by: Leise Estevanato and David Salazar (FMP/CBR)

I. EXECUTIVE SUMMARY

- 1.1 The institutional assessment for fiduciary management of the project was based on: (i) the country's current fiduciary context; (ii) results of the assessment of the main fiduciary risks; (iii) institutional analysis; (iv) working sessions with the project team and the Municipal Health Department (SMSA); and (v) prior experience with the Bank's other health programs in Brazil.
- 1.2 Brazil has robust country fiduciary systems that allow for effective management of administrative, financial, control, and procurement procedures, while observing the principles of transparency, economy, and efficiency. The executing agency's systems related to its planning and organization, execution, and control capacity have a medium level of development, which represents a medium-low level of risk.
- 1.3 The SMSA is an established municipal department with stable, senior technical staff, but not enough for program execution. It also has no experience with programs financed by international agencies nor trained personnel with knowledge of the Bank's procurement and financial management policies. The program also calls for the involvement of other agencies in the execution of program actions.
- 1.4 The Município of Belo Horizonte has the legal capacity and experience to execute the project activities. The SMSA will utilize the existing institutional structure, with specific functional allocations to the project's governance.

II. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 2.1 The borrower will be the Município of Belo Horizonte, capital of the state of Minas Gerais. The program's activities will be executed by the SMSA, acting through the program management unit (PMU) created specifically as part of the program.
- 2.2 The executing agency is subject to both internal and external control. Internal control of the município is exercised by the Office of the Municipal Comptroller General (CGM), which is the hub of the internal control system of the executive branch. External control is exercised by the State of Minas Gerais Audit Office

(TCE/MG), which conducts audits of all state entities. The TCE/MG is eligible for audits of the state's projects with the IDB.

III. ASSESSMENT OF INSTITUTIONAL CAPACITY, FIDUCIARY RISK AND MITIGATION ACTIONS

- 3.1 The institutional capacity assessment and its validation with the staff of the SMSA and principal related stakeholders conclude that the executing agency has high institutional capacity, although it lacks experience executing operations with the Bank.
- 3.2 A fiduciary risk rated as medium-high was identified: unfamiliarity with the Bank's procurement and financial policies on the part of the executing agency and the entities involved (SUDECAP, PGM,¹ SUALOG) until the program startup mission could lead to delays in procurement and disbursements in program year 1, impacting all physical and financial targets for that year. This risk will be mitigated through training on the Bank's fiduciary policies, and management of (fiduciary) knowledge for members of the PMU and the other participating entities.

IV. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 4.1 The fiduciary agreements for procurement establish the provisions applicable to the execution of any procurement envisaged in the project.²

A. Procurement execution

- 4.2 **Procurement of works, goods, and nonconsulting services.** Contracts for works, goods, and nonconsulting services will be subject to international competitive bidding (ICB) and executed using the standard bidding documents issued by the Bank. Bidding processes subject to national competitive bidding (NCB) will be executed using national bidding documents agreed upon with the Bank.
- 4.3 **Selection and contracting of consultants.** Contracts will be executed using the standard request for proposals issued by the Bank. The sector specialist will be responsible for reviewing the terms of reference for the contracting of services. Selection and contracting will be conducted in accordance with the Policies for the Selection and Contracting of Consultants financed by the IDB (document GN-2350-9).
- 4.4 **Use of the country procurement system.** The "Pregão eletrônico" electronic reverse auction country procurement (sub)system approved by the Bank will be used for the procurement of off-the-shelf goods up to an amount of US\$5 million. Any system or subsystem subsequently approved will be applicable to the

¹ The Procuradoria Geral do Município [Office of the Municipal Attorney General] (PGM) will perform the role of reviewing the procurement and contracting processes.

² The PMU will have the support of the Special Bidding Commission, which will comply with the provisions indicated by Law 8,666/93.

operation. The procurement plan and its updates will state which procurements are to be executed using the approved country systems.

- 4.5 **Retroactive financing and recognition of expenditures.** The Bank may retroactively finance up to US\$11.2 million as a charge against the loan proceeds (20% of the proposed loan amount), and recognize up to US\$2.8 million as a charge against the local contribution (20% of the estimated amount of the local contribution), in eligible expenditures incurred by the borrower prior to the loan approval date for contracting included in the procurement plan related to the integrated information technology solution, including software, hardware, and services, and the operation of the Doutor Célio de Castro Metropolitan Hospital, respectively, provided that requirements substantially similar to those established in the loan contract have been met. Such expenditures must have been incurred on or after 20 June 2018 (the project profile approval date) but not more than 18 months before the loan approval date.

- B. Direct contracting.** No provision is made for direct contracting.

Table 1. Threshold amounts for ICB and international short list

Method	ICB Works	ICB goods and nonconsulting services	International short list in consulting services
Threshold	US\$25 million	US\$5 million	US\$1 million

Table 2. Main procurements

Procurement items	Selection method	Estimated date	Estimated amount (US\$ million)
Works			
Construction of 12 basic health units (UBSs)	NCB	June 2019	13.2
Goods and nonconsulting services			
Equipment and durable goods for specialized units	Country system	June 2019	4.1
Equipment for General Hospital	Country system	June 2019	3.5
Specialized technical services	NCB	February 2019	4.9
Consulting services			
Quality Management and Safety Program (certification)	QCBS	June 2019	2.0

- C. Procurement supervision**

- 4.6 Procurement will be subject to ex post supervision, except where ex ante supervision is justified. When the country system is used for procurement, the country system will also be used for supervision.
- 4.7 The supervision method must be identified for each selection process. Ex post reviews will be conducted in accordance with the project supervision plan. The ex post review reports will include at least one physical inspection visit, selected from among the procurement processes subject to ex post review.

Table 3. Threshold for ex post review

Works	Goods	Consulting services
NCB and Shopping	NCB and “Pregão eletrônico” electronic reverse auction	Less than US\$1 million

D. Records and files

- 4.8 The PMU will be responsible for process documentation and will retain the necessary documentation for supervision and auditing purposes.

V. FINANCIAL MANAGEMENT

A. Programming and budget

- 5.1 The SMSA, acting through the PMU, will be responsible for coordinating the entire planning process for the execution of activities according to the multiyear execution plan and the annual work plan. Municipal agencies use the Multiyear Plan (PPA), the Budgetary Guidelines Law (LDO), which sets rules for budget allocations, and the Annual Budget Law (LOA). The project budget will be part of the LOA.
- 5.2 The executing agency, acting through the PMU, will ensure that the budgetary resources for the project (Bank and local contribution) are fully budgeted each year and earmarked for execution in accordance with the project’s programming. Budgetary resources must be recorded in the year of execution in the Budget and Finance System (SOF) as an external source. The LOA must include the necessary funding for execution for both the external loan and the local counterpart.

B. Accounting and information systems

- 5.3 In the Município of Belo Horizonte, public agencies work with the SOF, which handles all financial execution and accounting for municipal operations and allows the adoption of international accounting standards. However, the município does not have an automated accounting/financial information system integrated with the general accounting and must develop an integrated financial management module in the SOF or purchase a system that can generate the program’s disbursement processes and financial statements, as well as the basic reports requested by the IDB.

C. Disbursements and cash flow

- 5.4 The program will use the national government’s treasury system. Expenditures will be subject to the budgetary and financial execution process and fully recorded in the SOF.
- 5.5 The Bank resources will be administered through an exclusive account that allows for independent identification and bank reconciliations of the loan proceeds, including income and payments.
- 5.6 Disbursements will be made in U.S. dollars under the advance of funds modality. Advances will be based on a projection of financial resources for a plan previously agreed upon with the Bank of up to 180 days. Future advances will require accounting for at least 80% of the cumulative total amount for which supporting documentation has not been provided.

- 5.7 For purposes of accounting for the loan proceeds and the local contribution, the executing agency will use: (i) the exchange rate in effect at the time the funds advanced in the currency of the operation are converted into the local currency, for IDB resources; and (ii) the exchange rate in effect on the date of payment for reimbursements of expenditures and recognition of expenditures against the local contribution. Expenditures deemed ineligible by the Bank must be repaid from local contribution resources or other resources, at the borrower's discretion and with the Bank's approval, depending on the nature of the ineligibility.
- 5.8 Supporting documentation for expenditures will be reviewed on an ex post basis by the TCE/MG during the audit process.

D. Internal control and internal audit

- 5.9 Internal control of the município is exercised by the Office of the Municipal Comptroller General (CGM), which is the hub of the integrated internal control system of the executive branch. The CGM was created in 2006 and performs the functions of internal control, government audit, entry correction, corruption prevention and control, and ombudsman activities to increase transparency in the administrative environment. Program activities will be subject to its oversight.

E. External control and audited financial statements

- 5.10 External control is exercised by the State of Minas Gerais Audit Office (TCE/MG), which audits all state entities.
- 5.11 External audit of the program will be conducted by the TCE/MG, which is eligible to perform external audits of Bank loans, or by an independent external audit firm acceptable to the Bank.
- 5.12 The audited annual financial statements will be delivered in accordance with the terms of reference agreed upon with the Bank by the TCE/MG and, if the TCE/MG is unavailable, by an independent external audit firm, within 120 days after the close of each fiscal year, and the final report will be delivered within 120 days after the last disbursement.

F. Financial supervision plan

- 5.13 This plan may be amended during execution to reflect changes in risk levels or the need for additional oversight.

Table 4. Supervision plan

Nature and scope	Frequency	Responsibility	
		Bank	Executing agency
Ex post review of disbursements and procurements	Annual	Fiduciary team	PMU – External Auditor – TCE/RN
Annual audit	Annual	Fiduciary team	PMU – External Auditor – TCE/RN
Review of disbursement requests	Periodic	Fiduciary team	PMU
Supervision visit	Annual	Fiduciary specialist	PMU
Portfolio review	Annual	Fiduciary team	PMU

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/18

Brazil. Loan ____/OC-BR to the Municipality of Belo Horizonte. Modernization and Quality Improvement of Health Services Networks in Belo Horizonte – Better Health BH

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 Municipality of Belo Horizonte, as borrower, and with the Federative Republic of Brazil, as guarantor, for the purpose of granting the former a financing aimed at cooperating in the execution of the program “Modernization and Quality Improvement of Health Services Networks in Belo Horizonte – Better Health BH.” Such financing will be for the amount of up to US\$56,000,000 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 ____ 2018)