PUBLIC
SIMULTANEOUS DISCLOSURE

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

SURINAME

HEALTH SERVICES IMPROVEMENT PROJECT

(SU-L1054)

LOAN PROPOSAL

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2. Monitoring and Evaluation Arrangements
3. Environmental and Social Management Report (ESMR)
4. Procurement Plan

OPTIONAL

1. Technical Analysis
2. Theory of Change
3. Economic Analysis
4. Safeguard Policy Filter (SPF) and Safeguard Screening Form (SSF)

ABBREVIATIONS	
ACSC	Ambulatory-care sensitive conditions
AFD	French Development Agency
BCC	Behavior change and communication
CARPHA	Caribbean Public Health Agency
CCM	Chronic Care Model
CD	Communicable Diseases
CLO	Community Liaison Officer
CKD	Chronic Kidney Disease
CQI	Continuous Quality Improvement
DALY	Disability-Adjusted Life Years
EHR	Electronic Health Record
EHS	Environmental, Health and Safety
ESA	Environmental and Social Analysis
ESMP	Environmental and Social Management Plan
GOS	Government of Suriname
HIAP	Health in All Policies
HQ	Headquarters
HSSP	Health Services Support Project
ICT	Information Communications Technology
KAP	Knowledge Attitudes and Practice
LAC	Latin America and the Caribbean
MESP	Malaria Elimination Strategic Plan
MOH	Ministry of Health
MP	Malaria Program
NCD	Chronic Non-Communicable Diseases
OSS	One-Stop-Shops
OVE	Office of Evaluation and Oversight
PEP	Pluriannual Execution Plan
PIU	Program Implementation Unit
POM	Project Operations Manual
PMR	Progress Monitoring Report
PP	Procurement Plan
PIU	Project Implementation Unit
RAVREDA	Amazon Network for the Surveillance of Anti-Malarial Drug Resistance
RMEI	Regional Malaria Elimination Initiative in Mesoamerica
RHD	Regional Health Districts
SZF	State Health Insurance Fund
TB	Tuberculosis
WHO	World Health Organization

PROJECT SUMMARY
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<table>
<tr><th colspan="5">Financial Terms and Conditions</th></tr>
<tr><td colspan="3" rowspan="2">Borrower: Republic of Suriname</td><td colspan="2">Flexible Financing Facility[a]</td></tr>
<tr><td>Amortization Period:</td><td>24 years</td></tr>
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<tr><td>Source</td><td>Amount (US$)</td><td>%</td><td>Interest rate:</td><td>LIBOR Based</td></tr>
<tr><td rowspan="3">IDB (Ordinary Capital) [d]:</td><td rowspan="3">20,000,000</td><td rowspan="3">100</td><td>Credit Fee:</td><td>[c]</td></tr>
<tr><td>Inspection and supervision fee:</td><td>[c]</td></tr>
<tr><td>Weighted Average Life (WAL):</td><td>15.25 years</td></tr>
<tr><td>Total:</td><td>20,000,000</td><td>100</td><td>Currency of Approval:</td><td>Dollars of the United States of America</td></tr>
<tr><th colspan="5">Project at a Glance</th></tr>
<tr><td colspan="5">Project Objective/Description: The objective of this project is to contribute to the reduction of the burden of disease in Suriname by improving access to high quality, integrated primary care services and enhancing the effectiveness of the health sector to address priority epidemiological challenges.</td></tr>
<tr><td colspan="5">Special Contractual Conditions prior to the first disbursement: (i) establishment of the Program Implementation Unit (PIU) and selection of its key personnel, in accordance with the terms of reference previously agreed with the Bank, including the project manager, and specialists in procurement, financial management, architecture/construction, information technology and operations; and (ii) approval of the Project Operations Manual (POM), in the terms previously agreed with the Bank (¶3.3).
Special Contractual Clauses of the execution: For special contractual clauses of the execution see Annex B of the ESMR.</td></tr>
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[a] Under the Flexible Financing Facility (FN-655-1), the borrower has the option to request modifications to the amortization schedule as well as currency and interest rate conversions. In considering such requests, the Bank will take into account operational and risk management considerations.

[b] Under the flexible repayment options of the Flexible Financing Facility (FFF), changes in the grace period are possible as long the Original Weighted Average Life (WAL) and the last payment date, as documented in the loan agreement, are not exceeded.

[c] The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors during its review of the Bank's lending charges, in accordance with the relevant policies.

[d] Disbursement Restrictions. Pursuant to AB-2990, the disbursement of Bank resources (OC) will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. All these periods will be counted from the time the loan operation is approved by the Board of Executive Directors (¶2.2).

[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. DESCRIPTION AND RESULTS MONITORING

A. Background, Problem Addressed and Justification

1. Health sector context and main epidemiological profile

1.1 **Suriname is currently in the advanced stages of an epidemiological transition**, marked by a sharp rise in the prevalence of Chronic Non-Communicable Diseases (NCDs) in the general population, while high rates of Communicable Diseases (CDs) persist in specific population subgroups. This context, referred to in the literature as the double burden of disease, requires that health authorities reorient and strengthen their approach towards a renewed primary health care system that can offer integrated and comprehensive care for both NCDs and CDs.[1]

1.2 **The MOH is responsible for the provision of care for all citizens.** The MOH is responsible for governance functions through the Central Office (inspectorates, planning and monitoring), and the Bureau of Public Health (surveillance, environmental health, national referral laboratory, disease- and population specific programs). In 2014, Suriname mandated all residents to have health insurance, provided via a public-private mix. Approximately 78% of the population is covered by public insurance (the State Health Insurance Fund (SZF) affiliates primarily government employees, poor, and near poor) or private insurance (2% of all insured).[2] Since 2014 total health and public health expenditures as a proportion of GDP have been around 6% and 3% respectively, lower than the average of other upper-middle income countries in the Latin American and Caribbean (LAC) region (7 and 4%).[3]

1.3 **Supply of health services is concentrated in the Northern coastline, where about 85% of the population resides.**[4] MOH funded primary care in this area (the focus of this program) is provided by the Regional Health Services (RGDs in Dutch) through a network of 43 general primary care facilities. Around 146 private clinics serve people covered by the SZF, by a private insurance, or who are self-paying. Secondary and tertiary health care services are supplied by five hospitals, four located in Paramaribo and one in Nickerie. Outpatient specialized care is provided in polyclinics linked to hospital facilities.

1.4 **In 2016, for all ages, NCDs such as heart and Chronic Kidney Disease (CKD), stroke, diabetes, and cancer were the top causes of deaths (75.7% of the total), loss in disability-adjusted life years-DALYs (66.9% of the total), and accounted for 50% of premature deaths**.[5] Nineteen percent of the total population aged 15-64 has been diagnosed with a NCD (21% women and

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1 Geneau R et al. Raising the priority of preventing chronic diseases: a political process. Lancet. 2010 Nov 13;376(9753):1689–98.
2 No information is available about coverage status of the remaining 20% of the population.
3 World Bank. (2017). *Suriname*. Retrieved May 8, 2018, from https://data.worldbank.org
4 Total population estimates for 2016 were 558,386.
5 Institute of Health Metrics and Evaluation, Global Burden of Disease, 2016.

17% men).[6] NCDs result from, and are driven by population aging and social determinants (urbanization, globalization, poverty and lack of education), which contribute to unhealthy living environments that are correlated with an increase in the behavioral risk factors for NCDs. According to the 2013 Suriname STEPS Survey,[7] two thirds of the population aged 15-64 (about 232,000 persons) has 1-2 risk factors for NCDs and the remaining third between 3-5. Nearly 30% of adults, and 40%-50% of the population over age 55 suffers from high blood pressure; overweight and obesity affects 18% of men, 31% of women and 26% of children aged 13-15. Only 56% of the population met the World Health Organization's (WHO) recommended exercise levels. Other risks like smoking and alcohol consumption are higher among men than women (35% vs 6.5% and 73% vs 43%).

1.5 **In addition to health impacts, worldwide and Caribbean region evidence shows that NCDs have negative economic consequences**. Economic impacts of NCDs at the household level include income loss and increased out-of-pocket expenses, and at the national level, loss of skilled labor and productivity, lower competitiveness and higher government health and social expenditures.[8] Given the existing high levels of exposure to NCD risk factors in the country, unless current trends in Suriname are reversed, NCDs are likely to pose additional burden on healthcare services, increase pressure on healthcare costs, and further deteriorate health outcomes. Compared to the rest of the Caribbean, DALYs caused by diabetes and CKD are almost twice the regional average and have been growing at a faster rate.[9] Between 2005-2016 the incidence (new cases) of diabetes, ischemic heart disease and CKD in Suriname grew by 39%, 19% and 24% respectively.[10] High blood sugar levels is the main risk factor driving the most death and disability combined.

1.6 **On the other end of the double burden of disease, progress in control of CDs has been more marked, with malaria being best example**. Suriname has moved from being the country with the highest annual malaria parasite index in the Americas to one on the threshold of elimination. The coastal area has been free of malaria since 1968 and between 2001-2016 the Malaria Program (MP) achieved near total elimination of the disease in residential villages of the interior.[11] Suriname has reached the Roll Back Malaria and the Millennium Development Goals for Malaria and went from 12,197 malaria cases in 2001 to a low of 352 cases in 2016, of which 86 were autochthonous (locally transmitted).[12]

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6 STEPS study results, a nationally representative, stratified-multistage cluster household survey on NCDs and risk factors. Department of Public Health. Anton de Kom University of Suriname 2016. Chronic Disease Risk Factor Surveillance. Data Book for Suriname.

7 See above. STEPS surveys in Trinidad and Tobago and Barbados show similar levels of exposure to NCD risk factors.

8 World Bank. NCDs in the Caribbean: The New Challenge for Productivity and Growth. Caribbean Knowledge Series No.78596, World Bank; 2013. Spending on hypertension and diabetes as a percentage of GDP was 1.4% for the Bahamas, 5.3% for Barbados, 5.9% for Jamaica, and 8.0% for Trinidad and Tobago.

9 DALYs from diabetes and CKD are 1,828 and 1,033 respectively, vs regional average of 938 and 591.

10 Institute of Health Metrics and Evaluation. Suriname Statistics: http://www.healthdata.org/suriname

11 Van Eer E, Bretas G. Hiwat H. Decreased endemic malaria in Suriname: moving towards elimination. Malaria Journal (2018)17:56 https://doi.org/10.1186/s12936-018-2204-x

12 Hiwat H, et al. Malaria epidemiology in Suriname from 2000 to 2016: opportunities and challenges for elimination(in prep).

However, progress has stagnated due to foci of infection that originate from cross-border movement of mobile illegal workers from small-scale gold mining communities located in the Guyana Shield area.[13,14] Of the 11,381 people who attended national health facilities in 2016, 538 (4.7%) were positive for malaria infection, and of these, 92.6% were imported malaria cases.[15] Hence, although DALYs due to Malaria have decreased (0.05% of all DALYS), there is both an opportunity to eliminate the disease and a risk of resurgence in poor populations if proper elimination activities are not implemented. The gold mining population is also affected by other CDs such as HIV (prevalence of HIV among Surinamese adults aged 15–49 is 1.4%, while the LAC average is 0.51%).

2. Institutional and service delivery challenges

1.7 **The MOH faces institutional challenges to reduce the double burden of disease.** Stemming from international agreements which have followed the 2011 United Nations General Assembly high-level meeting on NCDsm Suriname committed to implementing a set of policy actions to mitigate the impact of NCDs and reduce their upward trend. These actions are formulated in the National Action Plan for the Prevention and Control of NCDs (2015-2020), which places emphasis on use of cost-effective interventions to reduce risk and improve prevention and management of disease, strengthening of monitoring and surveillance and enabling health delivery systems to respond to NCDs. Yet, a 2017 WHO assessment to track progress in achieving these commitments shows Suriname is lagging, fulfilling only 8 of the 19 progress indicators measured.[16] Institutional bottlenecks for MOH policy implementation have been previously documented in several health programs previously slated for execution in Suriname, and in the most recent Office of Evaluation and Oversight (OVE) country evaluation report including: (i) limited institutional capacity at MOH related to weak governance arrangements; (ii) outdated management systems and processes; and (iii) deficiencies in subject matter training.[17]

1.8 **Lack of data and digital information systems in Suriname is a major cross-cutting impediment to formulate effective policies and for accountability**.[18] Suriname is in the group of countries in LAC that make the least use of statistical information for decision making.[19] Regarding health information, core epidemiologic, service production, cost and system performance data is either not collected or is difficult to access as it is contained in silos due to fragmentation of information between coastal and interior areas, individual hospitals and clinics, vertical programs and centralized systems, and public and private health services. Data on social determinants of health from other sectors is currently not linked to HIS. Use of standards is also lacking, which affects data quality. At the national level, an accurate and updated state of the country's health information system (HIS) is currently not available; the most recent assessment was conducted by the

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13 The area includes Suriname, Guyana and French Guyana.
14 See Hiwat H et al above.
15 95.6% of imported malaria cases originated in French Guyana.
16 WHO. 2017. NCD Global Monitoring Framework Report.
17 IADB. Country Programs Evaluation, Suriname, 2016, OVE Report.
18 See above and IADB. Suriname Country Development Challenges (CDC), 2016.
19 Russell y Muñoz 2015*. Un estudio exploratorio para medir el uso de las estadísticas en el diseño de política pública. BID. Documento de discusión. IDB-DP-374.*

Pan American Health Organization (PAHO) in 2007. Deficiencies in quality and timely data that is both locally and centrally available, summed to limited capacity to interpret data, ultimately affects the MOH's ability to use information for decision making, rendering information systems inadequate for disease surveillance and public health planning, monitoring, and evaluation. For example, the total data availability/completeness to track Suriname´s progress in implementing the National Action Plan described above is below 35%.[20]

1.9 **Current MOH headquarters (HQ) facilities do not offer the conditions for the MOH staff to perform core functions in a healthy, safe and accessible environment.** The HQ offices and central services, operated and managed directly by the MOH, are currently located in different buildings scattered within the city of Paramaribo. The main HQ, an entirely wooden structure, presents serious maintenance problems, structural deficits, lacks anti-fire and cooling systems, and is inaccessible to people living with disabilities. Other MOH offices and central facilities buildings´ conditions show varying degrees of deterioration, some being abandoned and infested by pests (see detailed diagnosis in Technical Analysis). A survey undertaken by IDB among MOH employees in May 2018, showed that the infrastructure is rated, on average, deficient in all aspects.[21] Moreover, employees spend almost seven hours/week attending meetings outside of their building, suggesting that physical distance between locations makes team work and communication difficult, and effects productivity due to loss of time spent moving among locations.

1.10 **The current organization of the healthcare network and care model is insufficient to provide quality services necessary to address the challenge of NCDs.** NCDs typically require management for extended periods of time, with a high level of patient involvement and the coordination of multiple healthcare providers. The full range of care for NCDs includes strategies from primary prevention (preventing the onset of disease by reducing exposure to risk factors), secondary prevention (preventing full development of disease by early detection of symptoms and treating diagnosed cases), treatment and rehabilitation of acute cases (e.g. cardiac surgery), and palliative care. Due to high treatment costs of acute cases, successful approaches to management and control of NCDs emphasize primary and secondary prevention. However, in Suriname, a large proportion of resources, about 40%-50% of MOH expenditures are allocated to secondary and tertiary levels of care.

1.11 **The disease profile of patients that seek care in hospitals indicates that the primary healthcare (PHC) level has not reached its full potential to address the needs of primary and secondary prevention of NCDs.** In 2016, out of 23,000 hospitalizations at the Academic Hospital, at least 10% were due to ambulatory-care sensitive conditions (ACSC), that is, conditions for which hospitalizations could potentially be avoided with quality primary care capable of preventing their onset, treating an acute episode, or delivering proper long-term

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[20] WHO. 2017. NCD Global Monitoring Framework Report. The WHO NCD Progress Monitor tracks the extent to which WHO Member States implement commitments to national responses to NCDs, based on agreed progress indicators.

[21] Evaluated dimensions: natural and artificial light, temperature, space (m^2), furniture, art and decoration-plants, meeting and dining rooms, sanitary services, recreation and leisure areas, ease entering and moving within the building, equipment, parking, fire safety.

management. About 70% of the hospitalizations for ACSC were due to chronic heart and lung diseases and diabetes, thus pointing to lack of effective management of chronic conditions in Suriname's primary care level. Also, the high prevalence of complications from untreated diabetes, such as amputations of lower extremities and chronic kidney failure provide additional evidence for this claim. Poor coordination, lack of continuity and integration of care, as well as organizational access barriers are common factors leading to these problems.[22] Furthermore, guidelines for prevention and standards of care either don't exist or there is important variation in their application. For example, 42% and 50% of the population aged 15-64 has not been screened for elevated blood glucose or blood pressure respectively, and only 48% and 20% of persons diagnosed with diabetes received nutritional advice or a foot examination in the last year.[23] Effective delivery of services for NCDs is also affected by shortage of trained medical staff, and limitations to facility functioning at full capacity rate due to old infrastructure and obsolete medical equipment that is poorly maintained. Availability of data for reporting to central levels is limited by poor ICT infrastructure, lack of electronic medical records, as well as limited interoperability of existing information systems.[24]

1.12 **There has been innovation in the provision of care for NCDs, but these efforts are still small in scale and reveal additional challenges.** Two polyclinics (so-called "One-Stop-Shops" or OSS) were opened in 2013 in the locations of Paramaribo and Nickerie to provide high-quality, patient-centered, multidisciplinary, integrated care for patients with diabetes. According to established guidelines patients receive a comprehensive assessment of health status and risk screening and an individualized care and follow up plan that includes foot and eye care and psychological and nutritional counselling. Patients are also offered an education module that seeks to increase knowledge about self-management of diabetes and practical skills about nutrition and cooking. Pre-post evaluations of OSS care after 3 years of operation show that about 30% more patients achieved target blood glucose and none had a foot complication.[25] The OSS has provided services to more than 3,000 diabetic patients annually, about 10% of estimated diabetic population. Implementation of the OSS has had its own challenges regarding clinical processes and information and data issues.[26] Patients lack unique identifiers and are duplicated within the system, resulting in unnecessary care and creating challenges for care coordination. Also, deficiencies in timeliness and flows of information for proper scheduling result in high attrition rates for planned interventions (90% of patients don't attend a series of yearly screenings), pointing to the need for right Information Communications Technology (ICT) tools and process improvements.

1.13 **Patient level factors need to be addressed for their successful empowerment to change risky behaviors and improve self-management of NCDs.** As mentioned, from the OSS experience, high attrition rates for follow ups, and the fact that less than 50% of patients complete diabetes education modules, may indicate that uptake of NCD prevention and management services may be

[22] PAHO 2014.Suriname Country Profile.
[23] STEPS survey.
[24] See PAHO 2014.
[25] ACSION. 26 October 2016. Lessons from Case Studies in Value Healthcare. Bonaire.
[26] Annual Report 2016. One-Stop-Shop Paramaribo.

negatively affected by cultural and gender-related barriers. Evidence at the national level shows that, compared to women, men in Suriname are less likely to seek preventative health services and are therefore less likely to be screened or treated for NCDs, and men with NCDs consult the health care system at a later stage, which leads to more complications, such as CKD and amputations.[27]

1.14 **Individual level factors, such as a lack of knowledge and barriers to access, also make gold mining communities vulnerable to communicable diseases like Malaria and HIV.** The gold mining communities are highly vulnerable to malaria transmission and other CDs like HIV, due to their remoteness, poverty and traditions and habits. For example, MP studies reveal little knowledge about the potential health threats of malaria and low rates of ownership and use of bed nets. Insufficient health seeking behavior is associated with both self-treatment and low adherence to treatment, both of which contribute to high rates of transmission and development of drug-resistance of the malaria parasite. [28,29] Similarly, a 2012 study found that 70% of the miners had little or no knowledge about HIV and about 50% did not know where to go for testing or obtain medical or socio-emotional support. On the other hand, high turnover of miners in high risk areas complicates surveillance and monitoring of disease prevalence and intervention effectiveness, since there are no reliable estimates of the population size, risk and health seeking behaviors.

1.15 **Supply side capacity is also a challenge for communicable diseases**. Maintaining capacity for prevention and response is threatened by loss of expertise of malaria (case) management among health professionals given the very reduced number of events. Furthermore, surveillance capacity may be compromised because microscopists in hospitals, medical centers and laboratories hardly ever see malaria positive slides and are at risk of losing their skills for the detection of cases.

3. Program strategy

1.16 **In a context of fiscal constraints, the GoS seeks cost-effective strategies to manage this complex epidemiologic profile and establish a sustainable path to improving its health system.** To reduce the rate of NCD's, and address remaining pockets of high prevalence of CD's, international experience recommends focusing on strengthening primary health care services that offer comprehensive care. Supporting this strategy by strengthening core policy and technical functions and with information technologies and digital solutions on both the supply and demand side can enable and accelerate successful implementation.

1.17 **National action plans in health sector will serve as a platform for institutional strengthening.** As mentioned, the MOH developed an NCD action plan to coordinate policy actions to address NCDs and their risk factors, which includes monitoring, surveillance and evaluation as a priority strategic area. Actions include

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[27] See above.

[28] KAP study in Malaria vulnerable populations in Suriname. 2016. IDB report; National AIDS Programme. Behavioural surveillance survey & seroprevalence study among sex workers and their clients in small-scale gold mining areas. June 2012.

[29] Bureau of Public Health. 2014. Malaria in Suriname Analysis of the Trends. Malaria Program.

development of NCD registries (cancer and CKD) and application of STEPS risk factor surveys. The GoS also formulated the National Malaria Elimination Strategic Plan (MESP) 2018-2022, which focuses on testing, treating and tracking all cases and strengthening malaria information systems. Moving these plans forward requires cross-cutting national actions, starting from an assessment of the maturity of Suriname's health information ecosystem in five key areas: leadership and governance; management and workforce; ICT infrastructure; standards and interoperability; and data quality and use. Additionally, it is necessary to map out current HIS architecture to properly identify needs and address the information constraints specifically for effective implementation of the NCD action plan. This diagnosis will inform the design of a roadmap for cross-cutting ecosystem improvement and selection of priority actions to implement at the Ministerial and service delivery levels, with benefits for both NCDs and CDs. The program will build on practical lessons learned from IDB's Salud Mesoamerica Initiative regarding mapping information flows to improve use of routine information systems and creating a reflective environment for supportive supervision and quality improvement.

1.18 **Co-location and indoor environment have impacts on employees' productivity.** Studies in Brazil and the USA show that physical proximity of employees facilitates multi-sector work by improving communication, information exchange and team-building, fostering a collaborative working culture and resulting in greater efficiency, effectiveness in decision making and higher productivity.[30] In warm weather contexts like Suriname, evidence that indoor environment (noise, lighting, temperature, and existence of windows) has a positive influence on employees' attitudes, behaviors, satisfaction and work performance.[31] Intervening on these factors, by concentrating all MOH offices and central facilities in one site and improving the work physical conditions, will provide MOH staff with an environment that favors better performance of their functions.

1.19 More effective management and control of NCDs in Suriname will be achieved through the expansion of the Chronic Care Model (CCM) within primary care.[32, 33] The CCM's principle is patient-centered care, meaning patients are treated holistically (i.e., considering context, all health problems and needs) and supported in learning self-management of their condition,[34] while health services have resources for effective decision-making and continuity of care. The delivery network is set up to provide multidisciplinary primary care that covers the entire population, serving as a gateway to the system which integrates and coordinates

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30 Zenun M.M.N., Loureiro G., Araujo C.S. (2007) The Effects of Teams' Co-location on Project Performance. In: Loureiro G., Curran R. (eds) Complex Systems Concurrent Engineering. Springer, London; Teasley, S.D., Covi, L., Krishnan, M.S., & Olson, J.S. (2000). How does radical collocation help a team succeed? CSCW.

31 Kamarulzaman et al. (2011). An Overview of the Influence of Physical Office Environments Towards Employee. Procedia Engineering Volume 20, 2011, Pages 262-268; Niemelä et al. (2002). The effect of indoor air temperature on labour productivity in call centres – a case study. Energy and Buildings. 34: 759-764.

32 Hansen, Johan, et al. 2015."Living in a country with a strong primary care system is beneficial to people with chronic conditions." Health Affairs 34, no.9:1531-1537.

33 Bodenheimer, Thomas, Edward H. Wagner, and Kevin Grumbach. "Improving primary care for patients with chronic illness." Jama 288, no.14 (2002):1775-1779.

34 Mahomed, Ozayr Haroon, and Shaidah Asmall. "Development and Implementation of an Integrated Chronic Disease Model in South Africa: Lessons in the Management of Change through Improving the Quality of Clinical Practice." International Journal of Integrated Care 15 (2015).

health care across levels, including the community.[35] Evidence shows that in this context, interaction between informed, engaged patients and proactive primary care teams sustainably and consistently improves clinical results. [36,37] Results from randomized controlled trials that have tested CCMs in primary care contexts in Europe[38] show that compared to usual diabetes care, more patients reached treatment targets for blood pressure, and levels of blood sugar and cholesterol. Experiences with a CCM similar to the OSS in 8 Caribbean countries show improvements in baseline to follow up measures of blood glucose control and increases in the proportion of patients receiving a preventive practice or meeting quality-of-care indicators.[39] In Suriname, the main platform for implementation of the CCM is the OSS Clinics. Given increasing demand and results achieved, the GoS plans the expansion of the CCM to the RGD network in other districts with the support of this program. Diabetes is considered an ideal case for development of general policies for chronic illness; many breakthroughs in NCDs management have started with pilots in diabetes care and were consequently rolled out to, for example, to pulmonary and cardiovascular diseases.[40]

1.20 **The introduction of digital tools will improve efficiency and sustainability as the CCM is expanded in Suriname.** Research shows digital tools make important contributions to the provision of chronic care and the CCM at scale, when patients and providers are connected through a complete feedback loop to share data and information about the patient, compare this information to evidence-based standards, provide personalized and timely care to the patient, and monitor results through regular feedback and interaction.[41,42] At the core of the clinical information system, electronic health records (EHRs) have the potential to improve clinical practice by reducing staff errors or incidents, improving automated harm detection, monitoring infections more effectively, and enhancing the continuity of care during physician handoffs.[43] The use of mobile health (mHealth) tools (SMS messages, medication reminders, symptom monitoring, educational tools) targeting low-income, elderly, and minority groups, has facilitated patient-provider communication to increase adherence and lessened the burden of travel to a care provider. Additionally, mHealth tools have facilitated better management and improved patient confidence to monitor chronic diseases, making the patients feel

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35 Gaudreault, Suzanne and Muhire Martin. Applying the CMM to Health System Design in Low-resource Settings: Lessons from HIV Improvement Interventions, Technical Report. University Research Co., LLC (URC)2013.

36 Scholl, Isabelle et al. "An integrative model of patient-centeredness–a systematic review and concept analysis." PloS one 9, no. 9 (2014).

37 Cramm, Jane Murray and Nieboer, Anna Petra. “Short and long-term improvements in quality of chronic care delivery predict program sustainability”. Social Science & Medicine Vol. 101 (2014):148-154.

38 Bongaerts BWC, Müssig K, Wens J, et al. 2017. Effectiveness of chronic care models for the management of type 2 diabetes mellitus in Europe: a systematic review and meta-analysis. BMJ Open.

39 PAHO. Innovative Care for Chronic Conditions: Organizing and Delivering High Quality Care for Chronic Noncommunicable Diseases in the Americas. Washington, DC: PAHO, 2013.

40 Struijs, JN et al. Three years of bundled payment for diabetes care in the Netherlands. Bilthoven: National Institute for Public Health and the Environment (RIVM); 2012.

41 Gee, P. M., Greenwood, D. A., Paterniti, D. A., Ward, D., & Miller, L. M. S. (2015). The eHealth enhanced chronic care model: A theory derivation approach. *Journal of Medical Internet Research*, *17*(4), e86.

42 Lessons learned from SMI, this includes intentionally designing information flows back down the system to encourage not only quality and timely reporting, but for use at the front lines.

43 Reis, Z. et al. 2017. Is There Evidence of Cost Benefits of Electronic Medical Records, Standards, or Interoperability in Hospital Information Systems? Overview of Systematic Reviews. *JMIR Medical Informatics*, *5*(3), e26.

in control and strengthening coping mechanisms.[44] Telehealth, or the remote diagnosis and treatment of patients by means of telecommunications technology, has proven effective in the management of NCDs, like diabetes and CKD and is viewed as a powerful resource for improving health outcomes, health care quality, and to promote patient engagement and self-management.[45] Low uptake of diabetes education is a global problem with non-attendance rates between 30% and 93% in diverse settings; innovative approaches to diabetes education including text messaging, tailored e-mail and telemedicine clinics have been shown to significantly improve uptake in vulnerable populations in both urban and rural communities,[46] and since mobile-cellular subscriptions are high in Suriname (141.3 per 100 inhabitants) mHealth and telemedicine may provide an opportunity to improve patient adherence and aid in follow-up.

1.21 **Within malaria control, focus will be on sustaining elimination levels, preventing re-introduction and outbreaks in malaria-free areas and containing drug resistance.** The remarkable progress toward malaria elimination in Suriname has been achieved by applying the best practices generated by the WHO and partner institutions.[47] The continued decline in number of malaria cases are an indication of the effectiveness of the approach, but additional work is still required in the hard to reach mining population that travels back and forth from endemic areas to areas where the disease has been eliminated. With that purpose, the Global Fund (GF) is currently funding the MP with a 3-year grant which commenced in April 2018 to address malaria in the interior mining areas. Its principal focus is on training Malaria Service Deliverers (MSD)[48] and Active Case Detection (ACD). The IDB program will complement this support with other actions not funded by the GF. One area of support will be directed to outreach and community engagement activities, including design and implementation of culturally appropriate behavior change and communication (BCC) strategies to increase use of bed nets and improve health seeking behavior and adherence to treatment by at-risk population, as well as to obtain community involvement for malaria elimination. Design and implementation of these strategies will be based on knowledge, attitudes and practices (KAP) studies and accompanied by relevant training in outreach and by distribution of bednets. A second area of support will focus on strengthening surveillance systems, through capacity building and equipment upgrades for data collection, processing and analysis at the national and local laboratory levels, and design of quality standards and guidelines for ACD.

1.22 **Integrated protocols for control of CDs will leverage the success of malaria elimination efforts to reach at-risk populations for other CDs.** Additional opportunities to achieve efficiencies of scope exist in the malaria program, since it targets population that is at risk for HIV infection. The backbone of the malaria program in the mining areas is the MSDs network, who are often the only health

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44 Hamine, S., Gerth-Guyette, E., Faulx, D., Green, B. B., & Ginsburg, A. S. (2015). Impact of mHealth chronic disease management on treatment adherence and patient outcomes: A systematic review. *Journal of Medical Internet Research*, *17*(2).

45 See above.

46 G Horigan et al. 2016.The reasons patients referred to Diabetes Education programmes choose not to attend: - a systematic review. Institute of Nursing & Health Research, University of Ulster Digital health in the Americas. PAHO, 2017.

47 Suriname is part of the Amazon Network for the Surveillance of Anti-Malarial Drug Resistance (RAVREDA) and the Amazon Malaria Initiative.

48 MSDs are individuals from the artisanal mining areas trained supervised by the MP.

care providers in remote areas. The MP also provides free malaria services in the so-called TropClinic in Paramaribo, which included HIV counseling and testing in its service package since 2015. The additional focus of the program on HIV is based on recommendations from previous KAP studies to develop a BCC with messages to encourage safe-sex practices, and raise HIV awareness, tailored to the ethnicity, language, education level and mobility of the miner population.[49, 50] Following WHO guidelines for HIV control, the BCC strategy will be complemented with support for HIV counseling and testing as the entry point for treatment services provided through the MSD network. With a similar approach Suriname has achieved near-universal testing for HIV among its tuberculosis program and among pregnant women.[51] Moreover, the program will include the design and implementation of a strategy for integration of services for HIV within the MP, informed by studies on population size, mobility and health needs of the mining population. Using the MP system to provide integrated services to a population who is otherwise barely accessing regular health services allows the MOH to establish an efficient approach to tackle CDs, making use of available human, physical and logistic resources.

1.23 **Synergies with other IDB Malaria programs.** IDB recently launched the Regional Malaria Elimination Initiative in Mesoamerica (RMEI), that will support malaria elimination in other countries of the region. Close collaboration and exchange of information will be established to include joint capacity building activities and exchange approaches, tools and metrics developed and tested under this program and RMEI.

1.24 **Bank's support to the health sector and lessons learned.** The Bank funded a Health Sector Reform Program (SU-0028) loan in 2004 and more recently, two TCs: Support for Prevention and Control of NCDs (SU-T1062), Support for Active Malaria Case Detection Program (SU-T1072). These operations provided key lessons which were incorporated in the design of this program, including: (i) the need to strengthen the capacity to oversee project implementation, monitoring and evaluation, and coordination of components, which will be addressed through the agreement with the MOH to establish a dedicated PIU and through the proposed M&E arrangements (see ¶2.6; ¶3.2); (ii) recognition that successful care coordination of patients along the continuum of care is critical to the timely and effective delivery of services and to this end, CQI and ICT are key elements under Subcomponent 1.2 and Component 2 the need for a health information system to coordinate care among NCD patients; and (iii) the effectiveness tailoring Behavior Change Communication strategies for malaria to gold mining communities' characteristics, which has been incorporated in the design of Component 3.

1.25 **Strategic Alignment.** This program is consistent with the Update of the Institutional Strategy 2010-2020 (AB-3008) and is strategically aligned with the development challenge of social inclusion and equality by improving access of the population to

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[49] Heemskerk M, Duijves C. 2012 Looking for gold, finding malaria Assessment of changes in malaria-related knowledge, attitudes, and practices resulting from the MOH malaria program in small-scale gold mining areas in Suriname (KAP study results).

[50] Heemskerk M, Duijves C. 2018. Gold miners' knowledge attitude and practices with regard to malaria in Suriname. (KAP study results).

[51] MOH. Suriname HIV epidemiological profile (2000-2013). World Health Organization. (2018); Provider-initiated HIV testing and counselling in health facilities.

high quality primary care services. It is aligned with cross-cutting issues of gender equality and diversity, by improving women's and men's access to health services and to BCC interventions for diseases and risks that affect them disproportionately. It contributes to the Corporate Results Framework 2016-2019 (GN-2727-6) by increasing the number of beneficiaries receiving health services. It is relevant to priority areas in the IDBG Country Strategy with the Republic of Suriname 2016-2020 (GN-2873): (i) Modernizing the Public Sector, by strengthening the health sector's capacity for evidence-based policy making; and (ii) Protection of Human Capital by supporting interventions to address major causes of healthy life years lost. The operation is included in the OPR 2018 (GN-2915). It is aligned with the Strategy on Social Policy for Equity and Productivity (GN-2588-4). The program is consistent with the Health and Nutrition Sector Framework's (GN-2735-7) priorities: (ii) that all people have timely access to quality health services; and (iv) that health sector governance seeks efficiency and leadership in health and promotes intersectoral coordination. It is also consistent with the focus of the GoS's National Health Sector Plan (2011-2018), the NCD plan (2015-2020) and the MESP (2018-2029), by supporting interventions that increase prevention of and reduction of the double burden of disease.

1.26 **Climate change and environmental sustainability.** This program will contribute to CC mitigation, by incorporating mitigation measures to all the facilities to be retrofitted/built.[52] According to the joint MDB approach on climate finance tracking, 22.3% of total IDB funding for this operation results in climate change mitigation and adaptation activities. This contributes to the IDBG's climate finance goal of 30% of combined IDB and IIC operational approvals by year's end 2020.

1.27 **Donor coordination.** The main donors and their specific areas of work in the Suriname health sector are: (i) the Global Fund, currently funding programs to address HIV (specifically targets sex workers, men who have sex with men, and youth), Tuberculosis-TB (seeks to expand treatment and to strengthen country diagnostic capacity), and the MP activities in the interior mining areas described previously; (ii) the French Development Agency-AFD, currently funding construction of a secondary care hospital and purchase of medical equipment for tertiary care and for medical mission clinics; (iii) the Islamic Development Bank (IsDB) currently funding construction of a tertiary hospital and specialized training of health professionals; and (iv) the OPEC Fund for International Development, which finances, amongst others, the rehabilitation of RGD clinics and a pharmaceutical warehouse. The team has established a partnership with PAHO and The Caribbean Public Health Agency-CARPHA, who provide technical support to Suriname to develop tools to build country capacity to address infectious diseases and NCDs.

B. Objective, Components and Cost

1.28 The objective is to contribute to the reduction of the burden of disease in Suriname by improving access to high quality, integrated primary care services and enhancing the effectiveness of the health sector to address priority epidemiological challenges. The program will focus on financing strategies for NCD prevention and

[52] The project will finance the reuse of abandoned/underused buildings and the construction of a new one, all incorporating green design criteria and mitigation measures (See Technical Analysis).

control and for malaria elimination and integration of services for other priority CDs within the MP.

1.29 **Component 1: Institutional strengthening of the MOH for evidenced-based policy-making (estimated US$12.372 million).** This component seeks to improve the ICT and physical working environment platforms for the MOH to exercise core policy and technical functions.

1.30 **Subcomponent 1.1. Improved Health Information System (estimated US$4.300 million).** This component seeks to improve the Health Information System in Suriname. Based on findings from the needs assessment (see ¶3.11), this subcomponent will finance: (i) technical assistance for updates to policies, standards and interoperability; (ii) design and implementation of data warehouse and dashboards; (iii) improved ICT infrastructure including servers, connectivity and hardware; (iv) design and implementation of the integrated clinical information system for expansion of the CCM and its respective costed maintenance plan; (v) Implementation and analysis of two rounds of the STEPS survey; and (vi) design and implementation of disease registries for CKD and cancer.

1.31 **Subcomponent 1.2. MOH headquarters and central services infrastructure (estimated US$8.072 million).** This will consist of improvement to the physical working environment for the MOH to perform its core business functions, enhancing productivity and hence a more effective management of the health sector´s priorities. All the MOH facilities will be concentrated in one site, located in Rode Kruislaan[53] which will be modernized to accommodate administrative and public health central services (i.e. vaccines, children with special needs, breastfeeding, health library). The works will include the reuse of abandoned/underused buildings and the construction of a new one, all incorporating green design criteria and climate change mitigation measures. [54] The subcomponent will finance: (i) the construction design of approximately 6,000m^2 and the landscape design of approximately 2.5 Ha; (ii) the retrofit of the existing buildings, new construction works and landscaping of the compound; (iii) the procurement of office furniture and equipment; (iv) the supervision of the construction works; and (v) the design of a costed maintenance plan.

1.32 **Component 2. Expansion of the CCM (estimated US$3.840 million).** The objective of this component is to improve accessibility and quality of clinical pathways for non-communicable diseases. It will support improvement and expansion of an integrated, patient-centered healthcare model for diabetes in the OSS of Paramaribo and Nickerie, and within approximately 18 RGD primary care facilities that already operate in these areas. Facilities will be selected based on results of a health care network demand and supply analysis. Financing will be provided for: (i) infrastructure upgrades and physical repairs; (ii) procurement of medical and non-medical equipment and supplies; (iii) design and implementation of a continuous quality improvement (CQI) strategy to optimize clinical and management processes related to the CCM; (iv) training of clinical personnel in core CCM protocols (i.e. footcare); (v) design and implementation of innovative

[53] The selected site is property of the GOS, currently used for MOH facilities and located in an urbanized area.

[54] Technical Analysis. Provides details on the infrastructure project, including assessment of existing conditions, architectural brief, program of space requirements and design criteria.

patient education and activation strategies; and (vi) initial operating costs of equipment improvements to the CCM.

1.33 **Component 3. Increase access to priority services for communicable diseases in at risk population (estimated US$1.500 million).** The objective is to sustain and improve the response to communicable diseases. This component will finance the following activities targeting the gold mining population: (i) design and implementation of culturally appropriate BCC strategies to reduce exposure to risk factors for malaria and HIV (i.e. promoting use of bed nets, increasing health seeking behavior) and improve adherence to treatment by at-risk population; (ii) specialized training for the MP and National Reference Laboratory personnel; (iii) training of MP personnel in BCC; (iv) equipment upgrades for the national reference laboratory and TropClinic surveillance; (v) technical studies; and (vi) training and laboratory and field equipment for HIV screening.

1.34 **Program Administration and Evaluation (estimated US$1.665 million).** This budget line will support the operation of the PIU and project administration and evaluation activities, including the design and implementation of an impact evaluation.

C. Key Results Indicators

1.35 The program is expected to contribute to the reduction of NCDs and CDs, therefore at the impact level, the main indicators included in the Results Matrix are: annual rates of Ambulatory Care Sensitive Conditions hospitalizations due to diabetes and annual number of autochthonous Malaria cases. With respect to program outcomes the Matrix includes indicators that measure generation and use of health information, improvements in MOH HQ infrastructure, indicators of processes, quality and effectiveness of diabetes care, detection and counseling for HIV and changes in knowledge and practices regarding malaria. Specific sources of verification, baselines, and targets are described in detail in the Results Matrix.

1.36 **Economic analysis.** An ex-ante cost effectiveness analysis was conducted. This analysis was framed from the societal perspective, with a discount rate of 12% following guidelines for the economic assessment of projects financed by the IDB. A case basis was analyzed with a time horizon of 10 years. Effectiveness data was obtained from the goals of the results matrix, available literature and were confronted with the effectiveness results reported for similar interventions in comparable contexts. Costs were obtained from national costs and international benchmarks, and references published in the literature. Results show the incremental cost effectiveness ratio of the program for the year 2019 is US$9,400 per DALY avoided, which meets international criteria for cost effectiveness for Suriname's GDP per capita. Sensitivity analysis shows cost effectiveness results are robust to variations in discount rates and effectiveness parameters. Acknowledging limitations of the assumptions of this evaluation, results indicate implementation of the program would generate an increase in net welfare for the people of Suriname (see Economic Analysis).

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing Instruments

2.1 The program will be financed by a loan from the IDB with a total value of US$20 million. The financing instrument is a specific investment operation chargeable to the Ordinary Capital (OC).

Table II-1. Program Costs and Financing (in US$)

Component	US$	%
1. Institutional strengthening of the MOH for evidenced-based policy-making	**12,372,000**	62
Subcomponent 1.1. Improved Health Information System	4,300,000	
Subcomponent 1.2. MOH headquarters and central services infrastructure	8,072,000	
2. Expansion of the CCM	**3,840,000**	19
3. Increase access to priority services for communicable diseases in at risk population	**1,500,000**	8
Program administration and evaluation	**1,665,000**	8
PIU basic staff salaries	1,170,000	
Monitoring & Evaluation	365,000	
Financial audits	100,000	
Mid term evaluation	40,000	
Final Evaluation (PCR report)	50,000	
Impact Evaluation	175,000	
Logistics and minor management costs	130,000	
Contingency reserve	**623,000**	3
TOTAL	**20,000,000**	**100**

2.2 **Disbursement restrictions.** Pursuant to Document AB-2990, the disbursement of Bank resources (OC) will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first 36 months. These limits may not apply if the requirements established in the Bank's policy in this regard have been fulfilled, provided that the borrower has been notified in writing. All these periods will be counted from the time the Loan operation is approved by the Board of Executive Directors. The disbursement period will be six years. See Table II-2:

Table II-2. Disbursement projections (In US$1000)

	YEAR						
Source	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**EOP**
IDB	518.9	3023.1	5345.1	6472.3	2338.3	2302.5	20,000
%	2.6	15.1	26.7	32.4	11.7	11.5	100
Total	**518.9**	**3023.1**	**5345.1**	**6472.3**	**2338.3**	**2302.5**	**20,000**

B. Environmental and Social Safeguard Risks

2.3 Given the nature of the activities and investments, it is anticipated that the environmental and social impacts and risks are likely to be mostly local and short term, for which effective mitigation measures are readily available. Therefore, a

Category “B” classification has been assigned to the Operation in accordance with the IDBs Environment and Safeguards Compliance Policy (OP-703). An Environmental and Social Analysis (ESA) including a Consultation Plan with stakeholder analysis and a Sociocultural Analysis (SA) were prepared and disclosed on the Bank’s website and the Executing Agency’s website. A consultation event took place on May 29, 2018.

2.4 The main socio-environmental implications of the Operation are related to Component 1, specifically Subcomponent 1.2. The primary medium level risk identified is associated with the presence of asbestos in buildings currently on the site selected for the new MOH HQ, which will need to be properly disposed of or encapsulated, as well as to adequately dispose of and manage any hazardous or biomedical waste produced by the new building or its operation, as part of the Environmental and Social Management Plan (ESMP). Risk mitigation includes incorporation of the ESMP as a contractual requirement in bidding specifications for the building contractor. The ESA verified that the disaster risk is moderate, since the project isn’t expected to exacerbate the risk of flooding and will take measures in the building design to improve drainage of the site. Secondarily, Component 3 will include health services to be provided within close proximity to indigenous communities, and while there aren’t any negative impacts expected to indigenous communities, a SA was carried out to produce specific recommendations for measures that will ensure that there are no negative impacts in terms of the transport and storage of hazardous or medical waste, and that indigenous people aren’t excluded from the services.

2.5 The ESA identified a medium-high risk for implementation of the ESMP related to low capacity for environmental and social management by the MOH, which will be mitigated by including in the PIU an environmental, health and safety specialist and a community liaison officer. These specialists may be designated qualified government officials to carry out these roles as part of their functions, or external specialists hired for this purpose.

C. Fiduciary Risk

2.6 The IDB assessed the potential of the Executing Agency (MOH) to fulfill the fiduciary management and procurement responsibilities during the execution of the loan through application of the Platform for Assessment of Institutional Capacity-PACI. The results of the assessment of the fiduciary and procurement areas as well as internal and external control systems indicate a high level of risk in all areas of financial management (FM), internal and external control, and procurement due principally to lack of: (i) a procurement department and dedicated procurement and FM personnel with the required expertise; (ii) knowledge and experience of the MOH with IDB FM and procurement policies and with international procurement standards and best practices; and (iii) adequate information technology systems for procurement and FM. There is also a medium risk of delays in flow of funds between the Ministry of Finance and the MOH. Respective mitigation measures for these risks are: (i) Hiring of key qualified personnel for the PIU described in ¶3.2; (ii) capacity building of the PIU through training on IDB’s FM and procurement procedures, the adoption of the POM and the financial plan and the fiduciary and procurement supervision plans; and (iii) set up of a FM system that shall be in place before the start of execution. Potential

delays in flow of funds will be mitigated through ex-ante agreements for controlling and processing of payment transactions.

D. Other Risks and Key Issues

2.7 **High level public management and governance risks** relate to: (i) procurement restrictions due to presidential elections and change in government during the execution period of the program; and (ii) Low capacity of the Executing Agency for program management. There is a medium risk of failure of coordination and agreement between the stakeholders involved in the implementation of the information ecosystem and CCM expansion. Respective mitigation measures include: (i) sequencing project execution to facilitate an early start and completion of key activities within the first two years of the program and hiring of a consultancy with TC funds to prepare technical specifications and bidding documents; (ii) establishment of the PIU as described in ¶3.2; and (iii) creation of a Technical Management Team comprising the MOH, OSS, BOG and RGD to support the PIU in identifying and resolving any inter-agency coordination challenges.

2.8 **Sustainability.** Measures for the sustainability of the investments and the continuing maintenance of the new systems after the project life include: (i) incorporation of the responsibility of the GOS for maintenance of the investments in the loan contract; and (ii) activities design and costing of maintenance plans for HQ construction and information systems of Component 1, which will be the basis for discussions for commitment on part of the GOS to allocate funds for maintenance in the future MOH budget.

III. Implementation and Management Plan

A. Summary of Implementation Arrangements

3.1 The Borrower is the Republic of Suriname and the Executing Agency will be the MOH. The PIU is to be established within the MOH and will execute the project.

3.2 The PIU will include a project manager and a specialist in each of the following areas: procurement, financial management, architecture/construction, information technology, and operations. Additional support from environmental health and safety and community liaison specialists will be included during execution of the construction works. A monitoring and evaluation specialist will also be included. The PIU will strengthen the capacity of the MOH by working closely with assigned component technical leads from the MOH and will be responsible for financial management, procurement, and program management of the project. The PIU will be responsible for carrying out all the operational and fiduciary obligations (including procurement, financial management and social and environmental safeguards) necessary for program execution and for maintaining all formal communication with the Bank. The detailed responsibilities of the PIU will be presented in the POM, which defines the rules, eligibility criteria, procedures and responsibilities during execution.

3.3 Special Contractual Conditions prior to the first disbursement of the financing include: **(i) the establishment of the Program Implementation Unit (PIU)**

and selection of its key personnel, in accordance with the terms of reference previously agreed with the Bank, including the project manager, and specialists in procurement, financial management, architecture/construction, information technology and operations; and (ii) approval of the Project Operations Manual (POM) in the terms previously agreed with the Bank. These conditions are justified to assure that an adequate team and the rules of operation and supporting technology will be in place to initiate and conduct program execution.

3.4 **Procurement and contracting.** The PIU will follow the Policies for the procurement of works and goods financed by the Bank (GN-2349-9), and the Policies for selection and contracting of consultants financed by the Bank (GN-2350-9), as well as the fiduciary arrangements included in Annex III.

3.5 **Disbursement and financial management.** The disbursement period is six years. The Bank will make disbursements in accordance with project liquidity needs as evidenced by its current and anticipated commitments and obligations following the advance of funds methodology. These advances, which will cover liquidity needs for a period not exceeding six months, will be calculated based on the semi-annual cash flow projections for the period. Subsequent advances may be disbursed once 80% of the total accumulated balance pending justification has been submitted and accepted by the Bank.

3.6 The external audit of the program will be performed by an independent audit firm acceptable to the Bank. Audits will be performed in accordance with the Bank's guidelines for financial reporting and external audit. The PIU will be responsible for contracting of an eligible auditing firm to perform the project audit as follows: (i) annual financial audit reports to be submitted within 120 days of the end of each fiscal year; and (ii) one final financial audit report to be submitted within 120 days after the date of last disbursement.

B. Summary of Arrangements for Monitoring Results

3.7 Monitoring. The program's monitoring is based on the standard Bank instruments: (i) the PEP and PAO; (ii) the PP; (iii) the Results Matrix; (iv) the PMR; and (v) the financial plan. Semi-annual progress reports will be presented within sixty (60) days after the end of the corresponding semester and should include the outcomes and outputs achieved in the corresponding execution period according to the PAO, the PP, the Results Matrix, as well as a description of the status of compliance of the environmental and social obligations.

3.8 The Technical Management Team (see ¶2.7) will schedule quarterly meetings to monitor project progress, take relevant executive decisions and collectively resolve any coordination bottlenecks.

3.9 **Evaluations.** To estimate the impact of the expansion of the CCM on primary outcomes included in the results matrix a first approach will be to perform a Difference-Difference strategy at the RGD catchment area level, exploiting the variation in timing and location of the program's start. Information sources include administrative and clinical data collected for the program and data from two rounds of STEPS surveys financed by the program. Additionally, a three-arm randomized

control trial will test the effectiveness of embedded telemedicine/M-health and behavioral economics interventions to activate patients and improve clinical outcomes. The evaluation will be conducted with IDB's technical guidance and financed with program funds.

3.10 Loan resources will fund a consultant to conduct a project mid-term and a final evaluation. The final evaluation will adopt a reflexive approach, comparing the status of indicators in the Results Matrix before and after the program's interventions. Evaluation of the project's six-year implementation period will be guided by the Monitoring and Evaluation (M&E) Plan which uses the Bank's monitoring tools such as the Results Matrix; AOP; semi-annual progress reports; and the PMR. See detailed M&E.

C. Other

3.11 **Complementary activities.** A technical cooperation (SU-T1100) will support project preparation and execution with studies and assistance, including: studies to prepare the environmental and infrastructure requirements for construction of the new MOH building, a health network supply and demand analysis, an NCD gap costing, an avoidable hospitalizations study, a health and management information system needs and opportunities assessment, and an institutional strengthening plan for the MOH. The TC will also fund hiring of core PIU members prior to eligibility to facilitate a short period to achieve eligibility and an early start-up of execution.

Development Effectiveness Matrix		
Summary		
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	**-Beneficiaries receiving health services (#)***	
2. Country Development Objectives	**Yes**	
Country Strategy Results Matrix	**GN-2873**	**Dialogue Area**
Country Program Results Matrix	**GN-2915**	**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)		**It is relevant to priority areas in the IDBG Country Strategy with the Republic of Suriname 2016 2020 (GN-2873): (i) Modernizing the Public Sector, by strengthening the health sector's capacity for evidence-based policy making; and (ii) Protection of Human Capital by supporting interventions to address major causes of healthy life years lost. The operation is included in the OPR 2018 (GN-2915). It is aligned with the Strategy on Social Policy for Equity and Productivity (GN-2588-4). The program is consistent with the Health and Nutrition Sector Framework's (GN-2735-7) priorities: (ii) that all people have timely access to quality health services; and (iv) that health sector governance seeks efficiency and leadership in health and promotes intersectoral coordination. It is also consistent with the focus of the GoS's National Health Sector Plan (2011 2018), the NCD plan (2015-2020) and the MESP (2018 2029, by supporting interventions that increase prevention of and reduction of the double burden of disease.**
II. Development Outcomes - Evaluability		**Evaluable**
3. Evidence-based Assessment & Solution	**9.0**	
3.1 Program Diagnosis	**3.0**	
3.2 Proposed Interventions or Solutions	**4.0**	
3.3 Results Matrix Quality	**2.0**	
4. Ex ante Economic Analysis	**10.0**	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	**2.2**	
4.2 Identified and Quantified Benefits and Costs	**3.3**	
4.3 Reasonable Assumptions	**1.0**	
4.4 Sensitivity Analysis	**2.2**	
4.5 Consistency with results matrix	**1.4**	
5. Monitoring and Evaluation	**8.9**	
5.1 Monitoring Mechanisms	**1.4**	
5.2 Evaluation Plan	**7.5**	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	**High**	
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		
Environmental & social risk classification	**B**	
IV. IDB´s Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)		
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	**Yes**	**The following technical cooperations with the Ministry of Health were funded which informed the design of this project: SU-T1062 - Support for Prevention and control of NCDs and SU-T1072 - Support for Active Malaria Case Detection Program.**

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

The loan proposal presents a clear diagnosis of the double burden of disease faced by Suriname. The document identifies the institutional weaknesses of the Ministry of Health to address this problem, particularly with regards to its information systems and physical infrastructure. Likewise, it demonstrates the limitations of the current organization of the health system in the country, in which sufficient importance is not given to primary and secondary prevention to treat noncommunicable diseases, nor is there a capacity for prevention and supervision of the communicable diseases that still prevail.

To address the identified challenges, the project proposes three components: institutional strengthening of the ministry of health, expansion of the chronic care model and increase of priority services for communicable diseases in at risk populations. The document presents evidence of the effectiveness of the proposed interventions in European countries and in similar contexts in the Caribbean.

The results matrix of the project is adequate. It presents a clear vertical logic, as well as indicators of impact, result and product. However, some of the outcome indicators of the first component do not meet the SMART criteria and some of the output indicators do not have a clear means of verification.

The economic analysis of the project is based on a cost-effectiveness exercise of the impact indicators goals. The analysis yields a positive result that is maintained under various sensitivity analyzes.

The evaluation plan proposes two impact evaluations. The first one, based on a difference in differences methodology, aims to estimate the effect of the chronic care model. The second, with an experimental design, seeks to measure the impact of telemedicine and behavioral economics interventions.

RESULTS MATRIX

EXPECTED IMPACTS

Indicators	Unit	Baseline		Goals		Means of verification	Observations
		Value	Year	Value	Year		
Ambulatory Care Sensitive Conditions Hospitalizations due to diabetes	Hospitalizations Rate per 1,000 per annum	5.4	2016/2017	4.32 (1)	2024	National hospital discharge databases	Baseline and goal values will be updated with results of program preparation technical studies.
Autochthonous Malaria cases	Cases Rate per 1,000 population per annum	40	2017	0	2024	National Malaria Database	Target of National Malaria eradication plan.

NOTES: (1) **E**xpected reduction is based on reported estimates of the effect of effective primary care:
18% reduction (Schilling Mendonça et al. 2012. "Trends in Hospitalizations for Primary Care Sensitive Conditions Following the Implementation of Family Health Teams in Belo Horizonte, Brazil." Health Policy Plan 27(4):348-355.
20% reduction (Kuo et al. May 2011. Cost-Effectiveness of Implementing the Chronic Care Model for Diabetes Care in a Military Population. Volume5, Issue3, Diabetes Technology Society)

EXPECTED OUTCOMES

Indicator	Unit	Baseline		Goals		Means of verification	Observations
		Value	**Year**	**Value**	**Year**		
Component 1: Institutional strengthening of the MOH for evidenced based policy making							
Quarterly Dashboard reports produced	Dashboard reports	0	2019	1	2024	National level dashboard system	Dashboard elements, users, standards and policy decision making domains will be defined during HIS design
Percent of MOH users accessing Suriname Dashboard system to use data for decision making	MOH HIS users	0	2019	TBD	2024		
National dialysis/cancer registries reporting quarterly core disease data to MOH	Disease registries	0	2019	2	2021	Core data reports from registries	Disease specific core data (i.e. demographics, disease stages, treatments) specified during registry design.

Indicator	Unit	Baseline		Goals		Means of verification	Observations
		Value	Year	Value	Year		
Percent of MOH civil servants who score four or above in the working environment survey Index	MOH civil servants as a percent of total MOH civil servants surveyed	10%	2019	90%	2024	Working environment survey report	• Baseline based on preliminary assessment during program design. • Values will be updated with survey results before and after construction. • Gender tracking
Component 2: Expansion of the chronic care model							
CCM centers providing care for diabetes patients according to national CCM guidelines	Centers	0	2019	8	2023	CCM evaluation report	Compliance indicators specified during guideline development.
Diabetic patients referred from primary health care centers to CCM centers.	Diabetic patients attending CCM per year	40%	2016	80%	2023	Data from CCM EHR referrals module	• Baseline and target values from available OSS data. • Values will be updated with data from information modules developed by program. • Pro-gender
Diabetic patients who reach target Hb1Ac according to national guidelines		37%	2019	68%	2024	CCM EHR clinical module	
Diabetic patients with scheduled screening appointments who attend three appointments		10%	2016	90%	2024	CCM EHR appointments module	
Diabetic patients who complete the education module		50%	2016	90%	2024	CCM EHR education module	
Diabetic patients adhering to treatment according to national clinical guidelines		0	2019	80%	2024	CCM EHR clinical module	• Adherence indicators specified during guideline development. • Pro-gender
Component 3: Increase the access to priority CD preventive services for targeted population							
TropClinic patients eligible for testing being tested for HIV	TropClinic Patients per year	232	2017	560	2024	TropClinic Register	• Goal value based on assumption that number of people visiting the MP TropClinic and border posts= 3,500 per year. Based on age
TropClinic patients tested for HIV receiving counseling		100% (232/232)	2017	100% (2993/2993)	2024	TropClinic Register	

Indicator	Unit	Baseline		Goals		Means of verification	Observations
		Value	Year	Value	Year		
							and current client populations about 95% will be eligible • With reference to the above; there is no baseline for the % of eligible people actually being tested. Considering the mobile character of target population, the goal may be overestimated • Gender tracking
Persons from target population who score optimal malaria knowledge in KAP survey	Persons from target population interviewed	46.6% (150/322)	2017	75%	2024	KAP study report	• Numerator and Denominator will depend on sample size KAP study. • Gender tracking
Persons from target population who report use of bed nets on the previous night in KAP survey		44.6% (106/237)	2017	70%	2024		Gender tracking

EXPECTED OUTPUTS

OUTPUTS	Estimate Cost (US$)	Unit	Base line	Year						EOP	Verification source
				2019	2020	2021	2022	2023	2024		
Component 1: Institutional strengthening of the MOH for evidenced based policy making											
Health Information System operational in MOH and CCM centers according to contract specifications (Phase 1)	2,000,000	System	0			1				1	Project annual monitoring reports and procurement documental evidence. Indicators for functioning will be defined in the TORS (ie. data generation,
Health Information System operational in MOH and CCM centers according to contract specifications (Phase 2)	2,000,000	System	0						1	1	

OUTPUTS	Estimate Cost (US$)	Unit	Base line	Year						EOP	Verification source
				2019	2020	2021	2022	2023	2024		
											storage, processing and sharing)
MOH and CCM units whose personnel has been trained in data analysis	500,000	Units	0			2	8			10	Training assistance reports
Steps survey administered	300,000	Survey	0		1			1		2	STEPS survey completion report and databases
Construction and landscape design developed according to TOR specifications	335,000	Design	0		1					1	Record of approval by PIU
Ruis existing buildings retrofitted according to contract specifications	1,1,750,000	M^2	0		1,860	1,860				3,720	Records of delivery approved by PIU
MOH HQ building constructed according to contract specifications	3,540,000	M^2	0				3,000			3,000	
Landscaping works implemented according to contract specifications	1,200,000	Ha	0					2.5		2.5	
Maintenance plan delivered according to contract specifications	30,000	Plan	0					1		1	Document
MOH work stations furnished and equipped according to contract specifications	900,000	Work stations	0				400			400	Record of delivery approved by PIU

OUTPUTS	Estimate Cost (US$)	Unit	Base line	Year						EOP	Verification source
				2019	2020	2021	2022	2023	2024		
Component 2: Expansion of the chronic care model											
Continuous Quality Improvement strategy implemented in CCM centers	300,000	CCM Centers	0			2	6			8	CCM centers with CQI: Action plan document, team established, and baseline indicators measured
CCM model guidelines updated	60,000	Guidelines	0	1						1	Guidelines documents
CCM centers with behavioral change and patient activation strategy implemented	170,000	CCM Centers	0					8		8	CCM centers
CCM centers with infrastructure upgrades completed	390,000		0	2		6				8	Reports of completion in accordance to contract specifications by the PIU
CCM centers with clinical equipment upgraded	900,000		0	2		6				8	
CCM centers with non-clinical equipment upgraded	420,000		0	2		6				8	
CCM centers with clinical staff trained on guideline application	280,000		0				8			8	Training reports
CCM centers with supplies for equipment start up available	120,000					6				6	Reports of supply distribution
Primary care centers upgraded for CCM basic services provision (expansion phase 2)	1,200,000	Primary care centers	0						10	10	Record of delivery approved by PIU Upgrades for each center include minor infrastructure repairs and

OUTPUTS	Estimate Cost (US$)	Unit	Base line	Year						EOP	Verification source
				2019	2020	2021	2022	2023	2024		
											equipment installation according to needs assessment.
Component 3: Increase the access to priority CD preventive services for targeted population											
Communication and behavior change strategy designed	20,000	Strategy	0		1	1	1	1		4	Document approved by PIU
Communication and behavior change campaign implemented	492,000	Campaign	0		1	1	1	1		4	Campaign reports
MSD personnel trained for outreach activities	60,000	Training	0		1	1	1	1		4	Training reports
KAP surveys completed	90,000	Surveys	0			1	1	1		3	Study reports
Long-lasting bednets distributed to target population	109,000	Bednets	0			20,000				20,000	Bednet distribution report
Specialized trainings for data collection, processing and analysis at the national reference laboratory delivered	268,000	Trainings	0	1	3	2	3	1		10	Training reports
TropicClinic equipped with software and hardware for data analysis and processing	60,000	Equipment	0		1					1	Record of equipment receipt and installation
Parasitological microscopes available at selected locations	20,000	Microscopes	0		8					8	Record of microscopes delivery
Quality Assurance and Quality Control Guide developed	65,000	Guide	0	1						1	Guide document approved by PIU
Portuguese language training provided to Medical Mission clinics personnel located near mining areas	36,000	Training	0		1	1	1	1		4	Training completion reports

OUTPUTS	Estimate Cost (US$)	Unit	Base line	Year						EOP	Verification source
				2019	2020	2021	2022	2023	2024		
National strategy for provision of health services for priority infectious diseases to migrant populations elaborated	15,000	Strategy	0	1						1	Strategy document approved by PIU
Baseline prevalence study in migrant populations (HIV/Leishmaniasis, TB/Leprosy) completed	63,000	Study	0		1					1	Study report approved by PIU
Migrant study on population size, migration, turnover and health priorities completed	30,000	Study			1					1	
TropClinic HIV staff in and national counterparts trained annually	36,000	HIV TropClinic staff		1	1	1	1			4	Training assistance reports
Laboratory and field equipment for HIV screening in gold mining areas available for field visits	36,000	Laboratory and field equipment		1	1	1	1	1		5	Records of equipment delivery acceptance by PIU
National Reference Laboratory equipped	36,000	Laboratory		1		1				2	
Project Administration	1,465,000	-	-	-	-	-	-	-		-	-

FIDUCIARY ARRANGEMENTS

COUNTRY:	Suriname
PROJECT:	Health Services Improvement Project (SU-L1054)
EXECUTING AGENCY:	Ministry of Health
FIDUCIARY TEAM:	Rinia Terborg-Tel, Fiduciary Financial Management Specialist; Bhagirath Vikash, Fiduciary Financial Management Consultant; and Mariska Tjon A Loi, Procurement Consultant

I. EXECUTIVE SUMMARY

1.1 The objective of the project is to contribute to the reduction of the burden of disease in Suriname by improving access to high quality, integrated primary care services and enhancing the effectiveness of the health sector to address priority epidemiological challenges. The target beneficiaries are the population of Suriname. The project will be funded with IDB loan financing of US$20 million.

1.2 The governmental entity responsible for implementing the program will be the Ministry of Health (MOH). A Project Implementation Unit (PIU) will be established within the existing institutional structure of the MOH (see Section VII).

1.3 The IDB carried out an institutional capacity assessment through the PACI tool to assess the potential of the Executing Agency (MOH) to fulfill the fiduciary responsibilities during the execution of the loan. The PACI tool consists of six questionnaires covering the areas of Legal Framework, Human Resources Management, FM, Procurement, Project, and Environmental and Social Safeguards Management. The assessment of the fiduciary area as well as internal and external control systems analyzed, indicates a high level of risk in all areas of FM, internal and external control and procurement which need to be substantially strengthened. The IDB will provide and conduct close fiduciary support and supervision and continuous training and advice. The level of the fiduciary risk will be monitored during the execution period of the program through a supervision plan for such purpose.

II. EXECUTING AGENCY'S FIDUCIARY CONTEXT

2.1 The fiduciary context of the GOS and its line ministries has been documented in the Public Expenditure Financial Accountability (PEFA) report of 2011, indicating that the legal framework and practices for public FM systems (PFMS) and procurement are outdated and are not consistent with best practices and international standards. In November 2014, a repeat of PEFA was conducted to assess the level of improvement resulting from the Bank's support to the GOS to improve the PFM and procurement systems through implementation of a modern legal framework and establishment of effective mechanisms to perform these functions. According to the preliminary results[1] the GOS' public FM reforms interventions supported by the IDB have not yielded significant progress and therefore the overall conclusion is that the status quo of the legal framework and practices for PFMS and procurement are the same, being outdated and not consistent with international best practices. In the area of procurement, the Bank is providing technical

[1] The 2014 PEFA Report has not been published.

support to the GOS for preparing a national procurement law based on international standards and best practices.

2.2 It is expected that going forward, the GOS, with IDB support, will continue the policy to reform and improve the PFM and procurement systems based on the IDB Country Strategy 2016–2020. Therefore, until these interventions have taken root, country systems relating to PFM, and procurement will not be used. The IDB's policies and procedures will remain applicable to procurement and FM overall.

III. Fiduciary Risk Evaluation and Mitigation Actions

3.1 The overall fiduciary risk rating of the project is considered high. The results of the assessment of the fiduciary and procurement areas as well as internal and external control systems indicate a high level of risk in all areas of FM, internal and external control, and procurement due principally to lack of: (i) a procurement department and dedicated procurement and FM personnel with the required expertise; (ii) knowledge and experience of the MOH with IDB FM and procurement policies and with international procurement standards and best practices; and (iii) adequate procurement and FM information technology systems. The respective mitigation measures for these risks are: (i) hiring of key qualified personnel for the PIU as described in Section VII; (ii) capacity building of the PIU through training on IDB's FM and procurement procedures, the adoption of the POM and the financial plan and the fiduciary and procurement supervision plans; and (iii) set up of a FM system that shall be in place before the start of execution. The risk of delays of flow of funds between the Ministry of Finance and the MOH will be mitigated through ex-ante agreements for controlling and processing of payment transactions. The Bank's specialists will verify the fiduciary management capabilities when the PIU has been established. The IDB will provide and conduct close fiduciary support and supervision while providing continuous training, capacity building and advice. The level of the fiduciary risk will be monitored during the execution period of the program through a supervision plan designed for such purpose.

IV. Aspects to be Considered in the Special Conditions of Contract

4.1 **Rate of Exchange Agreed with the EA.** The application of the exchange rate will be as follows: (i) Reimbursement of Expenses made: the effective rate of exchange on the date of payment of each expenditure, as published by the Central Bank of Suriname; (ii) Reporting on Accounts or justification of the Advance of Funds:- the effective rate of exchange used in the conversion of the currency of the operation to the local currency; and (iii) Disbursements in alternate currencies from the US Dollar and the Suriname Dollar. In cases of direct payment and reimbursement of a guarantee of letter of credit, the equivalent of the currency of the operation will be fixed in accordance with the amount effectively disbursed by the IDB.

4.2 **Financial Statements and Reports audited or unaudited**

(i) Semi-annual financial reports are to be included in the semi-annual progress report which will be submitted by the PIU to the Bank;

(ii) Annual financial statements of the project, audited by a firm of independent public accountants acceptable to the Bank, are to be submitted to the Bank within

120 days at the end of each fiscal year, beginning with the fiscal year in which the first project expenditures are incurred; and

(iii) Final financial statements, audited by a firm of independent public accountants acceptable to the Bank, are to be submitted to the Bank within 120 days following the last disbursement date of the program.

4.3 **The Procurement policies applicable are the policies** for the procurement of Goods and Works financed by the Inter-American Development Bank GN-2349-9 and the policies for the selection and contracting of Consultants financed by the Inter-American development Bank, GN-2350-9 both dated March 2011.

V. FIDUCIARY ARRANGEMENTS FOR PROCUREMENT EXECUTION

5.1 The procurement fiduciary arrangements establish the conditions applicable to all procurement execution activities in the project.

5.2 **Procurement of Works, Goods and Non-Consulting Services.** Procurement under the project will be governed by the policies contained in GN-2349-9 Policies for the Procurement of Goods and Works.[2] The PP indicates the procedures to be used for the contracting of works, goods and non-consulting services under the program. Procurement processes subject to International Competitive Bidding will be executed through the use of the Standard Bidding Documents (SBDs) issued by the Bank. Processes subject to National Competitive Bidding (NCB) may be executed through the use of other documents satisfactory to the Bank. Where these are not available the Bank's SBD will be used. The review of technical specifications during the preparation of the selection process is the responsibility of the project sector specialist.

5.3 **Procurement of IT Systems.** Under the program, it is foreseen that an eHealth Ecosystem will be procured. This will include a needs assessment; process flowchart design; electronic support; and training, including a clinical information registration system.

5.4 **Selection and Contracting of Consultants.** Procurement of consulting services will be conducted in accordance with GN-2350-9: Policies for the Selection and Contracting of Consultants. The PP indicates the procedures and methods to be used for the procurement of consultancy services. Review of the Terms of Reference (TOR) for consultants is the responsibility of the project sector specialist.

5.5 **Selection of Individual Consultants.** Individual Consultants will be selected in accordance with the policies for the selection and contracting of consultants (GN-2350-9) referenced above and may be done by three (3) Curriculum Vitae comparison (comparison of qualifications), Single Source Selection or open advertisement.

5.6 The Bank will consider financing recurrent costs on the request of the Borrower. These costs may be eligible if it is shown that they are: (i) part of the project; (ii) necessary for fulfilling the development objectives; and (iii) productive in the context of the specific project being supported.

5.7 **Training.** The detailed PP indicates which consultancy services, training and workshops are applicable. As per GN-2350-9 if the consultancy assignment includes an important component for training or transfer of knowledge to Borrower staff or national consultants,

[2] Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (GN-2349-9) paragraph 1.1: The services different to consulting services have a similar process as procurement of Goods.

the TOR shall indicate the objectives, nature, scope, and goals of the training, including details on trainers and trainees, skills to be transferred, time frame, monitoring and evaluation arrangements. The cost for the training shall be included in the consultant's contract and in the budget for the assignment.

5.8 **Procurement Plan and Supervision.** The PP covering the duration of the project is attached (see PP). It indicates the procedures to be used for the various categories and types of procurement. It also indicates the estimated cost of each contract or group of contracts and the requirement for prior or post review by the Bank. Ex ante supervision will be maintained for high risk/value activities. Where ex post review is applied, reviews will be performed at least once per year but may be more frequent if the volume of activities warrant. The ex post review process will include at least once physical inspection visit. The PP will be updated annually or as necessary as required by the Bank.

5.9 **Thresholds.** The threshold for the various categories of procurement and associated procurement methods are available at www.iadb.org/procurement.

VI. Specific Fiduciary Arrangements for Financial Management

6.1 The PIU will use an off the shelf accounting software for the financial management and reporting of the project. The Project will use the arrangements of the Treasury Single Account (TSA) established by the MoF for the flow of funds of projects funded by foreign development partners.

6.2 **Programming and Budget.** For the purposes of the program, the EA will start with a strategic planning process that is the basis for the annual budgeting. It will prepare and implement an operational plan, which will include the budget plan, PP and financial plan, consistent with a 12 –month financial plan that will be required from the EA on an annual basis.

6.3 **Treasury Disbursement and Flow of Funds.** The funds will be made available to the EA through the TSA in Surinamese Dollars (SRD) and in US dollars at the Central Bank for the management of the program resources and a listing of authorized signatures will be provided to the Bank.

6.4 As described in 6.1 above, the 12-month financial plan will serve as the basis for the determination of the funds the Bank will disburse to the EA to cover the program's needs for the period of six months during the first year of implementation. The main disbursement methodology that will be used for the project is the advance of funds. Advances will be made based on liquidity needs of the project. Other disbursement methodologies that will be used on a smaller scale are the Reimbursement of Payments Made and Direct Payment to Supplier. Resources requested from Bank financing are payable according to the advance of Funds for up to 180 days. The EA will provide adequate control over the utilization of all Advance of Funds balance, whenever 60% of said balance has been spent.

6.5 Disbursements will be reviewed ex-post, except for Requests for Direct Payment to Suppliers and Direct Payment to Borrower. The EA will be responsible for the maintenance of adequate and original documentation to support the project expenditures and shall be made available for the ex-post reviews.

6.6 **Disbursement Restrictions.** Pursuant to Document AB-2990, the disbursement of Bank resources (OC) will be subject to the following maximum limits: (i) up to 15% during the first 12 months; (ii) up to 30% during the first 24 months; and (iii) up to 50% during the first

36 months. These limits may not apply if the requirements established in the Bank's policy in this regard have been fulfilled, provided that the borrower has been notified in writing. All these periods will be counted from the time the Loan operation is approved by the Board of Executive Directors.

6.7 **Accounting and Information Systems.** The PIU will use financial accounting software. We recommend an off the shelf accounting and FM system. The package should be acceptable to the Bank and should include recording and classification of all financial transactions, financial reports -, audited or unaudited-, that may be required from the Bank from time to time. Information related to planned versus actual financial execution of the project and financial planning is managed in Excel.

6.8 **Internal Control and Audit.** The PIU will establish an internal control system documented in the POM that should provide reasonable assurance that: (i) the Project funds are used for their intended purpose; (ii) Project assets are properly safeguarded; (iii) Project transactions, decisions and activities are properly authorized and documented; and (iv) Project transactions are executed in accordance with the established policies, practices and procedures delineated in the legal agreements. In addition, proper segregation of duties, approval authority levels for signature of contracts, commitment of funds, reception of goods and services and payment to suppliers and beneficiaries should be arranged adequately.

6.9 **External Control and Reporting.** External Control and Reporting: The External audit of the Project will be performed by an independent audit firm acceptable to the IDB. Audits will be performed in accordance with IDB's Guidelines for Financial Reports and External Audit. The PIU will be responsible for contracting of an external auditor eligible to the IDB to perform the Project audit as follows: (i) an annual financial audit of the Project to be submitted within 120 days of the end of each fiscal year; and (ii) one final financial audit of the Project to be submitted within 120 days after the date of last disbursement. The scope of the external audit can be modified according the needs identified during Project execution.

6.10 **Financial Supervision Plan.** The Financial Supervision Plan of the project is prepared based on the fiduciary risk of the project. As the PIU has been rated with a high fiduciary risk, reliance will be placed on the fiduciary review of the project as conducted by the external auditors. Notwithstanding this, the IDB will carry out desk and in situ reviews of the project, on a semi-annual basis. The fiduciary supervision visits will include the verification of financial and accounting arrangements for the project management, as well as follow-up on any implementation recommendations issued by the independent auditor.

VII. Execution Mechanism

7.1 The PIU is responsible for the technical and operational implementation of the program. The PIU is headed by the Project Manager, who reports directly to the Director of Health, MOH and represents the PIU on all program related matters. The PIU will include a project manager and a specialist in each of the following areas: procurement, financial management, architecture/construction, information technology, and operations. Additional support from environmental health and safety and community liaison specialists will be included during execution of the construction works. A monitoring and evaluation specialist will also be included. The PIU will strengthen the capacity of the MOH by working closely with assigned component technical leads from the MOH and will be responsible

for financial management, procurement, and program management of the project. The PIU will be responsible for carrying out all the operational and fiduciary obligations (including procurement, financial management and social and environmental safeguards) necessary for program execution and for maintaining all formal communication with the Bank. The detailed responsibilities of the PIU will be presented in the Project Operations Manual (POM), which defines the rules, eligibility criteria, procedures and responsibilities during execution.

7.2 The Project Manager, Operations Specialist, Financial and Procurement Specialist (key personnel of the PIU) will carry out the core day to day operational and administrative activities.

VIII. RECORDS AND FILES

8.1 The PIU will have responsibility for maintaining the files and records of the project. All records and files will be maintained according to standards acceptable to the Bank and kept for a minimum of three years after the end of the project's execution period.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/18

Suriname. Loan ____/OC-SU to the Republic of Suriname
Health Services Improvement Project

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 Republic of Suriname, as borrower, for the purpose of granting it a financing to cooperate in the execution of the Health Services Improvement Project. Such financing will be for the amount of up to US$20,000,000 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)

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