Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: PAD1336

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF SDR 42.7 MILLION
(US$60 MILLION EQUIVALENT)

TO THE

REPUBLIC OF NICARAGUA

FOR A

STRENGTHENING THE PUBLIC HEALTH CARE SYSTEM PROJECT

May 13, 2015

Health, Nutrition and Population Global Practice
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2015)

Currency Unit = Nicaraguan Córdoba (C$)

US$1 = NIO 26.525

US$1 = SDR 0.712

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

DA	Designated Account
DGAF	General Financial and Administrative Division (*División General Administrativa Financiera)*
DGD	General Directorate of Education (*Dirección General de Docencia*)
DGPD	General Division of Planning and Development *(Division de Planificación y Desarrollo)*
DGSS	General Directorate of Health Services (*Dirección General de Servicios de Salud*)
DGVE	General Directorate of Epidemiological Surveillance
ENDESA	Nicaraguan Demographic and Health Survey, (*Encuesta Nicaragüense de Demografía y Salud)*
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
IDA	International Development Association
IFR	Interim Financial Reports
IPP	Indigenous Peoples Plan
IPPF	Indigenous Peoples Planning Framework
LAC	Latin American and the Caribbean
MDG	Millennium Development Goals
MOH	Ministry of Health (*Ministerio de Salud)*
MOSAFC	Community and Family Health Model (*Modelo de Salud Familiar y Comunitario)*
M&E	Monitoring and Evaluation
NCB	National Competitive Bidding
PAHO	Pan-American Health Organization
PDO	Project Development Objective
PHA	Public Health Activity
PTC	Project Technical Committee
PVC	Project Verification Commission
SBD	Standard Bidding Documents
SIGFA	Integrated Financial Management System (*Sistema Integrado de Manejo Financiero)*
SILAIS	Local Systems of Integrated Health Care (*Sistema Local de Atención Integral de Salud*)
SIVICAN	Cancer Surveillance System (*Sistema de Vigilancia para Cáncer*)
SOE	Statement of Expenditure
SORT	Systematic Operational Risk-Rating Tool

TC	Technical Council
UCFE	External Funds Coordination Unit (*Unidad de Coordinación de Fondos Externos)*

Regional Vice President:	Jorge Familiar
Country Director:	J. Humberto López
Senior Global Practice Director:	Timothy Grant Evans
Practice Manager:	Daniel Dulitzky
Task Team Leader:	Amparo Gordillo-Tobar

NICARAGUA
Nicaragua Strengthening the Public Health Care System Project

TABLE OF CONTENTS

PAD DATA SHEET

Nicaragua

Nicaragua Strengthening the Public Health Care System (P152136)

PROJECT APPRAISAL DOCUMENT

LATIN AMERICA AND CARIBBEAN

Health, Nutrition and Population Global Practice

Report No.: PAD1336

Basic Information			
Project ID P152136	EA Category B - Partial Assessment		Team Leader(s) Amparo Elena Gordillo-Tobar
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]		
Project Implementation Start Date 02-Sep-2015	Project Implementation End Date 30-Sep-2020		
Expected Effectiveness Date 02-Sep-2015	Expected Closing Date 30-Sep-2020		
Joint IFC No			
Practice Manager/Manager Daniel Dulitzky	Senior Global Practice Director Timothy Grant Evans	Country Director J. Humberto Lopez	Regional Vice President Jorge Familiar
Borrower: Republic of Nicaragua			
Responsible Agency: Ministry of Health			
Contact: Sonia Castro Telephone No.: 505-2289-4700		Title: Minister of Health Email: castros@minsa.gob.ni	

Project Financing Data(in USD Million)					
[ ] Loan [ ] Credit	[X] IDA Grant [ ] Grant	[ ] Guarantee [ ] Other			
Total Project Cost:	60.00		Total Bank Financing:	60.00	
Financing Gap:	0.00				

Financing Source	Amount
BORROWER/RECIPIENT	0.00
IDA Grant	60.00
Total	60.00

Expected Disbursements (in USD Million)

Fiscal Year	2016	2017	2018	2019	2020	2021
Annual	5.00	10.00	12.00	13.00	13.00	7.00
Cumulative	5.00	15.00	27.00	40.00	53.00	60.00

Institutional Data

Practice Area (Lead)

Health, Nutrition & Population

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change
[ ] Fragile, Conflict & Violence
[X] Gender
[ ] Jobs
[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Health and other social services	Health	100		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Human development	Child health	10
Human development	Health system performance	40
Human development	Injuries and non-communicable diseases	40
Human development	Population and reproductive health	10
Total		100

Proposed Development Objective(s)
The Project Development Objectives (PDO) are to: (a) strengthen quality and access to health services; (b) contribute to adapting the public health system to the country's changing epidemiological profile; and (c) secure financial support in case of Public Health Alert or Public Health Emergency.

Components	
Component Name	**Cost (USD Millions)**
Component 1. Strengthening the quality and access to health care services	28.07
Component 2. Institutional strengthening of MOH to respond to the Country's changing epidemiological profile	24.58
Component 3. Contingency Financing of a Public Health Emergency or Public Health Alert and Capacity Building	6.55
Component 4. Project Management	0.80

Systematic Operations Risk- Rating Tool (SORT)	
Risk Category	**Rating**
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Low
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Moderate
6. Fiduciary	Moderate
7. Environment and Social	Low
8. Stakeholders	Moderate
OVERALL	Moderate

Compliance		
Policy		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	**X**	

Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09		**X**
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10	**X**	
Involuntary Resettlement OP/BP 4.12		**X**
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**
Project audits	**X**		Yearly

Description of Covenant

Schedule 2. Section V.A. No later than six (6) months after the Effective Date, the Recipient, through MOH, shall appoint and, thereafter maintain, at all times during Project implementation, independent auditors, with terms of reference acceptable to the Association.

Conditions

Source Of Fund	**Name**	**Type**
IDAT	Adoption of the Operations Manual	Effectiveness

Description of Condition

Article V. 5.01. The Additional Condition of Effectiveness consists of, namely, the Operational Manual has been adopted by the Recipient, in a manner satisfactory to the Association, in accordance with Section I.C of Schedule 2 to the Financing Agreement.

Source Of Fund	**Name**	**Type**
IDAT	Disbursements under Category (3) with respect to Part 3.1. of the Project	Disbursement

Description of Covenant

Schedule 2, Section IV. B. (b). No withdrawal shall be made under Category (3) for Eligible Expenditures with respect to Part 3.1. of the Project, unless and until: (a) a Public Health Alert or a Public Health Emergency has been declared by the Recipient; and (b) the Recipient has provided a letter to the Association including: (i) legal evidence, satisfactory to the Association, of the declaration of a Public Health Alert or a Public Health Emergency; (ii) the estimated flow of funds needs; and (iii) (a) a list of the goods, works, consultants' services (including non-consulting services) and Operating Costs proposed to be financed under Part 3.1. of the Project to address the needs of the Public Health Emergency or a Public Health Alert (including a procurement plan) acceptable to the Association; and (b) the assessments and plans that the Association may require.

Source Of Fund	Name	Type
IDAT	Disbursements under Category (5) with respect to Part 1.2(c) of the Project	Disbursement

Description of Condition

Schedule 2, Section IV. B. (c). No withdrawal shall be made under Category (5) for Eligible Expenditures with respect to Part 1.2(c), unless and until the CEMED Agreement has been executed on behalf of the Recipient, through MOH, and CEMED, under terms and conditions satisfactory to the Association, and in accordance with Section I.D. of Schedule 2 to this Agreement.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Amparo Elena Gordillo-Tobar	Team Leader (ADM Responsible)	Sr Economist (Health)		GHNDR
Monica Lehnhoff	Procurement Specialist	Procurement Specialist		GGODR
Enrique Antonio Roman	Financial Management Specialist	Financial Management Specialist	Financial Management	GGODR
Claudia Patricia Pacheco	Team Member	E T Temporary		GHNDR
Evelyn Rodriguez	Team Member	Consultant	Knowledge Management	GHNDR
Marco Antonio Zambrano Chavez	Safeguards Specialist	Consultant	Environmental Specialist	GENDR
Marcos Vicente Miranda Vico	Team Member	Consultant	Medical Equipment	GHNDR
Maria E. Colchao	Team Member	Senior Program Assistant	Operations	GHNDR
Maria Virginia Hormazabal	Team Member	Finance Officer	Disbursements	WFALN
Miriam Matilde Montenegro Lazo	Team Member	Sr Social Protection Specialist	Operations	GSPDR
Peter F. B. A. Lafere	Safeguards Specialist	Social Dev Specialist	Social Specialist	GSURR
Sandra Monica Tambucho Perez	Team Member	Senior Finance Officer	Disbursements	WFALN

Consultants (Will be disclosed in the Monthly Operational Summary)

Consultants Required? Consultants will be required

I. STRATEGIC CONTEXT

A. Country Context

1. **In recent years, poverty has declined and prosperity has grown in Nicaragua, making it an outlier in the Latin America and Caribbean (LAC) region**. The second half of the last decade brought a notable reduction in poverty and inequality, concentrated mostly in rural areas. In contrast to the period between 2001 and 2005 in which poverty essentially stayed constant at 48 percent, between 2005 and 2009, there was a significant reduction in the poverty headcount of nearly 6 percentage points (equivalent to around 230,000 fewer poor people), reaching a national rate of 42.5 percent, while extreme poverty fell from 17.2 percent to 14.6 percent.[1] During the same period, the income of the bottom 40 percent grew at 4.8 percent per year, almost five times as fast as income for the population as a whole (1.02 percent). This progress equals the average regional performance for LAC (4.9 percent) between 2003 and 2012.[2] Inequality is also decreasing with the Gini coefficient falling from 40.5 percent in 2005 to 37.1 percent in 2009 and was similar in both urban and rural parts of the country.

2. **Poverty remains largely a rural problem**. By 2009, more than 63.3 percent of Nicaraguans living in rural areas and 26.8 percent of Nicaraguans living in urban areas were officially classified as living below the poverty threshold. Challenges thus remain in terms of reducing poverty and increasing shared prosperity given that most of the poor live in rural areas and many in remote communities where access to basic services is still constrained by very limited infrastructure. Social and basic service indicators in the rural Atlantic coast regions are significantly lower than in the rest of the country, disproportionately impacting indigenous peoples and Afro-descendant populations. Poverty is also exacerbated by the country's vulnerability to natural disasters, extreme climate events and epidemics which all disproportionately affect the poor.

3. **Social spending as a percentage of gross domestic product (GDP) has increased over the last seven years**. Total social spending in Nicaragua went up from 10.4 percent in 2007 to 12.1 percent in 2012. Public health care spending alone increased from 3.7 percent of GDP in 2006 to 4.7 percent of GDP in 2011, of which the Ministry of Health (MOH) and the Nicaraguan Social Security Institute received 3.1 percent and 1.5 percent of GDP respectively. Public health care spending represented 50.8 percent of total expenditure in health, and spending on the MOH represented 65.2 percent of public expenditure in health. The increased public health budget is consistent with the Government's commitment to providing free access to health care services, which is one of the pillars of its political reform program**.**

B. Sectoral and Institutional Context

4. **The Government of Nicaragua's (the Government) commitment to the social sector and particularly to the health sector is reflected in the country's progress towards the achievement of Millennium Development Goals (MDG) targets**. Data from the 2012 Demographic and Health Survey (*Encuesta Nicaragüense de Demografía y Salud* - ENDESA)

[1] The World Bank Equity Lab
[2] SEDLAC (CEDLAS and the World Bank) and World Development Indicators.

show that clear progress has been made towards achieving MDG 4 (reducing the infant mortality rate) as the under-five mortality rate declined from 35 to 21 per 1,000 live births between 2006/07 and 2011/12. However, progress on achieving MDG 5 (reducing the maternal death rate)[3] has been slow. Despite steady decreases in the risk factors for maternal death, such as the number of unattended births and the percentage of women who do not receive any prenatal checkups, there were still as many as 62.5 maternal deaths per 100,000 live births in 2009. The rate of adolescent pregnancy decreased from 25.9 percent in 2006/07 to 24.4 percent in 2011/12, but further reducing it continues to be a major challenge, thus contributing to maternal mortality and neonatal deaths in Nicaragua. To address this, the Government is implementing the National Strategy for Integral Health and Development of Adolescents 2012-2017 to promote long-term behavioral changes among the adolescent population and provide more efficient access to and delivery of health care and social services to young mothers.

5. **Since 2007, the Government has been implementing the Family and Community Health Care Model (*Modelo de Salud Familiar y Comunitario* or MOSAFC) based on its Primary Health Care Strategy**. MOSAFC provides free coverage and access to health care services to the population of Nicaragua, with an emphasis on health promotion and prevention for individuals. The MOH care network has focused on ensuring the provision of a basic maternal and child health care package. However, this package does not consistently include some basic and support services, such as oral health, clinical laboratory testing, screening and early detection of cervical cancer, and palliative services for women with cervical cancer in their last stages. As a result, households have had to pay significant out-of pocket costs for these services. The sustainability of health sector achievements will depend on MOSAFC's adaptation to the changes in the country's epidemiological profile and strengthening the promotion of public health awareness.

6. **The implementation of MOSAFC has significantly increased the supply of health services and reduced a number of barriers to access, which in turn has increased the production of health care services**. Under MOSAFC, the number of medical doctors in the public sector doubled from 2,182 to 4,659, and the number of nurses grew from 4,329 to 7,271 between 2006 and 2013. Similarly, the number of primary health care consultations increased from 8.5 million in 2006 to 16.7 million visits in 2013, and hospital-based consultations rose by 125 percent (from 1.3 million in 2006 to 3.1 million in 2013), while hospital discharges increased by 46 percent and performed surgeries rose by 120 percent between 2006 and 2013.[4] In parallel, health expenditures were substantially increased, rising by 41 percent in real terms between 2006 and 2013. As a result, poor populations in remote areas were better able to access services: for example, the number of institutional births in the poorest quintile of the population grew from 41 percent in 2006 to 65 percent in 2013.[5]

7. **The country faces what is called a triple burden of disease which includes infectious diseases, chronic diseases and external causes.** While there is an unfinished agenda related to communicable diseases, malnutrition, and sexual reproductive health problems, the burden of

[3] Nicaragua's goal is to reduce maternal deaths from 190 per 100,000 live births in 1990 to 40 per 100,000 live births by 2015.
[4] MOH administrative data, March 2015
[5] ENDESA 1998, 2001, 2006/07 and 2011/12.

disease is shifting towards chronic diseases and external causes, with increasing numbers of deaths related to chronic vascular diseases, tumors, and major traumas. Mortality rates due to chronic diseases and external causes are higher than those due to infectious and perinatal diseases. The trend in mortality rates from 1975 to 2010 show that infectious and perinatal diseases decreased overtime while chronic diseases (tumors and vascular diseases) and external causes increased and remained high (Table 1). Public Health Activities (*Actividades en Salud Pública* or PHAs) such as the vaccination of populations at risk or the fumigation of larva prone areas have played a pivotal role in the efforts to curve infectious diseases and vector-transmitted diseases in the country. This new epidemiological profile of the population suggests the need for the health system to shift its emphasis on maternal and infant mortality and prevention and treatment of infectious diseases to dealing with the morbidity and mortality caused by chronic diseases and trauma. Given the triple burden of disease that Nicaragua now faces, PHAs could play an even bigger role in promoting behavioral changes at the community level aimed at preventing or reducing risk factor for all diseases.

Table 1: Nicaragua Mortality Trends, 1975-2010

Year	Infectious	Tumors	Circulatory	Perinatal	External Causes	Not Elsewhere Classified	Others
1975	23.1	3.8	17.24	1.16	12.9	22.76	19.04
1985	14.51	5.96	18.92	8.65	18.07	6.54	27.35
1990	10.88	9.03	22.37	8.66	13.51	5.03	30.52
1995	5.62	11.64	24.94	8.27	13.94	3.9	31.69
2000	5.09	12	25.08	6.57	13.17	3.47	34.62
2005	3.6	12.5	25.5	4.9	12.5	2.2	38.8
2010	3.6	12.5	25.5	4.9	12.5	2.2	38.8

Source: Ministry of Health -MOH, General Dictatorate of Statistics 2014

8. **The World Bank has supported the Government in its efforts to implement MOSAFC.** World Bank financing has provided support for: (a) institutional strengthening to help transition from a historic budget management system to a results-based budget for municipal and national referral hospitals; (b) development and implementation of improved primary health care quality in 66 municipalities[6], to be expanded to 153 municipalities nationwide; (c) assessment and investment in hospital waste management improvement in Managua's hospitals, which also fostered a dialogue about non-hazardous waste management and the disposal of hazardous waste; (d) improvement of health equity for different ethnic groups; (e) expansion of access to primary health care and preparation and implementation of the Adolescent Sexual and Reproductive Health Strategy to contribute to MDGs 4 and 5; (f) epidemiological preparedness and alert situations; and (g) review of MOSAFC's progress in responding to the country's changing epidemiological profile, which is a pending theme on the health agenda.

9. **The MOH has produced positive results in terms of increased coverage, wider provision of services, and improvements in some health outcomes.** However, a few dimensions

[6] Municipalities in this context refer to the Municipal Health Networks within the MOH.

of the quality of care remain a challenge[7] including the need to: (a) perform systematic reviews of health results to ensure the *effectiveness* of the health care provided; (b) maximize *efficiency* by ensuring the optimal use of available resources to yield maximum benefits or results; and (c) ensure that the system has the necessary *responsiveness* to adjust the provision of services to treat people with different cultural beliefs. These areas will be addressed as seed initiatives within this Project.

C. Higher-level Objectives to which the Project Contributes

10. **The proposed Project will contribute to the Twin Goals of the World Bank Group and the MDGs, and is aligned with the World Bank's Country Partnership Strategy FY2013-2017 for Nicaragua.**[8] The proposed Project builds on the World Bank's earlier support of MOSAFC and will contribute to Nicaragua's progress on furthering shared prosperity for all and on achieving MDGs 4 (Reduce Child Mortality), 5 (Improve Maternal Health), and MDG 6 (Combat HIV/AIDS, Malaria, and Other Diseases). Through MOSAFC, the poor and most vulnerable segments of the population are provided with free access to health care services, thus protecting them from falling further into poverty as a result of catastrophic health expenditures. MOSAFC has shown promising results in improving health indicators thus far, and more support is needed to ensure the efficiency and quality of the services being delivered given Nicaragua's changing population demographics. The proposed Project is also fully aligned with the World Bank's Country Partnership Strategy FY2013-2017, which focuses on two strategic objectives: (a) raising welfare by improving access to quality basic services; and (b) raising incomes by improving competitiveness. A key cross-cutting theme is the empowerment of women. Under the first objective, the World Bank program seeks to help Nicaragua to scale up new models of service delivery in health, education, social protection and water and sanitation and includes a specific expected outcome of a strengthened health system. MOSAFC fully supports empowering women since increasing access to care for vulnerable populations, including indigenous groups, women, children, and the elderly, is a priority.

II. PROJECT DEVELOPMENT OBJECTIVES (PDO)

A. PDO

11. **The PDOs are to:** (a) strengthen quality and access to health services; (b) contribute to adapting the public health system to the country's changing epidemiological profile; and (c) secure financial support in case of a public health alert or public health emergency.

B. Project Beneficiaries

12. **The Project will be implemented nationwide, covering all 19 Local Systems of Integrated Health Care** (*Sistema Local de Atención Integral de Salud* or SILAIS), including the indigenous territory of Alto Wangki and Bocay with quality public health care services and PHAs aimed at, for example, preventing vector-borne diseases, promoting vaccinations, protecting households against environmental pollution, and responding to health alerts. However, certain

[7] Institute of Medicine of the National Academy of Sciences (2001). C*rossing the Quality Chasm: A New Health System for the 21st Century*

[8] Report No. 69231-NI, discussed by the Executive Directors on November 13, 2012

Project activities are designed to benefit pre-defined populations. For example, the capitation payments are expected to benefit approximately 1 million people in 66 municipalities, while the oral hygiene and fluoridation campaigns will benefit approximately 600,000 school-aged children.

13. **The proposed Project will address gender-related aspects of health care throughout the lifecycle, with the aim of benefitting children, adolescents, adults, and the elderly with a special emphasis on indigenous citizens.** The Project aims to: (a) provide quality care to mothers and children; (b) prevent or delay adolescent parenthood by providing sexual reproductive health education to adolescents and school teachers; (c) ensure early detection and treatment of hypertension and diabetes among the adult population; and (d) improve the quality of life of the elderly by providing them with timely hip and knee replacements. The Project's Indigenous Peoples Plans provide a gender sensitive agenda for working with Afro-descendants and diverse Indigenous ethnic groups.

C. PDO level Results Indicators

14. Progress in achieving the PDOs will be measured by four indicators, as follows:

- *Percentage of women receiving prenatal care coverage (at least four visits).* The number of women who received prenatal care by any provider four or more times during their pregnancy divided by the total number of pregnant women, multiplied by 100 (in all three categories of municipalities). The data source will be the ambulatory care records.
- *Percentage of children under 1 year of age receiving three doses of the pentavalent vaccine.* The number of children under 1 year of age receiving the third dose of pentavalent vaccine divided by the estimated number of children under 1 year (based on official estimates) multiplied by 100 (including all three categories of municipalities). The data source will be the immunization registries.
- *Percentage of municipalities that have more than 50 percent compliance with their quality health care plan*[9]. The number of municipalities where there is more than 50 percent compliance with their quality of health care service plan as certified by the Project Verification Commission divided by the total number of municipalities that have prepared Quality Health Care Plans. The data source will be the Project Verification Commission statements.
- *Number of health centers certified on hypertension screening.* The number of health centers that have introduced a protocol for hypertension screening and have been certified by the Project Verification Commission. The data source will be the annual review of compliance with the Quality of Care Plans prepare by the MOH.

[9] Under the Nicaragua Community and Family Health Care Project - P106870 each municipality was required to draw up a quality of health care plan to govern the operations of its municipal health networks, and the SILAIS coordinate and oversee each municipality's implementation of its plan.

III. PROJECT DESCRIPTION

A. Project Components

15. **Component 1: Strengthening the Quality and Access to Health Care Services *(US$28.07 million)***. This component seeks to strengthen the quality and supply of public health care services delivered nationwide and will support the following subcomponents:

16. ***Subcomponent 1.1: Improving the quality of health care services in selected municipalities.*** The objective of this subcomponent is to improve the quality of health services in selected municipal health networks through the financing of Capitation Payments to Selected Municipal Health Networks. Capitation payments are the marginal financial resources transferred by the MOH to the selected municipal health networks to ensure access to quality health services and widespread coverage of health promotion, secondary prevention of disease, and prevention of risk factors. The per capita amount is estimated to be US$3.6 based on the incremental recurrent expenditures of these services and on the size of the rural population in each municipality, and can be adjusted on an annual basis. The per capita amount will be transferred by the MOH to the municipalities every six months using a 60/40 percent formula linked to compliance with mandatory indicators and quality of health care, as outlined in Annex 3.

17. **The Project will cover 66 (out of 153) municipalities participating in the ongoing Improving Community and Family Quality Health Care Services Project (P106870)[10].** Those were initially selected because of their low maternal and child health indicators and because they were not financed by the Inter-American Development Bank's Integrated Health Care Networks Project.[11] Baseline data for monitoring the performance of the municipalities will be the latest reported data from the MOH statistics office as of December 2014. The municipalities will be classified into three groups: (a) those monitoring to improve quality and access (G1); (b) those monitoring to improve quality (G2); and (c) those monitoring for sustainability of the introduced quality control measures (G3) (see Table 2.1 in Annex 2).

18. **The SILAIS will maintain annual municipal agreements (*Acuerdos Sociales por la Salud y el Bienestar con el nivel Municipal*) with the municipal health networks for the provision of services.** The agreements will include the Quality Health Care Plan and performance indicators, which will be used to measure the performance of each network. There will be three mandatory indicators, and each SILAIS will have the discretion to select additional indicators based on the geographic, demographic, and epidemiological profile of each network. These indicators will be used to monitor the performance of health services and mitigate risk factors in each SILAIS. The MOH will continue to use its own system of incentives and support depending on the network's performance. The municipal health networks will report every six months to the respective SILAIS on progress towards the achievement of the Project indicators and on compliance with the Quality Health Care Plan. The SILAIS will be responsible for collecting, revising, and consolidating all of these municipal reports and sending them to the MOH. The involvement of the Technical and Citizen Council in the review of the quality of care is an

[10] Annex 2 includes a list of the 66 municipalities.
[11] NI-1068, in the amount of US$56.2 million.

innovation of the proposed Project designed to encourage a participatory process and ensure Project sustainability.

19. ***Subcomponent 1.2: Strengthening and Expanding the Provision of Basic Health Care Services***. This subcomponent seeks to ensure the successful implementation of Subcomponent 1.1 by strengthening and expanding the provision of basic health care services through support to: (a) the national immunization program at the primary level of health care; (b) the national clinical laboratory diagnosis capacity; (c) the repair and maintenance of medical equipment by MOH; (d) training programs for health workers; (e) the mainstreaming of culturally acceptable traditional medicine; (f) the implementation of the adolescent sexual reproductive health strategy; (g) the development of preventative and curative oral health services; and (h) the consolidation of health information systems of MOH.

20. **This subcomponent will introduce the use of output-based disbursements for training and oral health activities above.** These activities will be reimbursed based on certification of the completion of agreed activities. Amounts will be estimated based on the identification of eligible operational costs of such activities. The Technical Council will be responsible for verifying completion of the activities in question. The Citizen Council will act as observers and have a say on the review of the results. The Pan American Health Organization (PAHO) will then provide independent certification for oral health activities. Training activities will be certified by the national university giving the training.

21. **Component 2: Institutional Strengthening of MOH to Respond to the Country's Changing Epidemiological Profile (*US$24.58 million*).** The objective of this component is to support the public health system to adapt to the country's changing epidemiological profile. Two subcomponents will be financed:

22. ***Subcomponent 2.1: Strengthening the MOH's Capacity to Prevent and Respond to Chronic Diseases***. This subcomponent will support: (a) the preparation of a national chronic disease strategy to promote good health practices and prevent and control major chronic diseases and risk factors, particularly obesity among women and children, hypertension among Afro-descendants, and diabetes among adults aged 50 and older; and (b) the strengthening of the National Cervical Cancer Prevention and Treatment Plan, which will upgrade the technical capacity of SILAIS for the prevention, early detection, and treatment of precancerous lesions of cervical cancer.

23. ***Subcomponent 2.2: Strengthening the MOH's Capacity to Prevent and Respond to Trauma Injury Cases***. This subcomponent will provide support to the National Medical Emergencies System to strengthen the health system's response to trauma injury cases through (a) the preparation of a national trauma strategy, including the creation of a medical emergency referral system and emergency transportation network; (b) improving the distribution of medical supplies; (c) the provision of orthopedic materials for trauma patients; (d) the strengthening of the referral emergency units and intensive care units; and (e) the promotion and implementation of road safety programs and communication campaigns. Services provided by the National Medical Emergencies System begin with the detection of a medical emergency by family members, community and security forces. This is followed by the activation of the system through a

management center that ensures the provision of pre-hospital care at the site of the accident, and transfer of the injured person to the health center using optimal means of transport and skilled personnel. Thus, this subcomponent will support the MOH in designing and implementing a public health sector response to the increased number of trauma patients in Nicaragua and will promote inter-sectoral work with national institutions.

24. **Component 3. Contingency Financing of a Public Health Emergency or Public Health Alert and Capacity Building (*US$6.55 million*)**. This component will provide funding to prevent and respond to a public health alert or a public health emergency. It also includes funding to prevent and control outbreaks, epidemics, and other potential risk factors involving the handling of general and medical waste.

25. ***Subcomponent 3.1: Provision of contingency financing in the case of an eligible Public Health Alert or a Public Health Emergency***. The objective of this subcomponent is to facilitate the use of critical resources in the event that a public health alert or a public health emergency is officially declared through a Health Ministerial Resolution or Presidential Decree. As indicated in Schedule 2, Section IV. B. (b) of the Financing Agreement the resources under this subcomponent will only be disbursed when : (A) a Public Health Alert or a Public Health Emergency has been declared by the Government; and (B) the Government has provided a letter to the World Bank including: (i) legal evidence, satisfactory to the Association, of the declaration of a Public Health Alert or a Public Health Emergency; (ii) the estimated flow of funds needs; and (iii) (a) a list of the goods, works, consultants' services (including non-consulting services) and Operating Costs proposed to be financed under Part 3.1. of the Project to address the needs of the Public Health Emergency or a Public Health Alert (including a procurement plan) acceptable to the World Bank; and (b) the assessments and plans that the Association may require. If any funds remain in this subcomponent after the third year of Project implementation, the MOH may reallocate them to finance Subcomponent 3.2.

26. ***Subcomponent 3.2: Strengthening Entomological Surveillance and Raising Awareness of Vector-Borne Diseases.*** This subcomponent supports: (a) the acquisition and maintenance of equipment to control vector spreading; (b) household preventative visits to vector infested areas to promote integrated prevention actions; (c) development of communication strategies; (d) training of health personnel; and (e) strengthening and creation of entomological units and laboratories. This subcomponent will use output-based disbursements to finance activities under subcomponent 3.2(b).

27. ***Subcomponent 3.3: Strengthening Hospital Waste Management in Selected Hospitals***. This subcomponent will complement the efforts to prevent vector-borne diseases and diseases transmitted by rodents through support to: (a) the implementation of waste management plans in Selected Hospitals; (b) the acquisition of equipment for hospital waste management; and (c) training.

28. **Component 4: Project Management (*US$0.8 million*).** This component will finance the strengthening of MOH's capacity for administering, implementing, supervising, and evaluating Project activities, including support for carrying out of external financial audits.

B. Project Cost and Financing

Project Components	Costs (US$ million)	World Bank Financing	% Financing
Component 1: Strengthening the Quality and Access to Health Care Services	28.7	28.7	100%
Component 2: Institutional Strengthening of MOH to Respond to Country's changing Epidemiological Profile	24.58	24.58	100%
Component 3: Contingency Financing of a Public Health Emergency or Public Health Alert and Capacity Building	6.55	6.55	100%
Component 4: Project Management	0.80	0.80	100%
TOTAL PROJECT COSTS	**60.00**	**60.00**	

C. Lessons Learned and Reflected in the Project Design

29. The Project design incorporates evidence and lessons learned from previous and ongoing World Bank- and donor-funded projects in Nicaragua and the LAC region. These include:

(a) **Models such as MOSAFC work well in the Nicaraguan context.** Experience from previous projects demonstrated that the MOSAFC model works in Nicaragua. The World Bank will continue to support this approach in the proposed Project seeking to improve quality and expand the services offered while continuing to focus on the long-term goal of reducing maternal and child morbidity and mortality.

(b) **Projects can be implemented without an independent Project Implementation Unit.** This Project will be implemented directly by the MOH, which has had the experience implementing the Nicaragua Community and Family Health Care Project (P106870) as well as several World Bank grants over the past four years. This has made it possible to build institutional capacity within the MOH due to the close coordination between its technical units and divisions and the World Bank.

(c) **Capitation payments and annual performance agreements, along with effective monitoring and information systems, create incentives that work.** Under the Nicaragua Community and Family Health Care Project (P106870), it is evident that marginal funding of the cost of service along with consistent monitoring and evaluation of outcomes are effective in holding service providers accountable for their performance.

(d) **Performance agreements are a useful tool to establish a results-oriented culture**. These agreements have proven to be a powerful tool for managing decentralized health programs at the municipal level. The Project will strengthen the MOH's monitoring and evaluation (M&E) system so that the technical reports can be completed in a timely manner to enable any necessary changes to be made promptly to the Project.

(e) **In countries vulnerable to natural disasters or other emergency, Project design should allow for a flexible response to a public health alert or health emergency.** The Project will use the same activation and disbursement procedures as defined in the emergency contingency subcomponent of the Nicaragua Community and Family Health Care Project (P106870), which have been successfully used in the past.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

30. **The MOH will be responsible for the implementation of the proposed Project through its various technical units.** Implementation will be overseen by a Project Technical Committee (PTC), which is operating under the Nicaragua Community and Family Health Care Project (P106870). The PTC will be responsible for (a) coordinating Project activities, including those carried out by the SILAIS and the municipal health networks; (b) monitoring the Project's results indicators at the macro level; (c) coordinating with the Procurement Division and the General Division of Financial Management within the MOH and with PAHO on the procurement of vaccines; (d) overseeing the implementation of the IPP and the EMP; (e) preparing technical and financial progress reports; and (f) ensuring technical reports are presented to the Technical and Council and Citizen Council for certification. The PTC is led by the MOH's Division of External Cooperation and is made up of technical staff from each participating technical and administrative directorate and division within the MOH.

31. **Technical oversight of activities implemented at the municipal level will be undertaken by the Technical Council (TC).** The TC is an established MOH structure which oversees the performance of MOH's technical units and is responsible for reviewing health reports and for making executive decisions on the technical aspects of health implementation plans. Its role in the proposed Project will be to review the performance of the 66 municipalities every six months and their compliance with indicators, quality of care plans and the output-based disbursement arrangements; and issue a statement on its findings. It is comprised of the directors of all of the General Directorates of the MOH at the central level, a representative of the Health Workers Federation, and the Minister of Health.

32. **At the SILAIS level, the Citizen Council will be responsible for monitoring the provision of care, the achievement of health indicator targets, the judicious use of funds, and other such issues.** The Citizen Council is also an established structure of the MOH at the SILAIS level and is comprised of the SILAIS director, representatives of the local hospitals, the SILAIS epidemiologist, a representative of the local branch of the Health Workers Federation, a representative of the Community Cabinet *(Gabinete de la Familia Comunidad y Vida)* and community leaders.

33. **Finally, the Project Verification Commission (PVC) will be put in place for the verification and certification of capitated payments and output based disbursements.** The PVC will include representatives of the TC and the Citizen Council together with a representative of an external independent institution, such as PAHO or an academic institution. These commission members will visit a randomly selected number of municipalities to verify their implementation of their quality health care plans and their compliance of indicators in the case of those receiving the capitation payments The PVC will also verify and certify the training, fluoridation and abatization[12] activities. The PTC will coordinate and organize these verification visits by the PVC. The PVC will be responsible for reviewing municipalities' indicators, results,

[12]Abatizar is a word in Spanish that describes house by house visits in vector infested areas to clean sites for mosquito breeding and to educate the population in proper measures to eliminate those sites.

and implementation of activities according to the Project implementation plan. Every six months the PVC will present a technical report to the World Bank with the certified documentation. Once the World Bank has reviewed and accepted this report and its documentation, it will make the disbursement. The detailed process will be explained in the Operations Manual and is outlined in Annex 3.

34. **Under Component 1, the MOH will enter into annual performance agreements (*Acuerdos Sociales por la Salud y el Bienestar*) with participating SILAIS for the implementation of MOSAFC.** Under these annual, renewable arrangements, the SILAIS will be responsible for: (a) guaranteeing the delivery of the health services by the municipal health networks; (b) supervising and monitoring the performance of the health services that are delivered; (c) transferring the funds received from the MOH as capitation payments to the selected municipal health networks; (d) entering into individual municipal agreements with each selected municipal health network; (e) supervising and keeping records of the health services provided by the municipal health networks and compiling the municipalities' progress reports on the performance indicators and performance goals set out in each municipal agreement; and (f) complying with the provisions of the Operations Manual (including the IPP and the EMP) and the Anti-Corruption Guidelines.

35. **Under the Project, the SILAIS will enter into municipal agreements with the municipal health networks (*Acuerdos Sociales por la Salud y el Bienestar con el nivel municipal*).** These annual, renewable agreements between the Director of the municipal health network and the Director of the SILAIS will stipulate the terms under which the standard set of basic health care services will be delivered by providers in the network. These agreements will, among other things require the MOH (through the SILAIS) to transfer the pertinent capitation payments to the selected municipal health networks on a per capita basis to finance the delivery of health services. They will also require each selected municipality to: (a) prepare and implement a Quality Health Care Plan and to meet the agreed mandatory indicator; (b) keep records of what health services are being provided and progress reports towards meeting performance Indicators; (c) comply with the provisions of the Operations Manual and the Anti-Corruption Guidelines; and (d) list the tailor performance indicators and the corresponding performance goals and the mechanism to periodically adjust the referred performance indicators and performance goals. The PTC will be responsible for the coordination and administration of activities under Components 2 and 3.

36. **The proposed Project engages the population through the municipalities' involvement as active participants in the implementation and evaluation of most Project activities.** The Citizen Council, an existing MOH administrative council, is directly involved in overseeing the health services delivered at the municipality level. Through the Project, the Citizen Council will be part of the Project Verification Commission to review the performance of the 66 municipal health networks participating in the capitation mechanism. In addition, as part of the Project Verification Commission, the Citizen Council will participate in the review process of the output-based disbursement mechanism. Also, this Project will strengthen the implementation of the social agreements, which enable community members from the municipalities to be involved in deciding which health care services should be available in their communities each year. Finally,

the Project is designed to encourage communities to participate in Project activities, such as vaccine campaigns and public communication campaigns for behavioral changes.

37. **The Project proposes a more structured cooperation between the World Bank, the MOH and the PAHO through signed agreements for the implementation of selected activities under subcomponent 1.1.** During the implementation period, PAHO will be a key partner in terms of procuring vaccines through a competitive mechanism in place for LAC[13] and providing their technical expertise as certifier for the PVC in the effort to improve the quality of health care services. In addition, the national universities may act as certifiers of health training programs and continuous education in the health field.

B. Results Monitoring and Evaluation

38. **Data from the MOH's M&E system will be used to track progress on the indicators specified in the results framework**. The system will contain data from multiple information sources including:

- The monthly reports presented to the SILAIS by the municipal health networks
- Project Management Reports prepared by the PTC three times a year
- Bi-annual Municipal Quality of Care Plans
- Bi-annual certified performance technical reports
- Annual Social consultations, an existing mechanism for monitoring the implementation of MOSAFC in which the SILAIS solicit feedback, address complaints, and seek suggestions for improvements from the local community and beneficiaries in each municipal health network

The proposed Project will support supervision and monitoring activities under Components 1, 2, and 3, all of which focus on increasing management capacity at both the local and national levels.

C. Sustainability

39. **The Project builds on the experience and satisfactory results of past World Bank financed health projects implemented in Nicaragua**. Most importantly, the strong focus on sustainability is embedded in the Project's demand-driven design which will: (a) support MOSAFC, the Government's own health services provision model; (b) implement the Project through the technical units of the MOH without no external project implementation unit; (c) incorporate fiduciary and procurement divisions of the MOH for Project implementation; (d) incorporate the M&E national system to monitor Project advances; (e) support community-based participation and empowerment; (f) contribute to public policy discussions; and (g) foster inter-sectoral coordination in the implementation of the Project.

[13] *Fondo Rotatorio de Vacunas*.

V. KEY RISKS

A. Overall Risk Rating Explanation

40. **The overall risk is Moderate given the existing experience and capacity in administering capitation payments and the challenge of improving quality.** This risk assessment takes into account the experience gained and capacity built from implementation of MOSAFC for the past seven years and the fact that significant progress has been achieved in: (a) consolidating the MOSAFC; (b) improving primary maternal and child care indicators; (c) increasing the use of results for budgetary planning; and (d) strengthening the technical units of the MOH. The two key identified risks are related to: (a) the capacity of the country to administer the capitation payments and output-based disbursements; and (b) the challenge of trying to improve the quality of care provided in the country's public health care services. Overall fiduciary capacity will be strengthened through the financing of additional financial management resources and provision of technical support throughout implementation.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

41. **The economic analysis shows that the Project will yield a net present value of about US$17 million and produce an internal rate of return above 30 percent over a ten-year period.** The sensitivity analysis shows that the Project would be worthwhile even if it were to require an additional investment of 16 percent to achieve the same gains. This economic analysis is based on assumptions of strategy, interventions, and targets used in previous country estimates, and includes a discount rate of 10 percent. The analysis assumes that the proposed Project will operate in 19 SILAIS and that the proposed health prevention and promotion services will be provided in 66 municipalities. In total, this will benefit 1.2 million people under Component 1, while the introduction of public health goods will benefit the entire national population. A more detailed economic and financial analysis is presented in Annex 5.

B. Technical

42. **The Project's technical design builds on lessons learned and best practices of similar projects that have been implemented in Nicaragua and the LAC region**. For nearly two decades, the World Bank has successfully supported clients in the LAC region in designing and implementing health projects with innovative ways of financing including capitation payments, payments for results, and output-based disbursements. Building on these experiences and in accordance with the country's evolving needs, the proposed Project consists of a range of interventions to address the country's changing population profile. The Project has incorporated lessons learned by the World Bank from implementing previous projects, such as the incorporation of the national technical and administrative directorates and councils for the supervision and monitoring of the Project activities to help to build technical capacity and sustainability.

C. Financial Management

A financial management assessment found the proposed Project's financial management arrangements to be moderately satisfactory. The Project will benefit substantially from the existing financial management arrangements that were put in place at the MOH for the implementation of the ongoing IDA credits and grant (IDA 48300, IDA 53680, and H6220). In general, the assessment found that the MOH's financial management arrangements (in terms of financial recording system and financial reporting, cash flow, audit arrangements, internal control system and asset management) are moderately satisfactory. However, taking into account the size and additional activities envisioned under the new Project, those arrangements will be further strengthened in the following ways. First, specific procedures and funds flow arrangements will be put in place for the financing of capitation payments (reflecting lessons learned so far), the payments to PAHO for purchases of vaccines, immunization supplies and biological testing kits, the use of contingency funds for public health alerts and emergencies, and the output-based disbursements for the financing of the PHAs. Second, a senior financial management specialist and a financial analyst will be contracted for the MOH's DGAF for the duration of the Project (as well as one additional analyst for the overlapping implementation period with the Nicaragua Community and Family Health Care Project (P106870) in the country). Third, financial reports will be revised. The Operations Manual was updated to reflect these agreed arrangements.

43. ***Retroactive financing.*** The Project will allow retroactive financing for up to an aggregate amount not to exceed SDR 8,540,000 for payments made on or after April 13, 2015 but in no case earlier than twelve (12) months from the date of the Financing Agreement, for Eligible Expenditures under Categories (4) and (5).

D. Procurement

44. **Procurement activities will be carried out by the Procurement Division of the MOH, which has adequate capacity and experience, albeit with some deficiencies.** The organizational structure for implementing the Project was assessed in March 2015, and the capacity and experience of the procurement team was deemed to be adequate. However, the assessment found certain deficiencies related to available staff and resources to deal with the large number of contracts required by the Project and related to the coordination of the activities of MOH's various divisions.

45. Key procurement issues and risks for Project implementation are as follows: (a) lack of coordination between the Procurement Division, Technical Divisions, and the External Cooperation Division of the MOH; (b) local procurement regulations that include practices that are not acceptable to the World Bank; (c) the large number of processes involved in the Project may exceed available staff and resources; and (d) the high country procurement risk.

46. **A number of mitigation measures will be undertaken during the implementation of the Project.** First, the External Cooperation Division of the MOH will continue to serve as the coordination unit within MOH and will closely monitor the coordination between the General Division of Procurement of the MOH and the General Directorates of technical areas. Second, special procurement provisions have been included in the Financing Agreement to ensure that Project procurement is exempted from the application of clauses of the national procurement law that are in conflict with the World Bank Guidelines. Third, the MOH will hire two additional

procurement analysts on a temporary basis during the period in which the ongoing and the new Project overlap. These contracts will only be extended after a World Bank evaluation of the continuing need for support. The terms of reference for and qualifications of these procurement analysts shall be acceptable to the World Bank. In case of heavy workload, the Project will employ additional procurement specialists with international experience as needed. Fourth, Project procurement analysts will be required to participate in a World Bank training seminar(s) when the Project is launched. Fifth, the Project will operate in accordance with an Operations Manual that is acceptable to the World Bank. Finally, National Competitive Bidding (NCB) procurement will be conducted using bidding documents to be agreed with the World Bank.

E. Social (including Safeguards)

47. **The proposed Project triggers OP/BP 4.10 Indigenous Peoples given the presence of indigenous peoples in the proposed Project area**. For nine of the ten SILAIS in the proposed Project, the activities in component 1 are a continuation of the activities in the Community and Family Health Care Project (P106870) for which the IPP was consulted, disclosed and implemented. The IPP has been reviewed, updated, consulted and redisclosed to include the additional SILAIS and ensure that there is continued broad community support for this project in the nine original SILAIS. The IPP ensures that the indigenous communities in the territories of Alto Wangki and Bocay also broadly supported by the project activities. The IPP has also been consulted at national level to ensure that the measures related to Maternal, Adolescent, Child and Reproductive Care take into account the cultural practices of Indigenous Groups. Consultations and implementation of activities carried out under the Nicaragua Community and Family Health Care Project (P106870) and the IPP update involve the following actors: (a) the Ministry of Health, (b) Ministry of Environment and Natural Resources; (c) the Institute of Natural Medicine and alternative Therapy, (d) the 10 SILAIS, (e) 11 Municipalities where indigenous people live, (f) indigenous representatives, (g) traditional medicine staff at all levels, (h) local universities, and non-governmental organizations. Activities under the plan include actions to promote openness to traditional medicine respecting cultural differences and beliefs. The country is moving towards the integration of traditional ancestral medicine with the western health system. It also includes measures related to maternal, adolescent, child, and reproductive care that take into account the cultural practices of indigenous groups. For details please refer to the IPP. The document was disclosed in the country and made available in the World Bank's external website on April 10, 2015. There is a project-level grievance redress mechanism that ensures that complaints received are promptly reviewed in order to address Project-related concerns included in the Plan.

F. Environment (including Safeguards)

48. **The proposed Project triggers OP/BP 4.01 on Environmental Assessment because it will finance minor rehabilitation works in health facilities to improve health care waste management**. The Project has an Environmental Risk Category of B. The proposed Project will finance minor rehabilitation works in health care facilities and minor pre-installment works to accommodate medical and non-medical equipment to be purchased. While the effects of these activities will be localized, minor, and reversible, they warrant a certain amount of care. Therefore, appropriate mitigation measures have been included in the updated Environmental Management Plan, submitted by the Government to the World Bank in February 2015. The plan was disclosed in the country and made available in the World Bank's external website on April 10, 2015. As

mandated by law, there is a country-level grievance redress mechanism in every hospital that ensures that complaints received are promptly reviewed in order to address any concerns, including Project-related concerns.

49. ***Waste Management.*** A diagnosis of the handling of dangerous waste management in the six main hospitals in Managua was financed by the Nicaragua Community and Family Health Care Project (P106870). Hospital waste management plans are being prepared for each hospital and will be implemented under the new Project. The plans will include the World Bank's Environmental, Health, and Safety Guidelines for Medical Facilities as well as procedures to manage the radioactive waste associated with the medical equipment to be acquired. Finally, the proposed Project will support comprehensive occupational health and safety training for medical personnel, including exposure to diseases, medical waste, and the use of certain equipment involving radiation.

50. ***Climate Change***. Nicaragua is at risk for natural disasters (such as heavy rainfall, hurricanes, and earthquakes) and the proposed Project includes a component to enable the Government to respond quickly to disasters and emergencies. Other investments under the proposed Project will prevent and reduce contamination due to hospital waste and provide municipalities with incentives to improve their processes for disposing of normal waste. Finally, the spraying of insecticide in peripheral neighborhoods of greater Managua and in rural populations to control vector-borne diseases has had several negative side-effects, including potential contamination of people, crops, and land. The proposed Project will have a direct positive impact on the environment by supporting efforts to educate the population on ways to stop mosquitos from breeding, thus eliminating the need for spraying.

G. World Bank Grievance Redress

51. **Communities and individuals who believe that they are adversely affected by a World Bank supported Project may submit complaints to existing Project-level grievance redress mechanisms or the World Bank's Grievance Redress Service.** The Grievance Redress Service ensures that complaints received are promptly reviewed in order to address Project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service, please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

NICARAGUA: Strengthening the Public Health Care System Project

Table 1. Results Framework

Project Development Objectives

PDO Statement

The PDO are to: (a) strengthen quality and access to health services; (b) contribute to adapting the public health system to the country's changing epidemiological profile; and (c) secure financial support in case of Public Health Alert or a Public Health Emergency.

Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values				Frequency	Data Source / Methodology	Responsibility for Data Collection
		YR1	YR2	YR3	End Target			
1. Percentage of women receiving prenatal care coverage (at least four visits) (List of municipalities in Annex 2)	G1: 53% G2: 71% G3: 83%	G1: 55% G2: 73% G3: 85%	G1: 60% G2: 75% G3: 85%	G1: 65% G2: 77% G3: 85%	G1: 70% G2: 80% G3: 85%	Annual	Report	DGPD/DGSS (MOH)
2. Percentage of children under 1 year of age receiving three doses of pentavalent vaccine (List of municipalities in Annex 2)	G1: 94 % G2: 96% G3: 96%	G1: 95% G2: 97% G3: 97%	G1: 95% G2: 97% G3: 97%	G1: 96% G2: 98% G3: 98%	G1: 97% G2: 98% G3: 98%	Annual	Report	DGPD/DGSS (MOH)
3. Percentage of municipalities that have more than 50 percent compliance with their quality health care plan	0.00	36.00	46.00	56.00	66.00	Annual	Plan	DGSS
4. Number of health centers certified on hypertension screening	0.00	15.00	25.00	35.00	40.00	Annual	Report	DGSS (MOH)

Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values				Frequency	Data Source / Methodology	Responsibility for Data Collection
		YR1	YR2	YR3	End Target			
Percentage of women receiving postpartum care within 2 to 10 days of delivery (List of municipalities in Annex 2)	G1: 37% G2: 58% G3: 73%	G1: 40% G2: 60% G3: 75%	G1: 45% G2: 63% G3: 77%	G1: 50% G2: 65% G3: 80%	G1: 55% G2: 70% G3: 82%	Annual	Report	DGPD/DGSS (MOH)

Number of municipalities with signed annual performance agreements (*acuerdos sociales*) with SILAIS	66.00	66.00	66.00	66.00	66.00	Annual	Agreements executed, evaluation Minutes	DGSS
Percentage of health centers certified on quality of care	0	10	16	25	33	Annul	Report	DGD (MOH)
Number of health personnel receiving training - (Core)	0.00	250.00	500.00	750.00	1,000.00	Annual	Reports	DGD (MOH)
Number of municipal health units implementing traditional medicine	0.00	0.00	1.0	9.00	12.00	Annual	Departmental Technical Committee Assessment	DGSS
Number of schools participating in the children fluoridation program	0.00	2,500.00	3,000.00	3,300.00	4,040.00	Annual	Report	DGSS (MOH)
Percentage of cold chain networks rehabilitated at the primary health care level	88.00	90.00	91.00	92.00	93.00	Annual	Reports	DGVS (MOH)
Number of health facilities constructed, renovated, and/or equipped - (Core)	0.00	10	22	30	44	Annual	DGVS (MOH)	DGVS (MOH)
Number of reference centers with capacity to treat cervical cancer (infrastructure, equipment, and qualified human resources)	0.00	0.00	5.0	7.0	10.00	Annual	Report	DGSS (MOH)
Number of home visits to promote awareness on prevention of vector borne diseases	5,000,000	5,900,000	7,000,000	7,500,000	8,200,500	Annual	Reports	DGVSP (MOH)
Percentage of reference hospitals with updated and implemented waste management plans	11	33	50	66	83	Annual	DGVSP (MOH)	DGVSP (MOH)

Table 2. Results Framework, Indicators Protocols and Source of Information

PDO Level Results Indicators*	Protocol	Source of Information	Comments
1. Percentage of women receiving prenatal care coverage (at least four visits) (List of municipalities in Annex 2)	Numerator: Number of women receiving at least four prenatal consultations in the 66 selected municipalities Denominator: Total estimated number of women receiving prenatal care	MOH Information System	Area: 66 selected municipalities
2. Percentage of children under 1 year of age receiving three doses of pentavalent vaccine (List of municipalities in Annex 2)	Numerator: Number of children less than 1 year old vaccinated with the third dose of the pentavalent vaccine Denominator: total number of children less than 1 year old estimated by municipality	MOH Information System	Area: 66 selected municipalities
3. Percentage of municipalities that have more than 50 percent compliance with their quality health care plan	Numerator: Number of municipalities that have more than 50 percent compliance with their quality health care plan Denominator: 66 Municipalities with Quality of care plans.	Quality of Care Plans	Area: 66 selected municipalities
4. Number of health centers certified on hypertension screening	Number of Health Centers in the 66 participant municipalities that comply with certification requirements for hypertension screening	Quality of Care Plans	Area: 66 selected municipalities
Intermediate Indicators			
Percentage of women receiving postpartum care within 2 to 10 days of delivery (List of municipalities in Annex 2)	Numerator: Number of women receiving at least four prenatal consultations in the 66 selected municipalities Denominator: Total estimated number of women	MOH Information System	Area: 66 selected municipalities
Number of municipalities with signed annual performance agreements (*acuerdos sociales*) with SILAIS	Number of Municipalities with signed annual performance agreements with SILAIS	SILAIS- MOH reports. Signed agreements.	Area: 66 selected municipalities
Number of health personnel receiving training - (Core)	Number of health personnel working at the MOH receiving training according to their work responsibility	General Directorate of Education reports.	MOH health personnel, at different levels of training and central and local level.
Number of municipal health units implementing traditional medicine	Number of Municipal Health Units with compliance with the introduction of traditional medicine	Traditional Medicine Annual Reports	Twice in the life of the project.
Number of schools participating in the children fluoridation program	Number of schools participating in the children fluoridation program	List of Schools provided by the Ministry of Education	Schools that participate in the fluoridation program would have the

PDO Level Results Indicators*	Protocol	Source of Information	Comments
			Principals signature in the documentation of the activity
Percentage of cold chain networks rehabilitated at the primary health care level	Numerator: Number of cold chain networks rehabilitated at the primary health care level Denominator: Total number of cold chain networks at the primary health care level	General Directorate of Epidemiological Surveillance - MOH Information System	MOH health care services
Number of health facilities constructed, renovated, and/or equipped - (Core)	Health Facilities that receive any improvement on infrastructure or equipment.	CEMED- MOH information System.	MOH health care facilities
Number of reference centers with capacity to treat cervical cancer	Health facilities with infrastructure, equipment, and qualified human resources to treat cervical cancer	MOH Information Systems	MOH health care facilities
Number of home visits to promote awareness on prevention of vector borne diseases	Home visits to promote integrated awareness on vector borne diseases in identified areas	General Directorate of Epidemiological Surveillance - MOH Information System	Supports ongoing MOH prevention program Certified by the PVC
Percentage of reference hospitals with updated and implemented waste management plans	Numerator: Number of hospitals with updated and implemented waste management plans Denominator: Six National reference Hospitals in Managua	MOH Information System	Managua reference Hospitals.

Annex 2: Detailed Project Description

NICARAGUA: Strengthening the Public Health Care System Project

1. The proposed Strengthening the Public Health Care System Project will support the Government with a US$60 million IDA grant that will be implemented over a five-year period. Building on the experience of previous World Bank operations, the proposed Project will finance four components: (a) strengthening the quality and access to health care services; (b) institutional strengthening of MOH to respond to the country's changing epidemiological profile; (c) **c**ontingency financing of a public health emergency or public health alert and capacity building; and (d) Project management.

2. **Component 1: Strengthening the Quality and Access to Health Care Services *(US$28.07 million)***. This component seeks to strengthen the quality and supply of the public health care services delivered nationwide. This component will have the following subcomponents:

3. ***Subcomponent 1.1: Improving the quality of the health care services in selected municipalities.*** The objectives of this subcomponent will be to improve the quality of health services by: (a) strengthening community work aimed at promoting family and community health strategies, systematic home visits to families based on risk criteria, as well as work with communities and their community leaders in local participatory planning, community-led health initiatives and training for health volunteers and midwives and (b) health services improvement by implementing national quality health care plans.

4. The municipalities included to be covered by the Project will be the 66 (out of 153) municipalities participating in the ongoing Improving Community and Family Quality Health Care Services Project (P106870). They are listed in Annex Table 2.1 below. They were initially selected because of their lower performance on maternal and child health indicators and because they were not financed by the Inter-American Development Bank's Integrated Health Care Networks Project.[14] The baseline data for monitoring the performance of the municipalities will be the latest reported data of the Nicaragua Community and Family Health Care Project (P106870) of December 2014. These Municipalities will be classified into three groups: (a) monitoring to improve quality and access; (b) monitoring to improve quality; and (c) monitoring for sustainability of the introduced quality control measures.

[14] NI-1068, in the amount of US$56.2 million.

Annex Table 2.1: Municipalities included in Subcomponent 1.1 (per capita)

No.	SILAIS	Municipality	Early Uptake (*Captación Precoz*)		Cuarto APN		Postpartum Mediato		Total Score	Group Classification
			Average 2011-2013	Score	Average 2011-2013	Score	Average 2011-2013	Score		
1	Jinotega	Alto Wangki y Bocay	0%	4	0%	4	0%	4	**12**	Group 1: sensitive increase of coverage and quality
2	Chontales	Comalapa	35%	4	47%	4	45%	4	**12**	
3	Chontales	San Pedro de Lóvago	46%	4	57%	4	44%	4	**12**	
4	León	Nagarote	48%	4	59%	4	37%	4	**12**	
5	RACS	La Cruz de Río Grande	38%	4	29%	4	33%	4	**12**	
6	León	El Sauce	47%	4	57%	4	33%	4	**12**	
7	Nueva Segovia	Wiwilí (Nueva Segovia)	43%	4	54%	4	32%	4	**12**	
8	RACS	El Tortuguero	29%	4	32%	4	27%	4	**12**	
9	Managua	Tipitapa	44%	4	48%	4	25%	4	**12**	
10	Madriz	San José de Cusmapa	40%	4	57%	4	58%	3	**11**	
11	Madriz	Palacagüina	47%	4	59%	4	53%	3	**11**	
12	Madriz	Telpaneca	44%	4	64%	3	43%	4	**11**	
13	Managua	Ciudad Sandino	56%	3	58%	4	43%	4	**11**	
14	Managua	Managua	51%	3	57%	4	40%	4	**11**	
15	Managua	Mateare	51%	3	53%	4	39%	4	**11**	
16	RACS	Bluefields	57%	3	61%	4	59%	3	**10**	
17	RACS	Karawala	42%	4	62%	3	58%	3	**10**	
18	Managua	Ticuantepe	55%	3	57%	4	50%	3	**10**	
19	Nueva Segovia	El Jícaro	51%	3	69%	3	41%	4	**10**	
20	Madriz	San Lucas	47%	4	52%	4	71%	1	**9**	Group 2: moderate increases in coverage and quality
21	Madriz	Totogalpa	45%	4	72%	3	67%	2	**9**	
22	Nueva Segovia	Dipilto	49%	4	72%	3	66%	2	**9**	
23	Zelaya Central	Muelle de los Bueyes	54%	3	68%	3	58%	3	**9**	
24	León	León	53%	3	67%	3	56%	3	**9**	
25	Boaco	Camoapa	56%	3	67%	3	49%	3	**9**	
26	Boaco	Teustepe	61%	2	68%	3	35%	4	**9**	
27	Madriz	San Juan de Río Coco	49%	4	73%	2	66%	2	**8**	
28	Zelaya Central	El Coral	54%	3	71%	3	62%	2	**8**	
29	Nueva Segovia	Ciudad Antigua	53%	3	70%	3	61%	2	**8**	
30	Chinandega	Cinco Pinos	57%	3	80%	2	58%	3	**8**	
31	Managua	San Rafael del Sur	63%	2	68%	3	55%	3	**8**	
32	Chinandega	El Viejo	55%	3	74%	2	46%	3	**8**	
33	Boaco	Boaco	56%	3	87%	1	42%	4	**8**	

No.	SILAIS	Municipality	Early Uptake (*Captación Precoz*)		Cuarto APN		Postpartum Mediato		Total Score	Group Classification
			Average 2011-2013	Score	Average 2011-2013	Score	Average 2011-2013	Score		
34	Chontales	Cuapa	56%	3	75%	2	65%	2	**7**	
35	Chontales	Villa Sandino	60%	2	72%	3	64%	2	**7**	
36	Chontales	Juigalpa	58%	2	68%	3	64%	2	**7**	
37	Nueva Segovia	Quilalí	58%	2	72%	3	61%	2	**7**	
38	León	Quezalguaque	62%	2	76%	2	52%	3	**7**	
39	León	La Paz Centro	63%	2	74%	2	51%	3	**7**	
40	León	El Jicaral	60%	2	79%	2	48%	3	**7**	
41	Nueva Segovia	Jalapa	54%	3	74%	2	97%	1	**6**	Group 3: maintenance of status quo or modest increases in coverage and quality
42	Zelaya Central	Nueva Guinea	53%	3	78%	2	81%	1	**6**	
43	Chontales	El Ayote	63%	2	64%	3	75%	1	**6**	
44	Zelaya Central	El Rama	59%	2	74%	2	68%	2	**6**	
45	Chinandega	Villanueva	62%	2	84%	2	66%	2	**6**	
46	Chontales	La Libertad	68%	1	72%	3	70%	1	**5**	
47	Chontales	Santo Domingo	70%	1	79%	2	68%	2	**5**	
48	León	Achuapa	61%	2	85%	1	66%	2	**5**	
49	Madriz	Yalagüina	66%	1	73%	2	60%	2	**5**	
50	Boaco	San Lorenzo	65%	1	108%	1	53%	3	**5**	
51	Boaco	San José de los Remates	65%	1	86%	1	47%	3	**5**	
52	Río San Juan	Morrito	74%	1	82%	2	85%	1	**4**	
53	Nueva Segovia	Santa María	60%	2	90%	1	78%	1	**4**	
54	Chinandega	Somotillo	62%	2	105%	1	76%	1	**4**	
55	Chinandega	Posoltega	62%	2	92%	1	74%	1	**4**	
56	Nueva Segovia	Ocotal	60%	2	89%	1	70%	1	**4**	
57	Madriz	Somoto	68%	1	95%	1	67%	2	**4**	
58	Río San Juan	El Castillo	69%	1	91%	1	65%	2	**4**	
59	Río San Juan	El Almendro	74%	1	85%	1	109%	1	**3**	
60	Madriz	Las Sabanas	72%	1	85%	1	96%	1	**3**	
61	Chontales	Santo Tomás	72%	1	100%	1	91%	1	**3**	
62	Chinandega	Puerto Morazán	74%	1	86%	1	85%	1	**3**	
63	Chontales	Acoyapa	64%	1	93%	1	85%	1	**3**	
64	Boaco	Santa Lucía	88%	1	95%	1	75%	1	**3**	
65	Río San Juan	San Juan del Norte	124%	1	139%	1	73%	1	**3**	
66	Río San Juan	San Carlos	64%	1	86%	1	71%	1	**3**	

5. This subcomponent will continue the World Bank's support for the transition within the MOH from a historical budgeting system to a results-based budget and will use capitation payments to cover the costs of providing promotion, preventive, and curative services as has been the case in the Nicaragua Community and Family Health Care Project (P106870). Capitation payments are the financial resources transferred by the MOH to the selected municipal health networks to ensure that their population has access to quality health services. The per capita amount has been estimated to be US$3.6 based on the incremental recurrent expenditures of those services and the size of the rural population in each municipality and can be adjusted on an annual basis. While the annual transfers to each municipality are set based on the per capita estimation, the twice yearly disbursements will be made in two parts: (a) a 60 percent transfer based on the estimated size of the municipality's rural population and (b) a 40 percent transfer based on the municipality's achievement of the mandatory targets and its implementation of the quality health care plan as described in the Operations Manual. Those municipal health networks that do not reach their target indicators may receive the remaining balance of their transfer based on their compliance with their quality health care plan as defined in the Operations Manual, but the MOH will closely monitor and mentor those municipalities and help them to identify any bottlenecks that may be preventing them from achieving their targets. This mechanism has proven successful during the implementation of the Nicaragua Community and Family Health Care Project (P106870) and has allowed the MOH to identify problem municipal health networks and work closely with them.

6. The selected municipal health networks will execute the funds received from capitation payments and report every six months to the respective SILAIS on the progress towards the achievement of the Project indicators and compliance with the quality health care plan. There will be three mandatory indicators, and each SILAIS will have the discretion to select additional indicators based on the geographic, demographic, and epidemiological profile of each network. These indicators will be used to monitor the performance of health services and mitigate risk factors in each SILAIS. The MOH will continue to use its own system of either incentives or support depending on the network's performance The SILAIS will be responsible for collecting, revising, and consolidating all of these municipal reports and sending them to the MOH. A Project Verification Commission, comprised by a representative of the Technical Council, Citizen Council and PAHO, will be set up to verify and certify these activities as follows. The Technical Council will review and verify the progress made in each municipal health network and prepare a report for the external certification. The Citizen Councils will be observers and participate in the discussion of the results[15]. The external certifier will be external institutions such as the Pan American Health Organization (PAHO) and national universities. PAHO will make random visits to municipalities to confirm the Councils' findings and will prepare a certification report and send it to the World Bank for decision. The universities will certify the students. An innovation of the proposed Project is the introduction of quality of care reviews in the agenda of the Technical and Citizen Councils which will promote a participatory process and ensure Project sustainability.

7. ***Subcomponent 1.2: Strengthening and Expanding the Provision of Basic Health Care Services***. This subcomponent seeks to ensure the successful implementation of Subcomponent 1.1 by strengthening and expanding the provision of basic health care services through support to: (a)

[15] Both, the Technical and Citizen Councils, are part of the Project Verification Commission with distinctive roles. PAHO is the only certifier of the results.

the national immunization program at the primary level of health care; (b) the national clinical laboratory diagnosis capacity; (c) the repair and maintenance of medical equipment by MOH; (d) training programs for health workers; (e) the mainstreaming of culturally acceptable traditional medicine; (f) the implementation of the adolescent sexual reproductive health strategy; (g) the development of preventative and curative oral health services; and (h) the consolidation of health information systems of MOH. Specific activities will include:

(a) ***Funding the National Immunization Program.*** This program is one of the strongest programs in the country. Therefore, it is crucial to maintain and strengthen the cold chain network (by procuring temperature monitors, cold chain repair kits, and vaccine refrigerators) to preserve the distributed vaccine stocks. The Project will support the program in two ways: (i) by supporting the expansion of the population to be immunized with the measles, mumps, and rubella and the influenza vaccines, particularly as two measles cases have recently been identified in the LAC region, and (ii) by strengthening the vaccine cold chain at the primary level of care.

(b) ***Supporting the development of the National Clinical Laboratory's diagnosis capacity.*** Health networks provide ambulatory care. However, the lack of onsite laboratories to perform tests means that patients must be referred from one facility to another. This is inefficient and represents a lost opportunity to provide patients with comprehensive and integrated care for their health problems. This component will provide municipal service facilities with medical laboratory equipment and air conditioning systems and will streamline the workflow within laboratories to improve health facilities response at all levels of care. Clinical laboratories in 146 family and community health centers and 36 primary hospitals, including those in the Special Development Regimen zone in the indigenous territory of Alto Wangki-Bocay will be expected to conduct basic clinical blood analysis, clinical chemical blood coagulation, parasitology, urinalysis, bacteriology, and blood transfusion services.

(c) ***Building the capacity of the MOH to maintain and repair medical equipment***. This support will extend the equipment's longevity and improve its operating conditions. The Project will support the MOH to: (i) supplement or replace the primary medical and medical support equipment to meet the growing demand; and (ii) increase the level of training for maintenance technicians for both medical and non-medical equipment. In addition the Project will facilitate South-South learning exchanges and will encourage local and international universities to participate in these exchanges.

(d) ***Supporting training programs for health workers.*** Consistent with MOSAFC, this subcomponent aims to improve the quality and increase the supply of health care services by training the staff who deliver these services in the various health networks. The MOH has identified a shortage of health auxiliaries who are familiar with the MOSAFC approach, including health inspectors, health trainers, cytology technicians, equipment station technicians, surgical technicians, anesthesia technicians, physiotherapy technicians, and optometrists. The MOH has also found a lack of training and certification among personnel working at health facilities (including administrative, kitchen, security, laundry, and cleaning staff). This investment will help the MOH staff to become a high performance

team. In pursuit of this goal, the Project will: (i) give university accreditation to continuous medical training; (ii) rehabilitate health training centers; (iii) use technological platforms as teaching tools; and (iv) provide basic and advanced training to existing health staff who are providing care at the local and central levels.

(e) ***Promoting traditional medicine as a valid complement to western medicine*.** This subcomponent follows on from the Improving Community and Family Health Care Services Project which contributed to the understanding of traditional healing practices. In addition, the Nicaragua Community and Family Health Care Project (P106870) supported the systematization of this knowledge. This Project will support the mainstreaming of traditional medicine into western medicine and efforts to ensure that health personnel and specialists delivering culturally -sensitive services, as indicated in the Project's IPP. Project funding will be earmarked for training health workers in natural medicine and complementary therapies.

(f) ***Implementing the Adolescent Sexual and Reproductive Health Strategy.*** The Project will fund the implementation of the Adolescent Sexual and Reproductive Health Strategy, a national vision with an emphasis on cross-cultural populations, which builds on the National Strategy for the Integral Health and Development of Adolescents. This will include the implementation of the family strategy that would provide training for health workers, parents or guardians, and teachers at the national level. Adolescents and youths will receive formal and informal sexual and reproductive health education through adolescent-oriented events such as festivals, carnivals, the *Liga del Saber* Quiz Bowl, contests (such as poetry and song festivals), theater, and sports tournaments. The MOH, the Ministry of Youth, Ministry of Education, and Ministry of Family, Adolescence and Childhood are coordinating for the implementation of the strategy. Teacher training workshops focusing on sexual reproductive health, adolescent promoter training, and open and safe communication groups for adolescents will also help to develop and promote sexual reproductive health knowledge and safety. National life skills projects for adolescents and youths, as well as public awareness campaigns, including radio and TV spots that have been translated into local languages, will spread sexual reproductive health knowledge among the adolescent population.

(g) ***Developing preventive and curative oral health services*.** The Project will support the expansion of the provision of health services to include a preventive oral health program by: (i) increasing the number of individuals with good oral health by promoting the use of fluoride mouth rinse among school children; (ii) diminishing the incidence of oral diseases via preventive actions, particularly prophylaxis, to reduce dental cavities and gingival diseases, especially in rural areas; and (iii) providing basic dental care to prioritized groups (such as pregnant women and schoolchildren). The Project will support the purchase of mobile and fixed dental units, dental instruments for municipalities across the country and of consumable and disposable dental items. This will require coordination between the MOH and the Ministry of Education to organize school-based fluoride mouth rinse programs in line with World Health Organization/PAHO guidelines, which recommends using 10 milliliters of fluoride solution twice a month during the school year (March to October). Oral hygiene will be emphasized using games, activities, educational talks, and

toothbrush demonstrations in schools, health centers, waiting rooms, health fairs, and maternity waiting homes, and rural community organizations. In addition, health workers, dentists, health volunteers, trained teachers, and members of the community (*Promotoría Solidaria)* will be encouraged to give educational talks. Furthermore, the Project will fund the purchase of dental equipment for 80 health centers nationwide.

(h) ***Consolidating the administrative health information systems within the MOH***. The Project will support the consolidation of the patient-oriented information system that is used at the primary and secondary health care levels by procuring IT equipment for these service providers. This increased IT capacity will make it possible for these primary and secondary providers to gather more and better data to report to the national health system. This will produce a clearer picture of the health situation at the municipal, departmental, and national levels. The Project will invest in new technologies to improve the quality of health care nationwide, including telemedicine, image transfers, and voice over IP. Three modules will be implemented: (i) vital records such as births and deaths; (ii) managerial statistics on pregnancy; and (iii) the Expanded Program of Immunization. This will require new Information and Communication Technology equipment and servers, as well as storage and video devices, increased bandwidth in contracted data links to upgrade the performance of the information system that would be implemented.

8. This subcomponent will introduce the use of output-based financing in the implementation of the PHAs identified in 1.2(d) training activities, and 1.2(g) oral health listed above. PHAs will be reimbursed based on certification of the completion of agreed activities. Amounts will be estimated based on the identification of eligible operational costs of such activities. As part of the Project Verification Commission, PAHO will certify oral health activities and the national universities will certify training activities. Information on the implementation arrangements are included in Annex 3.

9. **Component 2: Institutional Strengthening of MOH to Respond to the Country's Changing Epidemiological Profile (*US$24.58 million*).** The purpose of this component is to help the MOH to adapt the public health system to the country's changing epidemiological profile. It consists of two subcomponents that support interventions to address the increased mortality and morbidity caused by chronic diseases and traumas. In both cases, the development of national strategies will help to identify the country's needs and systematize supply and demand in the two areas. In the case of chronic diseases, the Project will continue the World Bank's ongoing support for the National Cervical Cancer Prevention and Treatment Plan, while in the case of trauma, the emphasis will be on improving the MOH's response to traffic accident casualties.

10. ***Subcomponent 2.1: Strengthening the MOH's Capacity to Prevent and Respond to Chronic Diseases***. This subcomponent will: (a) prepare a national chronic disease strategy to promote good health practices and prevent and control major chronic diseases and risk factors, particularly obesity among women and children, hypertension among Afro-descendants, and diabetes among adults aged 50 and older, and (b) strengthen the National Cervical Cancer Prevention and Treatment Plan, which will upgrade the technical capacity of SILAIS for the prevention, early detection, and treatment of precancerous lesions of cervical cancer. This

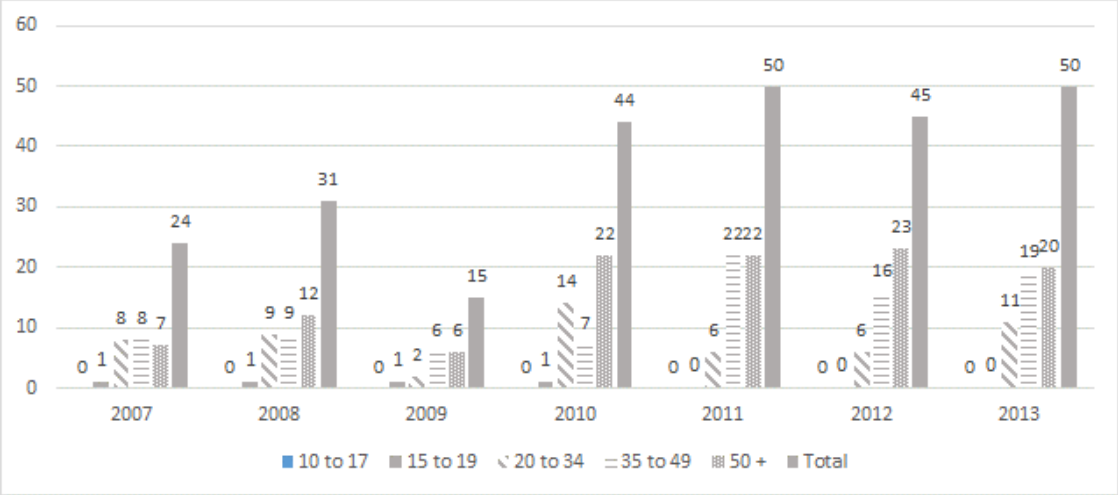
subcomponent will also strengthen the capacity of regional and national pathology service centers and enable regional centers to conduct specialized pre-treatment examinations for cervical cancer.

11. The specific activities under this subcomponent are:

(a) ***Developing a National Chronic Disease Strategy***. This strategy will focus on health risk factors and will categorize them by lifecycle in preparation for public policy discussions.

(b) ***Strengthening the National Cervical Cancer Prevention and Treatment Plan***. Specific activities under this program will include: (i) improving the Cancer Surveillance System (*Sistema de Vigilancia para Cáncer* or SIVICAN) by organizing cases by age and cancer type (Annex Figure 2.1); (ii) providing specialized training for health professionals on protocols and procedures to prevent and treat Cervical Cancer; (iii) providing cancer health specialists in the country with the opportunity to receive specialized professional training by international experts under the South-South cooperation umbrella; and (iv) procuring relevant medical equipment.

Annex Figure 2.1: Number of Invasive Cervical Cancer Cases by Age Group, Nicaragua 2007-2013



Source: Records from the Cancer Surveillance System of 13 SILAIS: Nueva Segovia, Madriz, Estelí, Managua, León, Granada, Carazo, Chontales, Boaco, RAAS, Rio San Juan, Matagalpa and Las Minas), Information provided by the General Directorate of Health Services (DGSS) (MOH, March 2015)

12. ***Subcomponent 2.2: Strengthening the MOH's Capacity to Prevent and Respond to Trauma Injury Cases***. This subcomponent will support the MOH in designing and implementing a public health sector response to the increased number of trauma patients in Nicaragua. It is being proposed in response to the high rates of traffic accidents at the national level. In 2014, the rate of injury by traffic accident was 18.16 per 10,000 people, surpassing the 16.54 per 10,000 population rate in 2013 (Annex Table 2.2). The SILAIS that were most affected last year were Leon (35.64), Managua (32.94) and Chinandega (29.79). The most affected groups in order of importance were 20 to 34 year olds, followed by 35 to 49 year olds and then 15 to 19 year olds.

Annex Table 2.2: Traffic Accident Injuries by SILAIS

SILAIS	2013		2014	
	Cases	Rate	Cases	Rate
León	1,290	36.26	1,268	35.64
Managua	3,778	29.91	4,160	32.94
Chinandega	1,072	28.29	1,129	29.79
Carazo	342	20.59	473	28.48
Chontales	194	12.18	334	20.97
Región Autónoma del Atlántico Sur	240	19.86	203	16.80
Jinotega	318	9.60	536	16.18
Bilwi	132	10.19	153	11.81
Zelaya Central	51	3.43	143	9.63
Estelí	360	17.86	185	9.18
Granada	87	5.17	137	8.15
Rio San Juan	25	2.62	70	7.32
Masaya	241	8.31	200	6.90
Madriz	80	6.04	84	6.34
Las Minas	38	2.27	77	4.61
Matagalpa	95	1.83	114	2.20
Rivas	8	0.51	27	1.73
Nueva Segovia	153	7.34	31	1.49
Boaco	1	0.07	12	0.80
Total - NICARAGUA	8,505	16.54	9,336	18.16

Source: Public Health Surveillance Directorate (MOH, March 2015)
Notes: Cumulative cases and rates per 10,000 population. Until the 53rd epidemiological week –2013 – 2014. Epidemiological week 53rd–2013 - 2014.

13. This subcomponent will support implementation of the emergency response in Nicaragua. It will include the support to the preparation of the action plan of the National Medical Emergencies System in the Greater Managua region and strengthen the capacity to respond and to coordinate with the health network in the rest of municipalities and other national institutions such as INSS, Ministry of Defense, National Civil Police, and Red Cross. Services provided by the National Medical Emergencies System begin with the detection of a medical emergency by family members, community and security forces. This is followed by the activation of the system through a management center that ensures the provision of pre-hospital care at the site of the accident, and transfer of the injured person to the health center using optimal means of transport and skilled personnel. An action plan for the National Medical Emergencies System will include: review and elaboration of the national legal framework; creation of a Management Operational Unit for the National Medical Emergencies System within MOH; establishment of a Regulatory Center of Medical Emergencies linked to a phone service; coordination of all ambulance units in the country, training of staff, workshops to community leaders, and purchase of ambulances. The Project will finance ambulances, equipment and training in the eligible hospitals consultancies to define the institutional arrangements, protocols, list of medicines, establishment of auditing process, and the purchase of information and technology equipment.

14. Thus, this subcomponent will: (a) develop a National Trauma Strategy including the creation of a medical emergency referral system and emergency transportation network; (b)

improve the distribution of medical supplies; (c) ensure the timely provision of orthopedic materials for trauma patients; (d) strengthen referral emergency units and intensive care units ; and (e) implement road safety promotion and communication campaigns. In addition it will promote inter-sectoral work with national institutions.

15. **Component 3: Contingency Financing of a Public Health Emergency or Public Health Alert and Capacity Building (*US$6.55 million*)**. This component will provide funding to respond to and prevent a public health alert or a public health emergency. It also includes funding to prevent and control outbreaks, epidemics, and other potential risk factors involving the handling of general and medical waste.

16. ***Subcomponent 3.1: Provision of contingency financing in the case of an eligible Public Health Alert or a Public Health Emergency.*** The objective of this subcomponent will be to facilitate the use of critical resources in the event that a public health alert or a public health emergency is officially declared through a Health Ministerial Resolution or Presidential Decree. The resources under this subcomponent will be disbursed only once an alert or emergency has been declared and the Government has provided a letter to the World Bank that includes: (a) legal evidence, satisfactory to the World Bank, of the declaration of a public health alert or emergency; (b) a list of the goods, minor rehabilitation works, consultants' and other services, and operating costs required to meet the needs of the alert or emergency (including a procurement plan) that is acceptable to the World Bank; and (c) any assessments and plans that the World Bank may require. After the conditions are met, the World Bank will disburse the funds in question. If any funds remain in this subcomponent after the third year of Project implementation, the MOH may reallocate them to finance Subcomponent 3.2.

17. ***Subcomponent 3.2: Strengthening Entomological Surveillance and Raising Awareness of Vector-Borne Diseases.*** This subcomponent will raise public awareness of vector-borne diseases and strengthen entomological surveillance. The activities funded under this subcomponent will include: (a) the procurement and maintenance of equipment to control the spread of vectors; (b) household visits by the MOH in vector-infested areas to promote integrated prevention actions; (c) the development of communication strategies to promote attitude and behavior changes; and (d) training of health personnel. In addition, it will include the creation and expansion of entomological units and laboratories. This subcomponent will use output-based disbursements to finance activities under subcomponent 3.2(b). Specific details of this process are described in Annex 3.

18. This subcomponent will provide funding to procure and maintain equipment to control vector spraying, such as thermal fog generators, and will fund the operational expenses related to fuel, lubricants, and equipment repairs. It will develop strategies to encourage the population to eradicate mosquito breeding sites, manage water in the home, identify hazard signs, and to seek medical care on a timely basis. In addition, this subcomponent will raise public awareness of vector-borne diseases by strengthening entomological surveillance. It will create 15 entomological units and reinforce the existing three units and provide all units with entomological-epidemiological surveillance capabilities to enable them to plan, implement, monitor, assess, and conduct measures to control the spread of vector-borne diseases. This subcomponent will also provide funding for M&E and for laboratory network supplies.

19. ***Subcomponent 3.3: Strengthening Hospital Waste Management in Selected Hospitals***. This subcomponent will complement the efforts to prevent vector-borne diseases and diseases transmitted by rodents with the efforts to manage general and contaminated hospital waste. Investments will include: (a) the procurement of equipment and supplies for hospital waste management; (b) training of health personnel; and (c) the implementation of hospital waste management plans in collaboration with municipalities on the proper final disposal of general and dangerous waste.

20. Specific activities under this component include minor rehabilitation works in health care facilities or minor pre-installment works for the medical and non-medical equipment to be purchased by the Project. While the effects of these activities are localized, minor and reversible, they still, nonetheless, warrant certain care and the appropriate mitigation measures are in place through the updated Environmental Plan. In addition, six Hospitals Waste Management Plans (HDWMP) will be implemented in the Project. These Plans will include the World Bank Environmental Health and Safety Guidelines for Medical Facilities; and procedures to manage radioactive waste associated to the medical equipment to be acquired under the project. Finally, the capacity building effort includes comprehensive occupational health and safety training, incorporating exposure to diseases, medical waste and the use of certain equipment with radiation.

21. **Component 4: Project Management (*US$0.80 million*)**. This Component will finance the strengthening of the MOH's capacity to manage the Project implementation, including support for carrying out external financial audits. Activities under this component will include strengthening the procurement and financial management units within the MOH and implementing and monitoring the municipalities' quality health care plans.

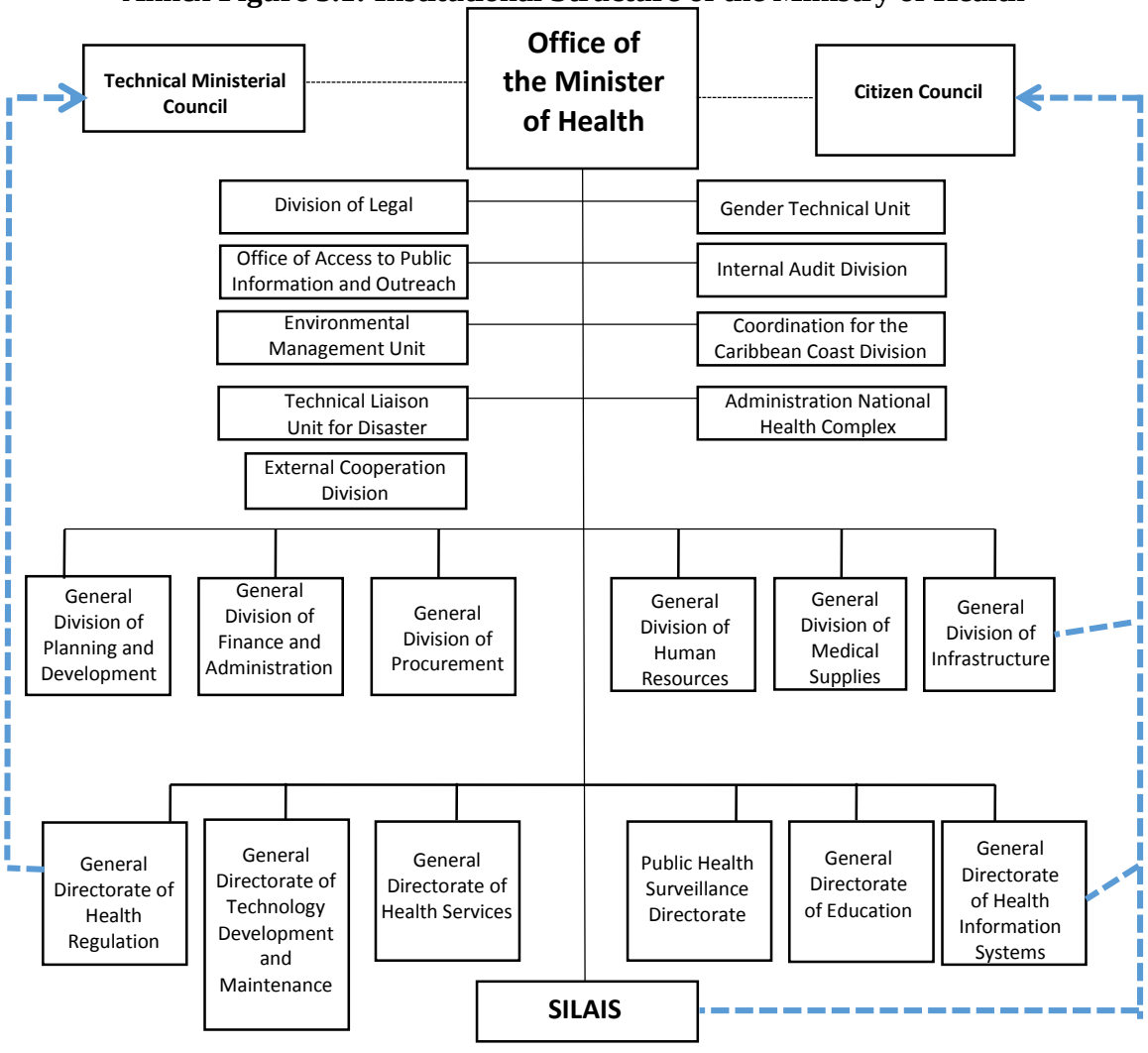
Annex 3: Implementation Arrangements

NICARAGUA: Strengthening the Public Health Care System Project

I. Key Project Implementation Arrangements

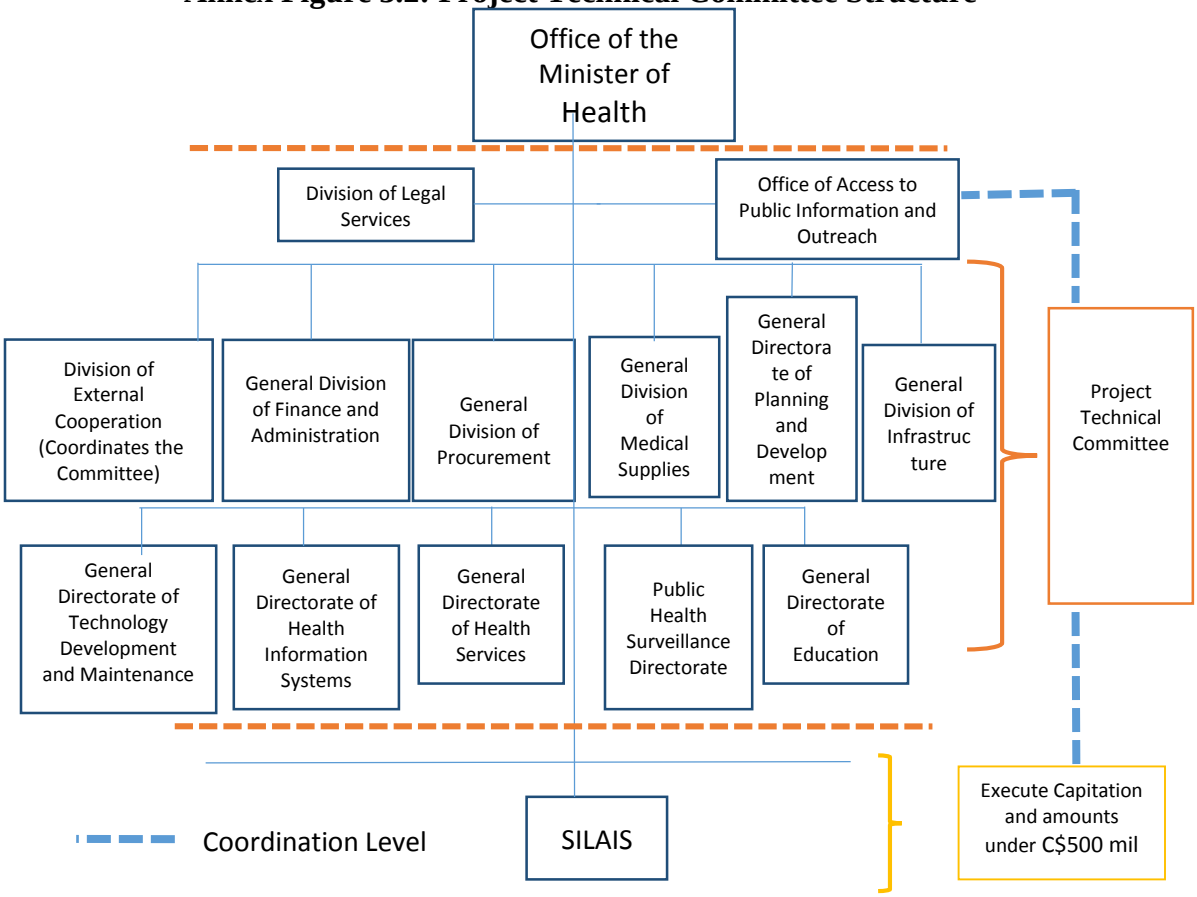
1. **In line with the Government's mandate, the Ministry of Health (MOH), as lead agency, will implement the proposed Project through its various technical units (Figure 3.1)**. This Project will benefit from the expertise gained by the MOH during the implementation of the ongoing Improving Community and Family Health Care Services Project (P106870). The MOH has a fiduciary and a procurement unit, both of which are familiar with the World Bank's fiduciary and procurement procedures.

Annex Figure 3.1: Institutional Structure of the Ministry of Health



2. **Implementation will be overseen by a Project Technical Committee (PTC)**, which is operational under the Nicaragua Community and Family Health Care Project (P106870). The PTC is led by the MOH's Division of External Cooperation and is made up of technical staff representatives of each technical and administrative directorate and division within the MOH. The PTC will be responsible for: (a) coordinating Project activities, including those carried out by the Local Comprehensive Health Care Systems (SILAIS) and the municipal health networks; (b) monitoring the Project's results indicators at the macro level; (c) coordinating with the Procurement Division and the General Division of Financial Management within the MOH and with PAHO on the procurement of vaccines; (d) overseeing the implementation of the IPP and the Environmental Management Plan, including minor rehabilitation works; (e) preparing technical and financial progress reports; and (f) ensuring technical reports are presented in a timely way to the Technical Council and Citizen Council for prompt certification by the corresponding external institution.

Annex Figure 3.2: Project Technical Committee Structure



3. **Technical oversight of activities implemented at the municipal level will be undertaken by the Technical Council (TC), an established MOH structure which oversees the performance of MOH's technical units.** The TC is comprised of the directors of all of the General Directorates of the MOH at the central level, a representative of the Health Workers Federation, and the Minister of Health. The TC is responsible for reviewing health reports and for making executive decisions on the technical aspects of health implementation plans. In addition,

the TC periodically reviews the implementation of the national health budget and its compliance with the institutional annual goals. In this capacity, the TC's role in the Project will be to review the performance of the 66 municipalities every six months and their compliance with the output-based disbursement arrangements. The TC will issue a statement on its findings to be attached to the report prepared by the Project Verification Commission to be submitted to the World Bank.

4. **At the SILAIS level, the Citizen Council will be responsible for monitoring the provision of care, the achievement of health indicator targets, the judicious use of funds, and other such issues.** The Citizen Council is also an established structure of the MOH at the SILAIS level, with one in in every SILAIS to oversee how the SILAIS and the municipal health facilities relate to local communities. It is comprised of the SILAIS director, representatives of the local hospitals, the SILAIS epidemiologist, a representative of the local branch of the Health Workers Federation, a representative of the Community Cabinet *(Gabinete de la Familia Comunidad y Vida)* and community leaders. The Citizen Council will participate in the twice yearly review of the municipal performance indicators and of the municipalities' compliance with their quality health care plans, and l will issue a statement of its findings to be attached to the report prepared by the Project Verification Commission to be submitted to the World Bank.

5. **Finally, the Project Verification Commission (PVC) will be put in place for the verification and certification of capitated payment and output based disbursements.** The PVC will include representatives of the TC and the Citizen Council together with a representative of an external independent institution, such as PAHO or an academic institution. These commission members will visit a randomly selected number of municipalities to verify their implementation of their quality health care plans and their compliance of indicators in the case of those receiving the capitation payments. The PVC will also verify and certify the training, fluoridation and abatization[16] activities. The PTC will coordinate and organize these verification visits by the PVC. The PVC will be responsible for reviewing municipalities' indicators, results, and implementation of activities according to the Project implementation plan. Every six months the PVC will present a technical report to the World Bank with the certified documentation. Once the World Bank has reviewed and accepted this report and its documentation, it will make the disbursement. The detailed process will be explained in the Operations Manual.

6. **The proposed implementation model has been designed to ensure the sustainability of the actions implemented or strengthened under the Project.** The Project Technical Committee and the Technical and the Citizen Councils will participate in the Project's implementation, which will strengthen their roles and capacity for monitoring and evaluating health service delivery at the municipality level. The Project will closely coordinate with international institutions based in Nicaragua such as the local office of PAHO and with the national universities, both of which will play a key role in certifying the municipalities' compliance with the agreed indicators and quality of health care service plans and the implementation of the PHAs.

[16]Abatizar is a word in Spanish that means to make visits house by house in vector infested areas to clean to sites for mosquito breeding and includes educating the population in proper measures to eliminate those sites.

Implementation Arrangements by Component

Component 1: Strengthening the Quality and Access to Health Care Services

7. ***Subcomponent 1.1: Improving the Quality of Health Care Services in Selected Municipalities.*** The MOH will enter into annual Performance Agreements (*Acuerdos Sociales por la Salud y el Bienestar*) with participating SILAIS for the implementation of the MOSAFC. These annual, renewable arrangements mandate that the SILAIS are responsible for: (a) guaranteeing the delivery of the Health Services; (b) supervising and monitoring the performance of the Health Services delivered; (c) transferring the funds received as Capitation Payments to the Selected Municipalities; (d) entering into separate Municipal Agreements with each Selected Municipality; (e) supervising, keeping records of Health Services and progress reports on Performance Indicators and Performance Goals set forth in each Municipal Agreement; and (f) complying with the provisions of the Operations Manual (including the IPP and the EMP) and the Anti-Corruption Guidelines.

8. Each SILAIS will enter into a Municipal Agreement with each municipality[17] (*Acuerdos sociales por la Salud y el Bienestar con el Nivel Municipal*) for the provision of health services. The municipal health care directors will act as guarantors of these agreements. The SILAIS will be responsible for following up on the social and welfare agreements and for consolidating municipalities' performance reports. These annual, renewable agreements will establish a set of standard health care services that will be delivered by the health network providers. The services agreed in the social agreements will be included in the Quality Health Care Plan that is drawn up every year by each municipality. The MOH will take advantage of these agreements, thus continuing its role of ensuring municipal commitment to the provision of quality health care. The General Directorate of Planning and Development (GDPD) and the General Directorate of Health Services (GDSS) will lead the implementation of this subcomponent.

9. These municipal agreements will enable the MOH (through the SILAIS) to transfer capitation payments to the relevant selected municipal health networks on a per capita/results basis to support the delivery of health services. They will commit these municipal health networks to: (a) providing health care services according to their epidemiological profiles and meeting three compulsory performance indicators specified in the corresponding municipal agreement; (b) implementing the quality health care plans; (c) keeping records of health services delivered and performance indicator reports; (d) fulfilling the provisions set forth in the Operations Manual (including the preparation of and compliance with relevant IPPs and the EMP); and (e) establishing anti-corruption guidelines.

10. In addition to implementing the municipal agreements, the SILAIS will also monitor and follow up on: (a) the amount of Nicaraguan currency (Córdobas) to be transferred per capita by the MOH to the relevant municipal health networks twice a year; (b) the municipal health networks' compliance with the performance indicators and performance goals; (c) incentives as defined by the MOH in the Operations Manual to be awarded when a municipal health network achieves at least 70 percent of its performance targets, including additional professional service training, and public acknowledgement for outstanding service based on a satisfactory performance

[17] Municipal agreements are the agreements at the municipal level.

assessment rating; and (d) any adjustments to the quality health care plans. The MOH may also provide technical support in municipalities that are struggling to achieve their established goals. A national model quality health care plan will be developed and disseminated nationwide by the MOH to be used as reference by the municipalities. This plan will involve, *inter alia* setting standards for health provision, including promotion and prevention measures according to the epidemiological profile, building the capacity of staff whom the SILAIS has identified as needing additional skills and providing training in M&E, particularly in planning and statistics. The plan will be adapted to the specific technical needs of each SILAIS to enhance their operational capabilities in delivering services, finances, and health screenings to ensure the highest quality in health care service delivery. The technical level of each directorate will support the municipalities in the implementing their Quality Health Care Plans and in their attempts to achieve their indicator targets. Under Subcomponent 1.1, the MOH will retain 3.0 percent of the capitated payments each semester to ensure the funds for monitoring and technical support from the central level and the bi-annual verification visits.

11. This subcomponent will be implemented using capitation payments, which are the marginal financial resources transferred by the MOH to the selected municipal health networks enable them to increase access to quality health services and to ensure widespread coverage of health promotion, prevention, and protection initiatives. The municipal health networks will execute the funds and report every six months to their SILAIS on their progress towards improving the Project indicators and their compliance with their quality health care plan. The SILAIS will be responsible for collecting, revising, and consolidating all of these municipal reports and sending them to the MOH. See details below under Financial Management.

12. The certification process will have the following stages: (a) the municipalities will prepare twice yearly reports to present to the SILAIS; (b) the SILAIS will review and present the reports to the Technical Council and the Citizen Council; (c) the Project Verification Commission will visit the municipalities for verification purposes; (d) the annual population projections per municipality will be verified by the National Institute of Statistics; and (e) PAHO will certify achievement of the agreed indicators, and the implementation of the Quality of Health Care Plan.

13. ***Subcomponent 1.2: Strengthening and Expanding the Provision of Basic Health Care services.*** The PTC will coordinate the implementation of the activities under this subcomponent. The following implementation arrangements will apply: (a) the use of PAHO's Immunization Revolving Fund for the procurement of vaccines and immunization supplies; (b) the participation of the Medical Equipment Maintenance Center (*Centro de Mantenimiento de Equipos Médicos* or CEMED) for the maintenance, repair and reposition of medical equipment; and (c) the implementation of output-based disbursement for the financing of PHAs.

(a) The Project will use the PAHO Immunization Revolving Fund, which ensures fast-track transactions, lower purchase prices, top-quality products, and reduced management risks for the direct purchase of vaccines. The procedure will begin with the Public Health Surveillance Directorate submitting a vaccine purchase order to PAHO under the agreement signed between the MOH and PAHO. PAHO will be responsible for procuring and supplying vaccines and immunization supplies, for which it will be directly reimbursed by the World Bank following the satisfactory delivery of vaccines to the country. The

report to be submitted to the World Bank should include the certification that the vaccine was delivered to the SILAIS based on the online registry system from the National Center of Biologicals (CENABI) and properly stored at the designated national distribution points. The DGVSP is the technical unit that will be responsible for coordinating this delivery. The transportation costs will be financed by Government funds.

(b) The Medical Equipment Maintenance Center, a Directorate of the MOH, will be responsible for the implementation of subcomponent 1.2(c) for the rehabilitation and corrective and preventive maintenance of laboratory equipment and medical and non-medical equipment of the health care networks served by the Project. The Center will procure these goods in coordination with the MOH's General Procurement Division in accordance to the World Bank Procurement Guidelines. A legal agreement will be prepared for the Center following the same conditions as specified in the contract of the Nicaragua Community and Family Health Care Project (P106870). The functions of the Medical Equipment Maintenance Center will include: (i) implementing subcomponent activities with due diligence and efficiency, in conformity with sound technical, economic, financial, administrative, environmental, and social guidelines and practices satisfactory to the World Bank, in accordance with the Operations Manual, the EMP, and the Anti-Corruption Guidelines; (ii) complying with policies and procedures enabling MOH to conduct M&E actions in line with the Project performance indicators defined in the Operations Manual and the achievement of Project goals; (iii) allowing the MOH and the World Bank to inspect subcomponent activities, their functioning, and relevant records and documents; and (iv) preparing progress reports every three months and submitting them to the MOH and the World Bank.

(c) The output-based disbursement mechanism will be used for the financing of selected training and oral health activities. The General Directorates will be responsible for implementing these activities according to an annual plan. The Technical Council will be responsible for the final presentation of the report for reimbursement to the Project Verification Commission. The fiduciary office will be responsible for preparing the corresponding customized Statements of Expenditure (SOEs) for the activity. Disbursements will take place as described in the Disbursement Letter, taking into account any advance use of funds to implement the activity.

14. **Component 2: Institutional Strengthening of MOH to Respond to Country's Changing Epidemiological Profile.** The General Directorate of Health Services (DGSS) will be responsible for implementing activities under this component in coordination with the Division of External Cooperation.

15. **Component 3: Contingency Financing of a Public Health Emergency or Public Health Alert and Capacity Building**. The General Directorate of Epidemiological Surveillance (DGVE) will be responsible for implementing activities under this component in coordination with the Division of External Cooperation. In addition, Subcomponent 3.2 will include the output-based disbursement mechanism, as defined above, for the community household visits, with the funds being disbursed based on an external certification of compliance.

II. Financial Management and Disbursement Arrangements

16. A financial management assessment was carried out to determine the Project's FM implementation risk and to establish adequate financial management arrangements for the proposed operation. Overall, this Project will benefit substantially from the existing financial management arrangements that were put in place at the MOH for the implementation of the ongoing IDA credits and grant (IDA 48300, IDA 53680, and H6220). In general, the assessment found that the MOH's financial management arrangements (in terms of financial recording system and financial reporting, cash flow, audit arrangements, internal control system and asset management) are moderately satisfactory. However, taking into account the size and additional activities envisioned under the new Project, those arrangements will be further strengthened in the following ways. First, specific procedures and funds flow arrangements will be put in place for the financing of capitation payments (reflecting lessons learned so far), for the payments for purchases of vaccines, immunization supplies and biological testing kits to PAHO, for use of contingency funds for public health alerts and emergencies, and for the output-based disbursements for the financing of the PHAs: Abatization, oral health, and training PHAs. Second, a senior financial management specialist and one financial analysts will be contracted for the MOH's DGAF for the duration of the project (as well as one additional analyst for the overlapping implementation period with the Nicaragua Community and Family Health Care Project (P106870) in the country). Third, revised financial reports. The Operations Manual was updated and is expected to be adopted prior to the signing of the Financing Agreement. The MOH's experience developed under the Nicaragua Community and Family Health Care Project (P106870), together with the proposed strengthened arrangements, will make it possible to address some of the identified risks mainly emerging from the nature of expenditures to be financed (the use of capitation payments and output-based disbursements). These will require strong operational arrangements not only to ensure timely implementation of activities, but also sound verification mechanisms and reporting arrangements. However, the overall operation of those arrangements will require close monitoring during the first year to identify any issues and to make appropriate timely adjustments.

17. Based on the results of the assessment, the World Bank considers the proposed financial management arrangements to be acceptable together with the completion of the Project Operations Manual and the hiring of additional financial management staff before project implementation begins.

The following sections describe the specific arrangements:

18. ***Organization and Staffing***. Within the MOH, the General Financial and Administrative Division (DGAF) through the External Funds Coordination Unit (UCFE) part of the Financial Division is the one that will undertake responsibility for all the financial management arrangements. The Project execution will be coordinated with the SILAIS and the local health municipalities' network. The DGAF-UCFE has an administrative and finance team to cover basic financial management functions like budgeting, accounting, treasury, disbursements, and financial reporting. At the decentralized level and depending on its size, number of transactions, and level of its disbursements, each SILAIS is staffed with one administrative officer, an accountant, and one or two financial analysts to assume routine administrative tasks. The UCFE is currently staffed with a unit chief, a budget analyst, and a financial analyst, who have developed the expertise with external financed operations and the World Bank requirements as they are in charge of monitoring

the execution of all external funding. However, taking into consideration that the new operation will involve a larger number of activities and transactions, it has been agreed that this team will be strengthened with a senior financial management specialist and a financial analyst respectively. During the period when the implementation of the two health projects overlaps, an additional financial analyst will be hired to reinforce the team. Those positions will be financed from this Project under terms of reference approved by the World Bank.

19. ***Budget Planning.*** Budget arrangements will follow the procedures established in the country. Between August and September of each year, the MOH has to prepare its tentative investment program for the upcoming year (including the investment program for the proposed Project) and submit it to the Ministry of Finance for review and approval. The Project budget should be consistent with the budget policy provided by the Ministry of Finance and be incorporated into the national budget for its submittal to Congress in October. On the basis of the approved budget, the MOH will update its project annual work plan (POA) and the procurement plan, which will be reviewed by the World Bank. The project budget will be processed, recorded, and executed through Integrated Financial Management System (*Sistema Integrado de Manejo Financiero* or SIGFA), country's integrated financial management system following its procedures and its own budget classification.

20. In order to properly monitor the availability of credit proceeds, on a bi-annual basis, MOH will confirm the availability of Project funds equivalent in dollars and SDRs (currency of commitment).

21. ***Accounting.*** Project transactions will be accounted for in SIGFA following the Government accounting policies and practices. For the ongoing operation IDA 48300, IDA 53680, and H6220, the transactions processed in SIGFA are also recorded in excel file that allows classifying expenditures by Project component/cost category and in US dollars. The Excel records are then used to prepare financial reports and Statements of Expenditure. Overall, this process was found adequate, and will also be used at the beginning of the proposed Project. However, considering the incremental number of transactions and additional components, it has been agreed that within the first year the MOH will consider the possibility of complementing the use of SIGFA with a financial information system.

22. Taking into account the nature of the expenditures to be financed and the disbursement/payments mechanisms defined (capitation payments and output based disbursements), specific accounting policies and procedures have been discussed to ensure that project transactions are properly monitored and reflected in the project financial reports. Additionally, the DGAF-UCFE will prepare auxiliary tables to control disbursements by the municipalities or SILAIS, including the net transfer, pending transfers and retention (if any).

23. ***Processes and Procedures.*** Overall, the MOH has to comply with local requirements related to administrative and control systems (Law 550), which are mainly integrated into the operation of SIGFA, as they relate to budget preparation and execution. For the purpose of the Nicaragua Community and Family Health Care Project (P106870), the MOH has detailed processes, procedures, controls, and monitoring tools to execute the Project, and these are reflected in the Operations Manual. This manual includes procedures and processes for the capitation payments and emergency activation. Those procedures are being adjusted and/or complemented

to reflect the lessons learned from the current project and to introduce new arrangement for paying for vaccines using PAHO's Immunization Revolving Fund, or processing output-based disbursements, including the design of instruments and definition of key documents required in the different authorization and approval of different type of payments. Overall, the procedures discussed provide for an adequate segregation of duties, clear roles and responsibilities, and required including: (a) for authorizing disbursements to the municipal health networks; (b) for collecting, revising and consolidating the reports prepared by the Municipalities; and (c) for the verification and certification of achievement of indicators and outputs.

24. ***Financial Reporting.*** The MOH's DGAF will be responsible to prepare the financial information on a bi-annual basis and submit it to the World Bank as interim financial reports (IFRs) containing: (a) sources and uses of funds, reconciling items (for example, any pending disbursements to SILAIS/municipalities should be liquidated upon the completion and verification of the outputs), and cash balances, with expenditures classified by project component/cost category and (b) a statement of investments reporting the current semester and the accumulated operations against ongoing plans, as well as footnotes explaining the important variations. The reports will be prepared in local currency and US dollars. The IFRs will be submitted no later than 45 days after the end of each semester for the World Bank's review. The format and content of the IFRs will be similar to the current operation and, as explained above, will be initially prepared in excel.

25. Every year, the MOH's DGAF will also prepare Project financial statements including cumulative figures, for the year and as of the end of the fiscal year (December 31). All documentation for consolidated SOEs will be maintained for post review and audit purposes for up to three years after the closing date of the Project or for 18 months after the receipt by the World Bank of an acceptable final financial audit, whichever is later.

26. ***External Audit.*** An external, independent, private audit firm, acceptable to the World Bank under defined terms of reference approved by the World Bank will be contracted by MOH for the entire life of the Project no later than six months after effectiveness. The audit firm will review and provide an opinion on the annual financial statements of the Project, covering the fiscal year (which coincides with the calendar year). The audited financial statements will be presented to the World Bank no later than six months after the end of the fiscal period. According to the World Bank Access to Information Policy, audited financial statements will be made public, as established in the IDA General Conditions. The financial audit requirements include:

Audit type	**Due date**
Project financial statements	June 30
Special Opinions – SOE	June 30
Management Letter	June 30

27. During the mid-term evaluation of the Project and after a review of the performance under the capitation payment and the output-based disbursement mechanisms, the World Bank will discuss whether or not to make any adjustments in the implementation arrangements including an *ex-post* technical audit.

28. ***Flow of Funds.*** The specific procedures of funds flow arrangements for the Project components are described as following:

29. Following the general practice of the current portfolio, the following disbursement methods may be used to withdraw funds from the Grant: (a) reimbursements; (b) advances; and (c) direct payment. Three Designated Accounts (DAs) will be opened in the *Banco Central de Nicaragua* under the name of the Project, DA-A for capitation payments (in Category 1 and Sub-Component 1.1), DA-B for the output-based disbursements (Category 2, and Subcomponents 1.2(d), 1.2(g) and 3.2(b)) and DA-C for the remaining expenditures (Categories 3, 4 and 5, and all Subcomponents except for those financed by DA-A and DA-B).

30. Advances made to DA-A and DA-B will be based on twice yearly forecasts, which in the case of the capitation payments will be based on the population under the responsibility of each municipal health network, and the pre-defined per-capita cost; and in the case of the output payments will be based on the consolidated work plan of activities programmed for the period. In the case of DA-A, the Recipient will have the option to request an initial advance for two semiannually periods. The ceiling for DA-C has been set at US$6 million.

31. Funds deposited into the DAs will follow the World Bank's disbursement policies and procedures, described in the Financing Agreement and in the Disbursement Letter. Following the current practice, advances made to the DAs will be documented through the use of SOEs for DA-C and Customized SOEs for DA-A and DA-B, as further detailed in the Disbursement Letter.

Specific disbursement arrangements are as follows:

32. ***Capitation Payments***. The Project proceeds will be disbursed twice yearly against the rural population in each municipality, the achievement of health indicators agreed, and the implementation of the quality health care plan. Based on the Nicaragua Community and Family Health Care Project (P106870), the per capita cost of health care services nationwide is estimated to be US$3.6 multiplied by the rural population in each municipality.

33. The bi-annual advances for Capitation payments to the DA-A will be calculated as the 50 percent of the annual amount certified by the National Institute of Statistics and the documentation will be made in two installments for each semester as follows:

(a) Sixty percent (60 percent) of per capita cost of health care services (calculated for the semester) will be documented at the beginning of the semi-annual period once the corresponding amounts have been transferred to the selected municipalities. The documentation will be submitted to the World Bank by the MOH up to 30 days after the beginning of the period.
(b) Forty (40) percent will be documented against the fulfillment by municipalities of compulsory performance indicators and the implementation of their quality health care plans as defined in the Operations Manual certified by the PVC (Project Verification Commission). The documentation must be submitted to the World Bank up to two months after the end of each period. The Operations Manual establishes specific procedures, rules, and conditions for determining the amounts to be disbursed in the case of municipalities that have not been able to achieve their targets, including steps on the retention of funds link to the partial compliance of the Quality of Care Plans.

34. ***Public Health Activities - Output-based disbursements.*** Component 2 will finance the MOH for the eligible operating costs of the PHAs based on the operating costs associated with essential program delivery aggregated in a unit cost. The payments will be made on the basis of a PHA menu and pre-defined unit cost estimation reflecting actual market prices partially recognizing the cost of non-procurable inputs (salary costs related to outputs, and operational costs such as per diems, gas, mail costs, etc.) of the selected interventions. These costs are considered to be reliable proxies, on average, for the actual costs of delivering the project outputs. The World Bank will annually review the accuracy and continuous pertinence of the unit costs and the Project Verification Commission will confirm the relevance of the PHAs. The description, unit of measurement, and unit costs of outputs are described in the Operations Manual.

35. The PHAs consist of: (a) actions to prevent dental cavities among schoolchildren; (b) household visits to educate, control, and prevent mosquito breeding; and (c) some specific training of the health professionals of the MOH. The specific outputs will be verified by the Project Verification Commission and certified by PAHO or the National Universities for the respective payments.

36. In order to support timely implementation of PHAs, the bi-annual advances for output-based disbursements to the DA-B of the MOH will be calculated as 100 percent of the estimated amount of the PHA's cost for a given semester. Once the MOH has received the advance, a percentage of the bi-annual forecasts (this percentage will be defined for each PHA in the Operations Manual) will be accounted for as advances to the municipalities on the basis of the work plan prepared by the MOH. Once activities (outputs) are completed and verified by the Project Verification Commission and the total reimbursement amount is defined, the remaining amount will be transferred by the MOH to the municipalities, and their allocations will be transferred to them. Subsequently, the MOH will submit the documentation of DA-B to the World Bank. Any remaining advances not documented in the period will compensate the forecasted amount for the next period.

37. ***Public Health Emergency***. The World Bank will disburse funds to the MOH in the event that a public health alert or a public health emergency is officially declared. The funds will be disbursed once an alert or emergency has been declared and the Government has complied with the specific requirements agreed with the World Bank including a list of the goods, minor rehabilitation works, consultants' and other services, and operating costs required to address the need. Disbursement will be made in the form of advances to the DA-C to the MOH according to defined expenses described in Operations Manual. The expenditures will be documented in SOEs.

38. ***PAHO's Revolving Fund.*** In the case of the supply and procurement of vaccines, it has been agreed that the Project will use PAHO's Revolving Fund. This is a process that has been applied by the World Bank in other countries. Disbursement will be made through a direct payment to PAHO based on the certification of the vaccine and immunization supplies having been received by the MOH's specific facilities.

39. ***Disbursement Arrangements***. Annex Table 3.1 summarizes the disbursement categories to be used for different components and sub-components.

Annex Table 3.1: Expenditure by Category and Sub-Component of allocation (SDRs)

Category	Subcomponent	Amount (SDRs)	Percentage of Total Grant
Category 1: Capitation Payments under Part 1.1. of the Project	Subcomponent 1.1	6,225,660	14.58%
Category 2: Output-based disbursements under Parts 1.2.(d), 1.2.(g) and 3.2.(b) of the Project	Subcomponents 1.2(d),1.2(g) and 3.2(b)	1,772,100	4.15%
Category 3: Goods, works, non-consulting services, consultants' services and Operating Costs under Part 3.1. of the Project	Subcomponent 3.1	1,067,500	2.50%
Category 4: Goods, works, non-consulting services, consultants' services, Training and Operating Costs under the Project (except Part 1.1, 1.2.(c), 1.2.(d), 1.2.(g), 3.1. and 3.2.(b))	All Project components except for 1.1, 1.2(c), 1.2(d); 1.2(g); 3.1 and 3.2(b)	33,136,540	77.60%
Category 5: Goods and Training under Part 1.2.(c) of the Project	Subcomponent 1.2(c)	498,200	1.17%
Total		42,700,000	100.00%

40. ***Retroactive financing.*** The Project will allow retroactive financing for up to an aggregate amount not to exceed SDR 8,540,000 for payments made on or after April 13, 2015 but in no case earlier than twelve (12) months from the date of the Financing Agreement, for Eligible Expenditures under Categories (4) and (5).

41. ***Financial Management Action Plan***. An Action Plan to ensure that adequate financial management systems are in place before project implementation begins is currently being implemented by the DGAF, as can be seen in Annex Table 3.2.

Annex Table 3.2: Financial Management Action Plan for MOH

Action	Responsible Entity	Completion Date*
Contract individual external audit based on terms of reference and shortlists satisfactory to the World Bank for the entire implementation period of the Project.	MOH DGAF	Six months after effectiveness
Update the Operations Manual reflecting agreed financial management procedures including detailed processes and procedures, key controls, and reporting.	MOH DGAF	Before signing of the Financing Agreement

Action	Responsible Entity	Completion Date*
Provide specific training in financial management & disbursements for Project financial management staff.	World Bank	Before project implementation starts
Following World Bank procedures contract a senior financial management specialist and two financial analysts to strengthen MOH's DGAF at the central level.	MOH and WB	Two months after effectiveness

Note: *This column presents the estimated completion date and is not a legal requirement.

42. ***World Bank financial management Supervision Plan.*** The World Bank will complete a supervision mission prior to Project's effectiveness to verify the implementation of the action plan and review all financial management arrangements for the Project. After effectiveness, the World Bank will review the annual audit report, the financial sections of the bi-annual IFRs including a monthly reconciliation of accounts, and perform at least two complete supervision missions per year. This supervision strategy will be reviewed periodically and adjusted based on performance and risk.

III. Procurement

43. Procurement for the proposed Project will be carried out by the Procurement Division of the MOH in accordance with the provisions of the Financing Agreement, the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services Under IBRD Loans and Bank Credits & Grants" and "Guidelines: Selection and Employment of Consultants Under IBRD Loans and Bank Credits & Grants by World Bank Borrowers," both dated January 2011 revised July, 2014, and the Operations Manual.

44. ***Works*** to be financed under the Grant will include minor rehabilitation works to laboratory facilities, the rehabilitation of educational centers, the strengthening of the infrastructure of the National Institute for Alternative Therapy, the rehabilitation of entomology areas, laboratory and pathology centers among other minor works. Procurement of Works will be procured using the World Bank's standard bidding documents (SBD) for all International Competitive Bidding (ICB), if any. Bidding and quotation documents agreed and satisfactory to the World Bank will be used for National Competitive Bidding (NCB) and shopping procedures respectively.

45. ***Goods*** to be financed under this Project will include medical, laboratory and non-medical equipment, vaccines (expected to be provided by PAHO), refrigeration equipment and inputs, IT and communication equipment, dental equipment/instruments and inputs, ambulances, vehicles, among other health related equipment and inputs.

46. ***Non-consulting services*** to be financed by the Project will include information dissemination campaigns and other services.

47. ***Bidding Documents***. ICB procurement will be conducted using the World Bank's standard bidding documents (SBD) for goods and the World Bank's Sample Bidding Document for the Procurement of Non-consultant Services. NCB procurement will be conducted using bidding documents to be agreed with the World Bank. The agreed NCB bidding documents will be part of the Operations Manual.

48. ***Shopping*** will be permitted only for contracts for works, goods, and non-consultant services under a defined threshold within the Procurement Plan. Unless the World Bank may otherwise agree, if the process fails to result in three comparable quotations, the MOH will repeat it following NCB procedures.

49. ***Consultants Services*** to be financed under the Project will be focused on the development of educational programs, the design of educational materials, and the design of promotional and preventive materials for different topics of public health, among other services. These services will be rendered either by firms or by individuals, as indicated in the Procurement Plan.

50. ***Operating Costs***. Operating costs refer to reasonable recurrent expenditures that will not have been incurred by the implementing agency in the absence of the Project. The Project will finance operating costs such as electricity, internet services, water, phone services, vehicle and equipment maintenance, and per diems for local and international staff, among other operational expenses.

51. ***Training***. The Project will finance the costs of training courses, the travel costs and per diems of trainers and trainees, and training logistics such as hotel services, catering, travel services, and the rental of training facilities and equipment and training materials.

52. ***Project Operations Manual***. All the procurement procedures were agreed with World Bank prior to negotiations, are described in detail in the Operations Manual , and will be published on the MOH's webpage. The Operations Manual includes model bid evaluation reports and model reports for the preparation of shortlists.

53. ***Retroactive Financing*.** In such cases and subject to the limits specified in the financing agreement, the eventual contracts will be eligible for World Bank financing only if the MOH uses procurement procedures that meet the requirements of the World Bank's Procurement and Consultant Guidelines. Contracts under advance contracting have been included in the procurement plan dated May 5, 2015 which was agreed during the negotiations.

Assessment of the MOH's Capacity to Implement Procurement

54. The procurement activities will be carried out by the Procurement Division of MOH. This Division reports to the Minister of Health, and the team for the Project consists of three experienced procurement staff reporting directly to the Procurement Director.

55. The procurement team has adequate capacity and experience. However, there may not be enough available staff and resources to deal with the large number of contracts required by the Project.

56. The key issues and risks concerning procurement for the implementation of the Project include: (a) certain deficiencies in terms of the coordination of activities between the Procurement Division and Technical Division and the External Funds Division of the MOH; (b) local procurement regulations include practices that are not acceptable to the World Bank; (c) the large

number of Project processes exceeds available staff and resources; and (d) the high country procurement risk. The Procurement risk for this Project is considered Substantial.

57. Various mitigation measures have been agreed between the World Bank and the Recipient. First, the External Cooperation Division of the MOH will continue to serve as the coordination unit within MOH and will closely monitor the coordination between the General Division of Procurement of the MOH and the Technical Directorates of the MOH. Second, special procurement provisions have been included in the Legal Agreement to ensure that Project procurement is exempted from the application of clauses of the national procurement law that are in conflict with the World Bank Guidelines. Third, the MOH will hire two additional procurement analysts on a temporary basis during the period of overlap between the ongoing and the new Project. These contracts will only be extended after an evaluation by the World Bank of the continuing need for support. The terms of reference for and qualifications of these procurement analysts must be acceptable to the World Bank. In case of heavy work demand, the World Bank has reserved the right to recommend that the Project employ extra international support. Fourth, the procurement analysts working at the MOH on the new and existing operation will be required to participate in a World Bank training seminar(s) when the Project is launched. Fifth, the Project will operate in accordance with an Operations Manual that is acceptable to the World Bank. Procurement under National Competitive Bidding (NCB) procedures will be conducted using bidding documents to be agreed between the World Bank and the Nicaraguan Procurement Directorate based upon national bidding documents. Sixth, the following Special Procurement Provisions are included in the Financing Agreement:

(a) foreign bidders shall not be required to be registered with local authorities as a prerequisite for bidding;
(b) no bids shall be rejected, and no provisional awards shall be made at the time of bid opening;
(c) the invitation to bid shall not establish, for purposes of acceptance of bids, minimum or maximum amounts for the contract prices;
(d) the invitation to bid shall not publish the estimated cost of the contract;
(e) in the case of Shopping, a minimum of three quotations shall be obtained as a condition to award the contract;
(f) unless the Association may otherwise agree, for the procurement of goods and non-consulting services, the "best offer" shall be the one submitted by the bidder whose offer was determined to be the lowest evaluated bid and was found substantially responsive to the bidding document acceptable to the World Bank, provided further that the bidder was determined to be qualified to perform the contract satisfactorily;
(g) bidders and consultants shall not be allowed to review or make copies of other bidder's bids or consultants' proposals, as the case may be. Likewise, bidders' and consultants' responses to requests of clarifications made by the procuring entity during the bidding process shall not be disclosed to other bidders or consultants, as the case may be. Finally, reports including recommendations for award shall not be shared with bidders and consultants prior to their publication;
(h) eligibility criteria for the procurement of goods, works, non-consulting services and consulting services to be financed by the Credit shall be set forth in Section I of the

Procurement Guidelines and of the Consultant Guidelines. Articles 17 and 18 of the Procurement Law shall not apply;

(i) automatic rejection of bids or proposals, as the case may be, due to differences between bid or proposal prices and cost estimates being higher than predetermined percentages, shall not be allowed;

(j) bidders shall have the possibility of procuring hard copies of bidding documents even if they are published on the Recipient's procurement portal;

(k) unless so indicated in the applicable World Bank Standard Bidding Documents, pre-bid conferences shall not be conducted;

(l) bid preparation terms shall not be reduced as a result of re-bidding;

(m) consultants shall not be required to submit proposal and performance securities;

(n) complaints shall be handled as indicated in the appendixes to the Procurement Guidelines and Consultant Guidelines;

(o) the procurement of goods, non-consulting services and works shall be carried out using standard bidding documents acceptable to the Association;

(p) the Recipient, shall: (i) supply SEPA with the information contained in the initial Procurement Plan within 30 days after the Project has been approved by the Association; and (ii) update the Procurement Plan at least every three months, or as required by the Association, to reflect the actual Project implementation needs and progress and shall supply SEPA with the information contained in the updated Procurement Plan immediately thereafter; and

(q) the invitations to bid, bidding documents, minutes of bid opening, requests for expressions of interest and the pertinent summary of the evaluation reports of bids and proposals of all goods, works, non-consulting and consultants' services shall be published in SISCAE, and in a manner acceptable to the Association. The bidding period shall be counted from the date of publication of the invitation to bid or the date of the availability of the bidding documents, whichever is later, to the date of bid opening.

58. **Procurement Plan.** The procurement plan defines contracts that will be subject to the World Bank's prior review. The Recipient, at appraisal, developed a procurement plan for Project implementation which provides the basis for the procurement methods. This plan was agreed between the Recipient and the Project Team on May 5, 2015 as part of the Minutes of Negotiations. It will be published at SEPA and/or any successor system that the World Bank might require thereafter within 30 days of Grant Effectiveness. The Procurement Plan will be updated in agreement with the World Bank annually or as required to reflect the actual Project implementation needs and improvements in institutional capacity.

59. **Frequency of Procurement Supervision**. In addition to the prior review supervision to be carried out by the World Bank, because of the capacity assessment of the MOH (the implementing agency), the World Bank has recommended annual supervision missions to visit the field to carry out post review of 1:5 procurement actions.

(a) Goods, Works, and Non-consulting Services

60. List of contract packages to be procured following ICB and direct contracting:

Annex Table 3.3: Details of the Procurement Arrangements Involving International Competition

1	2	3	4	5	6	7
Contract (Description)	**Estimated Cost (US$)**	**Procurement Method**	**P-Q**	**Domestic Preference (yes/no)**	**Review by Bank (Prior/Post)**	**Expected Bid-Opening Date**
IT equipment	2,790,000	ICB		No	Prior	August 2015
Ambulances	6,000,000	ICB		No	Prior	August 2015
Lab and medical equipment	1,200,000	ICB		No	Prior	September 2015
Non-medical equipment for laboratories	1,155,000	ICB		No	Prior	September 2015
Odontology equipment	4,220,000	ICB		No	Prior	September 2015
Thermal fogger	800,000	ICB		No	Prior	September 2015
Hospital waste management equipment	3,643,000	ICB		No	Prior	October 2015
Rehabilitation of 20 medical schools	585,000	ICB		No	Prior	September 2015

(b) Consulting Services

61. List of consulting assignments with short-list of international firms. None foreseen.

The following Consultant Services processes will be subject to prior review by the World Bank:

(a) All contracts with firms estimated to cost above $200,000. All other contracts will be subject to procurement post review unless otherwise identified in the Procurement plan.

(b) All contracts with firms estimated to cost below $300,000, the shortlist may be composed entirely of national consultants.

(c) Selection of individual consultants estimated to cost above $100,000 will be subject to the World Bank no objection**.** All other contracts will be subject to procurement post review unless otherwise identified in the Procurement plan.

(d) For all direct contracting that are subject to prior review, the justification must be submitted to the World Bank jointly with the Procurement Plan. The draft RFP will be submitted to the World Bank for No Objection. The justification of the reasonableness of price along with the negotiated contract will be subject to prior review.

IV. Safeguards

61. ***Social***. OP/BP 4.10 on Indigenous Peoples is triggered. There are indigenous peoples as defined by the policy present in the Project area. When preparing the Nicaragua Community and Family Health Care Project (P106870) currently under implementation, an Indigenous Peoples Framework and Indigenous Peoples Plan were prepared, consulted and disclosed. The implementation of the IPPF and IPP are being managed by the Directorate of Health, who is in charge of ensuring proper provision of health services (including compliance with safeguards and user satisfaction), and supervised by the National Coordination of Indigenous Peoples and Traditional Medicine (as part of the Ministry of Health). Among the activities implemented, two documents were prepared which are key for the effective implementation of the IPP. These are the "Diagnosis of traditional ancestral medicine and the link among health systems" and the "Guide of articulation between the western and traditional ancestral health systems". These products have been reflected in the updated version of the IPP. The country is moving towards the integration of traditional ancestral medicine with the western health systems. The documents are in compliance with the requirements of the social assessment and indigenous plans under the World Bank Indigenous Peoples Policy (OP/BP 4.10). The Indigenous Peoples Plan for the Nicaragua Community and Family Health Care Project (P106870) is currently under implementation. Consultations and activities undertaken during Project implementation in response to indigenous peoples could be shared as models with other countries. In addition the Government has recently inaugurated the Institute for Alternative Therapy in Managua, and the first training session for health personnel was held in January 2015.

62. For nine of the ten SILAIS in the new Project, the activities in component 1 are a continuation of the activities in the Community and Family Health Care Project (P106870) for which the IPP was consulted, disclosed and implemented. The IPP has been reviewed, updated, consulted and redisclosed to include the additional SILAI and ensure that there is continued broad community support for this project in the nine original SILAIS. The IPP ensures that the indigenous communities in the territories of Alto Wangki and Bocay also broadly supported by the project activities. The IPP has also been consulted at national level to ensure that the measures related to Maternal, Adolescent, Child and Reproductive Care take into account the cultural practices of Indigenous Groups. There is a project-level grievance redress mechanism that ensures that complaints received are promptly reviewed in order to address Project-related concerns included in the Plan.

63. ***Environmental***. OP/BP 4.01 on Environmental Assessment is also triggered. There will be minor rehabilitation works in health care facilities or minor pre-installment works for the medical and non- medical equipment to be purchased by the Project. While the effects of these activities are localized, minor and reversible, they still, nonetheless, warrant certain care and the appropriate mitigation measures included in the Environmental Management Plan (EMP) dated March 6, 2015 which was published in the country and the Bank's external website on April 10, 2015. As part of this project, the MoH will develop 6 Hospital Dangerous Waste Management Plans in the main national hospitals in Managua. As mandated by law, there is a country-level grievance redress mechanism in every hospital that ensures that complaints received are promptly reviewed in order to address Project-related concerns included in the Plan. Finally, the capacity

building effort includes comprehensive occupational health and safety training, including exposure to diseases, medical waste and the use of certain equipment with radiation.

Annex 4: Implementation Support Plan

NICARAGUA: Strengthening the Public Health Care System Project

1. **The strategy for implementation support has been developed based on the nature of the Project and its risk profile as well as on lessons learned from previous projects.** The strategy is designed to be flexible so that it can be revised during Project implementation if any challenges become evident. The implementation support strategy focuses primarily on the risk mitigation measures defined in the Systematic Operational Risk-Rating Tool (SORT) and on supporting the client in various efficient ways as described below.

Implementation Support Plan

2. ***Operational Support.*** The World Bank's implementation support to the Government will include help with reviewing the annual implementation plans and annual performance and municipal agreements, supervising monitoring and evaluation systems, tracking the progress of the Project's indicators, monitoring the implementation of the Project components, ensuring that the Project is in conformity with the Operations Manual, reviewing the results-based mechanisms to be used to transfer funds to the municipalities, and monitoring Project execution according to annual action plans and interim unaudited financial reports. A senior health economist (TTL), and an operations officer based in the country office as well as an operations analyst will provide day-to-day supervision of all operational aspects of the Project, while also coordinating with the client and among the World Bank's team members.

3. ***Coordination with Other Agencies and Other World Bank-financed Projects***. Throughout the Project, the World Bank will coordinate work with the UN Family such as PAHO on the certification of specific activities; UNICEF, and UNFPA on the implementation of the Adolescent Health Strategy. The Project will also promote and enhance cross-sectoral collaboration with the Ministry of Education, MINJUVE and the Ministry of Family, Adolescence and Childhood, especially in the areas where cooperation would enhance efficiency such as adolescent health, oral health, behavioral education campaigns, and work with ethnic groups. Finally, national universities will also participate in the provision and certification of specialized training.

4. ***Technical Support***. There are several ways in which the World Bank will bring value added to the Project implementation in the form of technical support in the following areas: (a) systematizing procedures for improving the quality of care; (b) training staff at all levels of service delivery; (c) transforming the budget process from historical to results-based budget allocations; (d) implementing South-South exchanges on particular topics to enable the health sector to benefit from international experiences; and (e) improving the maintenance and repair of high-tech medical equipment. In addition, the World Bank will help to lead the public discussions of the necessary adjustments to the health system to respond to the changing epidemiological profile of the population.

5. ***Monitoring and Evaluation.*** As the Ministry of Health will be implementing the Project directly with no Project coordination unit, the World Bank team will provide the MOH with technical support to analyze the information needed to trigger the transfers to municipalities, verify

results on the ground with the support of PAHO, and work with the MOH to monitor the Project indicators.

6. ***Fiduciary aspects.*** In the area of financial management, the World Bank will review the Project's financial management system, including, but not limited to, accounting, reporting, internal controls, and compliance with financial covenants. The World Bank will help the MOH to review interim unaudited financial reports, annual Project audits, and external audits (as relevant). Financial management on-site supervision will be carried out once a year. In the area of procurement, the World Bank's implementation support will include: (a) training of staff at the MOH as well as providing them with detailed guidance on the World Bank's Procurement Guidelines as needed; (b) reviewing procurement documents and providing timely feedback to the Project procurement team; (c) monitoring progress against a detailed Procurement Plan; and (d) undertaking procurement post reviews.

7. ***Environmental and Social Aspects.*** The World Bank will help the MOH to effectively implement the Environmental Plan, with a particular emphasis on the adequate management of medical and non-medical waste. Also, the Project will support the Government of Nicaragua in implementing the Indigenous Peoples' Plans, which integrates the traditional ancestral medicine into modern health systems. The World Bank will be available to provide timely guidance to the MOH, the SILAIS, and the municipalities and will carry out field visits on a regular basis.

8. ***Information and Communication***. A communications strategy will support the implementation of the Project in its different areas of intervention. The strategy will cover the implementation of various consultative and accountability processes, including a grievance redress mechanism.

9. A detailed implementation support plan is presented below in Table 4.1. A mid-term review will be carried out by April 2018.

Annex Table 4.1: Detailed Implementation Support Required

Time	*Focus*	*Skills Needed*	*Resource Estimate # of Staff Weeks*
First twelve months	Project Management	Task Team Leadership, Health Economist and Public Health	12
	Operational Support	Operations Officer - Field Operations Analyst	3 6
	Strengthening procurement capacity	Procurement Specialist	6
	Strengthening financial management capacity	Financial Management Specialist	4
	Medical and non-medical equipment	Equipment Specialist	9
	Hospital and MIS specialist	Hospital Administration	2
	Monitoring and evaluation	M&E Specialist	2
	Knowledge management and communication	Knowledge and Communication Specialist	4
	Social and environmental specialists	Social Specialist Environmental Specialist	2 3
12-60 months	Project Management	Task Team Leadership, Health Economist and Public Health	44
	Operational Support	Operations Officer - Field Operations Analyst	12 24
	Procurement implementation support	Procurement Specialist	20
	Financial management implementation support	Financial Management Specialist	16
	Environmental sustainability and safeguards supervision	Environmental Specialist	12
	Social development and community engagement/gender	Social Development Specialist	8
	Hospital and MIS specialist	Hospital Administration	4
	Knowledge management and communication	Knowledge and Communication Specialist	16
	Medical and non-medical equipment	Equipment Specialist	12
	Monitoring and evaluation	M&E Specialist	8

Annex 5: Economic and Financial Analysis

NICARAGUA: Strengthening the Public Health Care System Project

1. This annex presents the Project's cost-benefit analysis, based on the Project's projected costs and measureable economic benefits. Because of its eventual impact on morbidity, mortality, disease prevention, and maternal and infant mortality, the proposed Project is expected to generate economic and social benefits both nationally and locally. This analysis considered the costs and benefits generated under Components 1.1, 1.2 and 2.2 of the Project but did not cover the costs or possible benefits yielded under Components 2.1 and 3.

2. Under Component 1 and Subcomponent 1.1, the proposed Project will fund the provision of per capita payments to cover the costs of providing preventive and promotion health care services to vulnerable populations as part of the implementation of the MOSAFC. The marginal fee will ensure the implementation of family and community health strategies in which health workers will make systematic home visits to families based on risk criteria and characterized by local participatory health planning, community-led health initiatives and social assessment/audit, training for local health volunteers and midwives, and the deployment of counselors on standardized basic knowledge for delivering community-based safe and quality care to people. Health services will be improved by the implementation of national quality health care plans. Under Subcomponent 1.2, the Project will strengthen the institutional capacity to deliver quality health care services, which will be key to the success of Subcomponent 1.1.

3. According to the MOH's costing of the capitation payments (including all geographic and demographic regions of the country and taking into account rates service use by the beneficiary population and cost differences across the regions), the average annual cost of the package provision of services *(conjunto de prestaciones de servicios)* per person will be US$20.01. The Government has noted that it has the resources to fund US$16.41 of this set of services. As a result, the average unit cost of the prevention and promotion health care services to be covered by the Project was estimated to be US$3.60 per year. Under Sub-component 2.2, the Project will finance the design and implementation of the critical path for the prevention and treatment of trauma patients. This will include the creation of a medical emergency referral system and the strengthening of referral emergency units and intensive care units, including a road safety promotion and communication campaign.

Development Impact

4. ***Investment***. Out of the US$60 million, US$36.4 million represents the Project's direct investment in health goods and services in the country, distributed as follows:

- US$8.75 million[18] will be distributed under Subcomponent 1.1 to fund per capita transfers to cover primary health care, for 1,237,048 beneficiaries over a four-year period. This will expand services, increase access, and improve the quality of care available to the rural population.

[18] Considered gross value

- US$27.65 million under Subcomponents 1.2 and 2.2 to expand the supply of available services, including the prevention of and response to trauma cases.

5. This economic analysis is based on adjusted assumptions of strategy, interventions, and targets from the assumptions used in previous country estimates, including a discount rate of 10 percent. The analysis assumes that the proposed Project will operate in 19 SILAIS and that the proposed health prevention and promotion services will be provided in 66 municipalities. In total, this will benefit 1.2 million people under Component 1, while the introduction of public health goods will benefit the entire national population.

6. This analysis finds that the following benefits will arise from of the Project's investment:

(a) *Savings in household health costs as a result of increased coverage of health services available.* The Project will fund US$3.6 per beneficiary over a four-year period. This contribution plus the US$16.41 contribution from the MOH will result in health cost savings for the target population of US$3 per capita per year.

(b) *Savings achieved by expanding laboratory services to the rural population***.** The investment in advanced laboratory equipment, improved infrastructure, and training of the health personnel working in the clinical laboratories will improve the quality of diagnoses and will save the rural population travel time and costs in their search for laboratory testing. In this case, the evaluation quantified the benefits as the equivalent of purchasing a basic set of clinical laboratory testing in the private sector. This yielded estimated annual savings of US$3.00 per capita. Equipment was considered to have a lifespan of 10 years.

(c) *Savings achieved by expanding oral health coverage.* The investment in equipment to provide a complete preventive and restorative dental treatment to the population with emphasis on school-age children will yield long-term benefits. The savings per child based on the comparative cost of equivalent treatment in the private sector were estimated to be US$9 per capita. Equipment was considered to have a lifespan of 10 years.

(d) *Savings achieved by strengthening the response to trauma cases*. The aim of this investment is to reduce the number of hospital days accounted for by traffic accidents and to decrease mortality due to trauma. This calculation assumed that an appropriate transportation network with well-trained personnel and the availability of sufficient ostheosynthesis[19] services could reduce the average hospitalization from 22 to 15 days. The daily cost of hospitalizations was estimated to be US$45.9. Therefore, this investment will generate savings in hospital costs and will reduce the medical and economic losses faced by families as a result of these accidents. The minimum wage in Nicaragua is US$1,560 per year. This could be used as a proxy for the prevented deaths.

[19] **Osteosynthesis** is the reduction and internal fixation of a bone fracture with implantable devices that are usually made of metal

7. ***Project Investment and Recurrent Costs***. For the purposes of this economic evaluation, a net investment of US$55.73 million was assumed. Recurrent costs were estimated to be 8 percent of the total investment. It was assumed that all other recurring costs would be absorbed by the MOH. Taking Year 1 as 2016, the results indicate that the Project has a net present value of US$17 million and an internal rate of return of 34 percent.

8. ***Sensitivity Analysis***. The sensitivity analysis shows that the Project would be worthwhile even if it were to require an additional investment of 16.6 percent to achieve the same gains. However, if operational costs were to increase by around 21.5 percent, this would represent a negative impact to the Project given the rate of discount used.

Annex Table 5.1: Estimated Internal Rate of Return

Year	Investment C1.1 US$	Investmen C1.2 US$	Investmen C1.8 US$	Investment C2.2 US$	Remaining Amount Investment Others SC US$	Investment US$	Cost Additional Operation US$	Per Capita Benefit C1.1 US$	Per Capita Benefit C1.2 US$	Per Capita Benefit C1.8 US$	Per Capita Benefit C2.2 US$	Flow US$	NPV (US$M)	IRR
						-55,730,148		3	3	12			17,162.11	34%
1												0		
2	2,187,500	222,826	869,565	4,917,717	5,734,928	-13,932,537	0	3,711,147				-10,221,390		
3	2,187,500	222,826	869,565	4,917,717	5,734,928	-13,932,537	-841,415	3,711,147	783,464	9,949,980		-329,362		
4	2,187,500	222,826	869,565	4,917,717	5,734,928	-13,932,537	-1,682,830	3,711,147	783,464	9,949,980	2,376,651	1,205,874		
5	2,187,500	222,826	869,565	4,917,717	5,734,928	-13,932,537	-2,524,246	3,711,147	783,464	9,949,980	2,376,651	364,459		
6							-3,365,661		783,464	9,949,980	2,376,651	9,744,434		
7							-3,365,661		783,464	9,949,980	2,376,651	9,744,434		
8							-3,365,661		783,464	9,949,980	2,376,651	9,744,434		
9							-3,365,661		783,464	9,949,980	2,376,651	9,744,434		
10							-3,365,661		783,464	9,949,980	2,376,651	9,744,434		
11							-3,365,661		783,464	9,949,980	2,376,651	9,744,434		

The World Bank's Added Value

9. The World Bank will contribute to Nicaragua's long-term development with the strengthening of an innovative budget transfer mechanism under a capitated results payment model rather than the historical traditional budget system for the municipalities in 66 municipalities (42 percent of the total municipalities in the country) with spillover effects on the rest of the country. The Project also introduces a systematic certification mechanism designed to improve the quality of health care, as a first step towards discussing, designing, and implementing further reforms to reflect the country's epidemiological transition. The underlying goal of this Project is to strengthen the country's institutional capacity to manage health investments by results and their potential for investments in the years to come.

10. Public funding is the most appropriate way to fund these services. Poverty remains high in the country, with approximately 42.5 percent of the population still living below the poverty line, while one out of every seven Nicaraguans lives in extreme poverty. More than 80 percent of Nicaragua's poor live in rural areas. The free provision of health care services since 2007 has increased service use and lowered out-of-pocket expenditures for Nicaraguan households.

Annex 6: MAP - IBRD 33456R1

NICARAGUA: Strengthening the Public Health Care System Project