REPUBLIC OF HAITI

MINISTRY OF PUBLIC HEALTH AND POPULATION

NATIONAL DIRECTORATE FOR WATER SUPPLY AND SANITATION

NATIONAL PLAN FOR THE ELIMINATION OF CHOLERA IN HAITI 2013-2022

SHORT TERM PLAN 2013-2015

REPUBLIC OF HAITI

Elimination of Cholera in Haiti

IMPLEMENTATION IN THE SHORT TERM
2013–2015

Port-au-Prince, Haiti
December 2012

TABLE OF CONTENTS

I - CONTEXT

Ten months after the devastating earthquake of 10 January 2010, Haiti experienced one of the largest cholera epidemics in modern history. The first cases of cholera were discovered in Haiti in October 2010 in the Central Department. A month later, cholera spread into all of Haiti and to the Dominican Republic. As of 3 July 2012, there had been a total of 577,858 cases of cholera in Haiti, among which 312,449 had been hospitalized and 7,413 had died. This represents the largest epidemic ever recorded in a single country in the world. In the Dominican Republic, the first case of cholera was reported in November 2010. In the Dominican Republic, the first cholera case was reported in November 2010. By 31 December 2012, there had been 29,433 suspected cases, 422 fatalities and a fatality rate of 0.7% in the Dominican Republic. There is a risk of cholera becoming endemic on the island of Hispaniola.

The different manner in which the disease spread in the two countries is explained in part by health conditions that persist on the island. At the start of the epidemic, it was estimated that, in Haiti, 31% of the population had no access to potable water, and 83% of the population had no access to

adequate facilities for excreta disposal.[1] The lack of good hygiene practices among most of the population, and particularly among groups without access to basic health services, was among the factors that furthered the rapid spread of the disease. In addition, even before the earthquake in January 2010 and the cholera outbreak in October of that same year, 46% of the Haitian population had no access to health care. Access is defined in part by the distance that must be traveled to reach the nearest health center and in part by the fact that a large portion of the population cannot pay for the cost of services.

Environmental degradation is extreme in Haiti and has a significant impact on the availability of and access to potable water, which constitutes an important factor for health and the spread of cholera. Throughout the entire country, poor waste management practices and the lack of modern sewerage and sanitation systems are among the environmental factors that affect the health of the population.

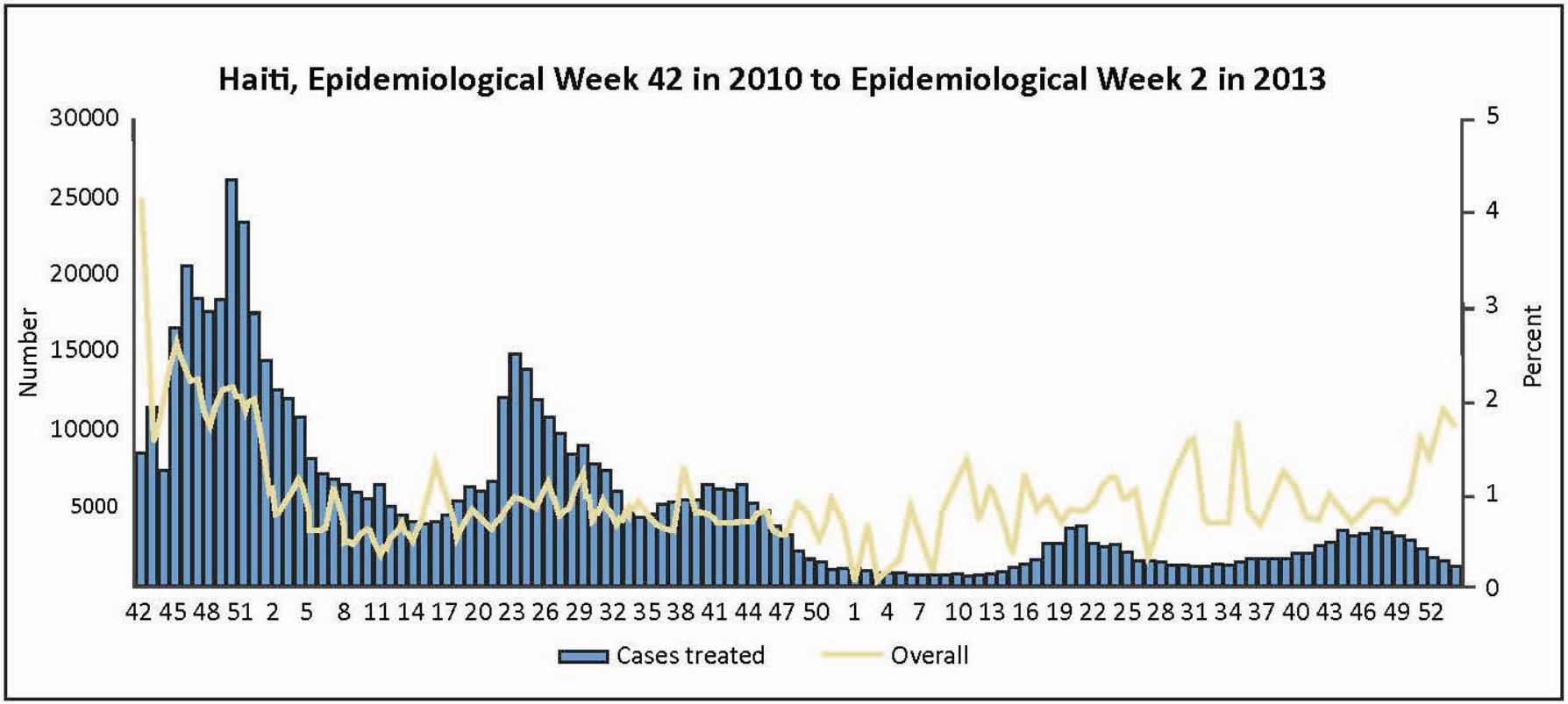
Despite the cholera epidemic in Latin America and the Caribbean in the 1990s, which killed approximately 12,000 people in 21 countries, the two countries of Hispaniola were free of cholera prior to the October 2010 outbreak. The epidemic in the 1990s was finally controlled after eight years of international public health efforts and massive investments in infrastructure, water supply, and sanitation in the region.

[1] Source: WHO/UNICEF Joint Monitoring Program, 2012.

II - EPIDEMIOLOGY OF THE CHOLERA EPIDEMIC IN HAITI

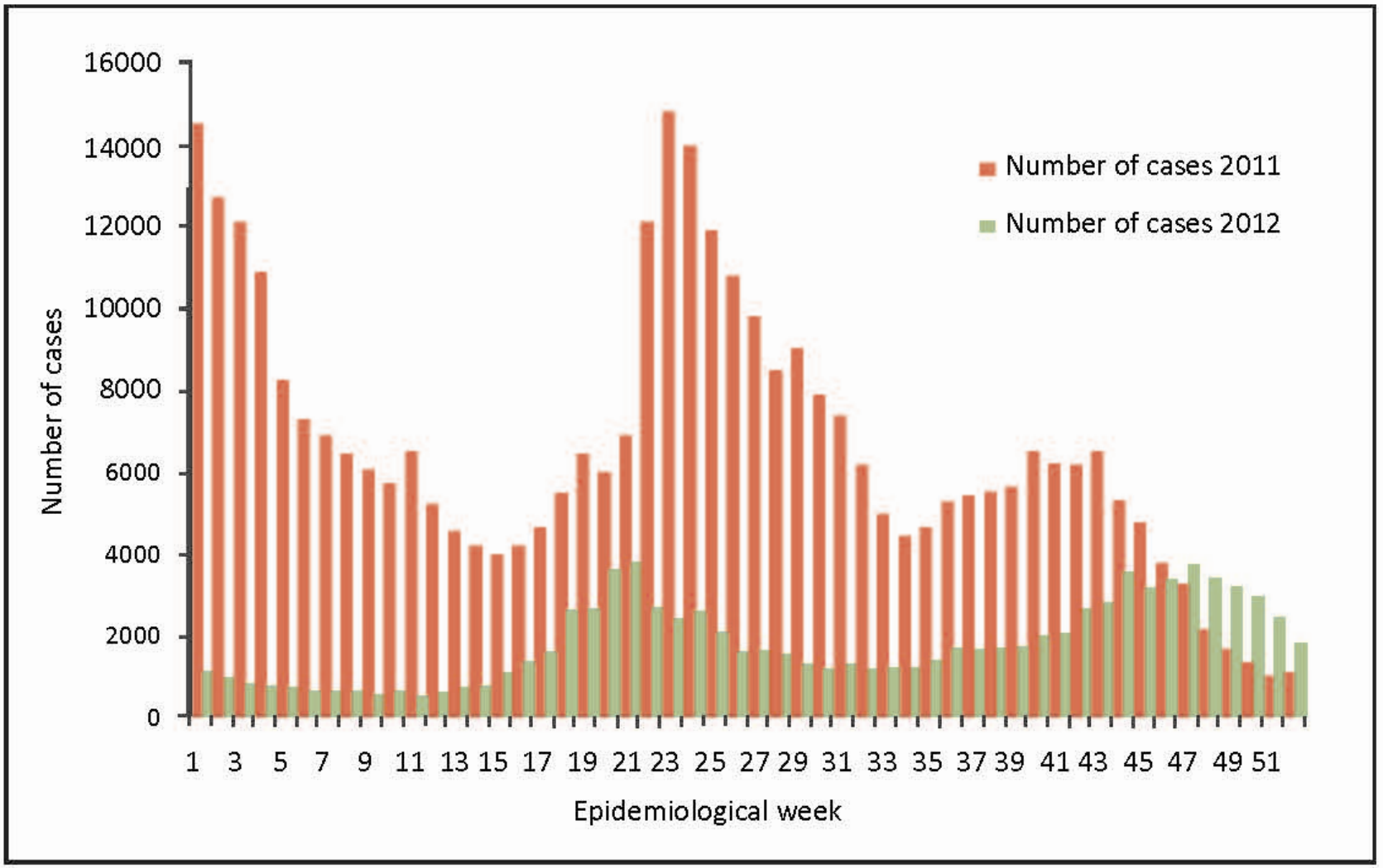
The cholera epidemic in Haiti began in October 2010 and was attributed to *Vibrio cholerae,* serogroup 01, serotype Ogawa, biotype El Tor. The first case was detected in the Central Department, after which the infection spread to the neighboring department (Artibonite) before spreading gradually to the other departments. As of the second week of 2013, the Ministry of Public Health and Population had reported a total of 639,610 cases, 7,962 deaths, and 353,288 hospitalizations**.** Even though the infection spread rapidly across the country, it is interesting to note that two geographic areas always reported more cases than the others: the metropolitan area of Port-au-Prince and the neighboring communes in the Western Department and the Artibonite Department. As of end-December 2012, those departments represented 26.9% and 20.2% of all cases, respectively. The overall mortality rate is estimated at 1.2%, compared to 1.4% for hospitalized cases. Figure 1 below shows the epidemiological curve for the period from 20 October 2010 to 8 January 2013.

Cholera Epidemic: Situation as of the Second Week of 2013
New Cases Seen and Overall Mortality

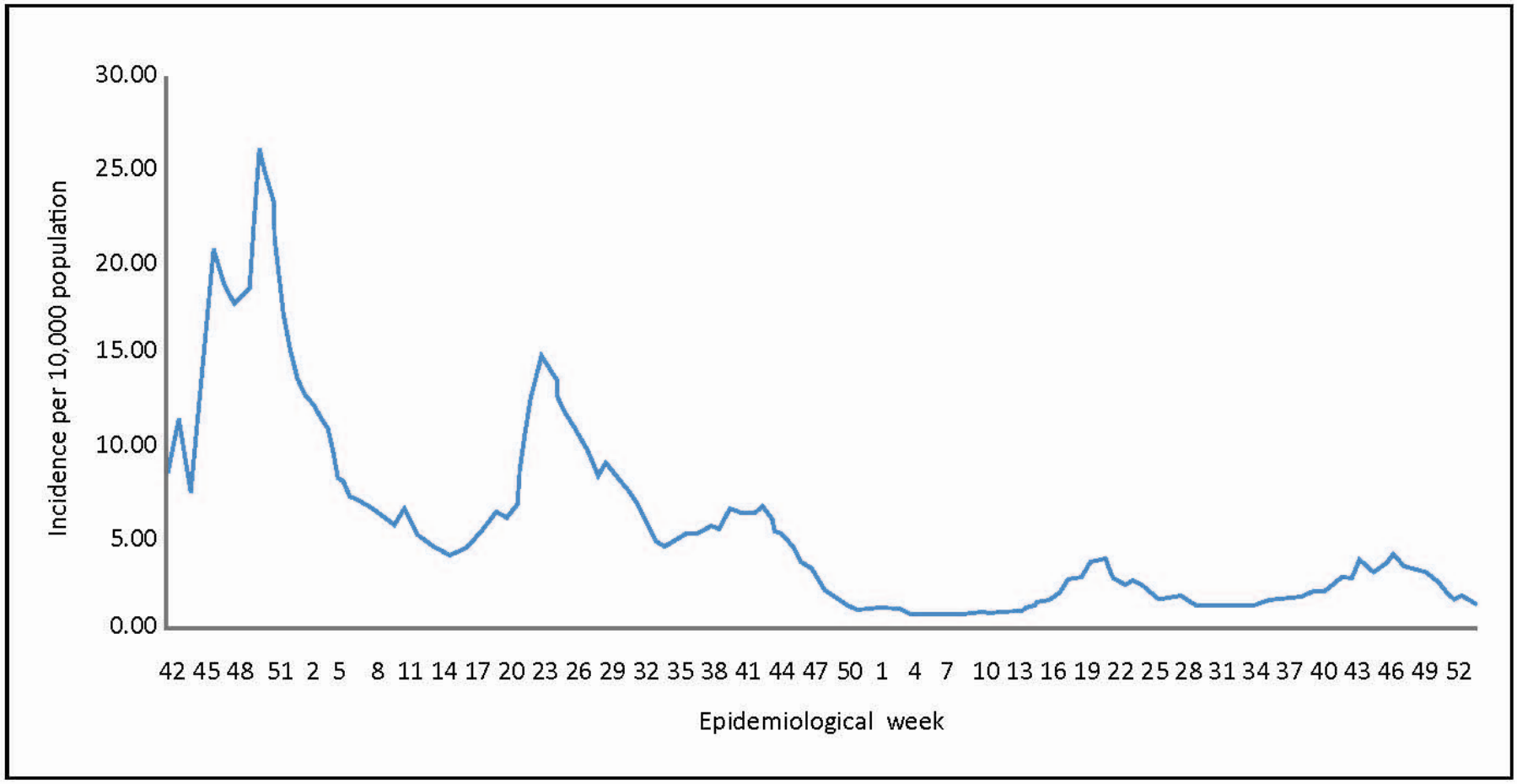


- From the 42nd week of 2010 to the 2nd week of 2013, the Ministry of Public Health and Population reported: 639,610 cumulative cases, 353,288 hospitalizations (54% of cases seen), and 7,962 deaths (overall mortality of 1.2%), of which 5,090 occurred in hospitals (hospital mortality of 1.4%).
- For the second week there were 1,379 cholera cases, 905 hospitalizations, and 24 deaths, 20 of them in institutions (overall mortality, 1.7%; hospital mortality, 2.2%).
- Did not report: Grande-Anse.

Comparison of Cases Seen during the First 52 Weeks of 2011 and 2012



Trends in the Incidence of Cholera (from the 42nd epidemiological week of 2010 to the 2nd epidemiological week of 2013)



Total Incidence per 1,000 Population by Department
Haiti, 1st–2nd Week, 2013

Department	Total Incidence per 1,000 Population
Northwest	2.8
Grande Anse	3.5
Nippes	3.6
Southeast	4.2
South	6.4
Artibonite	8.8
North	10.5
West	10.9
Port-au-Prince	12.8
Northeast	18.7
Central	20.1
Haiti	**10.1**

III - OBJECTIVES OF THE ACTION PLAN

a. **Goal of the Action Plan** – The ultimate goal of the Action Plan is to eliminate cholera from the island of Hispaniola through technical and financial support from the international community and binational coordination.

b. **Specific Objectives** – In order to prevent deaths and reduce the suffering caused by the cholera epidemic, the Haitian government's main strategy is to put in place an integrated approach to prevent and stop the secondary transmission of cholera in Haiti.

From this perspective, the Haitian government has established the following specific objectives to be attained:

i. Increase access to potable water to at least 85% of the population;
ii. Increase access to improved sanitary and hygiene facilities to at least 90% of the population;
iii. Increase collection of solid waste in the metropolitan area of Port-au-Prince to 90% and in secondary cities to 80%;
iv. Strengthen the public health system to facilitate access to health care services for 80% of the population;

v. Strengthen epidemiological surveillance for timely detection of all cholera cases and other diseases under surveillance through improved information management;

vi. Intensify education of the public about household hygiene and an understanding of food hygiene.

IV - SHORT-TERM INTERVENTIONS

The National Plan for the Elimination of Cholera calls for the acceleration over the first two years of systematic emergency measures at the level of the plan's four strategic areas: water and sanitation, management, epidemiology, and health promotion. It was thus decided that the short-term actions will focus on **preventing the transmission of cholera from one person to another** through the use of potable water for consumption, hand washing, and food handling.

In the short term, the Ministry of Public Health and Population will, first, undertake the following:

a. Continue with emergency measures as part of health care provision and with treatment with the oral rehydration solution;

b. Strengthen the network of multipurpose community health agents in order to have one agent for every 500 to 1,000 population in areas at risk for cholera. During the course of the epidemic, their functions will be limited to:

- Conducting home visits targeting households where there are suspected cholera cases;
- Providing regular reports to the Ministry of Public Health and Population about detected cholera cases;
- Facilitating the treatment of persons infected with cholera following ministry protocol for rehydration with the help of oral rehydration solution, accompanying patients when they undertake hygiene and sanitary practices in order to protect other members of the family, and, when necessary, referring patients to a higher level of care in the health system (cholera treatment centers, health centers, or communal hospitals);
- Promoting and supporting efforts by the population to follow food hygiene measures according to the directives of the Ministry of Public Health and Population and the National Directorate for Water Supply and Sanitation (DINEPA);
- Providing health education and promoting hygiene and behavioral changes such as hand washing;
- Carrying out chlorine residue tests of water consumed in households and community water pipe systems;

– Administering chlorine (and/or teaching heads of families how to add chlorine) to household cisterns for drinking water.

c. Coordinate and supervise the hygiene and health education messages that are disseminated by the various entities involved in combating cholera. Ensure that the community health agents and personnel from nongovernmental organizations (NGOs) are sufficiently trained to deliver messages from the ministry and DINEPA to sensitize the population about the risks of and the protection measures against cholera;
d. Ensure that all health professionals are trained in the fundamentals of combating cholera and that they promote through their own daily practices the messages that champion access to potable water, sanitation, and hygiene in health centers and community clinics, and at public awareness events;
e. Establish a network of community health clubs to increase efficiency and reduce the workload of the community health agents;
f. Establish local community health clubs throughout the country (run by health workers) in order to promote hygiene and other public health issues;
g. Vaccinate the population in at-risk or still-vulnerable areas (30 to 40 percent of the population; approximately 600,000 people).

Secondly, DINEPA will:

h. Continue with emergency measures for the provision of safe water in areas at risk of cholera, as well as with the installation of excreta disposal systems for hospitals, health centers, and households that need them;

i. Coordinate DINEPA interventions with those of the Ministry of Public Health, concentrating on emergency actions in areas being handled by community health agents;

j. In collaboration with the Ministry of Public Health and Population, ensure that residents of communities identified as being at risk for cholera, and that do have access to safe drinking water, have access to consumable water through the appropriate use of chlorine liquid or tabs;

k. Coordinate with the Ministry of Public Health and Population in the training of community health agents and municipal sanitary technicians, including training on water conservation, promotion of hygiene, and water analysis and an understanding of chlorine production equipment.

V - EXPECTED RESULTS

1. The risk of transmission of *Vibrio cholerae* by using water that is insufficient in quality and quantity is eliminated through repairs to existing networks and the construction of new water supply systems in all medium-size or large cities (that do not currently have water supply), as well as in rural agglomerations judged to be a priority;

2. The risk of transmission of *Vibrio cholerae* due to poor disposal and management of excreta is eliminated from the entire national territory through the promotion of sanitary excreta disposal systems, in situ, in urban and rural areas, as well as the construction of sanitary sewerage accompanied by wastewater treatment systems in certain large cities and treatment systems for sludge in other medium-sized cities;
3. The institutional capacity of DINEPA is strengthened at the national level and in its decentralized structures.

VI - INDICATORS

BY THE END OF 2015:
- The annual cholera incidence rate in Haiti is reduced from 3% to ≤ 0.5%
- 80% of the population living in areas of the country where there is active secondary transmission of cholera washes their hands after defecating and before eating

VII - ACTIVITIES AND COST OF IMPLEMENTING THE ACTION PLAN

The activities of the different Action Plans are shown in the table below, which follows the four areas defined for the project: water and sanitation, health services and health care management, epidemiology, and the promotion of health, hygiene, and nutrition. In the table the activities are grouped under lines of

action to be undertaken to achieve the defined objectives. The total cost for implementation of the Action Plan for 2013–2015 is estimated to be US$443,723,100.

VIII – MONITORING AND EVALUATION

Follow-up of implementation of the Action Plan will be the responsibility of a Steering Committee comprised of representatives from the ministries involved and technical and financial partners. The role of the committee is to facilitate the coordination of policy and strategy. It is desirable to have participation by the Ministries of Public Works, Public Health, Education, Communications, the Environment, and the Interior and Local Communities. The committee will meet twice a year and whenever else the representative of one of the executing agencies (DINEPA, Ministry of Health, Ministry of Transport and Public Works, Ministry of the Interior and Local Communities) calls for convoking a meeting.

Operational implementation of the Action Plan will be supervised by a Technical Committee made up of high-level officials from DINEPA, the Ministry of Public Health, the Ministry of Public Works, and the Ministry of the Interior, as well as representatives from international agencies cooperating in one of the Action Plan areas. The Director-General of the Ministry of Public Health or his designated representative will preside over this committee.

The Technical Committee will meet quarterly in order to review progress in implementation of the Action Plan, propose corrective measures as needed, and prepare reports for the Steering Committee. The members of the Technical Committee will carry out field visits as needed in order to evaluate the results of the project.

An evaluation of implementation of the Action Plan will be undertaken at the end of each year. Similarly, an audit will be conducted at the halfway point and at the end of the plan's implementation period.

IX – PLAN OF ACTION (SUMMARY), SHORT-TERM, 2013–2015/FINANCING REQUIRED

SPHERE OF ACTIVITY	EXECUTING AGENCIES AND AREAS OF INTERVENTION	YEARS	FINANCING IN US$		EXPLANATORY NOTES (Expected Results)
		2013-2015	2013-2015	YEAR 1	
AREA WATER AND SANITATION	**◊ DINEPA**		**91,481,000**	**33,075,000**	
	- Drinking water supply	**X**	50,560, 000	15,720,000	DINEPA and its decentralized structures are strengthened
	- Treatment of wastewater and excreta	**X**	22,700,000	10,450,000	Activities of the water supply and sanitation sector are coordinated, monitored, and regularly evaluated
	- Institutional strengthening of DINEPA	**X**	18,221,000	6,905,000	Cities and towns benefit from wastewater collection and treatment service that complies with social and environmental standards
	◊ Ministry of Public Works, Transport, and Communications/Ministry of the Interior and Local Governments		**231,500,000**	**1,500,000**	
	- Institutional strengthening of solid waste management	**X**	1,500,000	1, 500,000	Access to water supply is improved throughout the country
	- Waste collection and treatment	**X**	230,000,000		Each Region has at least one excreta treatment site
AREA OF PUBLIC HEALTH	**◊ Ministry of Health**		**94,518,100**	**81, 473,000**	
	- Health care services	**X**	39,694,100	26, 649,000	Management of diarrheal diseases improved and completely adequate
	- Inputs/Essential medicines	**X**	54,824,000	54,824,000	By 2015, all inputs are available in sufficient quality and quantity
	□ Epidemiology		**4,350,000**	**4, 200,000**	
	- Quality of information	**X**	1,350,000	1,200,000	Strengthening of epidemiological surveillance with a view toward rapid and concerted action
	- Research capacity	**X**	3,000,000	3,000,000	Effective epidemiological surveillance with strengthening of microbiological and environmental surveillance
	□ Health Promotion		**26,324,000**	**37,678,000**	
	- Hygiene practices	**X**	3,580,000	11,590,000	Understanding and skills in cholera prevention measures promoted among the population at risk
	- Institutional strengthening	**X**	8,010,000	4,154,000	Strengthened vigilance by the population in the face of the country's cholera threat
	- Food hygiene	**X**	1,240,000	1,240,000	Food hygiene practices strengthened in areas at risk for cholera in order to reduce the incidence of nutritional and diarrheal illnesses
	- Micronutrient deficiency	**X**	9,340,000	18,540,000	Fight against micronutrient deficiencies strengthened in areas vulnerable to cholera
	- Hospital hygiene	**X**	4,154,000	2,154,000	Environmental protection in health institutions strengthened
	◊ COUNTRY TOTAL		**443, 723,100**	**157, 926,100**	

STRATEGIC INTERVENTION FRAMEWORK

SPHERE OF ACTIVITY: WATER AND SANITATION

COMPONENTS:

- ***STRENGTHENING DINEPA***
- ***ACCESS TO POTABLE WATER***
- ***ACCESS TO SANITATION***

SPHERE: WATER SUPPLY AND SANITATION **COMPONENT: STRENGTHENING DINEPA**

ACTIVITIES	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
1. Organization of sectoral governance.	Number of new Technical Center Operations (**CTE**) in	20	15	1, 000,000	US$100,000 per CTE.

ACTIVITIES	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
Coordination and control of all actors intervening in the sector across the country through: -Guidance and support for new structures, prioritizing sensitive areas (CTE, CAEPA) -information meetings and workshops with partners and local authorities (CASEC, school inspectors, multipurpose community health agents, CAEPA) -Establishment of an exhaustive database on support to the water supply and sanitation sector -Coordination meetings and workshops at all levels (national and regional sector tables, sanitation platform, WASH cluster, coordination of collection)	place and operational				US$20,000 per CAEPA. At least 90 CAEPA will be operational in 2022. The base map shows the water supply and sanitation situation of a group of localities and a communal section. The evaluation tool allows for understanding and analyzing the progress of water supply and sanitation activities in real time. An autonomous system linked to the prevalence of cholera should be in place in order to ensure the follow-up and evaluation of immediate responses planned and implemented.
	Number of new Water Supply and Sanitation Committees **(CAEPA)** in place and operational	90	30	400,000	
	Number of Communal Administrative Councils (**CASEC)** actively involved in the water supply and sanitation sector	0	30	5,000	
	Number of **school inspectors** actively involved in monitoring the Alliance for Water, Sanitation, and Hygiene in School (EAHMS)	0	500	5,000	
	Number of **Multipurpose Community Health Agents** actively involved in the water supply and sanitation sector	0	500	10,000	
	Number of localities recorded	0	?	1,000,000	
	Number of base maps completed and regularly updated	0	1	5,000	
	Number of water point outlets geo-referenced	0	-----	50,000	
	Number of annual coordination meetings held	24	36	50,000	
Establishment of a **follow-up and evaluation system**. Development of	Number of evaluation tools in place	0	1		

ACTIVITIES	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
decision-make tools, holding of evaluation sessions.	Number of evaluation sessions carried out	0	4		
1.1 Result Water supply and sanitation known and regularly updated **1.2 Result** Water supply and sanitation sector activities coordinated, monitored, and regularly evaluated Percent of the population benefiting from the support of local authorities				**2,525,000**	
2.- Strengthening of DINEPA structures *Recruitment of qualified staff to strengthen the water supply and sanitation response at the national level* - Additional staff for DINEPA headquarters and decentralized structures. - Staff attached to sanitation at the central level and in the regional water supply and sanitation offices (OREPAs)	Number of **procurement specialists** recruited by DINEPA to strengthen this service in order to ensure implementation of the Plan	0	6	144,000	Two persons to be recruited for rapid actions at the central level and one person by OREPA for arrangement and follow-up of small local contracts. Estimated cost of US$2,000 x 6 per month
	Number of **sanitation staff** in place	8	12	144,000	12 staff members paid an average of US$2,000 Three technicians paid an average of US$2,000 280 community water supply and sanitation technicians (TEPACs) x 18 months x $500 + 22 x 6 months x $500)
- Recruitment of staff for the response structure during the dry season	Number of water supply **technicians** recruited for the response during the dry season	0	3	144,000	
- Payment for TEPACs as of 2013	Number of operational **TEPACs**	258	280	906,000	

ACTIVITIES	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
- Training of staff at DINEPA headquarters	Number of staff trained in sanitation	10	25	10,000	Over two years
- Technical training of staff from OREPAs, CTEs, and CAEPAs	Number of OREPA, CTE and CAEPA staff trained	10	2,550		
- Ongoing training of sanitary officers, health agents, and school inspectors on topics linked to water supply and sanitation	Number of sanitary officers and multipurpose community health agents trained	500	200		
2.1 Result: Water supply and sanitation staff strengthened				**1,348,000**	
3. Support for innovation - Feasibility studies on the provision of potable water through the use of **surface water**	Number of feasibility studies completed	2		2,000,000	5 million Haitians live in rural areas, so increasing coverage by 10% comes to $50 million
- Studies related to sanitation	Number of studies launched				
-Technical assistance in sanitation	International personnel maintained in their posts			96,000	
3.1 Result: Studies conducted and concluded				**2,096,000**	
SUBTOTAL: Institutional Strengthening of DINEPA				**6,905,000**	

WATER SUPPLY AND SANITATION COMPONENT: ACCESS TO POTABLE WATER

ACTIVITY	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
1. Construction, rehabilitation, expansion, and maintenance of water supply systems - In the area of metropolitan Port-au-Prince	Number of additional systems built	---	---	10,000,000	
- In medium-sized cities and small urban centers	Number of production systems completed or expanded	---	---		
- In rural areas	Number of new and operational rural potable water supply systems		---		
1.1- Result: 2% of new homes in the metropolitan area of Port-au-Prince are equipped with a potable water system *% of homes with access to potable water in the metropolitan area of Port-au-Prince*		50%	52%	10,000,000	Populations that currently have access only to river water benefit from priority interventions that enable them to have access to potable water (treatment networks, boreholes, or stations for potable water in households, etc.)
Result: 13.5% of new homes in 15 medium-sized cities (30,000 to 100,000 inhabitants) and 23 small urban centers (between 10,000 and 30,000 inhabitants) are equipped with a potable water system *% of homes with access to potable water in 24 secondary cities*					

ACTIVITY	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
1.2- Result: 7% of new homes in rural areas (towns of 3,000 to 10,000 inhabitants and localities of less than 3,000) have access to a potable water system *% of homes in rural areas with access to potable water*		53%	60%		
2. Preparation and implementation of a water quality control program including: - Cleaning of perimeters of collection sources (2 x 4 OREPAs) - Construction of protection perimeters - Chlorination of 100% of existing networks - Making water treatment products available in identified localities	Number of new sources where the perimeter is clean	---	---	1,000,000	
	Number of new sources where the perimeter is protected	---	---		
	Number of networks providing chlorinated water	---	---		
	Number of distribution centers for treatment products in place	---	100		
2.1- Result: Populations that currently have access only to river water benefit from immediate priority interventions that enable them to have access to household potable water systems % of the population having access to water of which the quality is guaranteed		---	100%	1,000,000	

ACTIVITY	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
3. Preparation and implementation of **water supply and sanitation responses in emergency situations**	Number of response actions by the Department of Emergency Response (DRU) or by humanitarian organizations following a catastrophe	---	---	720,000	DRU staff $20,000/month, financed until June 2013 by the World Bank. $10,000/month planned to finance the interventions. Technical assistance $40,000/month.
3.1 Result: A response structure during the dry season is established by teams from the Ministry of Health and DINEPA. **3.2 Result 2:** Areas identified as residual sources of transmission areas benefit from an immediate and conclusive technical response. **3.3 Result 3:** 100% of areas declared as residual outbreaks have benefited from control actions from water supply points % of the population living in former residual source areas benefit from potable water		---	100%	4,720,000	
SUBTOTAL: Access to Potable Water				**15,720,000**	

WATER SUPPLY AND SANITATION COMPONENT: TREATMENT OF WASTEWATER AND EXCRETA

ACTIVITY	INDICATORS FOR ACTIVITIES	BASE	YEARS 1 AND 2	FOR YEAR 1	EXPLANATORY NOTES
1. Follow-up of sanitation activities and **support for local governments**: - Continued support costs for training **300 TEPACs** - Equipping local governments for inspection and follow-up of sanitation actions	Number of local governments benefiting from support for improved involvement in wastewater management	0	20	100,000	20 total local governments (…. intermediate cities, ….. secondary cities,…..rural localities) are already programmed, 20 other local governments identified by the Ministry of Health will need to be added to the list of priorities on the basis of cholera residue. However, the group of local governments will be reached through the TEPACs to ensure and/or strengthen planning of future actions to monitor those in progress.
- Training, materials and communication tools for the CASECs	Number of CASECs active in promoting sanitation	0	20	50,000	
1. Result: Local officials involved in wastewater management and in effective follow-up of the sector. **% of the urban population benefiting from support and follow-up by local officials responsible for wastewater management.**				**150,000**	

2. Preparation and implementation of a Sanitation and Hygiene Promotion Plan (PAH) **<u>Communication and Promotion of Awareness</u>** - Development and dissemination of educational **materials**	Number of teaching kits designed/prepared and disseminated for use with the different targeted groups	6	6	2,000,000	Target groups: schools, regional and local markets, other public spaces (sports facilities, stations, etc.), religious festivities and other events where large numbers of people gather, health centers
- Carrying out **campaigns** in cities	Number of campaigns carried out in cities	0	3		8 annual campaigns by cities
- Integration of **CAEPAs** in the promotion of sanitation and hygiene	Number of CAEPAs benefiting from a sanitation focal point	30	30		Each CAEPA will be assigned to designate a sanitation focal point
- Preparation of an appropriate film documentary	Extent of the dissemination of the documentary film				Film to sensitize the public at large about the situation regarding cholera prevention and control.
- Competitions about safety **between groups from different localities**, through CASECs and CAEPAs	Number of competitions held	0	10		Competitions in Artibonite, the Northeast, and the Central Departments for a total of 10 networks
<u>Training</u> - Training and use of **multipurpose community health agents** in the PAH	Number of health agents identified and working actively in the PAH	1,500	3,000		1 agent for an average of 3 localities, or 1 agent per 1,000 habitants in rural areas
- Training of **masons** in cities and localities involved	Number of masons trained	0	100		An average of 3 masons in secondary cities

- Support for trained masons	Number of trained masons known in their localities				
Result: Population reached by key sanitation messages % of the urban population that has access for the first time to household sanitation through the zero subsidy approach		80%	82%	2,000,000	
Result: Rural population sensitized about the need to use adequate sanitary facilities for defecation (% of the rural population with access to a household sanitary facility)		50%	55%		
Construction of semi-collective sewerage networks and wastewater treatment stations in the main cities in the country (25): - Study - Construction - Control and Follow-up - Environmental and social standards	Number of sewerage networks regarding which studies are conducted	1	3	1,000,000	In 2022, studies will be completed in 15 of the 30 cities with more than 30,000 inhabitants In 2022, stations will be built in at least 25 cities In 2022, at least 3 bayakous per city of at least 300,000 inhabitants will be formalized
	Number of sewerage networks for which construction is undertaken	0	2	1,000,000	
	Number of new excreta treatment stations built to standards	2	6	1,200,000	
	Number of bayakous formalized	0	3	100,000	
Construction, repair, management, and maintenance of public toilets: - In schools	Number of public or mixed schools equipped with adequate sanitary facilities	460	1,000	5,000,000	In 2022, all public schools will have adequate sanitary facilities regularly used by the beneficiaries

- In other public areas	Number of markets equipped with adequate sanitary facilities	0	100		The unit cost per public location is between $10,000 and $40,000 depending on the intervention required, that is, construction or repair
	Number of public or mixed health centers equipped with adequate sanitary facilities	241	500		
	Number of other targeted public areas equipped with adequate sanitary facilities	0	100		
Result: Cities and towns benefiting from wastewater treatment and disposal services that are in accordance with social and environmental standards Impact: % of the total population that benefits from a healthy environment				8,300,000	Each Region has at least one excreta treatment site
SUBTOTAL: Treatment of Wastewater and Excreta				**10,450,000**	

ACTIVITIES	INDICATORS OF ACTIVITIES	
	ACCORDING TO THE ACTION PLAN	FOR YEAR 1
SUBTOTAL: Institutional Strengthening of DINEPA	74,000,000	6,905,000
SUBTOTAL: Access to Potable Water	81,000,000	15,720,000
SUBTOTAL: Treatment of Wastewater and Excreta	59,600,000	10,450,000
GRAND TOTAL	**214,600,000**	**33,075,000**

STRATEGIC INTERVENTION FRAMEWORK

SPHERE OF ACTIVITY: PUBLIC HEALTH

COMPONENTS:

- ***HEALTH CARE/MANAGEMENT***
- ***MEDICINES/INPUTS***
- ***EPIDEMIOLOGICAL SURVEILLANCE***
- ***HYGIENE PRACTICES***

SPHERE: HEALTH CARE	**COMPONENT: MANAGEMENT**

INDICATORS: *By 2015, there are no more deaths from cholera in public or private health institutions or facilities, with the exception of cases associated with other illnesses.*

RESULTS	ACTIVITIES	YEARS 1 AND 2		FINANCING 2013-2015	EXPLANATORY NOTES
		2013/2014	2014/2015		
Management of diarrheal diseases significantly improved and completely adequate	1.1. Organization of community meetings to transfer knowledge about management to community leaders	X	X	1,500,000	Community involvement in combating cholera in the 10 departments
	1.2. Organization of home visits by health agents	X	X		Home visits in vulnerable areas
	1.3. Training of field agents in prevention and management of diarrheal diseases	X	X		Providers (6,000) will be trained in cholera management
	1.4. Training of technical and support staff (health, brigadiers and rapid intervention brigades, 560 people and teams for the 10 departments)				
	1.5. Preparation of a contingency plan by commune	X	X		
	1.6. Support for training and organization of the community for surveillance of the ongoing availability of inputs at the local level	X	X		
	1.7. Establishment of oral rehydration points (PRO+) in areas without sanitary facilities and that are difficult to access (365)	X	X	2,000,000	Artibonite: 63; Northeast: 27; Northwest: 7; Central: 30; Grande Anse: 47; West: 80; Nippes: 32; South: 24;, North: 40; Southeast: 15
	1.7-Identification and regular control of stock, positioning of inputs in appropriate locations at the departmental and communal levels	X	X		

RESULTS	ACTIVITIES	YEARS 1 AND 2		FINANCING 2013-2015	EXPLANATORY NOTES
		2013/2014	2014/2015		
	1.8. Construction/placement of locations for management of patients with diarrhea in health facilities (infectious disease management unit)	X	X	3,000,000	Departmental hospitals: 10 Community reference hospitals: 30 Health centers without beds: … Health centers with beds: …
	1.9. Establishment of emergency funds at the departmental level	X	X	3,325,000	Funds to be made available to 10 BD to enable the DD to address outbreaks
	1.10. Harmonization of standards for the construction of cholera treatment centers in health centers and hospitals	X	X	5,000,000	Leadership of the Organization of Health Services will be involved
	1.11. Development/standardization and dissemination of standards and procedures for the prevention of infection in health facilities	X	X		This activity will be carried out at the central level
	1.12. Development, standardization, and dissemination of standards for the handling of cadavers	X	X		
	1.13. Hiring of additional staff (1,099 health professionals) needed in institutions	X	X	5,000,000	266 nurses, 400 auxiliaries, 133 doctors, 20 laboratory technicians

RESULTS	ACTIVITIES	YEARS 1 AND 2		FINANCING 2013-2015	EXPLANATORY NOTES
		2013/2014	2014/2015		
	1.14. Supervision: application of standards for management, decontamination, and verification of alerts	X	X	660,000	Supervision will be at several levels and several groups will be involved
	1.15. Response to alerts in the event of outbreaks	X	X		Management of outbreaks
	SUBTOTAL			**20,485,000**	

SPHERE: HEALTH CARE — COMPONENT: VACCINATION

RESULTS	ACTIVITIES	YEARS 1 AND 2		FINANCING	EXPLANATORY NOTES
		2013/2014	2014/2015	2013-2015	
2- *Reduction in the incidence of cholera through the targeted areas*	2.1. Operationalization of the vaccination plan	X		6,164,100	Strengthening of departments in terms of materials and staff. Purchase of vaccines and inputs.
	2.2. Design and production of management tools (vaccination cards, registration forms, record-keeping forms, etc.)	X			
	2.3. Identification, micro-planning, and eventually the preregistration of beneficiaries	X			
	2.4. Training of providers	X			
	2.5. Communications and social mobilization activities (radio and television spots banners, posters, community meetings, launch activities, etc.)	X			
	2.6. Strengthening the logistics of the cold chain	X			
	2.7. Operations (the actual vaccinations)	X			
	2.8. Follow-up and evaluation	X			
	SUBTOTAL			**6,146,1000**	
GRAND TOTAL				**26,649,100**	

SPHERE: HEALTH CARE — COMPONENT: MEDICINES/INPUTS

INDICATOR: *By 2015, all inputs are available in sufficient quantity and quality.*

RESULTS	ACTIVITIES	YEARS 1 AND 2		FINANCING	EXPLANATORY NOTES
		2013/2014	2014/2015	2013-2015	
3. Improved logistics to make inputs and medicines available and accessible to health centers for the timely handling of cholera cases	3.1. Standardization of tools for the management of cholera inputs	X	X	360,000	
	3.2. Updating, disclosure, and application of standards (signing of a protocol agreement and a convention protocol)	X	X		
	3.3. Updating of the information database/uniformity of management tools/implementation of Channel software	X	X		
	3.4. Supervision and awareness spots	X	X		
	3.5. Purchase of medicines and inputs to support health institutions in emergency responses linked to cholera	X	X	50,000,000	Purchase of Lactated Ringer's solution, antibiotics, chlorine products, and necessary materials
	3.6. Human resource needs – Recruitment of staff	X	X	1,464,000	Pharmacists (13), secretaries (2), and other staff (5)
	3.7. Strengthening the Ministry's supervisory capacity of the Center for the Distribution and Supply of Inputs (CDAI) (vehicles, cargo trucks, etc.)	X	X		

	3.8. Training of managers in the use of stock management tools	X	X		
	3.9. Creation and operation of a pharmacovigilance unit	X	X		
	3.10. Coordination meetings with partners	X	X		
	3.11. Construction and rehabilitation of the CDAI	X	X	3,000,000	
	SUBTOTAL			**54,824,000**	

SPHERE: EPIDEMIOLOGICAL SURVEILLANCE COMPONENT: QUALITY OF INFORMATION

INDICATOR: *Epidemiological surveillance, including microbiological and environmental surveillance, is carried out at the national level and in 100% of the targeted areas as of 2014.*

RESULT	ACTIVITIES	YEARS 1 AND 2		FINANCING	EXPLANATORY NOTES
		2013/2014	2014/2015	2013-2015	
4. Strengthening of epidemiological surveillance (including microbiological and environmental surveillance in collaboration with DINEPA) as a result of adequate training, early detection of cases, and timely alerts at the departmental and national levels with a view toward rapid and concerted action	4.1. Acquisition of information technology equipment and materials	X		850,000	Availability of materials and equipment for better information management
	4.2. Communications management support system (telephone, Internet)	X			
	4.3. Logistical support (vehicles, maintenance, and repairs)	X			
	4.4. Support staff to strengthen the team				Institutional strengthening
	4.5. Preparation of a list of illnesses under surveillance	X		100,000	Ensure better information management for decision-making
	4.6. Workshops on the validation of information				
	4.7. Daily verification and weekly analysis of alerts	X			
	4.8. Development of tools for surveillance by communities	X			

RESULT	ACTIVITIES	YEARS 1 AND 2		FINANCING	EXPLANATORY NOTES
		2013/2014	2014/2015	2013-2015	
	4.9. Revised training manual for health agents available	X			
	4.10. Revision of cholera surveillance tools	X			
	4.11. Technical assistance for the study and updating of surveillance systems	X		50,000	
	4.12. Updating of standards and procedures				Ensure better information management for decision-making
	4.13. Production and dissemination of the above-mentioned documents	X			
	4.14. Preparation of a legal framework/RSI 2005 (legal framework requiring private clinics to report cholera cases)			200,000	
	4.15. Updating of laboratory diagnosis protocols (technical assistance)				
	4.16. Training of community health agents in the use of tools for community surveillance	X			Ensure better information management for decision-making
	4.17. Training of providers (doctors, nurses, auxiliaries, and health officers)	X			

RESULT	ACTIVITIES	YEARS 1 AND 2		FINANCING	EXPLANATORY NOTES
		2013/2014	2014/2015	2013-2015	
	4.18. Training of laboratory technicians (departmental)	X			Ensure better information management for decision-making
	4.19. Training/rotation of departmental and central-level epidemiologists	X			
	4.20. Ongoing training on analysis and preparation of reports	X			
	4.21. Training for investigative teams and for departmental response	X			
	4.22. Updating and dissemination of performance indicators obtained	X			
	4.23. Updating of supervisory control tools and supervision of departmental and regional laboratories carried out regularly. Operational situation room at the central and departmental levels	X			
	4.24. Regular dissemination of an epidemiological bulletin on the cholera situation	X			
	SUBTOTAL			**1,200,000**	

SPHERE: EPIDEMIOLOGICAL SURVEILLANCE COMPONENT: RESEARCH CAPACITY

INDICATOR: *100% of alerts are verified and investigated, and investigative reports are available.*

RESULT	ACTIVITIES	YEARS 1 AND 2	FINANCING	EXPLANATORY NOTES
		2013/2015		
5. Epidemiological surveillance made effective with a strengthening de of microbiological and environmental surveillance, the establishment of a network of laboratories for the decentralization of biological capacity, and the integration of investigation, research, collection, and analysis of samples to better and more rapidly understand the evolution of diseases	5.1. Organized local response in targeted areas and in the rest of the country in accordance with standards	X	200,000	Have reliable information for timely decision-making
	5.2. Inputs and reagents	X		
	5.3. Capacity for prepositioning stock, rapid testing, and others	X		
	5.4. Repairs/construction of new departmental laboratory clinics involved in epidemiological surveillance			Have reliable information for timely decision-making
	5.5. Installation of space in laboratories to be equipped for water-quality surveillance	X	1,500,000	
	5.6. Equipment, laboratory accessories and reagents, and furnishings	X	780,000	
	5.7. Logistical support (transport system); institutional support (recruitment of qualified staff)	X	320,000	

	5.8. Preparation of an applied research program at the hospital level		200,000	Have reliable information for timely decision-making
	5.9. Follow-up on the resistance of *Vibrio cholerae* to antibiotics	X		
	5.10. Preparation of a national microbiological, immunological, environmental, and socio-anthropological research agenda	X		
	5.11-Proposals for appropriate protocols Technical assistance requested	X		
	SUBTOTAL		**3,000,000**	
GRAND TOTAL			**4,200,000**	

SPHERE: HEALTH PROMOTION COMPONENT: HYGIENE PRACTICES

INDICATOR: *By 2015, 70% of the population washes their hands after defecating and before eating.*

RESULTS	ACTIVITIES	YEARS 1 AND 2	FINANCING	EXPLANATORY NOTES
		2013 - 2015	2013 - 2015	
6. Knowledge and skills related to cholera prevention measures promoted among the at-risk population through the integration of health promotion aptitudes in the primary health care program	6.1. Intensification of interpersonal communication: Home visits and community meetings	X	480,000	Interpersonal communication is the best way to reach families and other organized groups in the community
	6.2. Mass communications campaign: -Production of audio and video material	X	1,500,000	This strategy of using the media allows for covering several targets
	6.3. Dissemination to the media (including community media)	X		
	6.4. Evaluation of campaign	X		
	6.5. Design/production of educational materials: cartoons, sketches/mimes, pamphlets, brochures and posters, songs, popular/participatory theater, jingles	X	600,000	The production of a range of materials will facilitate attaining the objectives because it can reach specific groups, particularly in remote areas

	6.6. Acquisition of communications equipment	X	1,000,000	The equipment is necessary for the production as well as the dissemination of materials

RESULTS	ACTIVITIES	YEARS 1 AND 2	FINANCING 1 AND 2	EXPLANATORY NOTES
		2014/2015	2014/2015	
Strengthened vigilance among the population in the face of the threat of cholera in the country	6.7. Training of community health agents: - Operationalize a network of community health agents in communes at risk for cholera	X	5,080,000	Strengthening the capacity and skills of community personnel can help improve community management and save lives
	6.8. Preparation of a work guide for community agents	X		
	6.9. Acquisition of work equipment for community health agents	X		
	6.10. Supervision and follow-up on the network of agents	X		
	6.11. Training of 1,200 health inspectors Strengthening the network of health inspectors	X	1,490,000	Strengthening the capacity and skills of community personnel can help improve community management and save lives

	6.12. Adaptation of training curriculum Adapt/design the work guide for inspectors in terms of the new Haitian context	X		
	6.13. Training of senior technical staff of the Directorate for Health Promotion and Environmental Protection (DPSPE) and other government institutions involved	X	620,000	Strengthening the capacity and skills of community personnel can help improve community management and save lives
	6.14. Meeting of central and departmental coordinators - Intersectoral collaboration meetings	X		
	6.15. Sectoral strengthening: -Recruitment of staff at the central, departmental, and communal levels	X	820,000	Structural strengthening is a way to guarantee that planned activities will be carried out
	6.16. Acquisition of logistical support: Vehicles	X		
	6.17. Material and equipment for quality control of drinking water from water supply networks and water points			
	6.18. Technical assistance	X		
	SUBTOTAL		**11,590,000**	

SPHERE: HEALTH PROMOTION — COMPONENT: FOOD HYGIENE

RESULT	ACTIVITIES	YEARS 1 AND 2	FINANCING IN US$	EXPLANATORY NOTES
		2013/2015	2013/2015	
7. Food hygiene practices strengthened in areas at risk for cholera in order to reduce the incidence of nutritional and diarrheal diseases	7.1. Control of food hygiene: -Preparation/dissemination of a communications plan for food hygiene and its integration into the DPSPE program	X	800,000	This control has not been assured for a long period of time. It is necessary to start up the process of considering different stages.
	7.2. Preparation of a training guide for food hygiene	X		
	7.3. Preparation of awareness tools (brochures, posters, etc.)			
	7.4. Integration of awareness activities about food hygiene into health promotion			
	7.5. Training of staff Training and rotation of health inspectors involved in the control of foods	X	240,000	Training of providers and beneficiaries is necessary to attain the objectives
	7.6 .Training of street vendors, hotel and restaurant staff	X		
	7.7. Technical assistance for 1 year	x	200,000	

	SUBTOTAL	**1,240,000**	

RESULT	ACTIVITIES	YEARS 1 AND 2	FINANCING IN US$	EXPLANATORY NOTES
		2013/2015	2013/2015	
8. Efforts to combat micronutrient deficiencies strengthened in areas vulnerable to cholera	8.1. Improvement in the nutritional management of cholera Revision of the cholera management protocol and introduction of zinc in addition to the oral rehydration solution	X	1,100,000	The benefits from the introduction of zinc for the management of diarrhea have been proven
	8.2. Integration into guides used in cholera awareness campaigns, the introduction of zinc in addition to the oral rehydration solution	X		
	8.3. Training of Ministry staff at the departmental and communal levels as well as of NGOs involved in cholera management	X		
	8.4. Supply of inputs: Provision of nutritional ration to malnourished children with cholera	X	6,640,000	The availability of inputs is indispensable to manage and attain the objectives
	8.5. Supply of zinc among the inputs that the Ministry provides to oral rehydration points and distributes to community health agents	X		

	8.6. Structural Strengthening: Strengthening of nutrition unit staff at the central and departmental levels	X	1,600,000	Structural strengthening is a way to guarantee that planned activities will be carried out
	8.7. Logistical support for supervision of nutrition activities in the cholera program		9,340,000	
	SUBTOTAL		**18,540,000**	

SPHERE: HEALTH PROMOTION — COMPONENT: HOSPITAL HYGIENE

RESULT	ACTIVITIES	YEARS 1 AND 2	FINANCING IN US$	EXPLANATORY NOTES
		2013/2015	2013/2014	
9. Protection of the environment in health institutions is strengthened	9.1. Implementation of hygiene control measures in hospitals: Updating of standards and procedures for hospital hygiene and biomedical waste	X X	200,000	The current situation in terms of hygiene at health institutions constitutes a risk for beneficiaries, relatives, and visitors. A global hospital hygiene plan is important to avoid nosocomial infections.
	9.2. Preparation of a plan for surveillance and prevention of nosocomial infections	X		
	9.3. Design of nosocomial hygiene tools	X		
	9.4. Establishment of a plan for the supervision of hygiene behaviors in health institutions	X		
	9.5. Training session on hospital hygiene for the community and departmental officials who are responsible for it (doctors, nurses, sanitary officers)			

	9.6. Construction of 15 wastewater treatment stations Rotation of the training of technical staff involved at hospitals	X		
	9.7. Acquisition of logistical support (2 vehicles, scooters, motorized pumps and accessories, chemical products, and protection materials)	X	230,000	Implementing the SISKLOR system for quality control of water at health facilities is in progress. It would be useful to expand it to all health institutions.
	9.8. Reevaluation of water storage structures at the institutional level	X		
	9.9. Expansion of the SISKLOR system: Training of staff in charge of disinfecting water and controlling chlorine residue Acquisition of control kits, disinfectant	X		
	9.10. Improvement in the skills of providers and in the infrastructure for the management of medical waste	X	1,420,000	The program for the management of hospital waste has been implemented. The rotation of staff and the lack of incinerators explain the need for training of senior staff and the acquisition of incinerators and protection gear.
	9.11. Training and rotation of health providers and support staff	X		
	9.12. Acquisition and installation of equipment for the treatment of hospital waste (50 incinerators). Supplies (garbage cans, bags, scrubs, boots, tillage tools, etc.) and consumables			

	9.13. Improvement in the handling of cadavers: Review and publication of standards and procedures for the handling of cadavers of patients with cholera	X	44,000	The handling of cadavers is one of the elements that must be taken into account to disrupt the cholera transmission chain, because poor handling of the bodies of cholera patients often constitutes a mode of transmission for the disease
	9.14. Training of staff in funeral homes and hospital morgues in the handling of cadavers of those who were sick with cholera	X		
	9.15. Support for periodic surveillance of funeral homes and morgues in health facilities	X		
	SUBTOTAL		**2,154,000**	
GRAND TOTAL			**24,074,000**	

ACTIVITIES	INDICATORS FOR ACTIVITIES	
	ACCORDING TO THE ACTION PLAN	FINANCING 2013-2015
SUBTOTAL: Management and vaccination	35,030,000	26,649,100
SUBTOTAL: Inputs	63,660,000	54,824,000
SUBTOTAL: Epidemiological surveillance	4,200,000	4,200,000
SUBTOTAL: Health promotion	16,984,000	24,074,000
GRAND TOTAL	**119,874,000**	**109,747,100**