| | |
|---|---|
| Project Name | Venezuela-Caracas Metropolitan Health... Services Project |
| Region | Latin America and Caribbean Region |
| Sector | HUMAN DEVELOPMENT |
| Project ID | VEPE50495 |
| Borrower | Government of Venezuela |
| Implementing Agency | Ministry of Health and Social Development (MSDS)<br>Address<br>Proyecto Salud, Ministerio de Salud y Desarrollo Social (MSDS)<br>Centro Simón Bolivar, Edificio Sur Piso 8,<br>Caracas, República Bolivariana de Venezuela<br>Contact Person: Dr. Waldo Revello, Project Coordinating Unit UCP<br>Tel: 582-481-1969<br>Fax: 582-483-4209<br>Email: pscoordinaciongral@Msds.Gov.Ve |
| Environment Category | B |
| Date PID Prepared | July 3, 2001 |
| Project Appraisal Date | April 9, 2001 |
| Projected Board Date | June 26, 2001 |

1. Country and Sector Background

Indicators of the health status of Venezuelans suggest that it lags behind that of the populations of countries with similar per capita income. This situation is due in part to Venezuela's relatively low level of expenditures on health, to unusually high fluctuations in public expenditures on health, and to numerous inefficiencies and inequities in the health system. Venezuela's health system suffers from significant gaps in the area of public health interventions, has an unusual level of fragmentation and duplication of medical care services, suffers from an incomplete and imperfect decentralization, is often poorly managed, and makes insufficient efforts to reach the poor.

The main sector issues are: a) Lagging health status indicators; b) the need for a new health law to implement the framework set forth in Venezuela's Constitution to begin to unify the public health system and, to consolidate decentralization and public participation; c) low and fluctuating public expenditures on health; d) weaknesses in public health measures; e) duplication of clinical care services; f) poor management of health care facilities; and g) inequity in health care.

2. Project Objectives

The development objectives of the proposed project are:

- To expand the access to and improve the quality and efficiency of

ambulatory care services, pre-medical emergency medical services (ambulance system, communication system, and para-medic teams), and outpatient services of hospitals, for 2.4 million vulnerable persons living in selected municipalities and parishes of the Metropolitan District of Caracas (MDC);
- To improve the management of the health care system and support the decentralization process in the health system of the MDC; and,
- The development of HIV/AIDS prevention and control strategies and activities in the MDC.
The proposed project is expected to contribute in the medium-term to the improvement of the health status of the most vulnerable population in the MDC.
The proposed project would build upon and complement two World-Bank (WB) financed projects: the ongoing Health Services Reform Project (3823-VE) and the recently completed Endemic Diseases Control Project (3538-VE).

3. Project Description
Component #1: Strengthening Health Care Networks--US$ 44.07 million.
Under this component, the project would support: (i) the delivery of a comprehensive health care program targeted at the vulnerable population of the MDC by supporting the development of a new health care model, emphasizing the organization in networks of existing ambulatory centers, pre-hospital emergency medical care services (ambulance system, communication system, and para-medic teams), and outpatient departments of hospitals, in each of the selected districts and municipalities of MDC; and (ii) the improvement of the diagnostic, treatment, and medical waste management capacity of network facilities to provide appropriate and timely quality health care on an ambulatory and inpatient basis.
The project will finance subprojects for the rehabilitation and/or construction of physical infrastructure, equipment, communication systems and ambulances for patient referral and emergency care, training of health personnel, education and communication activities, and technical assistance for the improvement of supply systems, and development of maintenance systems for physical infrastructure and equipment.

Component #2: Institutional Development--US$ 6.84 million.
To ensure the virtual integration of health facilities into networks and efficient and effective delivery of the comprehensive health care program, the project would support under this component the institutional modernization of health networks.
The project would finance under institutional development subprojects technical assistance, training and systems development to modernize health care organization and management structures and practices, including management information, health care financing and quality assurance systems, and human resources development.

Component #3: Development of Strategies and Activities for HIV/AIDS Prevention and Control in the MDC--US$ 2.74 million.
The project would finance technical assistance, equipment, training and workshops to support the formulation and implementation of prevention and control strategies and activities for HIV/AIDS and Sexually Transmitted Infections (STIs) including information, education, and communication campaigns to raise awareness and change behavior to reduce HIV/AIDS and STIs transmission, particularly among high-risk groups; development of a second generation HIV surveillance system in the MSDS; development of an information

system for the control and follow up of HIV/AIDS patients; development of action plans; training of health personnel; and equipping of two HIV/AIDS diagnostic centers.

Component #4: Development of Legal and Organizational Instruments and Models in the MDC US$0.800.
The project would finance technical assistance and activities to support health sector reform efforts at the MDC. Assistance would cover issues that might affect the health services network modernization objectives in the MDC, and those that could facilitate the definition of new institutional roles at the different levels of the health system in accordance with the policy guidelines set by the MSDS.

Component #5: Project Administration and Evaluation--US$ 5.54 million
This component will support project management, monitoring, supervision and impact evaluation at the different levels of the system.

4. Financing
The total cost of the proposed project is US$60.3 million

5. Project Implementation
The project would benefit from structures and procedures established in the MSDS for executing the WB-financed Endemic Disease Control Project (Ln.3538-VE) and Health Services Reform Project (Ln. 3823-VE). Project implementation will be under the responsibility of the MSDS'Project Coordination Unit (PCU), which was established in January 1993 for managing the implementation of all projects financed by international agencies, including the WB and the International Development Bank (IDB).
Each health directorate at the MDC would appoint a project team with a coordinator and other staff required to coordinate with the PCU the implementation of project activities in their respective localities. The project team would be responsible for: (i) preparing annual implementation plans, including proposals for requesting state and municipal funds; (ii) monitoring implementation of all local-level activities included in the annual plans; and (iii) reporting semi-annually to the PCU.

6. Project Sustainability
The project would be sustainable because it enjoys support at the highest political levels; major sectoral stakeholders have been involved in project preparation and would participate in project implementation assuring country ownership; the fiscal impact of the investments is expected to be modest; and project implementation would be managed by a strong technical group at the PCU, with vast experience in managing projects financed by the WB and the IDB, with support from MDC teams. In addition, strong commitment of Government for counterpart financing has been obtained.
Project sustainability depends on the capacity of the Government to cover the operating costs of project investments. The following project elements will ensure the long-term sustainability of the project: (i) ambulatory services, including outpatient services in referral hospitals, will be favored over inpatient services, further decreasing the incremental recurrent costs; (ii) it will refrain from creating new staff positions; and (iii) pharmaceuticals, medical supplies and the salaries of PCU staff and the operating expenditures of the PCU will be financed 100% by the Government.

7. Lessons from Past Operations
The design and content of the proposed Caracas Metropolitan Health Services Project builds on the experience with the two WB-financed projects: the ongoing Health Services Reform Project and the recently completed Endemic Diseases Control Project. The Health Services Reform Project supported a comprehensive health care strategy developed in Aragua State and other experiences in the Zulia, Falcon, and Trujillo States. The lessons from these projects are: successful implementation is closely associated with: (i) linking the definition of project objectives and scope to a clear policy framework; (ii) obtaining strong and sustained government commitment; (iii) designing simple projects with focused and modest objectives; (iv) linking financing of critical investments to the implementation of policy and/or institutional reform; (v) community participation ensures ownership of project activities; (vi) periodic evaluation of the project is essential to allow adjustments to be made to the project design and its implementation arrangements; and (vii) conducting intensive technical supervision by the WB.

8. Government Commitment
- A letter from the MSDS to Country Unit Management of the WB dated April 30, 1999, requesting a mission for the identification of the proposed Caracas Metropolitan Health Services Project; and
- agreements reached by officials from the Venezuelan Ministry of Finance (MOF), Ministry of Planning, and the MSDS on project's objectives and scope, as detailed in preparation mission's Aide Memoire documentation. Ministry of Planning has included the proposed project in the Ley Paraguas for 2000-2001 that authorizes the contracting of loans from international organizations.

9. Environmental Aspects
Category B. See Annex on environmental aspects.

10. Program Objective Category
The category for this project is Poverty Reduction and Human Resource.

11. Contact Point

Task Manager: Patricio Marquez
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433
Telephone No.: (202) 473-0163

For information on other project related documents contact:

The InfoShop
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433
Telephone No.: (202) 458-5454
Fax No.: (202) 522-1500

Note: This is information on an evolving project. Certain components may not necessarily be included in the final project.

Annex

Caracas Metropolitan Health Services Project

Management of Medical Waste Produced in Health Facilities in the Caracas Metropolitan Area

The medical waste produced in health facilities is potentially hazardous, infectious, contagious, or toxic. This annex assesses medical waste handling and disposal procedures, and proposes a number of measures to improve the management of medical waste produced in health facilities in the MDC.

A. Risks of Inadequate Management of Potentially Hazardous Waste Produced by Health Facilities

About 10-20% of the waste produced in health facilities is potentially hazardous, infectious, contagious, or toxic, posing health risks to staff who handle waste in health facilities and to urban waste collection operators and scavengers in landfills. Such waste also causes environmental pollution and a high risk to national public health. Among the infectious diseases that may be spread by medical waste are hepatitis, HIV/AIDS, tuberculosis, cholera, cellulites, staphylococcemia, meningitis, amoebiasis, and others. Other diseases may be caused by radiation and toxicity due to metals such as mercury, lead and cadmium.

In light of the above, it is important to know the amount of total waste, in particular potentially hazardous waste, produced in health facilities. In Central America, for example, 14 million kg of waste are produced each year in the region's hospitals. In Honduras, each hospital bed generates 4.21 kg of waste each day, of which 1.43 kg are hazardous. In Central America, 40% of this waste is hazardous, much higher than the rate in the United States that is only 15%. The "Waste Management Plan in Health Facilities of the Caracas Metropolitan Area," prepared by the MSDS and Pan-American Health Organization (PAHO)/WHO in 1997, estimates that for each hospital bed in the area, 5.95 kg of waste are generated per day, 1.19 kg of which is potentially hazardous.

Hospitalized patients also run the risk of contracting intra-hospital illness due to poor sanitation practices in hospitals; between 10% and 15% of patients contract other infections during their stays. However, hospital staff is the ones at highest risk of infection by handling medical waste, especially if done improperly. According to available data, in the United States each year 64 health workers contract HIV and 12,000 contract different types of hepatitis from contact with medical waste, especially contaminated needles and surgical equipment. Of these, 250 die.

A report by the Sao Paulo Association of Studies on the Control of Intra-Hospital Infections in Brazil indicates the alarming figure of 70,000 cases of work-related accidents per year in that country, due to improper handling of hazardous hospital waste. Other data show that 18% of hospital workers become ill from sharp/pointed objects, 18% contract illnesses from handling trash containers, and 14% from needle pricks. Of these, 27% are nursing staff and 20% are janitorial staff. A study carried out in Mexico estimated the risk of injuries caused by hazardous waste among different occupational categories: janitorial staff 35%, nursing staff 27%, medical students 20%, medical residents 7%, surgeons 4%, laboratory technicians 3%, anesthesiologists 2%, and gardeners 2%.

B. Regulations Governing the Management of Medical Waste in Venezuela

The following legal framework regulates the management of medical waste in the health facilities of the MDC.

The Constitution of the Bolivarian Republic of Venezuela
Art. 83: ... "All persons have the right to health protection, as well as the duty to participate actively in health promotion and defense, and to comply with health and sanitation measures stipulated by law, in accordance with international treaties and agreements signed and ratified by the Republic".
Art 84:... "The public health system shall give priority to health promotion and disease prevention..."
Organic Law of the National Health System
Art. 22: "The Environmental Sanitation Subsystem shall consist of a set of functions and activities aimed at improving the human environment by means of eliminating or controlling disease-causing agents in order to make it healthier and more pleasant and adequate so that it does not affect health, in coordination with the Ministry of Environment and Renewable Natural Resources and other public or private entities dealing with the environment, safeguarding stipulations of the Organic Law of Prevention, Conditions and Work Environment."
Presidential Decree 2.218 published in official Gazette 4418 dated April 27, 1994: "Regulations for Waste Classification and Management in Health Facilities".
Art. 1: "The objective of the present Decree is to establish the conditions under which waste generated in facilities related to the human or animal health sector should be managed, for the purpose of preventing microbial contamination and infection in users, workers and the public, as well as environmental contamination".
Art 5: "Waste generated in health facilities, for purposes of the present decree, is classified as":
Common Waste (Type A): Common waste is considered to be that whose basic components are: paper, cardboard, plastic, food residue, glass, trash components generated in administrative areas, general cleaning, food preparation, warehouses and workshops, provided they have not been in contact with waste classified as B, C, D and E.
Potentially hazardous waste (Type B): Potentially hazardous waste is considered to be those materials, which although not hazardous by nature, due to their location, contact or any other circumstance may be contaminated, including waste from inpatient and outpatient care.
Infectious waste (Type C): This is all waste which, by nature, location, exposure, contact or any other circumstance, may potentially contain infectious agents, from water, areas of seclusion and/or treatment of infected-contagious patients, from biological activities, from operating rooms, delivery rooms, obstetric wards or the rooms of corresponding patients, emergency care departments, hemodialysis services, blood banks, laboratories, research institutes, morgues, pathology departments, autopsy rooms, and any area that may generate infectious waste.
Organic and/or biological waste (Type D): This includes all parts or portions extracted and/or originating from human beings and animals, living and/or dead, as well as the containers that hold them.
Special waste (Type E): These are pharmaceutical or chemical products and residues, radioactive materials, flammable liquids, as well as any others catalogued as hazardous but not included in the previous groups. Such waste will be managed separately and be regulated by provisions in the Regulations for the Control of Hazardous Waste Generation and Management.
Art. 33: "All public or private health establishments whose size and type so require, in the judgment of the relevant health authority, should have an

Office of Sanitation and Maintenance, under the responsibility of a specialized professional with the necessary authority to fully comply with these Regulations."

Art. 34: "The Office of Sanitation and Maintenance should implement directed, controlled training programs for waste management, including:

a) In-service training for all staff in health establishment, so that they may acquire information and criteria to ensure the safe, rational management of waste;

b) sanitation, maintenance, cleaning and disinfection programs to ensure asepsis conditions in equipment, installations, auxiliary elements and places used in waste management; and

c) programs for operation and maintenance of installations and equipment such as incinerators, refrigeration systems, sterilizers, steam systems, boilers, auxiliary electrical plants, and others."

Other Legal Provisions That Regulate Solid Waste

Other legal provisions that regulate the management of solid waste produced in health institutions include the following:

- Penal Law on the Environment;
- Organic Law of Decentralization, delimitation and transfer of duties of public authority;
- Partial reform of the Organic Law of the Municipal Regime;
- Decree 638: Regulations on water quality and air pollution control;
- Regulations for the establishment of requirements for infrastructure and medical equipment;
- Regulations for hospitals, health posts, sanatoriums, infirmaries, and similar places; and
- Venezuelan regulation COVENIN 2339: clinics, polyclinics, institutes or private hospitals classification.

C. The Current Management of Medical Waste in Health Facilities in the Metropolitan District of Caracas

In the MDC, no reliable technical procedures are currently used in the management of medical waste in health facilities for the following reasons:

- Regulations governing waste handling are unknown by medical, nursing, and maintenance staff and by other staff who handle waste;
- health institutions' infrastructure is inadequate with regard to internal means of transferring waste such as: elevators, freight elevators, and specific elevators for potentially hazardous waste. Likewise, there is a lack of appropriate internal transfer vehicles, and waste is transferred in plastic bags to open-air containers without any protection;
- there is a lack of proper, isolated, and protected places for disposal of potentially hazardous waste until collected by urban waste collection operators;
- most incineration units are obsolete or not working;
- there is a lack of classification and separation of different types of waste, which leads to their being mixed with waste that may be considered potentially hazardous;
- there is a lack of training of staff in places where waste is produced and of staff who handle it internally, until its final disposal within the health facility, prior to collection by the city waste collection operator; and
- waste is improperly handled by urban waste collection operators, with final disposal in the open or in common dumps where potentially hazardous or toxic waste is mixed with common waste, causing risks to

trash scavengers, public health in general and the environment.
The current situation in the hospitals of the MDC is documented in the "Diagnosis of Waste Management in Public Hospitals of the Capital Region," prepared by the Sanitation Engineering Service of the X Environmental Sanitation Region of the MSDS. This study evaluated 23 public sector hospitals and showed the following:

- Classification and separation of waste--not done in any center;
- primary storage of waste--9% done well, 65% fairly, and 26% poorly;
- internal transportation of waste--96% done fairly, and 4% done well; and
- final storage--4% done well, 61% fairly, and 35% poorly.

D. Conclusions and Recommendations

Conclusions

- Improper waste management leads to the production of work-related illnesses among health workers, urban waste collection operators and scavengers in landfills. It also causes environmental pollution and risks to public health in general;
- lack of knowledge about the legal regulation that governs the management and final disposal of medical waste;
- equipment are insufficient and obsolete and the infrastructure is lacking for proper internal management of medical waste;
- there is improper management by operators of urban waste collection;
- the final disposal of potentially hazardous waste is highly risky to public health; and
- a National Plan for the Comprehensive Management of the Handling of Medical Waste generated in health facilities is lacking.

Recommendations

The proposed project would support: (i) an assessment of medical care waste handling and disposal in ambulatory facilities of MDC; (ii) the revision and updating of the existing manuals for the handling and disposal of medical waste in health facilities; and (iii) the training of health personnel associated with programs and activities under the project in the application of these manuals to protect high-risk human groups such as patients as well as health staff in the participating facilities.