A LEGACY: THE CASE OF THE HEALTH SECTOR PROJECT IN EL SALVADOR

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KEY MESSAGES:

- The El Salvador Strengthening Public Health Care System Project’s success resulted largely from the Salvadoran government’s unwavering commitment to and ownership of the Project and its goals. The Project achieved its objectives and beyond and supported shaping the future provision of health care services in the country.

- The improvement of the quality of health services was ensured through major updates in medical and non-medical equipment, rehabilitation of hospitals, training of health-care workers, prompt response to emergencies and expanding the health ministry’s capacity to analyze health data. The Project ensured for first time in the public services a full cycle of treatment for cancer patients by creating the National Radiotherapy Center for Cancer; improved response to infectious diseases with the strengthening of the National Reference Laboratory; and ensured protection of the investment on equipment with the creation of the National Medical Equipment Maintenance center and affiliated regional units.

Background

Under Legislative Decree No. 201 published in the Official Newsletter No. 224, Book No. 397 on 28 November 2012, the Government of El Salvador announced a World Bank loan for US $80 million under the El Salvador Strengthening Public Health Care System Project. It became effective on September 2013 and was active until May 2018.

The Project aimed to directly benefit 2.1 million people through primary health care coverage. Most of those lived in the 92 of the poorest municipalities and were vulnerable women and children. It focused on improving services and equipment for: maternal health, reproductive and sexual health, teenage pregnancy and nutrition and children’s health. The project had influence nationwide with interventions at the third level, including hospital services, emergency response, clinical laboratories, the upgrade of the information system, regulation, a drug surveillance system and the Radiotherapy Center as detailed below.

Results

The Project largely succeeded in attaining its goals and in producing health-services improvements in areas that were not specifically measured. It had an important impact on expanding and improving health resources.

The biggest success was in increasing the percentage of births that occurred in health facilities in the 90 targeted municipalities. Working from a baseline of 81 percent for 2012, the Project set a goal of having 84 percent of births occur in facilities by 2018. That goal was substantially exceeded: 99.8 percent of births occurred in facilities by the end of 2017.

The increase in institutional deliveries, combined with improved neonatal equipment, had dramatic results. The maternal-mortality rate fell to 31 deaths per 100,000 live births in 2017 from 65.4 deaths in 2006. Infant mortality dropped to 12.5 deaths per 100,000 live births in 2017 from...
26.9 in 2000.

The Project also succeeded in getting hospitals to dispose safely of their biohazardous waste. The original target of 14 hospitals was increased to 26 hospitals during the Project. The new goal was surpassed when 30 hospitals began following environmental regulations for biohazardous-waste disposal.

The third major goal – increasing pentavalent vaccinations – was partially attained. The goal was to have small annual improvements in the percentage of children younger than 1 year old receiving a third pentavalent vaccination. The goal was to increase the percentage from 92.5 percent in 2013 to 92.8 percent in 2017. The goals were attained in 2013, 2014 and 2016 and missed narrowly in 2015.

In the Project’s final year (2017), the vaccination rate fell sharply, to 80.6 percent from 95 percent in 2016. The decrease was attributed to gang violence, which deterred some families from traveling to health facilities. El Salvador’s well-known gang-violence problem was acute in the 92 municipalities, 90 of which are considered highly dangerous. The Project was not ready to overcome gang violence.

The Project measured other improvements such as training 1,429 health professionals in best practices for monitoring the effects of drugs to identify and evaluate adverse reactions, to complement the improvements to the national medicine policy that helped ensure that hospital pharmacies had equipment to safely store and preserve drugs.

The health-information system involved building a US $2.8 million system that linked 11 metropolitan-area hospitals and the health ministry. The system vastly improved the ministry’s ability to analyze health indicators and vital statistics so it could make better-informed decisions on health policy.

The Project also focused on strengthening various areas:

- **Community work**: An investment of US $0.22 million strengthens resources for health promotion and health committees, increasing the efficacy of interventions in communities and social involvement.

- **Prioritization of specific programs**: US $2.6 million was spent on high-priority programs such as acquiring vaccines for maternal and child health programs. These programs also received basic resources of about US $500,000. Fumigation equipment including vehicles were obtained to control arboviruses, and health promoters received training.

- **Interventions for chronic kidney disease**: The Integrated Network for Health Services received dialysis equipment, kits with resources, and medicines for patients with chronic kidney disease. Project investment totaled US $1.8 million. A new hemodialysis unit was opened in the San Pedro Hospital where the prevalence is high and was equipped to target chronic kidney disease with kidney dialysis machines, supply kits and medicine for patients with chronic kidney disease.

- **Quality assurance**: The health ministry’s management capacity was improved through the quality-assurance system, which certifies health establishments using criteria that evaluate performance. A regulatory framework and its tools were developed and standardized for the accreditation system.

- **Improving El Salvador’s emergency-medical system**: The Project paid for a modern digital-radio system to connect the eight hospitals in the San Salvador area and improve communication concerning patients in transport. The Project spent US $3.7 million to buy 44 ambulances. The improvement of emergency and specialized care aimed to address the growing incidence of noncommunicable diseases such as hypertension, heart disease and cirrhosis, which are a major burden for El Salvador’s health system.

In addition to working on the aforementioned areas, the Project invested in institutional improvements as specifically described below:

**STRENGTHENING THE PRIMARY AND SECONDARY LEVELS OF CARE**

The steps to expand health services for vulnerable Salvadorans centered on improving health-care facilities that provide general and specialized care. Through equipment purchases and rehabilitation work, the Project improved 51 primary-care health centers and 30 secondary...
and tertiary hospitals, which treat patients for emergencies (secondary care) and provide specialized treatment such as cardiac surgery and cancer treatment (tertiary care). Primary care was strengthened with US $3.9 millions of investments in medical and non-medical equipment consisting of:

- Odontology equipment such as ultrasonic equipment and photo polymerized lights;
- Office supplies;
- Transportation equipment for different health ministry units;
- Equipment for the central ministry warehouse including industrial security, a closed-circuit system for video surveillance, shelving and trolleys;
- Fumigation equipment to fight arboviruses (dengue, zika and chikungunya);
- Information equipment and mobile devices such as tablets;
- Physical therapy equipment (electro muscular stimulator and exercise equipment).
- Primary-care hospitals also were improved through $5.5 millions of rehabilitation and maintenance work in 51 Community Family Health Units. The work included painting, replacing and repairing roofs, windows and doors and electrical, sanitary and hydraulic systems. El Salvador’s 30 national hospitals were improved with US $27.9 millions of high-technology medical and non-medical equipment such as imaging equipment and the systems for reading results such as X-ray, ultrasound, endoscopy/colonoscopy and angiograph devices.
- Ventilators, defibrillators, monitors of vital signs including brain activity and electronic beds
- Incubators, neonatal ventilators and monitors
- Surgical equipment such as operating tables and sterilization chambers, LED lights and anesthesia machines

**CREATION OF THE NATIONAL CENTER FOR RADIATION THERAPY FOR CANCER CARE**

The Project promoted within MINSAL the work in the monitoring and care of chronic noncommunicable diseases, favored the creation of a Directorate to work on this issue, contributed to the definition of regulations and manuals for the care of these diseases and allowed to complete the cycle of care for cancer patients through the creation of the National Center for Radiotherapy (CNRT), which opened in December 2017, provides outpatient care for referred patients at specialized tertiary-care hospitals.

The Center provides outpatient consultation, radiotherapy treatment and areas of preparation and recovery. The Center is the first high-technology radiotherapy service available to the health ministry. The investment was US $8.0 million. The Center is expected to treat 2,000 to 2,200 cancer patients a year and reduce cancer morbidity and mortality and patients’ out-of-pocket spending on treatment.

The funding paid for two linear accelerators, a brachytherapy device, an X-ray machine, computerized axial tomography equipment, basic medical equipment and for otolaryngology. It also paid for training of health professionals such as medical physicists and biomedical technicians.

**IMPLEMENTING THE PROGRAM FOR PREVENTIVE AND CORRECTIVE MAINTENANCE OF HOSPITAL MEDICAL EQUIPMENT**

El Salvador’s investment in medical and non-medical equipment is over $180 million dollars (WB, 2018). The World Bank Project strengthened the capabilities of the Ministry of Health to maintain, repair and ensure effective performance of this investment. It specifically allocated funds to train personnel in charge of maintenance of health establishments at the national level, 30 empirical staff and 25 biomedical technicians.
In addition, the Project invested US $0.5 million in the adaptation of the facilities for the National Biomedical Laboratory and US $3.5 million was spent buying metrology and calibration equipment, vehicles, tools, teaching equipment and spare parts. The Laboratory has several components:

A Metrology Laboratory would verify calibration of equipment used to measure weights such as scales.

A Quality Control Laboratory for Diagnostic Radio Equipment would verify if the radiology diagnostic equipment such as analogic and digital X-rays are calibrated and administer doses according to the parameters programmed by the user.

An Electricity and Electronics Laboratory would train personnel in the application of electromedicine. Support will be given to hospitals with technical advice in the maintenance and repair of medical equipment of medium and high complexity.

STRENGTHENING THE NATIONAL INSTITUTE OF HEALTH (INS)/ NATIONAL REFERENCE LABORATORY

The National Institute of Health (INS) is considered the center of Health Development and Research in MINSAL with US $1.6 million from the Project, the INS has carried out different investigations, the most relevant being the National Health Survey of 14,160 households. The survey analyzed indicators and trends of health, with an emphasis on child health and sexual and reproductive health. Research also included a National Survey of Chronic Noncommunicable Diseases in Adults in El Salvador - ENECA-ELS 2015, which made El Salvador a pioneer in this type of research.

The results have allowed the development of a program with a systematic, epidemiological and clinical approach for the prevention, assistance and rehabilitation of chronic noncommunicable diseases. The Project spent US $2.6 million acquiring laboratory equipment, reagents and air conditioning, and US $8.2 million on infrastructure that will allow the National Reference Laboratory to have a new operations center and make it one of the most modern in Central America.

Next Steps

As the health system adapts to better respond to the burden of disease in the country, the question of how to better protect the human capital remains. The health sector in El Salvador could play a pivotal role in the protection of the human capital with the enforcement of basic policies to protect the new generations in their first 1000 days, support the multisectoral work on the prevention of teen pregnancy & skills engagement of the youth, support the introduction of regulations to sugar sweetened beverages and highly processed foods, and promote multisectoral public policies to delay the onset of chronic diseases.

Thomas Frank, Evelyn Rodriguez and Alejandra Garcia-Meza contributed in the final preparation of this note. This HNP Knowledge Note highlights the key results from the Health Project in El Salvador Strengthening Public Health Care System

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