Current Trends in the Healthcare System and Facilities in Venezuela

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In 1999, a new government came into power in Venezuela. This new government, labeled "Socialism of the XXI Century" introduced many changes to the Health Care System and in doing so, created a parallel system to the existing one. These changes impacted healthcare delivery, facilities, administration, medical personnel and staff. Additionally, medical facilities architecture, project management and construction were also affected. The government dedicated extensive time and resources to implement this new system, including remodeling and modernizing existing facilities, but the program has proven unsuccessful. The construction process has left public hospitals with limited operational capabilities and as a result, private hospitals have seen a surge in demand. To meet this demand private hospitals have had to invest in capital projects to expand capacity. This research paper is an analysis of the impact of the changes to the healthcare system on the architecture, construction and programming of healthcare facilities in Venezuela.

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The Health System and the health facilities

In Venezuela, a country with 28 million inhabitants, the healthcare system is provided by two large sectors: public and private. Each sector has its own facilities, but with the same rules and regulations for design and construction established by the Ministry of Health (now titled the Ministry of the Popular Power for Health, Ministerio del Poder Popular para la Salud MPPS). Health care in public hospitals is free of charge as

established by the Constitution, and private care is financed by insurance companies and the patients. The MPPS estimates that 80% of the population utilizes the public sector and 20% the private.
There are several public institutions that deliver health care, the main ones are: MPPS, the Institute for Social Security (IVSS), and the military health service (SSFA). Since their founding, the IVSS and SSFA provided services strictly to members and family, but in the last decade they have opened to the public. While they are open to the public, they are still dependent on social security and the military for funding.
For years, a new law for a National System of Health has been pending approval. This law would unify healthcare services through an integrated and decentralized network of defined services with clear competencies at the national, state and municipal level.
Since 1983, the public health care facilities have been classified by the Ministry of Health as Ambulatories (urban and rural) and Hospitals (type I: 20-60 beds, type II: 60-150 beds, type III: 150-300 beds, type IV: >300 beds).This classification determines the level of complexity, level of medical care and population coverage.
The public hospitals now in operation are 20 to 50 years old and during this time been remodeled and modernized. They are currently in the process of installing new technologies.

Dependency	Nº Hospitals
MPPS	217
Social Security	33
Military Hospitals	13
Petroleum Company PDVSA	3
Total	**266**

Table 1. Amount of public hospitals and dependence. Venezuela 2009. Source: MPPS. Misión Barrio Adentro III 2009.

Figure 1. Hospital Domingo Luciani. Type IV, (IVSS) 1984.

In addition to the public health system there is a private system made up of more modern, specialized hospitals, ambulatory services and day hospitals. These facilities are smaller and have less capacity than public facilities. Among the 457 existing private hospitals (profit and nonprofit) only 35 have capacity larger than 60 beds.

In the last 30 years Venezuela's population has doubled while the government has only built 5 public hospitals increasing capacity by only 1%. Public hospitals have a maximum capacity of 42,000 beds, currently only 16,000 function properly. The private sector, as of 2013, had 7,300 beds representing 50% of the actual public functional beds.
At this time the number of operative facilities does not meet demand and cannot provide the level of services required. This is due to a deficit in infrastructure, inefficient and obsolete architectonic capacity, poor distribution, limited availability of physical, human and technological resources, unprofessional institutional management and lack of criteria and best practices that support the construction of hospitals by

pathologies instead of general hospitals The most critical areas to specialize by are: emergency departments, surgical suites, maternity and delivery rooms, and intensive care. (RSCMV, 2013)

MISSION BARRIO ADENTRO

Beginning in 2003 a new model of heath care was established: Mission Barrio Adentro (BA). This model was inspired by the Cuban model and a cooperation agreement was signed with Cuba which created a system parallel to the existing one[1]. This Mission is adscript to MPPS with its own doctors, staff, programs, procedures, budget, and facilities. This fact needed a new typology, classification, and operatively of the services delivered.

Facilities	Quantity
General Hospitals	172
Specialized Hospitals	34
Urban Ambulatories	900
Rural Ambulatories	3.874
Consultorios Populares	6.708
Popular Clinics	12
CDI	499
CAT	21
SRI	545

Table 2. Health facilities that belong to MPPS, 2008, including the ones from BA. Source: Dirección General de Hospitales. Misión Barrio Adentro.

This Plan has been implemented in 4 stages: Barrio Adentro I, started in 2003 with the construction of popular consultation (consultorios populares) to provide primary care services. These offices are 100 m^2, and have the objective to cover 1.200 inhabitants or 250 families each one. They include a residence for the doctors, 24 hours attention, and are located in barrios with high population density, located on the outskirts of large cities.

Barrio Adentro II, started in 2005; provides services for the second level of health care, the facilities are named Center for Integral Diagnosis (Centros de diagnostico Integral CDI), Rooms for integral rehabilitation (Salas de rehabilitacion integral SRI) and Center for high technology (Centro de alta tecnologia CAT). Some function in new buildings and others in remodeled existing buildings. All of them in an outpatient (ambulatory) basis. The CDI provides emergency attention with appropriated areas of: intensive care, some have surgery suites, X ray, ultrasound, endoscopy, clinic laboratory and clinic ophthalmology. The program includes a basic area of 700 m^2. The CAT offers services of clinic laboratory and imaging including tomography, magnetic resonance, X ray, mammography, endoscopy, and ultrasound in a basic area of 500-700 m^2. Some of them have few beds for a short term observation (10- 20 beds).

Figure 2. Center for Diagnosis of High Technology (CAT) 2009.

[1] *Different researches (Rodriguez, et. al, 20, p.; Diaz Polanco, 2008, p. 31-2), lets confirm a strong tendency to cubanization of the public health in Venezuela, since Barrio Adentro has been inspired from the first stages in the Cuban health system and the formation of the communitarian integral doctor under the premises of the communitarian integral medicine.*

Barrio Adentro III, started in 2006. This program oversees the renovation of the existing hospitals including implementing new technology and building additions to meet the new requirements. The priority areas to be updated are: surgery suites, emergency departments, intensive care units (adults, pediatrics, neonatal) imaging and dialysis units. Areas for cardiology, radiotherapy and oncology are also included.

Barrio Adentro IV, started in 2007 plans for the construction of 15 new specialized hospitals, the first 6, with 200 beds and 14.000 m2 are under construction using a prefabricated Turkish technology. Phase III of Barrio Adentro, consisting of modernizing hospital structures and equipment, has been realized through partnerships with other countries including: Argentina to supply equipment for oncology, radiotherapy, neonatology, and obstetric for all the hospitals and to manage the construction of the facilities, installation for the equipment. China to install medical equipment and Cuba to manage the purchase of equipment and additional installation. All of these partnerships are financed with petroleum.

The inefficiencies of the parallel system Barrio Adentro, to provide primary care have made that the influx of patients to the conventional system (ambulatories and hospitals) continue.

In May 2011, a high number of construction left unfinished in the existing hospitals, due to poor management, budget shortfalls besides the mistake of the simultaneous intervention of many hospitals with different construction companies without coordination between them, brought the reduction of the capacity of response of the public hospitals network, limiting the operational capabilities.

Figure 3. Clínicas Caracas. Private hospital.

Meanwhile, an important segment of the population cannot meet their healthcare needs in the public system and are turning to the private sector. It is estimated that the private sector is now servicing 30%- 38% of all medical consultations, which is between 6 and 7 times more than it did 14 years ago. This is putting immense strain on the private sector driving construction projects in an attempt to meet demand. This is made more difficult due to economic restrictions that restrict free enterprise and reduce production and investment. In addition, competition has declined and inflation is the highest of the world.

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