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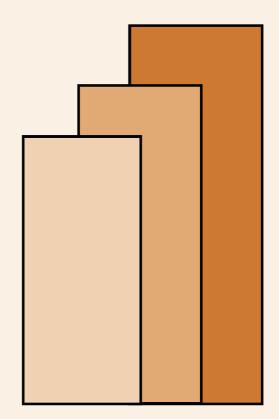
Virginia S. Pineda

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#### PREFACE

This paper is one of the eight case studies in the health sector conducted under the project, "Population and Urbanization: Managing the Urbanization Process Under a Decentralized Governance Framework." The project is jointly undertaken by the Philippine Institute for Development Studies (PIDS), the National Economic and Development Authority (NEDA) and the Development Academy of the Philippines (DAP). Among the components of the project are case studies of selected cities highlighting their innovations in health, housing, and environmental management.

The main objective of the case studies is to identify the strategies of model cities that can be replicated by other cities and local government units, particularly in the financing and delivery of basic services under devolution and increasing urbanization.

This case study focuses on Puerto Princesa City which was recommended by NEDA-Region IV as a model city for health. To provide emergency and medical services to people in far-flung barangays, the city government put up satellite clinics in strategic areas. Its "Satellite Clinics" program was one of the Top 20 Galing Pook Winners in 1996.

The paper is organized as follows. The first section provides a backgrounder on the city, its land area and population, health facilities, financing, and performance. This is followed by a presentation of the Satellite Clinics Project and the key elements for its success. The next part identifies the strategies that other cities and LGUs can replicate. Other recommendations are then discussed in the succeeding section. Finally, the paper ends with some concluding remarks.

# PUERTO PRINCESA CITY'S SATELLITE CLINICS: A CURATIVE RURAL NETWORK

Virginia S. Pineda<sup>1</sup>

# I. CITY BACKGROUND

#### Land Area and Population

Puerto Princesa City is the capital of the province of Palawan. With a total land area of 2,106.7 square kilometers, it accounts for about 17 percent of the total land area of Palawan. It is also the largest city in the country. The city is composed of 66 barangays, 24 of which are urban and 42 are rural. It has about 25,542 households as of 1995.

The city's population increased from 92,147 in 1990 to 129,577 in 1995 or by 41 percent. About 65 percent of the population reside in the rural barangays. Settlement areas in the city are highly dispersed. Population concentration is densest in the eastern coast where the city proper is located. Rural barangays are scattered over the length of the city's coastline with undeveloped tracts of lands separating the eastern from the western barangays. Five rural barangays in the west coast area are almost blocked off by rugged mountains and thick forest. Two of them are not yet linked to the city's road network system (Puerto Princesa City Local Government Performance Report, 1996).

#### **Health Facilities**

The city has one Main Health Center, 18 Barangay Health Stations, three hospitals, and five satellite clinics. The hospitals have a total capacity of 175 beds: 75 for the government hospital, the Puerto Princesa Provincial Hospital, and 50 each for the two private hospitals. Each satellite clinic has a capacity of four to five beds. The hospitals and satellite clinics serve not only the patients from the city but also those from the neighboring municipalities of Palawan.

#### Health Expenditures/Budget

Prior to devolution (1991), the city government's expenditures on health amounted to P6.5 million, which is spent almost wholly on basic health services. This constituted 7.5 percent of the city's total expenditures. After devolution, the city's health expenditures increased to P20.1 million in 1994 but its proportion to the city's total expenditures decreased to 5 percent. Basic health expenditures also declined to 74 percent of the total health expenditures with the establishment of satellite clinics which provide medical services. In 1995-1997, the budget for the CHO and the satellite clinics accounted for an average of 4.4 percent of the total city budget. Table 1 shows the respective amounts.

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				Share in Total
Year	City Health Office	Satellite Clinics	Total	City Budget (%)
1995	14.2	5.8	20.0	4.0
1996	17.3	7.8	22.1	4.6
1997	20.9	6.2	27.1	4.7

Source: Puerto Princesa City Planning and Development Office

# **Health Performance**

Under the city's comprehensive health care program, both preventive and curative services are provided to the people. The City Health Office focuses on primary health care. Its barangay health workers implement the following programs: Expanded Program on Immunization, Maternal and Child Care, TB Control, Family Planning, Nutrition, Diarrheal Disease Control, Environmental Sanitation, Malaria Control, and Laboratory Services. If patients need curative care, barangay health workers refer them to the satellite clinics. Such health programs helped reduce mortality and malnutrition rates as indicated by Table 2.

The city's infant and child mortality rates are lower but its maternal mortality rates are higher than the average for the Philippines in both 1990 and 1995. Nevertheless, the reduction in Puerto Princesa's maternal mortality rates (38 per 100,000 livebirths) was slightly greater than that of the Philippines (29 per 100,000 livebirths). The percentage of malnourished children in the city also declined from 66 percent in 1991 to 34 percent in 1995.

		1990*	1995	
Indicator	Puerto Princesa	Philippines	Puerto Princesa	Philippines
Mortality Rates:				
Infant	52.7	56.7	44.8	48.9
Child	71.8	79.6	61.2	66.8
Maternal	253.1	209.0	215.1	179.7
Percentage of Malnourished				·
Children (0-83 months old)				
Mild	48.4	41.3	25.6	30.7
Moderate	16.6	14.2	7.4	8.4
Severe	1.2	2.1	0.9	1.2
Total	66.2	57.6	33.9	40.3

 Table 2. Mortality and Nutrition Indicators, 1990 and 1995

• Malnutrition data are for 1991

Infant mortality: infant deaths per 1,000 live births

Child mortality: number of deaths among children less than 5 years of age per 1,000 children of the same age range

Maternal mortality: number of maternal deaths per 100,000 live births

Sources: Herrin (1998), National Statistical Coordination Board, and DOH Nutrition Service.

# **II. THE SATELLITE CLINICS PROJECT**

## A. Project Background

During the 1992 elections, Edward Hagedorn, who was then a candidate for mayor, was on his way to Barangay Napsan. In one desolate area, he saw a small group of people waiting for transport. On his way back, he saw the same group crying. He learned that a family member died while waiting for transport to bring them to the hospital. He vowed to remedy this situation if elected.

The satellite clinic project is the fulfillment of Mayor Hagedorn's promise. Its objectives are as follows:

- 1. Provide rural residents access to medical attention and medicines;
- 2. Reduce mortality rate in the rural areas; and
- 3. Reduce unnecessary suffering due to illness.

The first satellite clinic was opened on January 2, 1993. At present, the city has five satellite clinics. These are strategically located to serve far-flung rural barangays with no access to health services. Napsan covers the southwest barangays; Cabayugan, the northwest end; San Rafael, the northern areas; Salvacion, the central portion; and Mangingisda the southern barangays. Table 3 indicates the catchment area of each satellite clinic.

Name/Location	Catchment Area			
of Satellite Clinic	Number of barangays	Number of Households Served		
Cabayugan	8	700		
Mangingisda	6	1,357		
Napsan	3	681		
Salvacion	8	2,201		
San Rafael	9	1,576		
Total	34	6,515		

 Table 3. Satellite Clinics and Catchment Areas

Source: Puerto Princesa City Planning and Development Office

The satellite clinics provide medical and dental consultation, emergency response and rescue, and health education. Patients who are too weak to move or are in need of further observation or awaiting transport also stays in the clinics for a few days (usually one to three days).

Each satellite clinic has a doctor who stays for two days per week. A dentist also comes every two weeks. Each clinic is manned by two midwives, a radio operator, a driver, and a utility man. Facilities in a satellite clinic include four to five beds, radio communication, ambulance, solar powered electricity, and basic clinic equipment. The radio equipment and ambulance enables the satellite clinics to respond to health emergencies in the barangays 24 hours a day.

All the services and medicines in the satellite clinics are provided to the people free of charge. Donations are accepted. Financing for the project comes from the 20% development fund. For 1997, the budget for the project is P6.2 million.

The project is implemented under the city mayor's office since all the personnel in the satellite clinics are hired on a contractual basis. Those in the City Health Office are permanent employees. The satellite clinics program is headed by a coordinator who oversees its general operations. It is monitored and evaluated based on the clinics' reports of cases handled and other activities. These reports are submitted monthly to the Office of the Mayor and the Office of the City Planning and Development Coordinator. Occasionally, the mayor also visits the satellite clinics.

# **B. IMPACT OF THE PROJECT**

Before the satellite clinics program, it was difficult for the barangay people to get medical services. Minimum transport time from the nearest barangay to the city proper, where most of the health facilities are located, is one hour. The roads are rough and transport frequency averages twice per day. Under these conditions, many people either do not seek medical attention, resort to quack medication, or consult a doctor only when their illness has become worse. Others die without any medical treatment or while waiting for transport to the hospital.

The satellite clinics gave the barangay people greater access to curative services. They handle emergency cases and simple illnesses. For more serious and complicated cases, the clinics are equipped with ambulances to bring the patients to the hospitals. Thus, they serve as vital link to the city's referral system. With the satellite clinics, emergency cases increased while the number of patients with simple illnesses declined in hospitals.

From 1993-1997, the clinics have served an average of 47,000 patients per year. Table 4 shows the types of services rendered for 1993-1995. Most of the cases attended to were respiratory infections and other simple illnesses. Without the satellite clinics, these patients would not have received medical treatment or they would have gone to hospitals. By serving these patients, the satellite clinics enabled early treatment of diseases before they get worse and decreased the number of patients going to hospitals. They also saved time and transportation cost for the people. The reported cost of transporting a patient to and from the city proper (special trip) is about P1,000.

Table 4. Satemite ennies betvices and rumber of Latents						
	Number of patients served					
Services	1993	1994	1995			
Consultation	43,665	43,360	37,619			
Confined	890	1,582	898			
Transport	338	400	363			
Delivery	36	76	876			
Medical examination	-	100	15			
Tooth extraction	590	724	1,254			
Others (pre-natal, family						
planning, urine exam.)	-	-	169			
Total	45,519	46,242	49,744			

Table 4. Satellite Clinics Services and Number of Patients

Source: Puerto Princesa City Planning and Development Office

# **III. KEY ELEMENTS FOR SUCCESS**

#### 1. Leadership

Realizing the need for health facilities that could handle emergency cases and transport patients to hospitals when necessary, Mayor Hagedorn acted promptly to meet this requirement. He pushed for the satellite clinics project immediately after his election. The project is currently being implemented under the city mayor's office.

# 2. Flexible Hiring Policy

Due to financial constraint, the city could not hire doctors on a regular or permanent basis. Moreover, there was also a shortage of doctors. The city was able to overcome these problems by hiring doctors on a contractual and part-time basis.

#### 3. Availability of Facilities and Medical Personnel

The barangay people's access to health services has been limited due to travelling inconveniences (rough roads) and long travel time to health facilities in the city. The provision of satellite clinics, ambulances, doctors and other health personnel in strategic locations brought health services nearer to the barangay people and enabled them to avail of these services.

# IV. STRATEGIES THAT CAN BE REPLICATED

#### 1. Provision of curative services in the barangays

Barangay Health Stations are usually manned by midwives. They focus on preventive health care. The satellite clinics augment the BHS health services by providing doctors and curative care. Since patients can avail of medical consultations and treatment in the satellite clinic in their area, they do not have to go to the city proper. Thus, the clinics relieve the hospitals of additional workload. They also save time and transportation expenses for the barangay people.

# 2. Hiring of doctors on contractual and part-time basis

The doctors in the satellite clinics are hired on a contractual and part-time basis. Each doctor stays for two days per week in the satellite clinic assigned to him. For the rest of the week, he is free to work in hospitals or engage in private practice. The city government pays each doctor a monthly salary of P10,000.

#### 3. Synchronized scheduling of doctors

The schedule of the doctors in the satellite clinics are synchronized to maximize their availability. For example, in one satellite clinic, the doctor's schedule is Monday and Tuesday. In the other nearest satellite clinic, the doctor's schedule is Thursday and Friday. In this way, during days when the doctor assigned to a satellite clinic is not scheduled to come, the patient can go to the other satellite clinic and avail of another doctor's services.

### 4. Use of radio communication equipment

In the absence of telephones, the satellite clinics use radio communication equipment. Each barangay and tribal community is also provided with hand-held radio (VHF transceivers). Emergencies are reported to the barangay chairman who calls the nearest satellite clinic for an ambulance and health personnel. If patients require hospitalization, the use of radio communication enables the satellite clinic to make an advance call to the receiving hospital. This gives the hospital time to prepare and have a team of medical personnel ready for the coming of the patient from the rural barangay.

# 5. Provision of an ambulance in the rural barangay

During emergencies, time is of utmost importance. It takes time to wait for an ambulance to come from the city or for a transportation to take a patient to a hospital. A few minutes or even seconds of delay could cost a person's life. Having an ambulance in each satellite clinic facilitates response to emergency cases. It also allows them to bring a patient to a more equipped hospital in the city, whenever necessary.

Other cities can follow Puerto Princesa's example of providing doctors and curative services in strategically located barangays. If they can afford it, they can also put up satellite clinics. Puerto Princesa's San Rafael Satellite Clinic, which was completed in 1996, was built at a cost of P999,996. To save on construction expenses, other cities can make use of their existing barangay health stations and just provide for doctors' services.

Replication of Puerto Princesa's strategies can be straightforward. Other cities can employ part-time doctors to render services for two days per week, synchronize the doctors' schedules, use radio (VHF transceivers) where telephone facilities are lacking, course emergency calls through the barangay chairmen to avoid prank calls, and provide ambulances in strategic health facilities to facilitate response to emergency cases.

For financing, the cities can also utilize their 20 Percent Development Fund. Another alternative is for the barangays in the catchment area to contribute for the doctors' salaries and the radio equipment. They can also request the Philippine Amusement and Games Corporation (PAGCOR) and the Philippine Charity Sweepstakes Office (PCSO) to donate ambulances. To recover costs, the cities may charge fees for health services and medicines provided to non-indigent patients.

#### V. OTHER RECOMMENDATIONS

The city government would like to build more satellite clinics but it has financing constraints. At present, it does not earn from the satellite clinics inasmuch as medicines and services are given free to the people. To generate funds for additional clinics and facilities, as previously mentioned, it can collect from patients who can afford to pay or charge even a small amount for the medicines. The city could also use existing barangay health stations or barangay halls or it could rent a place in strategically located barangays if funds are not yet available for the construction of additional clinics.

Although the city does not have malaria epidemic, the disease is still prevalent. In 1996, 5,232 persons were found positive with malaria. It is advisable to periodically check the effectiveness of malaria medications because it is possible that the strain is becoming more resistant to the medicines provided.

Some medical cases require immediate laboratory tests to accurately diagnose a disease. At present, the satellite clinics do not have medical technologists to perform such tests. To avail of laboratory examinations, the patients would have to go on their own to a hospital in the city proper. They cannot use the ambulance because it is for emergency only. In the absence of laboratory tests to specify the disease, the doctors prescribe more than one type of medicines directed at illnesses which have similar symptoms. (One example of a disease which has symptoms similar to other diseases/infections is urinary tract infection or UTI). A medical technologist is therefore needed in the satellite clinics to perform laboratory tests immediately so that the doctors can prescribe the exact medicines.

The satellite clinics program is monitored and evaluated based on the monthly reports submitted by each clinic. To further strengthen this method, we suggest periodic meetings (such as every quarter) among the doctors, coordinator, the mayor, and maybe a representative of the people served by each clinic. The meetings would allow interaction among the program participants and provide the means for discussing and sharing experiences, problems, and solutions.

#### VI. CONCLUDING REMARKS

The satellite clinics were established in fulfillment of the city mayor's commitment to provide immediate access to medical services to people in remote barangays. As they attend to simple illnesses and bring serious cases to hospitals, the clinics instituted a good referral system and promoted the efficient use of resources in health facilities.

Being knowledgeable about their city's condition, Puerto Princesa's leaders and health officials were able to devise creative ways of dealing with deficiencies, such as the use radio communication equipment to overcome lack of telephone facilities, and the employment of part-time doctors to cope with financial constraints and shortage of physicians.

With its satellite clinics, Puerto Princesa City serves as an example of an LGU that has displayed innovativeness and responsiveness to people's health needs under devolution. It has shown that instead of deteriorating, delivery of health services could even improve under decentralization as local leaders are more familiar with the situation in their area and the problems and needs of their constituents.