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Community Healthcare Services in Cuba

--- Cuba's Contribution to the World

Introduction

This article first introduces the community health care network of Cuba, mainly focusing on the three-level setup of the Cuban community healthcare system: Family Physician Units, Polyclinics and hospitals. Then the article discusses the highlights and challenges of the Cuban community healthcare system. There are three highlights: high cost-effectiveness, active community participation and unique socio-economic contributors. There are challenges of the Cuban health care system. Outside the system, the challenges include domestic economic difficulties and the U.S. trade embargo. Inside the system, the challenges are disparity between different income groups and inequity in health education and employment. Given Cuba's experience, the article suggests that the Cuban community healthcare system could serve as a model for other countries in the world, especially for resource-scarce countries.

A Network of Community Health Care

The Cuban healthcare system is notable for its community-based practice. There are three types of healthcare institutes where residents can access medical treatment. First, residents can go to their Family Physicians Units located within their neighborhoods to receive primary diagnosis and emergency treatments. Then, if needed, patients will be required to go to the Polyclinic in their neighborhood to receive further physical examination and diagnosis. If the situation is too severe or complicated for the Polyclinic to deal with it, patients will be referred to a hospital.

1. The First Level --- Family Physician Units

Family Physician Units provide family physician services. Usually, there is one family physician per Family Physician Unit and one Family Physician Unit every four blocks. The Family Physician Unit in Cuba is the most primary level of healthcare services. In most cases, diseases can be treated by family physicians because the most common illnesses in the neighborhood are not so severe. Residents have the habit of going to their family physician, so most illnesses can be diagnosed and treated at the very first stage. In Havana, every family physician is serving approximately 300 families in total; every Polyclinic has 19 family physicians on average.

Family Physicians provide not only medical treatments, but also health consultation. Because the family physician's office is his house, which is allocated by the government, they actually live in the neighborhood. It is very convenient for the residents to visit them even for a small question and also for these doctors to visit the neighborhood. Every family physician is very familiar with the residents in his neighborhood including their health conditions, medical

histories, families, education, occupations, psychiatric conditions, and sanitary conditions. Therefore, the family physician is able to offer an overall treatment and consultation for his residents.

Family physicians are hired by the Polyclinics. On the one hand, Family Physician Units ease the burden on Polyclinics. The Polyclinics are less likely to confront problems of resource shortages and being over-crowded because the family physicians serving as gatekeepers. On the other hand, Polyclinics supervise family physicians in the same neighborhoods. Family physicians are required to report every case to the Polyclinic they belong to. Also, family physicians have the responsibility to refer acute patients to the Polyclinics.

Health promotion and disease prevention are emphasized in the first level of the Cuban health care system. Dresang et al. (2005) describes the daily routines of family physicians as: “In the mornings, family physicians typically attend patients in their *consultorio*; afternoons are reserved for home visits to patients with acute care needs, rehabilitation of chronic conditions, and primary prevention. ... Many family physicians spend a half-day per week joining their patients for specialist visits in *policlinicos*. This provides continuity for patients, builds collegial relationships between family physicians and specialists, and offers education for all parties involved.”

2. The Second Level --- Polyclinic

Polyclinics are at the core of Community Healthcare Services in Cuba because it connects the other two levels of healthcare institutes. The mission of the Cuban Polyclinic network is to provide better access to public healthcare for the community. The Polyclinic model

is copied by the rest of the world, especially in Latin America. There is a team of doctors, dentists, psychologists, nurses and other technologists serving in a Polyclinic. They are familiar with the community and carry out their work based on the context of their community. They decide the emphasis of the health services in the community by detecting various environmental factors. They also provide patients with outreach in their homes and do health situation diagnosis. Services available in Polyclinics include rehabilitation, urgent and non-urgent ECG (electrocardiography), X-rays, ultrasounds, eyes tests, endoscopies, vital support and thrombolysis, traumatology, laboratory, family planning, dental work, vaccinations, and care for diabetic patients and geriatric patients.

Polyclinics are like program managers directing the community healthcare services. They need to communicate with different levels of the health system, such as statistics departments and other levels of medical institutes, to collect and complete information in order to set up specialized programs adapted to the particular community to improve community health. Also, they are like marketing departments that need to cooperate with the community and the rest of society, such as the media, to improve people's cognition and increase the speed of initiating programs.

In recent years, the Cuban government has been working on setting up a network of Polyclinic Universities. Every Polyclinic is like a little medical school, in which doctors are also teachers. Medical school students are given the chance to work with patient beginning their first-year of study and to keep following cases in the rest of their study. Polyclinic Universities have several advantages. Medical school students will be more devoted and connected to the first level of healthcare services. This will help to ease the shortage of healthcare service workers. And also, students will be taught more practical skills in Polyclinic Universities. As a Polyclinic is

responsible for various kinds of primary healthcare services, different kinds of students and specialists can be seen serving in a Polyclinic. For example, medical students, nurses, psychological students and health technologists.

3. The Third Level --- Hospitals

If the illness is so severe and complicated that the Polyclinic is not able to diagnose or cure it, the patient will be referred to a hospital. However, there is a limited number of hospitals built in each province because most health service needs are expected to be met by the first and second levels of healthcare services.

People are seldom seen waiting in hospitals. This is because all the patients have to be referred by the previous level in the healthcare network --- the Polyclinics. Thus, this referral system helps to keep hospitals in order and comfortable for medical treatments. However, because of the referral system, patients usually have to wait in line for a period of time (approximately one month) to receive an inpatient bed in a hospital. The waiting time sometimes encumbers timely treatments for acute patients. However, the healthcare services are totally free, and even the family members who take care of the patients are provided food. Therefore, people are still highly satisfied with the service in hospitals.

In hospitals, the demand of healthcare services is always greater than the supply, so in order to shorten the waiting time and ensure more patients can receive treatment, the inpatient time is usually limited to thirty days. For some chronic diseases, it could be extended to three to four months. After their stays in the hospitals, the patients will be passed back to the lower levels of healthcare services, Polyclinics or Family Physician Units, depending on their situations.

Highlights of the Cuban Community Healthcare Services

There are three highlights of the Cuban Community Health Services. First, the Cuban healthcare system does very well in controlling costs using community diagnosis and primary treatments. Second, the success of the Cuban healthcare system is partly owed to the uniqueness of its socio-economic background. Third, the active community participation helps to control costs and improve effectiveness of health promotion.

1. Cost Control by Primary Diagnosis and Treatments

The Cuban Healthcare System runs at a surprisingly low cost. This is mainly because of their emphasis on community diagnosis and primary treatments, which means they put more effort into prevention beforehand than into cures after the illnesses happen.

According to health economics, preventive health care is more cost-effective than curative measures. In Cuba's case, Cuba has three levels of community healthcare services. The institutions in the lower levels (Polyclinics and Family Physician Units) usually use more basic medicine and equipment due to the difficulties in domestic economy and the U.S. embargo. Although these institutions only provide the most basic healthcare services, most of the health services are provided by them. Today in Cuba, primary care is provided in *consultorios* (clinics), secondary care in *policlinicos* (specialty clinics), and tertiary care in hospitals and *institutos* (hospitals and medical institutes). *Consultorios* address approximately 80% of the health problems and emphasize health promotion (Dresang et al, 2005).

In the Cuban healthcare system, the government draws a very clear distinction between preventive health care and curative measures. Preventive health care focuses on removing risk factors that are amenable to change, such as lifestyle factors like diet, exercise, and smoking, by community interventions and individual counseling at the early stages. Curative measures deals with those risk factors which are more difficult to change or have already become severe. Preventive health care achieves desirable health outcomes by changing people's behaviors. Because of the requirement of high community participation, preventive health care is more labor-intensive but not capital-intensive and technology-intensive (Whiteford and Branch, 2008). Thus, for labor-intensive countries such as Cuba, preventive health care is more cost-effective than curative health care. Comprehensive General Medicine (Medicina General Intergral, MGI) , which focuses on preventing people from developing diseases and treating them as rapidly as possible, is commonly used for primary health care in Cuba (Fitz, 2012).

2. Active Community Participation

Another reason why preventive health care is more cost-effective is that preventive activities are usually related to and carried out by the community. This helps to cut down the demand of healthcare workers. Everyone in the community involves and serves themselves. This is defined by some scholars as “active community participation.”

There are three basic characteristics to the concept of community participation. Dennil et al. (1998) say, “Participation must be active. People have the right and responsibility to exercise power over decisions that affect their lives, and there must be mechanisms to allow for the implementation of the decisions by the community.” In Cuba, the primary health care system is

regulated by law. According to Magnussen et al. (2004), in Cuba, primary health care, which is not just another one of the many integrated approaches in the delivery of health services but the primary vehicle, is driven by community initiatives. The communities are involved in the diagnosis of their health problems and identification of their health priorities. Together with governmental representatives, they develop strategies and action plans to address community health diagnosis priorities.

Active community participation also contributes to controlling medical through the process of health promotion. By the definition by World Health Organization, health promotion is the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions. Greene (2003) notes that the health promotion strategies are highly relevant to the achievements of the Cuban health care system. The health promotion directorates identify the use of mass media campaigns and training of journalists, the general community and even special groups as part of the health promotion strategies. There is also a strategy of sensitizing political leaders, especially Fidel Castro, to bring about behavior change. The use of existing organizations and health system analysis in the Family Physician Units are also part of the health promotion strategies. Public involvement in the Cuban health promotion strategies is high and people play an important role in determining public health policies and programs (qtd. in Greene 2003) (Donaldson and Donaldson 1994 as cited in Greene 2003).

3. Socio-economic Contributors

The Cuban health care system pays a lot of attention to eliminating health inequality. Disparity in health conditions and inequality in health resources are important to the success of a healthcare system. Szreter (1997) gives the argument supporting this opinion. He says that health improvements resulted from increased equity in the provision of basic public health services for all, not just “targeted” improvements for those could afford them. He further points out that a virtuous cycle can be generated between reducing disparity, and increasing social capital and civil will (qtd. in Whiteford & Branch 2008) (Szreter 1997 as cited in White & Branch 2008).

Dresang et al. (2005) also emphasize the importance of socio-economic factors. They argue that health outcomes are affected by three types of determinants: nonmedical determinants such as education, housing, clean air, clean water, nutrition, and employment; social mediators such as social cohesion, income disparities, and other social structure inequalities; and health service determinants such as accessibility, universality, comprehensiveness, quality, integration horizontally, primary care focus, integration across sectors (social, environmental focus, etc) and health promotion focus. A relative lack of large income disparities is a social mediator that may play an important role in the health outcomes that Cuba achieves.

From the arguments of Szreter (1997) and Dresang et al (2005), health outcomes have a high correlation to socio-economic background of the country. More equal access to health services will strengthen socio-economic improvements and contribute to improvements in health conditions. In Cuba, people are highly satisfied with the free health services provided by the government. It is not only critical to build up trust and commitment to the government among Cuban people, but also important to maintain a stable social order in Cuban society under economic difficulties.

The high commitment of the Cuban government can partly explain why it is hard for other countries to copy the success of the Cuban healthcare system, even though they copy the Cuban healthcare model. According to World Health Organization indicators, in 2011, the free health care took 10% of the total GDP in Cuba (World Health Organization, 2011). And the Cuban government paid for more than 95% of individual health expenditure (World Bank, 2011). The accessibility of family physicians and the universality of health insurance are also key contributors to the success of the Cuban healthcare system (Dresang et al, 2005). All of these thanks to the political will and revolutionary commitment of the Cuban government. Baum et al. (2004) also comments on the high governmental commitments of the Cuban government. The accomplishments of the Cuban healthcare system are the result of the high political commitment of the Cuban government to meet all citizens' basic health needs, active popular participation in the effort to realize this goal, and increased social and economic equity (qtd. in Magnussen et al. 2004) (Baum et al. 1995 as cited in Magnussen et al. 2004).

Reed et al. (2000) argues that health improvements in Cuba have been attributed to its institutional setup of primary health care system (qtd. in Magnussen et al. 2004) (Reed et al. 2000 as cited in Magnussen et al. 2004). Under the Cuban constitution, health care is a right of citizens and a responsibility of government. In addition, Cuba's Public Health Law outlines the principles of the National Healthcare System as follows: socialized medicine organized by government; basic services accessible to the whole population and free to all; preventive medicine as the hallmark of the system; public participation in health care; and a comprehensive approach to planned development of the health system. A 1997 report from the American Association for World Health, analyzing the U.S. embargo's effects on health in Cuba, concludes that a humanitarian catastrophe had been averted because the country maintained a high level of

budgetary support for a health care system designed to deliver primary and preventive health care to all of its citizens (qtd. in Magnussen et al. 2004) (American Association for World Health 1997 as cited in Magnussen et al. 2004).

Challenges of the Cuban Community Healthcare Services

Although the Cuban community healthcare system is a success, there are ongoing challenges for the system. Outside the system, there are challenges of economic difficulties and the U.S. trade embargo. There are also vast disparity and inequality in different aspects inside the system, such as the disparity between income groups, and inequality in health education and employment.

1. Challenges Outside the System

The domestic economic difficulties are the biggest challenge of the Cuban community health care system coming from outside of the system. The poor domestic economy cannot afford rising medical expenses inside the country. As the Cuban domestic reform, other social division need more money from public finance funds. Meanwhile, Cuba's leader is not going to give up free health care as one of the fundamental rights of Cuban citizens. As a result, the Cuban government will face heavy financial burden to maintain the same quality health care for its people.

The U.S. trade embargo against Cuba has been exerting negative impacts on health care in Cuba. The American Association for World Health (1997) identifies four health problems in

Cuba that are affected by the embargo: malnutrition, water quality, medicines and equipment, and medical information. They determines that the embargo has dramatically harmed the health and nutrition of large numbers of ordinary Cuban citizens.

2. Challenges Inside the System

There is a disparity in different income groups. Although health care is totally free, medication is neither free nor available for all Cuban citizens. As Vincent (2004) says that, pharmacies are often poorly stocked and the ration is far less than enough (qtd. in Plant n.d.) (Vincent 2004 as cited in Plant n.d.). A publisher by the Associated Press (2004) points out that, hospitals are often in poor conditions and doctors have to bring their own supplies and equipment to treat their patients (qtd. in Plant n.d.) (Associated Press 2004 as cited in Plant n.d.). Therefore, under the severe shortage of medication, part of the poor, especially those who do not have income in foreign currency, cannot access enough medication while the rich do not have such this worry. This disparity might be a result from the Cuba's dual economy and currency system. As Vincent (2004) says, medication and equipment is available but only to pay for in American dollars, of which the poor and middle classes are less likely to have (qtd. in Plant n.d.) (Vincent 2004 as cited in Plant n.d.). To the contrast, the "pesos pharmacies" and local state hospitals are usually under-stocked. Therefore, despite of the free health care services, medication access for the poor is far from enough.

The domestic medication shortage in Cuba has something to do with its medical diplomacy. Actually there is a medication industry in Cuba. However, very little of the medical products remains inside the country due to Cuba's medical diplomacy. Riera (2008) says Cuba

exports huge amount of medical aid, which includes medication and medical professionals, mostly to other Latin American countries for purely financial returns (qtd. in Plant n.d.) (Riera 2008 as cited in Plant n.d.). Cuba's relation with Venezuela is an example. Cuba sends a large amount of medical resources in various types to Venezuela to help it set up its own health care system. In turn, Venezuela provides Cuba with oil, which is the life-saving straw to the Cuban economy. But the problem is the domestic medical needs inside Cuba has not been satisfied while the Cuban government over-provides medical resources to other countries to meet needs of social development other than health care. This results in unclear boundaries among different Cuban public policies. That is, there will be mixed goals in one public policy area, which might increase the uncertainty and complexity in policy-making process.

Another problem in the Cuban community health care system is inequity in medical education and employment. The Latin American School of Medical Science (ELAM), the finest medical education institutes in Cuba and even one of the best in the world, is only open for international students (qtd. in Plant n.d.) (Huish 2008 as cited in Plant n.d.). In addition, for domestic medical graduations, they have no choice on where to be sent and they can only be assigned by the government (qtd. in Plant n.d.) (Siglo 2005 as cited in Plant n.d.). Complicated with the restricted choice employment, the Cuban medical professionals are actually very poorly paid. One of my Chinese friends studying in ELAM told me, the Cuban doctors are paid on \$50 dollar per month, which is only the price of a decent meal in old Havana.

Cuba as a Model for Resource-Scarce Countries

The Cuban healthcare model is now simulated by a number of countries all over the world, especially in Latin American. It is true that the Cuban health model has much for resource-scarce countries to learn from. Among the three highlights mentioned before, high cost-effectiveness and active community participation in the Cuban health care system are worth learning and also possible to learn by other countries. They are especially feasible in resource-scarce countries because lower costs reduce public worries about financial expenditures and increase political will to invest in health services. However, the socio-economic uniqueness of the Cuban health care system also forces countries that are simulating Cuba to make changes to the model based on their own situations. Moreover, besides the valuable experiences of Cuba, there are some lessons that need more attention. Falling GDP and inadequate political will are the two potential threats to the success of a health care system.

The practice of Community-Oriented Primary Care (COPC) in the Cuban health care system might be a measure worth learning by resource-scarce countries to promote a more active community participation. It is a systematic approach to health care based on principles derived from epidemiology, primary care, preventive medicine and health promotion that has been shown to have positive impacts on communities in the United States and worldwide (qtd. in Dresang et al. 2005) (Longlett et al. 2001 as cited in Dresang et al. 2005). In Cuba, through COPC, a growing number of family physicians is being trained to work as part of a health care team and also trained to provide health education and preventive services, offer comprehensive medical care, and conduct population based-research. Family physicians are accountable for the community members they serve. Each family physician team cares for 600 to 800 people in a system-oriented approach running under the COPC principle (qtd. in Dresang et al. 2005) (Ventres et al. 1993 as cited in Dresang et al. 2005).

Given the serious concerns on medical costs shared by resource-scarce countries, the use of Complementary and Alternative Medicine (CAM) can serve as a model to control costs. By the definition of Barrette et al. (2003), Complementary Medicine is nonallopathic medicine used alongside conventional allopathic medicine. Alternative Medicine is nonallopathic medicine used instead of conventional medicine. Integrative Medicine, which integrates alternative, complementary and conventional medicines, generates the thoughtful incorporation of concepts, values and practices. In Cuba, these practices are also known as “natural and traditional medicine” (Dresang et al, 2005). Dresang et al. (2005) further explain the use of natural and traditional medicine in Cuba. All family physicians, who are the key of the implementation of CAM in Cuba, learn how to use CAM in medical school, where CAM teaching is usually integrated with physiology, anatomy and clinical courses. Although the extensive use of CAM by Cuban family physicians is partly because the current embargo and paucity of allopathic medicines. CAM is an efficient way to solve medical resource shortage in other developing and poor countries, where capital resources are scarce while labor resources are relatively abundant.

Considering the resistance to implementing the health care system, falling GDP with shrinking health budgets and inadequate political will are the main obstacles in resource-scarce countries. For example, in most African countries, they are the two main obstacles during implementation of primary health care. Zambia, which began its primary health care implementation in 1981, has achieved significant progress in healthcare personnel training, rural healthcare system, medicine distribution, transportation, as well as comprehensive health planning and management. Because the public finance of Zambia is largely supported by its copper industry, as the global demand for copper fell down in recent years, the GDP of Zambia also fell. So did its public financial resources. In the following years, Zambia experienced a

shortage of health staff and deteriorating health services and infrastructure, greater health disparity and health resource inequality, and even ineffective basic health promotion and prevention activities (qtd. in Magawa 2012) (World Health Organization 1994 as cited in Wagawa 2012). Because there is a single-pillar economic structure in most of the African countries, those countries are very likely to suffer from global economic fluctuations, which often lead to shrinking domestic economy. Without supports from public finance, the primary health care system in these countries cannot be effectively implemented.

Inadequate political will is another impediment in the way of primary health care implementation. For example, South Africa, which has both a relatively advanced domestic productivity and leading healthcare concepts, still fails to implement primary health care effectively. It is partly because the slow response by the government to provide equitable and fair-quality health services. The situation was worsened by the intimidating state interventions, decentralization of health services, poor infrastructure and services (qtd. in Magawa 2012) (Kautzky et al. 2009 as cited in Wagawa 2012). Meanwhile, Cuba goes to another extreme. With the firm determinations of their political leaders, the Cuban healthcare system achieves impressive outcomes with limited resources. The fact that health care is considered as the basic right of its people and also a spiritual heritage of the revolution shows the high commitment of the Cuban government.

It is hard to conclude whether the Cuban health model is suitable for another country because the uniqueness of the Cuban revolutionary history and socio-economic background. However, other countries can definitely learn from the high attention to preventive health care and the active community participation of the Cuban health model. We are expecting more

cooperation among different countries in solving the shared challenges such as health care in the near future.

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