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Environmental Studies in Costa Rica

## The Use of Social Factors to Improve the Health Care System in Costa Rica

### **Abstract:**

Yo estude la sistema de medicina en Las Juntas, Costa Rica. Mi intencion era comprender los efectos des mercurio y hypertensiona. Mi objectivo era encontrar las manera mejores para ayudar la sistema de medicina. La sistema de medicina es con éxito en Costa Rica porque la clase medio soportan la sistema. Los trabajadores de la sistema de medicina tienen un actitud positivo. Ellos consideran la sistema de medicina un servicio del pública.

### **Introduction:**

Costa Rica's health care system was an attractive topic for this research project for wide variety of reasons. For one reason, the life expectancy for the average Costa Rican of 76.6 years stands higher than the average American lifespan which is 76.4 years (World Almanac 2004, 774). When comparing more statistics, the infant mortality rate in Costa Rica also juts out at a low 10.6 deaths per 1,000 births which compares to the statistics of the United State which are slightly lower are 6.8 deaths per 1,000 births. My research questions began to focus on what the causes were that allowed Costa Rica to have such an efficient health care system for a third world country and figure out ways the system they currently have can continue to improve.

The first question was seeing if having health care served as a preventative measure. Do people with health care find that it serves as a pre-emptive measure against dangers that can affect ones health? This question was asked for two reasons. If having health care meant that dangers that can affect ones health can be prevented, focusing on increasing the percentage of the population that had health care

would be a worthwhile approach to improving the health care system of Costa Rica. Another reason this question was asked is because past research has shown that child mortality rates in Costa Rica have dropped rapidly during the time period between 1973 and 1984 when children's health coverage increased from 42% to 73%. (Dow, 1). It is not certain whether health care coverage was the reason child mortality rates decreased, but a correlation during the time period is evident. Research has also been done showing that Costa Ricans who had better access to health care were in better health in comparison to those with less access. (Rosero-Bixby, 4) Access was mainly measured by distance from health care facilities in this experiment. The fact that a geographic information system was assembled to measure which areas needed improvement in access to health care facilities in order to enhance the care received by the people strengthens the idea that Costa Ricans with health care were in better health.

The focus on this first question was decreased when research began taking place in Costa Rica because it was too impractical to see and measure the health care system preventing health problems within the time frame of two weeks. The concentration turned to social issues, which deals with the second question that was initially asked.

Does tackling social issues such as educating people about their health serve as the best approach to improving the health care system? Past studies on the health care systems of Latin America have shown that the systems are constantly being remodeled with a focus being on increasing services to the patients and this is done very often by addressing the social factors that exist and play a role in the health of citizens in the country. (Salas, 2) For this project, the effects of mercury and high blood pressure were used to see if social change was the best approach to improving the health care system in Costa Rica. The use of mercury in gold mining has made it a growing health concern especially when the dangers of mercury are considered. High mercury levels can cause different neurological and kidney disorders that are especially harmful to young children and childbearing-aged women. (Jones, 1018) Mining is a growing industry in Costa Rica therefore the negative effects of mercury are likely to continue taking its toll of the population. (Engineering & Mining Journal Aug 98).

Statistics have shown that high blood pressure is also a rising health concern affecting Costa Ricans. The youth in Costa Rica are currently facing health problems such as high cholesterol which is caused by obesity and high smoking levels. (Henderson, 1-2) Preventative activities are the best ones to focus on to lower heart problems in the future. Research in Costa Rica was focused on the positive and negatives aspects of the health care system. Analyzing the positive aspects of the system is necessary in order to understand methods of maintaining and possibly improving what is already effective. There is a need to analyze the negative aspects of the system so ideas for improvement can be developed and placed into practice.

### **Methods:**

Information was obtained for this research project by means of oral surveys/interviews. Initially, a wide range of people were to be surveyed in an attempt to obtain information as to whether the health care system served as a preventative measure for the population. However, once focus shifted towards analyzing the positive and negative aspects of the health care system using social reform as a means to enhancing the system, the goal became interviewing people in order to obtain as much information as possible on how the system worked and revealing the good and bad aspects of it. The following questions were asked:

¿Quién le atiende cuando esta enfermo? – *Where do you go when you are sick?*

¿Tiene plan médico (seguro de salud) – *Do you have health care coverage?*

¿Tiene un médico de cuidado primario (médico familiar) quien le atiende? – *Do you have a primary care doctor?*

¿sabes que son los efectos del mercurio en el cuerpo ou en la salud? – *Do you know the effects of mercury on your health?*

¿sabes que es presion de sangre bueno? – *Do you know what a good blood pressure is?*

Then based on who the person being interviewed was, more specific questions to the overall goal of the project were asked such as:

¿Como se mejora plan de medicina? – *How can the health care system improve?*

¿Que piensa en el plan de medicina en los Estados Unidos? – *What do you think of the health care system in the USA?*

¿Son prevalentes los problemas de mercurio al presion de sangre en Costa Rica o Las Juntas? – *How prevelant are problems relating to mercury and high blood pressure in Costa Rica and Las Juntas?*

**Results:** (Separated by themes)

*Mercury:*

5/25 - Interview with Joaquin Telaverez in a group setting

Joaquin Telaverez is an ex-teacher at the school of science and now is an environmental conservationist. He answered a lot of important questions pertaining to mercury and health. I was surprised that the Costa Ricans knew so much about the negative impacts of mercury. We were told a story about a woman who got a drop of mercury in her vein and later died of brain cancer after five months. Joaquin stated that they were constantly working on inventions that work on reducing mercury vapors and such but the workers are still cavalier with how they handle mercury. The rationale of the workers, who are in direct contact with mercury, even though they understand the harmful side effects, was not completely understood. Joaquin also notified me that environmental safety is taught in schools and that initial settlers in Costa Rica did not know enough about the environment so they are now dealing with the snowball effect of some past mistakes today.

5/26 - Interview with Andres, an “instructor” in Gold Manufacturing, in a group setting

When Andres was asked about the health effects of using mercury, he stated that as long as there wasn't direct contact of mercury with your blood that there was no problem. He said that some of the

people working have been there for 10 years and have been experiencing no health problems. Andres also stated that he informs people of all ages about the adverse effects of mercury, but when asked about alternatives to mercury, he said that none existed. Andres also said that the economy was powered by the gold industry. The workers were very cavalier with how they handled the mercury. The rationale behind their disposition to the use of mercury seems to stem from economical and cultural roots. They don't see the effects of mercury because neurological and kidney disorders are long term side effects and it was ironic that none of the workers were old. All of them were fairly young and there were no women (possibly because of the higher rates of miscarriages and birth defects in the town which potentially could be the result of mercury).

5/30 - Interview with Dr. Ricardo Diaz Cajina and Licda. Elizabeth Pizarro Pizarro with Dr. Tammy Lewis and Amy Schmidt.

When Dr. Cajina was asked about mercury and the effects it had on the people, he started telling us about the history of how mercury became a problem during the advent of mining. When mining first began in Costa Rica 30% of the mercury used was discarded in the rivers. Mercury is still a problem, but they don't have the equipment to test mercury levels in the body. He also said that there is a lot of denial about the dangers of mercury, he described the population as being in a cloud of smoke or "cortina de humo." The people who have no insurance (miners) are probably the people who experience the greatest negative effects of mercury, and miners do not go to the clinica because most of them do not contribute to the social security system. It does not come out of their pay since they are considered independent workers. Dr. Cajina stated that there was evidence that there is a three times higher rate of pregnancy problems in the town in comparison to the national average. This is most likely due to mercury but nothing can be correlated with certainty because of a lack in the ability to test mercury levels in the body.

*High Blood Pressure:*

5/26 - Interview with Carlos and Pilar, local family in Las Juntas

Carlos explained that for \$20 (US currency) a month, they could receive care at the clinica. Carlos doesn't have to pay because it comes out of his pension. Pilar talked about her blood pressure and how high and low blood pressures are common problems and that she struggles with both. Blood pressure problems are apparently very common in Costa Rica or maybe more specifically in Las Juntas. What I was not able to find out was how the government helped cover the unemployed because people without jobs can lack the ability to pay \$20 a month. Carlos explained that if emergency care was needed, whether a person had health care or not did not matter. That is similar to the emergency care system in the US but that still did not answer my question on how health care coverage was funded for the population when only people who work can pay.

5/30 - Interview with Dr. Ricardo Diaz Cajina and Licda. Elizabeth Pizarro Pizarro with Dr. Tammy Lewis and Amy Schmidt.

Dr. Cajina told us that hypertensiona (high blood pressure) was more of a problem in Abangares than in Costa Rica, but the statistics were skewed because they only have data from the patients who came to the clinica. A total of 965 people out of 16,276 people were diagnosed with hypertensiona which is 6% of the population. The causes of blood pressure problems were related to genes, environment, and food.

#### *Health Care System:*

5/26 - Interview with Flores the librarian

After talking with Flores the librarian, I was able to understand the health care system a little better. Everyone in Las Juntas can get health care but if someone comes in who does not pay a monthly fee, they would receive their health care after hours (after 4 PM) and the social security system workers schedule the appointment. It sounds as if the government picks up a lot of slack with the only negative result being that the unemployed don't get the premier time periods to receive care. The doctors also get

paid overtime if they work after hours and considering that they are paid by the government, it seems as if the government takes upon a great deal of responsibility when it comes to the health care of the their people. A wide majority of the population is covered and contributes to the social security system (86%) so the government generally does not have a huge burden to bear. The administration of health and insurance companies are one in Costa Rica. Unlike the US, having health care in Costa Rica means that you pay towards the social security system that runs it rather than a specific insurance company. It is possible that since competition does not exists for acquiring business, the sole focus of the health care system can be the well being of the population.

5/28 - Interview with Dinnia Marshall Charles

During the walk through the cloud forest, Dee discussed the health care system briefly. She was explaining how cheap but efficient the system was and how lacking multiple insurance companies was better for the patients. However, she also mentioned how in the future, more companies outside the government may be introduced into the system with the hope that the competition would make the health care system more efficient and possibly even more affordable. Dee was cautious when she said this realizing the potential there was for health care to turn into a business, but she used cell phone companies as an example. Currently very few plans for cell phones exist and the plans that exist are very expensive. Dee is thinking that with the expansion of more companies, customers could be offered better deals at lower prices.

5/30 - Interview with Dinnia Marshall Charles

The question as to how the whole population could be provided health if a person only paid \$20 a month was brought up and addressed by Dee. The majority of Costa Ricans fall into the middle class and people in the middle class can afford private care. Private care is when a doctor practices outside of his social security system paid hours and since there are no insurance companies, private care is paid with

cash. The advantage to this is that people can receive health care very quickly with personal attention from specific doctors. One of the problems with the health care system of Costa Rica is the waiting periods that exist to receive specialized care. For expensive surgical procedures, people generally wait for the social security system to supply them with care for affordability reasons. The system can function the way it does because of the strong middle class that chooses to pay for private care. One of the major downfalls of the system is the waiting period for specialized health care, and this exists because of the growing population of Costa Rica which is due largely in part to immigration. The system is evolving to accommodate the growing population but this is taking time.

5/30 - Interview with Dr. Ricardo Diaz Cajina and Licda. Elizabeth Pizarro Pizarro with Dr. Tammy Lewis and Amy Schmidt.

When asked about improvements that could be made to the health care system, both Dr. Cajina and Elizabeth Pizarro stressed preventative measures. Community oriented type of health care was stressed as well with an interest to go out and get people more informed about their health whether it be in work places or schools. When Dr. Cajina was asked about the US health care system, he smiled and said it was too expensive and that people only take care of themselves while in Costa Rica, the rich take care of the poor. He stated that if your insurance company drops you or that if you run out of money, you are done. The last thing he said that was very important was that in Costa Rica, medicine and health care are seen as a public health services.

### **Discussion:**

The problems of mining and the use mercury can be understood from the information received from personal interviews. Articles from Costa Rican sources continue to point towards how mining leads towards difficulties in obtaining clean water. Any mercury that seeps into the rivers can find its way into the people of the town by consumption of the water, ingestion of the fish that swim in the water, or by

eating the cattle that drink the water. The more the effects of mining are understood, the greater the actions of the government become in addressing the problems that are present in Abangares. Miners for the most part are uninsured which deters many from visiting health clinics. Cheaper alternatives such as medical plants exist and there is the mindset amongst many miners: why pay if you don't have to? Mining and the use of mercury have resulted in a lot of problems for Costa Ricans and although knowledge exists of the dangers that they pose to their health, since there is no technology available to test the presence of mercury within people, everyone assumes that they are in good health. It goes back to the "cloud of smoke" everyone has their heads in.

The high blood pressure statistics found in a lot of research may not be accurate because the statistics are derived from information given from the clinica. However, many of the people suffering from high blood pressure may not even attend the clinica, so the statistic of 6% of the population having high blood pressure may be lower than what it is in actuality but there is no way of really knowing for sure. From the people interviewed it can be stated that people seem to have knowledge about blood pressures and if they have a healthy blood pressure or not. Whether or not high blood pressure is a problem in Costa Rica cannot be justified with any type of certainty.

### **Conclusion:**

The Costa Rican health care system is an effective system because it is supported by a strong middle class and because the workers in the health care system approach their jobs with an attitude that focuses on serving the population. The health care cost is a very reasonable investment for most Costa Ricans because it is maintained effectively by a middle class that continues to contribute to the system while spending money in private health care as well. (Bertodano, 2) Even people in the lower middle class can afford private care which is more expedient and personal. The people in the middle class contribute the system just in case they choose to have a procedure or checkup that they do not want to pay for with cash. In essence, the person who can afford private health care still supplies money for the

system which supports the poor (who cannot afford private care) just as equally as people in all the other classes.

Health care workers also see themselves as servants of the public. They may get paid well, but the emphasis is on serving their patients. This attitude is accepted by the people and a level of trust has developed between health care workers and the population that leaves issues such as malpractice a rarity. People see the health care system as looking out for their well being above all which leaves an atmosphere that stimulates greater support for the system.

Focusing on community oriented health care would be the best social factor to approach in bettering the health care system. (Morgan, 1) Dr. Cajina stated that going to work places and schools would increase the knowledge people had about their health and would encourage people to take their health seriously. Researchers and health care workers seem to both share the view that increasing knowledge amongst the population is an advantageous approach to improving the health care system. The issue of dangerous levels of mercury could be solved most expediently by investing in technology that would detect mercury levels in the body. If this technology is applied, the ignorance and carelessness that have been found with mercury-use would hopefully diminish.

The main problem the health care system in Costa Rica is facing is overpopulation due to immigration. The Costa Ricans are content with their system and the amount of the doctors within their system, but if the population continues to increase, the need for more doctors will increase accordingly. Besides having more doctors to work within the system, the system could be cautiously changed so that the benefits of multiple insurance companies could be had, (lower prices, competition for providing better care) but serious regulation would be necessary so that the current system would not be perverted into a business. These ideas are far from subtle, but keeping a focus on keeping health care a public health service should help Costa Ricans choose the best routes to take to enhance the current system in the future.

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