Project Proposal for ST380

Date: October 19, 2009

To: Professor Sujit Ghosh

From: Lewis Guignard, Tyler Hite, Nicholas Pylypiw, Andrew Wright

Subject: Health Care Reform? Investigation in Three Parts

Problem Statement:

The purpose of this proposal is to compare the relative merits of American health care as opposed to that of other countries. This project will explore:

- Factors influencing overall health of a nation's citizens.
- Factors influencing decision to adopt health care system.
- Pros and cons of health care systems.
- Properties of an ideal system (if the existence of one is possible).

Introduction:

One of the most important issues facing the United States today is the subject of health care reform. The number of uninsured Americans reached 47 million in 2008, prompting the public to question the government’s plan and putting increased focus on alternatives. Health insurance in the United States is largely privatized, with only extremely poor citizens qualifying for governmental assistance. Some propose that a socialized system will increase coverage and, consequently, raise the quality of life for millions of Americans. Critics argue that this decision will undermine the very fabric of the country, threatening the capitalist values on which the United States is founded and costing the citizens more money. Although the division seems to be mainly along political party lines, many Americans believe that some type of reform is necessary. However, nobody can agree on the nature of this reform.

Methods:

To determine whether an alternative health care system would benefit the United States, this project will be divided into three foci:

I. The correlation between health care system and overall health of the citizens;
II. The correlation between culture, education, and type of health care system;
III. The pros and cons of each type of system.
This project will develop profiles on twenty (depending on availability of data) of the following countries: United States, Canada, Mexico, Brazil, Argentina, China, Japan, Vietnam, South Korea, India, Israel, Saudi Arabia, Egypt, South Africa, England, Germany, Sweden, Russia, Spain, France, Italy, Switzerland, Iceland, and Australia. The profiles will be organized into a table, which will be used to compare data using R and Fathom software.

In order to investigate I, this project will first plot type of health system versus the following data sets: Infant Mortality, Life Expectancy, and Causes of Death (Influenza, Contagious diseases, Sexually Transmitted Diseases). The purpose of this investigation is to determine if any one type of health care system provides citizens with healthier babies and longer, disease-free lives. Section I will also include the exploration of the relationship between type of health care system and financial burden on both the nation and the individual.

It is possible that health care type would not account for all of the above health factors. For instance, a country whose citizens lack proficient literacy may experience higher disease infection rates. With that in mind, II will examine underlying cultural, geographic, and educational influences both on health care philosophies and on health in general. The factors explored in this section are: Dominant Religion, Geographic Location, Population, Number of Metropolises, Economic History (recent overview), Literacy Rate of Adults, and Type of Government. It will be determined how large a role these factors play in the health of a country's citizens and whether these factors influence the type of health care system a country employs.

Part III of this project will use the analysis of the data to compile a list of Pros and Cons for each type of health care system. This list will ultimately result in the construction of a fictional “ideal country” ie. one that demonstrates the best attributes of the countries investigated. The project members will then critically analyze this fictional country and determine whether or not it could act as a model for the United States.

Conclusions:

In order to remain scientifically impartial, this project group will make no predictions or assumptions about the correlations the data will reveal. The group will, however, discuss possible reasons for error, both in raw data samples and in calculations.

Sources of Data:

Data will be extracted from the following sources:

- http://www.who.org
- http://stats.uis.unesco.org
- http://www.cia.gov
- http://nationsonline.org