Health Economics 1

Social determinants of health
Why we study economics in Medical studies?

- ongoing controversy regarding health care reform
- a career in the health care field
- perhaps you need only three or two more credits to graduate

Whatever the reason, you will (COULD) find health economics to be challenging, highly interesting, and personally rewarding.
The study of health economics involves the application of various microeconomics tools, such as demand or cost theory, to health issues and problems. The goal is to promote a better understanding of the economic aspects of health care problems so that corrective health policies can be designed and proposed.

Health economics is difficult to define in a few words because it encompasses such a broad range of concepts, theories, and topics. The Mosby Medical Encyclopedia (1992) defines health economics as follows:

*Health economics . . . studies the supply and demand of health care resources and the impact of health care resources on a population.*
Notice that health economics is defined in terms of the **determination** and **allocation** of *health care resources*. This is logical, because medical goods and services cannot exist without them.

Health care resources consist of *medical supplies*, such as pharmaceutical goods, latex rubber gloves, and bed linens; *personnel*, such as physicians and lab assistants; and *capital inputs*, including nursing home and hospital facilities, diagnostic and therapeutic equipment, and other items that provide medical care services.

Unfortunately, health care resources, like resources in general, are limited or scarce at a given point in time, and wants are limitless.

Thus, trade-offs are inevitable and a society, whether it possesses a market-driven or a government-run health care system, must make a number of fundamental but crucial **choices**. These choices are normally couched in terms of four basic questions:
Issues in HE

- Scarcity means that each society must make important decisions regarding the consumption, production, and distribution of goods and services as a way of providing answers to the four basic questions:

  1. What mix of nonmedical and medical goods and services should be produced in the macro-economy?
  2. What mix of medical goods and services should be produced in the health economy?
  3. What specific health care resources should be used to produce the chosen medical goods and services?
  4. Who should receive the medical goods and services that are produced?
Issues in HE

How a particular society chooses to answer these four questions has a profound impact on the operation and performance of its health economy.
The first two questions deal with *allocative efficiency*:

What is the best way to allocate resources to different consumption uses? The first decision concerns what combination of goods and services to produce in the overall economy.

Individuals in a society have unlimited wants regarding nonmedical and medical goods and services, yet resources are scarce. As a result, decisions must be made concerning the best mix of medical and nonmedical goods and services to provide, and this decision-making process involves making trade-offs.

If more people are trained as doctors or nurses, fewer people are available to produce nonmedical goods such as food, clothing, and shelter. Thus, more medical goods and services imply fewer nonmedical goods and services, and vice versa, given a fixed amount of resources.
The second consumption decision involves the proper mix of medical goods and services to produce in the health economy. This decision also involves trade-offs. For example, if more health care resources, such as nurses and medical equipment, are allocated to the production of maternity care services, fewer resources are available for the production of nursing home care for elderly people.

Allocative efficiency in the overall economy and the health economy is achieved when the best mix of goods is chosen given society’s underlying preferences.
Q. 3

- The third question—what specific health care resources should be used?—deals with **production efficiency**.

- Usually resources or inputs can be combined to produce a particular good or service in many different ways. For example, hospital services can be produced in a capital- or labor-intensive manner.

- A large amount of sophisticated medical equipment relative to the number of patients served reflects a capital-intensive way of producing hospital services, whereas a high nurse-to-patient ratio indicates a labor-intensive process.

- Production efficiency implies that society is getting the maximum output from its limited resources because the best mix of inputs has been chosen to produce each good.
The answer to the fourth question—who should receive the medical goods and services?—deals with **distributive justice** or **equity**.

It asks whether the distribution of services is equitable, or fair, to everyone involved. In practice, countries around the world have chosen to address this medical care distribution question in many different ways.

When thinking about the distribution question, it is sometimes useful to consider two theoretically opposite ways of distributing output: the **pure market system** and a **perfect egalitarian system**.
Q.4

Goods and services are distributed in a pure market system based solely on each person’s willingness and ability to pay because decisions concerning the four basic questions are answered on a decentralized basis within a system of markets. That is, goods and services are distributed, or rationed, to only those people who are both willing and able to purchase them in the marketplace. Because people face an incentive to earn income to better afford goods and services in a pure market system, they tend to work hard and save appropriately for present and future consumption.

Consequently, productive resources tend to be allocated efficiently in a pure market system.

In many cases, differences in ability to pay among individuals reflect that some have consciously chosen to work harder and save more than others. Unfortunately, differences in ability to pay may also indicate that some people have less income because of unfortunate life circumstances such as a mental, physical, or social limitation. Regardless of the specific reason, it follows that people without sufficient incomes face a financial barrier to obtaining goods and services in a pure market system in which price serves as a rationing mechanism.

Given income disparities, some people may be denied access to needed goods and services. Consequently, the pure market system is typically viewed as inherently unfair by many when it comes to the distribution of important goods and services such as health care.
Social and economical determination of HEALTH.
Social Determinants of Health

- (SDH) are circumstances in which people are born, grow, live, work, aging, and the systems and actions implemented to deal with health problems.

- Unequal distribution of social determinants of health between groups is due to health disparities within a country or between countries.

- (WHO Commission on Social Determinants of Health (http://www.who.int/social_determinants//))
Definitions

- (According to WHO) are considered determinants of health income and social status, education, physical environment, social support network, gender, medical care, genetic factors.

  at the individual level determinants are features usually non-modifiable (gender, age, genetic factors), health determinants related to the characteristics of groups and social communities are beyond the control of individuals.

- Referring to the social determinants of health, Ian McDonell (2002) lists three classes of factors:
  - socio-economic circumstances,
  - social structure and
  - cultural factors

  Extrapolating at the macro level, economic development and social development of an area (covering a population) is an important factor with proven impact on health.
Classification, taxonomy

- (1) *factors related to system problems* and *socio-economic inequalities*, on the one hand and
- (2) *factors related to attitudes and practices, values and culture* on the other.

The two groups of factors are connected through multiple modes and these links should be analyzed, but the proposed distinction is also important.
One of the most important determinants (itself a plurality of other determinants) is considered the access to health care (WHO, 2008, WHO, 2010, Raphael, D., 2008).

One of the factors that affect people's chances of being healthy is good quality care.

For this reason, it is clear that health systems should be considered as one of the major social indicators of health.

By default, the social protection system must be consistent and generous (especially aimed at supporting the individual throughout his life and not only in situations of social risk welcome - old age, sickness, unemployment, poverty) is also a key contributor the quality of public health (WHO, 2008).

Less studied in the literature are those determinants outside the health system that have a role in determining the general state of health. Most often they belong to other resorts and are not under the control of individuals not under the control of decision makers in health.
Social determinants of health can be divided into the following categories:

- Distal determinants (e.g., historical context, the political, social and economic),
- Intermediate determinants (e.g., infrastructure, resources, networks and community capacity) and
- Proximal determinants (e.g., behavior in terms of health, physical and social environment)

Social context ≠ Social environment
Disease Based Approach

Population Based Approach

Risk factor Based Approach

Territory Based Approach
Epidemiology (separate Discipline)

Epidemiology is the science that studies and investigates the causes and distribution of diseases. Epidemiological studies are aimed at identifying and assessing risk factors for a disease of the substances or chemicals.

Definition 2: epidemiology is a medical science that through multidisciplinary cooperation deals with identifying health aggression factors, establishing the means and methods of neutralizing their action on high-risk population groups, the detection and liquidation processes epidemiological disease states and the development of programs for the overall protection of human health.

Epidemiology study also the geographical distribution of the disease, the seasonal changements, the incidence of disease in different social groups, etc.

For the production of a number of diseases are required to be primarily epidemiological factors (organism, macro, outdoors) and a number of secondary factors (climatic, social).
Risk factor Based Approach

- Economic Stability
- Neighborhood and Built Environment
- Health and Health Care
- Social and Community Context
- Education

SDOH
<table>
<thead>
<tr>
<th>Economic situation/economic status</th>
<th>Education</th>
<th>Social and community Context</th>
</tr>
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</table>
| -poverty                          | • graduation rates / literacy  
- unemployment                     | • Promoting health through education  
- access to employment             | • Family structure  
- home / living space               | • The school environment as a safe level or conductivity for education  
                                           | • 'enrollment' rate for higher education  
                                           | • Discrimination and equity  
                                           | • Incarceration / institutionalization |

<table>
<thead>
<tr>
<th>Health and care</th>
<th>Neighborhood and built environment</th>
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</table>
| - Access to services (clinical or preventive)  | - The quality of housing  
- Access to basic services (including promotion programs) | - Crime and violence  
- Access to technology (medical)                          | - Environmental conditions  
                                           | - Access to healthy food |
Theories and models on SDH considering risks

- **Psycho-social-approaches** emphasize the idea that *experiences and perceptions* of individuals or of the group are those that lead to stress and poor health in unequal societies.

- **Social (re)production of disease and health** - are concerned with political and economic determinants of health, the connection between health and social inequalities should focus on structural causes.

- **Eco-social theory of Krieger** and other multi-level approach that integrates biological factors in the historical and ecological dynamics to better detect determinants of disease in the population distribution and inequalities in health. The idea is that No aspect of our biology can be understood separately from historical knowledge on how individual and social life is.
Theories and models on SDH considering risks

- **Social selection perspective:** health determines socio-economics, rather than the reverse situation. Longitudinal studies indicate that this view cannot be used as the sole explanation of the SDH.

- **Causal perspective of social relations:** social position determines health through intermediate factors. Longitudinal studies suggest that this explanation is the most important to explain the SIH.

- I=inequalities
Theories and models on SDH considering risks

- **Life-time course perspective** - recognizes the importance of causal relationships in an individual's life history between generations, between trends and diseases at the population level

- SDH operates differently in each moment of development (childhood, adolescence, adulthood), to immediately effect the health or later provide explanations of the disease or health.

  Two models:
  - The critical periods model (latency)
  - The accumulation of risk (there are cumulative impacts on biological systems). Lifetime perspective should be considered not only to explain the inequalities faced by individuals during their lives, but also to explain the perpetuation of social inequalities in health between generations.
*Life-time course perspective*

- Health is experienced not only by the physical, spiritual, emotional and psychological factors, but also in terms of their evolution throughout life.

  Ie: The course begins during pregnancy, when the determinants of health affect resources and profile of pregnant women, than in the early development the physical and psychological characteristics not only affect the current health of children, but can also determine vulnerability / resilience in the future.

- Although, in principle, social factors exert similar effects on children, youth and adults, they can cause various health problems at every stage of life.

- Not only that social factors do determines a different impact on health throughout life, but also health problems arising can be responsible (ie determinants) - that affect health later. For example, poverty is associated with an increase in the consumption of alcohol and other drugs which may cause an increase of family average stress which can lead to depression.
(OMS) WHO Model
Population Based Approach

Dalghren & Whitehead Model

Source: Dahlgren and Whitehead, 1991
Influences on health: broadening the focus - Robert Wood Johnson Foundation Model

Population Based Approach

- Economic and social opportunities and resources
- Living and working conditions in homes and communities
- Medical care
- Personal behaviour

Health
Population Based Approach

Influences on the population’s health

Place & Time

Context

Community Attributes

The Population’s Health

<table>
<thead>
<tr>
<th>Level</th>
<th>Distribution</th>
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<tbody>
<tr>
<td>Disease</td>
<td></td>
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<tr>
<td>Functional status</td>
<td></td>
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<tr>
<td>Well-being</td>
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</tbody>
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Built Environment
- Housing
- Workplace
- School
- Transportation
- Communication

Health Services
- Structure
- Processes
- Cost and financing
- Access and use
- Quality

Biological Characteristics
- Community age distribution
- Community sex distribution
- Genetic make-up

Social
- Cohesion
- Influence
- Networks
- Support
- Social change

Population-based Health Programs
- Water supply
- Waste disposal
- Air pollution control
- Public health programs

Collective Lifestyles and Health Practices
- Diet
- Wellness behavior
- Physical activity
- Sexual practices
- Smoking
- Substance abuse
- Violent behavior
- Access to health information

Natural Environment
- Air quality
- Water quality
- Climate and weather
- Topography and soil
- Environmental contaminants
- Animals and plants

Cultural Context
- Norms and values
- Religion
- Racism and sexism
- Discrimination
- Competition/cooperation

Political Context
- Public policies and laws
- Political culture
- Differential political engagement or participation

Economic
- Employment
- Income
- Income inequality
- Economic change
- Education
Concept

- Divided into 5 fields: global context and other contexts, systems, ways of life, individual characteristics and health status of the population.

- Each field is subdivided into categories involving sub-categories.

- Dotted line = interpenetration of fields
Global Context

- The global context of *macro-environmental aspects* which condition 'global' organization of society: political contexts, economic, demographic, social and cultural, technological and scientific as the natural environment and ecosystems.

- Measured more qualitatively than quantitatively (existence of 'chartas' of rights, global programs ... Organizations ways especially producing several social structures)

- Each of these contextual frames affects all other areas and (hierarchical) ultimately the health of the population. Their understanding is helpful to analyze health problems, to understand the determinants of development and for assessing and understanding the needs of monitoring and tracking.
Political and Legislative Context

- Expression of dominant norms and values of the political culture of the reference population.
- Translated into SYSTEM, INSTITUTIONS, GOVERNANCE MODELS or regimes, degrees of citizen participation, procedures, decision-making rules.
- Political and legal context also influences public policies adopted at different levels of government (also there is a need for international treaties to be considered).
Economic Context

- Refers to structures and economic phenomena that affect society. Eg, type of economy (The regime) (capitalist or socialist, or mixed according to the degree of state intervention in the economy), and market state: growth or economic collapse, globalization, internationalization, situation expansion or tightening labor market and unemployment, inflation and financial stability.

- All this affects the life (welfare) and the equity (income distribution between different social groups in society).

- It also generates other social reactions that may affect health indirectly. For example, poverty and crime generate unhealthy behaviors.

- An economic system contains all the institutions, laws, activities, values and motivations that underlie economic decisions.
demografic/ social cultural/ technological & scientific contexts

- peculiarities of population as fertility, rate of aging, gender and age distribution. Also, population dynamics, migration, immigration, population growth, mortality, morbidity, rural exodus, urban congestion, etc.

- norms and values prevailing in society: eg abortion aversion, aversion or propensity for unhealthy behaviors (addictions), religious peculiarities. Racism, sexism vs. egalitarianism, competition, individualism, etc. All are reflected in the media, social stigma, marginalization.

- level of development of scientific knowledge especially those related to medicine (biology, chemistry, medicine, genetics, etc.) and the development of technologies and levels achieved social and human sciences (sociology, psychology, anthropology, etc.). For example, communication and diffusion contribute to the territorial rapidization services, materials science and nanotechnology lead to the development of support materials in medicine)
Natural environment and ecosystem

- Provide and maintain life (regulating gas in the atmosphere, climate, water, pollination)
- Provide the basis for human consumption, consumer sources, arable soils, biodiversity, oceans (etc)
- Environmental degradation affects health through pollution, destruction of food, etc.
- Also found and various pathogenic environment - microbial agents, chemical contaminants or biological vectors - that promote / favor disease transmission. This category also includes in the global zone characteristics: its scope, topography, hydrography, etc.
This area covers the major systems resulted from contextual frameworks (policy, the values of a country or society in general, etc). These large systems are grouped into five categories:

- the education and care for children,
- the social service system and health,
- employment assistance and social solidarity,
- land use and
- other systems and services.

These systems can be defined and described at various levels acting

These systems are adapted to the environment and the demographic and economic contexts. These include methods of governance, human resources, material and financial. The organization of these systems is the mean to implement policies and laws (the political and legal).
The education and child protection / social services and health / employment support and social solidarity

- / refers to the infrastructure of schools and institutions of care and protection of children, rules and practices of an organization, financing and resource allocation

- / includes all national infrastructure and set of rules and practices, the organization of social and health services (public, private or community) includes all elements that touch the accessibility, service offerings, structure administrative processes, care programs national public health, prevention, protection, etc.

- / different programs and labor market integration services and support in case of unemployment, encourage certain categories, reducing exclusion, insurance in case of loss of capacity or parental insurance (growing baby)
Land use

- refers to changes in the natural environment to support the implementation of community projects or caused by human activity.
- It also sets rules on housing, road construction, telecommunications infrastructure, jobs and schools.
- The land is a major component of the physical environment. There is a need for different forms of intervention in urban and rural areas (eg. Practice intensive agriculture, urban sprawl, residential coexistence).
Other systems and programs

Regrouping and include all systems that are not part of the four categories defined above involving planning and organization by the authorities. For example, the organization of security, certain municipal services (e.g., water management and control) programs for food safety and animal health are factors that are based on the contexts shown up and acting on community development and welfare (health).
Living environment

- "An environment is where people live, learn or work, which includes a place and social context in which people interact daily. Home, school, workplace, village, city, region are places where people live and work."
- Individuals are simultaneously integrated in many environments throughout their lives: living in a family environment, integrated in a school environment or the working environment, participating in leisure and entertainment in the community. They are changing these living environments in life.
- These living environments directly affect individuals: they help or hinder their development and their ability to act and perform roles that they intend to take.
- We cut environment into five categories: family, school, work, home, and finally, the local community and neighborhood.
must be considered in all its social aspects (not private) that everything related to composition, changes that induce the individual, educational practices, relationships between members, material and economic aspects, such as availability of resources to meet needs, etc. The family environment plays a key role in the physical, cognitive, social and emotional development of children, and continue to influence the behavior of individuals and their health at all ages of life.

/ usually the second living environment for children and young people, which will also act in an important manner in all aspects of personal development: creating social behavior, adopting practices and lifestyles (or behaviors) potentially unhealthy.

Specialized staff and collegial environment are components of this environment. Then resources and educational services, preventive services, after-school activities. Also, the material conditions of sanitation and hygiene, climate.

Job characteristics are designed to enhance the knowledge and skills already acquired or face a people more or less healthy than the physical and various hazardous environments (contaminants, noise, safety, etc.). This medium may also be more or less favorable to health (under a degree of control).
/ It can affect various skills / physical disabilities, can create physical and mental deficiencies (eg lack of space, lack of optimum temperature, hygiene, sanitation, lighting, material constituents, facilities, etc.)

/ Local community and neighborhood include other social categories described above, but covers a wider set of social and material conditions in which people are exposed. The neighborhood may be proximal (block, house, street, yard) or be neighborhood shops, services in the area. In this environment, add spaces and places that the individual regularly attends (recreational or leisure services)

Community can be seen in a broader sense as a structured system of people living in a particular geographic area (city, town, district, borough), which requires institutions (administrative or service, and common cultural and social values for example traditions, holidays)
“Individual” features

- All these determinants mentioned above, are somewhat removed from direct influence on the individual, influencing elections only, not directly health. The range of individual characteristics include four major categories: biological and genetic characteristics, personal and social skills, habits and behaviors and ultimately socio-economic characteristics.

- We refer to the biological and genetic factors, age, sex, ethnicity and specific gene for a community or individual. It may be, for example, hereditary diseases or genetic predisposition. Genetic factors are more or less modified, but genetics is increasingly recognized as an 'event' in terms of health and is subject to the influence of environmental factors.
Personal and social skills

- Personal and social skills category covers a wide range of personal resources (knowledge, skills and attitudes) that allow a person to meet the demands and challenges of everyday life.

- These include physical fitness, cognitive, emotional and social, and include, for example, communication skills, ability to manage emotions, solve problems, adaptability and ability to cooperate and establish social relationships.
Lifestyle

- Lifestyles and behaviors directly affect health. These include behaviors related to diet, physical activity, tobacco, alcohol, drugs, sex, international travel behavior that increase exposure to diseases and propagation.

- Also include behaviors involving workplace safety, transportation or recreation, such as wearing a helmet on a bike or seat belt use, caution when driving or safety equipment.

- They also relate to hygiene measures such as hand washing, protective measures such as sunscreen use or installation of carbon monoxide detectors, and actions that promote a healthier environment as recycling or use of public transport.

- Behaviors and lifestyles are considered as **individual determinants** because they fall in the **personal choice**, but we recognize that these choices are heavily influenced by economic conditions and living environments, as well as factors related to systems and global context.
Lifestyle examples

- Lifestyle traditional (patriarchal)
- Urban lifestyle,
- Naturist lifestyle,
- Sedentary lifestyle,
- Lifestyle sports
- Ascetic lifestyle, etc.

Alternative lifestyles:
- hippie community
- Yoga practitioners,
- Adherents of particular religious practices etc.
Lifestyle components

- Nutrition,
- Health care,
- Control health and therapeutic adherence
- work
- Rest,
- Interpersonal relations,
- Stress (determination and management)
- Ability agent (self-confidence, will. Courage etc.)
- Housing,
- Communication style,
- Leisure and tourism
- Adherence to a set of particular values (ethical, religious)
- Sports, Etc.
This category includes socio-economic characteristics determined individually or systems listed: education, income and occupation (ie, working or not), and type of employment.

These three factors are the so-called socio-economic status of individuals. They have a great influence on the health of the population, either through direct effects or by effects on many other determinants such as individual behaviors and risk factors that a person is exposed to during his lifetime.

Belonging to a social group or ethno-cultural language can also be associated with significant differences in health (eg, membership in an indigenous community or disadvantaged).
The health state of population

The concept of social health determination is not limited to the amount of data concerning the state of health of the individual, it also involves an analysis of the distribution of health into the population. We group as components of the health of the population into three categories: general health, physical and mental and psychosocial health.

General health is indicated by measurements that provide an overview of health - not only about specific issues, such as cancer, diabetes and suicide, but broader measures such as overall mortality, life expectancy or the perception of physical and mental health, etc..

Physical health includes all diseases related to all body systems such as the respiratory nervous, digestive system, reproductive, etc. And all the trauma they may suffer individuals. This may include events that occur throughout a community or population (epidemic).

The third category is that of mental health and psychosocial. It includes both mental health, as such, positive components (eg, life satisfaction) and negative (eg, mental disorders, suicidal thoughts), social adjustment problems (or social functioning) - including various forms of violence, neglect and abuse - and the problems of social integration and child development. Each of these categories can be seen in the analysis of morbidity and mortality, disability and welfare, which are the main measures commonly used to describe this condition.
Social inequalities in health / social gradient of health

- Means The existence of a gap of health status in a stratified society. Social inequalities in health affects a broad range of health indicators from risk factors to outcomes of care and adherence to treatment and breed for health.

- ‘Robust’ correspondence between social position of people and observing their health. A social gradient of health is observed when the frequency of health problems or exposure to a risk factor increases regularly from those most advantaged groups to most disadvantaged.
Access, inequality and vulnerability

- Worldwide, anywhere, anytime the poor usually have a poorer health status. It is also shown that the health and social status are closely related: the people of higher social status tend to be healthy, while those of lower social status are often less healthy. This trend is reflected at all levels of the social ladder.

- When health disparities within a group or between several groups are systematic and can be avoided by social measures, they are considered unfair (dependent on ideology). These systematic and avoidable differences in health are called health inequalities.

- Differences in social status within a population or between populations have a significant impact on the health of the entire community in which we find these differences. If differences are important, the health of the population as a whole is poorer. This disadvantage affects everyone, not just the disadvantaged. In this context, promoting equity in health is an essential strategy to improve the health of entire populations.
Access vs. Inequity & Vulnerability

- Access to health (care) has many definitions - context dependent. For example, as a noun is related to the potential use of care, as a verb (action) refers to the act of users or receive medical care.

- This arises from the confusion between the ability to get the care and the act of "searching" (to want) care. This concept and its communication would become clearer if they address access in terms of "stages" and "size" (operationalization by quantification).

- It would be two stages: one potential care, another done (like act, committed care). The potential exists when a population needs coexist in space and time with a delivery system capable of providing such care. Designed as a stage system refers to the situation where care is achieved by removing all barriers.
Access vs. Inequity & Vulnerability

- Access to health services is considered theoretically equal to the same level of social payements. In other words, the disadvantaged are those who lack material resources sufficient to cover the costs of insurance and thus lose some of the rights to varying healthcare. But if this dysfunction may be passed as an 'individual responsibility for health’ problem, not the same can be said about those inequalities that the system perpetuates in the categories and communities that do not have a problem with social and medical insurance.

- There are individuals and communities who are disadvantaged and discriminated despite complete coverage in terms of social security or even superior material availability compared to other communities. Often the member believes that once set the rules for compensation between benefits and health insurance system, it can be solved the problem of access at least the equality between individuals.

- Even recognized the problem of proximity, it is treated as an exogenous factor that can not be controlled only through common policies to increase the general welfare (welfare state). In reality it is not. Proximity problems are often insurmountable and direct reporting to health.
Territory based Approach

- In practice, proximity and space generally creates hierarchies (implicitly inequalities) between people who do not depend on the social payments.
- Therefore, the state has an obligation to not limit its interference only to regulations concerning equity at the individual level but also at the community or population level.
- At the same time, the state should monitor areas where socio-economic imbalances generating inequality are correlated with proximity issues and double intervention where these aspects significantly influence access to health services.
- Default occurring some disadvantaged groups over others.
Hierarchy of spatial access performance

- Hierarchies of access (in the physical sense)
- Jurisdictional hierarchies /of ‘belonging’ (assignation)
- Hierarchies based on service complexity and quality

In other coordinates these inequalities can be classified as physical (the neighborhood, housing and relief, geographic and climatic conditions) - administrative or affiliation (jurisdictional) and social (the complexity) related to the ability of individuals (socially determined) to access various goods or facilities provided by the society or the ability to create wealth.
Vulnerability

- Vulnerability is the degree of fragility of a person or group or community to some danger on a given space. In fact, the vulnerability is a set of conditions and processes resulting from physical, social, economic and environmental conditions that influence the susceptibility of a community to face dangers. Also, the vulnerability involves the idea of adapting the community.
Vulnerability

- From the multitude of definitions: *Vulnerability is a pre-event or inherent characteristics or qualities of systems that create the potential for harm or differential ability to recover after an event.* (Cutter et al., 2008)

- Vulnerability is a function of exposure (who or what is in danger), and a system sensitivity one (the degree to which people and places may be affected) (Cutter et al. 2008).

- Consequently, there is an **endogenous vulnerability** of individuals who may control or dispose of and an **exogenous** one, **system vulnerability** which is given and subsumes the entire community or groups (in varying degrees, for example, vulnerability is remotely related to systemic exogenous but differs in individuals belonging to the same group).

- Also, the definition of vulnerability is understood as a dynamic construct that changes over time and space.
Vulnerability

- But also vulnerability matter as location / possibly exclusion in a risk position in relation to a standard.
- Although is aimed at inequality, if we apply this definition to homogeneous groups rather then individuals the therm is also vulnerability and not inequality because individuals can show unequal but are vulnerable in terms of belonging to a group / community.