



Disentangling the Pathways to Health Inequities The Chilean Health Equity Gauge

**Jeanette Vega
Liliana Jadue
Iris Delgado
Rodrigo Burgos
Francisca Brown
Fabiola Marín
Vicente Zúñiga**

June 2002

Table of Contents

<u>Disentangling the pathways to Health Inequalities</u>	3
<u>The Chilean Health Equity Gauge</u>	3
<u>Economic and social context</u>	3
<u>Education and occupation</u>	3
<u>Health Status</u>	4
<u>Health Services and Resources</u>	5
<u>The Chilean Equity Gauge</u>	5
Operational framework	5
Theoretical framework	7
The Diderichsen model	7
<u>Implementation of the Chilean Equity Gauge</u>	12
1.- Measurements and data monitoring.	12
2.- Community participation.	14
3.- Advocacy/Dissemination.	14
4.- Human resources training center.	15
<u>Theoretical framework implemented in the Gauge design</u>	16
<u>Strengths, Weaknesses and Challenges</u>	17

Figures and Tables

<u>Figure 1: Upstream and downstream mechanisms of social inequities in health: The impact of social position on health through differential exposure (I and II) and differential susceptibility (III). The impact of social context on social stratification (A), on differential exposure (B), on differential susceptibility (C) and direct on health (D). Finn Diderichsen, 1998.</u>	8
<u>Figure 2: Application of the Chilean Gauge activities to the Diderichsen model!</u>	16
<u>Table 1: Overview of the theoretical framework to study equity derived</u>	11

Disentangling the pathways to Health Inequalities

The Chilean Health Equity Gauge

Chile is an intermediate-development nation located in the southern cone of South America. According to its latest census (2002), the country has a population of 15.050.341 for year 2002. Half of the population is concentrated in two of the Chile's 13 political and administrative regions - Valparaíso and metropolitan Santiago - which represent only 4% of the national territory. The density is lowest in the extreme north and south of the nation. The average annual population growth was 1.6% for 1990-2000 and now has reduced to 1,2%. The slowdown in the growth rate is due mainly to lower fertility (which follows a decline in mortality) coupled with low immigration.

Economic and social context

Chile has experienced profound economic, demographic, and epidemiological changes in recent decades which have been correlated with an overall improvement in the health status of its population. The Chilean economic model has been cited as an example of development to be followed by other nations because of the nation's strong and sustained economic growth in the 1980s and 1990s (6,3% per year of average annual GDP growth rate in 1989-2000)¹, 3% in 2001².

In the 80s it was the first country in the American region to embark upon a structural economic reform process, and the most radical as well, with a prolonged swiftly paced growth since then. Social expenditure increased as a percentage of GDP up from 12,9 in 1990 to 13.2% in 1995 and 16,6% in 2000². The unemployment rate has diminished from 11.7% in 1980 to 9.5% in 2002³. The global poverty level has decreased from 45% in 1987 to 20% in 2002⁴, however the income gap between the highest and lowest decile has consistently increased over the last years. Following a slight improvement- up to 1992- in the share of the poorest 40% and the poorest 25%, there has been a slow but persistent erosion of the share of the poorest decile (0,8% of the total by 2000) and in the share of the poorest 25%, whereas the share of the richest 10% has continued to climb (48,2% of the total by 2000).

Education and occupation

Since the 1930s, the educational system in Chile was basically supported by the national government and in large part free of cost to the student. In the 80s, the government transferred the schools to the municipalities and increased subsidies to private schools. At the same time, universities began to charge tuition and a system of governmental educational credits was implemented, changing to more decentralized role of regulation and subsidy. With the arrival of democracy in 1990, education became the top priority in the social agenda, because of

¹ ECLAC, UNDP.

² <http://www.mideplan.cl/estudios/gastogloba.pdf>

³ Preliminary Overview of the Economies of Latin America and the Caribbean 2001. Economic Development Division, ECLAC December 2001

⁴ Encuesta de Caracterización Socioeconómica Nacional (CASEN) 2000, Ministerio de Planificación 2001

agreement on the importance of educational reform both as a mechanism to equalize social opportunities and as means to increase Chile's international competitiveness. Since 1990, the government has doubled its spending on public education and has restructured the educational curriculum to decrease the gap in the educational quality with the private schools.

Data from the periodic household survey developed by the Ministry of Planning, CASEN⁴, over a nationally representative sample, indicate that between 1987 and 2000 that both the relative and absolute differences in mean educational attainment for the extreme income quintiles decreased. Mean educational attainment (in years of education) in the poorest quintile increased by 12.3% over the period while the richest quintile improved 5.2%. Nonetheless, it should be recognized that still in 2000 the poorest quintile achieved only 7.8 years while the richest almost doubled that at 13,1 years. Recently, the government set a new goal for the education system to increase the obligatory number of years of the education in the population from 8 to 12 years.

Currently the population economically active is 40% and of these 94% are employed. The unemployment rate is concentrated in the poorest quintile, in women, and in the young population.

There is a close interrelation among education, occupation, and income that has been documented by several Chilean studies⁵. Data from the CASEN serial household survey show a close correlation between mean income and years of formal education. Education is also correlated with the occupational category, with higher education related to higher income occupational categories.

Health Status

Global health indicators, like life expectancy and infant mortality, have consistently improved in the country in the last decades. Infant mortality has decreased from 32 per 1000 live births in 1980 to 10.1 per 1000 live births in 1999⁶, life expectancy has increased from 67 years in 1980 to 75 in 1995-2000, and general mortality has diminished from 6.6 per 1000 inhabitants in 1980 to 5,3 in 1999. It is clear however that not all socioeconomic groups have benefited equally from these improvements. There are differences between rich and poor communities that have to be reduced, for example the life expectancy at county level demonstrates that male life expectancy at birth ranges over a span of 19.6 years, from 66.1 to 85.7 year according to the socioeconomic condition of the county. For females, life expectancy ranges over a span of 11.4 years from 73.3 to 84.7 years⁷. The infant mortality rate also changes according to the educational level of the parents being 5 times higher in those infants born from mothers with less than 8 years of education as compared with those born from mothers with 12 or more years⁸.

⁵ CASEN 1996 – 1998 – 2000. www.mideplan.cl

⁶ Estadísticas de Natalidad y Mortalidad. Chile, 1999. Gobierno de Chile, Ministerio de Salud, 2000. www.minsal.cl

⁷ Vega J, Hollstein RD, Delgado I, Perez J, Carrasco S,MS, Marshall G and Derek Yach. Socioeconomic Health Inequities in an Intermediate-development nation: Chile, 1985 – 1996. In *Challenging Health Inequities: From Ethics to Action*. Oxford University, 2001.

⁸ Hollstein RD, Vega J, Carvajal Y. Social inequalities and health. Socioeconomic level and infant mortality in Chile in 1985-1995. *Rev Med Chil* 1998 Mar;126(3):333-340.

The leading causes of mortality in Chile are diseases of the circulatory system, which taken together account for 28% of all deaths (1999). Malignant neoplasms rank second overall and first among women. Mortality from infectious diseases and perinatal complications has declined over time, as have the rates for metabolic, endocrine, and nutritional disorders, mainly due to the decrease in diabetes mortality. Injuries, accidents, and violence have become increasingly serious problems and now rank high among the causes of death and hospitalization. The non-communicable chronic diseases most often reported by the population are cardiovascular diseases, especially arterial hypertension; rheumatic diseases, particularly back problems and joint disease; diabetes mellitus; chronic bronchitis; mental disorders; peptic ulcer; and epilepsy.

Health Services and Resources

The health sector is a mixed system. The public system or National Health Services System (SNSS) consists of the Ministry of Health (MINSAL) and its sub agencies: the 29 Regional Health Services (SS); the National Health Fund (FONASA); the Public Health Institute (ISP); the Central Supply Clearinghouse (CENABAST); the ISAPRE Authority, and the network of health primary care facilities under municipal administration. The private system is made up of: the health institutions (ISAPREs), employer mutuals, institutions providing nonprofit services and for-profit service providers and serves 30% of the population.

For the last two years, the country has been undergoing a health reform process⁹, that includes the definition of Health Objectives for the decade¹⁰, the definition of a new National Health Authority and its corresponding Regional Health Authorities¹¹, the development of an integral health package¹², and the reengineering of the provision, and financing of health services. The first law regarding the universal health package has been sent to Congress and will begin its implementation in September 2002.

The Chilean Equity Gauge

Operational framework

Since March 2001, a team of health and social science professionals with the support from Rockefeller Foundation has been working to develop a Chilean Equity Gauge. An Equity Gauge is a concept derived from the work of the Health System Trust in South Africa¹³. It implies an

⁹ Hacia Una Política Pública en Salud. Un Estado con potestades rectoras y reguladoras en Salud. Documento N°1: Bases Institucionales de la Reforma. Propuesta de Trabajo. Ministerio de Salud de Chile. Marzo, 2002.

¹⁰ Objetivos Sanitarios y Modelo de Salud para la Década 2000-2010. Enero, 2002. Gobierno de Chile - Ministerio de Salud.

¹¹ Hacia Una Política Pública en Salud. Propuestas para la Modificación del Sistema de Instituciones de Salud Previsional. Documento N°2: "Modificación Sistema ISAPRES" Propuesta de Trabajo. Ministerio de Salud de Chile. Marzo, 2002.

¹² Plan de Acceso Universal con Garantías Explícitas AUGE. Eje de la Reforma de la Salud. Documento de trabajo. Propuesta al país. Ministerio de Salud de Chile. Enero, 2002.

www.minsal.cl

¹³ Equity gauge: An approach to Monitoring Equity in Health and Health Care in Developing Countries. International Meeting: 17-20 August 2000. Published by The Health System Trust. Available at: www.hst.org.za/hlink/wrkshp

active approach to monitoring health inequities and addressing inequity in health and health care, moving from description or passive monitoring of equity indicators to a set of interventions to generate changes in reducing unfair disparities in health and health care. An Equity Gauge is an approach consisting of a set of interconnected and overlapping actions, and is not just a set of measurements. For example, the selection of equity indicators to measure and monitor should be informed by the views of community groups and by a consideration of what would be useful from an advocacy perspective. In turn, the advocacy pillar relies on reliable indicators developed by the measurement pillar and may involve community members or public figures. The media participation is essential to inform the community and all sectors about actions.

An Equity Gauge is based on 3 "pillars of action", each considered to be equally important, complimentary and essential to a successful outcome. The three pillars are:

1. Research and monitoring to measure and describe inequities.
2. Advocacy and public participation to promote the use of information to effect change involving a broad range of stakeholders from civil society working together in a movement for equity.
3. Community involvement to involve the poor and marginalized as active participants rather than passive recipients.

The Chilean Equity Gauge has added a fourth pillar : Human Resource Training to enhance local capabilities in research, surveillance and interventions to reduce health equity gaps.

The four pillars the Equity Gauge are not related in temporal sequence because a typical linear approach is often ineffective to promote significant social changes. In the Equity Gauge, the actions of all pillars happen concurrently, taking advantage of addressing different audiences for different purposes.

The Chilean Equity Gauge is ultimately concerned with decreasing the gap in health status between extreme socioeconomic population groups, with a particular focus on the study of the social determinants of health disparities in Chile.

Our general objective is:

“to improve the monitoring of health equity in Chile and to build capacity for research, advocacy and community participation to improve health equity”

The gauge has been designed following the four main pillars mentioned above. We have developed a set of intermediate goals mostly related to the monitoring of health and social indicators, and the study of the pathways to health inequities and levers being used by communities and individuals that can serve to design specific equity oriented interventions. The decreasing of the health status gap is our final objective.

The selection of equity indicators to measure and monitor are informed by the views of different government and community groups and by a consideration of what would be useful from an advocacy perspective. In turn, the advocacy pillar relies on the equity indicators developed by the measurement pillar and involve the interaction with organized community groups and public authorities.

Theoretical framework

We have based our work in two conceptual frameworks, the first one developed by Finn Diderichsen (figure 1) to explain the pathways that operate to increase or decrease health inequities and the second one derived from the work developed by the World Bank for the PRSP initiative¹⁴, adapted to use equity instead of poverty as the final outcome for the definition of possible policy levers.

The Diderichsen model¹⁵

proposes several pathways to explain how different factors interact at the individual and collective level to generate social inequalities that have and impact in the health status in a given population and at the same time, it helps to identify points where action can be taken to change the equity situation.

The first mechanism that increases health inequities according to Diderichsen is differential exposure where individuals from lower socioeconomic situation are usually more exposed to different exposures such as adverse childhood conditions, physical and psycho-social work environment, relative material deprivation, in addition to a number of behavioral factors. The second mechanism is what has been described as an increased *general* susceptibility to many different causes of disease in low socioeconomic position individuals (differential susceptibility which could explain for the striking fact that most disease and injuries show similar social patterns of higher frequency in lower socioeconomic position groups, despite very different specific causal mechanisms¹⁶

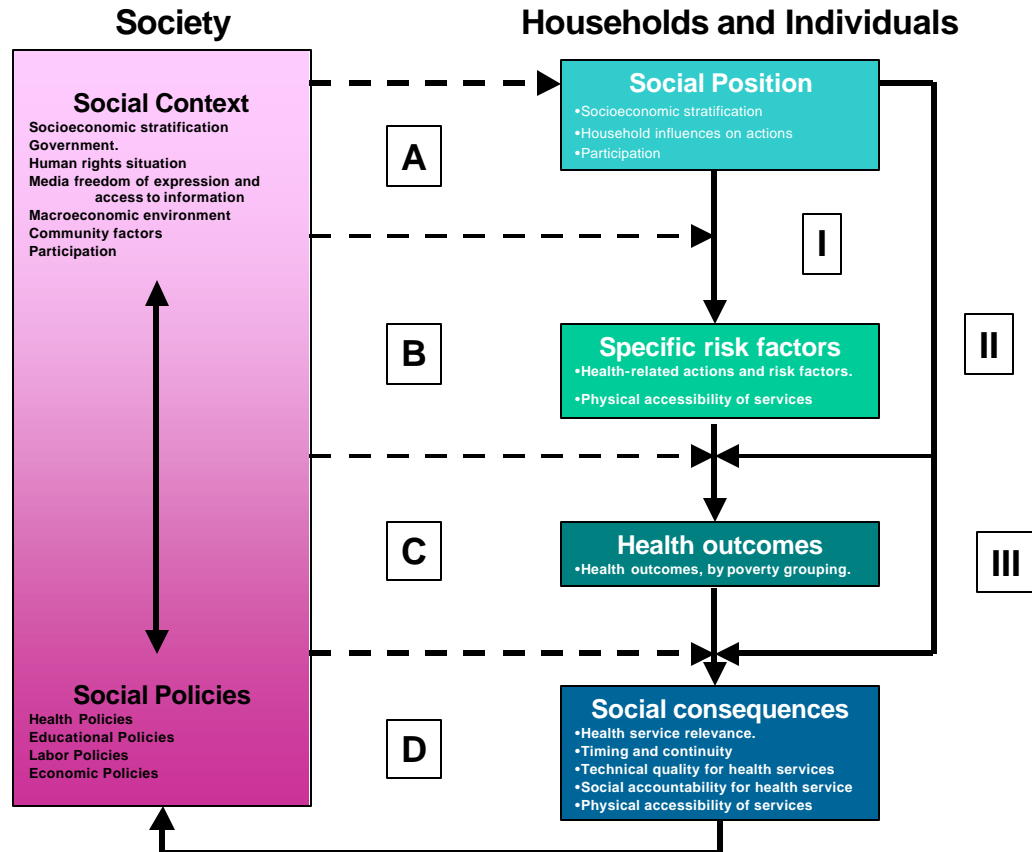
¹⁴ Poverty Reduction Strategy Papers (PRSP) Chapter: Health, Nutrition and Population. M. Claeson, C. Griffin, T. Johnston, M. McLachlan, A. Soucat, A. Wagstaff and A. Yazbeck.

http://poverty.worldbank.org/files/4978_Hlth0627.pdf

¹⁵ Whitehead M., Burstrom B., Diderichsen F. Social policies and the pathways to inequalities in health: a comparative analysis of lone mothers in Britain and Sweden. *Soc Sci Med.* 2000 Jan;50(2):255-70.

¹⁶ Wilkinson R. Socioeconomic determinants of Health: Health Inequalities: relative or absolute material standards?. *BMJ* 1997;314:591.

Figure 1: Upstream and downstream mechanisms of social inequities in health: The impact of social position on health through differential exposure (I and II) and differential susceptibility (III). The impact of social context on social stratification (A), on differential exposure (B), on differential susceptibility (C) and direct on health (D). Finn Diderichsen, 1998.



The equity situation can be intervened at different points, as seen in the figure:

At point A: Influencing social stratification. The social stratification process in a society determines the social position (defined by gender, occupational class, ethnicity etc.) an individual has within a given social context. The stratification process influences the amount of social mobility that there is in a society - including the direct and indirect health related selection into social positions. The education system and family policies, for example, may influence what opportunities people have to move up the social scale, and indeed, can influence how wide the gulf is between people in different social positions.

At point B: Modifying exposure levels. Most social policies aimed at preventing people in disadvantaged positions from being exposed to poverty, unhealthy housing, dangerous working conditions, nutritional deficiencies etc have an impact in exposure to health risks. For example, income distribution on the labour market and the redistributive policies of taxes and social security benefits will determine the proportion in different groups exposed to poverty and

consequently to unhealthy sanitary conditions. Likewise, a broad range of protective and regulatory policies on the work environment, housing, traffic or other health promotion issues will influence exposure levels to many risk factors. Furthermore, these policies will often be designed to have a greater impact on some groups more than others. If one important risk factor is lack of control over living conditions, then the basic societal mechanisms that create and reproduce power will play a basic role.

At point C: Increasing empowerment and social cohesion. At the aggregate level, several studies have indicated that social context in terms of social deprivation of the local area, or income distribution within a society, may have an impact on mortality and self-reported health^{17 18}. In the same way as it has been found that social integration at the individual level buffers the effect of other risk factors^{19, 20, 21}, it is reasonable to hypothesize that social context in terms of social trust and social cohesion may interact with individual causes of illness. Specific policies may act not only in influencing the risk of being poor or unemployed (that is at entry point B), but also interact with the health effects of those risks factors as arrow C indicates. For instance, living in a society with strong safety nets, active employment policies or strong social cohesion may make day-to-day life less threatening, and relieve some of the social stress involved in having very small financial margins or being unemployed.

At point D: Influencing the impact of being ill. A number of policies, most prominently health care policies, may have a direct impact on morbidity and its consequences in terms of survival, disability and impact on daily living. The social consequences of being ill in a specific society may vary, and will be partly depend on the way disability interacts with a number of factors related to social position (for example, what type of occupation a person has) and context (for example, what state the local labour market is in and what policies are in place encouraging or discouraging people with disabilities or chronic conditions from having paid employment).

The World Bank proposal¹⁰

defines a set of components (and indicators within each element of these components) that can be used firstly to diagnose the poverty situation within a given country and secondly, from the analysis, to identify the policy levers that can be applied in terms of closing health the poverty gaps. This model can be applied specifically to health equity, as we have done for the Chilean case. A summary of this proposal can be seen in table 1.

The components included are:

1. **Diagnostics.**

¹⁷ Kawachi I, Kennedy B, Lochner K, Prothrow-Stith D. Social Capital, Income Inequality and Mortality. *Am J Public Health* 1997;87(9):1-8.

¹⁸ Subramanian S V, Delgado I, Jadue L, Vega J, Kawachi I. Community income inequality and self rated health: multilevel analysis of Chilean communities. Manuscript for publication.

¹⁹ Cassel J. The contribution of the social environment to host resistance: the Fourth Wade Hampton Frost Lecture. *Am J Epidemiol.* 1976 Aug;104(2):107-23Kassell 1976

²⁰ Cheng Y, Kawachi I, Coakley E, Schwartz J, Colditz G. Association between psychosocial work characteristics and health functioning in American women: prospective study *BMJ* 2000;320:1432-1436.

²¹ Kahn R, Wise P, Kennedy B, Kawachi I. State income inequality, household income, and maternal mental and physical health: cross sectional national survey. *BMJ* 2000;321:1311-5

What are the health outcomes of the country in question and how do these vary between the differential extreme socioeconomic groups? How far are households currently at risk of poverty because of payments for health care?. What is the differential economic impact of catastrophic health events?

2. Analysis.

What explains the bad health outcomes of the disadvantaged socioeconomic groups as compared with those with better economic conditions? How far do current policies help improve matters? How are differential health outcomes related to the interaction between households, communities, health services, other sectors, and government. What policy levers can be identified to improve the current situation?

Elements:

→ **Households.**

In effect, it is households who “produce” health, though their consumption of food, their sanitary and sexual practices, their consumption of health-damaging commodities such as a cigarettes, and their use of preventive and curative health services. None of these is fixed. Some households seek and manage to obtain health care when ill, whilst others do not. Some manage to consume the daily-recommended amount of different nutrients while others do not. And so on. Invariably, because of their different vulnerability, worse-off income households fall behind better-off households, often dramatically so. Key questions to ask at the household level include: What household actions—broadly interpreted—make for good health outcomes? How does the population—and different sections of it—fare with respect to key household actions and risk factors? What household-level factors prevent worse-off households from achieving good health outcomes? Examples include: insufficient income, lack of knowledge (e.g. about appropriate preventive services), and gender inequality within the household.

→ **Communities.**

The values and social norms a community shares can make a big difference to health outcomes—e.g. through the use of antenatal and other reproductive health services by women. Communities can also exert a major influence over the way local health services are run. Involving communities in the running of health services can improve social accountability and empower the poor, which may be seen as a goal in itself.

→ **Health services.**

A number of aspects of health service provision are important to consider. Most obviously, the question of accessibility—whether services are sufficiently close to the population they serve and whether the infrastructure is sufficiently good to enable access. There is also the issue of whether the facilities have a sufficient supply of key inputs—drugs, vaccines, and so on. Other important dimensions include organizational quality, technical quality, and efficiency. Throughout a key question is how the most disadvantaged are served compared to the better-off. Also important is the financing of health care. How much do different groups have to pay out-of-pocket? Who is covered by some form of insurance scheme—whether public or private—and for what risks? How far do people with insurance share risks with the insurer though copayments? How is health insurance financed?

→ **Other sectors.**

Examples of other sectors to examine include the education sector, the transport and infrastructure sectors, energy, and water and sanitation. Other examples include pollution, workplace health hazards, and so on.

→ **Government.**

The government has a number of instruments to influence the provision of health services—in the public private and charitable sectors. It can also influence the way health services are financed, and can exert a considerable influence over sectors beyond the health sector. It also influences households (e.g. by improving the education of women) and communities (e.g. by giving communities a degree of control over the planning and management of the health facilities in their area).

Table 1: Overview of the theoretical framework to study equity derived from the World Bank PRSP Initiative .

Households and communities	Health system		Government policies and actions	
	Health service provision	Health financing	Health service provision	Health financing
<p>Key outcomes. Health outcomes, by iSE grouping. Impact of health spending on household living standards by SE grouping.</p> <p>Health-related household actions and risk factors. Health actions, including service utilization, by poverty grouping.</p> <p>Household influences on actions. Household incomes and variability, and whether income is a factor in not seeking care. Knowledge, especially health-specific. Balance of power in household,. Are these factors in health choices; e.g. high fertility and low use of reproductive health services by women.</p> <p>Community factors. Cultural norms, and whether they influence health-related household actions. Strength and role of community institutions. Extent of social capital. Environment and infrastructure</p>	<p>Physical accessibility of services. Distance to facilities, and whether is a barrier to use, especially for lower SE groups.</p> <p>Availability of essential inputs. Key medicines and staff, comparing public and private facilities.</p> <p>Organizational quality. Opening hours, waiting time, perceptions of quality, staff attitudes, etc.</p> <p>Service relevance. Are the services actually delivered? Are they delivered in similar ways between different SE groups?</p> <p>Timing and continuity. Are facilities serving the disadvantaged performing worse?</p> <p>Technical quality. Is the staff sufficiently competent to diagnose and treat correctly? Is it differential according to SE conditions?</p> <p>Social accountability. What mechanisms used, and are they effective? Are the communities involved?</p>	<p>Who is covered by insurance? What schemes? Who do they cover? Who is covered?</p> <p>What is covered by insurance? What's covered and not covered? Is effective coverage by MoH clear? Is it declining? Is it differential according to financial need?</p> <p>Risk-sharing. How large are copayments? Are they affordable? Do fee-waiver schemes work? Are informal payments a problem?</p> <p>Paying for health insurance. How much do different groups pay?</p> <p>How much do people pay for services not covered? Are direct payments affordable for the different SE groups? Are some groups deterred from using services or buying medicines?</p>	<p>Macro. Is government spending enough? Is spending unequal across areas? Does a mechanism exist to promote geographic equity? What is it spending on? Is it prioritizing well? Is spending properly balanced, or does government overspend on e.g. labor? Is government doing the right things in pharmaceutical market, and in health labor market?</p> <p>Health system level. Who provides publicly-financed services? Are incentives likely to promote efficiency and equity? Is government doing the right things in stewardship (regulation, coordination, information, etc.)?</p> <p>Micro. Is quality, management and accountability a problem at facility level? What mechanisms exist to improve matters? Does government have a basic package and a sensible policy on its delivery?</p>	<p>Macro. What mix of revenues is used? Does government rely too heavily on user fees? Are the poor exempt? Are revenues sustainable? Does government have an insurance scheme?</p> <p>Health system level. Is decentralization of financing harming the poor? What role does it play in promoting private and community insurance schemes?</p> <p>Micro. Are fees collected locally retained? Is there local variation in success of fee-waiver schemes?</p>

Implementation of the Chilean Equity Gauge

Based on the conceptual frameworks outlined above we have developed the following activities within each of the four pillars. Following, there is a description of the activities within each pillar.

1.- Measurements and data monitoring.

One of the tasks of this component has been the continuous monitoring of the health equity situation throughout the analysis of data routinely collected from different sources. Vital and demographic statistical data, are obtained from the National Institute for Statistics, and Ministry of Planning. Socioeconomic data are obtained from the Ministry of Finance, ECLAC, The Central Bank, the National Institute of Statistics and from the serial socioeconomic periodical survey CASEN, which is the principal instrument to monitor social policies in Chile. Educational data are obtained from the ministry of Health and JUNAEB (National Committee in charge of implementing equity oriented programs to decrease school drop-outs). Morbidity and mortality data are obtained from the Ministry of Health and its different agencies. The results of these analyses are published in our web page www.equidadchile.cl and has led to publications in scientific journals as well as other publications.

The context

We use the data from the CASEN survey to analyse the contextual factors that relate to Equity in our country. The CASEN survey is applied by the Ministry of Planning every 2 years. It includes information on education, income, employment, housing and health. The last survey was carried out in December 2000. We monitor the trend in income inequality and poverty since 1990 and the changes in the age and gender composition of the poor and the main household characteristics and composition. We also monitor the unemployment and educational rate trends and patterns according to SE and gender condition.

The relationship between social position and health status

As one of the initial tasks developed by the Gauge in a collaborative work with a team that included representatives from the ministries of Planning and Health we redesigned the Health module of the CASEN survey in order to better identify and quantify socioeconomic gaps and related differences in access to care and health status. We added questions related to ethnic origin, housing equipment, access to new technologies (like cellular phones and INTERNET) and community participation in the household module. Also, availability of hot water and community services (health clinics, nurseries, schools, green areas, etc.) in the housing module, and questions related to health status perception, physical activity and several disabilities in the health module. We also introduced several follow up questions for those people who declared a disease or accident in the previous three months to characterize the ways that people solve their health problems, as well as the barriers to access and utilization of services, quality of care and financial coverage. As a specific methodological product we have written a collaborative paper with the Harvard School of Public Health based in the analysis of CASEN 2000 applying the multilevel analysis technique to analyze the relationship between community income inequality and self rated health in the Chilean municipalities.

The consequences: Risk factors and health status according to socioeconomic level

Since the beginning of the Initiative we have analyzed several data to show the striking differences in morbidity and mortality rates according to socioeconomic levels. Most of our data have been published in peer reviewed journals as well as in other publications^{7, 8, 9, 22, 23, 24, 25, 26, 27}.

We have been lucky to get support from other sources like the Pan American Health Organization to study the Equity gap in utilization of Health Services and the JUNAEB to study the educational situation according to SE level which was used as an input for the recent presidential decision to increase the years of mandatory education to 12 years²⁸.

Promoting Health Equity Oriented Social Policies

One significant activity developed in 2001 was a workshop on the Benchmarks of Equity, developed by Dr. Norman Daniels, as a tool to evaluate our health system on a district level. The workshop was co organized by the Department of Studies at the Ministry of Health and was addressed mainly to health service decision makers. A follow-up workshop will be implemented during 2002.

One of the most important tasks developed during 2001 has been the jointly work with the Ministry of Health and the Commission for Health Reform Committee, to develop the National Health Objectives 2010 for the Nation. As part of that work we wrote the Inequalities in Health Chapter and developed the National Health Equity Objectives for the decade that include the decrease of the Infant mortality and life expectancy gaps between extreme socioeconomic groups.

We have also continue our collaborative work with JUNAEB (Student Support Network). Currently we are implementing two studies: The first one, a case-control study to detect the main risk factors for school drop-out. The second one, an evaluation of their main intervention programs (visual and hearing screening and food supplement) in terms of their appropriateness to target those students with higher risk of drop-out. The aim of both studies is to characterize the main factors related with school drop-out, to improve the assignment of resources to those students in higher risk.

Another important product under development is the Policy Lever Analysis. For this purpose, a case study to analyze the pathways leading to inequities in health is under current development in two municipalities (La Florida and Maipu). The goal is to revise the main upstream and

²² Vega J, Jadue L, Escobar MC, Espejo F, Delgado I, Garrido C, y cols. "Hipertensión arterial en Chile: Resultados encuesta de base programa CARMEN". Rev Med Chile 1999;127:729-38.

²³ Jadue L, Vega J, Escobar MC, Espejo F, Delgado I, Garrido C, y cols. Risk factors for non communicable diseases: methods and global results of the CARMEN program basal survey Rev Med Chil. 1999 Aug;127(8):1004-13

²⁴ Evans T., Wirth M and Vega J. Health equity gauges. Bull World Health Organ. 2000;78(8):1066.

²⁵ Vega J, Hollstein RD, Delgado I, Perez JC. Socioeconomic inequalities and cause-specific mortality in an intermediate-development nation: Chile, 1985 – 1996. Manuscript

²⁶ Vega J, Bedregal P, Jadue L, Delgado I. "Género y Equidad en Salud, Chile, 2001". Organización Panamericana de la Salud, Pontificia Universidad Católica de Chile

Vega J. Enfermo de Pobre. Las inequidades sociales y la salud en Chile. Revista Universitaria 2001; 27:43-56

²⁸ Vega J, Delgado I, Espejo F. Caracterización de la Educación en Chile. JUNAEB. Abril 2002.

downstream mechanisms involved and to describe, analyze and identify interventions that can improve equity at county level. Quantitative and qualitative data on the pathways to inequality will be collected and will be the baseline for evaluation and operational evidence to support some specific interventions that could be implemented as a continuation of our general work.

2.- Community participation.

This area of development is focused in the identification of community resources to empower the people with regard to specific strategies to improve health equity. The activities so far have included the elaboration of a catalogue of community organizations in the country, the characterization and identification of different organizations and the establishment of some alliances for community training.

The case study in the Municipalities already mentioned is also part of this component given that as an additional objective we are contacting community organizations in both counties that can help us later to apply the intervention strategies that will be envisioned from the study.

3.- Advocacy/Dissemination.

After a period with activities and strategies that had no impact in the media, our communication team is more consolidated. The efforts have been focused in building our own capacities to elaborate messages to different audiences that we want to reach and developing an advocacy plan for gauge.

It has been difficult to implement this strategy because it is a new area of development for a team originally created by public health researchers in a country with little development in analytic journalism and almost none communicators specialized in health issues different from medical technology.

The products up to date include the implementation of a web page, with information on our results and the launch of a “Health Equity Forum” within the web page designed as an initial interview to national relevant authorities in a selected subject followed by a discussion open to all participants who want to express themselves or give opinions on the interviews. The forum subject is changed every 6 weeks (www.equidadchile.cl).

The web page is also a vehicle to disseminate information for different audiences and all our publications are available in it. Also, selected relevant material from other sources is published, to help interested audiences to learn about equity in our country and in other areas of the world.

With the results from the case study, there will be relevant material to address different audiences and the results will be published in scientific media, but also articles and papers will be prepared for politicians, decision making authorities, local authorities and the general population in order to generate public concern and attention to these subjects to introduce them in the public agenda.

4.- Human resources training center.

This pillar has the goal to increase the analytical capabilities, understanding and knowledge in the field of Equity in Health. Human resources with adequate training and capabilities to work in equity related subjects are not available in many places. In most countries health and social sciences professionals are not familiar with these concepts and do not have the tools to apply them in their daily work. It is also a need to increase research in the subjects, firstly to identify the gaps in health equity and then, design the policies and interventions that can close the gaps.

There are many pressures in all countries arising from all sectors to improve equity in health outcomes and to provide quality health services on an equitable basis to their populations while also having to control costs and meet tight budget constraints in the public sector, because there are many other needs to fulfil. However, health professionals in local services lack information and knowledge on the subject of Equity, and not have easy access to information resources. Few of the publications refer or include local data and address the situation in developing countries or communities. Besides most health workers and other professionals in areas related to health determinants do not know how to approach their daily tasks applying an equity perspective and need help to identify the tools that are available to them at their local level to make the inequitable situations evident or to analyse the entry points where action can be taken to improve equity gaps.

To improve these situation we have designed a training program that can be implemented in partnership with other GEGA teams. As a preliminary step, we developed a core program, that included several theoretical concepts related to health equity, and the tools needed to develop the pillars of the equity gauges. We piloted the training program as a Public Health Summer organized with the collaboration of the Harvard School of Public Health, Department of Epidemiology of the Ministry of Health and the Pan-American Health Organization. This activity was held in January 2002 with participants from Chile and 7 different countries from Latin America. The summer school program contents are the core for the human resource training program.

The proposed future training program

Our main objective is to provide intensive, state-of-the-art knowledge, and training on options to address health issues at local level, and to draw a set of lessons learned from experience, and best practice. We will target leader professional from the social and health sectors involved with social programs aim to improve equity and to enhance social development. The Program combines health equity training seminars and workshops in Santiago, Chile, with the implementation of regional workshops hosted by Partner Institutions or other Educational Centres (Universities or others) in the countries where Equity Gauges are being developed or other countries interested in starting their gauges.

We expect to develop learning materials on health equity and how to approach to its study. As the experience is developed, the materials will be packed in modules that can be applied by local teams from the partner institutions, so they can disseminate and multiply knowledge and turn themselves into trainers for their countries. The vision is that there is a need to develop new methodologies, training programs and materials that can add to the scarce tools currently developed to advance in the understanding of the mechanisms for inequities and to implement studies to evaluate effectiveness and efficacy for policies aimed to improve the health equity at

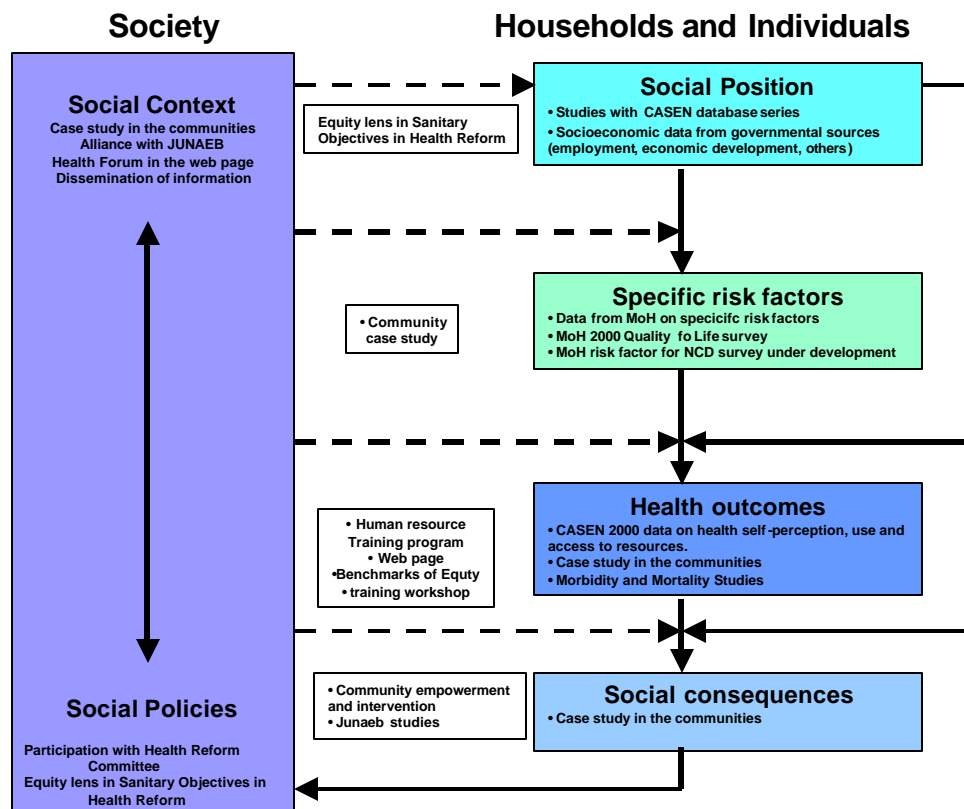
country level. Another need is the development of technical tools for data analysis that combine data from different levels and quantitative and qualitative information at the same time.

Our web page will be used as an additional instrument to support distance education and as a vehicle for dissemination of relevant information from our gauge to other partners.

Theoretical framework implemented in the Gauge design

All the activities previously outlined are supported within the theoretical framework, as depicted in figure 2:

Figure 2: Application of the Chilean Gauge activities to the Diderichsen model



Strengths, Weaknesses and Challenges

The Chilean Equity Gauge includes a multi-professional working team conformed by highly motivated professionals committed to their tasks, with an adequate physical infrastructure and administrative support to develop the activities.

All components are in the process of developing their objectives, though some of them at a lower pace; but there are some products that will contribute to make visible the health equity concept in Chile. Some of the activities worth to be mentioned include the implementation of the web page, the development of a corporate image with a logo that identifies the Initiative, production of scientific information and monitoring data and the Policy Lever study currently under progress, with a preliminary report already released.

Developing the Advocacy and Dissemination component has been more difficult than the others because of the need to create the experience within the team and the characteristics of the mass media in Chile, where the installation of a new social subject in the public agenda is a challenge.

The Human Resource Training Center is a pillar that can help to support the equity goal in Chile and also support other gauges and can be a determinant activity in the long run achievements, as it is an “empowerment” of the actors that can make the changes happen.

Given that the Initiative is being supported by an academic institution and funded by external resources from the Rockefeller Foundation, most of the collaborators work part-time. This issue can be seen as strength in the sense that helps to create networks with different people and organizations, but sometimes it makes it difficult to coordinate activities within the members of the staff.

Last but not least, the need to look after financial resources to develop new activities is a permanent stress for the researchers.