

Iniciativa Chilena de Equidad en Salud



Facultad de Medicina
Clínica Alemana - Universidad del Desarrollo
INSTITUTO DE EPIDEMIOLOGIA Y POLITICAS DE SALUD PUBLICA

National Sanitary Objectives 2000 - 2010

Evaluation of Health Equity Goals

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2006

Introduction - Objectives

- **INTRODUCTION**

- In year 2000 Chile defined the
- “Health Objectives for the decade 2000-2010” in 2000:
 - To maintain and improve sanitary achievements.
 - To face challenges arising from aging and societal changes.
 - **To reduce health inequities.**
 - To provide services according the population expectative.

- **OBJECTIVES**

- The Chilean Health Equity Initiative, along with the Ministry of Health (MoH), evaluated the progress in fulfilling the third objective, particularly in Infant Mortality and Life Expectancy by level of schooling trough 1998-2003.



Methods

- **Sources and databases:**
 - Ministry of Health databases for birth and deaths 1998 al 2003
 - Population estimates 1985 al 2003 INE - CELADE
 - International Code for Diseases ICD-10
 - CASEN survey databases 1998, 2000 y 2003 (serial national coverage household survey)
 - Other sources
- **Mortality rates calculations: infant mortality (IMR) and its components, general and specific mortality rates, crude and standardized.**
- **Life expectancy estimates by schooling, in years of education.**
- **All cutpoints agreed with the MoH.**
- **Social health determinants (SHD) were also analized to interpret the results.**



Who are we? CHILE

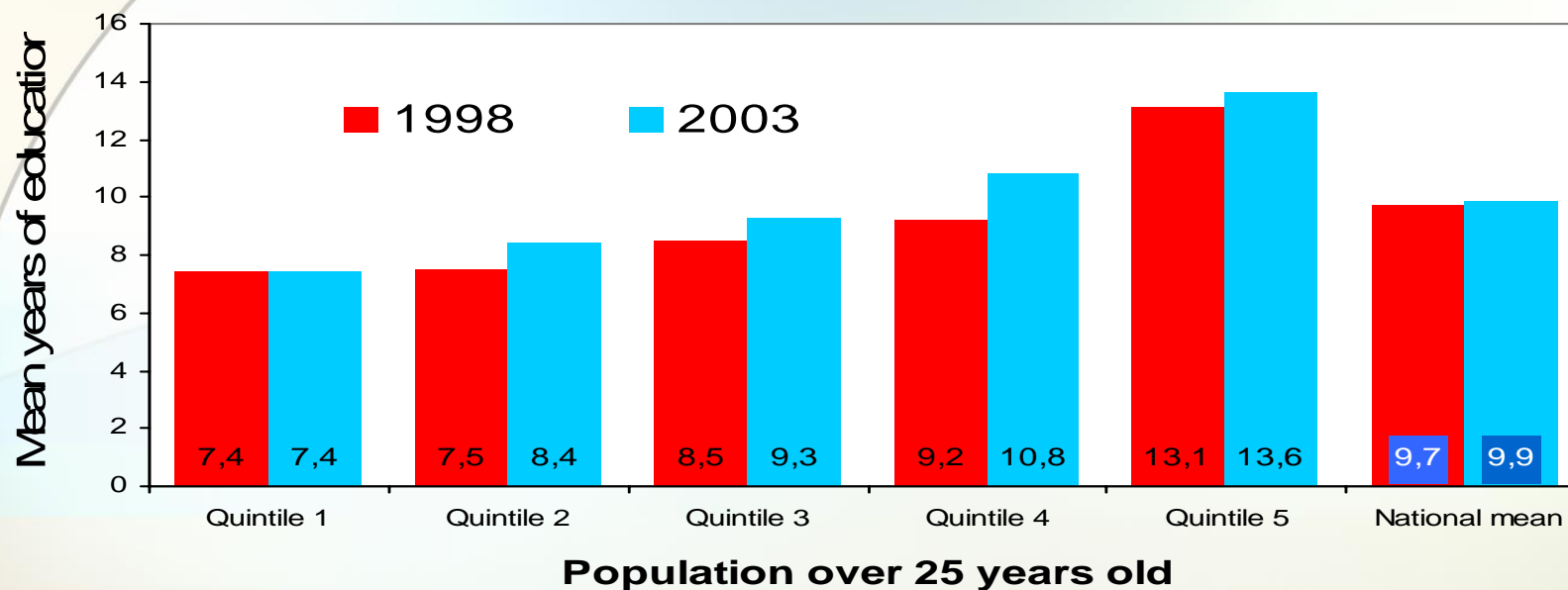
	1970	2004
Life expectancy	63.6	76.0
Fertility rate	3.4	2.4
% pop 0-14 years	39.2	28.1
% pop + 65 years	5.0	7.3
General mortality	8.7	5.5
Infant mortality	82.2	8.3
Maternal mortality	1.72	0.2



- Pop: aprox. 15.000.000 hab.
- Good health indicators, among the best in Latin America
- Health system: Mixed, private and public
 - Poorly related - Differential primes by risk in private insurance.
- National coverage – public policies - centralized.
- Low satisfaction in the population.
- Previous Health Reforms financial focus
- Health gaps increasing
- Health Reform in 2000



SHD - Education



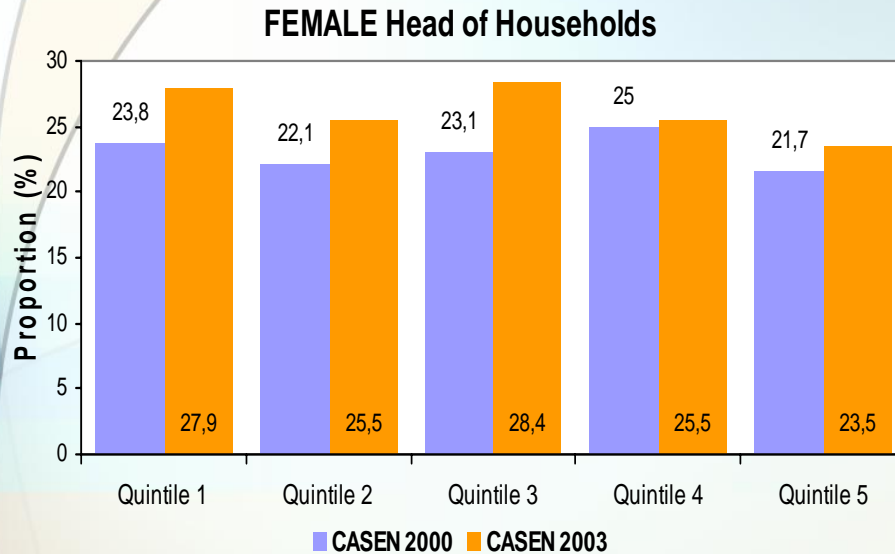
	1998 %	2003 %
Analfabetism rate (> 14 years)	4,6	4,2
Primary education coverage	98,3	99,1
Highschool education coverage	87,2	92,8

Age groups	Q1-Q5 Gap 1998	Q1-Q5 Gap 2003
15-29 years	4,5	3,9
30-44 years	6,6	6,1
45-59 years	7,3	6,7
60 y + years	7	6,7



Source: INE Censuses and CASEN serie

SHD - Gender



Male head of household: 82,0% in 1990, to 79,8% in 2003.

Female head of household: increasing specially in poorer quintiles

Social Security Coverage		
Social Security	Men %	Women %
	CASEN 2000	
Covered	64,3	62,6
UNcovered	35,6	38,1
CASEN 2003		
Covered	64,5	51,3
UNcovered	31,0	44,7

Women participation in labor market is increasing, but jobs are low quality, without social security coverage (illegal)

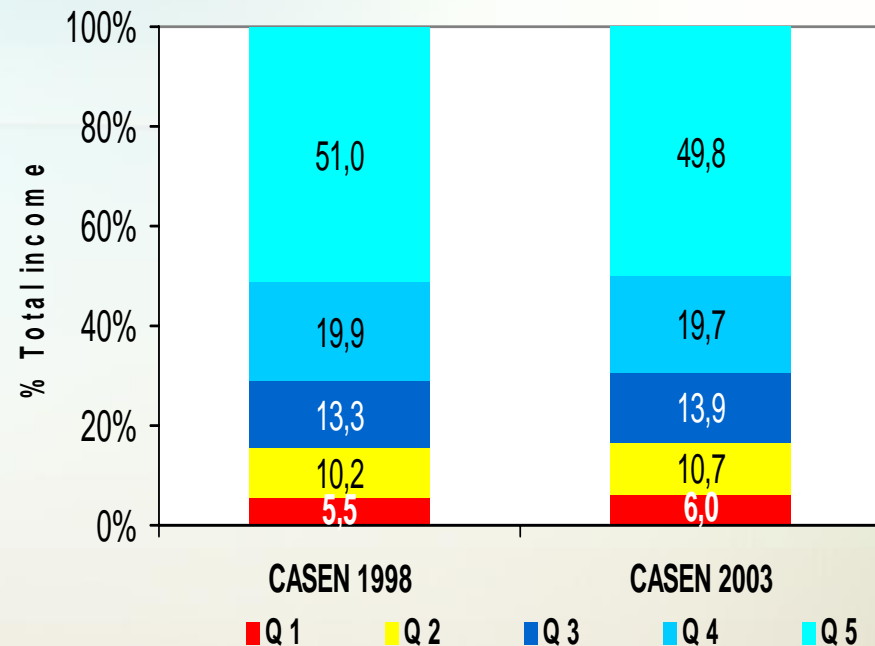


SDH - Income

Men –women gap* %	CASEN 1998	CASEN 2003
Quintile 5	44,3	45,5
Quintile 4	31,3	30,1
Quintile 3	31,8	31,5
Quintile 2	32,3	32,0
Quintile 1	27,0	31,6
National mean gap	29,0	32,6

- Gap is higher in high income quintiles.
- Mean gap is increasing.

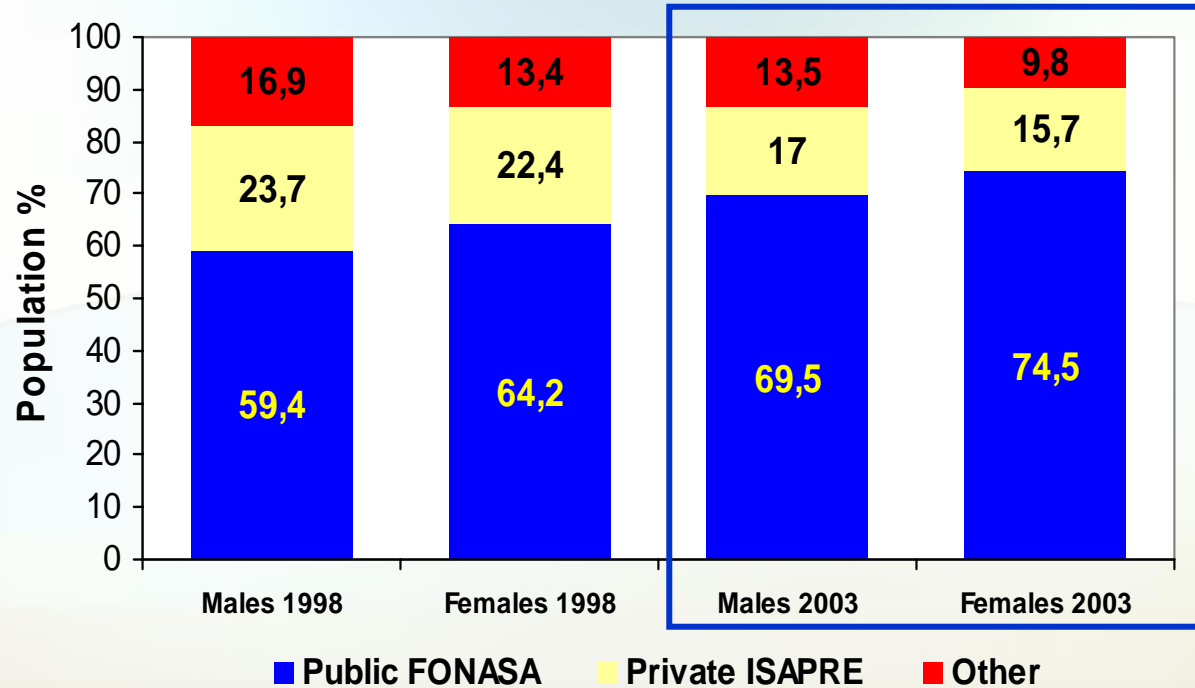
Distribution of Households by Monthly Income Quintile



- No relevant changes in the period



SDH - Health Insurance



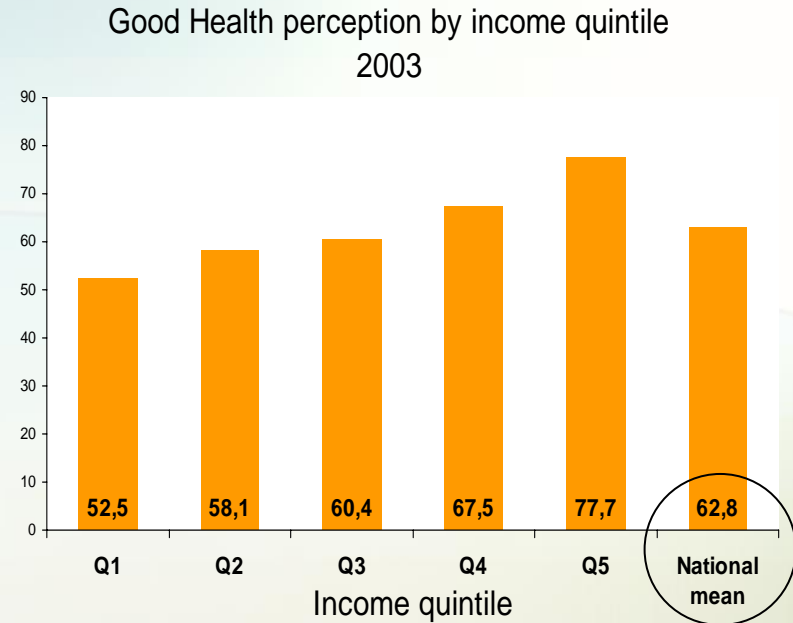
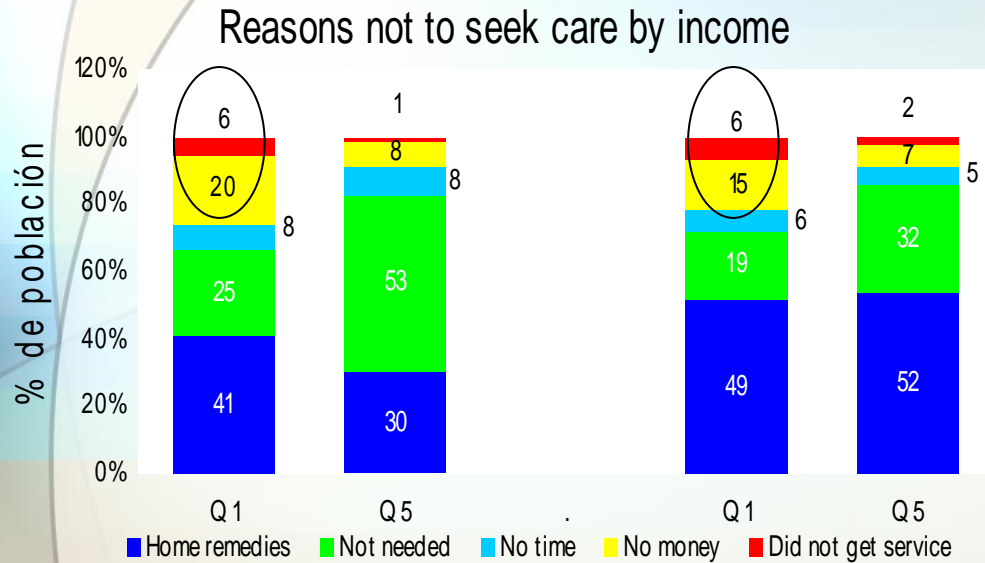
Migration from private to public system
 (cost increase, reduction of coverage)

Women go to public system
 differential cost by age and sex)

Lower income quintiles participate more in public system
 (over 90% in Q1)



SDH – Health Need



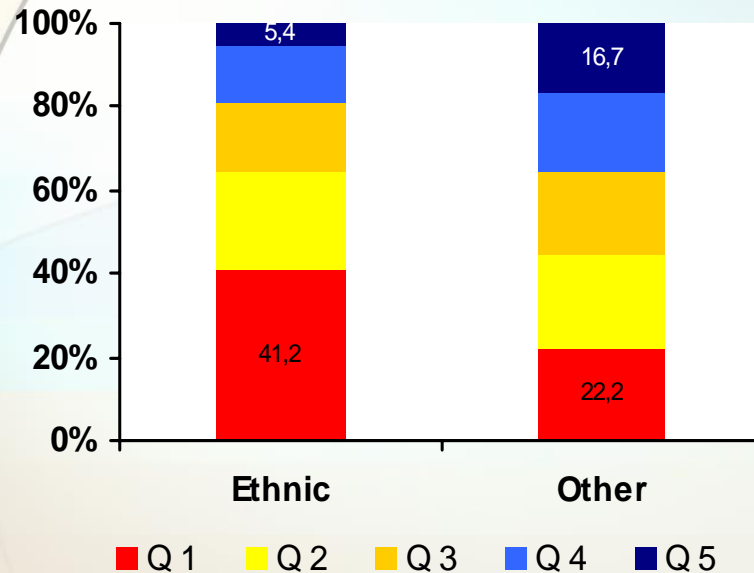
Health Need: global mean 13,2% year 2000 - 11,7% year 2003

Health care need and seek for service: over two thirds of the population seeks for services, but proportion is much higher in high income quintiles (over 10point % gap)

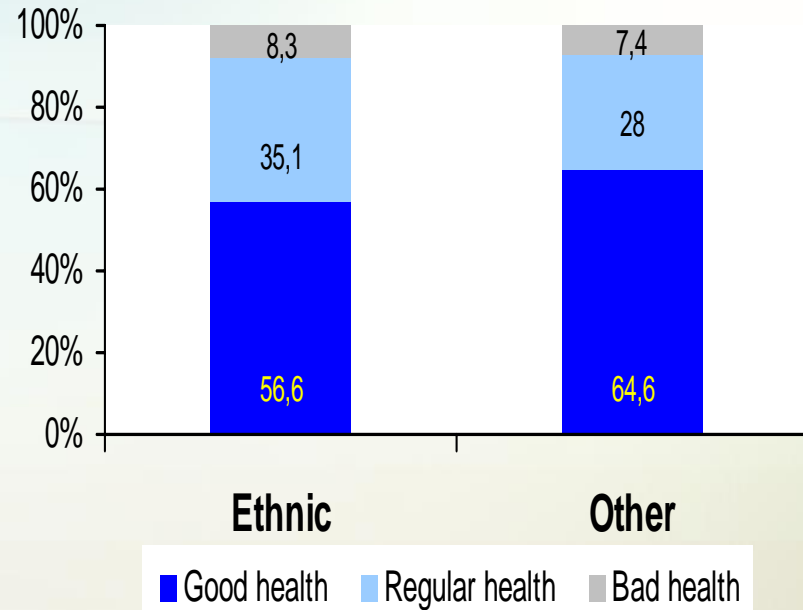


SDH – Ethnic groups

Ethnic population by income quintiles



Health perception in Ethnic groups



Ethnic groups: 5% of total population (692.192 persons)

Educational level: 8,4 years vs 10,3 years in the rest of the population

Income: 65% in Q 1 and 2, vs 44% in the rest of the population

Health coverage: 85% in public system FONASA vs 71% in the rest of the population



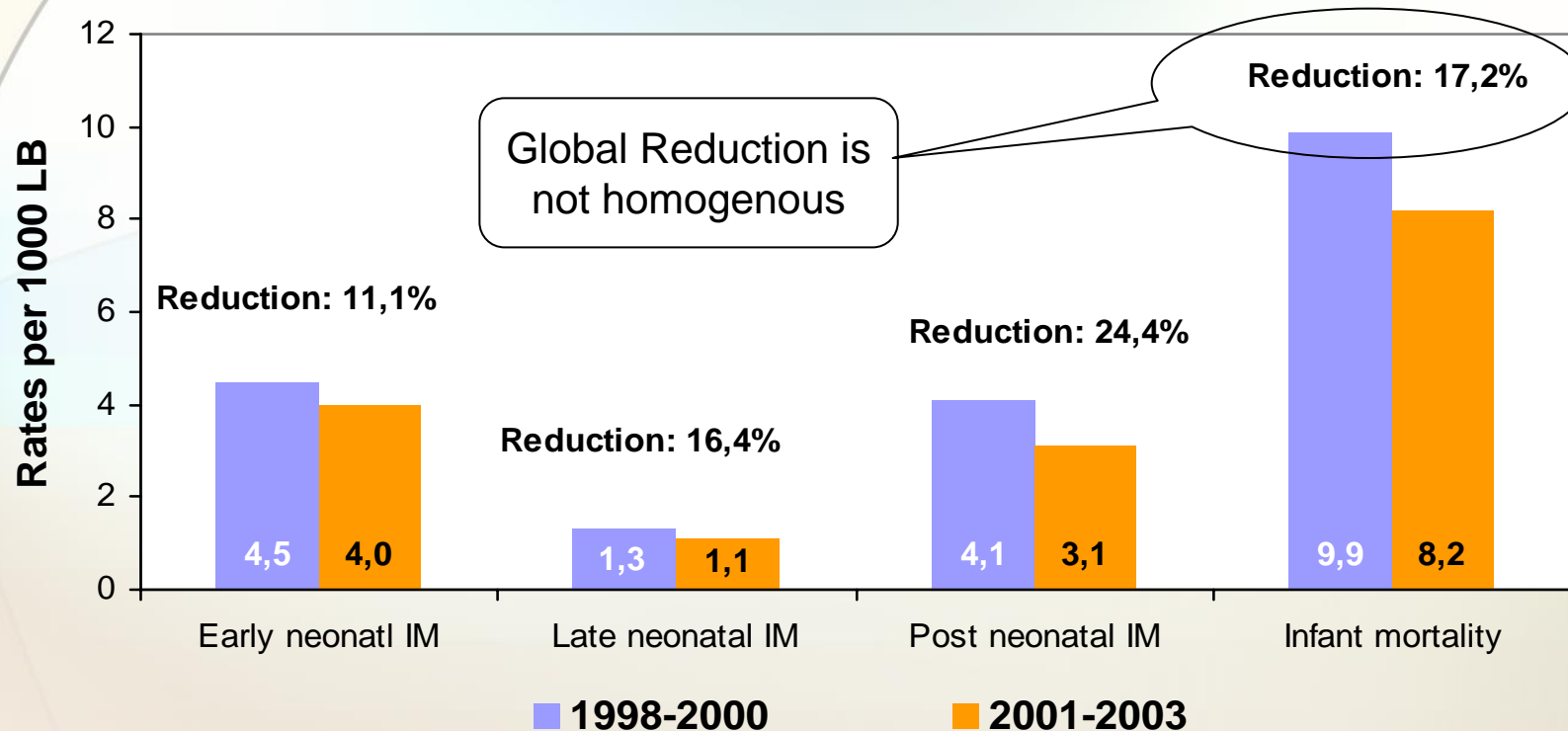


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Infant Mortality

Sanitary objectives evaluation

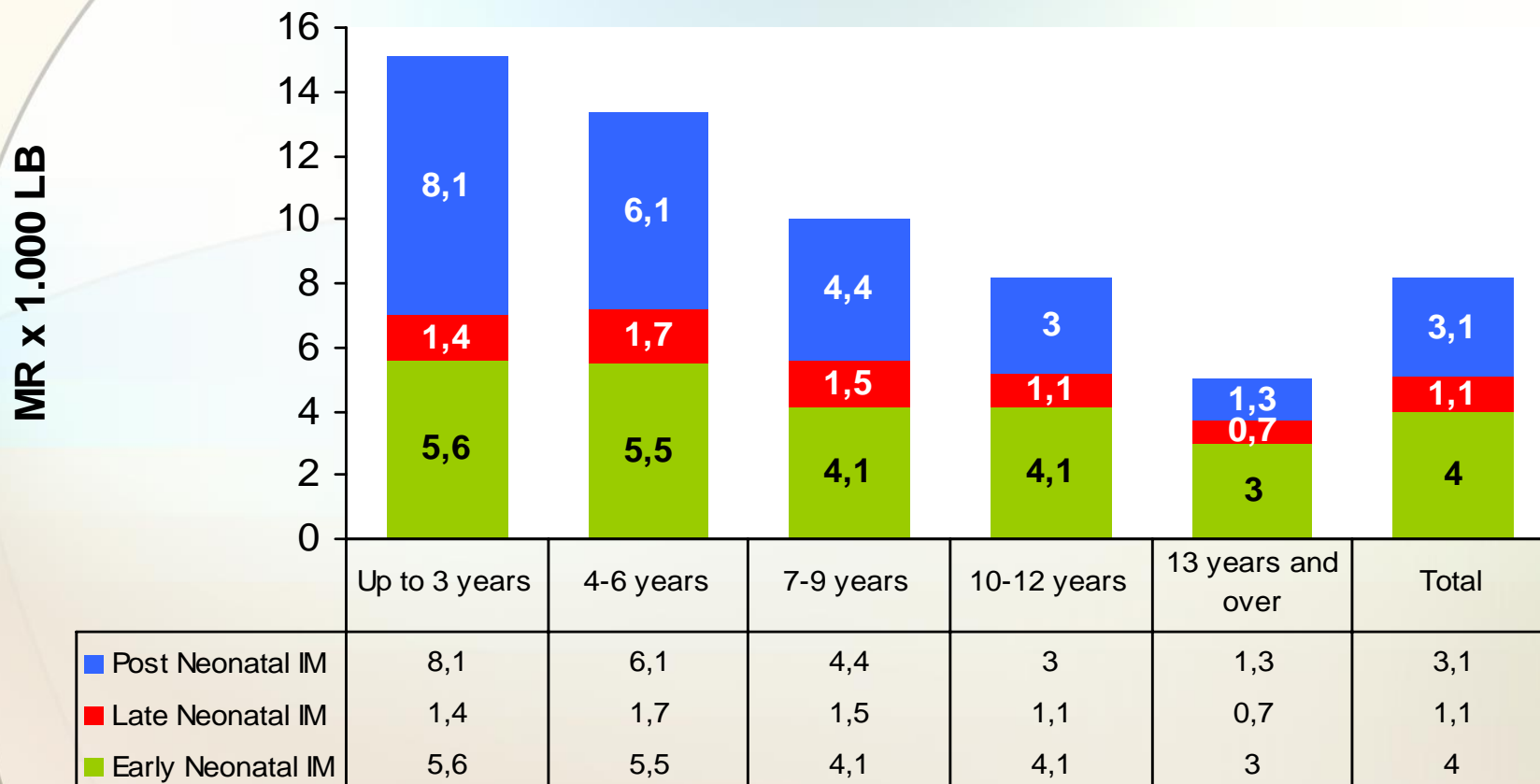
Infant mortality rate and its components



IMR drops by **17,2%** in the period 1989-2000 to 2001-2003.



IMR by component and years of schooling of the mother 2001-2003



	Schooling of the Mother					
Total IMR	15,1	13,3	10,1	8,2	5,0	8,2



IMR gap by education of the mother Chile, 1998-2000 y 2001-2003

Mother Education	Infant Mortality Rate	
	1998-2000	2001-2003
Less than 3 years	2,6	3,0
4- 6 years	2,6	2,6
7-9 years	2,0	2,0
10-12 years	1,6	1,6
13 and over	1,0	1,0

Sanitary Objective: **“10% reduction of the gap between groups”**

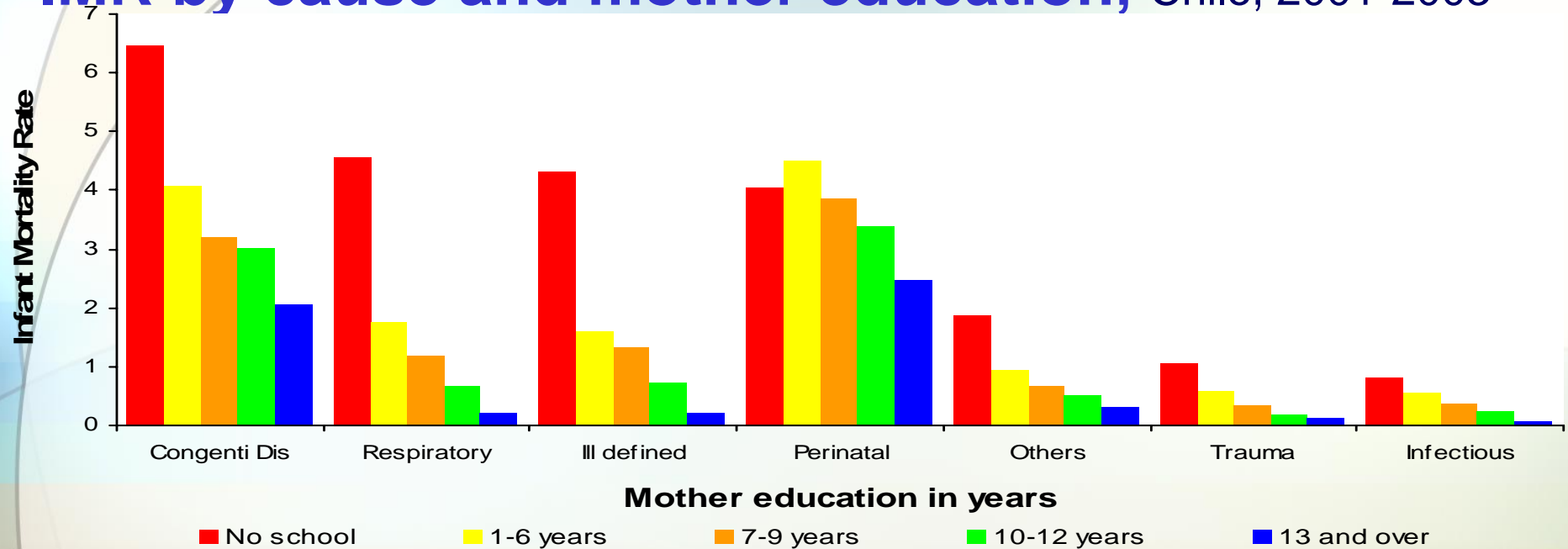
10% of 2,6 = 0,26  By 2010, gap should reduce to 2,34

IMR globally reduced, but the gap increased by 15%

Year 2010 goal requires **25% reduction of the gap**



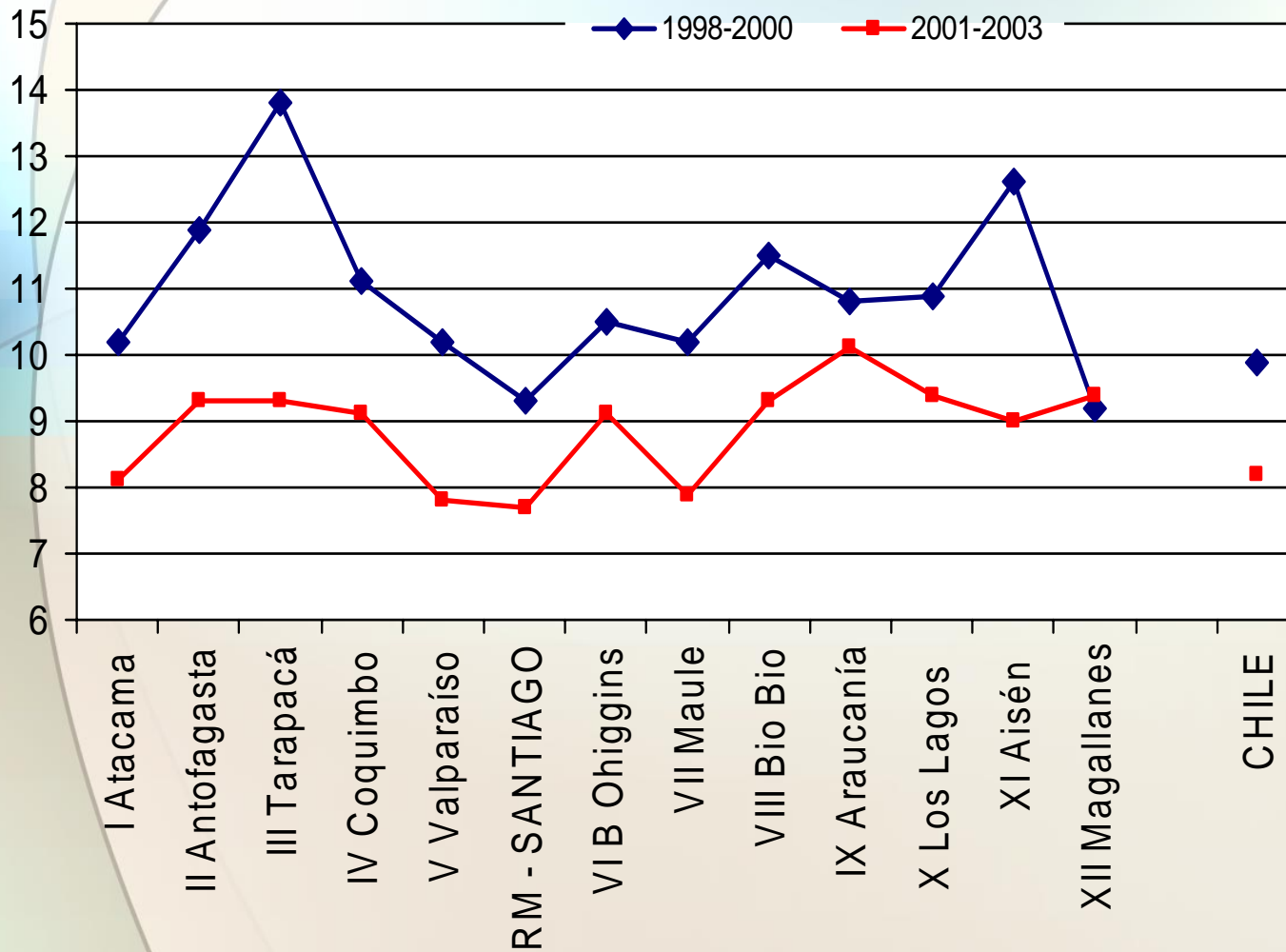
IMR by cause and mother education, Chile, 2001-2003



Causes	IMR	Relative Risk*	Attrib RiskE%**	Attrib Deaths
Congenital Dis (Q000-Q99X)	2,8	2,5	34,3	703
Perinatal (P000 P96X)	3,2	1,5	16,1	380
Ill defined (R000-R99X)	0,8	13,5	55,7	338
Respiratory (J000-J99X)	0,6	12,7	44,5	185
Infectious (A000-B99X)	0,2	11,7	21	32
Trauma (S000-Y89X)	0,1	3,7	3,7	3



Regional Differences in IMR



IMR at the Municipality level – careful analysis!

- 17 Municipalities where IMR=0.

- Good practice municipalities!

- Contrasting municipalities

Municipalities with NO IM	Pop size	Live births 2001
Ollague - Rio Verde -Timaukel	300 a 500	Ninguno
Laguna Blanca - J Fernández - Torres del Paine - San Gregorio - Gral Lagos -Camarones – Guaitecas - Futaleufú	600 a 2.000	2 a 30
Quilaco – Paiguano – Cochamo - Papudo	4.000 a 5.000	45 a 70
Pozo Almonte - Puerto Natales	12.000 a 20.000	200 a 250

	Pop size	Live births	IMR
Tortel	532	4	100
Primavera	991	6	633





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Mortality, life expectancy and education

Specific cause Mortality by education

Chile 2001 - 2003

ICD 10 causes	No Education	13 years+ education	Total	Relative risk gap
Demencia (F00-F03)	68,5	1,6	15,5	43,2
Acute respiratory Dis (J00-J20;J40-J42)	154,8	3,7	34,3	41,5
Cerebrovascular Dis, (I60-I69)	245,6	10,8	75,1	22,7
Diabetes (E10-E14)	81,6	4,1	30,2	20,0
Cirrhosis (K70;K74;K76)	60,9	4,2	34,0	14,5
Ischemic Heart Dis (I20-I25)	194,3	16,0	77,7	12,2
Homicides (X85-Y09)	8,0	1,3	7,1	6,0
Traffic Acc, (V01-V99)	25,7	7,0	18,4	3,7
Suicide (X60-X84)	18,1	5,4	14,7	3,3
Hepatitis (B15-B19)	0,4	0,2	0,8	2,1
HIV - AIDS (B20-B24)	2,2	2,2	4,6	1,0



Life expectancy at 20 years, by educations and sex. Chile 1985 a 2003

	Total (years)	No education	13 y+ years
	Men		
1985-87	51,3	45,9	56,9
1990-92	53,2	47,2	58,8
1995-97	54,0	49,5	54,3
1998-00	54,8	51,9	62,2
2001-03	55,8	51,8	63,8
Change 98-03	1,0	-0,1	1,6
	Women		
1985-87	57,4	52,1	60,4
1990-92	58,7	52,6	62,8
1995-97	59,6	55,9	59,7
1998-00	60,5	56,8	65,7
2001-03	61,5	57,2	66,8
Change 98-03	1,0	0,4	1,1

Goal:
Increase life expectancy low educ group by 2 years.



Summary

- **Context**
 - SDH like **Education** are improving, others keep their trend, like **Ocupation** and **Income**.
 - Public Health system is increasing its demand, but there is still need to improve access to services.
 - Evidence shows the need to improve conditions for **Ethnics groups**, clearly disadvantaged.
 - **SDH** approach and its strategies can improve health status by effectively involving other social sectors.
 - There are some general improvement, but **persistent gaps** are still there.



Summary

- **Health gaps**

- There was a reduction in **IMR**, but the gap by mother education increased by 15%. To overcome the situation by 2010, reduction in IMR in lower education group has to be increased by 25%.
- **Life expectancy**: there was a reduction for men, and a slight increase for women in target groups. Goal not achieved.
- These results show **relevance of intermediate evaluations**, to improving or changing interventions in order to achieve goals.
- In Chile, **these people are identifiable** and they can be supported by the health system, specially mothers and their children.



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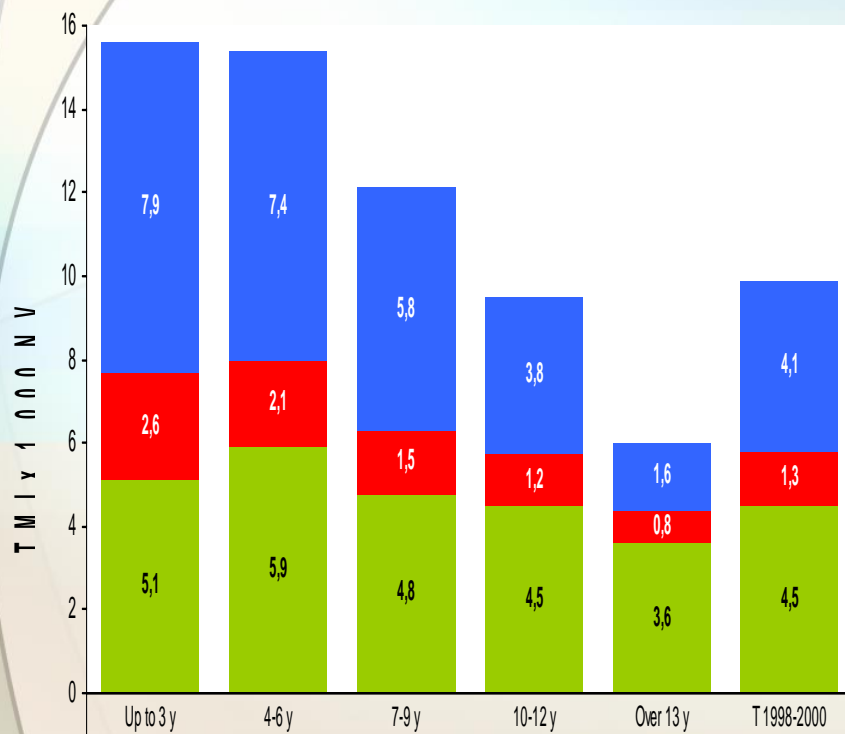


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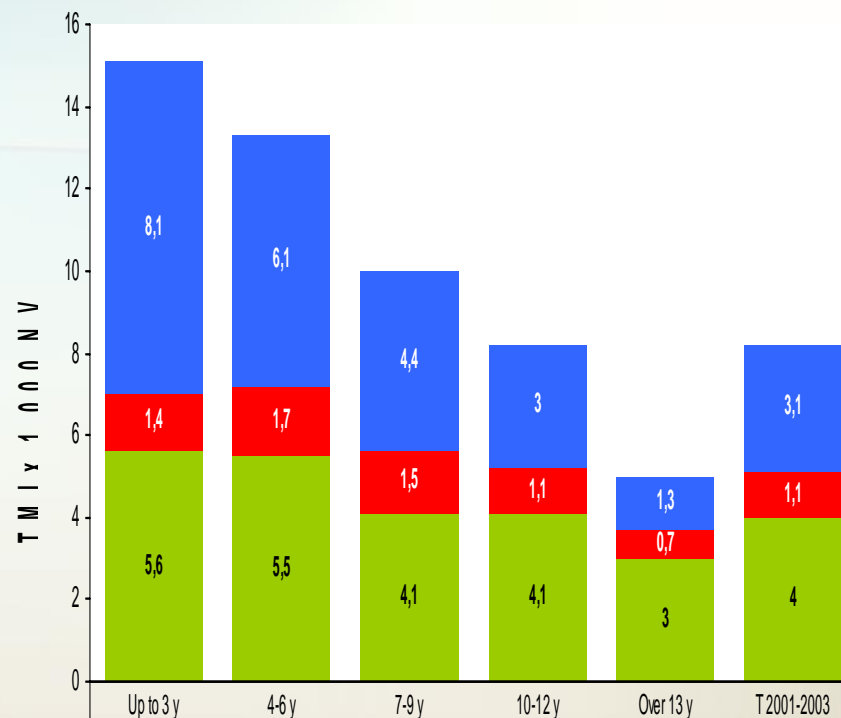
www.equidadchile.cl

IMR by component and years of schooling of the mother 1998-2000 and 2001-2003



Post Neon IMR	7,9	7,4	5,8	3,8	1,6	4,1
Late Neon IMR	2,6	2,1	1,5	1,2	0,8	1,3
Early Neon IMR	5,1	5,9	4,8	4,5	3,6	4,5

Schooling of the Mother



Post Neon IMR	8,1	6,1	4,4	3	1,3	3,1
Late Neon IMR	1,4	1,7	1,5	1,1	0,7	1,1
Early Neon IMR	5,6	5,5	4,1	4,1	3	4

Schooling of the Mother

