



# Do the effects of disadvantage reduce or deepen over lifetime? INEQUALITIES in SELF RATED HEALTH and DISABILITY in the TURKISH population

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# Background

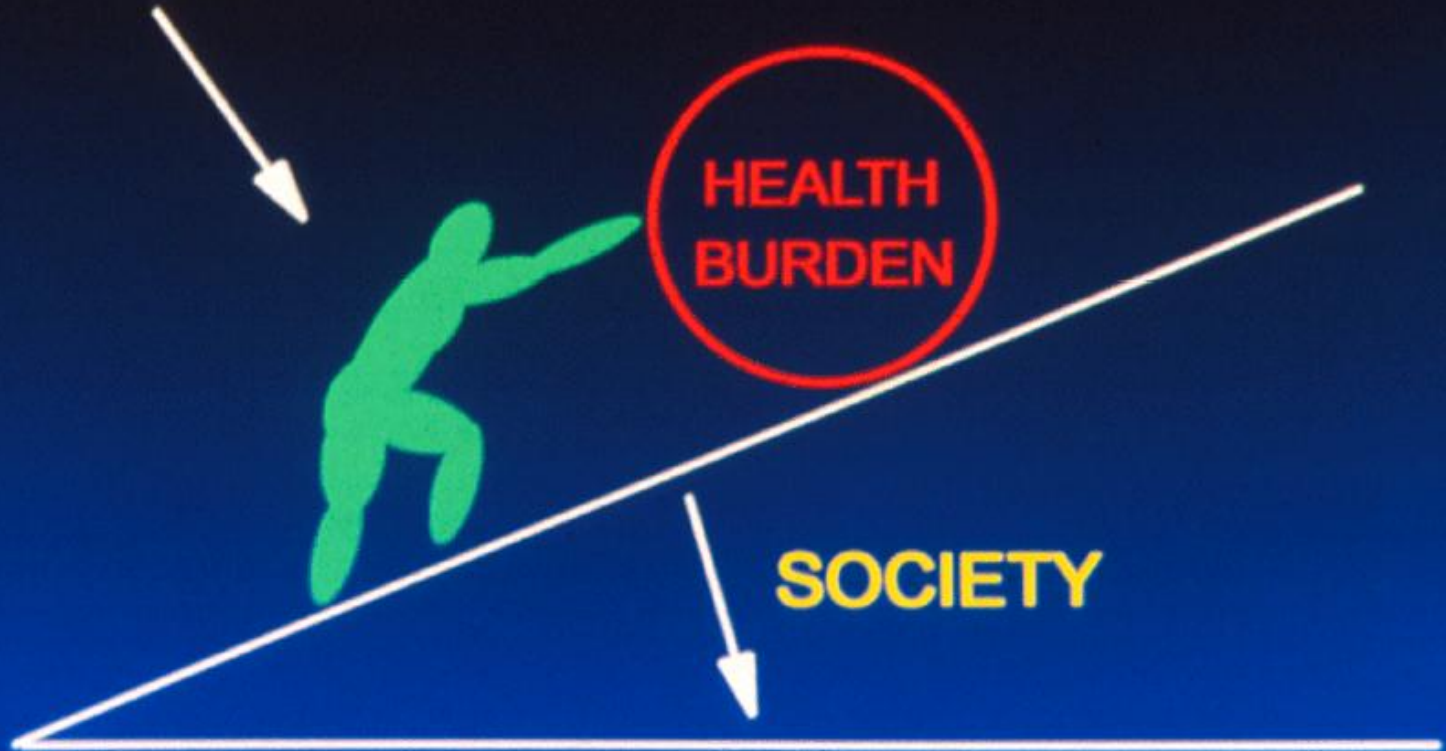


- ▶ Health in old age is greatly determined by the patterns of living, exposure and opportunities throughout life.
- ▶ The extent and nature of health inequalities change over the life course.
- ▶ The claim that inequalities are greatest in middle age and weaker at older populations is debated.

# Social construction of the society

- ▶ The elderly face a physical and mental decline which has social and economic consequences.
- ▶ This burden of aging may be diminished or worsened by the social construction of the society.
- ▶ This construction brings upon constraints or opportunities. A problematic or problem-free ageing depends on the continuation, deepening or reducing of inequalities from earlier periods of life.

**INDIVIDUAL**



**SOCIETY**



# The “family” changed

- ▶ In the modernization process, the family changed as a consequence of rapid industrialization and urbanization.
- ▶ By “development”, the burden of care for the elderly shifted from families to the state or other formal organizations.

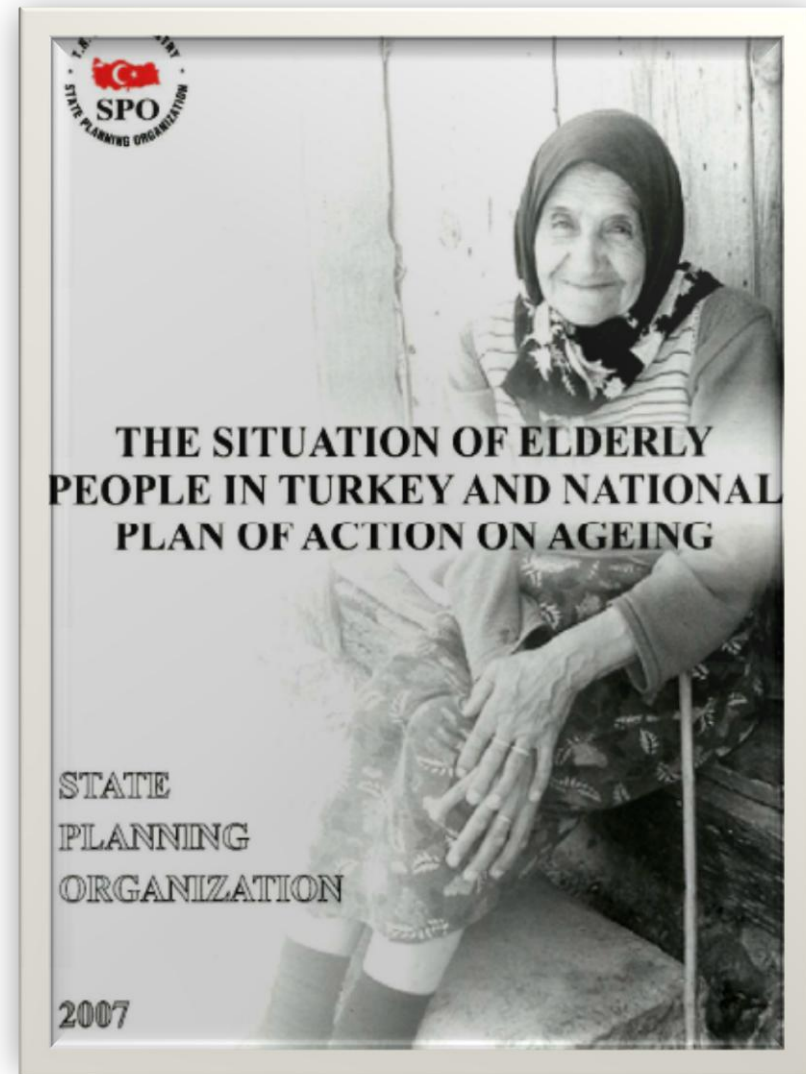


# The same for developing countries?

- ▶ For developing countries while the concept of family was subject to change, these economies lacked sufficient support for the elderly or the family.
- ▶ Older people were caught between the forces of the economy and the changing family structures.



- ▶ 16 million elderly in 2050 – aging an alarming issue in Turkey,
  - problems about sufficient data
  - low research interest on health inequalities.
- ▶ “*the attachment between family members is still strong in Turkey.*”



# Are they really protected from the effects of inequalities?

- ▶ If this is the situation; the elderly may be expected to be protected socially although they lack state based welfare protection.
- ▶ Thus this paper aims to test the hypothesis that;
  1. The elderly in Turkey are protected from the effects of inequalities (education, wealth, urban/rural residence and region), considering their health and disability status.
  2. The health inequalities in elderly population in Turkey are as large as they are in the middle-aged population.



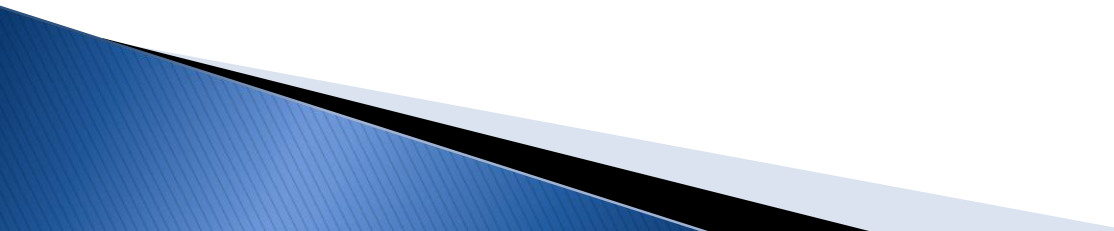
# Objectives

- ▶ To define the
  - regional,
  - educational,
  - wealth and
  - Urban/rural inequalities for
- ▶ **self rated health and disability** among young and old populations in Turkey.

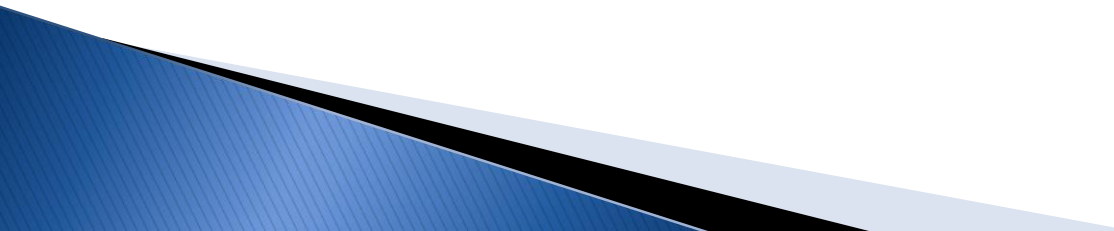
# Method

- ▶ The official data of 2002 World Health Survey
  - Household face-to-face survey
  - Individual and household questionnaires
  - 10791 adults above the age of 20
- ▶ ***Self Rated Health***: perception of their health
  - ranging from “very good” to “very bad”
  - Dichotomized as: Very bad/bad **vs.** Moderate/good/very good
- ▶ ***Disability***: inabilities in five areas (mobility, self care, cognition, interpersonal activities, vision) within the last 30 days were used.
  - 1 to 5(1:none, 5: extreme) were added to define the Disability score.
  - Dichotomized at: 20 and below **vs.** 21 and above

- ▶ **Residence:** Urban/rural
- ▶ Five **Regions** of Turkey : West, Mediterranean, Middle, Black Sea and East.
- ▶ **Education:** years of education: 0–4, 5–7, 8–10 and 11+ years
- ▶ **Wealth:** Household assets(Eleven wealth items):8–11 (highest), 6–7 (second highest), 5 (middle), 4 (second lowest) and 0–3 (lowest).

- ▶ Multilevel logistic regression was used to estimate differences for these the two dependent variables (**SELF RATED HEALTH** and **DISABILITY**)
  - ▶ according to residence, region, education and wealth.
  - ▶ Younger and older age groups ( $<50$  and  $\geq 50$ ) and two sexes.
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# Results

- ▶ In the elderly population, an **increased effect of education** and a **decreased effect of wealth** were seen when compared with the inequalities in the younger groups.
  - ▶ Urban/rural differences did not exist.
  - ▶ Regional differences arose for women especially for the East, Black Sea and Middle.
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## DISABILITY MEN

### Men (Below 50 Years)

### Men (Above 50 years)

	N	Age control <sup>s</sup>			Full control <sup>s</sup>		N	Age control <sup>s</sup>			Full control <sup>s</sup>	
		OR	95% CI		OR			OR	95% CI		OR	
<b>Residence</b>												
Urban	1494	1,00	-		1,00	-	801	1,00	-		1,00	-
Rural	1532	1,11	0,81-1,54		1,077	0,78-1,50	796	1,27*	1,01-160		1,20	0,94-1,53
<b>Region</b>												
West	923	1,00	-		-		504	1,00	-		1,00	-
Med	375	0,62	0,31-1,25		0,56	0,28-1,14	237	0,89	0,61-1,32		0,77	0,51-1,15
Middle	449	1,27	0,75-2,14		1,09	0,64-1,85	244	1,54*	1,08-2,20		1,23	0,84-1,79
Black	367	0,97	0,53-1,79		0,98	0,53-1,82	201	1,06	0,71-1,59		0,92	0,61-1,40
East	912	1,96**	1,31-2,93		1,40	0,91-2,15	411	1,63*	1,20-2,21		1,17	0,85-1,61
<b>Education</b>												
8+	1479	1,00	-		1,00	-	381	1,00	-		1,00	-
5-7 years	1377	2,90**	1,95-4,32		2,34**	1,52-3,58	823	2,67**	1,84-3,89		2,12**	1,43-3,14
0-4 years	170	7,01**	4,08-12,03		4,38**	2,39-8,03	393	5,40**	3,63-8,03		3,52**	2,29-5,40
<b>Wealth</b>												
Highest wealth	749	1,00	-		1,00	-	276	1,00	-		1,00	-
Second Highest	1162	1,24	0,73-2,11		,956	0,55-1,65	578	1,58*	1,03-2,42		1,27	0,82-1,99
Middle	408	2,67**	1,51-4,72		1,803	0,99-3,27	321	2,21**	1,41-3,46		1,61*	1,00-2,58
Second Lowest	283	3,45**	1,88-6,35		1,934*	1,01-3,71	172	3,57**	2,19-5,82		2,24*	1,33-3,76
Lowest	424	4,20**	2,47-7,15		1,882*	1,03-3,45	249	5,10**	3,24-8,01		2,81**	1,72-4,59



## DISABILITY WOMEN

### Women (Below 50 Years)

### Women (Above 50 years)

	N	Age control <sup>§</sup>		Full control <sup>§</sup>		N	Age control <sup>§</sup>		Full control <sup>§</sup>		
		OR	95% CI		OR		OR	95% CI		OR	
Residence											
Urban	2148	1,00	-		1,00	-	912	1,00	-	1,00	-
Rural	2241	1,06	,89-1,26		1,042	0,87-1,24	867	1,14	,94-1,38	1,20	0,98-1,47
Region											
West	1432	1,00	-		1,00	-	598	1,00	-	1,00	-
Med	533	,608*	0,43-,85		0,61*	0,43-0,85	270	,97	,72-1,32	0,86	0,63-1,18
Middle	725	1,12	,87-1,44		0,99	0,76-1,29	251	1,58*	1,16-2,15	1,38	0,99-1,91
Black	503	,94	,69-1,27		0,88	0,65-1,21	226	1,51*	1,10-2,08	1,15	0,83-1,61
East	1196	1,40*	1,13-1,74		0,97	0,77-1,23	434	1,70**	1,31-2,20	1,23	0,93-1,62
Education											
8+	1268	1,00	-		1,00	-	175	1,00	-	1,00	-
5-7 years	2272	2,37**	1,83-3,08		2,035*	1,55-2,67	540	4,34**	2,71-6,95	4,01**	2,49-6,48
0-4 years	849	5,14**	3,89-6,80		3,643*	2,66-4,99	1064	8,47**	5,40-13,30	6,93**	4,31-11,15
Wealth											
Highest wealth	1080	1,00	-		1,00	-	223	1,00	-	1,00	-
Second Highest	1724	1,77**	1,37-2,29		1,37*	1,05-1,79	581	1,56*	1,12-2,19	1,164	0,81-1,67
Middle	633	2,28**	1,68-3,10		1,51*	1,09-2,08	418	1,82**	1,28-2,59	1,131	0,77-1,66
Second Lowest	392	3,15**	2,26-4,38		1,90**	1,33-2,70	215	2,39**	1,60-3,58	1,315	0,83-2,04
Lowest	557	3,69**	2,74-4,97		1,95**	1,39-2,73	342	3,26*	2,24-4,72	1,66*	1,10-2,50



## Self rated health M

### Men (Below 50 Years)

### Men (Above 50 years)

	N	Age control <sup>5</sup>		Full control <sup>5</sup>		N	Age control <sup>5</sup>		Full control <sup>5</sup>	
		OR	95% CI	OR			OR	95% CI	OR	
<b>Residence</b>										
Urban	1532	1,00	-	1,00	-	794	1,00	-	1,00	-
Rural	1494	1,12	0,78-1,59	1,084	,755	800	1,21	0,87-1,67	1,11	0,79-1,55
<b>Region</b>										
West	923	1,00	-	1,00	1,00	504	1,00	-	1,00	1,00
Med	375	0,95	0,48-1,87	,839	0,42-1,67	237	1,20	0,70-2,06	1,04	0,60-1,80
Middle	449	1,120	0,61-2,05	,827	0,45-1,54	244	1,67*	1,02-2,74	1,27	0,76-2,13
Black	367	0,81	0,39-1,67	,746	0,36-1,56	200	0,94	0,51-1,72	0,81	0,43-1,50
East	912	2,06*	1,32-3,22	1,207	0,75-1,94	409	1,51	0,98-2,34	1,04	0,66-1,64
<b>Education</b>										
8+	1479	1,00	-	1,00	-	380	1,00	-	1,00	-
5-7 years	1377	2,45	1,60-3,75	1,43	0,90-2,25	822	3,82**	1,95-7,48	3,36*	1,67-6,77
0-4 years	170	5,99*	3,35-10,69	2,29*	1,20-4,40	392	12,24**	3,64-14,10	5,04**	2,41-10,52
<b>Wealth</b>										
Highest wealth	749	1,00	-	1,00	-	276	1,00	-	1,00	-
Second Highest	1162	2,87*	1,32-6,24	2,529*	1,15-5,57	578	1,01	0,55-1,86	0,74	0,39-1,39
Middle	408	4,78**	2,07-11,02	3,943*	1,68-9,28	321	1,33	0,70-2,53	0,87	0,45-1,71
Second Lowest	283	11,18**	4,97-25,16	8,503**	3,63-19,92	171	2,74*	1,42-5,28	1,56	0,78-3,11
Lowest	424	11,54**	5,35-24,85	7,461**	3,24-17,19	248	3,90**	2,14-7,10	1,99*	1,04-3,82





## Self rated health WO

### Women (Below 50 Years)

### Women (Above 50 years)

	N	Age control <sup>S</sup>		Full control <sup>S</sup>		N	Age control <sup>S</sup>		Full control <sup>S</sup>	
		OR	95% CI	OR			OR	95% CI	OR	
<b>Residence</b>										
Urban	2148	1,00	-	1,00	-	868	1,00	-	1,00	-
Rural	2240	1,28*	1,04-1,57	1,26*	1,02-1,56	912	1,03	0,82-1,30	1,05	0,83-1,34
<b>Region</b>										
West	1432	1,00		1,00		598	1,00		1,00	
Med	533	,523	0,33-0,83	0,49*	0,31-0,79	270	1,09	0,72-1,65	0,91	0,60-1,40
Middle	724	1,467	1,09-1,98	1,24	,91-1,69	252	1,98**	1,36-2,89	1,69*	1,15-2,50
Black	503	,798	0,53-1,20	,71	0,47-1,07	226	1,95*	1,32-2,86	1,53*	1,03-2,28
East	1196	1,695	1,31-2,20	1,05	0,79-1,39	434	2,76**	2,02-3,78	2,06**	1,48-2,85
<b>Education</b>										
8+	1267	1,00	-	1,00	-	175	1,00	-	1,00	-
5-7 years	2272	2,19**	1,58-3,02	1,59*	1,14-2,23	541	2,52*	1,27-5,02	2,04*	1,01-4,12
0-4 years	849	5,35**	3,81-7,60	2,63**	1,79-3,87	1064	5,70**	2,96-10,98	3,52**	1,77-6,99
<b>Wealth</b>										
Highest wealth	1079	1,00	-	1,00	-	223	1,00	-	1,00	-
Second Highest	1724	2,16**	1,50-3,09	1,76*	1,21-2,55	582	1,76*	1,07-2,87	1,42	0,85-2,36
Middle	633	3,08**	2,04-4,63	2,22**	1,45-3,41	418	1,69*	1,01-2,82	1,17	0,68-1,99
Second Lowest	392	4,75**	3,11-7,24	3,14**	2,00-4,93	215	3,96*	2,33-6,72	2,44*	1,40-4,27
Lowest	557	6,89**	4,71-10,06	4,06**	2,65-6,22	342	3,60**	2,18-5,95	2,09*	1,22-3,56

# Conclusion

- ▶ Self Rated Health and Disability in Turkey bare educational and wealth inequalities.
- ▶ At older ages, the effect of **education** increases and the effect of **wealth** is reduced.
- ▶ For elderly women, **Regional** inequalities are added to the picture.
- ▶ Preventive cultural practices or state policies are not strong enough to overcome the burden that socioeconomic inequalities bring to the elderly. Infact HEALTH INEQUALITIES DEEPEN WITH AGE IN TURKEY.