Chapter 5
Socio-demographic Indicators Based on EQ-5D

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5.1 The Use of EQ-5D in Socio-demographic Analysis

In addition to describing population norms, the EQ-5D database archive also offered the opportunity to explore health inequalities as reported by general populations of 18 countries. We have seen that age, and gender to a lesser extent, played an important role in explaining EQ-5D data across individuals. A social indicator, education, was also available in most datasets that were analysed alongside age and gender to explain EQ-5D data.

The level of attained education is important as it represents the cultural component of an individual's socio-economic status, and is an indicator of living circumstances in the earlier part of one's life. Education level is fairly stable over the life course of an individual. Later in life it shapes one's occupation and expected income potential. Through this mechanism, its indirect link with health is stronger than its direct effect (Singh-Manoux et al. 2002).

Among the higher education groups, lower prevalence of health risk factors has been observed. Given the existing health problems, individuals with a lower level of education experience greater ill-health (Eachus et al. 1999). Higher education can directly or through its vehicle mechanisms (such as being able to afford domestic help, acquisition of home appliances, reduced workload or part-time work) enable extra coping pathways that are not available to individuals with lower levels of attained education (Simon 2002). Furthermore, observational studies among people suffering from chronic conditions revealed that, through better self-management

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and compliance, better treatment results can be achieved among the better-educated (Katz 1998; Karter et al. 2000; Goldman and Smith 2002). A large body of literature has shown that education is an important determinant of health indicators (Kunst et al. 1995; Mackenbach et al. 1997; Regidor et al. 1999; Borrell et al. 1999; Dalstra et al. 2002; Blakely et al. 2002; Regidor et al. 2003; von dem Knesebeck et al. 2003; Nishi et al. 2004).

Two commonly used approaches of socio-demographic analysis of health, odds ratios and concentration indices, were applied to the EQ-5D national surveys.

5.2 Odds Ratios Based on EQ-5D

The odds ratios for age, gender, and education are presented by country and by EQ-5D dimension in Table 5.1. The reference population group was men aged 18–24 years with medium or high education level. The odds ratios presented for demographic and education categories should be interpreted as relative to this reference group.

Generally, each decade of age added substantial odds for higher reported problems along all the EQ-5D dimensions. The only exception was anxiety/depression in the Netherlands and Sweden, where the odds decreased with age. In all other countries, anxiety/depression had increased odds with age but among the five dimension this dimension had the smallest odds ratio. Gender related odds ratios generally favoured men in terms of reported problems. However, exceptions included mobility, self-care, and usual activities in some countries. Gender related odds ratios were highest for self-care in Korea (6.53), self-care in Greece (4.76), and self-care in Sweden (3.06).

In most countries, attaining at least the medium level of education translated into significantly lower age- and gender-adjusted odds of experiencing problems on any dimension. Education had generally the highest impact in Korea and Slovenia, and had a particularly high impact on self-care in Sweden, with an odds ratio of 11.63.

5.3 Concentration Indices Based on EQ-5D

Results of the concentration index analysis of the 17 countries are shown in Tables 5.2, 5.3 and 5.4. Findings suggest that the level of inequalities in self-assessed EQ VAS health and the health inequality profile by EQ-5D dimension differed across countries. In terms of the overall level of inequalities, Korea, Denmark, and China presented the lowest level of relative inequalities (0.090, 0.094, and 0.095 respectively) while Spain and Hungary had the highest relative inequalities (0.173 and 0.157, respectively).

Differences were discerned in the extent to which the socio-demographic and the quality of life factors explained overall inequalities in self-assessed health.

Table 5.1 Odds ratios (95 % confidence intervals) for reporting problems on EQ-5D-3L dimensions in 19 countries

Country	Dimension	Gender	95 % CI		Age	95 %	CI	Edu	95 % CI	
Belgium	Mobility	1.37	0.98	1.91	1.64	1.46	1.84	1.05	0.70	1.58
	Self-care	1.37	0.91	2.07	1.63	1.30	2.03	0.91	0.53	1.56
	Usual activities	1.47	1.13	1.91	1.50	1.33	1.68	1.17	0.83	1.65
	Pain/discomfort	1.31	1.05	1.63	1.31	1.22	1.42	1.19	0.88	1.63
	Anxiety/ depression	1.63	1.04	2.55	1.05	0.93	1.20	1.04	0.60	1.82
China	Mobility	1.18	0.95	1.45	1.71	1.58	1.84	1.89	1.46	2.46
	Self-care	1.08	0.82	1.42	1.53	1.39	1.68	1.71	1.23	2.38
	Usual activities	1.20	0.97	1.48	1.55	1.44	1.67	2.47	1.89	3.23
	Pain/discomfort	1.67	1.43	1.95	1.55	1.47	1.63	1.54	1.29	1.83
	Anxiety/ depression	1.19	1.01	1.40	1.23	1.17	1.30	2.36	1.95	2.86
Denmark	Mobility	1.25	1.12	1.38	1.41	1.37	1.45	1.82	1.62	2.04
	Self-care	1.25	1.02	1.53	1.51	1.42	1.59	1.89	1.49	2.40
	Usual activities	1.48	1.36	1.61	1.28	1.25	1.31	1.62	1.48	1.76
	Pain/discomfort	1.41	1.32	1.51	1.17	1.15	1.20	1.41	1.32	1.51
	Anxiety/ depression	1.68	1.54	1.83	1.06	1.04	1.09	1.33	1.22	1.46
England	Mobility	1.22	1.11	1.35	1.65	1.59	1.70	2.17	1.95	2.41
	Self-care	1.19	1.02	1.40	1.47	1.40	1.55	2.33	1.95	2.79
	Usual activities	1.28	1.16	1.41	1.47	1.43	1.52	2.04	1.82	2.27
	Pain/discomfort	1.16	1.08	1.26	1.39	1.36	1.43	1.72	1.57	1.88
	Anxiety/ depression	1.52	1.39	1.67	1.03	1.00	1.06	1.52	1.37	1.68
Finland	Mobility	1.04	0.91	1.18	2.17	2.06	2.28	1.89	1.65	2.16
	Self-care	0.96	0.80	1.15	2.24	2.08	2.41	1.78	1.46	2.17
	Usual activities	1.17	1.02	1.34	1.92	1.83	2.02	1.82	1.57	2.10
	Pain/discomfort	1.32	1.19	1.46	1.46	1.40	1.52	1.62	1.44	1.81
	Anxiety/ depression	1.26	1.08	1.46	1.16	1.10	1.22	1.50	1.28	1.77
France	Mobility	1.63	1.22	2.17	1.91	1.73	2.10	1.36	0.97	1.89
	Self-care	0.94	0.59	1.49	1.68	1.43	1.99	1.51	0.86	2.65
	Usual activities	1.22	0.89	1.66	1.54	1.38	1.72	1.29	0.89	1.88
	Pain/discomfort	1.19	0.98	1.44	1.39	1.30	1.48	1.20	0.97	1.49
	Anxiety/ depression	1.16	0.90	1.49	1.01	0.93	1.09	0.93	0.71	1.22
Germany	Mobility	1.18	0.96	1.46	1.92	1.79	2.06	1.89	1.16	3.09
	Self-Care	1.47	0.90	2.39	2.17	1.84	2.57	1.91	1.00	3.67
	Usual activities	1.22	0.93	1.59	1.69	1.54	1.86	1.96	1.25	3.08
	Pain/discomfort	1.36	1.15	1.60	1.38	1.28	1.48	1.59	0.99	2.56
	Anxiety/ depression	1.43	0.98	2.07	1.04	0.90	1.19	1.79	0.82	3.91
Greece	Mobility	1.34	0.71	2.53	1.93	1.54	2.42	2.13	1.06	4.29
	Self-care	4.76	1.75	13.01	2.58	1.76	3.78	1.54	0.55	4.33
	Usual activities	1.95	0.93	4.11	2.52	1.86	3.40	2.22	0.96	5.14
	Pain/discomfort	1.83	1.04	3.20	1.59	1.32	1.92	3.03	1.62	5.68
	Anxiety/ depression	1.27	0.66	2.43	1.19	0.96	1.47	3.79	1.71	8.36

(continued)

Table 5.1 (continued)

Country	Dimension	Gender	95 %	CI	Age	95 %	CI	Edu	95 %	CI
Hungary	Mobility	1.17	1.00	1.37	1.80	1.71	1.89	2.00	1.70	2.35
	Self-care	0.84	0.66	1.08	1.84	1.69	2.00	2.61	2.00	3.40
	Usual activities	1.02	0.86	1.21	1.64	1.56	1.73	2.35	1.97	2.80
	Pain/discomfort	1.45	1.28	1.64	1.48	1.43	1.54	1.95	1.71	2.23
	Anxiety/ depression	1.71	1.51	1.93	1.24	1.20	1.29	1.98	1.74	2.26
Italy	Mobility	1.44	1.15	1.79	2.25	2.07	2.45	1.78	1.30	2.43
	Self-care	1.94	1.39	2.70	2.16	1.88	2.48	1.81	1.12	2.91
	Usual activities	1.77	1.41	2.20	1.91	1.76	2.07	2.00	1.46	2.75
	Pain/discomfort	1.74	1.50	2.02	1.53	1.46	1.60	1.47	1.24	1.75
	Anxiety/ depression	2.26	1.81	2.81	1.25	1.17	1.35	1.20	0.90	1.59
Korea	Mobility	2.40	1.37	4.22	1.66	1.29	2.15	3.56	1.81	7.03
	Self-care	6.53	0.77	55.11	3.52	1.44	8.64	3.34	0.31	35.97
	Usual activities	1.67	0.87	3.20	1.60	1.17	2.18	6.72	2.77	16.27
	Pain/discomfort	1.73	1.28	2.34	1.63	1.42	1.86	2.51	1.70	3.71
	Anxiety/ depression	2.05	1.51	2.80	1.31	1.14	1.49	1.42	0.93	2.16
Netherlands	Mobility	1.60	1.12	2.29	1.53	1.37	1.70	1.38	0.95	2.01
	Self-care	2.93	1.60	5.39	1.36	1.07	1.72	1.08	0.55	2.13
	Usual activities	1.97	1.43	2.71	1.30	1.19	1.42	1.14	0.82	1.60
	Pain/discomfort	1.42	1.13	1.78	1.22	1.13	1.31	1.06	0.84	1.35
	Anxiety/ depression	2.12	1.08	4.15	0.80	0.63	1.01	2.41	1.07	5.46
New Zealand	Mobility	1.04	0.77	1.40	1.75	1.58	1.93	1.26	0.92	1.73
	Self-care	0.77	0.45	1.33	1.76	1.46	2.13	1.28	0.73	2.25
	Usual activities	1.11	0.83	1.47	1.58	1.44	1.73	1.09	0.80	1.48
	Pain/discomfort	1.08	0.86	1.37	1.45	1.34	1.56	1.29	0.99	1.68
	Anxiety/ depression	1.43	1.08	1.89	1.11	1.02	1.21	1.27	0.94	1.71
Slovenia	Mobility	0.70	0.48	1.02	1.95	1.72	2.20	4.48	2.64	7.58
	Self-care	0.87	0.54	1.39	1.67	1.45	1.93	3.89	2.30	6.58
	Usual activities	0.93	0.66	1.31	1.51	1.37	1.68	3.29	2.04	5.31
	Pain/discomfort	1.04	0.76	1.43	1.52	1.37	1.67	2.30	1.39	3.81
	Anxiety/ depression	1.13	0.83	1.54	1.16	1.06	1.27	1.66	1.06	2.59
Spain	Mobility	1.61	1.30	2.00	1.91	1.78	2.06	1.46	1.10	1.96
	Self-care	2.02	1.36	3.01	1.79	1.58	2.03	2.12	1.20	3.74
	Usual activities	1.76	1.39	2.24	1.63	1.51	1.75	1.37	1.01	1.88
	Pain/discomfort	1.71	1.43	2.05	1.34	1.28	1.41	1.41	1.15	1.73
	Anxiety/ depression	1.86	1.41	2.46	1.15	1.08	1.23	1.48	1.10	2.01
Sweden	Mobility	1.37	0.71	2.61	1.68	1.34	2.11	1.36	0.67	2.75
	Self-care	3.06	0.60	15.69	1.39	0.83	2.32	11.63	1.24	109.0
	Usual activities	0.97	0.51	1.87	1.27	1.03	1.57	1.58	0.77	3.26
	Pain/discomfort	1.11	0.77	1.62	1.26	1.12	1.42	2.05	1.33	3.16
	Anxiety/ depression	1.74	1.16	2.63	0.94	0.83	1.07	1.41	0.87	2.28

(continued)

Table 5.1 (continued)

Country	Dimension	Gender	95 % CI		Age	95 %	CI	Edu	95 % CI	
Thailand[a]	Mobility	1.30	1.01	1.67	1.57	1.42	1.72	–	–	–
	Self-care	0.93	0.64	1.36	1.40	1.22	1.61	–	–	–
	Usual activities	0.97	0.75	1.24	1.22	1.11	1.34	–	–	–
	Pain/discomfort	1.37	1.09	1.71	1.31	1.20	1.43	–	–	–
	Anxiety/ depression	1.44	1.17	1.79	1.14	1.05	1.23	–	–	–
United Kingdom	Mobility	0.90	0.75	1.09	1.65	1.56	1.76	1.68	1.37	2.06
	Self-care	0.80	0.57	1.13	1.45	1.30	1.62	1.85	1.26	2.71
	Usual activities	0.88	0.72	1.07	1.40	1.32	1.48	1.56	1.27	1.92
	Pain/discomfort	1.02	0.87	1.19	1.39	1.33	1.46	1.77	1.50	2.09
	Anxiety/ depression	1.35	1.14	1.61	1.13	1.07	1.18	1.52	1.26	1.82
United States	Mobility	1.25	1.17	1.34	1.73	1.70	1.77	1.96	1.80	2.14
	Self-care	1.04	0.93	1.16	1.61	1.55	1.68	2.33	2.06	2.63
	Usual activities	1.43	1.35	1.52	1.54	1.51	1.57	1.84	1.69	2.01
	Pain/discomfort	1.30	1.24	1.37	1.46	1.43	1.48	1.45	1.35	1.57
	Anxiety/ depression	1.49	1.42	1.57	1.12	1.10	1.14	1.42	1.33	1.51

[a]Education variable not available

Socio-demographic factors explained the smallest proportion of health inequalities in New Zealand (2.4 %), Korea (3.0 %), and Sweden (4.0 %), while they explained higher proportions in Slovenia (27.6 %) and Hungary (24.4 %).

The five dimensions of EQ-5D were generally more powerful in explaining overall self-assessed health. The explained proportion of the index varied from 14.6 % in Thailand to 54.3 % in Slovenia and Greece.

Within the socio-demographic variables, gender played the smallest role in explaining overall inequalities in self-assessed health (0–21.7 %), while age was generally the most important determinant (0–97.8 %). Education played a variable role in explaining inequalities in each country, from 0.3 % in Belgium to 93.9 % in Korea.

The health inequality profile according to the EQ-5D dimensions showed different patterns across countries. Pain/discomfort and usual activities were the highest contributors to overall inequalities in self-assessed health in most countries ($n = 8$ and $n = 7$, respectively). In Greece and Germany, mobility was the most important factor among the five dimensions. The relative share of mobility was the highest in Greece (37.5 %), while New Zealand had the highest relative share of self-care (21.7 %). Problems with usual activities contributed with the highest relative share in The Netherlands (48.0 %). Pain/discomfort had a particularly high relative share in Thailand (57.2 %) and Korea (49.6 %). The relative share of anxiety/depression was highest in China (36.4 %) in explaining overall inequalities in self-assessed health.

Table 5.2 Health inequality profile of 17 countries by socio-demographic factors (explained share in absolute and relative percentages)

		Socio-demographic factor (percentages)			
Country	Inequality index*	Explained share	Gender	Age	Education
Belgium	0.126	7.9	0.2	7.7	0.0
		100.0	1.9	97.8	0.3
China	0.095	21.7	0.1	12.9	8.6
		100.0	0.6	59.6	39.7
Denmark	0.094	7.0	0.0	4.3	2.7
		100.0	0.0	61.2	38.8
France	0.132	12.8	0.0	11.9	0.9
		100.0	0.0	93.3	6.7
Germany	0.131	17.8	0.1	16.9	0.8
		100.0	0.5	95.2	4.3
Greece	0.125	16.5	0.5	12.7	3.3
		100.0	2.9	77.2	19.9
Hungary	0.157	24.4	0.4	19.6	4.4
		100.0	1.5	80.2	18.2
Italy	0.133	19.0	0.7	17.6	0.7
		100.0	3.6	92.5	3.9
Korea	0.090	3.0	0.2	0.0	2.8
		100.0	6.1	0.0	93.9
Netherlands	0.104	4.7	0.4	3.7	0.6
		100.0	8.8	78.1	13.0
New Zealand	0.103	2.4	0.1	2.1	0.2
		100.0	2.9	86.8	10.3
Slovenia	0.136	27.6	0.3	15.9	11.4
		100.0	1.1	57.7	41.2
Spain	0.173	7.5	0.5	6.7	0.4
		100.0	6.4	88.8	4.9
Sweden	0.103	4.0	0.1	1.6	2.3
		100.0	2.7	40.1	57.2
Thailand[a]	0.108	0.9	0.2	0.7	–
		100.0	21.7	78.3	–
United Kingdom	0.110	9.0	0.0	5.9	3.1
		100.0	0.1	65.6	34.3
United States	0.112	9.3	0.3	7.6	1.4
		100.0	3.7	81.5	14.8

*$p<0.05$ in all countries

[a]Education variable is not available in Thailand

The decomposition analysis that combined both the socio-demographic variables and reported problems along the five dimensions confirmed the above findings. However, in this analysis, problems with usual activities became the strongest contributor to overall inequalities in the majority of countries (n=9) followed by pain/discomfort.

Table 5.3 Health inequality profile of 17 countries by quality of life dimensions (explained share in absolute and relative percentages)

		Quality of life factors (percentages)					
Country	Inequality index*	Explained share	Mobility	Self-care	Usual activities	Pain/ discomfort	Anxiety/ depression
Belgium	0.126	24.9	5.2	3.5	8.2	4.7	3.4
		100.0	20.9	13.9	32.9	18.8	13.5
China	0.095	24.4	3.1	0.2	2.8	9.5	8.9
		100.0	12.5	0.8	11.4	38.9	36.4
Denmark	0.094	36.5	7.0	2.6	12.7	8.4	5.8
		100.0	19.3	7.2	34.7	23.0	15.8
France	0.132	24.2	5.4	3.0	4.6	7.4	3.7
		100.0	22.5	12.5	19.1	30.5	15.4
Germany	0.131	34.6	11.3	1.6	9.1	9.3	3.3
		100.0	32.8	4.6	26.4	26.8	9.4
Greece	0.125	54.3	20.4	0.2	16.5	11.7	5.6
		100.0	37.5	0.4	30.3	21.5	10.3
Hungary	0.157	46.3	9.0	2.9	6.8	18.3	9.3
		100.0	19.5	6.3	14.7	39.5	20.0
Italy	0.133	35.2	7.7	2.7	9.2	10.8	4.8
		100.0	21.8	7.6	26.2	30.7	13.7
Korea	0.090	16.8	0.3	0.3	2.8	8.3	5.1
		100.0	1.8	2.0	16.6	49.6	30.1
Netherlands	0.104	30.7	6.5	0.4	14.7	8.3	0.9
		100.0	21.1	1.2	48.0	26.9	2.8
New Zealand	0.103	37.4	7.3	8.1	10.6	5.0	6.4
		100.0	19.5	21.7	28.3	13.4	17.2
Slovenia	0.136	54.3	13.0	9.3	14.6	11.9	5.5
		100.0	24.0	17.1	26.8	21.9	10.1
Spain	0.173	21.5	5.1	0.6	5.5	7.7	2.7
		100.0	23.5	2.9	25.5	35.7	12.5
Sweden	0.103	43.9	2.6	2.6	9.6	16.6	12.6
		100.0	5.9	5.9	21.8	37.7	28.6
Thailand	0.108	14.6	1.5	0.0	2.2	8.4	2.7
		100.0	10.2	0.0	15.1	57.2	18.5
United Kingdom	0.110	35.0	7.1	1.6	9.7	9.6	7.0
		100.0	20.3	4.5	27.7	27.4	20.1
United States	0.112	42.6	8.2	4.3	13.8	7.8	8.5
		100.0	19.3	10.1	32.5	18.2	19.9

*$p<0.05$ in all countries

Table 5.4 Health inequality profile of 17 countries by socio-demographic and quality of life dimensions (explained share in absolute and relative percentages)

	Inequality index*	Explained share	Gender	Age	Education	Mobility	Self-care	Usual activities	Pain/discomfort	Anxiety/ depression
Belgium	0.126	26.8	0.0	3.8	0.0	4.3	3.4	7.8	4.2	3.4
		100.0	0.0	14.0	0.0	16.1	12.6	29.0	15.5	12.7
China	0.095	36.6	0.1	11.5	4.1	2.3	0.2	2.4	7.4	8.6
		100.0	0.3	31.3	11.3	6.2	0.7	6.5	20.3	23.4
Denmark	0.094	38.4	0.1	1.6	1.7	7.1	2.4	12.0	8.1	5.5
		100.0	0.1	4.2	4.3	18.5	6.3	31.1	21.1	14.4
France	0.132	28.6	0.0	7.0	0.7	3.5	2.9	4.5	6.1	4.0
		100.0	0.0	24.5	2.4	12.1	10.0	15.7	21.4	13.8
Germany	0.131	39.4	0.0	9.0	0.3	8.3	1.3	8.7	8.5	3.4
		100.0	0.0	22.9	0.7	21.1	3.2	22.0	21.4	8.7
Greece	0.126	55.2	0.1	2.6	0.3	20.4	0.0	15.4	10.4	6.0
		100.0	0.1	4.7	0.5	37.1	0.0	27.9	18.9	10.8
Hungary	0.157	50.6	0.0	9.4	1.2	6.6	2.4	5.9	15.8	9.2
		100.0	0.0	18.7	2.3	13.1	4.8	11.8	31.3	18.1
Italy	0.133	38.8	0.0	8.0	0.1	5.6	2.5	8.7	9.1	4.8
		100.0	0.0	20.5	0.2	14.5	6.4	22.4	23.5	12.4
Korea	0.090	19.3	0.0	0.0	1.5	0.4	0.4	2.7	9.0	5.3
		100.0	0.0	0.0	7.9	2.1	2.0	14.0	46.6	27.4
Netherlands	0.104	31.4	0.0	1.4	0.4	5.7	0.4	14.7	8.0	0.9
		100.0	0.0	4.4	1.2	18.2	1.2	46.7	25.4	2.8
New Zealand	0.103	38.9	0.1	0.0	0.1	8.1	8.1	10.6	5.3	6.5
		100.0	0.2	0.0	0.3	20.8	20.9	27.3	13.8	16.8
Slovenia	0.136	57.7	0.3	4.1	6.2	8.8	7.4	13.9	11.3	5.7
		100.0	0.5	7.2	10.7	15.3	12.7	24.2	19.6	9.9
Spain	0.173	22.8	0.1	2.8	0.1	4.0	0.6	5.2	7.2	2.7
		100.0	0.6	12.4	0.6	17.5	2.5	22.9	31.6	12.0

Sweden	0.104	44.4	0.0	0.4	0.3	2.4	2.5	9.7	16.3	12.8
		100.0	0.1	0.9	0.7	5.4	5.6	21.9	36.7	28.8
Thailand[a]	0.108	15.4	0.4	0.2	–	1.5	0.0	2.1	8.4	2.9
		100.0	2.3	1.0	–	9.5	0.0	13.9	54.7	18.6
United Kingdom	0.110	35.9	0.0	1.1	1.3	6.3	1.5	9.8	8.9	6.9
		100.0	0.0	3.0	3.7	17.7	4.3	27.2	24.7	19.3
United States	0.112	43.1	0.0	1.1	0.5	7.6	4.0	13.9	7.4	8.5
		100.0	0.0	2.6	1.2	17.5	9.4	32.2	17.3	19.8

[*] $p<0.05$ in all countries

[a] Education variable is not available in Thailand

5.4 Conclusions

Evidence from these analyses shows that inequalities in self-reported health measured by the EQ-5D exist across many countries despite different demographic, economic and cultural characteristics. The individual health inequality profile of each country deserves the attention of policy makers to promote greater equity.

Both the analysis of odds ratios and concentration indices showed that age is the most important overall predictor of experiencing lower EQ VAS and problems on mobility, self-care, usual activities, and pain/discomfort in all countries. Gender does play an additional role, although its role is much smaller. Having attained at least a medium level of education, adjusted for age and gender, translated into lower odds of reporting problems on any dimension of EQ-5D in almost all surveyed countries. However, this relationship seemed to possess some country-specific traits that deserve the attention of policy makers.

In addition, the decomposition analysis of the concentration index provided a unique insight into the role of each individual EQ-5D dimension in explaining overall inequalities in EQ VAS. This analysis, in particular, highlighted the widespread importance of problems with pain/discomfort and usual activities in explaining inequalities in overall self-assessed health.

Finally, it has to be noted that the above results should not be used for ranking countries based on health inequality among their populations. Neither was the analysis designed to account for potential differences in demographic or other sample characteristics across countries. Each country should consider the results within the light of their own social and health care context. Further data collection and research by population subgroups that were not included in this study – such as social, ethnic, or patient groups – could help prioritize and further refine inequality reduction programs.

Another limitation of this study derives from the simple, generic nature of the EQ-5D questionnaire. The domains described by the EQ-5D-3L are generic and response options are limited to three levels. While these characteristics make the EQ-5D feasible to administer in large population surveys, they also lead to some limitations in interpreting results. For example, it is not possible to determine what proportion of reported pain related to acute, sub-acute, or chronic pain, or what were the key types of usual activities people had problem with. Targeted research along each important quality of life domain could further help understand in-depth characteristics of inequalities and identify strategies to tackle them efficiently.

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