

Aging and Health Care Allocation: The Ethical Problem

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- Current philosophical and WHO formulations intentionally lead to restrictions on health care for older populations—i.e., Years-of-Life-Lost (YLL) as measure of population health
- This assumes that the elderly make minor social contributions, since societal contributions are allegedly based on economic productivity
- If true, the highly educated are more productive and entitled to greater health resources

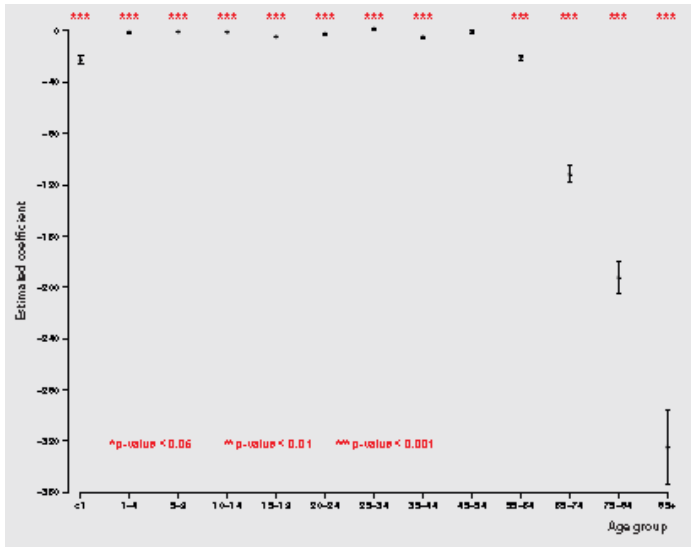
- Under this claim, the unemployed, underemployed and disabled should be entitled to fewer health resources
- This is despite the fact that the less well educated, unemployed and disabled show the highest morbidity and mortality rates—a universal fact referred to as the “health gradient”
- This is also despite the fact that the retired have already made their economic contribution, as compared to younger populations

- In actual industrial practice, older workers are more valued and are shown to be more productive—even into their 70s
- The older population routinely serves the younger populations in provision of social ties, the link to history, identity and social integration—which extend life and health of younger populations
- Extended life spans of the older populations is a gift to the younger population and is a principal achievement of civilization

- Most important, it can be shown that the achievements of health care technology and expenditure have improved the mortality and health of older populations more than those of any other population (morbidity compression)
- Extended life spans of the older populations is a gift to the younger population and is a principal achievement of global public health and medicine

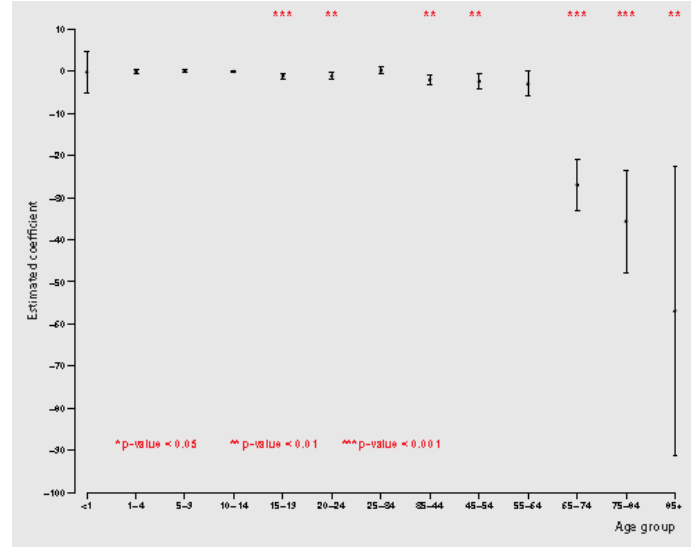
Relation between health expenditures as a proportion of GDP and US mortality rates by age (US States are units of analysis)

(a) No adjustment



Without control variables

(b) Adjustment variables: GDP pc, smoking, obesity



With controls for GDP per capita, smoking prevalence and obesity prevalence

The overwhelming ethical principle of public health, substantiated by empirical evidence, must specify that all persons are of equal worth and are to be treated equally over the life span, taking into account their need for health and preventive services on the basis of illness severity and potential mortality.

Prediction of age standardized all causes death rate per 100,000 of total population for 150 countries around the world

Pooled analysis for the years 2000-2015.

Prediction of age standardized all causes death rate per 100,000 of total population for 150 countries around the world.

Random-effects GLS regression

Group variable: numcod

R-sq: within = 0.6919

between = 0.9015

overall = 0.8878

Wald chi2(19) = 6113.21

corr(u_i, X) = 0 (assumed)

Number of obs = 2400

Number of groups = 150

Obs per group: min = 16

avg = 16.0

max = 16

Prob > chi2 = 0.0000

Predictors	Coef.	St. Er.	z	P> z	[95%	CI]	Beta
Nat. log. of GDP in thousands of 2005 international \$ /capita	-158.371	10.34	-15.32	0.000	-178.64	-138.10	-0.30
Total health expenditure as % of GDP	-8.451	1.39	-6.10	0.000	-11.17	-5.74	-0.07
1 y/lag of education index (calculated from EYS and MYS)	-581.236	51.54	-11.28	0.000	-682.25	-480.22	-0.23
Nat. log. of unemployment rate in total pop. 15+ y/old	15.923	5.19	3.07	0.002	5.74	26.10	0.04
20 y/aver. of CO2 (excl. b/mass burning) emis. in ton/cap.	16.148	1.55	10.43	0.000	13.11	19.18	0.13
Smoker prevalence in total population 15+ y/old	5.648	1.01	5.61	0.000	3.67	7.62	0.07
Prevalence of alcohol use in population 15+ y/old	12.549	2.20	5.70	0.000	8.23	16.87	0.08
Nat. log. of obesity prev. /10,000 of total pop. 15+ y/old	65.500	18.35	3.57	0.000	29.54	101.46	0.06
Fertility rate per 100,000 of female population 15-19 y/old	0.038	0.00	16.58	0.000	0.03	0.04	0.27
Tuberculosis prevalence in total population 15+ y/old	1.636	0.13	12.96	0.000	1.39	1.88	0.21
HIV prevalence per 1,000 total population 15+ y/old	0.106	0.01	17.38	0.000	0.09	0.12	0.23
Gini index of household (pre-tax-transfer) income inequal.	-1.001	0.86	-1.17	0.242	-2.68	0.68	-0.01
Dummy (1=Southern & Western Africa, 0=Other)	-283.983	39.66	-7.16	0.000	-361.71	-206.26	-0.09
Dummy (1=Central and South America, 0=other regions)	-89.335	36.03	-2.48	0.013	-159.96	-18.71	-0.03
Dummy (1=Central and Eastern Asia, 0=other regions)	156.273	46.90	3.33	0.001	64.36	248.19	0.04
Dummy (1=Indonesia, Nepal & Philippines, 0=Other)	-397.669	83.73	-4.75	0.000	-561.78	-233.56	-0.06
Dummy (1=Iran & Iraq, 0=Other)	156.868	95.13	1.65	0.099	-29.59	343.32	0.02
Dummy (1=Turkey, 0=Other)	-191.780	132.95	-1.44	0.149	-452.36	68.80	-0.02
Dummy (1=Micronesia& Melanesia, 0=Other regions)	589.845	68.75	8.58	0.000	455.09	724.60	0.10
Constant	883.117	66.97	13.19	0.000	751.85	1014.38	0.00

Prediction of age standardized all causes death rate per 100,000 of total population for 150 countries around the world

