

# Effects of Self-Reported Health, Life Course Socioeconomic Position, and Interest in Politics on Voting Abstention

Onyebuchi A. Arah

PWP-CCPR-2014-002

Latest Revised: April 2014

California Center for Population Research On-Line Working Paper Series

# Effects of Self-Reported Health, Life Course Socioeconomic Position, and Interest in Politics on Voting Abstention

Onyebuchi A. Arah<sup>1,2,3</sup>

<sup>1</sup>Department of Epidemiology, Fielding School of Public Health, University of California, Los Angeles (UCLA), Los Angeles, California, United States.

<sup>2</sup>California Center for Population Research, Los Angeles, California, United States.

<sup>3</sup>Department of Public Health, Academic Medical Center, University of Amsterdam, Amsterdam, the Netherlands.

Correspondence should be addressed to Onyebuchi A Arah; arah@ucla.edu

# Abstract

This study examined the effects of self-reported general health and life course socioeconomic position on subsequent voting abstention. Those in poor health were likely to abstain from voting in a general election. Low socioeconomic positions at birth and in adulthood were associated with voting abstention but these associations seem to be mediated by interest in politics and whether the respondents thought politics would not benefit them. Integrated health and public policies should recognize the reciprocity of the relationship between health and political engagement.

#### Introduction

Although there is increasing evidence that aggregate voting patterns affect individual and population health [1-4], there is still little research on the impact of individual health on individual voting behavior during elections [5-7]. Recent work suggests that poor individual health may lead to higher individual voting abstention [6,7]. Arguably, the unhealthy might perceive the effort involved in voting as greater than the benefits of voting. It is unclear, however, whether the health-voting association holds for men and women alike. Furthermore, given its known health effects, life course socioeconomic position (SEP) probably also has a direct effect on voting and thus confounds the relationship between health and voting. Lifetime SEP, especially in adulthood, may also determine the level of interest in politics exhibited by those in poor health. This paper examines sexspecific effects of life course SEP, health and interest in politics on voting abstention.

#### Methods

#### **Study Participants**

We used data from the National Child Development Study (NCDS), a longitudinal cohort of persons born in a single week in Britain in March 1958 [8]. The analytical sample included those who responded in the 2004/5 survey wave to having voted or not in the 2001 general election and who had complete data on all required variables from the 2000 survey wave (the year before the 2001 election).

#### Study measures

The outcome measure is voting abstention during the British General Election in June 2001. The predictor variables measured during the year 2000 survey wave are: self-reported general health measured as excellent/good versus fair/poor; adult SEP measured as social class (manual versus non-manual); and whether very, fairly, not very or not at all interested in politics. We also constructed a factor based on three questions asking the respondents whether they disagreed, were uncertain or agreed that: no political party would benefit them, it made no difference which political party was in power in Britain, and politicians were into politics for their own selfish benefits. Childhood SEP, measured as social class at birth, is based on father's social class. Other covariates controlled for include geographic region, education based on age at leaving school, smoking, alcohol consumption, regular exercising, and body mass index (Tables 1 and 2).

#### Statistical analysis

For men and women separately, we used modified Poisson regression with robust error variance to estimate model-based risk ratios (or prevalence proportion ratios) [9,10] for the impact of health on voting abstention with and without adjustment for life course SEP, measures of interest in politics, and other covariates. Using risk ratios is more appropriate than odds ratios for our longitudinal study design [9-12]. All analyses were carried out in SAS® [11].

#### Results

About 22% of men and women said they abstained from voting. Table 1 shows that those who abstained from voting were likely to have been in poorer health, came from a lower

lifetime SEP, were disinterested in politics, and did not think politics/politicians would benefit them. Unadjusted risk ratios (95% confidence intervals) for voting abstention were 1.18 (1.04, 1.33) and 1.34 (1.20, 1.49) among men and women in fair/poor health respectively compared to those in excellent/good health. Table 2 shows that these risk ratios were attenuated upon adjustment for region, education, smoking, alcohol use, and exercising (model 1). Men and women born into a lower SEP were more likely not to vote as were those currently in lower adult SEP (model 2). These effects on voting abstention appear to be partly due to being disinterested in politics and being wary of the benefits of political parties and of the intentions of politicians (model 3). The association between health and voting is stable to further adjustments for life course SEP and measures of interest in politics, suggesting possible direct effects of the latter not substantially mediated or confounded by health. Being in poor health and not being interested in politics appear to influence voting abstention more among women than men (model 3).

#### DISCUSSION

The finding that poor health is associated with lower voting turnout is consistent with recent studies [6,7]. This study is among the first to explore the effects of life course SEP and interest in politics on voting. Considering that political engagement in a democracy is a form of social capital, which in turn is conducive to better health, it is unfortunate that the unhealthy and those born into disadvantage continue to have lower voting participation [3-5,13-16].

For democratically elected governments to be truly representative, the vicious cycle of poor health, SEP, voting participation, and social capital and subsequent lower health must be broken. As the case for health as a cornerstone of foreign and domestic policy gathers momentum [17] and given these emerging findings of the reciprocity of health and politics, it seems prudent to see health as more than just a political rhetoric but a goal that is both a means and an end to public policy [18,19].

#### **Conflict of interest**

None.

### Acknowledgments

We acknowledge data support from: Centre for Longitudinal Studies, Institute of Education, University of London, National Child Development Study (computer files); National Birthday Trust Fund, National Children's Bureau, City University Social Statistics Research Unit (original data producers); The UK Data Archive at University of Essex (distributor). This work was supported by a Rubicon fellowship (grant # 825.06.026) awarded by the Board of the Council for Earth and Life Sciences (ALW) of the Netherlands Organisation for Scientific Research (NWO), The Hague, Netherlands. The funder had no influence on the design, analysis, and interpretation of (and the decision to submit) this work.

#### **Ethical Approval**

Not required.

# References

- Blakely TA, Kennedy BP, Kawachi I. Socioeconomic inequality in voting participation and self-rated health. *Am J Public Health* 2001;91:99-104.
- [2] Arah OA. Effect of voting abstention and life course socioeconomic position on self-reported health. *J Epidemiol Community Health* 2008;62:759-760.
- [3] Borrell C, Espelt A, Rodríguez-Sanz M, Navarro V. Politics and health. J Epidemiol Community Health 2007;61:658-659.
- [4] Bambra C, Pope D, Swami V, Stanistreet D, Roskam A, Kunst A, Scott-Samuel A.
   Gender, health inequalities and welfare state regimes: a cross-national study of 13
   European countries. *J Epidemiol Community Health* 2009;63:38-44.
- [5] Reitan TC. Too sick to vote? Public health and voter turnout in Russia during the 1990's. *Communist Post-Communist Stud* 2003;**36**:49-68.
- [6] Davey Smith G, Dorling D. "I'm all right, John": Voting patterns and mortality in England. *BMJ*. 1996;**313**:1573-1577.
- [7] Davey Smith G, Dorling D. Association between voting patterns and mortality remains. [Letter]. *BMJ*. 1997;**315**:430–431.
- [8] Blakely TA, Kennedy BP, Kawachi I. Socioeconomic inequality in voting participation and self-rated health. *Am J Public Health.* 2001;91:99-104.
- [9] Kelleher C, Timoney A, Friel S, McKeown D. Indicators of deprivation, voting patterns, and health status at the area level in the Republic of Ireland. *J Epidemiol Community Health.* 2002;56:36-44.

- [10] Shaw M, Dorling D, Davey Smith G. Mortality and political climate: how suicide rates have risen during periods of Conservative government, 1901-2000. J Epidemiol Community Health. 2002;56:723-725.
- [11] Denny KJ, Doyle OM. "Take up thy bed, and vote": Measuring the relationship between voting behaviour and indicators of health. *Eur J Public Health*. 2007;17:400-1.
- [12] Power C, Elliot J. Cohort profile: 1958 British birth cohort (National Child Development Study). *Int J Epidemiol*. 2006;35:34-41.
- [13] Zou G. A modified poisson regression approach to prospective studies with binary data. *Am J Epidemiol.* 2004;**159**:702-706.
- [14] Viswanath K, Steele WR, Finnegan Jr JR. Social capital and health: civic engagement, community size, and recall of health messages. *Am J Public Health*. 2006;**96**:1456-1461.
- [15] Putnam RD. Bowling Alone. The Collapse and Revival of American Community. New York, NY: Touchstone; 2000.
- [16] Putnam R, Leonardi R, Nanetti R. *Making Democracy Work*. Princeton, NJ: Princeton University Press; 1993.
- [17] Navarro V, Muntaner C, Borrell C, Benach J, Quiroga A, Rodríguez-Sanz
   M, Vergés N, Pasarín MI. Politics and health outcomes. *Lancet* 2006;368:1033-1037.
- [18] Borrell C, Espelt A, Rodríguez-Sanz M, Navarro V. Politics and health. J Epidemiol Community Health 2007;61:658-659.

	<b>Men</b> ( <i>n</i> = 2,723)	<b>Women</b> ( <i>n</i> = 2,660)	Total/combined	
Self-reported general health		, ,		
-Excellent/good	Reference	Reference	Reference	
-Fair/poor	1.18 (1.04, 1.33)	1.34 (1.20, 1.49)	1.26 (1.17, 1.37)	
Social class at birth (year				
1958)				
- Non-manual	Reference	Reference	Reference	
- Manual	1.46 (1.27, 1.68)	1.54 (1.34, 1.77)	1.50 (1.36, 1.65)	
Social class in adulthood				
(year 2000)				
- Non-manual	Reference	Reference	Reference	
- Manual	1.60 (1.42, 1.79)	1.49 (1.32, 1.69)	1.53 (1.41, 1.66)	
Interested in politics				
-Very	Reference	Reference	Reference	
-Fairly	1.27 (0.88, 1.84)	1.47 (0.74, 2.94)	1.26 (0.91, 1.73)	
-Not very	2.34 (1.64, 3.33)	3.19 (1.62, 6.28)	2.43 (1.78, 3.32)	
-Not at all	5.15 (3.63, 7.31)	7.03 (3.58, 13.80)	5.35 (3.93, 7.29)	
Whether respondent thinks				
party/politicians will not				
benefit them <sup>#</sup>				
Factor (z-score)	1.50 (1.43, 1.57)	1.53 (1.45, 1.61)	1.51 (1.46, 1.56)	
Sex				
-Male	Reference	Reference	Reference	
-Female	N.A.	N.A.	1.02 (0.94, 1.04)	

**Table 1**: Univariate risk ratios (95% confidence intervals) for the effects of respondent characteristics in year

 2000 on subsequent voting abstention from general elections in year 2001

N.A.: not applicable

<sup>#</sup>Based on three questions asking the respondents whether they disagreed, were uncertain or agreed that: no political party would benefit them, it made no difference which political party was in power in Britain, and politicians were into politics for their own selfish benefits.

**Table 2**: Risk ratios (95% confidence intervals) for the effect of self-reported general health, life course socioeconomic position and interest in politics in year 2000 on voting abstention from the 2001 British general election (N = 5,383)

	<b>Men</b> ( <i>n</i> = 2,723)			<b>Women</b> ( <i>n</i> = 2,660)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Self-reported gener						
-Excellent/good	Reference	Reference	Reference	Reference	Reference	Reference
-Fair/poor	1.05	1.07	1.05	1.17	1.13	1.13
	(0.92, 1.21)	(0.91, 1.25)	(0.89, 1.24)	(1.04, 1.33)	(0.97, 1.32)	(0.96, 1.32)
Social class at birth	(year 1958)					
- Non-manual		Reference	Reference		Reference	Reference
- Manual		1.16	1.09		1.21	1.13
		(0.99, 1.37)	(0.92, 1.30)		(1.02, 1.44)	(0.94, 1.35)
Social class in adult	thood (year 200	)0)			1	
- Non-manual		Reference	Reference		Reference	Reference
- Manual		1.29	1.05		1.15	0.99
		(1.10, 1.50)	(0.89, 1.23)		(1.01, 1.33)	(0.84, 1.14)
Interested in politic	CS					
-Very			Reference			Reference
-Fairly			1.13			1.13
			(0.78, 1.77)			(0.48, 2.96)
-Not very			1.88			2.47
			(1.31, 2.96)			(0.95, 6.34)
-Not at all			3.16			4.30
			(2.08, 4.80)			(1.65, 11.19)
Whether respondent thinks party/politicians will not benefit them $^{\#}$						
Factor (z-score)			1.27			1.17
			(1.18, 1.37)			(1.07, 1.27)

All models adjusted for geographic region of the respondent, education (at 18 years or older, at 17, or at 16 or younger), smoking (never, former, occasional, or daily smokers), alcohol consumption (does not drink, drinks only on special occasions, drinks at the most once a week, drinks on most days of the week, or drinks on everyday of the week), regular exercising (yes or no), and body mass index (kilograms of body weight per squared meter of height).

<sup>#</sup>Based on three questions asking the respondents whether they disagreed, were uncertain or agreed that: no political party would benefit them, it made no difference which political party was in power in Britain, and politicians were into politics for their own selfish benefits.