

Do Long Work Hours Impede Workers' Ability to Obtain Preventive Care?

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I. BACKGROUND AND OBJECTIVES

a) Working Long Hours and Adverse Health and Safety Outcomes

- Working long hours is very common among U.S. workers.
- Adverse outcomes of long work hours: sleep problems, fatigue, negative health behaviors, injuries, illnesses, poor work-family balance, etc.

b) Access to Preventive Health Services

- Americans receive about half of the recommended preventive health services.

c) Long Work Hours and Access to Health Care

- Work responsibilities and work time were the most commonly mentioned individual barriers to accessing primary care.
- Working long hours was found to be a significant barrier to accessing health care in Canada, Europe and Japan.

d) Objectives

- This study aims to assess whether and to what extent long work hours impede workers' access to recommended preventive health services.

II. METHODS

a) Data Source

- 2002-2010 Medical Expenditure Panel Survey (MEPS)

b) Study Population

- Privately insured full-time workers aged 18-64.
- Age range is 50-64 for analyses considering mammograms.
- The dental check-up studies limit the population to workers with dental insurance.

c) Outcome Variable

The outcome of the study is failure to obtain each of the following preventive health services:

1. Annual flu vaccination
2. Annual routine check-up
3. Semi-annual dental check-up
4. Biennial mammogram

d) Main Independent Variable

- Work hours were analyzed as a categorical variable: 35-40 (reference group), 41-50, 51-60, and 61 or more hours/week.
- Also, work hours were analyzed as a dichotomous variable: 35-60 (reference group) vs. 61+ hours/week.

e) Statistical Method

- Logistic regression applying the strata, primary sample units and the adjusted person weight.
- Our hypothesis is that working long hours is associated with an increased probability of not obtaining the specified preventive health service.
- Confounders: age, gender, race, education, family income, self-reported physical health status, self-reported mental health status, size of the employer and a dummy variable indicating calendar year.

III. RESULTS

Working over 60 hours per week was significantly associated with an increased risk of not obtaining a semi-annual dental check-up (OR=1.25, $p<0.001$), or a biannual mammogram (OR=2.04, $p<0.01$). The association between working long hours and failing to obtain a flu vaccination was not significant. Workers who worked over 60 hours/week were more likely to obtain a routine check-up than those working 35-60 hours/week.

Hours/Week	Flu Vaccination		Routine Check-up		Dental Check-up		Mammogram	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
35-40	.	.	.	.	.	.	.	.
41-50	1.03	(0.96, 1.09)	1.02	(0.97, 1.09)	0.96	(0.90, 1.04)	0.82	(0.61, 1.09)
51-60	1.02	(0.94, 1.11)	0.97	(0.90, 1.05)	1.02	(0.93, 1.11)	0.99	(0.66, 1.49)
>60	1.06	(0.96, 1.18)	0.87**	(0.79, 0.96)	1.24***	(1.10, 1.39)	1.95**	(1.27, 2.99)

Hours/Week	Flu Vaccination		Routine Check-up		Dental Check-up		Mammogram	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
35-60	.	.	.	.	.	.	.	.
>60	1.05	(0.95, 1.17)	0.87**	(0.79, 0.95)	1.25***	(1.11, 1.40)	2.04**	(1.33, 3.13)

* $p<0.05$

** $p<0.01$

*** $p<0.001$

IV. CONCLUSIONS

- This is the first study in the U.S. to measure the effects of long work hours on access to preventive health services
- Long work hours might be a barrier to accessing particular preventive health services including dental check-ups and mammograms.
- Employers should consider avoiding excessive work hour schedules (>60 hours/week) and help facilitate access to health care for employees working long hours.

If you have any questions, please feel free to contact Xiaoxi Yao at yao.147@osu.edu