

海外特別研究員最終報告書

独立行政法人 日本学術振興会 理事長 殿

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受付番号 786

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(氏名は必ず自署すること)

海外特別研究員としての派遣期間を終了しましたので、下記のとおり報告いたします。

なお、下記及び別紙記載の内容については相違ありません。

記

1. 用務地（派遣先国名）用務地： ボストン （国名： 米国 ）
2. 研究課題名（和文）※研究課題名は申請時のものと変わらないように記載すること。
社会経済的要因がもたらす健康行動格差を是正するための公正の手法の役割
3. 派遣期間： 平成 29 年 8 月 28 日 ～ 令和 元年 8 月 27 日
4. 受入機関名及び部局名
ハーバード大学 公衆衛生大学院 社会・行動科学講座
5. 所期の目的の遂行状況及び成果…書式任意 **書式任意 (A4 判相当 3 ページ以上、英語で記入も可)**
(研究・調査実施状況及びその成果の発表・関係学会への参加状況等)
(注)「6. 研究発表」以降については様式 10-別紙 1~4 に記入の上、併せて提出すること。

OVERVIEW

The aim of my research sponsored by JSPS was to explore the role of equity approach in socioeconomic inequality in health behaviors. As an equity approach, I used Medicaid expansion stemming from the Patient Protection and Affordable Care Act (ACA) in the United States. I published three papers and gave three presentations related to this research (Studies 1-3). One more paper is currently under review (Study 4).

In addition, in order to further look into socioeconomic inequalities in East Asian countries, I conducted some comparative studies related to socioeconomic inequalities in mental health between Japan and South Korea. I published a paper and gave a presentation at an international conference (Study 5). Two more papers are under review (Studies 6 & 7).

Furthermore, I also contributed to my colleagues' publications during my fellowship as follows;

- Insa Backhaus, **Shiho Kino**, Giuseppe La Torre, Ichiro Kawachi. (2019), Right-wing populism and self-rated health in Europe: a multilevel analysis, *Journal of Epidemiology & Community Health* (in press)
- Rikako Sato, Takeo Fujiwara, **Shiho Kino**, Nobutoshi Nawa, Ichiro Kawachi (2019), Pet ownership and children's emotional expression: Propensity score-matched analysis of longitudinal data from Japan, *Int. J. Environ. Res. Public Health*, 16(5), 758; doi:10.3390/ijerph16050758

Study 1: The impact of ACA Medicaid expansion on socioeconomic inequality in health care services utilization.

[Publication] PLoS One. 2018 Dec 31;13(12):e0209935. doi: 10.1371/journal.pone.0209935. eCollection 2018.

[Presentation] Postdoctoral Meeting in Harvard T.H. Chan School of Public Health, Boston, USA, April 2018.

ABSTRACT

Objective

We examined whether the Affordable Care Act (ACA) Medicaid expansion reduced socioeconomic inequalities in health care utilization.

Methods

We used data from the Behavioral Risk Factor Surveillance System, covering the 50 U.S. states and the District of Columbia, between 2011 and 2016. We selected outcome indicators, viz. ability to afford needed health care, having a personal doctor, use of health services in the past year (routine check-up, flu shot and dental visits), and attending screenings for breast, cervical, and colon cancers.

Socioeconomic status was measured by household income. We calculated two indices of inequality by household income for each outcome: Slope Index of Inequality (SII) and Relative Index of Inequality (RII). We estimated difference-in-differences models to examine the impact of ACA Medicaid expansion on socioeconomic inequality in use of health care services.

Results

The ACA Medicaid expansion appeared to reduce the socioeconomic gap in individuals reporting financial ability in accessing health care (difference-in-differences estimators, -0.045 for SII and RII), having a personal doctor (-0.037 for SII and RII), and receiving routine check-ups (-0.027 for SII and -0.039 for RII). However, the expansion was not associated with reduction in the socioeconomic gap for preventive health care visits or dental care.

Conclusions

The ACA Medicaid expansion had mixed effects on socioeconomic disparities in health care utilization. Medicaid expansion may not be sufficient to address socioeconomic disparities in preventive services uptake.

Study 2. Spillover benefit of improved access to healthcare on reducing worry about housing and meal affordability.

[Publication] International Journal of Equity in Health. 2018 Nov 22;17(1):174. doi: 10.1186/s12939-018-0877-y.

ABSTRACT

Background

The Affordable Care Act Medicaid expansion improved access to health insurance among low-income populations. We sought to examine the spillover benefits of the ACA Medicaid expansion on ability to afford rent/mortgage and purchase of nutritious meals.

Methods

Using data from the Behavioral Risk Factor Surveillance System (BRFSS) we analyzed individuals aged 18-64 years residing in 12 U.S. states (including five ACA Medicaid expansion states) in 2015. Our treatment of interest was access to health insurance, instrumented by the ACA Medicaid expansion. Our outcome variables were: worry or stress about having sufficient money to pay the rent or mortgage and to purchase nutritious meals. We conducted a two-stage least squares instrumental variables regression.

Results

A 10%-point increase in the proportion of those who obtained health insurance following the ACA Medicaid expansion reduced the probability of being worried and stressed related to purchasing nutritious meals by 7.2% points (95% CI: 1.3-13.2) as well as paying the rent or mortgage by 8.6% points (95% CI: 2.5-14.7) among people living below 138% of the federal poverty level (FPL). The ACA Medicaid expansion was not associated with access to health insurance among those living over 138% of FPL, and obtaining health insurance did not influence stress or worry in relation to affording rent/mortgage or meals in this income group.

Conclusions

Improved access to health insurance contributed to reducing worry and stress associated with paying rent/mortgage or purchasing meals among low-income people. Expanding health insurance access may have contributed to increasing the disposable income of low income groups.

Study 3. Can health literacy boost health services utilization in the context of expanded access to health insurance?

[Publication] Accepted by Health Education & Behavior on August 23rd (*in press*)

[Presentation] the Society for Epidemiologic Research 52nd Annual Meeting, Minneapolis, USA, June 2019

ABSTRACT

Background

Health insurance access and health literacy are critical components of “enabling resources” to encourage uptake of services. We sought to test whether health literacy boosts health services utilization in the context of expanded access to health insurance stemming from the ACA.

Methods

We used individual-level data from 11 states included in the BRFSS 2016. We conducted a two-stage least squares instrumental variables analysis. We instrumented improved access to health insurance stemming from ACA Medicaid expansion. As outcome variables, we examined cost as a barrier to needed care, having a personal doctor and receipt of routine health check-ups, flu shots, Pap tests, mammograms, sigmoidoscopy/colonoscopy and dental visits in the past year. We then tested whether the relation between improved health insurance access & health services utilization was moderated by health literacy. Health literacy was measured by a dichotomized scale comprising three items: difficulties obtaining advice or information about health, difficulties understating information from health professionals, and difficulties understanding written health information.

Results

We found that improving health insurance access increased the likelihood of reporting a personal doctor while reducing the likelihood of reporting cost as a barrier to care. We also found the interaction effect between health insurance and health literacy on dental visits. However, there was no significant interaction effect between insurance access and health literacy for *preventive* services utilization.

Conclusion

Health literacy did not explain why people fail to access preventive services even when they obtain access to insurance, with the sole possible exception of dental visits among individuals with high literacy.

Study 4. How much do preventive health behaviors explain socioeconomic inequalities in health?

Results of Oaxaca—Blinder decomposition analysis.

[Presentation] the Society for Epidemiologic Research 52nd Annual Meeting, Minneapolis, USA, June 2019

*I do not provide the details as this is not published yet.

Study 5. Age, period, cohort trends of suicide in Japan and Korea (1986-2015): A tale of two countries.

[Publication] Social Science & Medicine. 2019 Aug;235:112385. doi:

10.1016/j.socscimed.2019.112385. Epub 2019 Jun 28.

[Presentation] the Society for Epidemiologic Research 52nd Annual Meeting, Minneapolis, USA, June 2019

ABSTRACT

Japan and South Korea have among the highest suicide rates in the world. However, the age, gender, and time trends in each country differ substantially. Age-Period-Cohort (APC) analysis of suicide rates was conducted to better understand these differences. Using age- and gender-specific data on suicide between 1986 and 2015 in Japan and Korea, we implemented APC analysis to decompose the country-specific trends into age, calendar period, and birth cohort effects. APC analysis revealed three trends: (1) there was a sharp increase in suicide around retirement age in Korea but not in Japan (age effect); (2) there was a dramatic increase in suicide during the three decades of observation in Korea (period effect) whereas rates were more stable in Japan; and (3) the post-War generation in Japan (including baby boomer) had lower rates of suicide compared to generations born before 1916 or after 1961 (birth cohort effect), whereas suicide rate has increased linearly in each generation in Korea. Although Japan & Korea share high suicide rates, our APC analysis suggests divergent causes underlying these trends. Japanese suicide rates plateaued among the cohorts who experienced the post-War rapid economic growth (women born in 1951-1956 and men born in 1916-1961) (birth cohort effect) due to a strong social safety net for this cohort, while suicide rates in Korea continue to rise with each generation and is particularly elevated in post-retirement age. Japan and Korea need to pay more attention to suicide prevention in more recent birth cohorts.

Study 6. Socioeconomic disparities in self-rated health in two East Asian countries: comparative study between Japan and Korea

*I do not provide the details as this is not published yet.

Study 7. Healthy but unhappy? Cross-national comparative analysis of depressive symptoms in Japanese vs. Korean elders

*I do not provide the details as this is not published yet.