Prevalence of Hepatitis C Testing Among Non-Institutionalized Individuals in the US, NHIS 2013-2017

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Objective

Using a large nationally representative dataset, we estimated the prevalence of self-reported hepatitis C testing among individuals who were recommended to be tested (i.e., baby boomer cohort born between 1945 and 1965) by the CDC and United States Preventive Services Task Force.

Introduction

Hepatitis C virus (HCV) infection is the most common blood-borne disease in the US and the leading cause of liver-related morbidity and mortality. Approximately 3.5 million individuals in the US were estimated to have been living with hepatitis C in 2010 and approximately half of them were unaware that they were infected. Among HCV infected individuals, those born between 1945 and 1965 (usually referred to as the baby boomer cohort) represents approximately 75% of current cases. Because of the substantial burden of disease among this age group, CDC expanded its existing hepatitis C risk-based testing recommendations to include a one-time HCV antibody test for all persons born between 1945 and 1965. The United States Preventive Services Task Force (USPSTF) subsequently made the same recommendation in June 2013.

Methods

The following question "Have you ever had a blood test for hepatitis C?" has been administered annually from 2013 through 2017 on the National Health Interview Survey (NHIS). The NHIS is a nationally representative cross-sectional face-to-face household interview of civilian noninstitutionalized individuals in the U.S. The NHIS survey uses a complex multistage probability design that includes stratification, clustering, and oversampling. We estimated the prevalence of hepatitis C testing for adults in the US during the study period from 2013 to 2017. In addition, we carried out stratified analyses comparing those with private insurance to those who did not have private insurance. We reported weighted estimates taking into account the NHIS survey design. The R statistical software (R Core Team, 2018) was used to estimate weighted prevalence estimates for hepatitis C testing.

Results

During the study period from 2013-2017, there were 148,674 adults who responded to the ever tested for hepatitis C question. In addition, 33.56% of these individuals were born between 1945 and 1965; among all adults, the weighted percentage of individuals that responded yes they had received a hepatitis C screening test was 12.82% (95% CI: 12.54-13.10%) while for baby boomers the estimate was 13.93% (95% CI: 13.51-14.35%).

Figure 1 presents the annual trend in the hepatitis C test prevalence over the study period by birth cohorts. For both cohorts, there were significant increases over time in hepatitis C testing prevalence. The two trend lines began to diverge in 2015 with the baby boomer cohort reporting higher rates of hepatitis C testing. For the baby boomer cohort, there was also a substantial increase in reported hepatitis C testing in 2017 relative to 2016. Similar trends were found for the samples when we restricted the sample to only those with private insurance. Compared to the people with private insurance, the baby boomers with 'Non-private' insurance, including Medicaid, Medicare, or military- government sponsored insurances, reported higher rates of testing.

Conclusion

Across the five-year period from 2013 through 2017, we found increasing rates of self-reported hepatitis C testing among non-institutionalized U.S. adults. For the baby boomer cohort, we saw a substantial increase in testing in 2017, which was likely due in part, to increased awareness among both physicians and patients of the CDC and USPSTF recommendation to have all baby boomers tested. Efforts to increase the awareness of these recommendations should continue. Additional targeted promotions among hard to reach populations should also be considered.

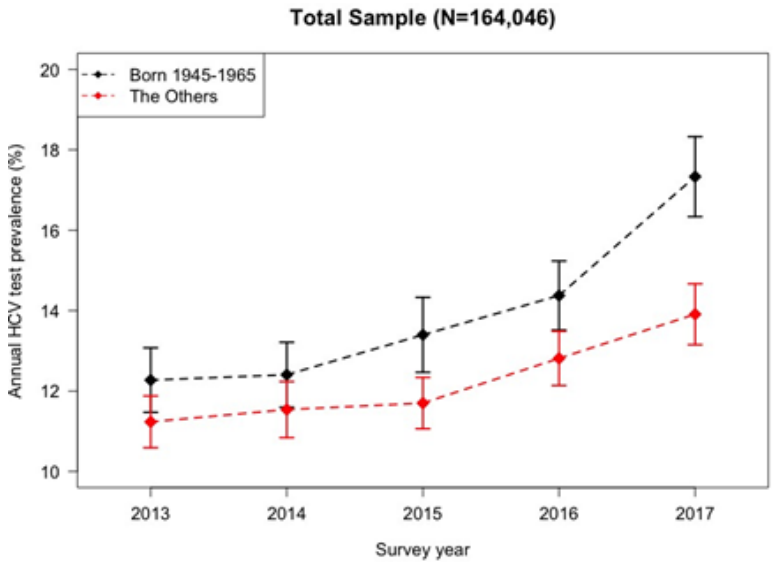

Figure 1. Annual hepatitis C virus (HCV) test prevalence by birth cohorts, NHIS, 2013-2017

Table 1. Annual hepatitis C virus (HCV) test prevalence by birth cohort; total sample and with private insurance holders, NHIS, 2013-2017

	Total Sample		With Private Insurance	
Year	1945-1965 Birth Cohort	Other Birth Cohorts	1945-1965 Birth Cohort	Other Birth Cohorts
2013	12.27 (11.47-13.07)	11.23 (10.59-11.88)	11.50 (10.49-12.51)	11.52 (10.69-12.35)
2014	12.41 (11.60-13.21)	11.54 (10.84-12.24)	11.43 (10.44-12.42)	11.71 (10.80-12.62)
2015	13.40 (12.47-14.33)	11.70 (11.06-12.34)	12.30 (11.21-13.39)	11.58 (10.81-12.36)
2016	14.38 (13.52-15.23)	12.81 (12.14-13.49)	13.39 (12.41-14.36)	12.43 (11.63-13.22)
2017	17.33 (16.34-18.33)	13.91 (13.15-14.67)	16.87 (15.71-18.02)	14.30 (13.35-15.26)