Preventative Medicine: Valid or Not?

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A large population of U.S. citizens do not have access to affordable health insurance and care. The Affordable Care Act (ACA), one of the most controversial acts of recent times, was signed into law in 2010 to address this public health crisis. A major aspect of Obamacare is that it rations federal funding for states to expand Medicaid and provide health insurance coverage to more of the low-income population. As of today, 32 states have chosen to adopt the expansion and 18 have not.

The pros and cons of ACA have been the subject of heated discourse. Specifically, CEOs of health insurance companies assert that it is not economically feasible; they argue more coverage will lead to more individuals seeking care, which will create too much demand for healthcare that companies and hospitals cannot supply. However, ACA architects argue it will decrease healthcare spending in the long run. They argue for a preventative model of care - by allowing people to get affordable regular checkups, emergency room visits will decrease and chronic diseases will be detected earlier, when lifestyle changes have larger positive effects on prognosis.

We sought to study this discourse by investigating demand for employees in the healthcare sector across all 50 states during 2017, seven years after ACA was enacted. We hypothesized that, depending on whether ACA increased/decreased demand for care, healthcare sectors in the 32 states which expanded Medicaid would post more/less job offerings compared to those in the other 18 states.

To approach this question, we collapsed the dataset by unique job posting; each row corresponded to one such posting. Then, we joined the dataset with Medicaid expansion data (whether or not the state expanded Medicaid) and total population for each state. This allowed us to find density of job postings per capita per state.

Analyzing this data for the healthcare sector, we found a significant difference in job posting densities between states that did and did not expand Medicaid ($p < 0.05$). Importantly, expanded states seemed to have higher job posting densities. That is to say, healthcare employers in expanded states were looking to hire more new employees than healthcare employers in non-expanded states. Additionally, investigating this relationship in a sector less related to ACA expansion, the technology sector, we found no significant relationship. This more strongly suggests the correlation we see in the healthcare sector is actually present.

Next, we examined this issue from a supply perspective to see if 1) there is enough supply to keep up with heightened demand and 2) there were any significant limiters of adequate supply. As a proxy for supply, we used total clicks on each posting per capita per state. Looking at the ratio of job posting density to click density, we saw no significant difference between expanded and non-expanded states. This suggests supply keeps up with the heightened demand resulting from Medicaid expansion.

Even so, some difficulties may arise in filling these job postings. Looking at education requirements for healthcare jobs, we see that, when compared to three of the next largest industries in the Indeed dataset (technology, retail, food), the proportion of jobs requiring supplemental degrees and licenses was highest in the healthcare industry. However, we note that this proportion is still relatively low. Thus, the healthcare industry could, but is unlikely to, have difficulty reaching demand necessitated by Medicaid expansion. Costs of hiring these new employees may still be prohibitive.

Our analysis provides important insight about the implementation of ACA. Healthcare is a universal human right and inarguably furthers the human condition. However, discussions of economic costs and supply are unavoidable. We suggest that, though supply of employees seems to be adequate, ACA architects may be incorrect, with respect to costs, in their hypothesis of cost reduction through preventative medicine; expanded states seemed to demand more, not less, healthcare employees. But this conclusion must be taken with a grain of salt. Change does not happen overnight, and in the context of long-term, nationwide healthcare reform, the seven years between ACA implementation and this dataset is certainly a very short time.