

Running the Numbers

*A Periodic Feature to Inform North Carolina Health Care Professionals
About Current Topics in Health Statistics*

Estimated Changes in Health Insurance Coverage of North Carolinians in the First Six Months of the COVID-19 Pandemic

As the COVID-19 pandemic hit the United States and jurisdictions entered various levels of lockdown, the economic impacts across the country were catastrophic. This became most apparent through numbers of unemployment claims that had not been seen since the Great Depression [1]. Although many of these jobs have returned as the country has reopened, many remain out of work. According to the North Carolina Department of Commerce's Labor & Economic Analysis Division, the unemployment rate increased from 3.7% in February to 12.9% in May [2]. Given the known links between unemployment and lack of health insurance coverage [3], it is widely expected that the sudden nature of a change in employment of this magnitude would have commensurate effects on health insurance coverage. A June survey by the Commonwealth Foundation found that 21% of respondents indicated they (or their spouse) had lost their job [4]. Of those, 41% had insurance coverage through that job, and 21% were now uninsured. Seven percent—one-third of those who lost coverage—were newly insured by Medicaid or a similar state plan [4].

The NC Medicaid Dashboard contains a variety of data from the Medicaid program, including monthly enrollment figures. According to the dashboard, 2,186,142 people were covered through Medicaid in February 2020 and 2,337,492 were covered in August, an increase of 151,350, or 7% [5]. Unsurprisingly, the enrollment increases varied across the state, with some counties seeing little increase; for example, Hyde, Hertford, and Tyrrell counties saw increases of less than 2%, while eight counties saw increases of more than 9% (Watauga, Johnston, Henderson, Iredell, Currituck, Wake, Gaston, and Cabarrus) [5].

From the North Carolina Division of Employment Security, I obtained county-level labor force infor-

mation, including the number employed and unemployment rates. I hypothesized that communities seeing larger economic shocks (i.e., greater increases in unemployment) would see larger increases in Medicaid enrollment. Figure 1 shows the relationship between the percentage growth in Medicaid enrollment from March 2020 to August 2020 against the increase in the unemployment rate from February 2020 to July 2020 (the latest month available at the time of this writing). This allows for a one-month delay in unemployment to manifest in Medicaid enrollment. As expected, there is a strong positive relationship: counties with larger increases in unemployment saw larger increases in Medicaid coverage. Medicaid, of course, is designed to be counter-cyclical and provide a safety net during challenging economic times, and it appears to have served that role here.

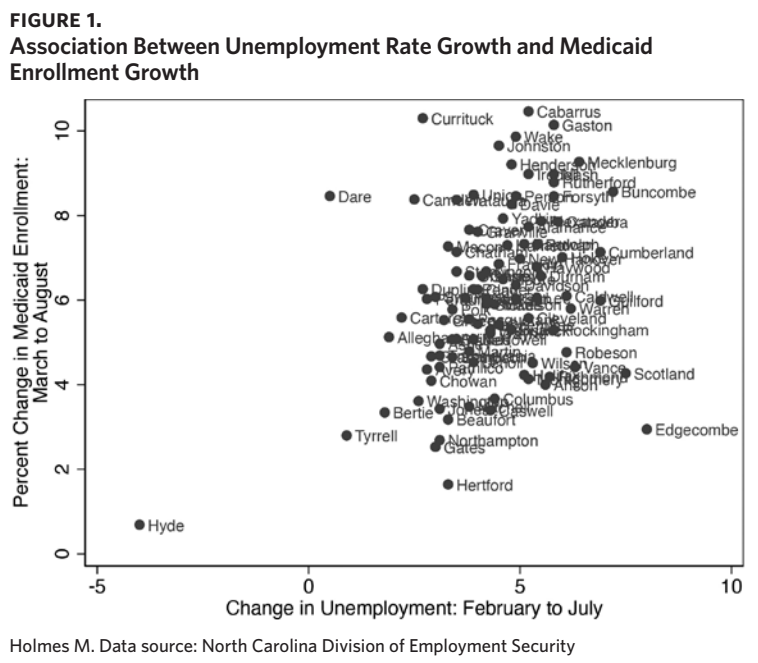
The analysis is more difficult when estimating the number of uninsured. Unlike Medicaid, for which we have programmatic data, there are no administrative data that directly measure uninsurance. Thus, we employ three approaches here and contrast the results.

First, we examine the relationship between uninsurance and unemployment in previous periods. Using the Small Area Health Insurance Estimates (SAHIE) for 2018 [6], we can examine the relationship between the estimated percent of people in the county who are uninsured and the unemployment rate of the county (here, we use

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July as a midpoint for the year). Results show that across counties, a one percentage point increase in the unemployment rate is associated with a .59 percentage point increase in the uninsured rate. Second, we use the findings of the aforementioned Commonwealth study to extrapolate insurance loss among those losing health insurance: of those losing their job (or furloughed), 8% (.21*.41) lost their insurance. Both approaches have limitations. The former may yield a high estimate, as it uses cross-sectional analysis to infer longitudinal relationships. The latter is based on a survey, ignores household members outside of the respondent and their spouse, and provides data that are not quite what we want (“you or your spouse” versus “you”). A third approach is to use the Commonwealth data point referenced previously; the change in uninsured (21%) was triple the change in Medicaid (7%), so we can use that to provide an estimate of lost coverage. Nevertheless, we can examine the three data points to gather a range of data informing likely health insurance effects.

The three approaches yield considerably different results, ranging from 22,000 newly uninsured to 454,000. The middle estimate of 257,000 is derived from the SAHIE estimates (one percentage point of unemployment yields .6 percentage point in uninsured). This 257,000-person estimate

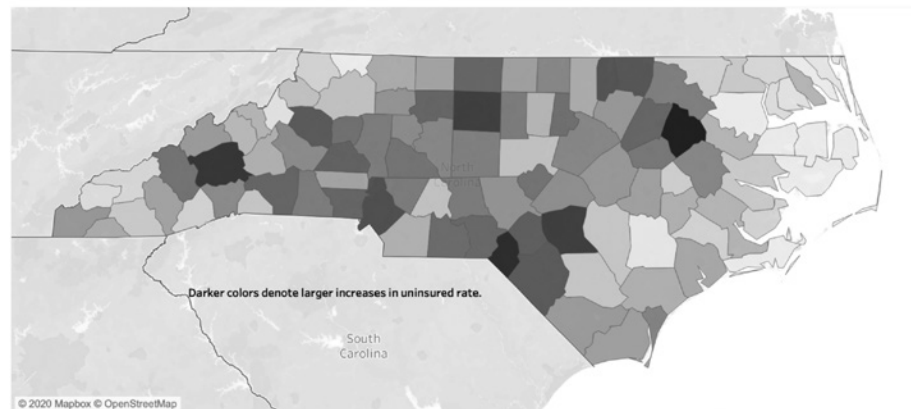
would suggest a three-percentage-point increase in the uninsured rate. Applied to the latest (2019) uninsured datapoint posted by the US Census on September 15 (11.3%), that would suggest the uninsured rate was 14.3% in August 2020 [7].

Of course, the estimated effects will vary across the state, driven by the change in unemployment rate (Figure 1). Figure 2 presents the estimated change in uninsurance resulting from the unemployment changes. Many of the counties with the largest changes (e.g., Buncombe, Guilford, Mecklenburg, and Cumberland), in addition to Robeson County and the surrounding area, are more likely to be urban. But it’s not just urban counties: Scotland and Edgecombe counties have the largest predicted effects in the state (4.4% and 4.7% increases).

Naturally, the estimates here assume that historical patterns hold for the COVID-19 period. The differences in Medicaid policy (e.g., the requirement to continue coverage for all those enrolled on March 18), and the far more common use of furloughs (rather than layoffs) may affect the estimates. NCMJ

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FIGURE 2.
Estimated Increase in Uninsured Rate: Feb 2020-Aug 2020



Source: Author's calculations. See text for method.

Acknowledgments

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