

COVID-19 Vaccination Status Surveying and Education

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Overview

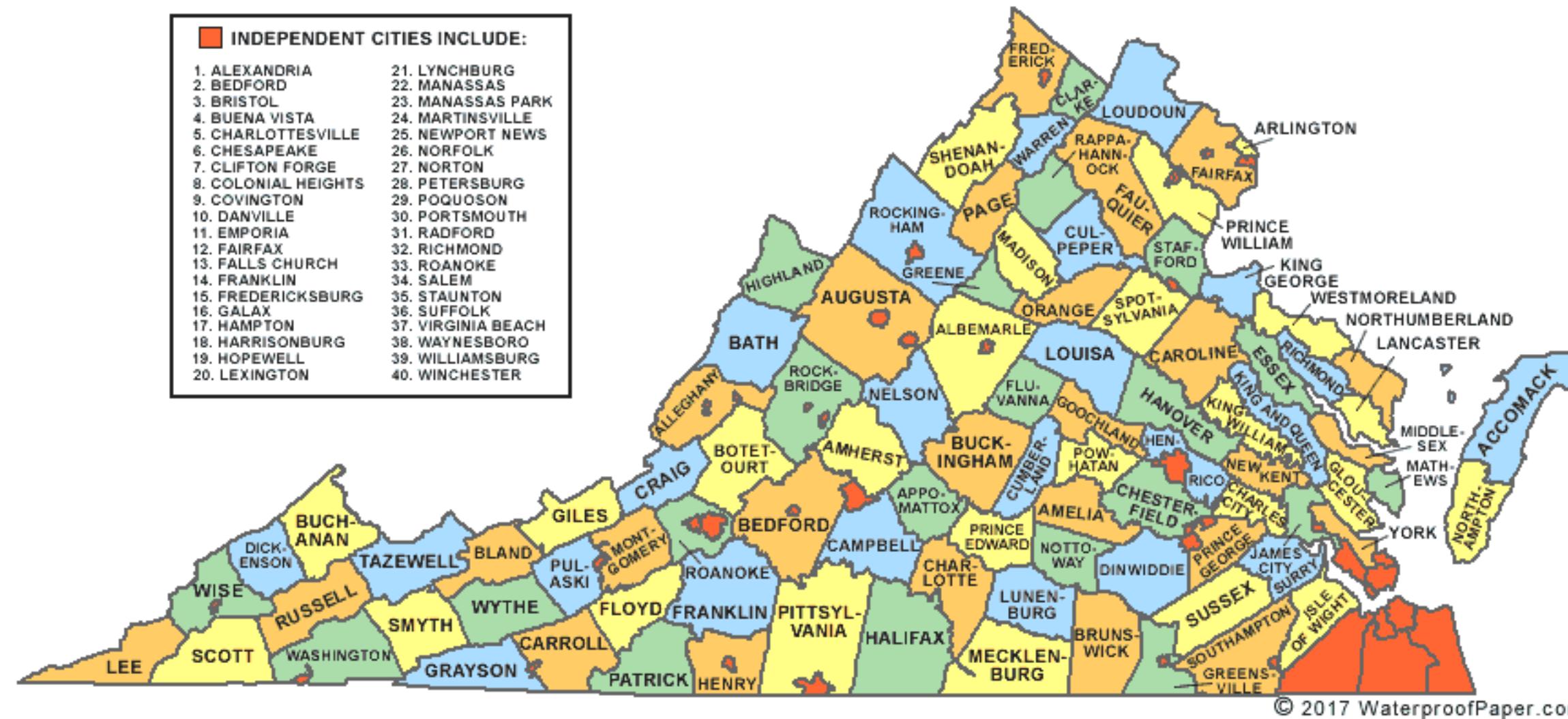
- **Goal:** Address the question of who in our community was not receiving the COVID-19 vaccine and why
- **Data collection:** anonymous surveys in person and online through Google surveys
 - What barriers patients faced in trying to receive the vaccine
 - What questions or concerns were preventing people from registering
 - Community members' thoughts on the vaccine and where they got their information

Service

- Aimed to provide useful information about COVID-19 vaccination to the community
- **Information we provided:**
 - FAQs sheet about the vaccine
 - Step-by-step directions list on how to get a free Uber, Lyft, or Jaunt ride to a vaccination site
 - Lists of vaccination sites nearby for each location we visited

In Person Surveys

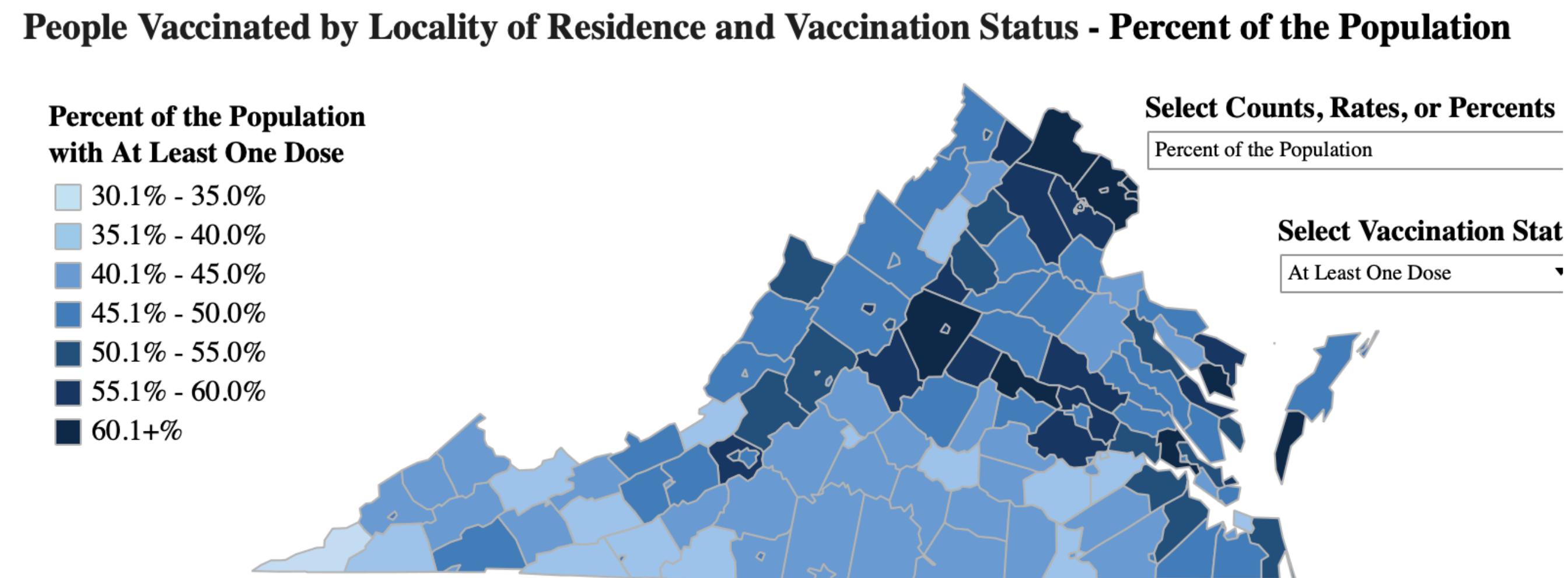
- We sought out locations with high and low vaccination rates according to the Virginia.gov website
- Included sites with sufficient/reduced internet access, high/low rates of health insurance, and other various barriers to health care



Places We Visited

Examples:

- Miller's Market in Louisa County
- Dillwyn Reid Market in Buckingham County
- Emergency Food Network in Charlottesville
- IX Farmer's Market in Charlottesville
- Bus stops in various locations
- Yoder's in Madison County
- University Medical Associates

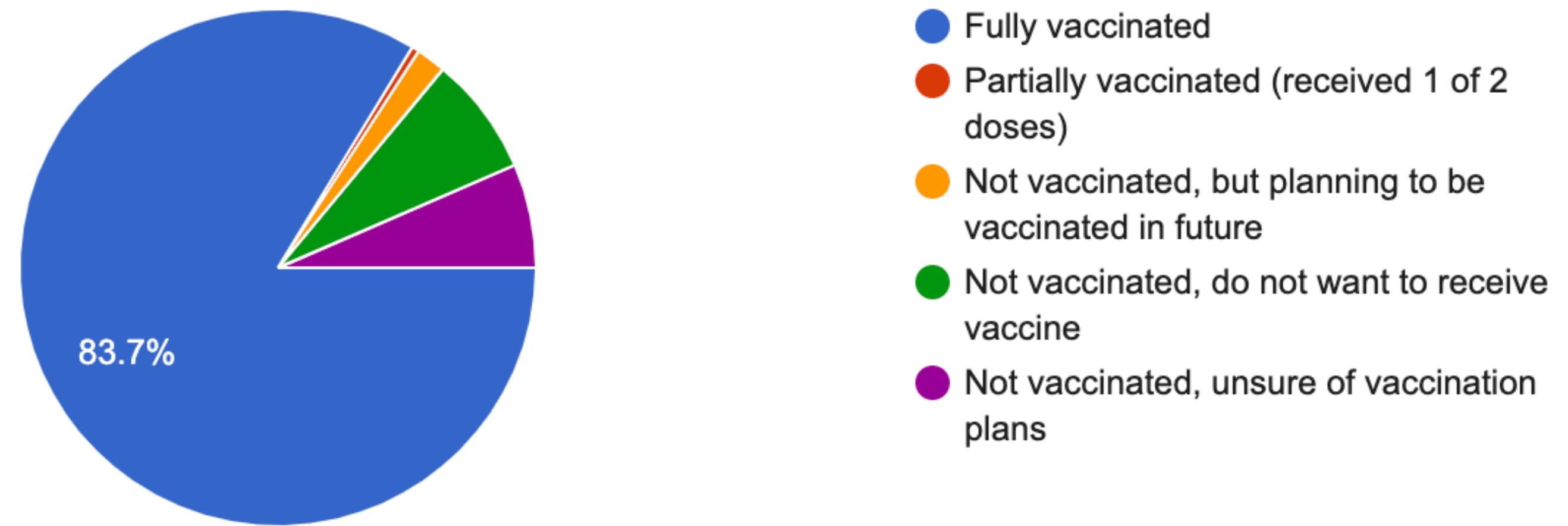


Source: Virginia Department of Health COVID-19 Vaccine Dashboard July 28, 2021

Vaccination Data

Information we gathered:

- Vaccination Status
- Age
- Sex
- Education
- County of Residence
- Political Affiliation
- Primary Source of COVID-19 Information



Demographics

- Higher vaccine hesitancy among men, black-non-Hispanic individuals, republicans, and individuals with only a high school diploma or less
- Overall demographics of those who remain unvaccinated in Virginia were similar to other cross-sectional studies across the United States¹

Table 1: Age Differences in Vaccination Rates.

Age	Number of People Surveyed	Percent of Subcategory, Unvaccinated (%)
18-24	16	6.3%
25-39	43	18.6%
40-49	36	16.7%
50-64	64	17.2%
65-74	34	14.7%
75+	22	18.2%

Table 2: Racial Differences in Vaccination Rates.

Race	Number of People Surveyed	Percent of Subcategory, Unvaccinated (%)
Black, Non-Hispanic	50	20.0%
White, Non-Hispanic	153	16.3%
Hispanic/Latino	2	0%
Asian	9	0%
Middle Eastern	1	0%

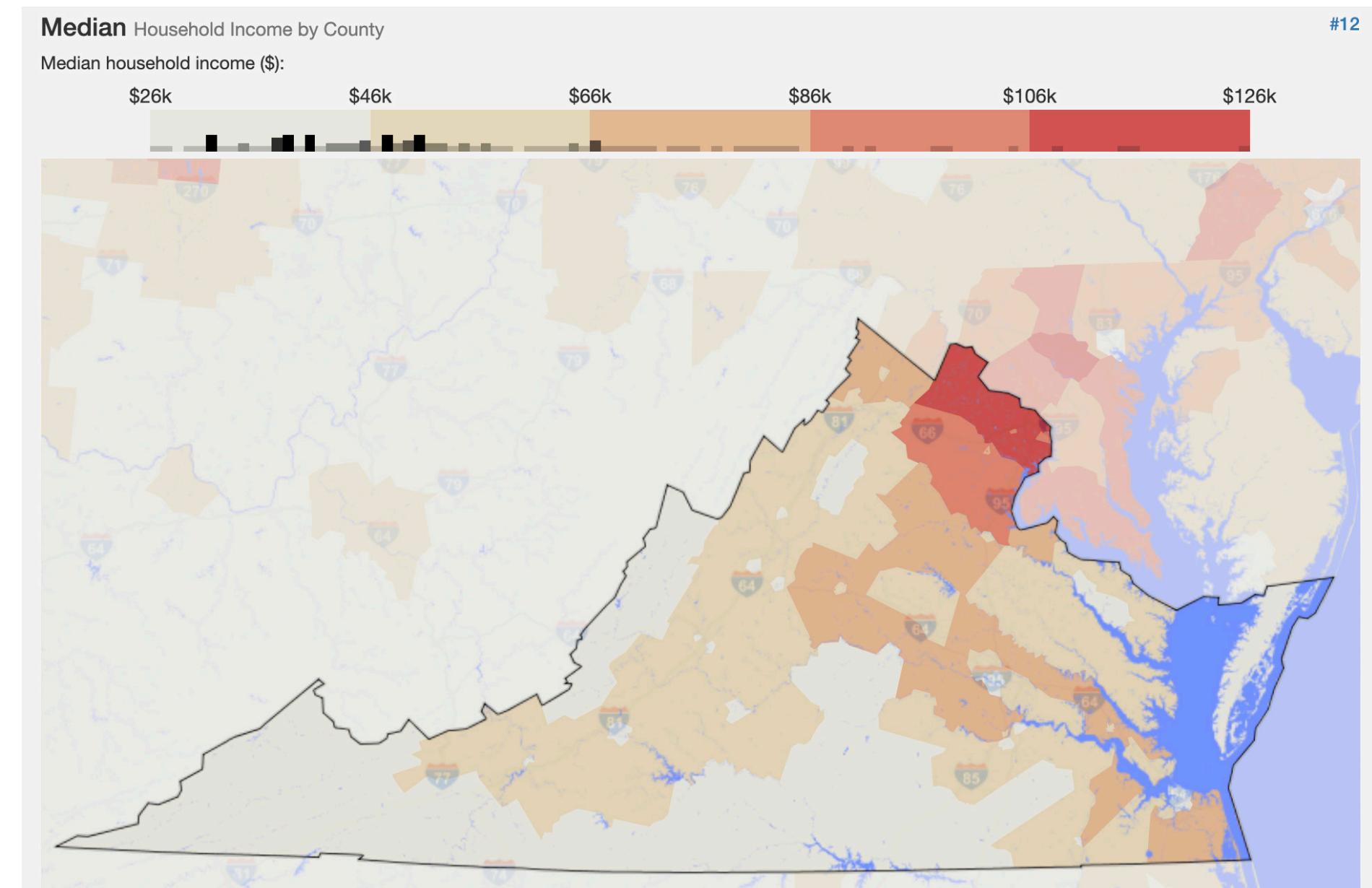
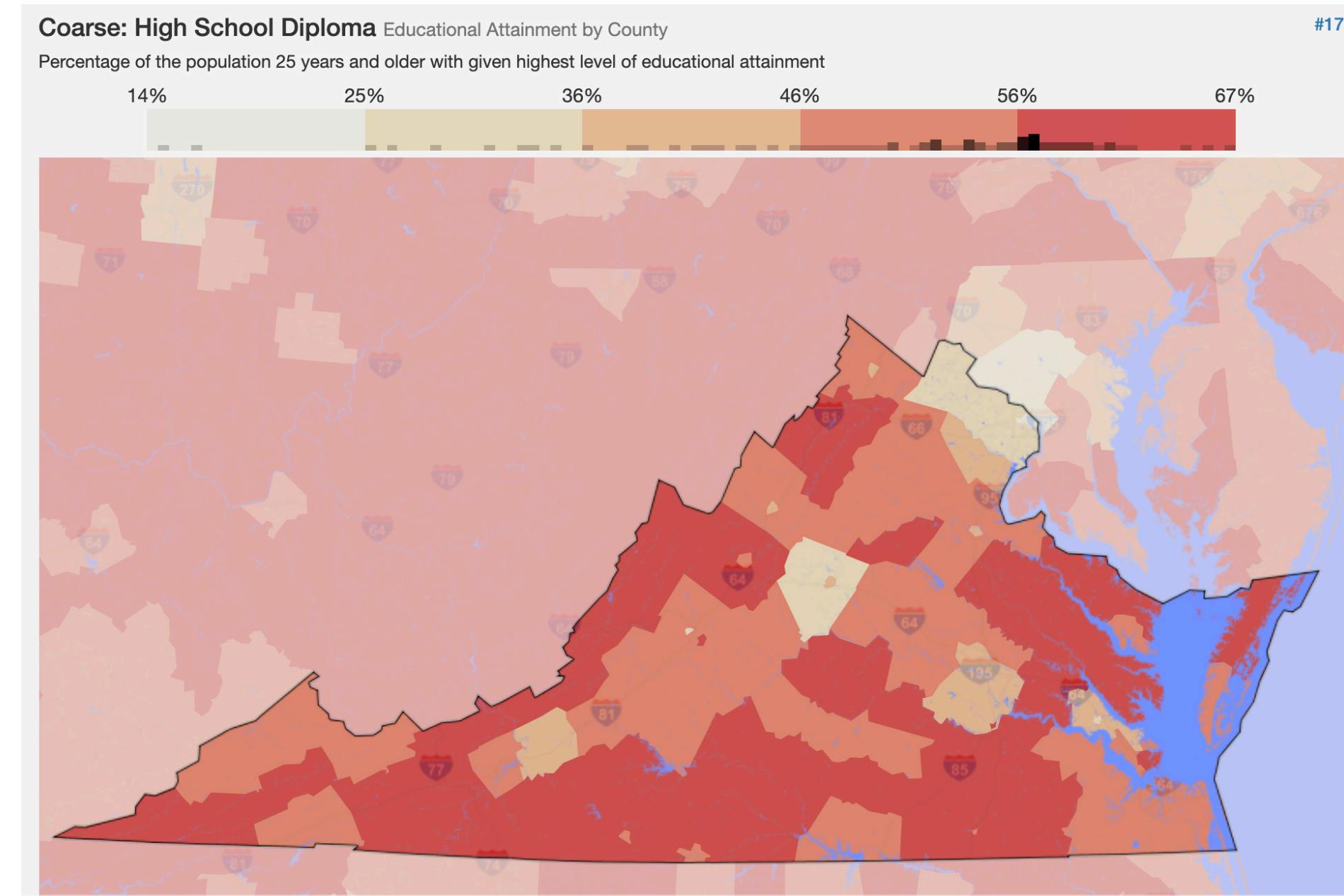
Table 3: Sex Differences in Vaccination Rates.

Biologic Sex	Number of People Surveyed	Percent of Subcategory, Unvaccinated (%)
Male	84	19.0%
Female	131	14.5%

Counties

Table 6: County of Residence Differences in Vaccination Rates.

County	Number of People Surveyed	Percent of Subcategory, Unvaccinated (%)
Buckingham	17	41.2%
Greene	10	30.0%
Nelson	7	28.6%
Fluvanna	9	22.2%
Augusta	5	20.0%
Other	29	13.8%
Charlottesville	94	12.8%
Louisa	16	12.5%
Orange	12	8.3%
Madison	16	6.3%

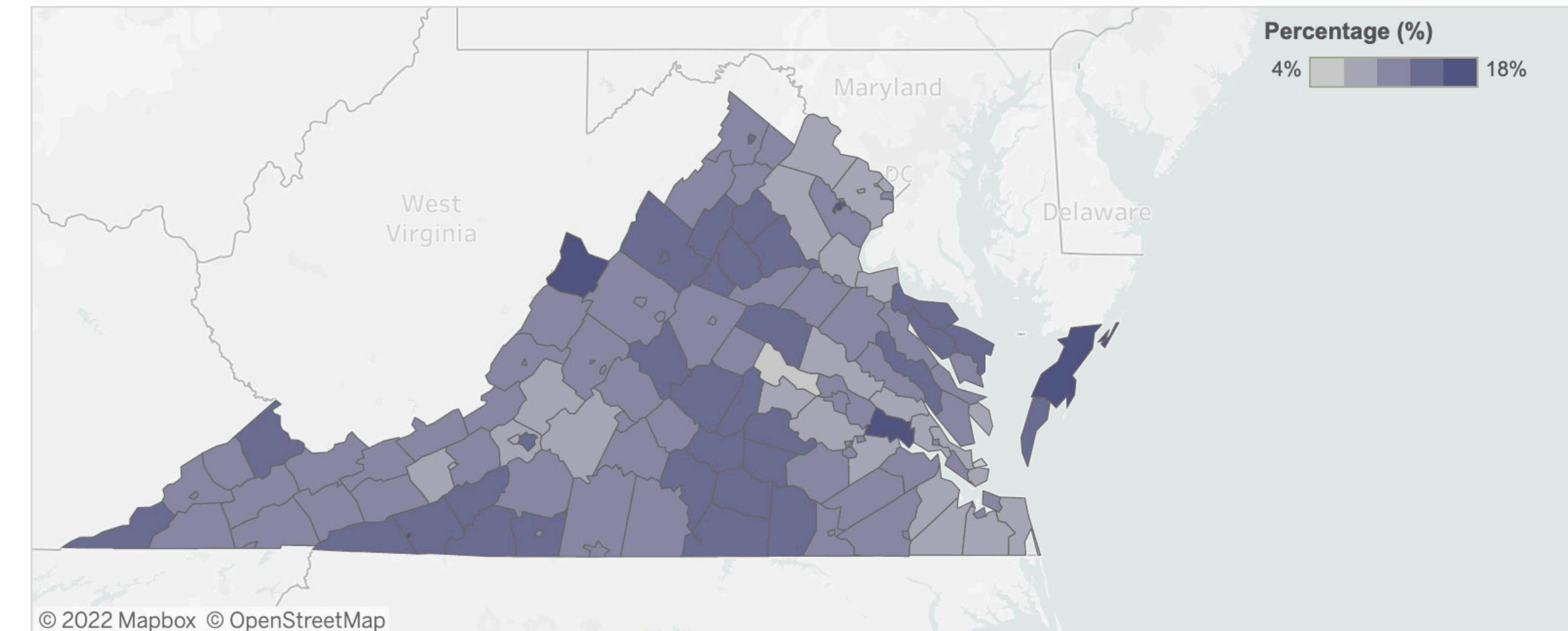


Counties

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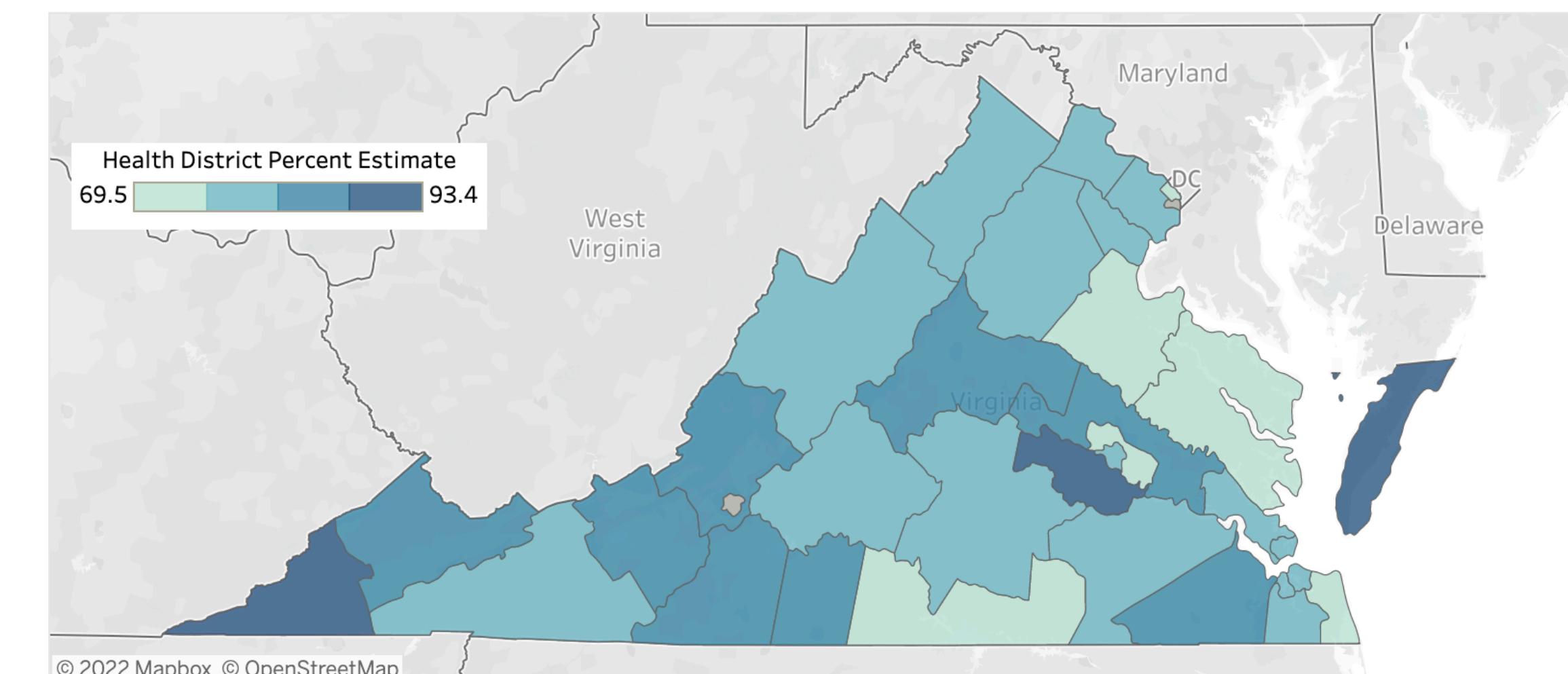
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Uninsured Population Indicator Map, 2016



2019 Regular Healthcare Provider

Description: Has at least one personal doctor or health care provider



2019 Regular Healthcare Provider - Distribution of Health District Estimates with Confidence Intervals

Vaccine Hesitancy

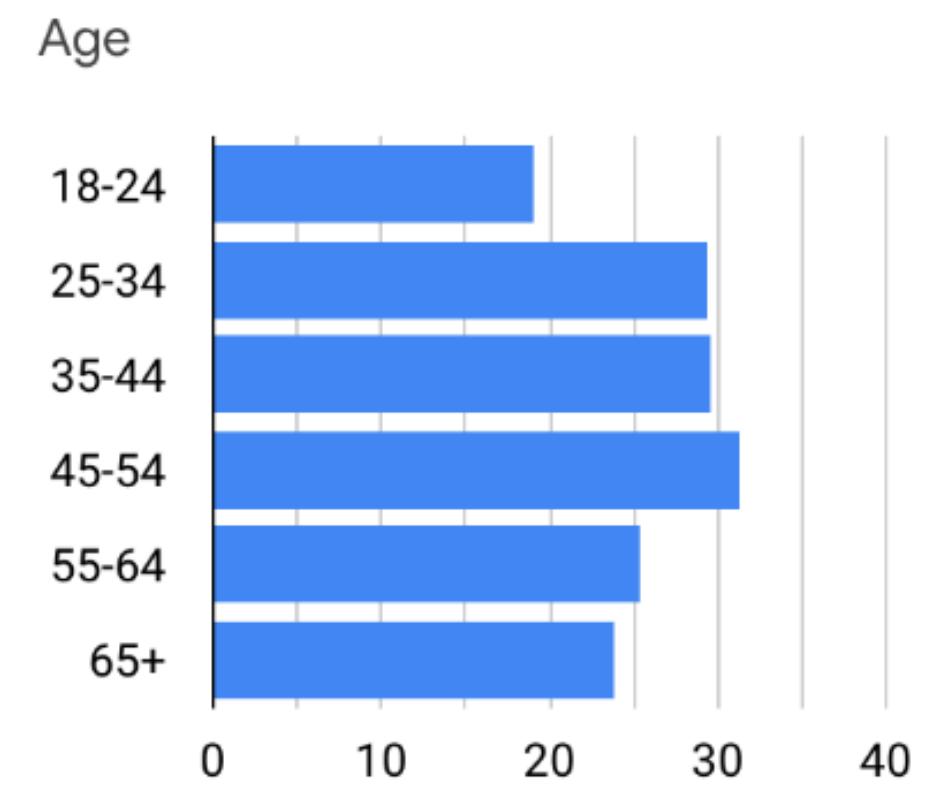
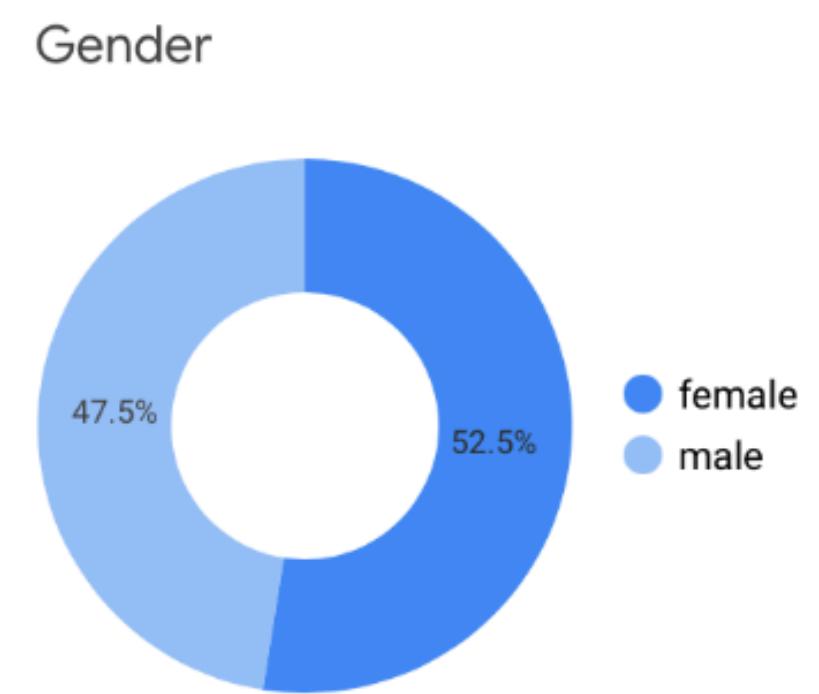
We asked unvaccinated people why they did not receive the vaccine.

Their responses:

- 44.4%: Do not feel the vaccine is necessary
- 37%: Side effects - long term or short term
- 25.9%: Concerns about vaccine approval process
- 18.5%: Religious Objection
- 11.1%: Medical Condition

Online Survey Data

- If you did not receive the COVID-19 vaccine, please select why:
- N=266
- 71.3% received the vaccine
- 28.7% did not receive the vaccine. Of those:
 - 38.3% Side effects
 - 32.5% Concerns about the approval process
 - 17.2% Medical Condition
 - 12.2% Do not feel the vaccine is necessary



Primary Source of Vaccine Information

- 35.1%: Family
- 27.3%: Doctor
- 23.9%: Television/News
- 15.1%: Friends
- 14.1%: Internet
- 5%: CDC/Medical Research
- 3.9%: Religious group
- 3%: Work
- 2.9%: “Common Sense”
- 2%: Nurse
- 0.5%: “Do not want to wear a mask anymore”

Table 7: Source of Information for Vaccine Decision and Vaccination Rates.

Source of Information	Total Number of People Surveyed	Percent of Subcategory, Unvaccinated (%)
Religious Group	9	66.7%
Prefer not to say	3	33.3%
Personal Opinion	11	27.3%
Friends	34	26.5%
Family	76	19.7%
TV/News	52	19.2%
Doctor	59	11.9%
Internet	30	11.8%

Limitations

- Population size
- Response bias
 - Many people did not want to discuss the vaccine
 - Response rate ranged <10% at some rural markets to >90% at the Charlottesville Farmer's Market

Conclusions

- Lower income, education, and healthcare access were all correlated with lower vaccination rates
- Large variety of reasoning for why individuals were not vaccinated
 - Doctors as a primary source of COVID-19 information was correlated with higher vaccination rates
 - Patient education is important!
 - Improving access to care and/or creating more environments for health care conversations in these communities could make an impact in medicine apart from vaccinations as well

Acknowledgements

- We would like to thank all of the locations that allowed us to survey at their stores, shops, and clinics. We would also like to thank Dr. Nadkarni for being our mentor and guiding us throughout our project.