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17 April 2022

Audience-Specific Visualizations:

Percentage of Population without Health Insurance in Cities in Connecticut

Information about the health insurance status of citizens of Connecticut can serve multiple purposes. Three target audiences of this information could be legislators, insurance companies, and non-profit organizations. Each of these audiences would utilize the information in different ways.

Legislators in Connecticut could gain useful information from a pie chart, as below. This compares the cities’ proportion of uninsured, as well what percentage of the state’s uninsured that represents. For example, Hartford has the greatest percentage of residents without health insurance at 18.8%. This represents 16.74% of the state’s uninsured. Compared to the cities with the smallest percentage of uninsured, Stamford and Norwalk, Hartford has close to as many uninsured as both these cities combined.

Chart, pie chart

Description automatically generated

Percentages of population without health insurance in the cities of Connecticut and as a percentage of the total uninsured in the state. (Santiago, 2021)

The emphasis in this graphic is to show comparative needs between cities and compared to the state as a whole. This would be a useful graphic for legislators who are looking at where to provide greater public assistance. For individuals who are in budget decision-making committees it would provide easily accessible information on the areas of need for healthcare, including Hartford and Bridgeport.

A benefit of this visualization is the quick identification of the greatest and smallest portions of the population. The level of information in this graphic is sufficient for the needs of a quick assessment for budgeting, though this could be broken down further. Having data at county-level then broken down by metropolitan areas within the counties may indicate whether the more rural areas are also of significant need. It is possible that this visualization is underrepresenting some residents due to their not living in heavily populated areas.

Another way of presenting this data would be to create a treemap chart. This shows the stacking of the concentration of the uninsured population in a way that can help an insurance company target marketing of insurance products. While navigating the graphic would show the specific percentages of the populations that are uninsured, the greater need is to identify where the target market is and focus on prioritizing those market areas, rather than the numeric differences between the areas.

Chart, treemap chart

Description automatically generated

Treemap of cities in Connecticut by percentages of the population without health insurance. (Santiago, 2021)

This visualization has the benefit of providing a general hierarchy of greatest to least, without the burden of excess information. There is some relative inference that can be drawn between the difference between Hartford, shown in orange, and Stamford, in yellow. This would seem to show a significantly greater uninsured population in Hartford where marketing efforts would be much better served.

A weakness of this visualization is that there is not information on the total numbers of individuals that these percentages represent. Geographically, Hartford is a small area. Comparatively, Stamford, Norwalk, and Bridgeport are all in close proximity to each other. This may be deceptive for marketing should Stamford and Norwalk be ignored while marketing to those areas may also reach some of the population of Bridgeport as well, covering a much greater percentage of the uninsured in the state.

A third group that would benefit from the information of this data is non-profit agencies who assist populations who are at greater need. The map of areas with their relative percentages of uninsured individuals, as seen below, could help guide the development of targeted locations for free health clinics or vaccination locations. Identifying the locations visually could help guide the concentration of supports by location.

Map

Description automatically generated

Map of the cities with relative size of the percentage of the population without health insurance. (Santiago, 2021)

The benefit of this is the ability to see the relative larger areas of need by location. There is little that needs to be known about the precise numbers, but the proximity to other locations is evident. This highlights that the area of Bridgeport to New Haven is a much greater need area than that between Stamford and Norwalk. The area from Hartford to Waterbury is also an area of tremendous need.

A drawback of this map is the lack of information about surrounding areas. It may help guide the addition of services to the larger circle areas, but neglects other areas, such as Norwich and New London, which may also have significant populations spread out over a greater distance and not considered a “city” by this data. This can lead to underrepresented populations receiving fewer services than needed.

References

Santiago, J. (2021, November 14). *500 Cities: Local Data for Better Health, 2018*. Kaggle. Retrieved April 17, 2022, from https://www.kaggle.com/datasets/jennifersantiago/500-cities-local-data-for-better-health-2018?resource=download