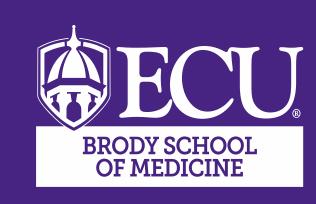
Collaborative Leadership: COVID-19, ENC Population Health Surveillance & Mapping Project





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BACKGROUND

The purpose of this project was to foster collaboration and combine resources to develop a COVID-19 population health surveillance system, monitor population health and inform decision.

Project dates:8/1 to 12/31/2020.

PROJECT AIM

- Surveillance detect COVID-19
 trends and hotspots in ENC
 (Figures 1a and 1b)
- Population Vulnerability map and prioritize "at-risk" communities for COVID-19 vaccine (Figure 2)
- Communicate implement a COVID-19 web portal with a focus on ENC and Vidant service region (Figure 3)

PROJECT DESIGN/STRATEGY

- Partner to expand Vidant and ECU resources, knowledge and capacity
- Engage in COVID-19 population health surveillance & issues affecting ENC
- Inform health care providers, communities, and decision makers with enhanced visualization
- Provide information and resources on COVID-19 for mitigation

CHANGES MADE (PDSA CYCLES)

Plan – Leverage academic expertise with healthcare operations knowledge and hospital data to mitigate COVID-19 spread across ENC

Do – Deep collaboration of multiple cross-functional entities via a data sharing agreement to solve problems

Study – Identified vulnerable populations, COVID-19 hot spots and trends, geo-located facilities and socio-economic variables of specific geographies

Act – Development of ENCHealth.org

RESULTS/OUTCOMES

Figure 1a. COVID-19 Case Tracking

Figure 1b. COVID-19 Weather Forecast

Figure 3. ENC Health web portal

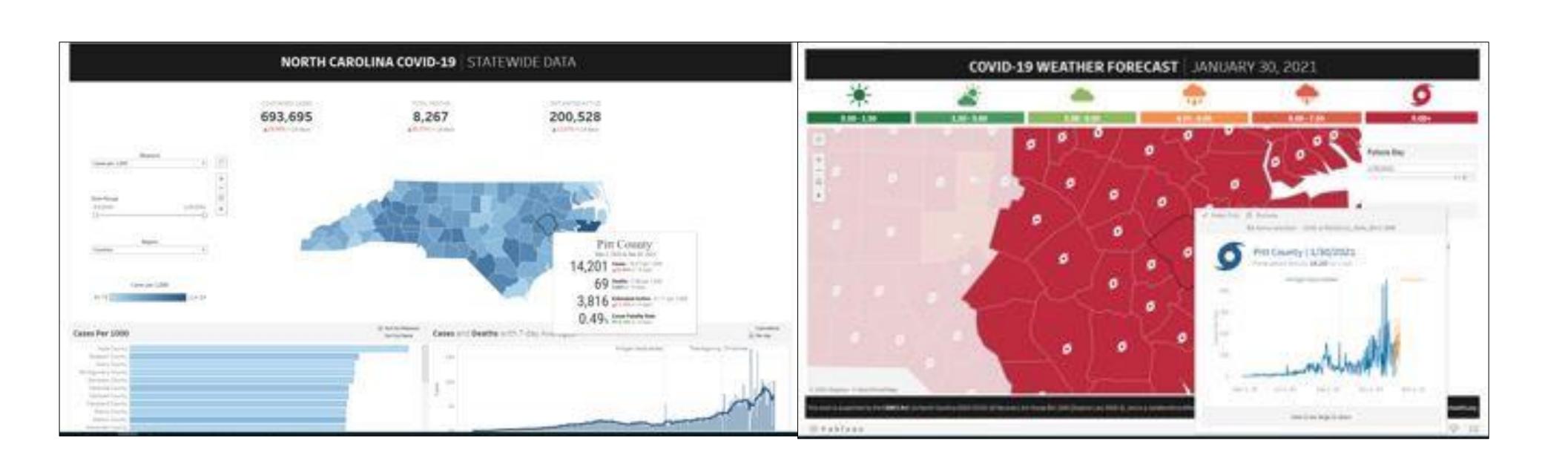


Figure 2. Vaccine Priority Index

ENC Health Eastern North Carolina Health Key Locations Counties **COVID-19 and Eastern North Carolina** ZIP Codes Vaccine Priority Index Census Tracts as the region's medical education leader and top health care provider, the Brody School of Medicine at East Carolina University and Vaccine Priority Index Vidant Health are working together to improve the health and well-being of the residents of Eastern North Carolina. This website is intended to inform community leaders, county health departments, health care providers, and the public on health issues that impact Social Vulnerability Index Eastern North Carolina, focusing on the COVID-19 pandemic. Vaccine Priority Index - Census Vaccine Priority Index Medium - High (0.6 - 0.8) Cases Overview Vaccine Priority Index (VPI) Medium (0.4 - 0.6) Medium - Low (0.2 - 0.4)





LESSONS LEARNED

- Identify all potential data needs prior to implementing formal agreements
- Get partners and advocates involved early and often
- Collaboration is meaningful & fun

NEXT STEPS

- Examine differences in COVID-19 related emergency department visits among rural populations in NC
- Identify predictors of COVID-19 related cases and deaths in nursing homes in the US.
- Explore COVID-19 educational intervention efforts among staff working in nursing homes
- Enhance forecasting models to better predict COVID-19 rates of spread over time
- Explore machine learning using COVID-19 data

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