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Public Health Accreditation Board (PHAB) Preparation and Epi Data Visualization

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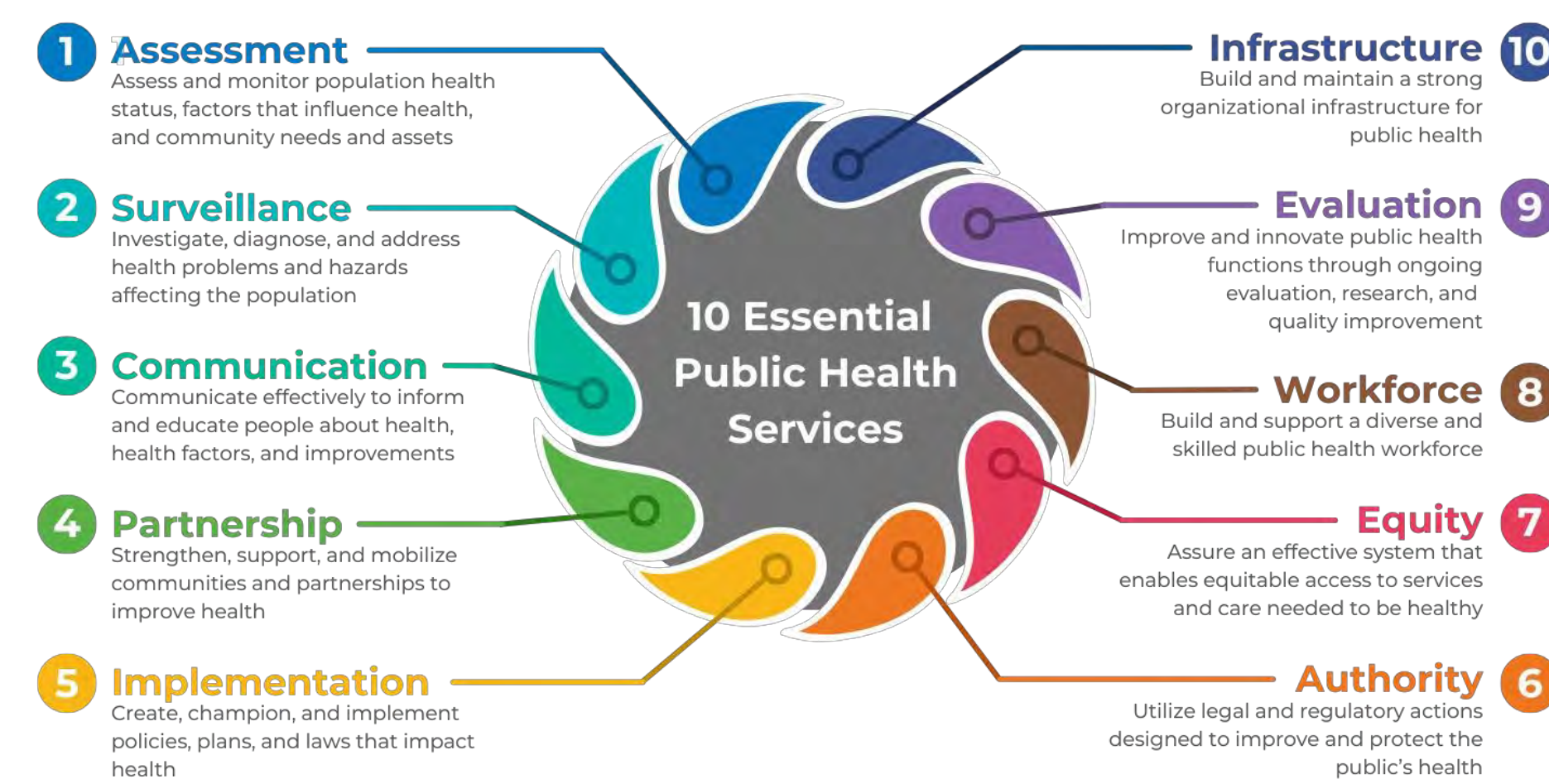
Acknowledgments

I would like to thank my mentor Emily Hines, in addition to Alex Neal, and Caitlin Hodge for empowering me during my internship.

PHAB Accreditation Preparation

Background

The Public Health Accreditation Board (PHAB) is the national accreditation body for public health departments in the U.S. Accreditation is voluntary for local health districts in Virginia, but obtaining PHAB accreditation indicates that the health districts meets the 10 essential public health services. It signals the health district's commitment to building a strong infrastructure, continuous performance improvement, and innovation. Chickahominy Health District (CHD) plans to apply for PHAB accreditation. My project focuses on laying the foundation for CHD to organize, review, and track the 275 documents that will be submitted to PHAB, ensuring they meet specific standards and measures.



Outputs

- ✓ Developed a master spreadsheet and dashboard to review and track the documentation required for PHAB accreditation
- ✓ Created a master PHAB folder structure organized by the standards and measures, with a clear file-naming system, which also supports the documentation review and submission process.
- ✓ Analyzed and revised the CHD Employee Recognition policy to align with PHAB standards and increase the number of employees recognized.
- ✓ Gathered insights and recommendations to build a comprehensive overview of the PHAB accreditation process by facilitating meetings with PHAB-accredited health districts.

Outcomes

- ✓ Identified areas for improvement in four Community Health Assessments and four Community Health Improvement Plans ensuring they can meet PHAB standards.

Figure 1. This dashboard was created to track the submission of 275 documents across 10 domains into the e-PHAB portal.

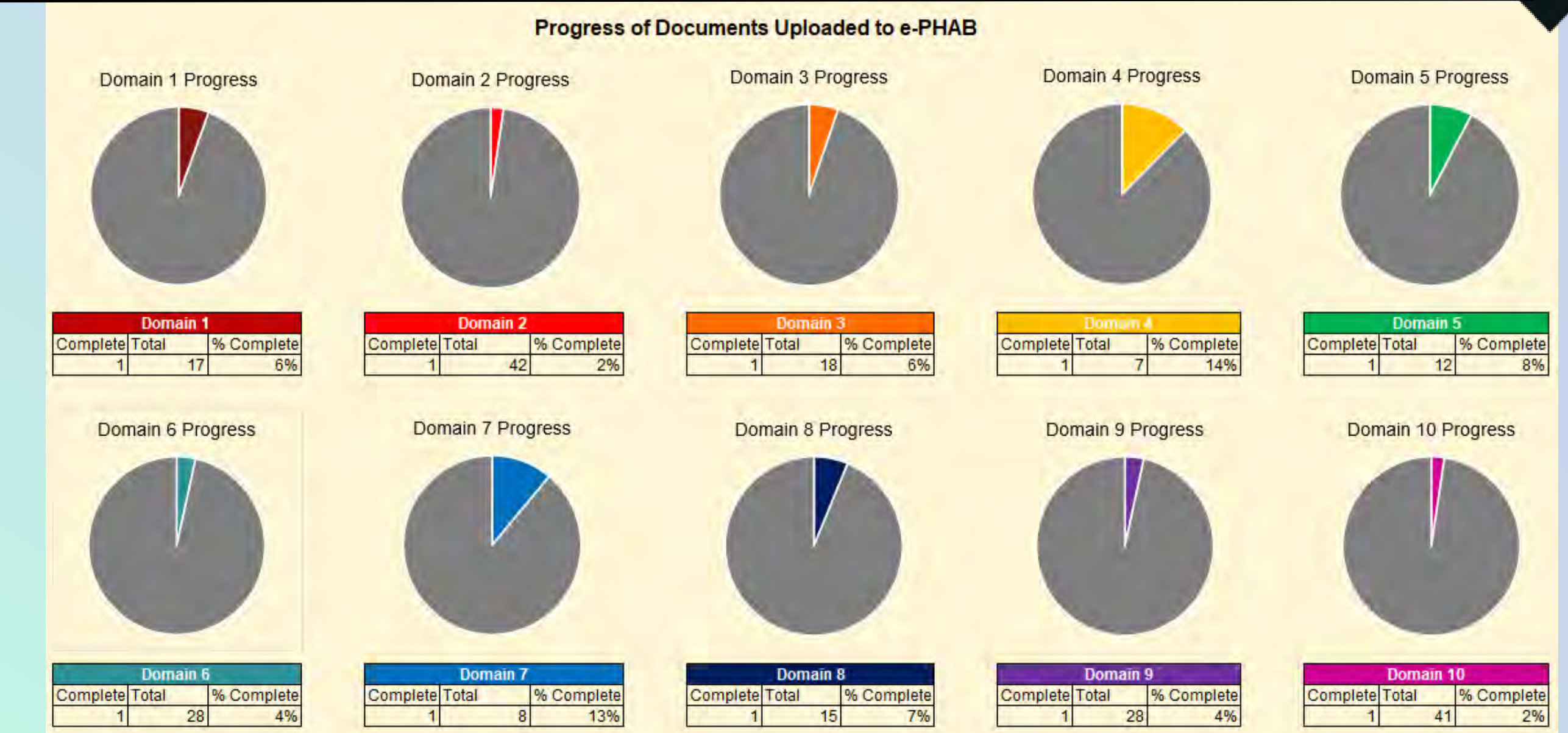
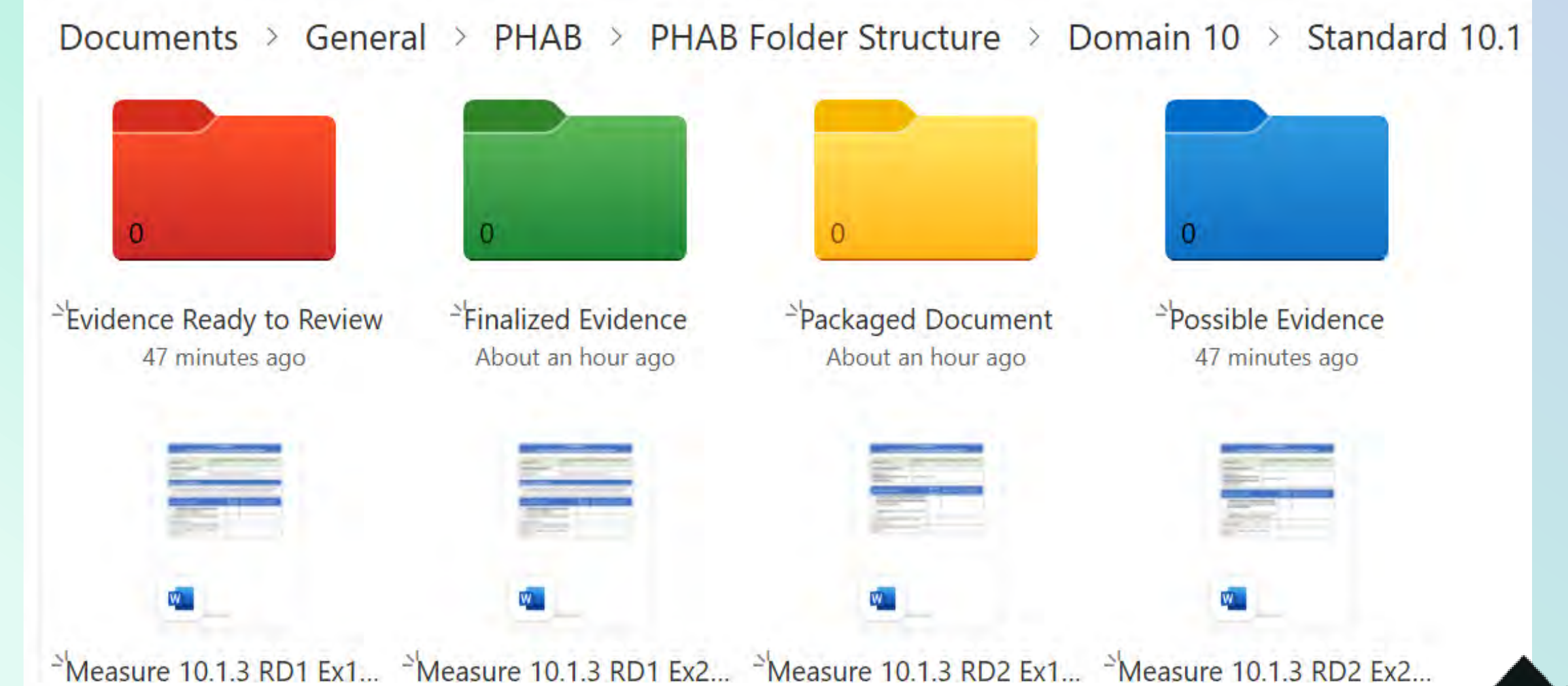


Figure 2. This folder structure was developed for all of the PHAB domains to store the 275 documents as they are reviewed for submission against PHAB standards and measures.



Epidemiology Data Visualization with Tableau Dashboards

Background

As a part of their strategic plan, CHD plans to expand their health informatics and data analysis capabilities for data driven decision making. The Epidemiology team aims to use Tableau to report and investigate trends in communicable disease cases. My role was to streamline the reporting process by creating a job aide that the Epidemiology team can utilize to create reports on a quarterly basis. I also collaborated with the Senior Epidemiologist, Alex Neal, to create various visualizations of communicable diseases, clinical data, and environmental health data.

Goal 5: Provide internal systems that deliver consistent and responsive support		
OBJECTIVE	STRATEGY	
5.3 Expand health informatics and data analysis capacity for the district by determining which tools will work best for our programs by December 2024.	Utilize existing educational resources (i.e. Data Camp) to better understand which available data analysis systems (i.e. R, SAS, Tableau, Excel, arcGIS) can be utilized to enhance our data analysis capabilities. Train existing staff on preferred data analysis systems.	

Figure 3: CHD's strategic plan objective 5.3 is the foundation for this project.

Outputs

- ✓ Created a job aide to document the end-to-end report creation workflow for developing quarterly communicable disease case reports, thereby ensuring consistency and knowledge transfer across the team.
- ✓ Conducted virtual meetings to present my process for utilizing Tableau and generating reports, enhancing epidemiologists' understanding.
- ✓ Led an interactive in-person session to introduce CHD's CHIP-R team to Tableau, showcasing its practical uses and inspiring them to leverage the tool for their daily tasks and data reporting.

Outcomes

- ✓ Generated twelve reports using Tableau dashboards to visualize communicable diseases cases, clinical data, and environmental health data.

CHD 2020-2025 Hepatitis C Report

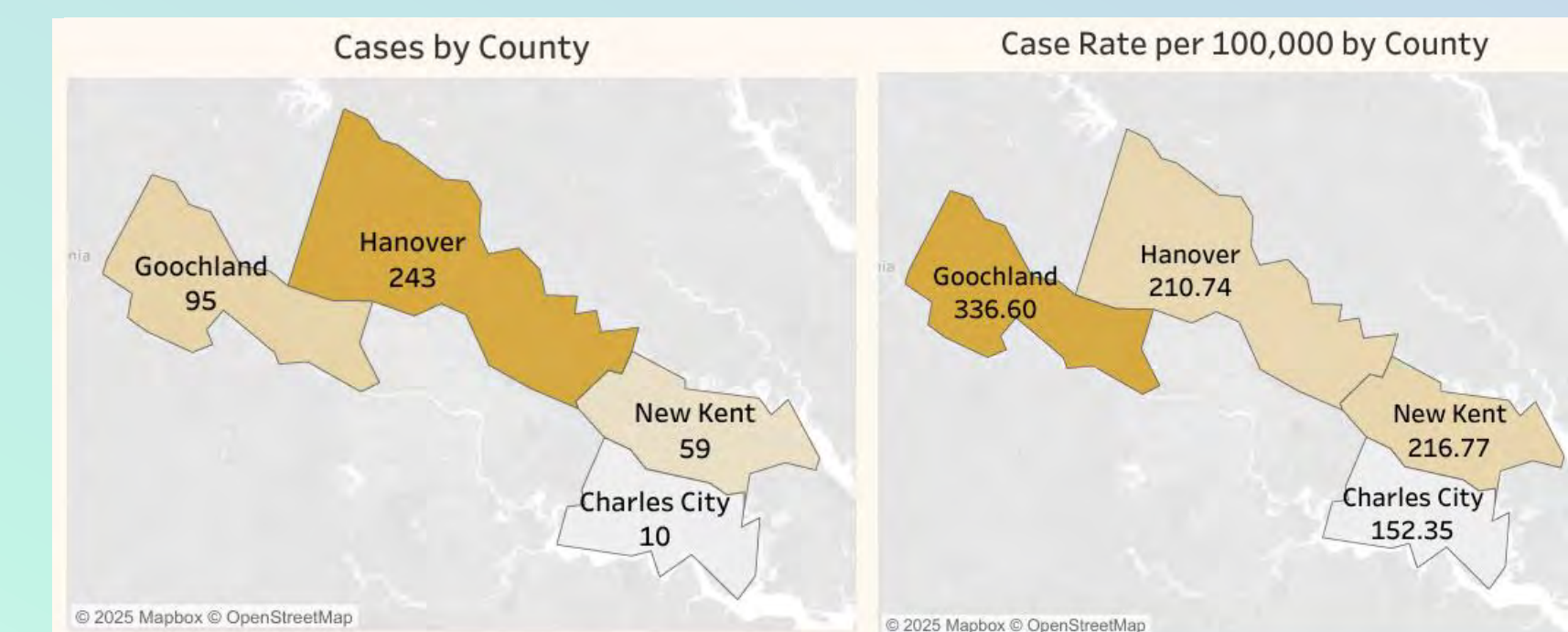


Figure 4. When adjusted for population, Goochland county had an abnormally high number of chronic Hepatitis C cases over the last 5 years.

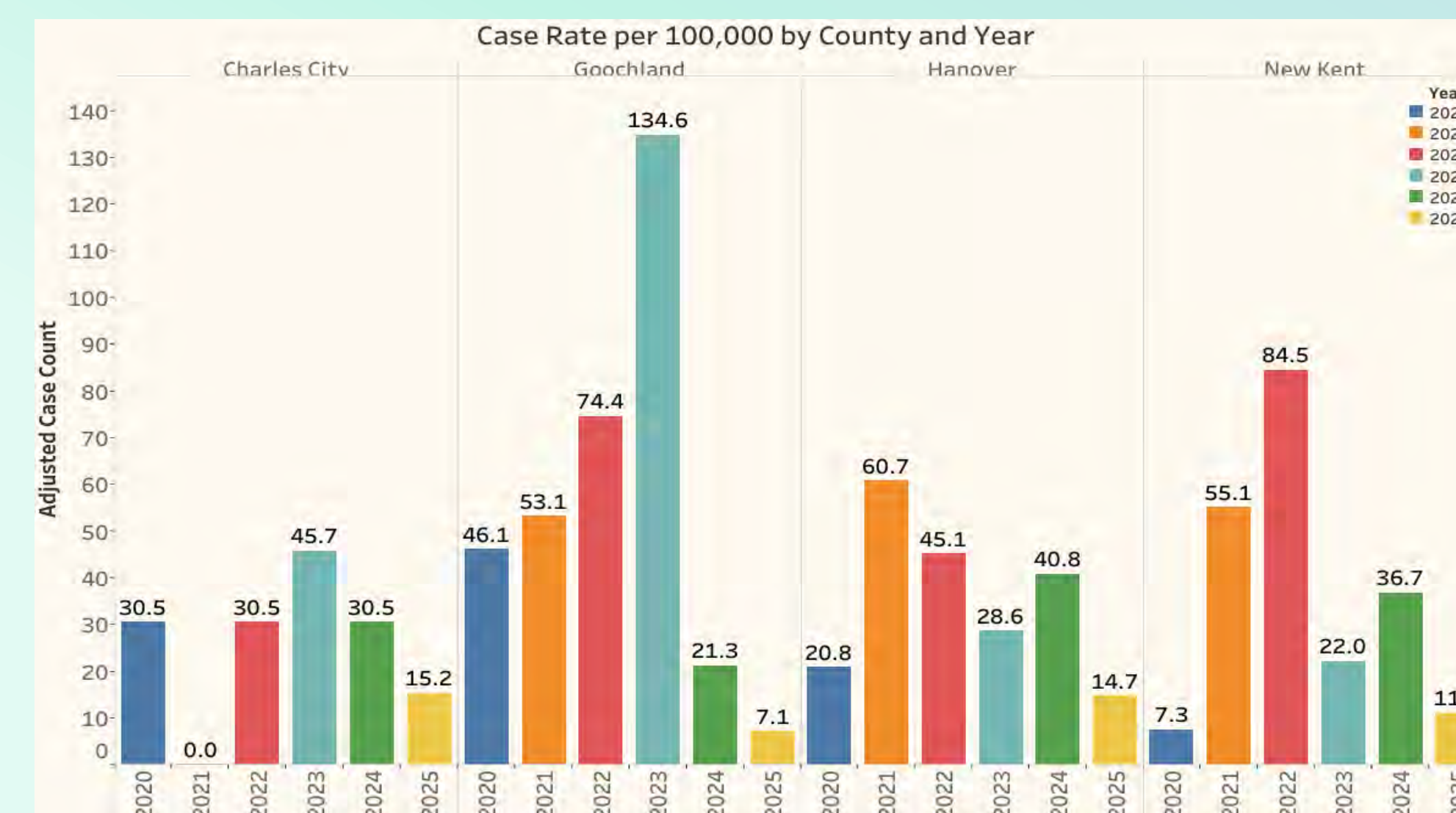


Figure 5. Further investigation shows Goochland had a spike in cases in 2023.

CHD 2024 Rabies Report

Note: Animal exposures include bites, scratches, and open wounds exposed to saliva for both human-animal and animal-animal encounters.

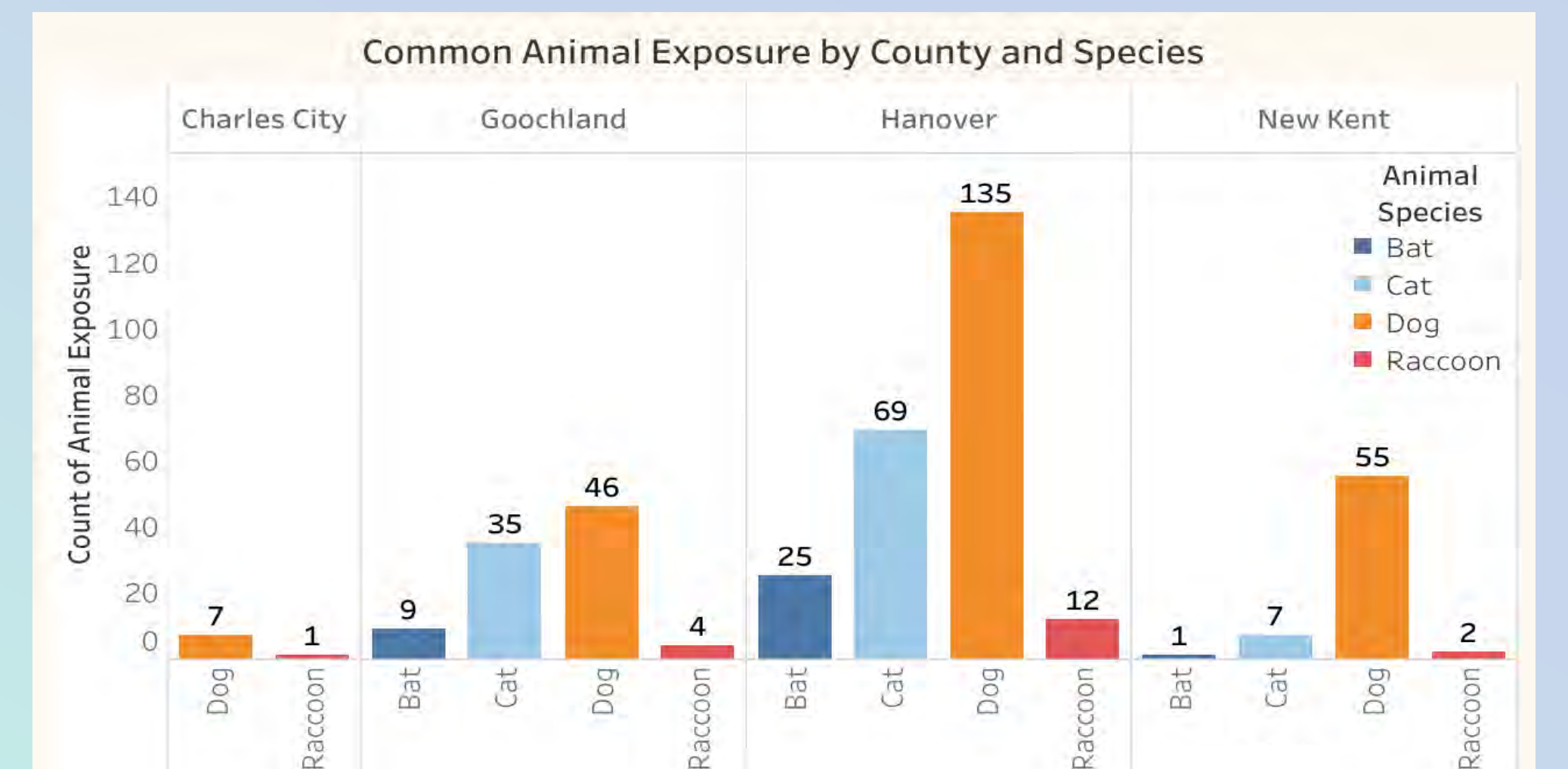


Figure 6. The most common animal exposure in each county was to dogs.

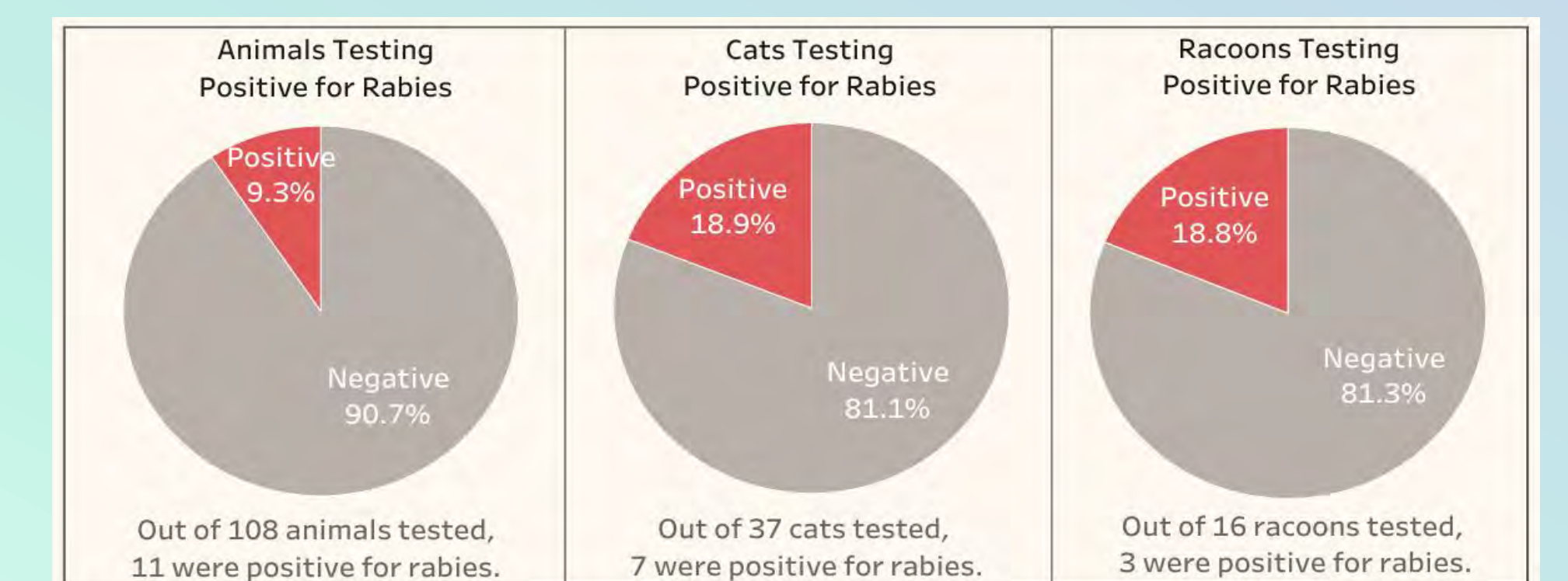


Figure 7. 7 cats, 3 raccoons, and 1 skunk tested positive for rabies in 2024.