

# COLORADO CENTRAL CANCER REGISTRY

<https://cdphe.colorado.gov/colorado-central-cancer-registry>

# NPCR 2024 SUCCESS STORY

## Leveraging Cancer Data Through Visualization

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### SUMMARY

The Colorado Central Cancer Registry (CCCR) sought to use Tableau data visualizations to convey cancer statistics to the general public more effectively and improve internal team metrics. The Colorado Health Information Dataset (CoHID) is a department-wide effort that connects appropriate cancer data to inform and improve programmatic work. Researchers, students, hospitals, cancer patients, and other community members regularly use CoHID dashboards to retrieve information about cancer incidence and mortality rates. Although counts and incidence visualizations are updated annually, key cancer statistics such as cancer rankings, staging, and survival are not available. Also, the information in the dashboards is not easily accessible for those with disabilities. Over the past year, the CCCR prioritized improving data visualizations for internal and external data users.

### CHALLENGES

- The need for state cancer data continues to grow, and requesters want quick and easy-to-understand visualizations. Dedicated staff time, creative use of existing technology resources, and continued training and education are required to maintain and update public-facing dashboards.
- The CCCR regularly receives requests for cancer statistics not available from public-facing CoHID dashboards.
- The CCCR wanted to convert internal data management reports to dashboards for improved efficiency.
- Colorado implemented House Bill 21-1110, the Colorado Anti-Discrimination Act (CADA), which requires government information technology to be accessible to all individuals with disabilities, necessitating changes to CoHID.

### SOLUTIONS

- The CCCR team created new Tableau dashboards that display survival rates, top 10 rankings of incidence and mortality among cancer sites, and staging data.
- Various internal dashboards are in development to improve registry efficiency. Dashboards are designed to help oncology data specialists track data quality and reporting facility timeliness and completeness.
- CCCR staff updated CoHID Tableau data visualizations to enhance accessibility, improve functionality, and permit equal access.

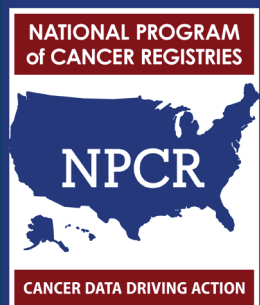
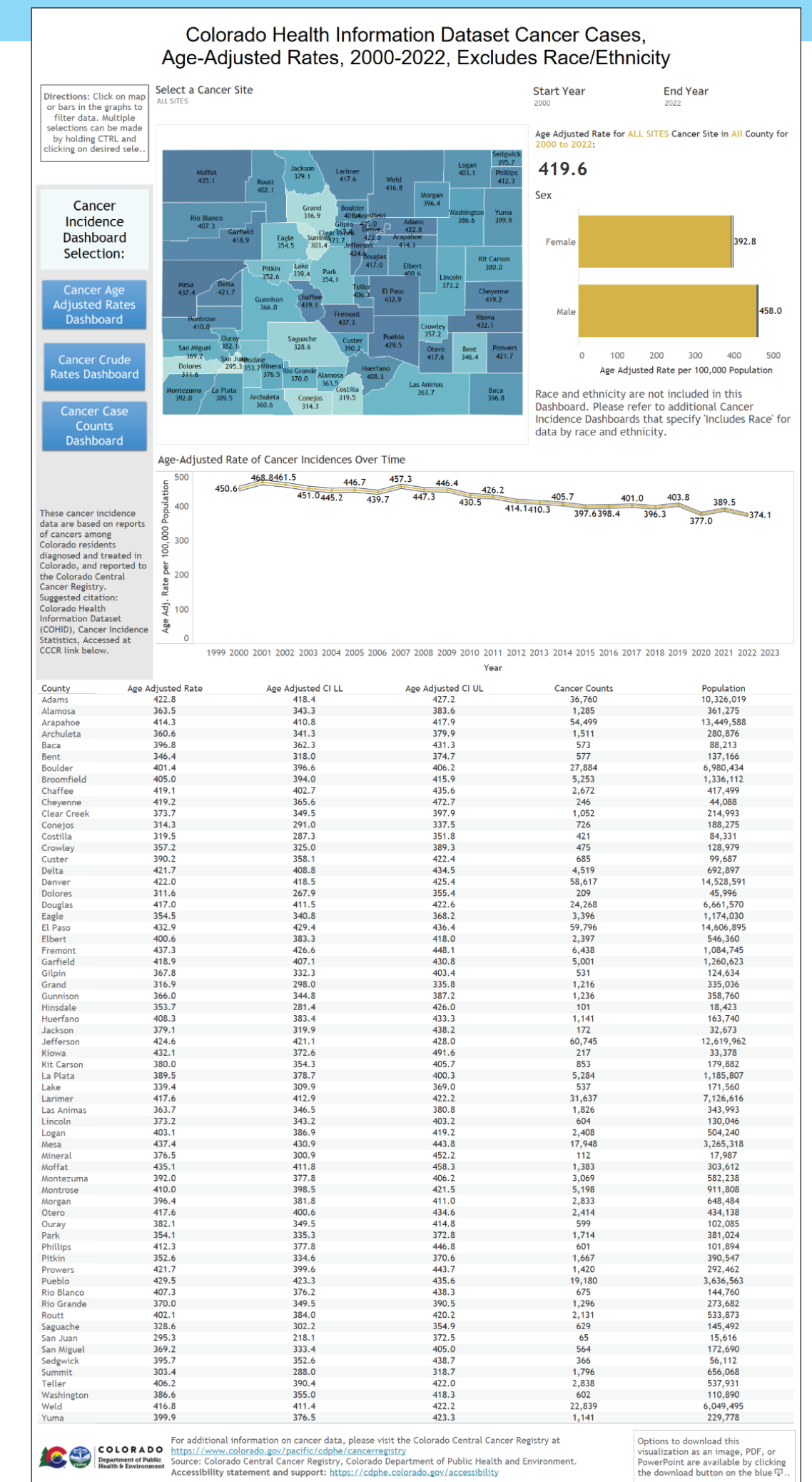
### RESULTS

- CCCR updated existing dashboards to comply with Web Content Accessibility Guidelines 2.1 standards in accordance with the State of Colorado's accessibility guidelines. Updates include full keyboard accessibility of the dashboard, adequate color contrast, readable font and font size, and aggregated data in tabular format.
- Users can download aggregated summary data tables from CoHID through PDF or image print options.
- CCCR is developing data dashboards with top 10 cancer incidence and mortality statistics, staging data, and survival information.
- CCCR aligns departmental efforts in visualization work in CoHID by attending periodic meetings and collaborates with other groups through the State of Colorado Tableau User Group.
- CCCR provides training and demonstrations of available dashboards and meets with data users to garner feedback for potential updates. Presentations and video demonstrations focus on engaging, educating, and disseminating data and how to access and use CoHID.

- CCCR created an internal dashboard for completeness and timeliness to visualize monthly progress for reporting facilities. It shows the number of cases that need to be abstracted, the number of cases already recorded, and percent completeness. Progress trendlines can be compared to see if current progress mirrors historical progress for statewide and facility data.
- Internal dashboards are hosted through the Colorado Health Informatics Data Systems (HIDS) and are limited to CCCR staff. Future plans will allow facilities access to their own timeliness and completeness progress through HIDS.
- CCCR is developing another internal Tableau dashboard for data quality. While currently tracked in a spreadsheet, the team hopes to display this information more effectively in the future.

### CONCLUDING REMARKS

The CCCR has made data visualization for key cancer statistics a priority in the past year. This emphasis allows internal team members and external interest holders to glean the valuable information that the cancer registry collects in an easily understandable and visually appealing way.



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