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## BACKGROUND

Stakeholder groups view population cancer data through differing lenses:

- **Researchers:** How does risk differ across groups?
- **Community Outreach & Engagement (COE):** How to maximize population health?
- **Advocacy groups:** How does local cancer burden compare to national?
- **Cancer Center leaders:** All of the above

Public data visualizations should be

- Rapidly digestible
- Data-rich yet interpretable from the perspective of different stakeholders

## GOAL

Develop a report template for describing catchment area excess incidence and mortality that simultaneously conveys

- Excess risk of developing or dying from specific cancer types
- Absolute population health toll in terms of numbers of excess cases or deaths

## SOLUTION

Data sources (2018-2022 timeframe)

- Catchment cases and deaths: Ohio Cancer Incidence Surveillance System (OCISS)
- Catchment population: SEER population data
- National Incidence: Cancer in North America (CINA) Research public use data
- National mortality: National Center for Health Statistics (NCHS)

Two report types

- **By individual cancer type** – Only showing types with significant difference between catchment and national rate
- **By risk factor-associated cancers** – Per CDC classifications

Analysis

- Direct age adjustment (2000 U.S. standard population)
- Excess cases or deaths = (Catchment rate – National rate) \* local population at risk

## OUTCOME

- Separate reports focusing on incidence and mortality, overall and by primary race groups
- **Figures 1 and 2** provide two examples.

## LESSONS LEARNED

Initially, x-axis reflected *percent difference between national and catchment rates*

- Useful for understanding elevated risk
- But → misunderstanding of actual catchment population health burden from less common cancers

Providing % difference then contrasting rates on an absolute scale illustrates

- Cancers with most elevated risk
- Cancers most impacting the catchment area's population

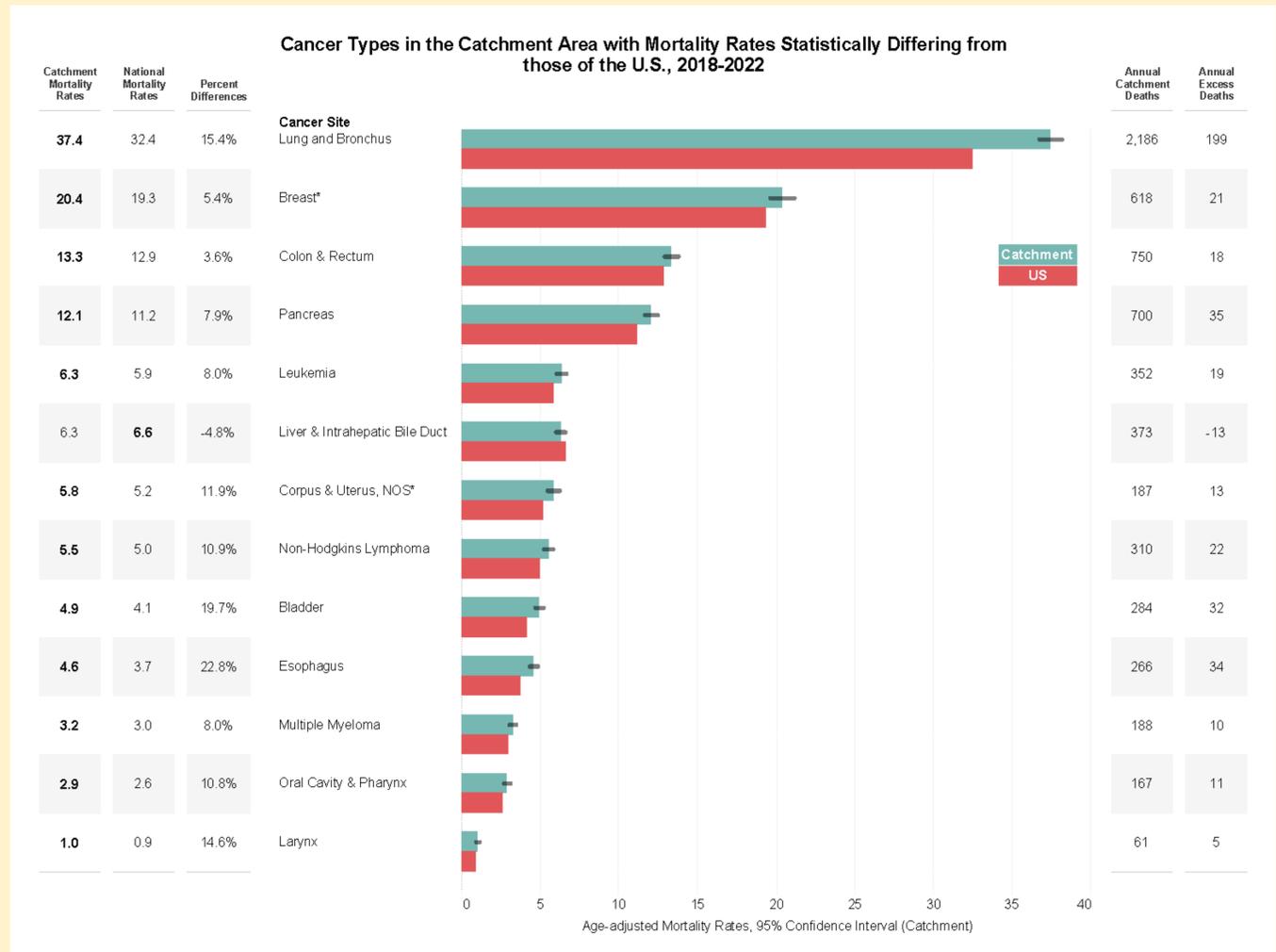


Figure 1 – Cancer type-specific catchment area excess cancer mortality report; Age-adjusted rates are per 100,000 population at-risk.

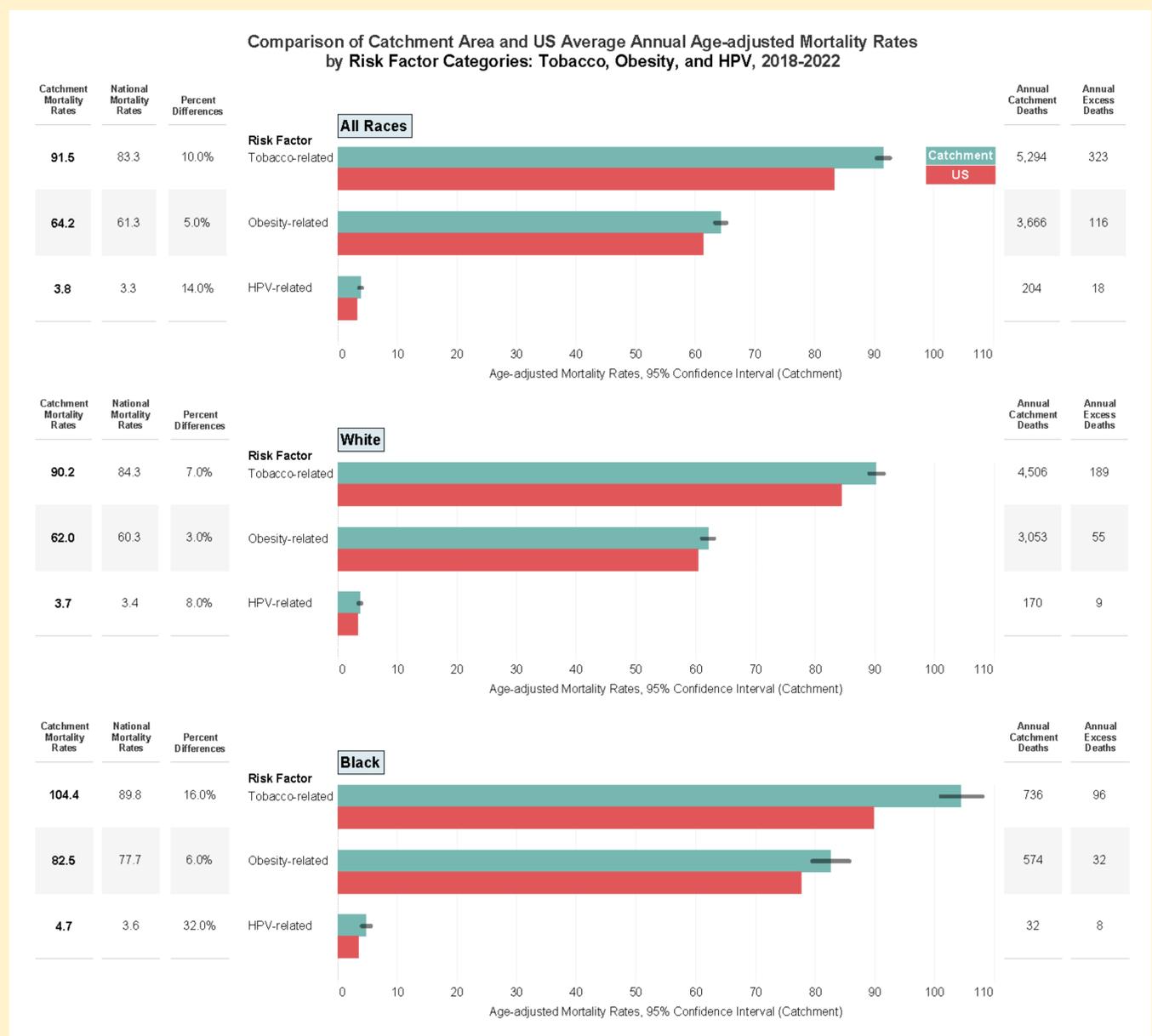


Figure 2 – Risk factor-specific catchment area excess cancer mortality report; Age-adjusted rates are per 100,000 population at-risk.

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