

# Reducing Overuse of Nonspecific Tumor Registry Codes Through Data Visualization

Maria Leuchert RHIT, CTR, Aung Oakkar, MBA, MHA, Brinda Somasundaram, MS, Thomas Whiting, MA, MPA, Monica Ter-Minassian, ScD

Mid-Atlantic Permanente Research Institute, Mid-Atlantic Permanente Medical Group, Rockville MD

## Background

- ❖ Tumor registry data quality is dependent on detailed cancer data variables and the use of accurate and specific codes.
- ❖ The overall quality of this data is often not visualized in real time.
- ❖ Kaiser Permanente Mid-Atlantic States (KPMAS) has created data visualization dashboards that provide immediate quality feedback and easily detect overused values for non-specific tumor registry abstract variables including code categories: Unknown (99), Not Applicable (88) or Not Otherwise Specified (NOS).

## Purpose of the Project

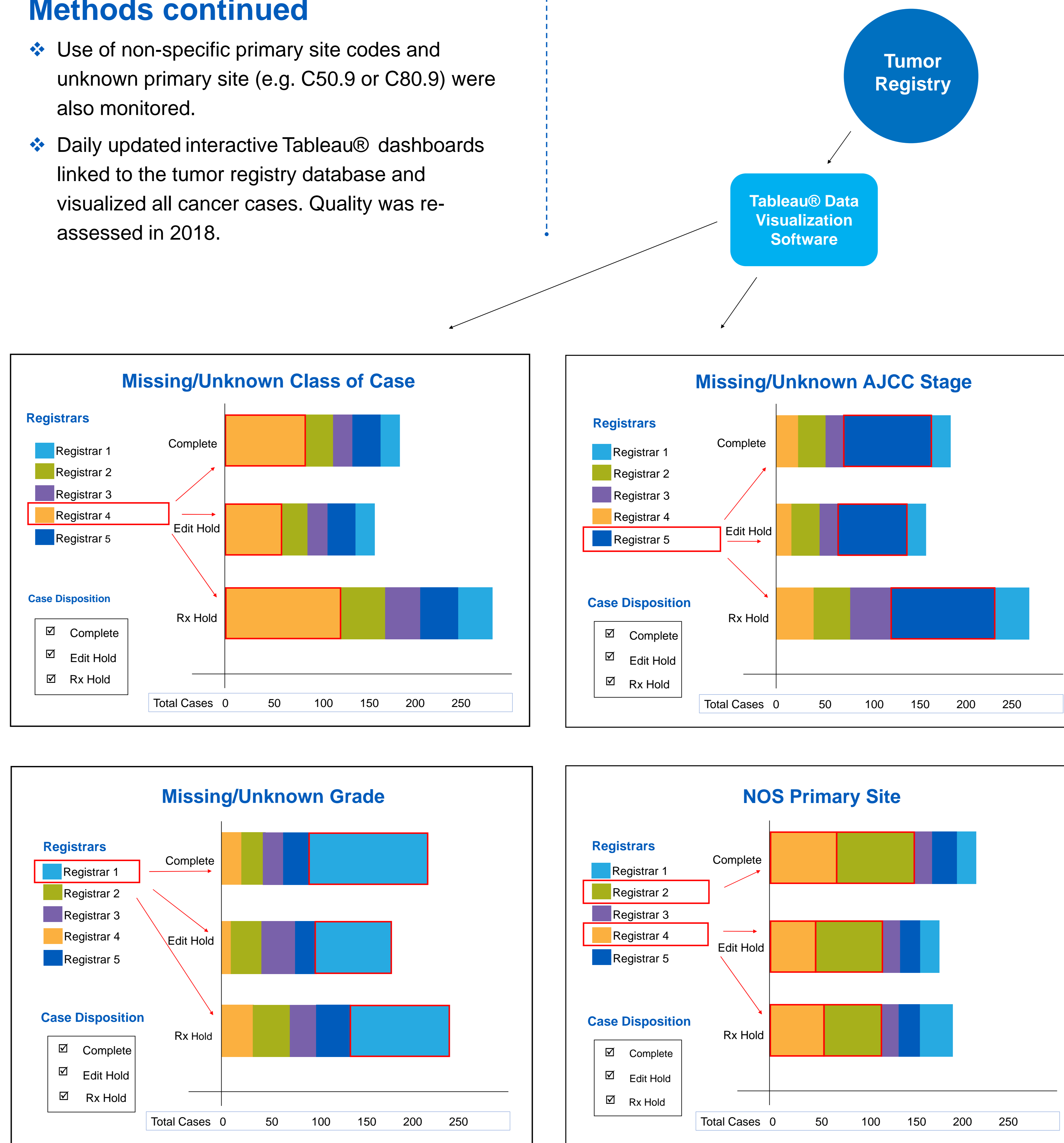
- ❖ This analysis aims to improve completeness and accuracy of tumor registry data quality through data visualization.

## Methods

- ❖ An initial assessment of tumor registry data quality was performed in 2016 and assessed for changes in missing/unknown and not otherwise specified codes (e.g. 99, 88, NOS) for: Date of Initial Diagnosis, Behavior, Morphology, Grade, Class of Case, Vital Status, Summary Stage 2000 and AJCC stage Group.

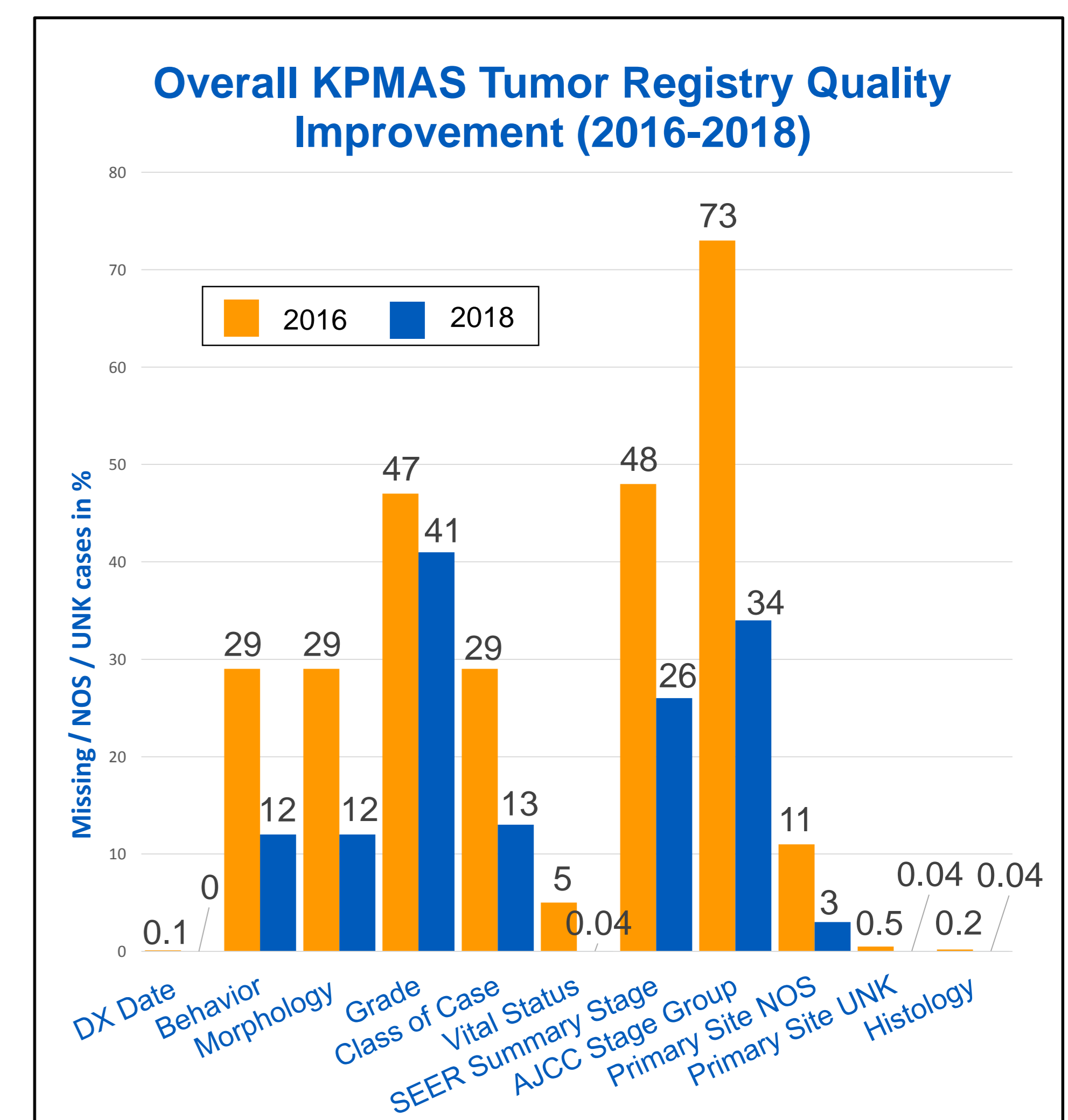
## Methods continued

- ❖ Use of non-specific primary site codes and unknown primary site (e.g. C50.9 or C80.9) were also monitored.
- ❖ Daily updated interactive Tableau® dashboards linked to the tumor registry database and visualized all cancer cases. Quality was re-assessed in 2018.



## Results

- ❖ KPMAS tumor registry included:
  - 17,706 total cases in 2016
  - 24,237 total cases in 2018 (post data visualization)
- ❖ Review of bi-monthly interactive Tableau® dashboards showed a steady decrease in missing/unknown as well as unspecified codes being used.



## Conclusion

- ❖ KPMAS tumor registry was able to reduce the missing/unknown/not otherwise specified codes from the database by visualizing the status of data variable in real time.
- ❖ The visualization will be expanded to include treatment information variables and can be adapted by other tumor registries.



MID-ATLANTIC PERMANENTE Medical Group

Funded by: Kaiser Permanente Mid-Atlantic States Community Health  
Contact: Maria Leuchert | Maria.I.Leuchert@kp.org

