

Differences in Hypertension Control by Demographics and Social Determinants of Health

Lea Scopelliti, Victor O. Kolade

INTRODUCTION: Background

- In 2020 The Guthrie Clinic began a journey towards health equity by forming a Diversity, Equity, and Inclusion (DEI) Initiative that consists of three committees under executive leadership that focus on employees, community, and patients
- The patient-focused committee worked with clinical stakeholders to define diversity indicators. Physician leaders determined that hypertension control would be a suitable first metric to set a baseline for patient care equity, as it was a health system ambulatory quality metric at the time
- We hypothesized that one or more selected demographic measures would demonstrate an effect on hypertension control among our patients
- In terms of race, we hypothesized that White patients would have the best hypertension control

Bibliography

- Wan W, Li V, Chin MH, et al. Development of PRAPARE Social Determinants of Health Clusters and Correlation with Diabetes and Hypertension Outcomes. *J Am Board Fam Med*. 2022;35(4):668-679. doi:10.3122/jabfm.2022.04.200462
- Muntner P, Anstey DE. Social Determinants of Health: Past, Current, and Future Threats to Hypertension and Blood Pressure Control. *Am J Hypertens*. 2021;34(7):680-682. doi:10.1093/ajh/hpab023

Aim/Purpose/Objectives

To identify gaps in patient outcomes by one or more diversity indicators and provide data to support implementation of UniteUs to facilitate closing the loop on identified SDOH needs.

METHODS: Interventions/Changes

Selection of Data from Epic EHR

- Dependent variable: Rate of hypertension control for patients with hypertension seen by primary care, cardiology, or nephrology
- Age: 30-84
- Visit dates: 2-year look-back from 31 January 2022

Data was sliced by “diversity indicators”

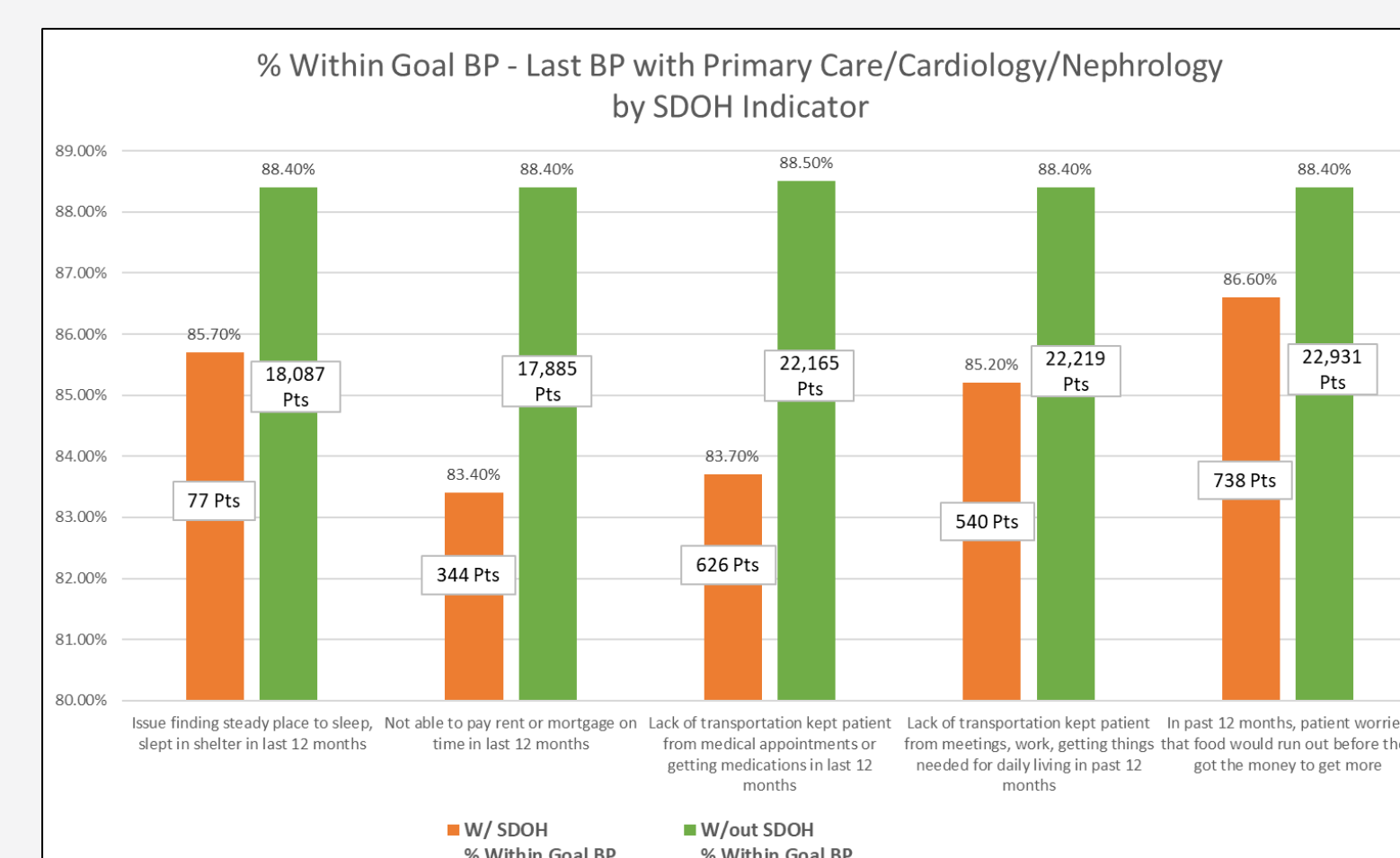
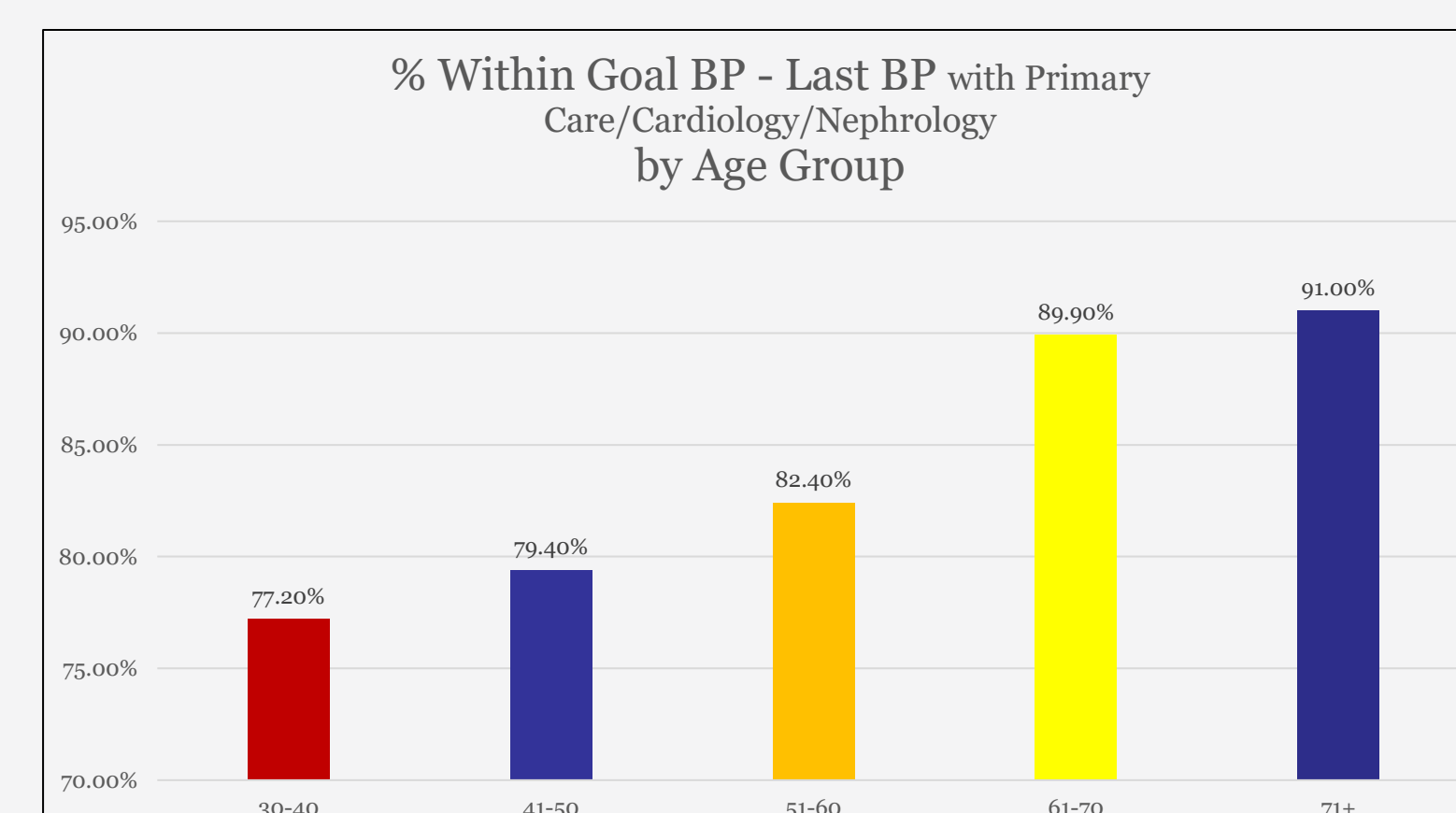
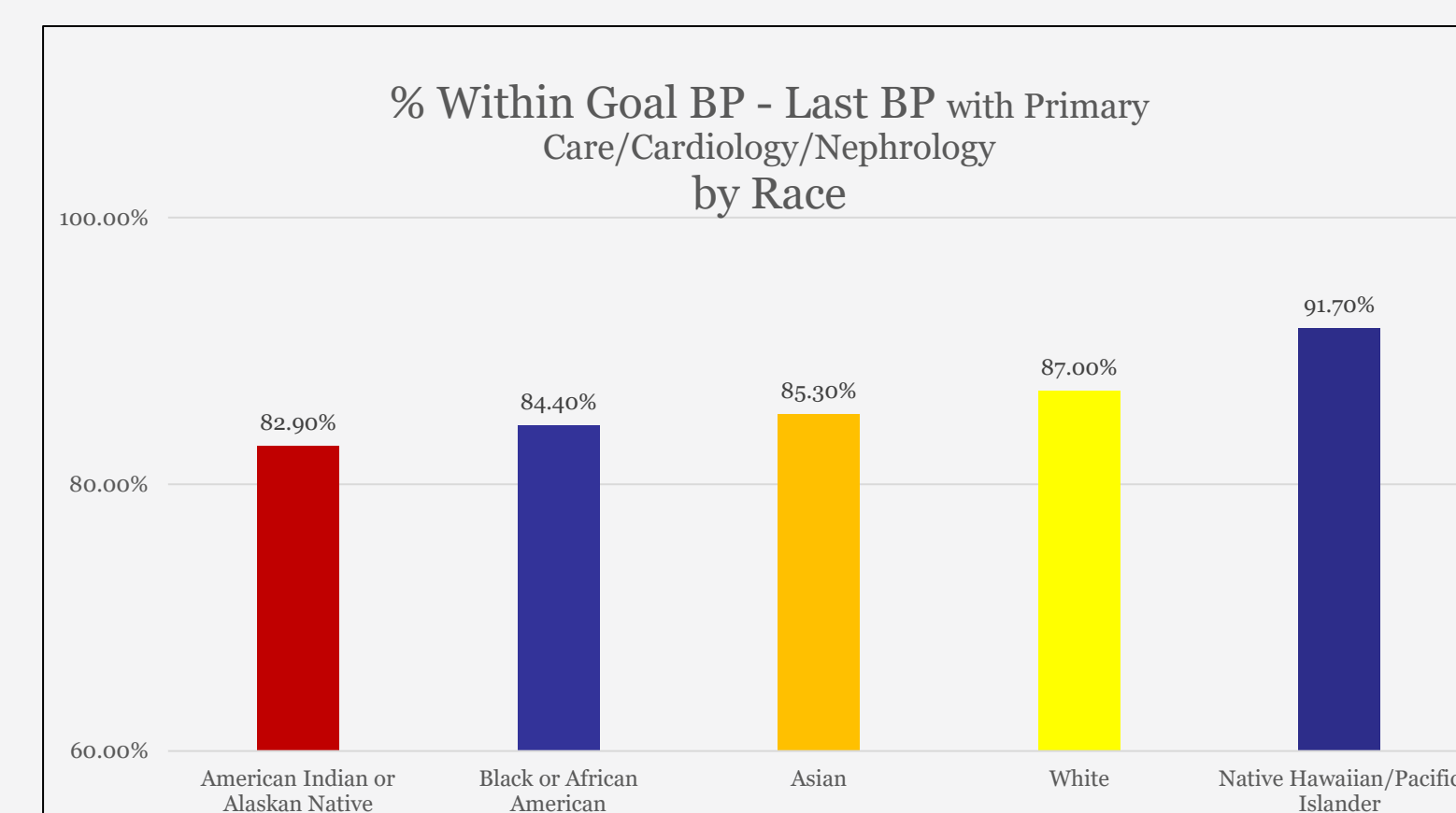
- Age
- Race
- Indicated presence of a negative social determinant of health

METHODS: Measures/Metrics

Measure: Hypertension Control

The data was examined for hypertension control – defined as blood pressure (BP) of 140/90 or less in patients aged 59 years or younger and 150/90 or less in patients 60 years or older.

RESULTS



RESULTS: Continued

- Demographics
 - Patients aged 30–40-years, patients who self-identified as American Indian or Alaskan Native (AI/AN) and Black or African American (Black/AA), and patients who had indicated the presence of a social determinant of health were found to have worse rates of hypertension control than comparator groups, as shown below:
 - Amongst 39,577 patients 82.9% of AI/AN patients had blood pressures within goal at their last primary care, cardiology, or nephrology visit, compared to 84.4% of Black/AA, 85.3% of Asian, 87% of White, and 91.7% of Native Hawaiian/Pacific Islanders
 - 77.2% of patients aged 30-40 had BP control, versus 79.4% of 41-50 year-old patients, 82.4% of 51-60 year-old patients, 89.9% of 61-70 year-old patients and 91% of patients aged 71 and over.
- Social Determinants of Health (SDOH)
 - 86.6% of patients who admitted to worrying that food would run out before they got money to buy more had BP control, compared to 88.4% of patients who did not worry about running out of food.
 - 83.7% of patients who reported lack of transportation kept them from keeping medical appointments or getting medication in the preceding 12 months attained BP control, compared to 88.5% of patients who reported not having that problem.
 - 83.4% of patients that said they were not able to pay rent or mortgage on time in the preceding 12 months had BPs within goal, as opposed to 88.4% of patients without that problem.

Discussion: Barriers & Strategies

Key Finding

- SDOH have direct bearings on hypertension control

Limitation

- 60% or fewer of patients with hypertension had usable SDOH data

Next Steps and Sustainability

- Opportunity exists to test whether navigating patients with adverse SDOH to relevant community resources may mitigate the effect of such SDOH on clinical quality of care
- Implementation of UniteUs cross-sector collaboration software