



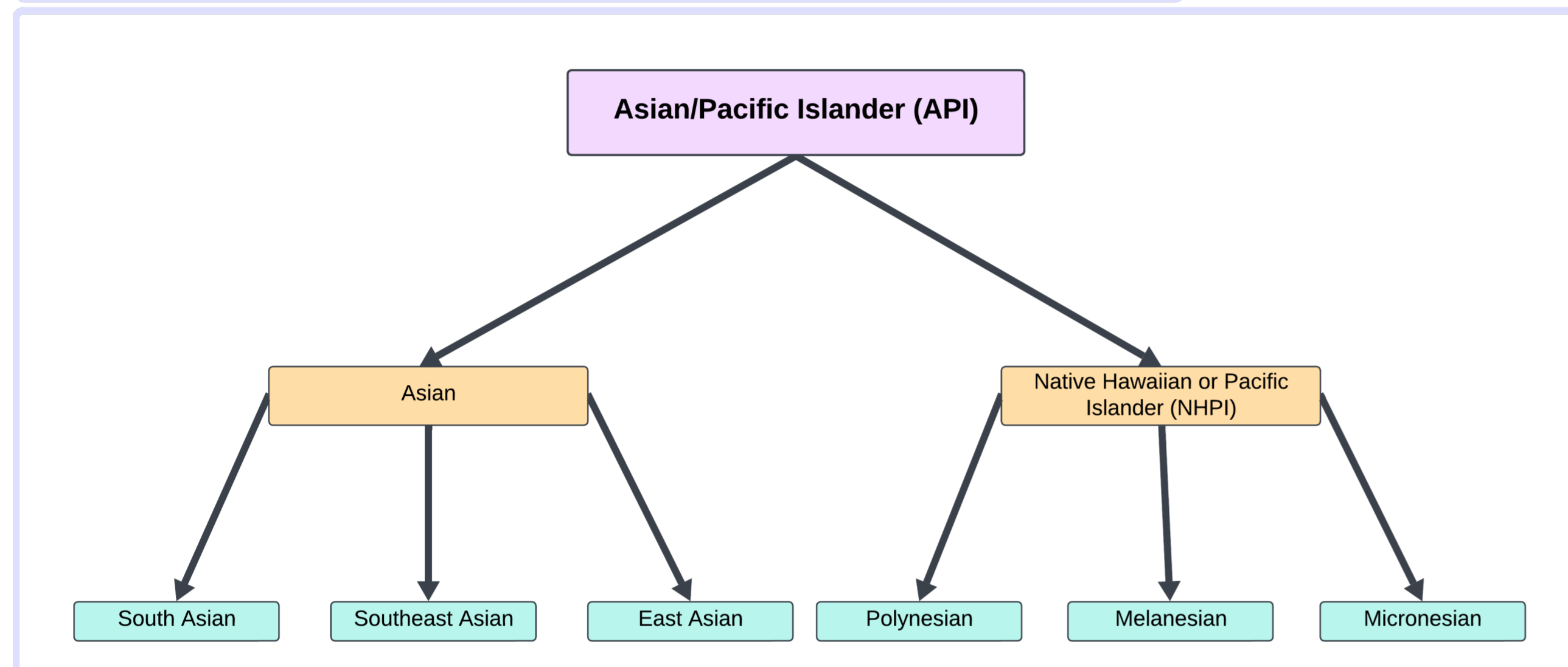
# Asian and/or Pacific Islander: Unmasking health disparity within commonly aggregated diverse populations in the US Department of Veterans Affairs

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## Background

- The United States' Government Office of Management and Budget (OMB) first defined the Asian/Pacific Islander (API) race/ethnicity category in 1977
- Despite recommending separating Asian and Native Hawaiian or Pacific Islander (NHPI) categories in 1997, API is still common in US federal data
- The API category masks differences between the diverse patient sub-populations in the US Department of Veterans Affairs (VA)
  - All patients with ancestry in South, Southeast, and East Asia
  - All patients with ancestry in the original peoples of the Pacific islands and Oceania.

### Disaggregated sub-categories of Asian/Pacific Islander race/ethnicity

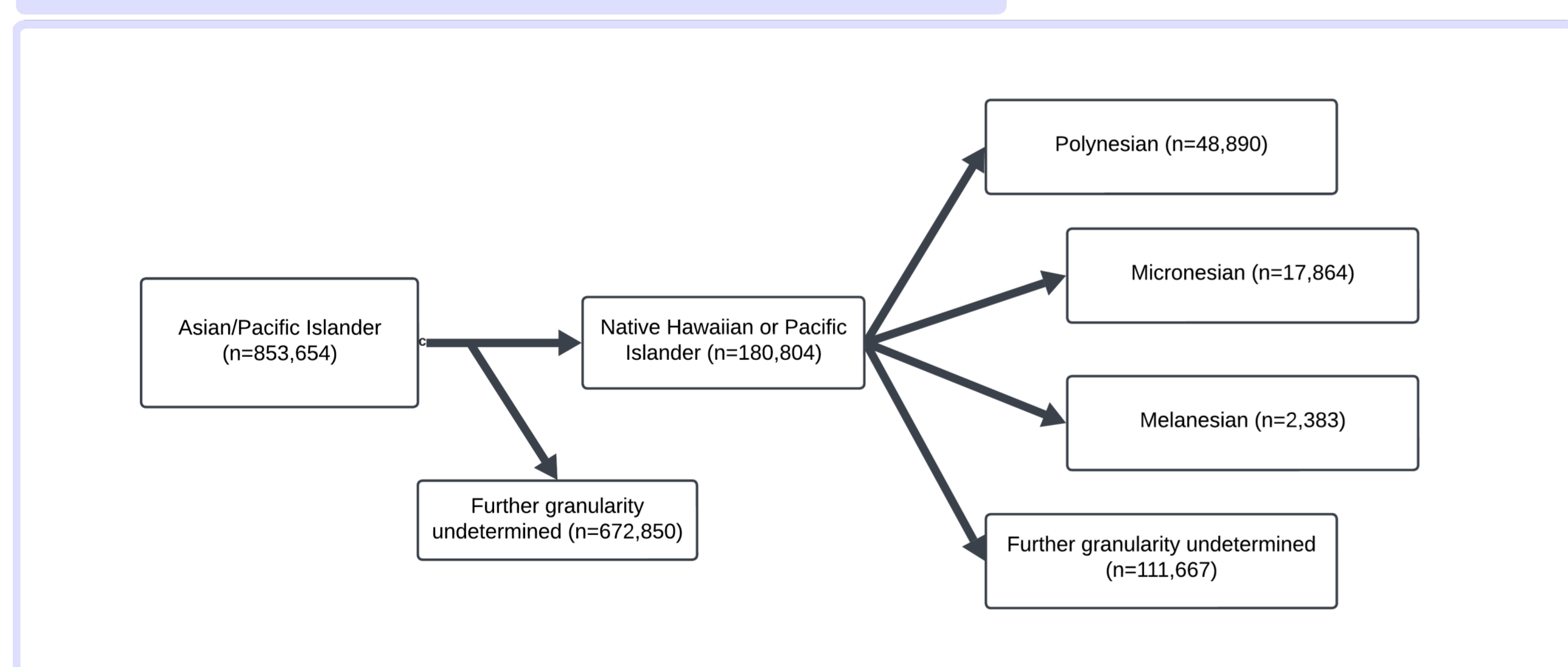


- This analysis sought to describe VA patients with API race/ethnicity and its NHPI sub-categories.
- Given that NHPI are at higher risk of cardio-metabolic diseases, analyses sought to outline how different categorizations of race/ethnicity for these patients can mask these risks.

## Methods

- Using the VA corporate data warehouse (CDW), supplemented with natural language processing of CDW clinical notes, described in a previous OHDSI abstract, API and its NHPI, and NHPI sub-group cohorts were derived.
- VA patients who are US Veterans, with at least 1 visit recorded in the VA OMOP Visit\_Occurrence table that could be identified within the categories API, NHPI, Polynesian, Micronesian, or Melanesian were included in the analysis.
- The VA OMOP CDM was used for characterization of the cohorts identified.
  - Demographics, VA observations, measurements, diagnoses, and interactions
  - Specific cardio-metabolic conditions related for which NHPI populations are generally at higher risk.

### Asian/Pacific Islander and sub-group identification



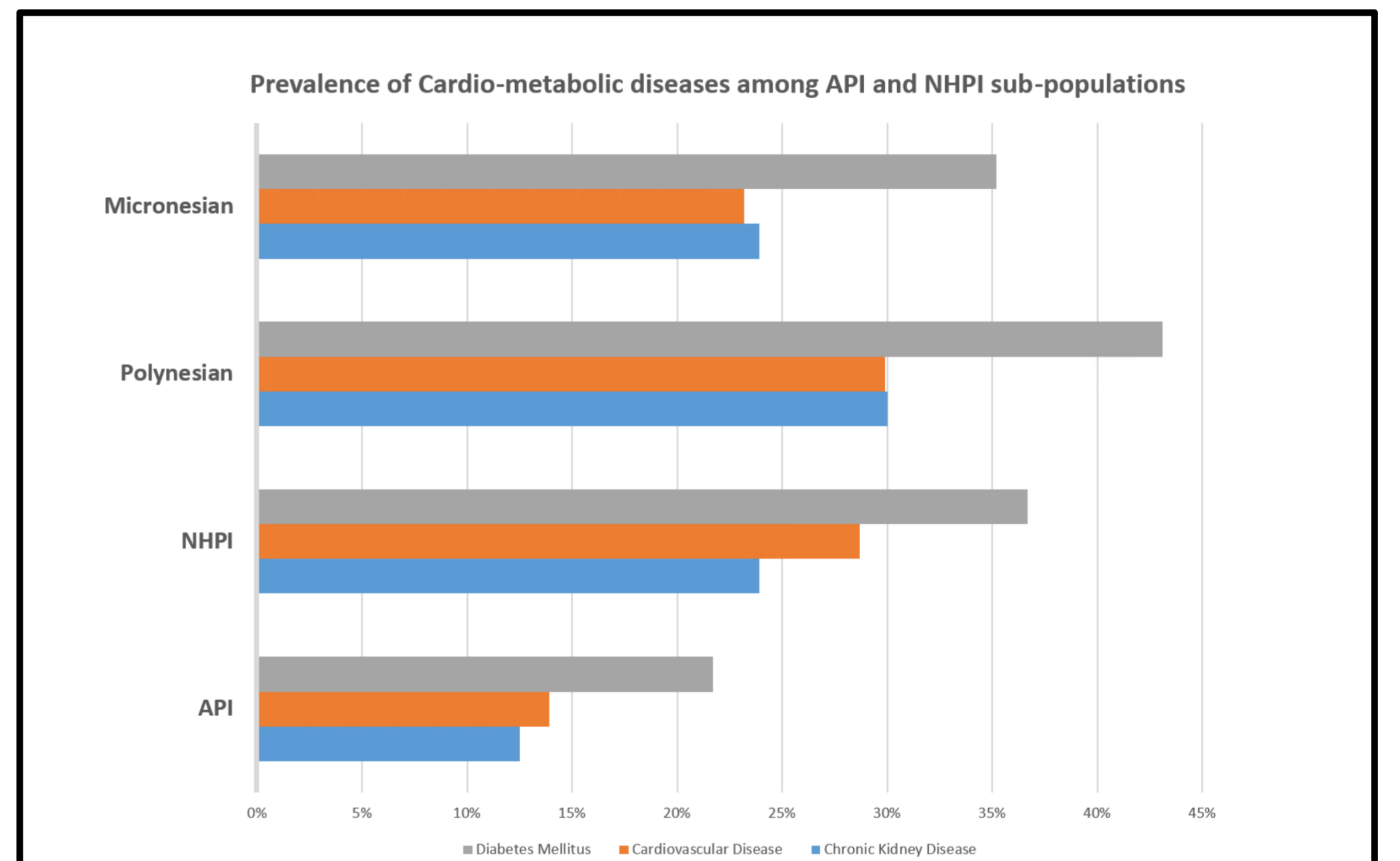
- Cardio-metabolic conditions associated with NHPI morbidity that were included are Chronic Kidney Disease (CKD), Cardiovascular Disease (CVD), and Diabetes Mellitus (DM)
  - Phenotype definitions from the Quan (2005) Charlson Comorbidity Index were used
  - Patients with at least 2 recorded diagnoses were determined to have the condition
- Some proportion of API could have been disaggregated to an Asian race/ethnicity category, but that was not the focus of this specific analysis

## Results

- Of the 853,654 VA Patients that were identified as API, 21.2% (180,804) could be disaggregated to the level of NHPI.
- Among NHPI, 27% (48,890) could be identified as Polynesian, 9.9% (17,864) as Micronesian, and 1.3% (2,383) as Melanesian.
- A majority of API and NHPI Veterans could not be disaggregated to lower levels using current methods.
- The API population were younger with lower utilization than its NHPI sub-group.
- Rates of CKD, CVD, and DM were about twice as high among NHPI compared to API
  - Among NHPI the highest rates were found among Polynesian patients

	API	NHPI	Polynesian	Micronesian	Melanesian
N*	853,654	180,804	48,890	17,864	2,383
Deceased - N (%)	113,011	49,271	8,768	3,013	230
Age - Mean (SD)	52.74 (16.70)	60.91 (18.84)	59.07 (17.42)	55.71 (16.82)	47.23 (14.66)
Male - N (%)	746,646 (87.46)	158,663 (87.75)	41,515 (84.92)	15,175 (84.95)	2,052 (86.11)
Years of VA Observation - Mean (SD)	12.28 (7.57)	13.63 (7.88)	15.43 (7.42)	13.63 (7.38)	11.90 (7.37)
Measurements - Mean (SD)	224.5 (415.8)	316.5 (501.7)	410.5 (590.4)	287.4 (481.6)	213.5 (397.9)
Diagnoses - Mean (SD)	1,097.0 (1751.4)	1,614.0 (2200.6)	1,944.0 (2,455.6)	1,266.0 (2,024.8)	1,060.0 (1,784.6)
VA Interactions - Mean (SD)	175.0 (253.0)	236.0 (300.9)	326.0 (352.8)	232.0 (283.5)	173.0 (257.4)
NHPI-related Conditions - N (%)					
CKD	106,797 (12.5)	43,186 (23.9)	14,647 (30.0)	4,277 (23.9)	263 (11.0)
CVD	118,816 (13.9)	51,887 (28.7)	14,635 (29.9)	4,139 (23.2)	269 (11.3)
DM	185,285 (21.7)	66,285 (36.7)	21,092 (43.1)	6,282 (35.2)	440 (18.5)

\* - Patients in any of the sub-populations of API may exist within multiple categories.



## Conclusions

- NHPI have higher rates of cardio-metabolic diseases.
- This is not the first analysis to show that grouping NHPI together with API is problematic due to the masking of important disparities.
- Current data does not allow for a complete picture due to the inability to completely identify NHPI race/ethnicity.
- Further disaggregation is necessary for standardized data that can accurately report disparities.
- More work is required in both the standardization of granular race/ethnicity categories for API populations, and for novel methods to disaggregate current data sources.

## Previous related work



U.S. Department of Veterans Affairs



https://github.com/VINCI-AppliedNLP/NHPI



https://www.ohdsi.org/2024showcase-34

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