with newly diagnosed diabetes and unprovoked DKA had intensive insulin therapy until HbA1c < 7% without insulin therapy for at least one week. Patients were followed until hyperglycemia relapse (HbA1c > 6.5% or fasting BG > 126 mg/dl and/or requiring antidiabetic medications). Baseline characteristics and clinical time to hyperglycemia relapse-free survival were compared between patients with HbA1c < 6.5 (n = 24) and HbA1c 6.5-7% (n = 16).

Introduction: Diabetes prevalence continues to increase in the US, although the burden of diabetes varies by race/ethnicity. Diabetes prevalence is higher in US Asian compared to non-Hispanic White adults and Asian adults may develop diabetes at an earlier age. Some studies suggest that Asians with diabetes have reduced insulin secretory capacity, but lower rates of insulin use have also
been reported. This study seeks to characterize insulin use in a large clinical population of US Asian and Pacific Islanders (PI) with diabetes.

**Methods:** This cross-sectional observational study includes adult health plan members aged 45-79 years with diabetes prior to 2015 and receipt of diabetes pharmacotherapy in 2019. To estimate diabetes duration, those with diabetes identification during their first year of health plan membership (pre-existing diabetes) were excluded. Those without weight assessment in 2019 were also excluded. Race/ethnicity and Asian/PI subgroup were determined from self-reported data in health record databases. The primary outcome was insulin treatment in 2019, based on outpatient pharmacy records. Covariates included age, sex, BMI, diabetes duration, HbA1C, and calculated Charlson Comorbidity Index (CCI). A neighborhood deprivation index (NDI) was estimated using US Census data. Modified Poisson regression with robust variance was used to examine the association between ethnicity and insulin therapy, reporting relative risk (RR) with 95% confidence intervals (CI).

**Results:** Among 81,692 adults with diabetes (47% female), 21,187 (26%) were Asian/PI, 32,435 (40%) non-Hispanic White, 8901 (11%) Black, 16,855 (21%) Hispanic/Latinx, and 2314 (3%) Other/unknown. Compared to other racial/ethnic groups, Asians were less likely to use insulin (25% of Asian vs. 38%, 39%, and 37% of non-Hispanic White, Black, and Hispanic/Latinx, respectively, p<0.01). Within Asian/PI subgroups, the prevalence of insulin use varied: Japanese (32%), Native Hawaiian/Pacific Islander (33%), Filipino (28%), South Asian (23%), Chinese (21%) and Southeast Asian (20%). However, age, sex, duration of diabetes, level of diabetes control (HbA1c), BMI, and comorbid burden also varied among these populations. In multivariable analyses adjusting for these covariates, non-Hispanic White (RR 1.4, CI 1.3-1.4), Black (RR 1.1, CI 1.1-1.2), and Hispanic (RR 1.2, CI 1.2-1.2) adults had a higher relative risk of insulin use when compared to Asian/PI adults in aggregate. However, among the different Asian/PI subgroups, with Chinese as reference, only Japanese adults were more likely to use insulin (RR 1.2, CI 1.1-1.3) with no differences seen for Filipino, other Southeast Asian, and Native Hawaiian/PI.

**Conclusions:** This study provides insight into use of diabetes pharmacotherapy and specifically insulin use among Asian/PI subgroups compared to other populations. The lower rate of insulin use observed among Asian/PI subgroups is consistent with past studies and is likely multifactorial. Further research is needed to understand barriers against insulin treatment which will help optimize treatment and reduce diabetes burden in this population.

**Presentation:** Sunday, June 12, 2022 12:30 p.m. - 2:30 p.m., Monday, June 13, 2022 1:00 p.m. - 1:05 p.m.