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NUTRITIONAL PARAMETERS AMONG A DIVERSE CHRONIC KIDNEY DISEASE COHORT IN HAWAII:

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Growing data indicate that Native Hawaiians, Pacific Islanders, and Asians suffer from higher rates of chronic kidney disease (CKD) and its risk factors (obesity, diabetes, and hypertension) compared to their Caucasian counterparts. While optimization of nutritional status is a cornerstone in the management of advanced CKD patients progressing to end-stage renal disease, little is known about the renal nutrition of this minority populations across the various stages of kidney disease. To address this knowledge gap, we sought to examine nutritional parameters among a diverse cohort of CKD patients in the state of Hawaii.

Among a diverse cohort of CKD patients across the state of Hawaii, we examined nutritional parameters, namely 1) serum albumin levels (categorized as <3.5, 3.5-<4.0, and ≥4.0g/dl) and 2) body mass index (BMI; categorized as , across varying levels of kidney function (categorized according to estimated glomerular filtration rates [eGFRs] of ≥90, 60-<90, 30-<60, 15-<30, <15ml/min/1.73m²).

Among 2563 participants who met eligibility criteria, the most prevalent racial/ethnic groups were those of Japanese (41.2%), Filipino (18.3%), Chinese (14.9%), and Native Hawaiian/Other Pacific Islander (12.1%) background (Figure). Among patients with stages 3-5 CKD, with incrementally lower levels of kidney function, we observed increasingly lower optimal serum albumin levels (i.e., ≥4.0g/dl): 68%, 42%, and 37% for stages 3, 4, and 5 CKD. Across all stages of CKD, we observed a high prevalence of overweight (BMI 25-<30kg/m²: 32-39%) and obese status (BMI ≥30kg/m²: 21-34%).

In a diverse cohort of Hawaii residents with underlying CKD, we observed increasingly lower serum albumin levels with increasingly worse kidney function, as well as a high burden of overweight and obese status across all levels of kidney function. Further studies are needed to identify interventions that can optimize the nutritional health of CKD patients in this population

