

SIGNIFICANCE STATEMENT

TNF receptor-1 (TNFR-1), which plays a role in the development of endothelial cell dysfunction and inflammation, is expressed in the glomerular and peritubular capillary endothelium of the kidneys. Studies previously showed that serum levels of soluble TNF receptor-1 (sTNFR-1) are associated with kidney disease progression among persons with established kidney disease. In this study of a multiethnic population without cardiovascular disease at enrollment, elevated baseline sTNFR-1 concentrations were strongly associated with the development of a $\geq 40\%$ decline in eGFR over a decade. This association persisted after adjustment for kidney disease-associated covariates and other inflammatory biomarkers, suggesting that a high concentration of sTNFR-1, independent of previously known risk factors for kidney disease progression, predicts kidney function decline in a multiethnic population with few comorbidities.