

**Item S1. Calculation of 5-Year Kidney Failure Risk**

5-year kidney failure risk was estimated using the 4-variable Kidney Failure Risk Equation (KFRE), published in: Tangri N, Grams ME, Levey AS, et al. Multinational assessment of accuracy of equations for predicting risk of kidney failure: a meta-analysis. JAMA. 2016;315(2):164-174. doi:10.1001/jama.2015.18202

$$\text{5-year kidney failure risk} = 1 - 0.9240^{\left[\exp(-0.2201 \cdot (\text{age}/10 - 7.036) + 0.2467 \cdot (\text{male} - 0.5642) - 0.5567 \cdot (\text{eGFR}/5 - 7.222) + 0.4510 \cdot (\ln(\text{UACR}) - 5.137))\right]}$$

Where age = age in years; male = 1 if male and 0 if female; eGFR = estimated glomerular filtration rate in mL/min/1.73m<sup>2</sup>, UACR = urine albumin-to-creatinine ratio in mg/g

## Item S2. Analytical Issues

Due to changes in laboratory instrumentation and methods, several laboratory measures were calibrated in accordance with NHANES analytic guidelines. Serum creatinine in 1999-2000 was corrected using the formula: Standard creatinine =  $1.013 * \text{NHANES creatinine} + 0.147$ . Serum creatinine in 2005-2006 was corrected using: Standard creatinine =  $0.978 * \text{NHANES creatinine} - 0.016$ . Urine creatinine from 1999-2006 was corrected using the piecewise formula: adjusted urine creatinine =  $[1.02 * \text{sqrt}(\text{unadjusted urine creatinine}) - 0.36]^2$  if urine creatinine <75; adjusted urine creatinine =  $[1.05 * \text{sqrt}(\text{unadjusted urine creatinine}) - 0.74]^2$  if urine creatinine 75 to <250; adjusted urine creatinine =  $(1.01 * \text{sqrt}(\text{unadjusted urine creatinine}) - 0.10)^2$  if urine creatinine >250. To align fasting plasma glucose measures to account for laboratory methodologic changes during the 2005-2006, 2007-2008, and 2015-2016 surveys, we applied regression equations recommended by the NHANES analytic guidelines.