

**Supplementary Table 1: Baseline Characteristics between Study Participants and Excluded****Subjects**

Characteristic	Study Participants (n = 1938)	Excluded Subjects (n = 2754 )	P
Age(years)	73.5±4.5	75.8±5.6	<0.001
Males	30	51	<0.001
Race			<0.001
Caucasian	86	80	
African-American	14	20	
Hypertension	54	59	<0.001
Diabetes	11	19	<0.001
Smoking (current or past)	50.1	57.6	<0.001
Medication use			
Anti-hypertensive	39	59	<0.001
Statin	4.6	4.7	0.93
BMI (kg/m <sup>2</sup> )	26.8±4.6	26.9±4.9	0.55
LDL (mg/dL)	128.5±32.3	126±34.9	0.03
HDL (mg/dL)	55.5±14.5	51.7±14.2	<0.001
eGFR (mL/min/1.73m <sup>2</sup> )	76.7±17.6	69.7±19.2	<0.001

Continuous data presented as means ±standard deviation, Categorical as number %

Abbreviations: BMI, Body Mass Index; LDL, low-density lipoprotein; HDL, High-Density Lipoprotein; eGFR, estimated glomerular filtration rate; PTH, Parathyroid Hormone; 25-OHD, 25-hydroxyvitamin D.

**Supplementary Table 2: Significant Predictors of Phosphate Concentration in Multivariate Linear Regression**

Characteristic	Coefficient	95% CI	P-value
Female Sex	0.40	0.35 – 0.44	<0.001
Body Mass Index (per kg/m <sup>2</sup> )	-0.01	-0.005 – -0.014	<0.001
Systolic Blood Pressure (per 10 mmHg)	-0.02	-0.003 – -0.03	0.01
eGFR (per 10 ml/min/1.73 m <sup>2</sup> )	-0.04	-0.02 – -0.05	<0.001
Low-Density Lipoprotein (per 10 mg/dl)	0.01	0.004 – 0.02	<0.001
Parathyroid Hormone (per 10 pg/dl)	-0.03	-0.02 – -0.04	<0.001

Positive coefficients indicate a direct relationship between the characteristic and higher serum phosphate level.

Abbreviations: eGFR, estimated glomerular filtration rate