

Supplementary Table 4. Prediction equations

Country	Outcome	Probability (outcome) = $1/[1+\exp(-b*x)]$, where $b*x$ = as follows
USA	Undiagnosed DM	$-5.3377 + I(\text{age in } 40-49) * 0.9868 + I(\text{age in } 50-59) * 1.5365 + I(\text{age} \geq 60) * 1.6016 + \text{male} * 0.2643 + \text{hypertension} * 0.4002 + \text{family_DM} * 0.2558 + I(\text{BMI in } 25-29.9) * 0.2088 + I(\text{BMI in } 30-39.9) * 0.9744 + I(\text{BMI} \geq 40) * 1.3431 + \text{physically_inactive} * 0.3055 + I(\text{had gestational DM and I am woman}) * 0.8988$
USA	Undiagnosed DM or pre-DM ^a	$-2.1881 + I(\text{age in } 40-49) * 0.8089 + I(\text{age in } 50-59) * 1.3294 + I(\text{age} \geq 60) * 1.6378 + \text{male} * 0.3831 + \text{hypertension} * 0.2964 + \text{family_DM} * 0.2424 + I(\text{BMI in } 25-29.9) * 0.4620 + I(\text{BMI in } 30-39.9) * 0.7634 + I(\text{BMI} \geq 40) * 1.2817 + \text{physically_inactive} * 0.0830 + I(\text{had gestational DM and I am woman}) * 0.4314$
USA	Undiagnosed CKD	$-6.0226 + I(\text{age in } 50-59) * 1.7110 + I(\text{age in } 60-69) * 3.0099 + I(\text{age} \geq 70) * 4.2943 + \text{female} * 0.1699 + \text{hypertension} * 0.4079 + \text{DM} * 0.1086 + \text{anemia} * 0.7107 + \text{CVD} * 0.4290 + \text{CHF} * 0.4998 + \text{proteinuria} * 0.6385$
Korea	Undiagnosed DM	$-5.6759 + I(\text{age in } 35-44) * 1.1209 + I(\text{age} \geq 45) * 1.6621 + \text{hypertension} * 0.7095 + \text{family_DM} * 0.6020 + I(\text{waist in } 30-32.9 \text{ inches for woman or } 33-34.9 \text{ inches for man}) * 0.5691 + I(\text{waist} \geq 33 \text{ inches for women or } \geq 35 \text{ inches for men}) * 1.3466 + \text{current_smoker} * 0.3541 + I(\text{alcohol } 1-4.9 \text{ drinks/days}) * (-0.0788) + I(\text{alcohol} \geq 5 \text{ drinks/days}) * 0.1585$
Korea	Undiagnosed CKD (based on CKD-EPI)	$-6.9662 + I(\text{age in } 50-59) * 1.6876 + I(\text{age in } 60-69) * 2.8362 + I(\text{age} \geq 70) * 4.0929 + \text{female} * (-0.3038) + \text{hypertension} * 0.8058 + \text{DM} * 0.6920 + \text{anemia} * 1.4087 + \text{CVD} * 0.3081 + \text{proteinuria} * 0.8392$
Korea	Undiagnosed CKD (based on Korean CKD-EPI)	$-7.1432 + I(\text{age in } 50-59) * 1.8327 + I(\text{age in } 60-69) * 3.0080 + I(\text{age} \geq 70) * 4.2493 + \text{female} * 0.0958 + \text{hypertension} * 0.7453 + \text{DM} * 0.6231 + \text{anemia} * 1.3261 + \text{CVD} * 0.1924 + \text{proteinuria} * 0.8404$

Variables are defined in Table 2, Box in main text, and Appendix 1. I (·) denotes indicator function, i.e., 1 if the condition is met, or 0.

DM, diabetes mellitus; BMI, body mass index; CKD, chronic kidney disease; CVD, cardiovascular disease; CHF, congestive heart failure; CKD-EPI, Chronic Kidney Disease Epidemiology Collaboration.

^aUSA currently uses the same risk score for DM and pre-DM.