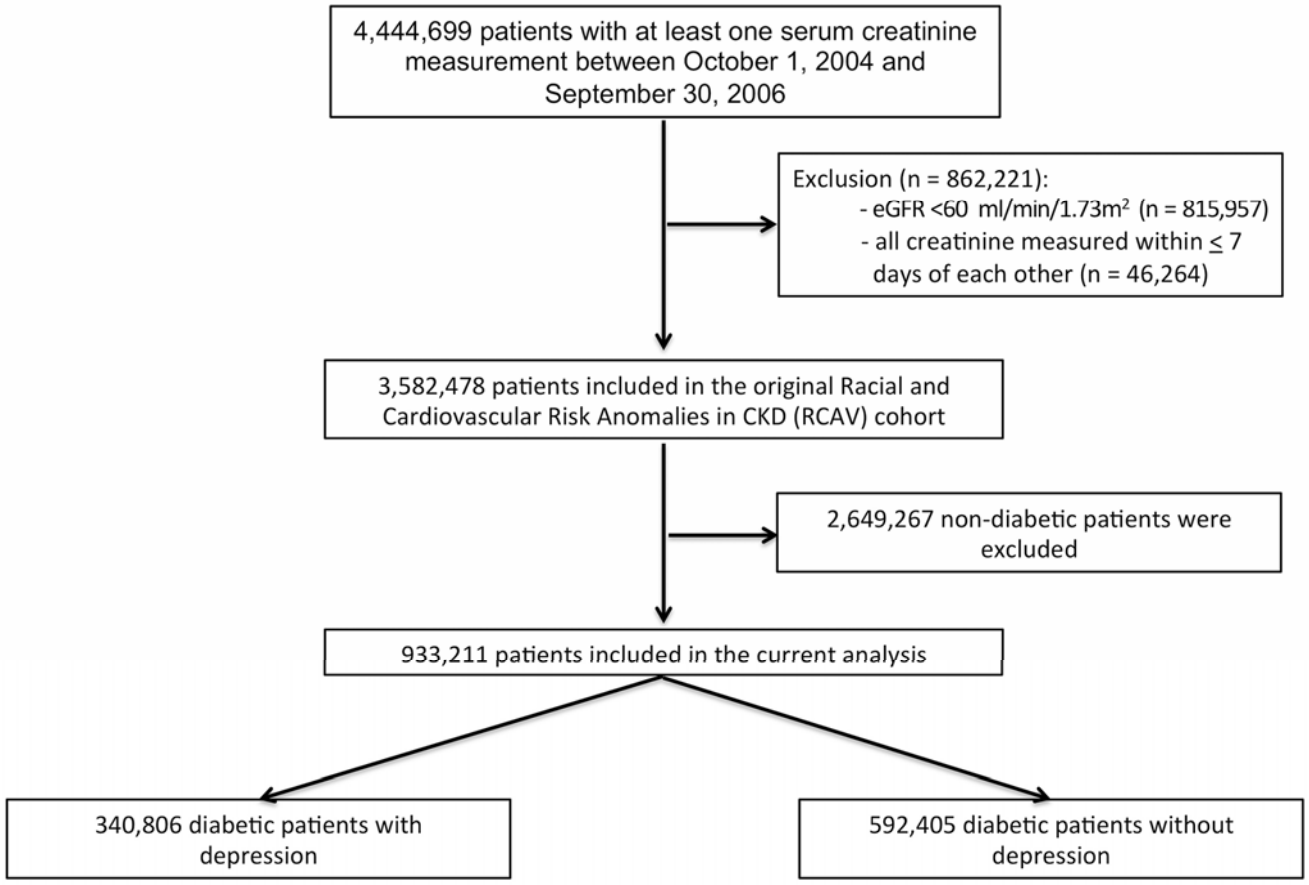
SUPPLEMENTARY DATA

Supplementary Figure S1. Cohort definition flow chart.



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Supplementary Table S1. Baseline characteristics of study population grouped according to having developed incident CKD during the follow-up or not

	Total population (933,211)	Incident CKD (n=180,343)	No incident CKD (n=750,325)
Age (years)	64±11	65±10	63±11
Gender (male) n (%)	901,958 (97)	175,877 (98)	723,652(96)
Baseline eGFR (ml/min./1.73m^2)	82±15	78±13	83±15
BMI (kg/m^2)	31±5	31±5	31±5
Serum albumin (g/L)	40.2±4.5	39.4±4.7	40.4±4.4
Income (USD)	23,389 (12,354-34,263)	22,708 (12,635- 32,885)	23,586 (12,295-34,820)
Race n (%):			
White	663,394 (77)	132,423 (77)	530,971 (77)
African-American	152,954 (18)	30,870 (18)	122,084 (18)
Hispanic	25,441 (3)	4,871 (3)	20,570 (3)
Other Race	19,770 (2)	3,511 (2)	16,259 (2)
Marital status:			
Married	540,202 (60)	100,468 (57)	439,734(61)
Single	67,645 (8)	11,834 (7)	55,811 (8)
Divorced	210,805 (23)	42,396 (24)	168,409 (23)

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Widow	79,480 (9)	19,706 (11)	59,774 (8)
Service connection	400,064 (43)	77,423 (43)	322,641 (43)
Comorbidities n (%):			
Cardiovascular Disease	167,292 (18)	44,964 (25)	122,328 (16)
CHF	77,493 (8)	27,592 (15)	49,901 (7)
Hypertension	748,136 (80)	161,656 (90)	586,480 (78)
Cerebrovascular Disease	82,809 (9)	22,509 (12)	60,300 (8)
Peripheral Arterial Disease	87,418 (9)	26,777 (15)	60,641 (8)
Chronic Lung Disease	184,268 (19)	41,497 (23)	142,771 (19)
Dementia	10,191 (1)	2,168 (1)	8,023(1)
Rheumatologic Disease	13,065 (1)	3,125 (2)	8,023 (1)
Peptic Ulcer	18,593 (2)	4,567 (3)	14,026 (2)
Mild/Severe liver disease	15,235 (2)	3,738 (2)	11,497 (2)
Hemiplegia	4,995 (0.5)	1,115 (0.6)	3,880 (0.5)
All malignancies	107,451 (12)	24,470 (14)	82,981 (11)
AIDS/HIV	3,462 (0.4)	920 (0.5)	2,542 (0.3)
Post-Traumatic Stress Disorder (PTSD)	96,804 (10)	19,633 (11)	77,171 (10)
Statin use	191,070 (21)	41,285 (23)	149, 785 (20)
Anti-hypertensive medication use	516,384 (55)	113,724 (63)	402,660 (54)

Abbreviations: eGFR = estimated glomerular filtration rate; BMI = Body Mass Index; USD = US dollars; CHF = congestive heart failure;

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Supplementary Table S2. Predictors of Depression using logistic regression analysis

	Odds Ratio	(95% confidence interval of Odds ratio)
Age (+10 year)	0.95	(0.95 - 0.96)
Gender: female vs male (ref.)	1.62	(1.57 - 1.66)
Race:		
White (ref.)	1	N/A
African-American	0.7	(0.69 - 0.71)
Hispanic	1.01	(0.98 - 1.03)
Other Race	0.77	(0.75 - 0.8)
Income (+1 log)	0.92	(0.91 - 0.92)
Unmarried Yes vs NO	1.09	(1.08 - 1.1)
Baseline eGFR (+10 ml/min./1.73m^2)	1	(1 - 1)
Presence of Cardiovascular Disease vs absence of Cardiovascular Disease (ref.)	1.2	(1.18 - 1.21)
Presence of Congestive Heart Failure vs absence of Congestive Heart Failure (ref.)	1.28	(1.25 - 1.3)
Presence of CVD vs absence of CVD (ref.)	1.45	(1.42 - 1.47)
Presence of Peripheral Arterial Disease vs absence of Peripheral Arterial Disease (ref.)	1.29	(1.27 - 1.31)
Presence of Chronic Lung Disease vs absence of Chronic Lung Disease (ref.)	1.69	(1.67 - 1.71)
Presence of dementia vs absence of dementia (ref.)	4.11	(3.92 - 4.31)
Presence of Rheumatologic Disease vs absence of Rheumatologic Disease (ref.)	1.36	(1.31 - 1.42)
Presence of malignancy vs absence of malignancy (ref.)	1.21	(1.19 - 1.23)

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Presence of AIDS/HIV vs absence of AIDS/HIV (ref.)	1.39	(1.29 - 1.5)
Presence of Hypertension vs absence of Hypertension (ref.)	1.18	(1.17 - 1.2)
Body mass index (+1 kg/m^2)	0.99	(0.99 - 1)
Albumin (+1 g/dl)	0.75	(0.74 - 0.76)

Abbreviations: eGFR = estimated glomerular filtration rate; CVD = cardiovascular disease;

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Supplementary Table S3. Sensitivity analyses assessing the association between baseline depression and mortality, incident stroke and CHD separately in patients who maintained eGFR ≥60 $mL \cdot min^{-1} \cdot 1.73\ m^{-2}$ versus in patients who developed incident CKD during the follow-up period.

Outcome	**Patients who maintained eGFR ≥60 $mL \cdot min^{-1} \cdot 1.73\ m^{-2}$ during the follow-up period** **Hazard Ratio (95% CI)**	**Patients who developed incident CKD during the follow-up period** **Hazard Ratio (95% CI)**
Mortality	1.32 (1.31, 1.34)	1.15 (1.12, 1.17)
Incident coronary heart disease	1.21 (1.18, 1.25)	1.05 (1.01, 1.09)
Incident stroke	1.34 (1.29, 1.39)	1.20 (1.14, 1.26)

The models were adjusted for the following covariates: age, gender, race/ethnicity, marital status, baseline eGFR, comorbidities at baseline (hypertension, cardiovascular disease, congestive heart failure, cerebrovascular disease, peripheral vascular disease, lung disease, dementia, rheumatic disease, malignancy, HIV/AIDS and Post-Traumatic Stress Disorder) and the use of statins or anti-hypertensive medications, body mass index and serum albumin level.

Abbreviations: **coronary heart disease** = coronary heart disease; eGFR = estimated glomerular filtration rate; CKD = chronic kidney disease; CI = confidence interval

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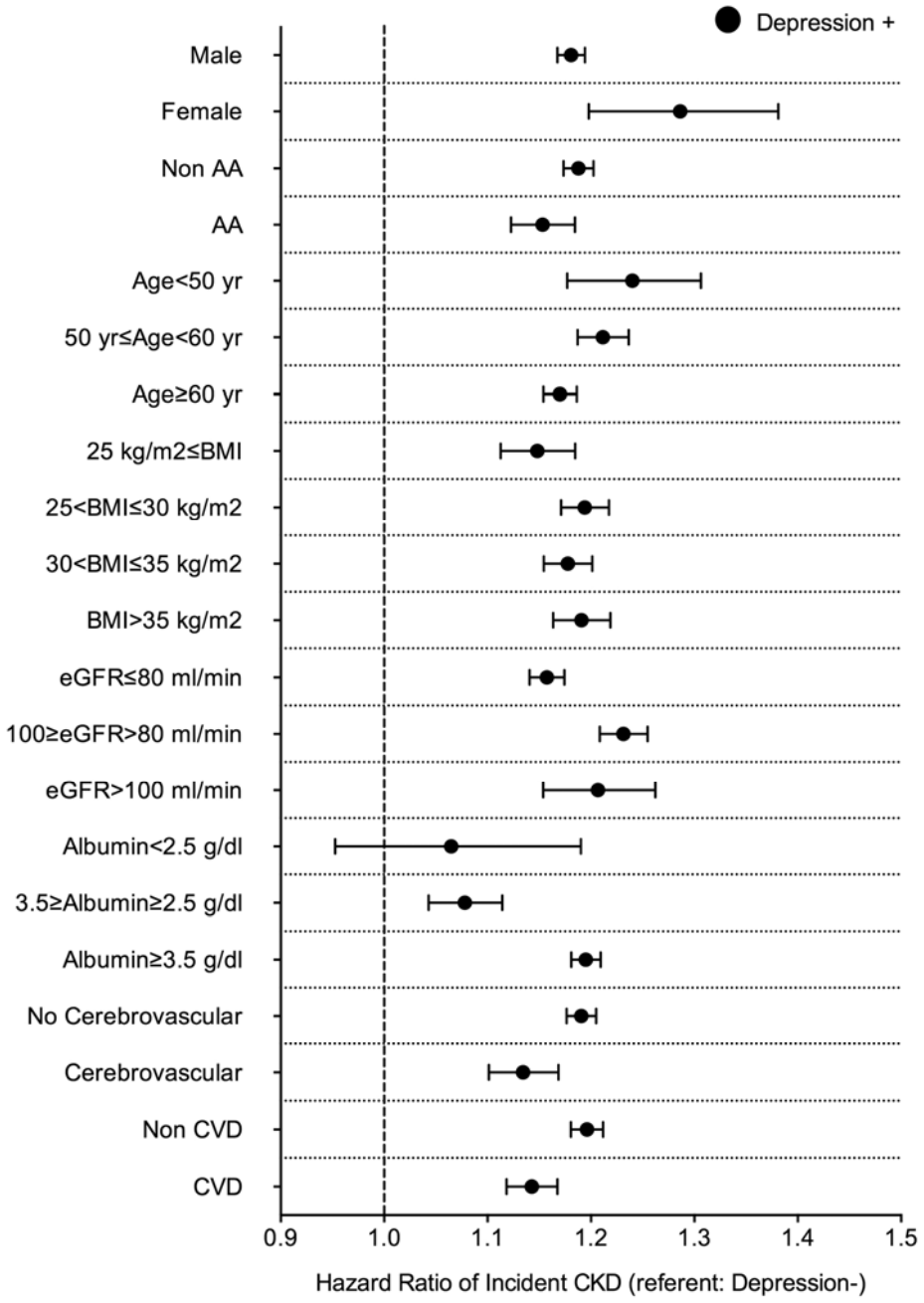
Supplementary Figure S2. Multivariable adjusted associations between incident CKD and the presence of depression at baseline compared to those without depression in pre-defined subgroups of the study cohort. The models were adjusted for the following covariates: age, gender, race/ethnicity, marital status, baseline eGFR, comorbidities at baseline (hypertension, cardiovascular disease, congestive heart failure, cerebrovascular disease, peripheral vascular disease, lung disease, dementia, rheumatic disease, malignancy, HIV/AIDS and Post-Traumatic Stress Disorder) and the use of statins or anti-hypertensive medications, body mass index and serum albumin level. Abbreviations: AA = African American; yr = year; BMI = Body Mass Index; eGFR /= estimated Glomerular Filtration Rate; No cerebrovascular = no cerebrovascular disease at baseline; Cerebrovascular = cerebrovascular disease is present at baseline; Non CVD = no cardiovascular disease at baseline; CVD = Cardiovascular Disease is present at baseline.



SUPPLEMENTARY DATA

Supplementary Figure S3. Multivariable adjusted associations between all-cause mortality and the presence of depression at baseline compared to those without depression in pre-defined subgroups of the study cohort. The models were adjusted for the following covariates: age, gender, race/ethnicity, marital status, baseline eGFR, comorbidities at baseline (hypertension, cardiovascular disease, congestive heart failure, cerebrovascular disease, peripheral vascular disease, lung disease, dementia, rheumatic disease, malignancy, and HIV/AIDS and Post-Traumatic Stress Disorder) and the use of statins or anti-hypertensive medications, body mass index and serum albumin level. Abbreviations: AA = African American; yr = year; BMI = Body Mass Index; eGFR /= estimated Glomerular Filtration Rate; No cerebrovascular = no cerebrovascular disease at baseline; Cerebrovascular = cerebrovascular disease is present at baseline; Non CVD = no cardiovascular disease at baseline; CVD = Cardiovascular Disease is present at baseline.