

Appendix E. Trends in prevalence of diabetic renal disease markers in U.S. adults aged ≥ 18 years by prediabetes definitions, NHANES 1988 to 2014

	1988-1994	1999-2004	2005-2010	2011-2014	Δ from 88-94 to 11-14	P for trend
Any CKD						
FPG 100-125mg/dl or A1c 5.7-6.4%	12.4 (10.6-14.4)	13.1 (11.4-15.1)	12.4 (10.9-14.2)	11.4 (9.9-13.1)	-1.0 (-3.4, 1.4)	0.353
FPG 110-125mg/dl or A1c 5.7-6.4%	13.5 (11.3-16.0)	13.6 (11.6-16.0)	12.2 (10.7-13.9)	11.7 (9.8-13.8)	-1.8 (-4.7, 1.1)	0.138
FPG 110-125mg/dl or A1c 6.0-6.4%	12.0 (10.0-14.4)	13.7 (10.8-17.2)	13.8 (11.7-16.2)	12.7 (10.1-16.0)	0.7 (-2.8, 4.2)	0.676
FPG 100-125mg/dl and A1c 5.7-6.4%	14.4 (11.8-17.4)	13.3 (10.7-16.4)	12.5 (10.1-15.5)	11.8 (9.2-15.0)	-2.6 (-6.5, 1.3)	0.181
ACR\geq30						
FPG 100-125mg/dl or A1c 5.7-6.4%	9.3 (7.7-11.2)	9.1 (7.8-10.6)	8.9 (7.7-10.3)	7.7 (6.8-8.8)	-1.6 (-3.6, 0.4)	0.118
FPG 110-125mg/dl or A1c 5.7-6.4%	9.9 (7.8-12.4)	9.7 (7.9-11.8)	8.8 (7.5-10.3)	7.8 (6.5-9.2)	-2.1 (-4.6, 0.4)	0.074
FPG 110-125mg/dl or A1c 6.0-6.4%	9.5 (7.6-11.8)	8.8 (6.7-11.6)	11.1 (9.0-13.6)	8.9 (6.7-11.7)	-0.6 (-3.7, 2.5)	0.960
FPG 100-125mg/dl and A1c 5.7-6.4%	10.1 (7.5-13.4)	9.2 (7.1-11.9)	9.8 (7.8-12.3)	7.5 (5.6-9.9)	-2.6 (-6.1, 0.9)	0.200
eGFR$<$60						
FPG 100-125mg/dl or A1c 5.7-6.4%	4.7 (3.9-5.5)	5.7 (4.7-6.9)	5.0 (4.3-5.9)	4.6 (3.7-5.9)	0.0 (-1.4, 1.4)	0.769
FPG 110-125mg/dl or A1c 5.7-6.4%	5.3 (4.3-6.4)	5.4 (4.2-6.9)	5.0 (4.2-5.9)	4.6 (3.5-6.0)	-0.7 (-2.3, 0.9)	0.298
FPG 110-125mg/dl or A1c 6.0-6.4%	5.0 (3.7-6.7)	6.2 (4.6-8.3)	4.9 (4.1-5.9)	4.6 (3.6-5.8)	-0.4 (-2.2, 1.4)	0.355
FPG 100-125mg/dl and A1c 5.7-6.4%	6.5 (5.0-8.4)	5.8 (4.2-8.0)	4.5 (3.4-6.0)	4.8 (3.3-6.9)	-1.7 (-4.1, 0.7)	0.113
Hyperfiltration						
FPG 100-125mg/dl or A1c 5.7-6.4%	5.2 (3.9-6.9)	3.3 (2.4-4.4)	3.8 (3.0-4.8)	4.3 (3.2-5.7)	-0.9 (-2.9, 1.1)	0.500
FPG 110-125mg/dl or A1c 5.7-6.4%	5.1 (3.7-7.2)	3.8 (2.7-5.2)	3.4 (2.8-4.1)	4.1 (3.2-5.4)	-1.0 (-3.0, 1.0)	0.269
FPG 110-125mg/dl or A1c 6.0-6.4%	4.9 (3.0-8.1)	4.4 (3.1-6.4)	3.4 (2.4-4.8)	3.4 (2.2-5.3)	-1.5 (-4.5, 1.5)	0.198
FPG 100-125mg/dl and A1c 5.7-6.4%	3.1 (1.9-5.0)	3.4 (1.8-6.3)	3.5 (2.5-4.8)	5.2 (3.4-7.7)	2.1 (-0.6, 4.8)	0.112

NHANES, National Health and Nutrition Examinations Surveys; yr, year; FPG, fasting plasma glucose; A1c, glycated hemoglobin; ACR, albumin-creatinine ratio; eGFR, estimated glomerular filtration rate

Any CKD refers to either of: urine ACR \geq 30 and/or eGFR $<$ 60; Hyperfiltration defined as GFR \geq 135 ml/min/1.73m²

All analyses adjusted for age, sex, and race/ethnicity

P for trend: Calculated for each glycemic status group by including a continuous variable for the midpoint of each survey period in logistic regression models; significant values indicated variation over time *within* glycemic groups

P for interaction: significant P-values indicated varying associations between prevalence estimates over time *across* glycemic groups