

SUPPLEMENTARY DATA

Supplementary Table 1. Distribution of CKD Phenotypes in the U.S. Population with Diabetes by Time Period

	1988-1994 Population =13.2 million+	1999-2002 Population=16.0 million	2003-2006 Population=19.7 million	2007-2010 Population=23.8 million
	Population Estimate in millions(95% CI)	Population estimate in millions (95% CI)	Population estimate in millions (95% CI)	Population estimate in millions (95% CI)
eGFR ≥ 90 ml/min/1.73 m²				
ACR < 30 mg/g	4.9 (4.2,5.5)	4.6 (3.9, 5.2)	6.2 (5.2, 7.2)	8.8 (7.6,10.0)
ACR 30-299 mg/g	1.2 (0.9,1.5)	1.9 (1.4, 2.5)	1.9 (1.5, 2.3)	1.9 (1.5, 2.3)
ACR ≥300 mg/g	0.3 (0.1, 0.4)	0.4 (0.1, 0.6)	0.3 (0.4, 0.4)	0.2 (0.1, 0.3)
eGFR 60-89 ml/min/1.73 m²				
ACR < 30 mg/g	3.4 (2.8, 4.0)	5.0 (4.3, 5.8)	5.8 (4.3, 7.3)	6.6 (5.8, 7.4)
ACR 30-299 mg/g	1.5 (1.2,1.7)	1.1 (0.9, 1.4)	1.7 (1.2, 2.2)	1.7 (1.1, 2.2)
ACR ≥ 300 mg/g	0.3 (0.2,0.4)	0.4 (0.2, 0.5)	0.3 (0.1, 0.5)	0.6 (0.5, 0.8)
eGFR < 60 ml/min/1.73 m²				
ACR < 30 mg/g	0.9 (0.7,1.1)	1.3 (0.9, 1.8)	2.0 (1.5, 2.6)	2.4 (1.9, 2.9)
ACR 30-299 mg/g	0.6 (0.4,0.8)	0.7 (0.5, 0.9)	1.0 (0.7,1.4)	1.2 (1.0, 1.4)
ACR ≥ 300 mg/g	0.3 (0.2, 0.4)	0.6 (0.3, 0.8)	0.5 (0.3, 0.6)	0.4 (0.2, 0.7)

ACR = albumin-to-creatinine ratio; eGFR = estimated glomerular filtration rate(1); +Due to rounding errors in population estimates for each CKD phenotype during years 1988-1994, the sum of population estimates for each CKD phenotype overestimate the total population by 0.2 million

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Supplementary Table 2. Prevalence of CKD phenotypes by time period in U.S. population with diabetes

	1988-1994	1999-2002	2003-2006	2007-2010
	% Population with Diabetes (sampled persons)	% Population with Diabetes (sampled persons)	% Population with Diabetes (sampled persons)	% Population with Diabetes (sampled persons)
eGFR \geq 90 ml/min/1.73 m²				
ACR < 30 mg/g	36.8 (657)	28.6 (296)	31.7 (332)	37.0 (579)
ACR 30-299 mg/g	9.0 (182)	12.1 (125)	9.6 (99)	7.9 (159)
ACR \geq 300 mg/g	2.0 (46)	2.2 (23)	1.3 (24)	1.0 (29)
eGFR 60-89 ml/min/1.73 m²				
ACR < 30 mg/g	25.9 (427)	31.5 (301)	29.4 (315)	27.6 (482)
ACR 30-299 mg/g	11.0 (181)	7.0 (91)	9.6 (125)	6.9 (134)
ACR \geq 300 mg/g	2.2 (63)	2.2 (34)	1.5 (17)	2.6 (55)
eGFR < 60 ml/min/1.73 m²				
ACR < 30 mg/g	6.6 (63)	8.3 (95)	10.3 (131)	10.1 (191)
ACR 30-299 mg/g	4.3 (83)	4.5 (55)	5.2 (78)	5.1 (116)
ACR \geq 300 mg/g	2.2 (60)	3.5 (47)	2.3 (39)	1.9 (36)

ACR = albumin-to-creatinine ratio; eGFR = estimated glomerular filtration rate(1);

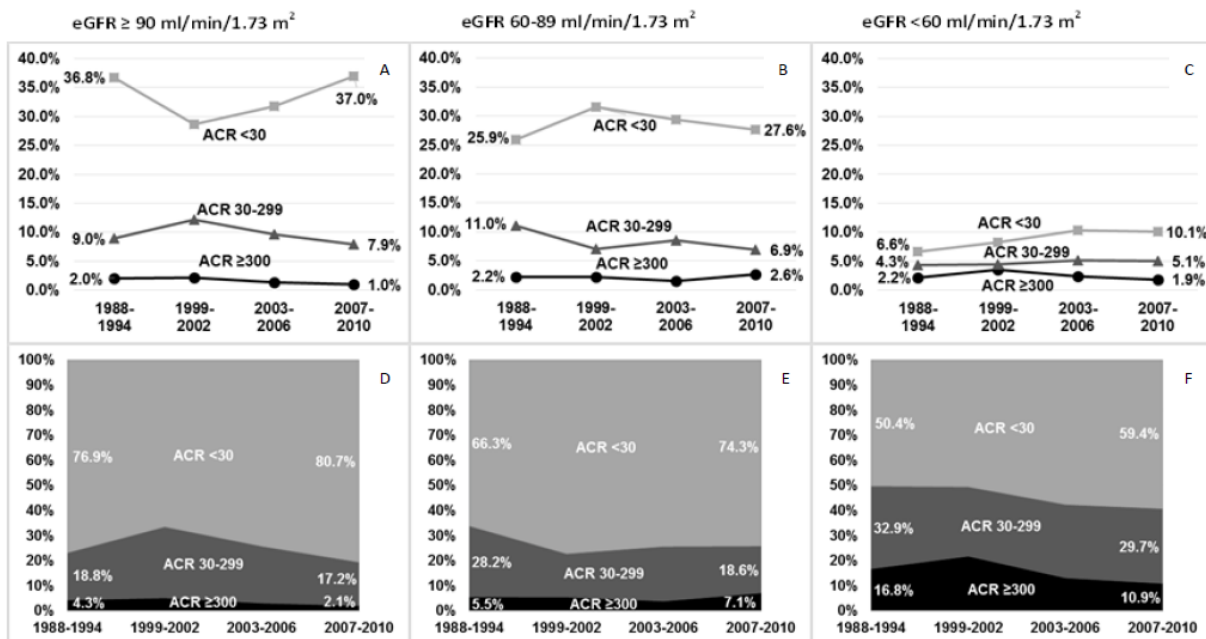
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Supplementary Table 3. Cox proportional hazard models for temporal differences in five-year death rates in U.S. adults with diabetes and estimated glomerular filtration rate <60 ml/min/1.73 m² and albumin-to-creatinine ratio <30 mg/g

	Unadjusted	Model 1	Model 2	Model 3
1988-1994	Reference	Reference	Reference	Reference
1999-2002	1.53 (0.75, 3.09)	1.58 (0.79, 3.18)	1.66 (0.81, 3.39)	1.25 (0.55, 2.48)
2003-2006	1.47 (0.75, 2.88)	1.80 (0.94, 3.44)	1.78 (0.85, 3.74)	1.28 (0.47, 3.48)

Model 1 – Adjusted for age, gender, and race; Model 2 - Model 1 + history of myocardial infarction, heart failure, hypertension, lung disease and cancer; Model 3 - Model 2 + use of angiotensin converting enzyme inhibitors, angiotensin receptor blockers and statin medications

Supplementary Figure 1. Panel A (eGFR ≥ 90 ml/min/1.73 m²), B (eGFR 60-89 ml/min/1.73 m²), and C (eGFR < 60 ml/min/1.73 m²) are stacked plots which show the percentage of ACR subgroups within the eGFR group. eGFR = estimated glomerular filtration rate(1)



References

- Inker LA, Schmid CH, Tighiouart H, Eckfeldt JH, Feldman HI, Greene T, Kusek JW, Manzi J, Van Lente F, Zhang YL, Coresh J, Levey AS, CKD-EPI I. Estimating glomerular filtration rate from serum creatinine and cystatin C. N Engl J Med 2012 Jul 5;367(1):20-29