

Supplementary Online Content

Menke A, Casagrande S, Geiss L, Cowie CC. Prevalence of and trends in diabetes among adults in the United States, 1988-2012. *JAMA*. doi:10.1001/jama.2015.10029

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Weighted prevalence (95% confidence interval) of total, diagnosed, and undiagnosed diabetes and prediabetes (A1c/FPG/2HPG definition) per 100 adults ≥20 years of age, United States, 2011-2012, N=2,623

	Total diabetes	Diagnosed diabetes†	Undiagnosed diabetes‡	Percent undiagnosed	Prediabetes§	Mean body mass index, kg/m²
Overall	14.3 (12.2-16.8)	9.1 (7.8-10.6)	5.2 (4.0-6.9)	36.4 (30.5-42.7)	38.0 (34.7-41.3)	28.7 (28.3-29.2)
Age Group	p<0.001	p<0.001	p<0.001	p=0.08	p<0.001	p=0.007
20-44 years of age	5.0 (3.8-6.7)	2.7 (2.0-3.6)	2.4 (1.6-3.6)	47.0 (37.1-57.0)	28.2 (24.4-32.4)	28.1 (27.6-28.6)
45-64 years of age	17.5 (14.4-21.0)	11.6 (9.5-14.0)	5.8 (4.0-8.5)	33.5 (25.0-43.3)	44.9 (37.6-52.4)	29.5 (28.8-30.3)
≥65 years of age	33.0 (27.1-39.4)	21.3 (18.1-24.9)	11.6 (8.3-16.1)	35.3 (28.8-42.4)	49.5 (43.4-55.6)	28.5 (27.7-29.2)
Sex	p=0.66	p=0.54	p=0.90	p=0.91	p=0.20	p=0.07
Men	14.7 (12.0-17.7)	9.4 (8.2-10.7)	5.3 (3.5-7.8)	36.1 (28.1-44.9)	39.8 (35.6-44.1)	28.5 (28.0-29.0)
Women	14.0 (11.6-16.9)	8.9 (7.2-10.9)	5.1 (3.7-7.1)	36.7 (28.9-45.2)	36.3 (32.0-40.8)	28.9 (28.4-29.4)
Race-ethnicity 	p<0.001	p<0.001	p=0.09	p=0.006	p=0.01	p<0.001
Non-Hispanic White	12.0 (9.4-15.3)	8.0 (6.6-9.7)	4.0 (2.4-6.7)	33.5 (23.6-45.0)	39.1 (34.8-43.5)	28.5 (27.9-29.1)
Non-Hispanic Black	19.9 (16.0-24.4)	13.5 (11.8-15.4)	6.4 (4.2-9.7)	32.3 (25.3-40.1)	39.3 (33.1-45.8)	30.9 (30.3-31.4)
Non-Hispanic Asian	18.0 (13.0-24.4)	8.7 (6.3-11.8)	9.3 (6.0-14.2)	51.9 (41.7-62.0)	31.8 (28.2-35.6)	24.5 (24.0-25.0)
All Hispanic	17.7 (13.5-22.9)	9.4 (6.7-13.0)	8.3 (6.2-10.9)	46.7 (38.9-54.6)	34.5 (30.2-39.2)	29.5 (29.0-30.0)
Mexican-American	17.0 (11.8-23.7)	9.2 (6.2-13.6)	7.7 (5.5-10.8)	45.7 (39.4-52.1)	34.4 (27.3-42.3)	29.9 (29.1-30.7)

All relative standard errors <30%

P-values are from F-tests for overall differences by age, sex, or race-ethnicity

†Diagnosed diabetes is based on self-report of a previous diagnosis by a health care provider

‡Undiagnosed diabetes based on A1c ≥6.5%, fasting plasma glucose ≥126 mg/dL, or 2-hour plasma glucose ≥200 mg/dL in adults without diagnosed diabetes

§Prediabetes based on A1c 5.7-6.4%, fasting plasma glucose 100-125 mg/dL, or 2-hour plasma glucose 140-199 mg/dL (and does not have diagnosed or undiagnosed diabetes)

||Participants self-reporting other race-ethnic groups were included in other data presented in the table

eTable 2. Weighted prevalence (95% confidence interval) of total, diagnosed, and undiagnosed diabetes and prediabetes (A1c/FPG definitions) per 100 adults ≥20 years of age, United States, 2011-2012, N=2,781

	Total diabetes	Diagnosed diabetes†	Undiagnosed diabetes‡	Percent undiagnosed	Prediabetes§	Mean body mass index, kg/m²
Overall	12.3 (10.8-14.1)	9.2 (8.0-10.7)	3.1 (2.5-3.9)	25.2 (21.1-29.8)	36.5 (33.2-40.0)	28.7 (28.3-29.2)
Age Group	p<0.001	p<0.001	p=0.004	p<0.001	p<0.001	p=0.007
20-44 years of age	4.5 (3.5-5.8)	2.7 (2.0-3.6)	1.8 (1.2-2.7)	40.2 (29.5-51.9)	25.1 (21.5-29.0)	28.1 (27.6-28.6)
45-64 years of age	16.2 (13.4-19.6)	11.9 (9.8-14.3)	4.4 (3.1-6.2)	26.9 (21.0-33.9)	42.2 (36.3-48.4)	29.5 (28.8-30.3)
≥65 years of age	24.7 (21.6-28.1)	20.9 (17.9-24.3)	3.8 (2.6-5.6)	15.5 (10.7-22.0)	54.6 (49.3-59.9)	28.5 (27.7-29.2)
Sex	p=0.30	p=0.66	p=0.31	p=0.40	p=0.13	p=0.07
Men	13.0 (11.0-15.2)	9.4 (8.2-10.7)	3.6 (2.5-5.1)	27.5 (21.1-34.9)	38.7 (34.4-43.1)	28.5 (28.0-29.0)
Women	11.7 (9.9-13.9)	9.1 (7.4-11.0)	2.7 (1.9-3.8)	22.8 (16.3-31.0)	34.5 (30.3-39.0)	28.9 (28.4-29.4)
Race-ethnicity 	p<0.001	p<0.001	p=0.005	p=0.002	p=0.09	p<0.001
Non-Hispanic White	10.1 (8.5-12.0)	8.1 (6.7-9.7)	2.0 (1.4-3.0)	20.0 (14.4-27.2)	37.3 (33.1-41.6)	28.5 (27.9-29.1)
Non-Hispanic Black	19.1 (15.6-23.2)	13.9 (12.1-16.0)	5.2 (3.2-8.3)	27.1 (19.4-36.5)	38.3 (32.4-44.7)	30.9 (30.3-31.4)
Non-Hispanic Asian	14.5 (11.1-18.7)	8.7 (6.3-11.9)	5.8 (4.1-8.1)	39.8 (30.6-49.8)	30.5 (25.0-36.5)	24.5 (24.0-25.0)
All Hispanic	14.8 (11.5-18.9)	9.6 (6.9-13.2)	5.2 (3.8-7.2)	35.3 (26.2-45.5)	34.6 (30.1-39.4)	29.5 (29.0-30.0)
Mexican-American	14.5 (10.6-19.5)	9.6 (6.4-14.3)	4.8 (3.5-6.7)	33.5 (24.0-44.6)	34.5 (27.8-41.9)	29.9 (29.1-30.7)

All relative standard errors <30%

P-values are from F-tests for overall differences by age, sex, or race-ethnicity

†Diagnosed diabetes is based on self-report of a previous diagnosis by a health care provider

‡Undiagnosed diabetes based on A1c ≥6.5% or fasting plasma glucose ≥126 mg/dL in adults without diagnosed diabetes

§Prediabetes based on A1c 5.7-6.4% or fasting plasma glucose 100-125 mg/dL (and does not have diagnosed or undiagnosed diabetes)

||Participants self-reporting other race-ethnic groups were included in other data presented in the table

eTable 3. Weighted prevalence (95% confidence interval) of total† diabetes (A1c/FPG definition) over time per 100 adults ≥20 years of age, United States, 1988-2012

	1988-1994 N=8,478	1999-2000 N=2,168	2001-2002 N=2,479	2003-2004 N=2,299	2005-2006 N=2,191	2007-2008 N=2,901	2009-2010 N=3,118	2011-2012 N=2,781	P-trend
Overall	8.6 (7.8-9.4)	8.8 (7.6-10.0)	10.0 (8.9-11.1)	11.2 (9.9-12.5)	10.8 (9.2-12.3)	12.4 (10.7-14.2)	12.1 (10.5-13.7)	12.3 (10.8-14.1)	<0.001
Age Group									
20-44 years of age	2.7 (2.1-3.4)	2.9 (1.4-4.4)	3.8 (2.6-5.0)	3.5 (2.4-4.6)	4.2 (3.2-5.2)	3.7 (2.7-4.6)	3.3 (2.6-4.1)	4.5 (3.5-5.8)	0.01
45-64 years of age	13.3 (11.9-14.8)	13.1 (10.8-15.4)	12.6 (9.9-15.2)	14.6 (12.3-16.8)	12.9 (10.1-15.7)	15.5 (12.0-19.0)	15.8 (12.0-19.6)	16.2 (13.4-19.6)	0.02
≥65 years of age	20.5 (18.3-22.6)	20.6 (16.7-24.5)	25.1 (22.3-27.8)	26.7 (21.6-31.8)	23.7 (19.6-27.8)	29.3 (26.2-32.4)	27.0 (23.4-30.5)	24.7 (21.6-28.1)	<0.001
Sex									
Men	8.7 (7.8-9.6)	9.0 (7.8-10.3)	11.0 (9.3-12.6)	11.9 (10.2-13.5)	10.7 (8.6-12.8)	13.0 (11.3-14.7)	13.8 (11.2-16.4)	13.0 (11.0-15.2)	<0.001
Women	8.5 (7.5-9.6)	8.6 (7.1-10.1)	9.0 (7.8-10.3)	10.5 (9.2-11.7)	10.8 (8.8-12.9)	11.9 (9.6-14.1)	10.4 (9.3-11.5)	11.7 (9.9-13.9)	<0.001
Race-ethnicity†									
Non-Hispanic White	8.0 (7.1-9.0)	8.0 (6.8-9.3)	8.7 (7.8-9.7)	10.4 (8.9-11.9)	9.5 (7.6-11.4)	11.4 (8.7-14.0)	10.7 (8.6-12.9)	10.1 (8.5-12.0)	<0.001
Non-Hispanic Black	12.3 (11.3-13.3)	12.7 (10.5-14.8)	14.2 (10.7-17.7)	13.9 (11.8-16.0)	17.0 (14.3-19.7)	19.9 (16.6-23.3)	16.6 (15.1-18.0)	19.1 (15.6-23.2)	<0.001
Mexican-American	9.4 (8.6-10.3)	8.5 (6.3-10.7)	9.4 (7.8-11.1)	11.1 (7.5-14.6)	13.3 (10.2-16.4)	11.8 (10.6-13.0)	14.7 (11.2-18.3)	14.5 (10.6-19.5)	<0.001
Education									
<High school education	15.3	15.1	17.3	17.6	16.4	19.4	18.3	19.5	

	(13.9-16.8)	(11.8-18.5)	(15.3-19.3)	(14.6-20.6)	(13.1-19.7)	(17.0-21.8)	(15.7-21.0)	(15.3-23.6)	0.005
High school education	8.1	9.5	9.3	10.4	13.0	15.0	11.9	15.9	
	(6.9-9.3)	(6.9-12.1)	(7.4-11.2)	(8.4-12.5)	(9.2-16.7)	(11.5-18.5)	(8.5-15.2)	(12.9-18.9)	<0.001
>High school education	5.1	5.4	7.6	9.3	8.1	8.9	10.1	9.2	
	(4.0-6.1)	(3.9-6.9)	(6.1-9.1)	(7.8-10.9)	(6.5-9.7)	(7.3-10.5)	(8.3-11.9)	(7.6-10.9)	<0.001
PIR Tertile									
Lowest tertile of PIR	10.9	12.0	12.3	13.4	15.2	16.7	12.9	16.1	
	(9.8-12.1)	(10.1-14.0)	(10.1-14.4)	(11.3-15.5)	(12.2-18.1)	(13.8-19.7)	(10.8-15.1)	(14.2-17.9)	<0.001
Middle tertile of PIR	7.5	9.2	9.4	10.8	10.5	10.5	12.4	11.7	
	(6.4-8.5)	(7.2-11.2)	(7.6-11.2)	(8.8-12.8)	(7.2-13.8)	(8.6-12.4)	(10.1-14.7)	(8.8-14.5)	<0.001
Highest tertile of PIR	6.9	4.8	6.8	8.6	7.1	9.7	10.2	8.6	
	(5.4-8.3)	(3.2-6.5)	(5.0-8.5)	(6.1-11.2)	(5.8-8.3)	(7.5-11.9)	(7.4-13.0)	(5.6-11.7)	0.004

PIR, poverty index ratio

All relative standard errors <30%

†Diabetes based on previous diagnosis, A1c \geq 6.5% and fasting plasma glucose \geq 126 mg/dL

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

eTable 4. Age-standardized* weighted prevalence (95% confidence interval) of diagnosed diabetes† per 100 adults over time in the US general population, 1988-2012

	1988-1994 N=8,478	1999-2000 N=2,168	2001- 2002 N=2,479	2003- 2004 N=2,299	2005- 2006 N=2,191	2007- 2008 N=2,901	2009- 2010 N=3,118	2011- 2012 N=2,781	P- trend
Overall	5.9 (5.5-6.3)	6.7 (5.7-7.7)	7.2 (6.3-8.0)	8.2 (7.1-9.3)	8.0 (7.1-8.9)	8.8 (7.3-10.3)	8.6 (7.6-9.5)	9.2 (8.2-10.1)	<0.001
Age Group									
20-44 years of age	1.6 (1.1-2.1)	1.7 (1.1-2.3)	2.8 (1.8-3.8)	2.2 (1.6-2.8)	2.9 (2.0-3.9)	2.4 (1.8-3.0)	2.2 (1.6-2.9)	2.8 (2.0-3.5)	0.005
45-64 years of age	7.9 (7.0-8.8)	8.7 (7.0-10.4)	8.8 (7.0-10.6)	10.4 (8.5-12.4)	10.1 (8.4-11.8)	11.5 (8.9-14.0)	10.8 (9.0-12.7)	11.7 (10.0-13.5)	<0.001
≥65 years of age	12.8 (11.6-14.0)	15.3 (13.1-17.6)	15.2 (13.7-16.7)	19.0 (15.6-22.4)	16.8 (15.1-18.6)	19.9 (16.7-23.0)	20.1 (17.6-22.5)	20.3 (17.5-23.1)	<0.001
Sex									
Men	5.9 (5.4-6.4)	7.1 (5.7-8.5)	7.6 (6.5-8.6)	8.3 (6.9-9.6)	7.6 (6.2-9.0)	8.9 (7.7-10.1)	9.3 (7.6-10.9)	9.7 (8.7-10.7)	<0.001
Women	5.9 (5.3-6.6)	6.3 (5.0-7.5)	6.7 (5.6-7.8)	8.2 (7.0-9.3)	8.4 (7.0-9.8)	8.7 (6.5-10.9)	7.9 (7.1-8.7)	8.7 (7.3-10.1)	<0.001
Race-ethnicity‡									
Non-Hispanic White	5.4 (4.8-5.9)	5.2 (4.0-6.4)	5.8 (5.1-6.5)	7.1 (6.0-8.2)	6.3 (5.3-7.2)	7.6 (5.6-9.5)	6.8 (5.6-8.0)	7.4 (6.4-8.5)	<0.001
Non-Hispanic Black	9.4 (8.5-10.4)	13.0 (11.0-14.9)	11.2 (9.0-13.5)	12.8 (10.6-15.0)	14.3 (12.7-15.9)	16.2 (14.5-17.9)	14.7 (12.7-16.6)	15.1 (13.3-16.9)	<0.001
Mexican-American	10.6 (9.4-11.7)	10.2 (8.1-12.4)	12.3 (10.8-13.8)	12.5 (10.2-14.8)	14.0 (11.3-16.6)	12.8 (11.5-14.1)	12.9 (10.6-15.2)	15.1 (11.3-19.0)	0.002
Education									
<High school education	8.1 (7.3-8.9)	10.1 (8.1-12.2)	10.5 (8.7-12.3)	12.4 (11.0-13.9)	11.8 (10.1-13.5)	12.6 (11.0-14.1)	12.5 (10.6-14.5)	12.6 (9.8-15.3)	<0.001
High school education	5.6	6.3	7.2	7.1	8.6	8.8	7.3	11.0	

	(4.6-6.5)	(4.7-8.0)	(5.9-8.5)	(5.8-8.4)	(6.9-10.4)	(5.8-11.9)	(5.7-8.9)	(8.3-13.8)	<0.001
>High school education	4.3	4.6	5.9	7.5	6.5	7.1	7.6	7.5	
	(3.6-5.0)	(3.2-6.1)	(4.8-7.0)	(5.8-9.1)	(5.2-7.9)	(6.0-8.2)	(6.2-9.0)	(6.1-8.8)	<0.001
PIR Tertile									
Lowest tertile of PIR	8.2	9.1	9.9	10.8	10.9	12.2	11.4	12.8	
	(7.3-9.1)	(7.2-11.0)	(8.2-11.5)	(9.3-12.3)	(8.9-12.8)	(10.2-14.2)	(9.6-13.3)	(11.5-14.2)	<0.001
Middle tertile of PIR	5.1	8.1	6.8	7.4	7.7	8.4	8.6	9.5	
	(4.4-5.9)	(5.7-10.5)	(5.3-8.4)	(5.4-9.4)	(5.7-9.7)	(6.5-10.3)	(7.0-10.3)	(7.8-11.2)	<0.001
Highest tertile of PIR	4.5	2.9	4.9	6.5	5.7	6.4	6.1	5.6	
	(3.7-5.3)	(1.8-3.9)	(3.5-6.2)	(5.3-7.8)	(4.7-6.7)	(4.5-8.2)	(5.0-7.3)	(4.3-6.9)	0.002

PIR, poverty index ratio

All relative standard errors <30%

*Age-standardized to the overall population using age groups (20-44, 45-64, ≥65 years)

†Diagnosed diabetes is based on self-report of a previous diagnosis by a health care provider

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

eTable 5. Age-standardized* weighted prevalence (95% confidence interval) of undiagnosed† diabetes (A1c/FPG definition) over time per 100 adults in the US general population, 1988-2012

	1988-1994 N=8,478	1999-2000 N=2,168	2001-2002 N=2,479	2003-2004 N=2,299	2005-2006 N=2,191	2007-2008 N=2,901	2009-2010 N=3,118	2011-2012 N=2,781	P-trend
Overall	3.9 (3.3-4.4)	3.1 (2.4-3.7)	3.5 (2.8-4.3)	3.5 (2.7-4.2)	2.8 (1.8-3.9)	3.8 (3.3-4.4)	3.6 (2.6-4.5)	3.1 (2.4-3.8)	0.76
Age Group									
20-44 years of age	1.1 (0.7-1.5)	1.1 (-0.2-2.5)	1.0 (0.6-1.3)	1.3 (0.6-2.1)	1.1 (0.4-1.9)	1.3 (0.7-1.8)	1.1 (0.8-1.4)	1.8 (1.1-2.5)	0.26
45-64 years of age	5.7 (4.7-6.7)	4.7 (3.2-6.2)	4.2 (2.3-6.0)	4.5 (2.9-6.2)	3.1 (1.3-5.0)	4.4 (3.3-5.4)	4.9 (2.8-7.0)	4.4 (3.0-5.8)	0.26
≥65 years of age	7.2 (5.7-8.6)	4.7 (2.8-6.5)	8.9 (6.7-11.1)	6.8 (4.5-9.0)	6.6 (3.7-9.5)	9.4 (7.3-11.6)	7.3 (5.2-9.4)	3.8 (2.5-5.2)	0.36
Sex									
Men	4.5 (3.7-5.3)	3.4 (2.5-4.4)	4.7 (3.3-6.1)	4.6 (3.2-6.0)	3.6 (1.8-5.4)	4.9 (3.7-6.0)	5.1 (3.6-6.6)	3.6 (2.4-4.9)	0.67
Women	3.3 (2.7-3.9)	2.8 (1.9-3.7)	2.6 (1.8-3.3)	2.4 (1.7-3.1)	2.1 (1.1-3.1)	2.9 (2.3-3.6)	2.2 (1.5-3.0)	2.6 (1.7-3.5)	0.28
Race-ethnicity‡									
Non-Hispanic White	3.2 (2.6-3.8)	3.1 (2.3-4.0)	3.0 (2.3-3.8)	3.1 (2.1-4.1)	2.6 (1.3-3.9)	3.3 (2.4-4.1)	3.2 (1.9-4.4)	1.9 (1.3-2.6)	0.17
Non-Hispanic Black	6.6 (5.6-7.6)	3.3 (2.0-4.6)	5.7 (3.4-7.9)	3.2 (2.4-4.0)	4.2 (2.7-5.7)	5.8 (3.6-8.0)	3.7 (2.2-5.2)	5.3 (3.0-7.6)	0.75
Mexican-American	5.6 (4.2-7.1)	3.4 (2.2-4.5)	4.1 (2.1-6.0)	3.7 (2.1-5.3)	5.3 (4.0-6.6)	5.7 (4.8-6.6)	7.3 (4.9-9.7)	5.9 (4.6-7.2)	0.01
Education									
<High school education	5.9 (4.8-7.0)	4.5 (2.8-6.2)	6.1 (4.4-7.7)	4.8 (3.5-6.1)	3.7 (1.6-5.9)	4.9 (3.5-6.2)	4.3 (3.7-4.9)	5.9 (4.4-7.4)	0.58
High school education	3.8 (2.9-4.7)	4.1 (2.7-5.4)	3.1 (1.5-4.8)	2.9 (2.1-3.8)	3.8 (1.8-5.8)	5.3 (3.8-6.8)	4.1 (1.9-6.2)	3.7 (2.1-5.3)	0.40
>High school education	2.7 (2.1-3.3)	1.7 (0.6-2.9)§	2.7 (1.7-3.7)	3.2 (1.9-4.6)	2.2 (1.2-3.2)	2.8 (2.0-3.6)	3.1 (1.9-4.4)	2.1 (1.6-2.7)	0.62
PIR Tertile									

Lowest tertile of PIR	4.9	4.0	4.8	4.0	4.0	5.7	3.5	4.8	
	(3.9-5.8)	(2.8-5.2)	(2.9-6.7)	(2.8-5.3)	(2.8-5.1)	(4.7-6.7)	(2.7-4.3)	(3.6-6.0)	0.38
Middle tertile of PIR	4.0	2.6	3.8	3.3	3.5	2.8	3.9	2.3	
	(3.0-5.0)	(0.7-4.5)§	(2.1-5.6)	(1.9-4.7)	(1.4-5.7)§	(2.0-3.7)	(2.5-5.3)	(1.5-3.1)	0.27
Highest tertile of PIR	2.9	2.5	2.3	2.9	1.0	3.8	3.1	2.0	
	(1.9-3.9)	(1.3-3.7)	(1.5-3.1)	(1.1-4.7)§	(0.2-1.9)§	(2.6-5.1)	(1.3-4.8)	(0.7-3.4)§	0.92

PIR, poverty index ratio

*Age-standardized to the overall population using age groups (20-44, 45-64, ≥65 years)

†Diabetes based on A1c ≥6.5% and fasting plasma glucose ≥126 mg/dL

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

§Relative standard error >30%

eTable 6. Age-standardized* weighted percent (95% confidence interval) of diabetes (A1c/FPG definition) that was undiagnosed over time per 100 adults ≥20 years of age, United States, 1988-2012

	1988-1994 N=2,136	1999-2000 N=606	2001- 2002 N=669	2003- 2004 N=676	2005-2006 N=635	2007- 2008 N=991	2009- 2010 N=955	2011-2012 N=910	P- trend
Overall	40.3	35.4	30.0	32.9	26.3	31.7	30.7	31.0	
	(34.9-45.7)	(21.8-48.9)	(24.8-35.3)	(24.9-40.9)	(16.7-35.9)	(25.8-37.6)	(27.1-34.4)	(25.2-37.4)	<0.001
Age Group									
20-44 years of age	40.4	39.8	25.3	37.3	27.3	34.4	32.0	40.2	
	(29.1-51.8)	(10.1-69.5)§	(17.2-33.4)	(24.3-50.2)	(11.0-43.6)§	(22.7-46.2)	(24.1-40.0)	(29.5-51.9)	0.83
45-64 years of age	42.6	36.0	33.2	31.1	24.4	28.1	30.9	26.9	
	(37.5-47.7)	(27.8-44.3)	(22.6-43.9)	(21.7-40.4)	(13.1-35.7)	(22.7-33.6)	(24.1-37.8)	(21.0-33.9)	<0.001
≥65 years of age	35.0	22.6	35.6	25.3	27.8	32.1	27.0	15.5	
	(30.4-39.7)	(15.5-29.6)	(28.6-42.5)	(19.3-31.4)	(19.5-36.1)	(25.6-38.7)	(20.9-33.2)	(10.7-22.0)	<0.001
Sex									
Men	45.9	33.0	33.1	39.0	34.4	38.8	34.5	34.4	
	(37.6-54.3)	(19.0-47.1)	(24.3-42.0)	(26.6-51.4)	(20.8-48.0)	(31.2-46.4)	(28.8-40.2)	(26.6-43.2)	0.002
Women	34.7	38.0	26.5	25.6	17.0	24.1	25.5	27.4	
	(28.0-41.4)	(23.8-52.1)	(19.4-33.7)	(17.4-33.7)	(9.6-24.4)	(16.3-31.9)	(17.6-33.4)	(18.4-38.6)	0.001
Race-ethnicity‡									
Non-Hispanic White	36.4	42.8	23.7	29.5	29.8	28.1	29.6	24.6	
	(27.6-45.1)	(24.1-61.6)	(19.0-28.3)	(16.7-42.3)	(16.7-43.0)	(19.1-37.0)	(21.4-37.8)	(16.5-35.0)	<0.001
Non-Hispanic Black	44.9	22.4	34.0	22.8	18.5	31.7	21.6	32.8	
	(39.6-50.1)	(13.7-31.1)	(22.2-45.8)	(12.9-32.6)	(8.6-28.5)	(16.9-46.5)	(10.3-32.9)	(23.0-44.5)	0.007
Mexican-American	44.8	27.7	28.0	35.4	37.0	36.3	43.8	35.2	
	(38.8-50.8)	(16.8-38.5)	(16.3-39.6)	(24.2-46.7)	(28.2-45.7)	(26.3-46.3)	(31.7-55.8)	(22.9-49.8)	0.73
Education									
<High school	45.5	30.6	40.0	32.5	25.3	30.2	29.5	39.6	

education									
	(38.3-52.6)	(19.1-42.0)	(29.3-50.7)	(23.3-41.7)	(14.9-35.7)	(15.0-45.4)	(23.2-35.7)	(29.1-50.1)	<0.001
High school education	37.6	42.6	28.5	27.5	32.9	42.0	38.3	24.2	
	(28.7-46.5)	(23.2-62.0)	(13.5-43.5)	(19.9-35.2)	(15.0-50.7)	(31.5-52.4)	(30.4-46.1)	(13.1-35.4)	0.11
>High school education	40.0	32.3	22.5	35.2	23.7	27.9	27.3	29.5	
	(29.0-51.0)	(11.3-53.3)§	(17.9-27.1)	(19.8-50.6)	(13.3-34.1)	(22.0-33.8)	(20.1-34.5)	(23.2-35.8)	0.01
PIR Tertile									
Lowest tertile of PIR	40.6	32.1	32.5	29.5	28.8	37.7	26.8	35.3	
	(32.7-48.6)	(20.5-43.6)	(23.3-41.7)	(21.6-37.5)	(20.6-37.0)	(26.5-48.8)	(18.5-35.1)	(28.9-41.7)	0.03
Middle tertile of PIR	40.1	32.2	32.2	29.8	31.9	23.7	28.6	23.9	
	(31.8-48.4)	(6.2-58.3)§	(16.9-47.6)	(14.4-45.3)	(14.0-49.9)	(17.0-30.4)	(19.1-38.1)	(13.3-34.5)	0.004
Highest tertile of PIR	41.1	53.8	23.8	40.0	10.0	32.5	37.9	29.7	
	(24.3-58.0)	(38.0-69.6)	(16.9-30.7)	(20.9-59.2)	(2.8-17.2)§	(23.4-41.5)	(19.0-56.7)	(10.2-49.2)§	0.11

PIR, poverty index ratio

*Age-standardized to the overall population using age groups (20-44, 45-64, ≥65 years)

†Diabetes based on previous diagnosis, A1c ≥6.5% and fasting plasma glucose ≥126 mg/dL

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

§Relative standard errors >30%

eTable 7. Age-standardized* weighted prevalence (95% confidence interval) of total† diabetes (A1c/FPG/2HPG definition) over time per 100 adults 40-74 years of age in the US general population, 1988-2012

	1988-1994 N=4,201	2005-2006 N=1,217	2007-2008 N=1,671	2009-2010 N=1,801	2011-2012 N=1,559	P-trend
Overall	15.9 (14.5-17.3)	18.1 (15.1-21.0)	19.0 (16.1-22.0)	19.4 (16.5-22.3)	18.0 (15.6-20.4)	0.01
Age Group						
40-44 years of age	6.8 (4.5-9.0)	12.8 (6.9-18.6)	7.1 (3.6-10.6)	10.0 (5.9-14.1)	11.1 (6.3-15.9)	0.08
45-64 years of age	15.9 (14.3-17.6)	15.3 (11.9-18.7)	18.2 (14.8-21.6)	18.5 (15.2-21.8)	17.5 (14.4-20.5)	0.13
65-74 years of age	25.0 (22.0-28.0)	33.1 (24.7-41.6)	34.1 (26.9-41.2)	31.9 (27.0-36.9)	26.9 (21.9-32.0)	0.05
Sex						
Men	16.9 (15.0-18.8)	18.1 (14.0-22.2)	21.1 (17.5-24.6)	20.8 (15.2-26.3)	19.9 (16.8-23.0)	0.03
Women	15.0 (13.2-16.8)	17.9 (14.1-21.8)	17.4 (14.2-20.6)	18.1 (16.0-20.2)	16.4 (13.7-19.0)	0.10
Race-ethnicity‡						
Non-Hispanic White	14.4 (12.8-15.9)	15.9 (12.6-19.2)	16.5 (13.1-19.8)	16.8 (13.2-20.5)	13.6 (11.2-15.9)	0.47
Non-Hispanic Black	24.6 (22.3-26.9)	27.7 (23.3-32.1)	30.2 (25.8-34.6)	26.0 (22.5-29.6)	27.5 (21.1-34.0)	0.21
Mexican-American	29.6 (25.8-33.4)	29.8 (26.3-33.3)	26.3 (23.0-29.6)	30.2 (23.4-36.9)	32.1 (27.1-37.1)	0.39
Education						
<High school education	23.8 (21.1-26.4)	25.9 (19.5-32.3)	26.7 (20.7-32.7)	27.3 (21.6-33.0)	27.3 (22.3-32.3)	0.02
High school education	15.2 (12.9-17.5)	21.7 (15.3-28.1)	23.0 (16.5-29.4)	18.5 (12.9-24.2)	21.6 (15.6-27.5)	0.01
>High school education	11.2 (9.0-13.4)	15.1 (12.1-18.1)	14.4 (12.0-16.7)	17.2 (14.7-19.7)	14.5 (11.8-17.1)	0.01
PIR Tertile						
Lowest tertile of PIR	22.4 (19.7-25.2)	23.6 (19.4-27.7)	29.5 (23.8-35.2)	25.3 (20.3-30.4)	27.8 (23.0-32.5)	0.009
Middle tertile of PIR	14.7 (12.6-16.7)	18.3 (13.3-23.3)	14.9 (11.7-18.1)	19.8 (15.0-24.7)	14.9 (11.2-18.6)	0.22
Highest tertile of PIR	12.2 (9.6-14.8)	14.1 (10.9-17.3)	16.3 (12.2-20.3)	14.4 (11.0-17.8)	13.2 (8.6-17.9)	0.33

PIR, poverty index ratio

All relative standard errors <30%

*Age-standardized to the overall population using age groups (40-44, 45-64, 65-74 years)

†Undiagnosed diabetes based on A1c ≥6.5%, fasting plasma glucose ≥126 mg/dL, and 2-hour glucose ≥200 mg/dL

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

eTable 8. Weighted prevalence (95% confidence interval) of total† diabetes (A1c/FPG/2HPG definition) over time per 100 adults 40-74 years of age, United States, 1988-2012

	1988-1994 N=4,201	2005-2006 N=1,217	2007-2008 N=1,671	2009-2010 N=1,801	2011-2012 N=1,559	P-trend
Overall	15.8 (14.4-17.2)	18.1 (15.1-21.1)	19.2 (16.1-22.2)	19.6 (16.9-22.4)	18.0 (15.5-20.5)	0.01
Age Group						
40-44 years of age	6.8 (4.5-9.0)	12.8 (6.9-18.6)	7.1 (3.6-10.6)	10.0 (5.9-14.1)	11.1 (6.3-15.9)	0.08
45-64 years of age	15.9 (14.3-17.6)	15.3 (11.9-18.7)	18.2 (14.8-21.6)	18.5 (15.2-21.8)	17.5 (14.4-20.5)	0.13
65-74 years of age	25.0 (22.0-28.0)	33.1 (24.7-41.6)	34.1 (26.9-41.2)	31.9 (27.0-36.9)	26.9 (21.9-32.0)	0.05
Sex						
Men	16.8 (14.8-18.7)	18.1 (13.7-22.4)	20.8 (17.4-24.1)	20.9 (15.8-26.1)	19.7 (16.4-23.0)	0.03
Women	15.0 (13.2-16.7)	18.1 (14.2-22.0)	17.6 (14.2-21.1)	18.4 (16.3-20.5)	16.4 (13.6-19.3)	0.09
Race-ethnicity‡						
Non-Hispanic White	14.6 (13.0-16.2)	16.1 (12.6-19.7)	16.8 (13.3-20.4)	17.3 (13.7-20.9)	13.7 (11.3-16.2)	0.55
Non-Hispanic Black	22.8 (20.7-25.0)	27.2 (23.4-31.0)	29.4 (24.6-34.2)	25.7 (22.3-29.2)	27.3 (20.6-33.9)	0.09
Mexican-American	26.7 (23.9-29.6)	26.9 (22.9-30.8)	23.9 (19.9-27.8)	27.1 (19.8-34.4)	30.6 (24.1-37.0)	0.44
Education						
<High school education	24.7 (21.9-27.5)	26.0 (20.7-31.3)	28.5 (22.3-34.7)	28.4 (22.9-34.0)	26.8 (21.1-32.5)	0.19
High school education	15.3 (13.1-17.6)	21.9 (15.5-28.2)	24.2 (17.1-31.2)	18.4 (12.5-24.2)	22.0 (15.7-28.2)	0.009
>High school education	10.3 (8.0-12.5)	14.3 (11.3-17.4)	14.0 (11.8-16.1)	17.3 (15.1-19.6)	14.3 (11.8-16.9)	0.003
PIR Tertile						
Lowest tertile of PIR	22.9 (20.4-25.4)	24.3 (20.2-28.5)	30.4 (24.2-36.6)	25.8 (20.8-30.7)	26.8 (21.9-31.6)	0.06
Middle tertile of PIR	14.4 (12.5-16.3)	18.9 (13.0-24.9)	15.1 (11.8-18.5)	19.9 (14.8-25.0)	15.2 (11.0-19.4)	0.16
Highest tertile of PIR	11.4 (8.8-14.1)	13.7 (10.7-16.7)	15.4 (12.2-18.7)	14.9 (11.8-18.0)	13.5 (8.8-18.2)	0.20

PIR, poverty index ratio

All relative standard errors <30%

†Undiagnosed diabetes based on A1c ≥6.5%, fasting plasma glucose ≥126 mg/dL, and 2-hour glucose ≥200 mg/dL in adults without a self-reported diabetes diagnosis

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

eTable 9. Age-standardized* weighted prevalence (95% confidence interval) of undiagnosed† diabetes (A1c/FPG/2HPG definition) over time per 100 adults 40-74 years of age in the US general population, 1988-2012

	1988-1994 N=4,201	2005-2006 N=1,217	2007-2008 N=1,671	2009-2010 N=1,801	2011-2012 N=1,559	P-trend
Overall	8.0 (6.9-9.1)	7.4 (5.2-9.7)	7.7 (6.4-9.1)	8.0 (6.4-9.5)	5.9 (4.3-7.4)	0.15
Age Group						
40-44 years of age	3.0 (1.3-4.6)	6.3 (1.9-10.8)*	3.5 (0.8-6.2)*	5.3 (2.3-8.2)	4.8 (1.7-7.9)*	0.19
45-64 years of age	8.3 (7.0-9.7)	5.7 (3.1-8.2)	7.2 (5.5-8.8)	7.7 (5.9-9.6)	5.8 (3.8-7.9)	0.09
65-74 years of age	11.8 (9.4-14.2)	14.9 (9.3-20.5)	14.1 (9.9-18.4)	11.5 (7.7-15.3)	6.9 (5.0-8.9)	0.12
Sex						
Men	9.1 (7.5-10.8)	7.7 (4.6-10.7)	9.2 (6.7-11.6)	8.5 (5.5-11.5)	7.1 (4.6-9.7)	0.32
Women	7.0 (5.7-8.3)	7.2 (4.1-10.2)	6.6 (5.0-8.2)	7.4 (5.9-8.9)	4.7 (2.9-6.5)	0.24
Race-ethnicity‡						
Non-Hispanic White	7.3 (6.0-8.5)	7.6 (4.6-10.6)	7.1 (5.5-8.7)	7.9 (5.5-10.2)	3.8 (1.8-5.7)	0.07
Non-Hispanic Black	11.1 (9.5-12.7)	8.0 (5.0-11.0)	9.2 (6.5-12.0)	7.5 (4.3-10.6)	8.6 (4.7-12.5)	0.12
Mexican-American	12.5 (9.6-15.4)	11.2 (8.1-14.4)	10.6 (8.1-13.0)	12.1 (8.1-16.1)	12.8 (8.8-16.9)	0.85
Education						
<High school education	11.9 (9.5-14.2)	7.2 (3.7-10.8)	9.1 (5.4-12.8)	9.5 (6.0-13.0)	9.9 (7.9-12.0)	0.22
High school education	7.6 (5.9-9.2)	11.3 (5.8-16.8)	10.7 (6.6-14.8)	8.7 (4.6-12.7)	6.7 (3.6-9.8)	0.64
>High school education	6.0 (4.3-7.8)	6.2 (3.9-8.4)	5.9 (4.5-7.3)	7.3 (5.7-8.8)	4.5 (3.1-6.0)	0.63
PIR Tertile						
Lowest tertile of PIR	10.3 (8.3-12.3)	7.6 (5.0-10.2)	11.5 (8.5-14.4)	9.5 (7.1-11.9)	8.9 (6.1-11.6)	0.82
Middle tertile of PIR	8.0 (6.0-9.9)	8.6 (5.5-11.7)	4.8 (2.4-7.3)	8.4 (5.4-11.4)	2.8 (1.8-3.9)	0.01
Highest tertile of PIR	6.2 (4.3-8.1)	6.6 (3.9-9.3)	8.4 (5.6-11.3)	6.5 (3.9-9.2)	5.7 (2.4-9.0)	0.87

PIR, poverty index ratio

**Age-standardized to the overall population using age groups (40-44, 45-64, 65-74 years)

†Undiagnosed diabetes based on A1c $\geq 6.5\%$, fasting plasma glucose ≥ 126 mg/dL, and 2-hour glucose ≥ 200 mg/dL

‡Participants self-reporting other race-ethnic groups were included in other data presented in the table

§Relative standard error $>30\%$