

Supplementary Online Content

Xu Y, Wang L, He J, et al; for the 2010 China Noncommunicable Disease Surveillance Group. Prevalence and Control of Diabetes in Chinese Adults. *JAMA*. doi:10.1001/jama.2013.168118.

eTable 1. Number of participants, replacement rate and crude prevalence of diabetes and pre-diabetes in each province

eTable 2. Weighted percentages (95% confidence intervals) of diabetes and pre-diabetes diagnosed by different glycemc measurements

eTable 3. Numbers of participants and unweighted percentages of diabetes among Chinese adults aged ≥ 18 years, 2010

eTable 4. Numbers of participants and unweighted percentages of pre-diabetes among Chinese adults aged ≥ 18 years, 2010

eTable 5. Numbers of participants and unweighted percentages of awareness, treatment and control of diabetes among Chinese adults aged ≥ 18 years, 2010

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

eTable 1. Participants, replacement rate and crude prevalence of diabetes and pre-diabetes by province

No.	Province/region	Number of participants	Replacement rate (%)	Crude prevalence of diabetes (%)	Crude prevalence of pre-diabetes (%)
1	Beijing	1219	57.4	18.9	46.0
2	Tianjin	1198	7.0	24.3	55.2
3	Hebei	4784	8.1	17.9	47.7
4	Shanxi	3601	6.5	13.7	44.6
5	Neimenggu	3136	4.9	13.8	51.8
6	Liaoning	3581	6.4	15.8	54.5
7	Jilin	2996	4.9	18.0	44.6
8	Heilongjiang	4246	18.7	14.0	44.7
9	Shanghai	1200	17.6	18.9	57.6
10	Jiangsu	3600	5.9	13.5	53.5
11	Zhejiang	3619	7.7	13.0	42.9
12	Anhui	3598	6.5	14.5	55.4
13	Fujian	3000	2.7	13.1	60.7
14	Jiangxi	3000	5.0	11.6	50.8
15	Shandong	5974	11.1	14.3	50.0
16	Henan	5329	3.7	14.5	47.1
17	Hubei	3600	4.2	9.8	42.8
18	Hunan	4199	1.0	8.9	49.2
19	Guangdong	3590	14.7	16.9	65.9
20	Guangxi	3598	3.2	11.6	62.2
21	Hainan	1200	2.8	11.6	66.1
22	Chongqing	1200	0.0	13.8	48.9
23	Sichuan	4847	3.0	11.0	57.4
24	Guizhou	3186	11.6	8.5	55.4
25	Yunnan	3600	35.8	7.1	54.1
26	Tibet	2968	15.5	9.3	65.0
27	Shanxi	2998	5.0	9.5	35.5
28	Gansu	3000	19.7	10.4	38.5
29	Qinghai	1792	23.0	6.3	34.0
30	Ningxia	1200	2.3	8.9	35.2
31	Xinjiang	3599	3.3	14.1	51.0

eTable 2. Weighted percentages (95% confidence intervals) of diabetes and pre-diabetes diagnosed by different glycemic measurements

	Diagnosed by FPG alone	Diagnosed by 2-h PG alone	Diagnosed by A1c alone	Diagnosed by both FPG and 2-h PG	Diagnosed by both FPG and A1c	Diagnosed by both 2-h PG and A1c	Diagnosed by all FPG, 2-h PG and A1c
Diabetes							
Overall	24.3 (23.1-25.6)	14.9 (13.9-16.0)	24.2 (23.0-25.5)	5.0 (4.3-5.7)	5.8 (5.2-6.5)	6.1 (5.4-6.8)	19.7 (18.6-20.8)
Men	25.6 (23.8-27.5)	14.9 (13.5-16.4)	22.5 (20.8-24.2)	5.8 (4.8-6.9)	5.8 (4.9-6.8)	5.1 (4.3-6.1)	20.3 (18.7-22.0)
Women	22.8 (21.1-24.7)	14.9 (13.5-16.5)	26.2 (24.5-28.1)	4.0 (3.2-4.9)	5.9 (5.0-6.8)	7.2 (6.2-8.4)	18.9 (17.4-20.5)
Pre-diabetes							
Overall	22.8 (22.3-23.3)	3.6 (3.4-3.9)	38.2 (37.6-38.7)	3.0 (2.8-3.2)	22.4 (21.9-22.9)	4.0 (3.8-4.2)	6.1 (5.9-6.4)
Men	23.7 (23.0-24.5)	3.3 (3.0-3.6)	37.5 (36.7-38.3)	3.1 (2.8-3.4)	23.6 (22.9-24.3)	3.5 (3.2-3.8)	5.4 (5.0-5.7)
Women	21.7 (21.0-22.4)	4.0 (3.7-4.3)	38.9 (38.1-39.7)	2.8 (2.5-3.1)	21.1 (20.4-21.7)	4.6 (4.3-4.9)	7.0 (6.6-7.4)

Row totals may not add up to 100 percent because of rounding error.

eTable 3. Numbers of participants and unweighted percentages of diabetes among Chinese adults aged ≥18 years, 2010

	Total Diabetes	FPG ≥126 mg/dl	2-h PG ≥200 mg/dl	HbA1c ≥6.5%	FPG ≥126 mg/dl and/or 2-h PG ≥200 mg/dl	FPG ≥126 mg/dl and/or HbA1c ≥6.5%	2-h PG ≥200 mg/dl and/or HbA1c ≥6.5%	FPG ≥126 mg/dl and/or 2-h PG ≥200 mg/dl and/or HbA1c ≥6.5%	Previously-diagnosed diabetes
Overall	12607 (13.0)	4571 (4.7)	3656 (3.8)	4958 (5.1)	6283 (6.5)	7209 (7.4)	6537 (6.8)	8413 (8.7)	4194 (4.3)
Sex									
Men	6094 (13.7)	2361 (5.3)	1812 (4.1)	2328 (5.2)	3180 (7.2)	3549 (8.0)	3149 (7.1)	4147 (9.3)	1947 (4.4)
Women	6513 (12.4)	2210 (4.2)	1844 (3.5)	2630 (5.0)	3103 (5.9)	3660 (6.9)	3388 (6.5)	4266 (8.1)	2247 (4.3)
Location									
Urban	6086 (15.8)	2033 (5.3)	1716 (4.5)	2281 (5.9)	2777 (7.2)	3168 (8.3)	2971 (7.8)	3670 (9.5)	2416 (6.3)
Rural	6521 (11.1)	2538 (4.3)	1940 (3.3)	2677 (4.5)	3506 (6.0)	4041 (6.9)	3566 (6.1)	4743 (8.1)	1778 (3.0)
Age groups									
18-29	619 (4.3)	281 (1.9)	159 (1.1)	286 (2.0)	351 (2.4)	458 (3.2)	356 (2.5)	509 (3.5)	110 (0.8)
30-39	1096 (6.2)	504 (2.8)	329 (1.9)	452 (2.5)	637 (3.6)	717 (4.0)	602 (3.4)	830 (4.7)	266 (1.5)
40-49	2654 (10.8)	1147 (4.6)	815 (3.3)	1071 (4.3)	1473 (6.0)	1649 (6.7)	1395 (5.7)	1881 (7.6)	773 (3.1)
50-59	3597 (17.4)	1270 (6.1)	967 (4.7)	1446 (7.0)	1699 (8.2)	2048 (9.9)	1841 (9.0)	2343 (11.3)	1254 (6.1)
60-69	2890 (22.8)	840 (6.6)	821 (6.5)	1086 (8.6)	1267 (10.0)	1461 (11.6)	1444 (11.5)	1746 (13.8)	1144 (9.0)
≥70	1751 (24.7)	529 (7.4)	565 (8.1)	617 (8.7)	856 (12.2)	876 (12.4)	899 (12.9)	1104 (15.6)	647 (9.1)
Economic development									
Underdeveloped	3083 (10.8)	1278 (4.4)	951 (3.3)	1374 (4.8)	1733 (6.1)	2023 (7.1)	1787 (6.3)	2355 (8.2)	728 (2.5)
Intermediately	3966 (11.6)	1362 (4.0)	1142 (3.4)	1588 (4.6)	1943 (5.7)	2271 (6.6)	2103 (6.2)	2687 (7.9)	1279 (3.7)
Developed	5558 (16.2)	1931 (5.6)	1563 (4.6)	1996 (5.8)	2607 (7.6)	2915 (8.5)	2647 (7.8)	3371 (9.8)	2187 (6.4)
Body mass index									
<25.0 kg/m ²	5767 (9.2)	2083 (3.3)	1578 (2.5)	1971 (3.1)	2944 (4.7)	3187 (5.1)	2834 (4.5)	3877 (6.2)	1890 (3.0)
25.0-29.9 kg/m ²	5358 (18.7)	1928 (6.7)	1614 (5.7)	2236 (7.8)	2594 (9.1)	3057 (10.7)	2819 (9.9)	3478 (12.1)	1880 (6.6)
≥30.0 kg/m ²	1470 (26.3)	553 (9.9)	460 (8.4)	747 (13.4)	736 (13.3)	957 (17.2)	877 (15.9)	1048 (18.8)	422 (7.6)
Waist circumference									
<90 cm in males and <80 cm in females	5348 (8.7)	2009 (3.3)	1485 (2.4)	1830 (3.0)	2834 (4.6)	3049 (5.0)	2661 (4.4)	3713 (6.1)	1635 (2.7)
≥90 cm in males and ≥80 cm in females	7251 (20.2)	2556 (7.1)	2169 (6.1)	3125 (8.7)	3443 (9.6)	4154 (11.6)	3872 (10.9)	4694 (13.1)	2557 (7.1)

Data are numbers of participants with diabetes and unweighted percentages in parentheses.

There were 1,432 missing values for total diabetes, 895 missing values for FPG ≥126 mg/dl, 2,073 missing values for 2-h PG ≥200 mg/dl, 1,092 missing values for HbA1c ≥6.5%, 1,703 missing values for FPG ≥126 mg/dl and/or 2-h PG ≥200 mg/dl, 1,516 missing values for FPG ≥126 mg/dl and/or HbA1c ≥6.5%, 2,305 missing values for 2-h PG ≥200 mg/dl and/or HbA1c ≥6.5%, 1,432 missing values for FPG ≥126 mg/dl and/or 2-h PG ≥200 mg/dl and/or HbA1c ≥6.5%, and 1,432 missing values for previously-diagnosed diabetes.

There were 85 missing values for body mass index and 75 missing values for waist circumference.

Percentages of FPG ≥ 126 mg/dl and/or 2-h PG ≥ 200 mg/dl and/or HbA1c $\geq 6.5\%$ and previously-diagnosed diabetes may not add up to the percentages of total diabetes because of rounding error.

eTable 4. Numbers of participants and unweighted percentages of pre-diabetes among Chinese adults aged ≥18 years, 2010

	Total Pre-diabetes	FPG 100-125 mg/dl	2-h PG 140-199 mg/dl	HbA1c 5.7-6.4%	FPG 100-125 mg/dl and/or 2-h PG 140-199 mg/dl	FPG 100-125 mg/dl and/or HbA1c 5.7-6.4%	2-h PG 140-199 mg/dl and/or HbA1c 5.7-6.4%
Overall	49300 (50.7)	25596 (26.3)	8506 (8.7)	35803 (36.8)	29547 (30.4)	47478 (48.8)	39097 (40.2)
Sex							
Men	23351 (52.5)	12479 (28.0)	3723 (8.4)	16714 (37.6)	14163 (31.8)	22554 (50.7)	18257 (41.0)
Women	25949 (49.2)	13117 (24.9)	4783 (9.1)	19089 (36.2)	15384 (29.2)	24924 (47.3)	20840 (39.5)
Location							
Urban	19141 (49.8)	10687 (27.8)	3511 (9.1)	13726 (35.7)	12120 (31.5)	18506 (48.2)	15019 (39.1)
Rural	30159 (51.3)	14909 (25.4)	4995 (8.5)	22077 (37.5)	17427 (29.6)	28972 (49.3)	24078 (41.0)
Age groups							
18-29	5514 (38.4)	2751 (19.2)	590 (4.1)	3612 (25.2)	3066 (21.4)	5333 (37.2)	3912 (27.3)
30-39	8016 (45.2)	4241 (23.9)	1059 (6.0)	5278 (29.8)	4773 (26.9)	7696 (43.4)	5822 (32.9)
40-49	12765 (51.7)	6871 (27.8)	2116 (8.6)	8951 (36.3)	7839 (31.8)	12270 (49.7)	9862 (40.0)
50-59	11825 (57.1)	6130 (29.6)	2067 (10.0)	9138 (44.1)	7030 (33.9)	11442 (55.2)	9854 (47.6)
60-69	7190 (56.7)	3646 (28.7)	1581 (12.5)	5646 (44.5)	4340 (34.2)	6926 (54.6)	6153 (48.5)
≥70	3990 (56.4)	1957 (27.7)	1093 (15.4)	3178 (44.9)	2499 (35.3)	3811 (53.9)	3494 (49.4)
Economic development							
Underdeveloped	15050 (52.5)	7403 (25.8)	2474 (8.6)	11159 (38.9)	8640 (30.2)	14458 (50.5)	12135 (42.4)
Intermediately developed	17025 (49.8)	8207 (24.0)	2809 (8.2)	12617 (36.9)	9650 (28.2)	16385 (47.9)	13701 (40.1)
Developed	17225 (50.1)	9986 (29.0)	3223 (9.4)	12027 (35.0)	11257 (32.7)	16635 (48.4)	13261 (38.6)
Body mass index							
<25.0 kg/m ²	30869 (49.0)	15422 (24.5)	4664 (7.4)	22007 (35.0)	17761 (28.2)	29708 (47.2)	24016 (38.2)
25.0-29.9 kg/m ²	15395 (53.7)	8502 (29.7)	3094 (10.8)	11445 (39.9)	9806 (34.2)	14841 (51.8)	12520 (43.7)
≥30.0 kg/m ²	3005 (53.9)	1661 (29.8)	746 (13.4)	2325 (41.7)	1967 (35.3)	2899 (52.0)	2534 (45.4)
Waist circumference							
<90 cm in males and <80 cm in females	30106 (49.2)	15242 (24.9)	4407 (7.2)	21239 (34.7)	17449 (28.5)	28977 (47.3)	23196 (37.9)
≥90 cm in males and ≥80 cm in females	19168 (53.3)	10345 (28.8)	4098 (11.4)	14545 (40.4)	12088 (33.6)	18476 (51.4)	15881 (44.2)

Data are numbers of participants with pre-diabetes and unweighted percentages in parentheses.

There were 1,432 missing values for pre-diabetes, 85 missing values for body mass index and 75 missing values for waist circumference.

eTable 5. Numbers of participants and unweighted percentages of awareness, treatment and control of diabetes among Chinese adults aged ≥18 years*, 2010

	Overall			Men			Women		
	Awareness	Treatment	Control	Awareness	Treatment	Control	Awareness	Treatment	Control
Overall	4194 (33.3)	3602 (28.6)	1372 (38.7)	1947 (31.9)	1665 (27.3)	638 (38.8)	2247 (34.5)	1937 (29.7)	734 (38.6)
Location									
Urban	2416 (39.7)	2047 (33.6)	802 (40.0)	1123 (38.5)	947 (32.5)	359 (38.6)	1293 (40.8)	1100 (34.7)	443 (41.2)
Rural	1778 (27.3)	1555 (23.8)	570 (37.0)	824 (25.9)	718 (22.6)	279 (39.1)	954 (28.5)	837 (25.0)	291 (35.3)
Age groups									
18-29	110 (17.8)	93 (15.0)	51 (54.8)	64 (18.4)	58 (16.7)	31 (53.4)	46 (16.9)	35 (12.9)	20 (57.1)
30-39	266 (24.3)	221 (20.2)	84 (38.2)	145 (23.3)	120 (19.3)	44 (36.7)	121 (25.6)	101 (21.4)	40 (40.0)
40-49	773 (29.1)	652 (24.6)	243 (37.5)	436 (30.0)	372 (25.6)	150 (40.4)	337 (28.0)	280 (23.3)	93 (33.6)
50-59	1254 (34.9)	1076 (29.9)	383 (36.2)	563 (34.3)	474 (28.8)	167 (36.1)	691 (35.4)	602 (30.8)	216 (36.4)
60-69	1144 (39.6)	1003 (34.7)	388 (39.6)	464 (36.7)	400 (31.6)	151 (38.4)	680 (41.8)	603 (37.1)	237 (40.4)
≥70	647 (37.0)	557 (31.8)	223 (40.8)	275 (35.9)	241 (31.5)	95 (39.9)	372 (37.7)	316 (32.0)	128 (41.4)
Economic development									
Underdeveloped	728 (23.6)	620 (20.1)	221 (36.1)	354 (23.0)	298 (19.4)	116 (39.2)	374 (24.2)	322 (20.8)	105 (33.2)
Intermediately developed	1279 (32.2)	1099 (27.7)	396 (36.4)	583 (30.2)	502 (26.0)	173 (34.6)	696 (34.2)	597 (29.4)	223 (37.9)
Developed	2187 (39.3)	1883 (33.9)	755 (40.9)	1010 (38.5)	865 (32.9)	349 (41.2)	1177 (40.1)	1018 (34.7)	406 (40.7)
Body mass index									
<25.0 kg/m ²	1890 (32.8)	1619 (28.1)	629 (39.7)	901 (31.0)	772 (26.5)	296 (39.1)	989 (34.6)	847 (29.6)	333 (40.3)
25.0-29.9 kg/m ²	1880 (35.1)	1620 (30.2)	609 (38.0)	881 (34.3)	755 (29.4)	287 (38.3)	999 (35.8)	865 (31.0)	322 (37.7)
≥30.0 kg/m ²	422 (28.7)	361 (24.6)	133 (37.5)	164 (27.0)	137 (22.5)	54 (40.0)	258 (29.9)	224 (26.0)	79 (35.9)
Waist circumference									
<90 cm in males and <80 cm in females	1635 (30.6)	1385 (25.9)	575 (42.3)	1053 (30.6)	892 (25.9)	364 (41.5)	582 (30.6)	493 (25.9)	211 (43.8)
≥90 cm in males and ≥80 cm in females	2557 (35.3)	2216 (30.6)	797 (36.5)	894 (33.8)	773 (29.2)	274 (35.8)	1663 (36.1)	1443 (31.3)	523 (36.9)

Data are numbers of participants who were aware, treated or controlled, and unweighted percentages in parentheses.

There were 58 missing values for status of diabetes control in those treated with anti-diabetic medication, 22 missing values in males and 36 missing values in females. There were 85 missing values for body mass index and 75 missing values for waist circumference.

*Awareness was defined as the proportion of individuals who reported a history of physician-diagnosed diabetes among all diabetes patients. Treatment was defined as the proportion of individuals using anti-diabetic medications among all diabetes patients. Control was defined as the proportion of individuals with an HbA1c <7.0% among diabetes patients who were treated with anti-diabetic medications.