

**Table S1.** Adherence rate of diabetic patients complying with annual fundus exam.

Annual Fundus Exam (%)	2011 ( <i>n</i> = 985)	2013 ( <i>n</i> = 1025)	2015 ( <i>n</i> = 1027)	2018 ( <i>n</i> = 1050)	<i>p</i> < 0.001
Yes	231 (23.5 %)	157 (15.3 %)	180 (17.5 %)	226 (21.5 %)	
No	754 (76.5 %)	868 (84.7 %)	847 (82.5 %)	824 (78.5 %)	

Adherence rates (proportion) to annual fundus examinations among diabetic patients in China. Changes in adherence rates over 7 years were assessed by Pearson $\chi^2$ .

**Table S2.** Changes in descriptive characteristics of Non-adherent sample from 2011 to 2018.

Variables	2011 ( <i>n</i> = 985)	2013 ( <i>n</i> = 1025)	2015 ( <i>n</i> = 1027)	2018 ( <i>n</i> = 1050)	<i>p</i> Value
Gender					0.9563
Male	326 (43.2 %)	381 (43.9 %)	378 (44.6 %)	361 (43.8 %)	
Female	428 (56.8 %)	487 (56.1 %)	469 (55.4 %)	463 (56.2 %)	
Age	61.07± 9.24	61.98± 9.27	63.68± 9.10	62.61± 9.39	<0.001
Education					0.9255
Illiterate	197 (26.1 %)	207 (23.8 %)	208 (24.6 %)	219 (26.6 %)	
Less than elementary school	304 (40.3 %)	371 (42.7 %)	356 (42.0 %)	348 (42.2 %)	
Middle school	146 (19.4 %)	168 (19.4 %)	166 (19.6 %)	150 (18.2 %)	
High school or vocational school	84 (11.1 %)	96 (11.1 %)	87 (10.3 %)	89 (10.8 %)	
college and above	23 (3.1 %)	26 (3.0 %)	30 (3.5 %)	18 (2.2 %)	
Marital status					0.3206
Yes	611 (81.0 %)	723 (83.3 %)	699 (82.5 %)	660 (80.1 %)	
No	143 (19.0 %)	145 (16.7 %)	148 (17.5 %)	164 (19.9 %)	
Smoke					0.0162
Yes	263 (34.9 %)	327 (37.7 %)	354 (41.8 %)	292 (35.4 %)	
No	490 (65.1 %)	541 (62.3 %)	493 (58.2 %)	532 (64.6 %)	
Drinking status					0.7025
Drink more than once a month	130 (17.3 %)	162 (18.7 %)	162 (19.1 %)	171 (20.8 %)	
Drink but less than once a month	50 (6.6 %)	64 (7.4 %)	58 (6.8 %)	59 (7.2 %)	
None of these	573 (76.1 %)	642 (74.0 %)	627 (74.0 %)	594 (72.1 %)	
Using diabetes medication					<0.001
Yes	512 (67.9 %)	534 (61.5 %)	512 (60.4 %)	469 (56.9 %)	
No	242 (32.1 %)	334 (38.5 %)	335 (39.6 %)	355 (43.1 %)	
Non-medication treatments					0.0749
Yes	298 (39.5 %)	335 (38.6 %)	298 (35.2 %)	340 (41.3 %)	
No	456 (60.5 %)	533 (61.4 %)	549 (64.8 %)	484 (58.7 %)	
Multi-morbidities					<0.001
Yes	651 (86.3 %)	738 (85.0 %)	753 (88.9 %)	655 (79.5 %)	
No	103 (13.7 %)	130 (15.0 %)	94 (11.1 %)	169 (20.5 %)	
Vision impairment					<0.001
Yes	382 (50.7 %)	428 (49.3 %)	344 (40.6 %)	296 (35.9 %)	
No	372 (49.3 %)	440 (50.7 %)	503 (59.4 %)	528 (64.1 %)	
Regular physical exam					<0.001
Yes	496 (65.8 %)	479 (55.2 %)	449 (53.0 %)	458 (55.6 %)	
No	258 (34.2 %)	389 (44.8 %)	398 (47.0 %)	366 (44.4 %)	
Insurance cover					<0.001
Yes	709 (94.0 %)	820 (94.5 %)	816 (96.3 %)	806 (97.8 %)	
No	45 (6.0 %)	48 (5.5 %)	31 (3.7 %)	18 (2.2 %)	

**Table S3.** Different sample size of diabetes in CHARLS 2011 and adherence rate to annual fundus exam based on four definitions of diabetes.

Year	Self-Reported Diabetes	Reference Defined Diabetes	Unaware of Diabetes	Total Diabetes
2011	985	1544	1157	2142
Annual fundus exam				
Yes	233	89	0	233
No	754	1455	1157	1909
Adherence rate	23.65%	5.76%	None	10.88%

Reference defined diabetes: Fasting blood glucose (FBG), random blood glucose (RBC) or HbA1c measurement (FBG  $\geq$  126 mg/dl, RBC  $\geq$  198 mg/dl or HbA1c  $\geq$  6.5%); Unaware af diabetes: Abnormal blood test but responded 'no diabetes' in questionnaire; Total diabetes: Self-reported diabetes or defined by blood test.