

Supplemental Table 1: Comparison of the sample in the full DPP cohort and at four fundus measurements (DPPOS year 01/05/11/16). Categorical variables are described as number of events (%), and continuous variables are described as mean (SD). P-values are calculated using Pearson's Chi-square test or ANOVA.

	Full	Y01	Y05	Y11	Y16	p-value [†]
Sample size	3234	899	2128	2086	1563	
Non-Hispanic White	1768 (54.7%)	482 (53.6%)	1138 (53.5%)	1090 (52.3%)	779 (49.8%)	<.0001
African American	645 (19.9%)	197 (21.9%)	425 (20.0%)	429 (20.6%)	325 (20.8%)	
Hispanic	508 (15.7%)	164 (18.2%)	336 (15.8%)	326 (15.6%)	261 (16.7%)	
American Indian	171 (5.3%)	12 (1.3%)	127 (6.0%)	136 (6.5%)	120 (7.7%)	
Asian	142 (4.4%)	44 (4.9%)	102 (4.8%)	105 (5.0%)	78 (5.0%)	
Male	1043 (32.3%)	319 (35.5%)	693 (32.6%)	653 (31.3%)	452 (28.9%)	0.013
Female	2191 (67.7%)	580 (64.5%)	1435 (67.4%)	1433 (68.7%)	1111 (71.1%)	
Lifestyle	1079 (33.4%)	248 (27.6%)	698 (32.8%)	678 (32.5%)	500 (32.0%)	0.0863
Metformin	1073 (33.2%)	306 (34.0%)	712 (33.5%)	703 (33.7%)	541 (34.6%)	
Placebo	1082 (33.5%)	345 (38.4%)	718 (33.7%)	705 (33.8%)	522 (33.4%)	
Diabetes	1696 (67.7%)	595 (66.2%)	956 (44.9%)	1192 (57.1%)	1026 (65.6%)	<.0001
Never smoking	1897 (58.7%)	510 (56.7%)	1269 (59.6%)	1268 (60.8%)	980 (62.7%)	0.0611
Current smoker	226 (7.0%)	69 (7.7%)	133 (6.3%)	121 (5.8%)	87 (5.6%)	
Previous smoker	1111 (34.4%)	320 (35.6%)	726 (34.1%)	697 (33.4%)	496 (31.7%)	
Ever hypertension* up to the end	2175 (86.6%)	800 (90.5%)	1833 (87.4%)	1815 (88.1%)	1365 (88.0%)	0.0402
Hypertension at baseline	679 (40.8%)	228 (47.0%)	448 (39.5%)	404 (37.4%)	273 (34.2%)	<.0001
Ever dyslipidemia* up to the end	2042 (80.0%)	744 (83.1%)	1723 (81.2%)	1715 (82.5%)	1302 (83.4%)	0.0401
Dyslipidemia* at baseline	1138 (35.2%)	324 (36.0%)	770 (36.2%)	747 (35.8%)	543 (34.7%)	0.8846
Gestational diabetes	353 (16.1%)	102 (17.6%)	221 (15.4%)	229 (16.0%)	192 (17.3%)	0.6505
Ever pregnant	1869 (85.3%)	494 (85.2%)	1227 (85.5%)	1224 (85.4%)	960 (86.4%)	0.9303
Age at randomization	50.61(10.68)	51.61(10.12)	51.34(9.95)	50.38(9.65)	48.96(8.99)	<.0001
Average HbA1c(%) up to the end	6.05(0.71)	6.28(0.81)	6.06(0.71)	6.07(0.73)	6.09(0.75)	<.0001
Average fasting glucose (mg/dl) up to the end	113.9(17.98)	120.9(21.23)	114.0(17.77)	114.6(18.22)	114.8(18.23)	<.0001
Average 2-hour glucose (mg/dl) up to the end	162.8(29.76)	174.9(31.35)	162.7(29.66)	163.0(29.58)	163.0(29.99)	<.0001
Average weight (kg) up to the end	91.54(19.62)	93.37(20.53)	91.25(19.25)	91.12(19.03)	90.84(18.30)	0.0809
Average SBP(mmHg) to the end	121.7(9.72)	122.7(9.88)	121.6(9.61)	121.4(9.47)	120.7(9.22)	<.0001
Average DBP(mmHg) up to the end	74.03(6.33)	74.22(6.55)	73.82(6.31)	73.74(6.16)	73.86(6.15)	0.4986

1/fasting insulin, baseline	0.05(0.03)	0.05(0.03)	0.05(0.03)	0.05(0.03)	0.05(0.03)	0.0062
Oral Disposition Index	3831(5280)	3706(4991)	3776(5496)	3788(5504)	3770(5269)	0.9464
HbA1c (%), baseline	5.91(0.50)	6.01(0.52)	5.92(0.49)	5.92(0.50)	5.90(0.49)	<.0001
Weight (kg), baseline	94.23(20.26)	95.22(20.37)	93.22(19.27)	93.05(19.22)	92.65(18.60)	0.0243
Systolic BP (mm Hg), baseline	123.7(14.69)	125.1(15.06)	123.2(14.44)	122.8(14.56)	121.7(13.82)	<.0001
Diastolic BP (mm Hg), baseline	78.30(9.29)	78.61(9.62)	78.03(9.30)	78.13(9.28)	78.10(9.28)	0.493
BMI (kg/m²), baseline	33.97(6.69)	34.21(6.70)	33.62(6.36)	33.62(6.39)	33.65(6.28)	0.155
Adiponectin (ug/mL), baseline	7.93(3.47)	7.65(3.31)	8.03(3.55)	7.96(3.45)	7.82(3.22)	0.0717
CIR, baseline	0.63(0.43)	0.57(0.37)	0.63(0.43)	0.63(0.43)	0.64(0.43)	0.0001
Fasting glucose (mg/dL), baseline	106.5(8.32)	109.3(9.12)	106.5(8.37)	106.4(8.39)	106.0(8.34)	<.0001
120-minute glucose (mg/dL), baseline	164.6(17.04)	168.1(17.39)	164.5(17.01)	164.6(17.03)	164.6(16.92)	<.0001
HOMA B-cell, baseline	225.7(128.4)	225.8(123.5)	224.6(129.3)	223.9(127.8)	225.4(128.2)	0.9506
HOMA IR, baseline	7.08(4.19)	7.70(4.43)	7.04(4.17)	6.98(4.12)	6.93(4.01)	<.0001
I30-I0/G30-G0 in μU/mg), baseline	124.3(92.89)	112.5(79.83)	122.7(92.23)	123.7(91.92)	124.4(91.22)	0.0031
ACR (mg/g), baseline	13.91(50.38)	15.64(51.09)	13.61(54.37)	14.27(56.40)	14.44(60.11)	0.9032
hsCRP (mg/dL), baseline	0.59(0.74)	0.59(0.75)	0.57(0.69)	0.59(0.75)	0.60(0.72)	0.9033
HDL-cholesterol (mg/dL), baseline	45.61(11.78)	45.09(11.47)	46.01(12.18)	45.91(12.04)	45.89(11.79)	0.5343
Total cholesterol (mg/dL), baseline	203.1(36.36)	204.2(34.96)	203.5(35.68)	203.8(35.65)	202.9(34.73)	0.67
LDL-cholesterol (mg/dL), baseline	124.6(32.85)	125.5(32.66)	124.7(32.50)	124.9(32.38)	124.3(31.63)	0.8892
Triglycerides (mg/dL), baseline	163.4(95.86)	167.6(95.56)	163.5(96.82)	164.0(96.95)	163.2(99.20)	0.6617
Duration (years) of T2D in the end	6.77(6.96)	10.46(7.16)	7.02(7.05)	7.52(7.13)	8.32(7.54)	<.0001

† p-value calculated between different time points of retinal photography (Y01, Y05, Y011, Y016)

* Dyslipidemia defined as LD-cholesterol >130, triglycerides >150 or HDL-cholesterol <40. Hypertension defined as SBP >140, DBP >90 or taking any anti-hypertension medicine

Supplemental Table 2:

Retinopathy Severity by ETDRS Grade at DPPOS Years 1, 5, 11 and 16

ETDRS grade	Year 1	Year 5	Year 11	Year 16
Total	899	2128	2086	1563
<20	800	1922	1848	1418
20	85	184	180	85
35	7	16	46	49
43	7	5	6	6
47	0	0	1	1
53	0	0	1	0
60	0	0	2	0
61	0	1	0	1
65	0	0	2	1
71	0	0	0	1
85	0	0	0	1
>=20	99	206	238	145
>20	14	22	58	60

