Suplementary Materials

Table S1: Descriptive indicators of the population of Navarra, cohort 2012 to 2016 (>=18 years) stratified by sex.

		2012			2013			2014			2015			2016		
		Total	**Females**	**Males**	**Total**	**Females**	**Males**	**Total**	**Females**	**Males**	**Total**	**Females**	**Males**	**Total**	**Females**	**Males**
Population		473448	237856	235592	478917	240522	238395	483777	245394	238383	483825	245837	237988	483217	246037	237180
T2D Prevalence, n (%)		19603 (4,14)	8581 (3,61)	11022 (4,68)	20810 (4,35)	9081 (3,78)	11727 (4,92)	22763 (4,71)	9901 (4,03)	12862 (5,40)	24183 (5,00)	10506 (4,27)	13377 (5,75)	24394 (5,05)	10757 (4,30)	13817 (5,83)
18-34 Years		214 (0,17)	104 (0,17)	110 (0,17)	212 (0,18)	104 (0,18)	108 (0,18)	212 (0,18)	104 (0,18)	108 (0,18)	207 (0,18)	101 (0,18)	106 (0,19)	199 (0,18)	107 (0,20)	92 (0,17)
35 -44 Years		908 (0,90)	329 (1,10)	579 (0,90)	871 (0,85)	315 (0,65)	556 (1,05)	892 (0,87)	334 (0,67)	108 (1,06)	909 (0,90)	341 (0,69)	568 (1,09)	884 (0,89)	339 (0,70)	545 (1,07)
45 -54 Years		2576 (2,99)	832 (3,94)	1744 (2,99)	2642 (3,00)	866 (2,03)	1776 (3,92)	2730 (3,03)	901 (2,04)	1829 (3,98)	2853 (3,11)	950 (2,11)	1903 (4,08)	2833 (3,05)	956 (2,10)	545 (3,98)
55 -64 Years		4753 (7,38)	1652 (9,50)	3101 (7,38)	4884 (7,37)	1677 (5,14)	3207 (9,54)	5005 (7,30)	1699 (4,99)	3306 (9,59)	5034 (7,21)	1712 (4,92)	3322 (9,48)	5159 (7,21)	1763 (4,94)	1877 (9,47)
65 -74 Years		5455 (11,77)	2344 (13,89)	3111 (11,77)	5778 (11,89)	2403 (9,64)	3375 (14,27)	6491 (12,24)	2668 (9,69)	3823 (14,99)	6939 (12,58)	2785 (9,74)	4154 (15,64)	6937 (12,41)	2765 (9,55)	4172 (15,49)
75 -84 Years		4628 (12,64)	2544 (13,46)	2084 (12,64)	5006 (13,31)	2713 (12,64)	2293 (14,21)	5561 (14,91)	2901 (13,48)	2660 (16,86)	5822 (15,91)	2993 (14,19)	2829 (18,24)	5837 (15,96)	2972 (14,12)	2865 (14,45)
85 and over		1069 (7,44)	776 (6,55)	293 (7,44)	1471 (8,32)	1003 (8,69)	414 (7,55)	1872 (11,83)	1294 (12,00)	578 (11,48)	2419 (14,71)	1624 (14,54)	795 (15,07)	2545 (14,86)	1675 (14,46)	870 (15,67)
Age Mean (SD)	No T2D	47,87 (17,94)	49,03 (18,67)	46,70 (17,09)	48,47 (18,13)	49,63 (18,85)	47,30 (17,29)	48,60 (17,92)	49,71 (18,57)	47,44 (17,13)	48,94 (13,35)	47,44 (17,13)	47,79 (17,90)	49,76 (18,74)	50,86 (19,47)	48,62 (17,88)
	T2D	66,52 (12,74)	69,19 (13,07)	64,45 (12,07)	67,20 (12,87)	69,89 (13,26)	65,13 (12,16)	67,94 (12,97)	70,58 (13,35)	65,92 (12,29)	68,57 (13,15)	71,24 (13,56)	66,53 (12,46)	68,72 (13,14)	71,27 (13,63)	66,76 (12,40)
Low Income, (%)	No T2D	3,68	4,22	3,13	3,67	4,21	3,13	3,83	4,36	3,28	3,99	4,55	3,41	4,01	4,58	3,42
	T2D	4,57	5,56	3,79	4,72	5,85	3,85	4,83	6,12	3,84	5,09	6,36	4,12	5,26	6,47	4,34
% Obesity (BMI>=30)	No T2D	25,15	23,82	26,65	24,95	23,65	26,43	24,41	23,06	25,96	24,20	22,86	25,74	23,96	22,63	25,51
	T2D	46,04	48,86	43,84	46,50	49,26	44,36	46,85	49,47	44,82	47,14	49,72	45,14	48,08	50,50	46,21
Current smoker (%)	No T2D	24,75	20,78	29,11	24,36	20,60	28,47	24,09	20,62	27,92	23,75	20,44	27,43	23,57	20,39	27,10
	T2D	17,01	8,76	23,50	17,04	9,17	23,16	16,79	9,46	22,48	16,40	9,25	21,94	16,85	9,79	22,29

Table S2. Odds Ratios of having met the indicator above the 5-year mean

Variables	Sex (male) OR (95% CI)	Age OR (95% CI)	Low Income OR (95% CI)	Hospital admission for CVE OR (95% CI)	General practices cluster[***] OR (95% CI)
Standardized prevalence of T2D (2016)	1.656* (1.614-1.700)	1.056* (1.055-1.057)	2.111* (1.992-2.237)	1.276* (1.211-1.344)	*1.402** (1.363-1.411)
HbA1c <7%**	1.099 (1.053-1.148)	1.001 (0.999-1.002)	0.801 (0.721-0.890)	0.529 (0.490-0.571)	2.457 (2.291-3.636)
HbA1c ≥9%**	0.951 (0.896-1.009)	0.980 (0.978-0.982)	1.447 (1.279-1.637)	1.354 (1.227-1.495)	1.729 (1.631-1.834)
BP<140/90 mmHg **	0.909 (0.871-0.949)	0.979 (0.978-0.981)	0.865 (0.780-0.961)	0.920 (0.855-0.990)	1.833 (1.757-1.913)
LDL-C <100 mg/dl[†] or <70 mg/dl[‡]	1.186 (1.126-1.250)	1.003 (1.001-1.005)	1.027 (0.915-1.154)	0.300 (0.277-0.324)	1.314 (1.244-1.387)

* Prevalence OR **Average value of % compliance by GPP over the five years ***Adjusted for sex, age, low income † Objective primary prevention LDL-C <100 mg/dl ‡ Objective secondary prevention LDLC <70 mg/dl

Table S3. Variability of control indicators by GPPs

Variable	Mean	Number of highest and lowest scoring clusters	Mean (range) in clusters with the lowest score	Mean (range) in clusters with the highest score	Coefficient Variation between general practices
Standardized prevalence (2016)	5.74%**	101/327	4.83%[†]	8.20%†	42.32%
HbA1c < 7% *	47.34%	360/72	23.34% (0%-38.10%)	52.14% (38.24%-100%)%	31.72%
HbA1c ≥ 9%*	15.65%	210/222	10.12% (0%-15.78%)	21.42% (15.87%-50%)-	47.41%
BP < 140/90 mmHg *	52.52%	243/188	41.39% (0%-50.98%)	61.18% (51.11%-100%)	25.45%
LDL-C <100 mg/dl[†] or <70 mg/dl[‡]	46.16%	180/252	38.15% (0%-47.73%)	57.36% (47.83-100%)	28.12%

* Average value of % compliance by general practices over the five years. **Age-standardized prevalence (4 General practices were eliminated due to high outlier prevalence values).† Objective primary prevention LDL-C <100 mg/dl ‡ Objective secondary prevention LDLC <70 mg/dl

Table S4. Final Cox regression model risk of admission for a CVE in patients with type 2 Diabetes adjusting by Age, sex, income, History of previous cardiovascular anti-diabetes, lipid-lowering, antihypertensive medications, Charlson Index, GGP size, and Health Area.

Variable	HR	95% CI	p
Age	1.014	1.007-1.021	<0.001
Sex (male)	1.289	1.144-1.454	<0.001
Low Income	1.617	1.227-2.131	0.001
History of cardiovascular event prior to admission	9.811	8.441-11.410	<0.001
HbA1c < 7%*	0.736	0.632-0.856	<0.001
HbA1c ≥9%*	1.339	1.070-1.676	0.010
BP <140/90 mmHg*	0.732	0.628-0.853	<0.001
LDL-C <100 mg/dl** or <70 mg/dl ***	0.240	0.196-0.294	<0.001
Cluster indicator HbA1c < 7%	0.991	0.842-1.167	0.916
Cluster indicator HbA1c ≥9% (More than 15.87% of the T2D patients in the GPP with HbA1c ≥9%)	1.119	1.003-1.250	0.045
Cluster indicator BP <140/90 mmHg	1.095	0.981-1.225	0.116
Cluster indicator LDL-C <100 mg/dl** or <70 mg/dl ***	0.958	0.856-1.074	0.463
Current smoker	1.141	0.983-1.324	0.084
Obesity (BMI ≥30)	1.057	0.946-1.181	0.327
Charlson Index	1.168	1.137-1.200	<0.001
Insulin	1.453	1.278-1.651	<0.001
Statins	1.705	1.485-1.957	<0.001
Antihypertensive medications	0.981	0.862-1.115	0.764
GPP size (thousand persons)	1.020	0.837-1.243	0.845
Health Area Pamplona (ref)	1		
Estella	1.098	0.913-1.320	0.321
Tudela	1.055	0.915-1.216	0.462

* Average 5-year compliance. ** Primary Prevention. ***Secondary Prevention

Table S5 Cox regression model to analyze the risk of admission for a CVE in the subgroup of patients with poor glycemic control (HbA1c≥9)

Variable	HR	95% CI	p
Age	1.374	1.220-1.548	0.039
Sex (male)	1.036	1.030-1.041	0.308
Diastolic BP	0.962	0.907-1.021	0.201
Systolic BP	1.004	0.964-1.046	0.857
LDL-C	1.007	0.990-1.025	0.427