

Appendix Supplementary Table: Indicators Considered and included

Type	Indicator	Measure	Source	CROSS SECTION REGRESSION								LONGITUDINAL REGRESSION							
				2015_16		2016_17		2016_17 Decile		With % TGC		With % HGR		With Δ%TGC		With Δ%HGR			
				Mean	Mean	90%	10%	Corr. Coeff.	Std Beta	p score	Corr. Coeff.	Std Beta	p score	Corr. Coeff.	Std Beta	p score	Corr. Coeff.	Std Beta	p score
R²								0.288		0.351		0.092		0.170					
Constant								0.470		0.143		0.005		-0.002					
Outcome	TGC T2 HbA1c %≤58	% T2 Reg.	NDA	65.9%	66.9%	58.8%	75.0%												
	HGR T2 HbA1c %>86	% T2 Reg.	NDA	6.6%	6.7%	3.6%	10.3%												
Epidemiology	% Prevalence	% T2 Reg.	NDA	6.0%	6.2%	4.4%	8.8%			-0.115 -0.088		p<0.0001 0.217 0.041		p=0.0079					
	Age %<64	% T2 Reg.	NDA	44.4%	46.7%	34.9%	62.4%	-0.170	-0.283	p<0.0001	0.093	0.357	p<0.0001						
	Age %>80	% T2 Reg.	NDA	16.0%	13.8%	7.3%	20.0%	0.101	0.077	p<0.0001	-0.026	-0.045	p=0.0096		-0.036 -0.022 p=0.0794				
	% Most Deprived IMD	% T2 Reg.	NDA	23.5%	24.1%	0.0%	66.7%	-0.018	-0.073	p<0.0001	0.023	0.210	p<0.0001		0.056 0.035 p=0.0047				
	% Minority Ethnicity	% T2 Reg.	NDA	22.4%	23.2%	1.5%	70.3%	-0.018	-0.077	p<0.0001		-0.044 -0.027		p=0.0395					
Service	% Identification	% T2 Reg.	NDA	76.8%	78.1%	58.6%	103.6%					0.134 0.128		p<0.0001 -0.039 -0.066 p<0.0001					
	T1 % HbA1c<=58l	% T1 Reg.	NDA	29.5%	32.4%	20.0%	50.0%	0.022	0.072	p<0.0001	-0.007	-0.051	p<0.0001	0.019	0.090	p<0.0001 -0.007 -0.062 p<0.0001			
	% Compl All 8 Checks	% T2 Reg.	NDA	54.0%	47.6%	16.7%	71.9%												
	% Check HbA1c	% T2 Reg.	NDA	95.1%	95.3%	91.5%	98.6%	0.091	0.060	p<0.0001				0.036 0.055 p<0.0001					
	% Check BP	% T2 Reg.	NDA	95.8%	96.4%	93.5%	99.4%					0.068 0.078		p<0.0001					
	% Check Cholesterol	% T2 Reg.	NDA	93.1%	93.2%	88.6%	97.3%	0.219	0.147	p<0.0001	-0.051	-0.078	p<0.0001						
	% Check Creatine	% T2 Reg.	NDA	94.8%	95.1%	90.9%	98.3%							0.040 0.043 p=0.0018					
	% Check Urine Alb	% T2 Reg.	NDA	66.9%	65.6%	32.8%	85.3%	0.012	0.038	p=0.0008	-0.012	-0.085	p<0.0001		-0.006 -0.027 p=0.0308				
	% Check Feet	% T2 Reg.	NDA	87.2%	79.4%	61.8%	93.9%					0.039 0.123		p<0.0001 -0.067 -0.366 p<0.0001					
	% Check BMI	% T2 Reg.	NDA	82.9%	83.3%	63.6%	95.0%												
	% Check Smoking	% T2 Reg.	NDA	85.4%	85.7%	65.1%	96.6%												
	BP % <=140/80	% T2 Reg.	NDA	73.7%	74.4%	62.2%	85.7%	0.074	0.108	p<0.0001	-0.022	-0.076	p<0.0001	0.020	0.028	p=0.033			
	Cholesterol % <4mmol/l	% T2 Reg.	NDA	42.3%	41.2%	33.3%	48.7%	0.120	0.115	p<0.0001	-0.048	-0.105	p<0.0001	0.038	0.036	p=0.0065 -0.019 -0.031 p=0.0119			
Prescribing	SU Sulphonylurea	DDD/T2 Reg	GPPS/NDA	0.650	0.606	0.329	0.922	-0.050	-0.185	p<0.0001	0.014	0.123	p<0.0001						
	Metformin incl Comb	DDD/T2 Reg	GPPS/NDA	0.514	0.509	0.422	0.625	0.085	0.119	p<0.0001	-0.013	-0.041	p=0.0014	0.060	0.081	p=0.0002			
	TZD Glitazone	DDD/T2 Reg	GPPS/NDA	0.035	0.030	0.003	0.068	0.084	0.044	p<0.0001		0.163 0.043		p=0.0019 -0.060 -0.028 p=0.0272					
	Estim T2 % on Insulin	%	GPPS/NDA	0.119	0.117	0.073	0.162	-0.242	-0.138	p<0.0001	0.019	0.024	p=0.024	-0.187	-0.089	p<0.0001			
	Estim T2 % on BGM	%	GPPS/NDA	0.173	0.191	0.000	0.358	-0.016	-0.034	p=0.0034									
	SGLT2 Dapagliflozin	DDD/T2 Reg	GPPS/NDA	0.016	0.021	0.002	0.052			-0.050 -0.042		p<0.0001		-0.101 -0.043 p=0.0006					
	SGLT2 Empagliflozin	DDD/T2 Reg	GPPS/NDA	0.001	0.006	0.000	0.016			-0.070 -0.027		p=0.0088	0.463	0.094	p<0.0001 -0.181 -0.065 p<0.0001				
	SGLT2 Canagliflozin	DDD/T2 Reg	GPPS/NDA	0.004	0.008	0.000	0.024	0.301	0.071	p<0.0001	-0.161	-0.088	p<0.0001	0.188	0.039	p=0.0031 -0.173 -0.063 p<0.0001			
	DPP4 Alogliptin	DDD/T2 Reg	GPPS/NDA	0.004	0.012	0.000	0.039					0.187 0.073		p<0.0001 -0.049 -0.034 p=0.018					
	DPP4 Linagliptin	DDD/T2 Reg	GPPS/NDA	0.026	0.034	0.003	0.080					0.222 0.071		p<0.0001 -0.082 -0.046 p=0.0003					
	DPP4 Saxagliptin	DDD/T2 Reg	GPPS/NDA	0.009	0.009	0.000	0.025	-0.094	-0.025	p=0.0189	0.066	0.040	p<0.0001	0.302	0.046	p=0.0008			
	DPP4 Sitagliptin	DDD/T2 Reg	GPPS/NDA	0.072	0.071	0.020	0.138	0.074	0.055	p<0.0001	-0.014	-0.024	p=0.0297	0.215	0.101	p<0.0001 -0.083 -0.069 p<0.0001			
	DPP4 Vildagliptin	DDD/T2 Reg	GPPS/NDA	0.004	0.004	0.000	0.009							-0.133 -0.030 p=0.0205					
	GLP1 Dulaglutide	DDD/T2 Reg	GPPS/NDA	0.000	0.003	0.000	0.007	-0.394	-0.038	p=0.0003	0.133	0.029	p=0.0045		-0.182 -0.040 p=0.0016				
	GLP1 Exenatide	DDD/T2 Reg	GPPS/NDA	0.009	0.008	0.000	0.018												
	GLP1 Liraglutide	DDD/T2 Reg	GPPS/NDA	0.018	0.017	0.003	0.037					-0.295 -0.046		p=0.0006					
	GLP1 Lixisenatide	DDD/T2 Reg	GPPS/NDA	0.003	0.003	0.000	0.008												