
2024

AUSTRALIAN DIABETES CLINICAL QUALITY REGISTRY

SUPPLEMENT

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ABBREVIATIONS AND ACRONYMS

ACE	Angiotensin Converting Enzyme
ADCQR	Australian Diabetes Clinical Quality Registry
ADS	Australian Diabetes Society
ANDA	Australian National Diabetes Audit
ARB	Angiotensin II Receptor Blockers
BMI	Body Mass Index
BP	Blood Pressure
CABG	Coronary Artery Bypass Graft
COVID-19	Coronavirus disease-2019
CSII	Continuous Subcutaneous Insulin Infusion
CQR	Clinical Quality Registry
DKA	Diabetic Ketoacidosis
DPP4	Dipeptidyl Peptidase-4
DVA	Department of Veterans Affairs
eGFR	Estimated Glomerular Filtration Rate
GIP	Gastric Inhibitory Polypeptide
GLP-1	Glucagon-Like Peptide-1
HbA1c	Glycated Haemoglobin
HDL	High-Density Lipoprotein
HHS	Hyperosmolar Hyperglycaemic State
IQR	Interquartile Range
LDL	Low-Density Lipoprotein
NADC	National Association of Diabetes Centres
NDOQRIN	National Diabetes Outcomes Quality Review Initiative
NDSS	National Diabetes Services Scheme
Non-HDL	Non-High-Density Lipoprotein
PCR	Protein-to-Creatinine Ratio
PCSK9	Proprotein Convertase Subtilisin/Kexin Type 9
REDCap	Research Electronic Data Capture
SD	Standard Deviation
SGLT2	Sodium-Glucose Co-Transporter 2
SPHPM	School of Public Health and Preventive Medicine
T1DM	Type 1 Diabetes Mellitus
T2DM	Type 2 Diabetes Mellitus

BACKGROUND

This is the Supplement to the Australian Diabetes Clinical Quality Registry 2024 Annual Report.

The background and methodology are included in detail in the Annual Report.

In brief, the Australian Diabetes Clinical Quality Registry (ADCQR), successor to the Australian National Diabetes Audit (ANDA), is a clinician-led, Australian Government funded National Clinical Quality Registry (CQR) for adults with diabetes. It collects data from adults with diabetes attending health care services providing diabetes care across Australia. The data collected captures clinical (process, risk factor and outcome) indicators, as well as patient reported outcomes comprising of self-care/management and health service utilisation.

Most of the variables captured in the dataset have been collected using yes/no responses or other choice options to reduce the amount of written data required. The data collection forms and data definitions document, which was provided to participating health services (sites) to assist in the collection of data, are included in the Appendices at the end of this document.

Herein, we provide details on data queries, assumptions and manipulations, data analysis and results. More specifically, this Supplement provides detailed information on frequency counts and missingness of data for each variable.

This Supplement also provides key findings highlighting the proportion of patients meeting guideline recommended clinical targets.

DATA QUERIES, ASSUMPTIONS AND MANIPULATIONS

Data queries were generated and queried with participating sites, including fields with missing data and/or potentially incorrect values. Possible participant (patient) duplicates (due to double individual registration/data entry) were queried based on: sex, date of birth, country of birth matches.

Data assumptions and decisions were made based on the following rules:

Missing data were calculated conditionally where relevant:

- Date of visit = 01/06/2024 if missing
- Date of diagnosis: If the day and/or month were missing, but the year was provided, the date was assumed to be the first day of the month, and the month was assumed to be January (01)
- HbA1c test date: If only the day was missing, but the month and year were provided, the date was assumed to be the last day of the reported month

Invalid data were excluded:

- Age <18 years
- Year of birth <1900
- Incorrect date formats (e.g. month >12)
- Date of birth after visit date
- Male = Pregnant or Female aged <18 or >55 = Pregnant
- T1DM and insulin use not indicated, unless <12 months since diagnosis
- T1DM and on insulin ≥ 3 years after date of diagnosis
- T1DM and sulphonylurea = Yes
- 'Year of diagnosis' and 'Insulin duration' excluded if < calculated age
- Calculated years of diagnosis < years on insulin > calculated age
- Number of finger pricks a day <1
- Proportion of time using sensors if continuous/flash glucose monitoring not indicated
- Height <1.3 metres or >2.2 metres
- Weight <40 kilograms or >200 kilograms*
- Calculated BMI <15 kg/m² or >50 kg/m²
- Systolic BP < diastolic BP
- Systolic BP <70mmHg or >200mmHg
- Diastolic BP <40mmHg or >130mmHg
- HbA1c test date is after date of visit
- Urinary albumin/protein value, if units not indicated
- HbA1c <3%*
- HbA1c >22%*
- Total cholesterol <2.0 mmol/L*
- HDL cholesterol >2.5 mmol/L*
- Calculated Non-HDL <0
- Triglyceride <0.5 mmol/L*
- Total cholesterol < LDL, HDL or triglycerides
- Creatinine <50 or >1000 $\mu\text{mol/L}$ *
- Congestive cardiac failure = Yes for both diagnosed/detected in the last 12 months and prior to the last 12 months*
- Dementia = Yes for both diagnosed/detected in the last 12 months and prior to the last 12 months*
- End stage kidney disease = Yes for both diagnosed/detected in the last 12 months and prior to the last 12 months*
- Retinopathy = No in the last 12 months, but treatment for retinopathy = Yes in the last 12 months*
- Retinopathy = No prior to the last 12 months, but treatment for retinopathy = Yes prior to the last 12 months*

*Data queried, but not excluded

Data manipulations and derivation applied to fields with invalid data:

- Age was calculated: Date of visit – Date of birth
- Diagnosis date = Start of insulin date (if start of insulin date was before diagnosis date)
- Duration of diabetes was calculated: Date of diagnosis – Date of visit
- Only unknown/missing diabetes type, were reclassified to T1DM using the following criteria:
 - If patient was on insulin therapy and pump (this applies for any age at diagnosis and any time from diagnosis to insulin therapy - as long as there is no missing data)
 - If age at diagnosis <30 years and time from diagnosis to insulin therapy ≤1 year and patient was on insulin therapy
 - If age at diagnosis <30 years and time from diagnosis to insulin therapy (>1 and <3) years and patient is on insulin therapy and (basal bolus or pump)
- Only unknown/missing diabetes type, were reclassified to T2DM using the following criteria:
 - If age at diagnosis ≥30 years and time from diagnosis to insulin therapy ≥3 years and patient was on insulin therapy
- Finger pricking changed to 'Yes' if check as often as recommended, or number of times a day was indicated
- 'Diet only' changed to 'No' if other management methods details were indicated
- Self-monitoring of glucose = None changed to 'No' if any other monitoring methods were indicated
- Glycaemic management method for Insulin changed to 'Yes' if insulin duration and/or mode indicated
- Insulin mode = pump changed to 'Yes' if any of the pump types were indicated
- If hybrid closed loop system was indicated as 'Yes', CSII non-automated was changed to 'Yes'
- BMI was calculated: weight (kg)/height (m)². If height was greater than 2.5, it was assumed that it was reported in metres instead of centimetres.
- Instances where patients reported multiple modes of insulin, the following hierarchical algorithm was used: Hybrid closed loop system > Pump > Basal bolus > Pre-mixed > Basal
- Antihypertensive therapy changed to 'Yes' if any medications were indicated
- 'Lipid modifying therapy' changed to 'Yes' if any therapy details were indicated (as 'Yes')
- Urinary protein/albumin assessment was used to define albuminuria based on published guidelines for laboratory thresholds
- Urinary albumin was the primary measure to define albuminuria and where urinary albumin was missing, urinary protein was used to define albuminuria
- Lipids measured changed to 'Yes' if any of the lipid measurements were provided
- Lipid non-HDL cholesterol was calculated: Total cholesterol – HDL cholesterol
- Lower limb amputation changed to 'Yes' if any of the minor or major amputation types were indicated as 'Yes'
- Severe hypoglycaemia changed to 'Yes' if 'No. of episodes' was indicated
- 'COVID-19' changed to 'Yes' if 'Hospitalisation required (for COVID-19)' was indicated as 'Yes'
- 'Current smoker' changed to 'No' if 'Previously smoked' was indicated as 'Yes'
- 'Forget medications' was changed to 'Yes' if number of times was indicated

STATISTICAL ANALYSES

Descriptive statistics

Results are presented descriptively as frequencies and percentages for categorical variables, and mean and standard deviation (SD) for continuous variables. Variables that were not normally distributed are presented as median and interquartile range (IQR, where IQR is represented by the first quartile (Q1 or 25th percentile) and third quartile (Q3 or 75th percentile)). Percentages may not always add to 100% due to rounding. In the tables, % was calculated using the denominator for the total cohort (including missing data) while Relative % was calculated assuming the denominator did not include missing data.

Missing Data

Missing data are reported as frequency and percentage. Percentage was calculated from the total number of applicable respondents (for example; missing pregnancy data is calculated from the total number of female patients of reproductive age).

Note: For data presented by collection method, sites that submitted data via the data extraction method were excluded due to low sample size.

KEY FINDINGS

DEMOGRAPHICS



49

Participating Centres



2904

Patients



26

Centres of Excellence & Tertiary Care Centres



23

Secondary & Primary Care Centres



7

States & Territories

SEX DISTRIBUTION



43.6%

Females



56.4%

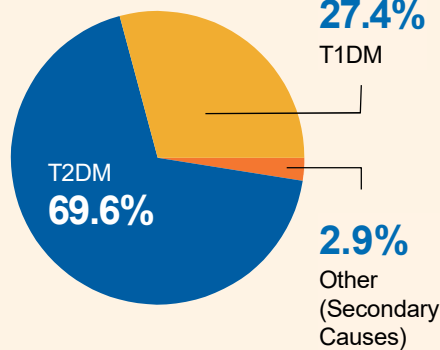
Males



0.03%

Other

TYPES OF DIABETES*



*Excluding unknown or unstated diabetes type

MEAN AGE



MEDIAN DURATION OF DIABETES



BLOOD GLUCOSE MONITORING

T1DM BLOOD GLUCOSE MONITORING

9.7% Blood Glucose Self Monitoring Only

80.5% Continuous Glucose Monitoring Only

9.8% Both Blood & Continuous Glucose Monitoring

T2DM BLOOD GLUCOSE MONITORING

16.9% No Regular Blood Glucose Monitoring

77.0% Blood Glucose Self Monitoring Only

5.1% Continuous Glucose Monitoring Only

0.9% Both Blood & Continuous Glucose Monitoring

T1DM: Type 1 Diabetes Mellitus; T2DM: Type 2 Diabetes Mellitus

GLUCOSE MANAGEMENT

T1DM

8.0%

MEAN HBA1C (%)

7.7%

MEDIAN HBA1C (%)



68.4%

Multiple Daily Injections Of Insulin



31.6%

Continuous Subcutaneous Insulin Infusion



11.7%

Additional Non-Insulin Therapy

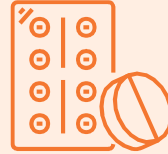
T2DM

8.3%

MEAN HBA1C (%)

8.0%

MEDIAN HBA1C (%)



18.0%

On 1 Glucose Lowering Therapy

29.9%

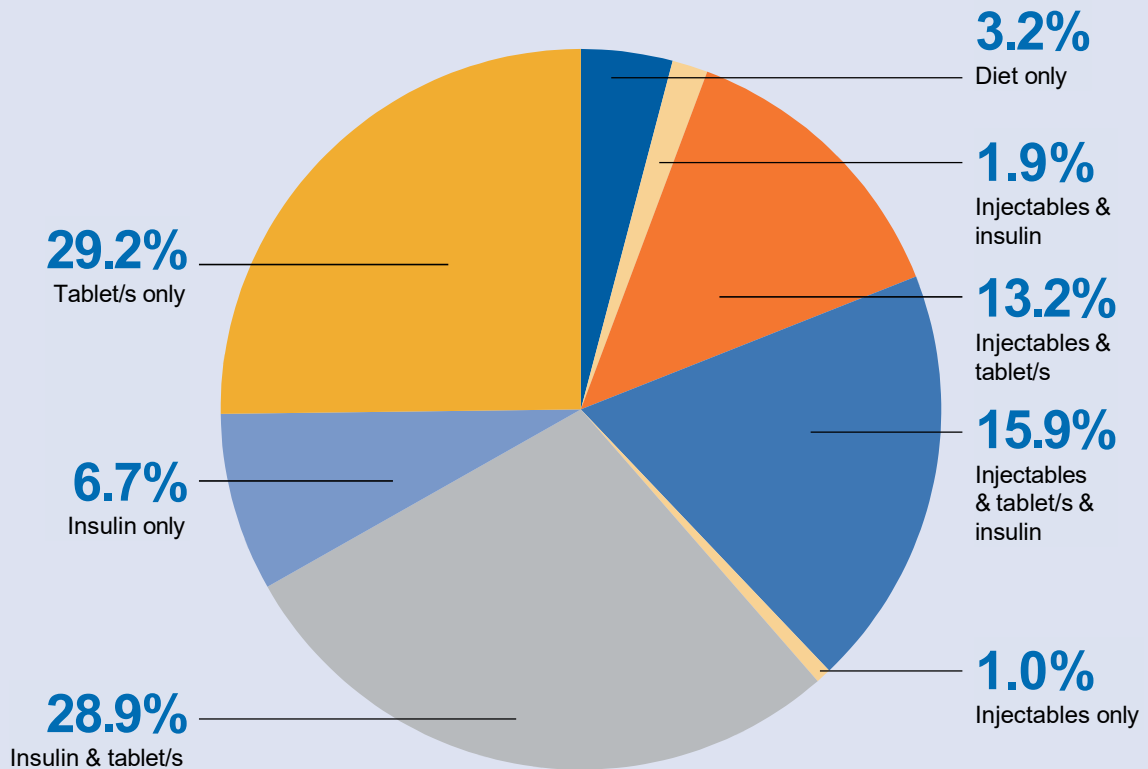
On 2 Glucose Lowering Therapies



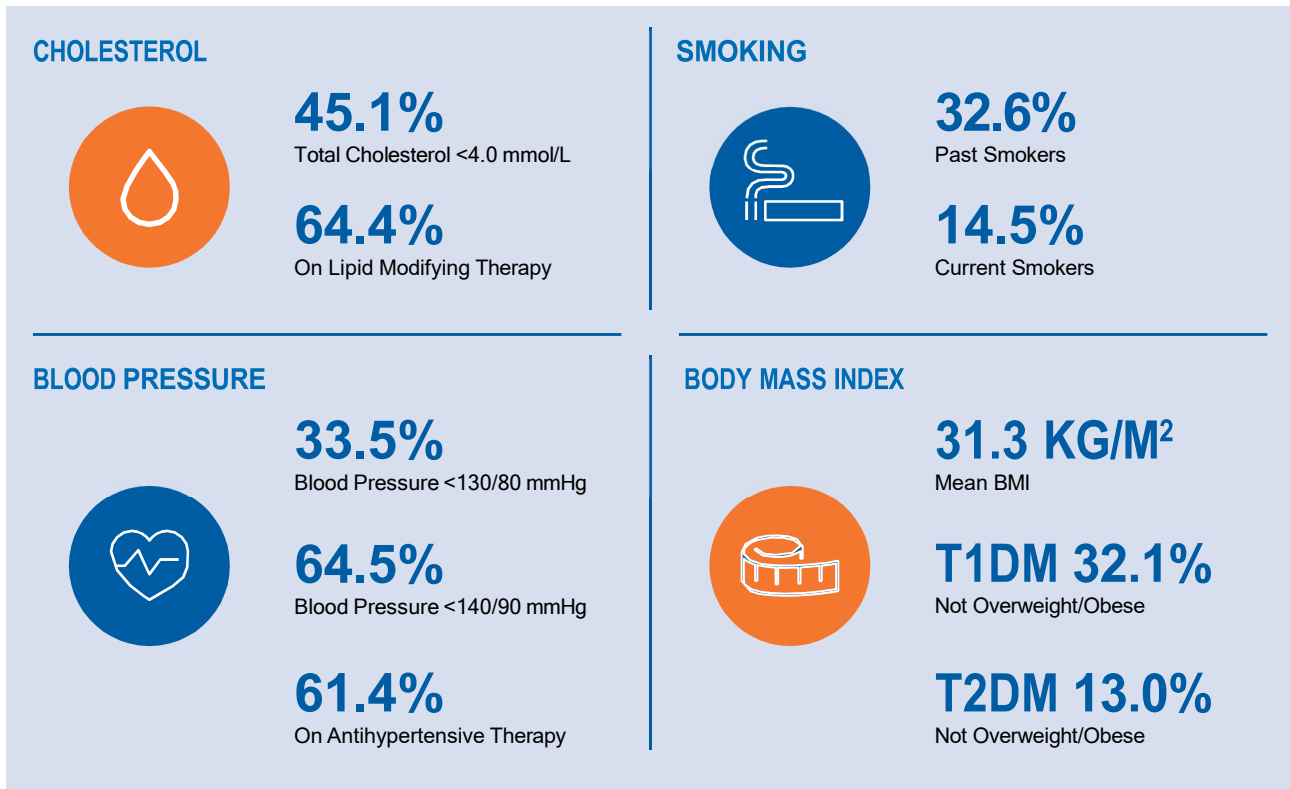
52.1%

On ≥3 Glucose Lowering Therapies

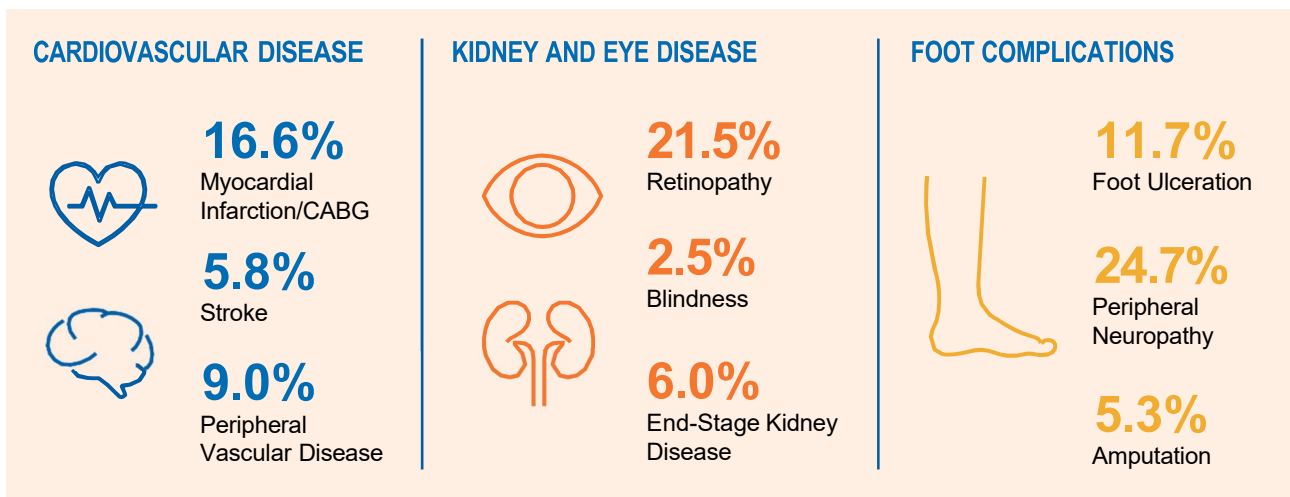
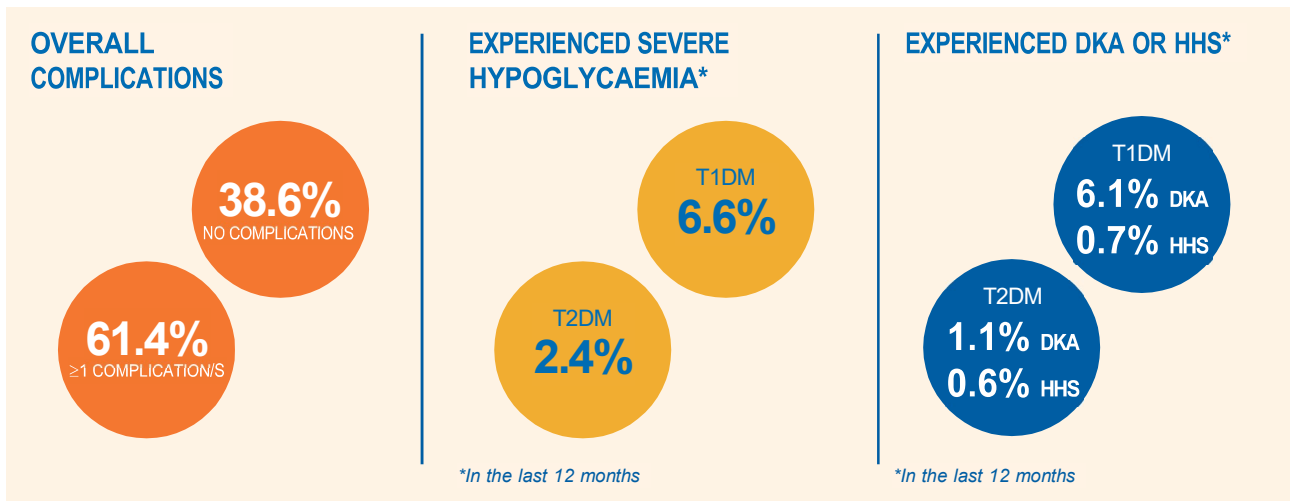
TYPES OF GLUCOSE LOWERING THERAPIES (T2DM ONLY)



RISK FACTORS



COMPLICATIONS (EVER REPORTED)



CABG: Coronary Artery Bypass Graft; DKA: Diabetic Ketoacidosis; HHS: Hyperosmolar Hyperglycaemic State

PATIENT REPORTED OUTCOMES

HEALTH PROFESSIONAL ATTENDANCES (IN THE LAST 12 MONTHS)



66.8%

Diabetes Educator/Nurse Practitioner



35.1%

Dietitian



80.4%

Ophthalmologist/Optometrist



14.9%

Psychologist/Psychiatrist



53.8%

Podiatrist



21.0%

Exercise Physiologist/
Physiotherapist

PHYSICAL ACTIVITY



35.8%

≥150 Mins/Week
Moderate Or
Vigorous Activity



41.9%

Muscle
Strengthening
Exercise

NUTRITION/DIET MANAGEMENT

81.9%

Sufficient Time To
Prepare Healthy Meals

57.6%

Not Too Costly To Eat Well

93.0%

Know What Foods
Are Best To Eat

59.7%

T1DM Only – Not Hard To
Count Carbs/Weigh Food

VACCINATIONS



26.1%

Received A COVID-19
Vaccination/Booster In The
Last 6 Months



63.3%

Received An Influenza
Vaccination In The
Last 12 Months



23.0%

Were Up-To-Date With
Pneumococcal Vaccination

FREQUENCY COUNT DATA

SECTION 1. PATIENT DEMOGRAPHICS

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
1.0	Consultation method									
		In person	2650	91.3%	92.3%					
		Phone	37	1.3%	1.3%					
		Video	185	6.4%	6.4%					
		Missing	32	1.1%						
		Sum	2904	100%	100%					
1.1	Date of birth									
		DOB	2904	100.0%	100%					
		Missing	0	0.0%						
		Sum	2904	100%	100%					
	Age									
		Age (years)	2904	100.0%	100%	61.8	59.0	16.8	18.2	97.1
		Missing	0	0.0%						
		Sum	2904	100%	100%					
1.2	Sex									
		Male	1638	56.4%	56.4%					
		Female	1265	43.6%	43.6%					
		Other	1	0.03%	0.1%					
		Missing	0	0.0%						
		Sum	2904	100%	100%					
1.2.1	Currently pregnant (females aged 18-55 years)									
		Yes	25	4.9%	4.9%					
		No	484	94.2%	95.1%					
		Missing	5	1.0%						
		Sum	514	100%	100%					
1.3	Date of visit									
		Visit Date	2904	100.0%	100%					
		Missing	0	0.0%						
		Sum	2904	100%	100%					
1.4	NDSS registrant									
		Yes	2655	91.4%	92.9%					
		No	202	7.0%	7.1%					
		Missing	47	1.6%						
		Sum	2904	100%	100%					
1.5	Aboriginal/Torres Strait Islander									
		Yes	202	7.0%	7.0%					
		No	2680	92.3%	93.0%					
		Missing	22	0.8%						
		Sum	2904	100%	100%					
1.6	Initial visit									
		Yes	366	12.6%	13.2%					
		No	2407	82.9%	86.8%					
		Missing	131	4.5%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 1. PATIENT DEMOGRAPHICS (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
1.7	Interpreter required									
		Yes	50	1.7%	1.8%					
		No	2736	94.2%	98.2%					
		Missing	118	4.1%						
		Sum	2904	100%	100%					
1.8	Main language spoken at home									
		Language provided	2771	95.4%	100%					
		Missing	133	4.6%						
		Sum	2904	100%	100%					
1.9	DVA									
		Yes	39	1.3%	1.4%					
		No	2813	96.9%	98.6%					
		Missing	52	1.8%						
		Sum	2904	100%	100%					
1.10	Country of birth									
		Country	2872	98.9%	100%					
		Missing	32	1.1%						
		Sum	2904	100%	100%					
1.11	Residential postcode									
		Postcode provided	2902	99.9%	100%					
		Missing	2	0.1%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 2. DIABETES TYPE & MANAGEMENT

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
2.1	Date of diagnosis									
		Year	2875	99.0%	100%					
		Missing	29	1.0%						
		Sum	2904	100%	100%					
	Diabetes duration					Median	IQR		Min	Max
		Diabetes duration (years)	2875	99.0%	100%	14.5	7.4, 24.4		0.0	74.3
		Missing	29	1.0%						
		Sum	2904	100%	100%					
2.2	Type of diabetes									
		T1DM	795	27.4%	27.4%					
		T2DM	2018	69.6%	69.6%					
		Other (Secondary causes)	85	2.9%	2.9%					
		Don't know	0	0.0%	0.0%					
		Missing	3	0.1%						
	Sum	2901	100%	100%						
2.3	Self-monitoring of glucose									
		None	332	11.4%	11.8%					
		Finger pricking only	1614	55.6%	57.5%					
		Continuous glucose monitoring only	758	26.1%	27.0%					
		Finger pricking and CGM	102	3.5%	3.6%					
		Missing	98	3.4%						
	Sum	2904	100%	100%						
2.3.1	Check as often as recommended**									
		Yes	1088	63.4%	64.1%					
		No	496	28.9%	29.2%					
		Unsure	114	6.6%	6.7%					
		Missing	18	1.0%						
	Sum	1716	100%	100%						
	<i>**Of patients using finger pricking</i>									
2.3.2	Number of times a day**					Median	Mean	SD	Min	Max
		Provided	1695	98.8%	100.0%	2.0	2.1	1.5	0.0	22.0
		Missing	21	1.2%						
		Sum	1716	100%	100%					
	<i>**Of patients using finger pricking</i>									
2.3.3	Sensor worn for ≥14 days in the last 3 months[†]									
		Yes	766	91.0%	92.6%					
		No	61	8.8%	7.4%					
		Missing	33	0.3%						
	Sum	860	100%	100%						
	<i>[†] Of patients using flash/continuous glucose monitoring</i>									
2.3.4	Percentage of active time sensor[†]									
		<70%	90	91.0%	11.9%					
		≥70%	664	8.8%	88.1%					
		Missing	106	0.3%						
	Sum	860	100%	100%						
	<i>[†] Of patients using flash/continuous glucose monitoring</i>									

*Relative % = % of the total excluding the missing values

SECTION 2. DIABETES TYPE & MANAGEMENT (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
2.4	Management method									
		Diet only	69	2.4%	2.4%					
		Metformin**	1585	54.6%	54.7%					
		Sulphonylurea**	409	14.1%	14.1%					
		Thiazolidinedione**	9	0.3%	0.3%					
		Acarbose**	8	0.3%	0.3%					
		DPP4 inhibitor**	518	17.8%	17.9%					
		SGLT2 inhibitor**	873	30.1%	30.1%					
		GLP1/GIP agonist**	674	23.2%	23.3%					
		Insulin**	1941	66.8%	67.0%					
		Missing	8	0.3%						
		<i>**Monotherapy or in combination with other treatments</i>								
2.4.1	Insulin duration**									
		<5 years	567	29.2%	31.7%					
		5-10 years	386	19.9%	21.6%					
		>10 years	834	43.0%	46.7%					
		Missing	154	7.9%						
		Sum	1941	100%	100%					
		<i>**Of patients using insulin</i>								
2.4.2	Insulin mode**†									
		Basal	316	16.3%	16.4%					
		Basal & pre-mixed insulin	4	0.2%	0.2%					
		Basal bolus	806	41.5%	41.8%					
		Basal bolus & pre-mixed insulin	19	1.0%	1.0%					
		CSII automated (hybrid closed loop system)	190	9.8%	9.8%					
		CSII automated (non-hybrid, other)	18	0.9%	0.9%					
		CSII automated (unstated type)	14	0.7%	0.7%					
		CSII non-automated	27	1.4%	1.4%					
		Pre-mixed insulin	535	27.6%	27.7%					
		Unstated	12	0.6%						
		Sum	1941	100%	100%					

***Of patients using an insulin pump*

† Multiple modes of insulin reported in some patients

*Relative % = % of the total excluding the missing values

SECTION 3. WEIGHT & HEIGHT

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
3.1	Weight	Weight (kg)	2824	97.2%	100%	87.0	90.0	23.2	30.6	246.0
		Missing	80	2.8%						
		Sum	2904	100%	100%					
3.2	Height	Height (m)	2753	94.8%	100%	1.7	1.7	0.1	1.4	2.2
		Missing	151	5.2%						
		Sum	2904	100%	100%					

SECTION 4. BLOOD PRESSURE

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
4.1a	Systolic blood pressure	Systolic (mmHg)	2692	92.7%	100%	131	132	18	85	211
		Missing	212	7.3%						
		Sum	2904	100%	100%					
4.1b	Diastolic blood pressure	Diastolic (mmHg)	2692	92.7%	100%	77	77	10	37	120
		Missing	212	7.3%						
		Sum	2904	100%	100%					
4.1.1	Blood pressure method**	Measured in clinic	2359	87.6%	90.9%					
		Self-reported	235	8.7%	9.1%					
		Missing	98	3.6%						
		Sum	2692	100%	100%					
<i>**Of patients with blood pressure measured</i>										
4.2	Antihypertensive therapy	Yes	1705	58.7%	61.4%					
		No	1073	36.9%	38.6%					
		Missing	126	4.3%						
		Sum	2904	100%	100%					
4.2.1	Antihypertensive therapies**	ACE inhibitor [†]	672	23.1%	24.2%					
		ARB [†]	699	24.1%	25.2%					
		Calcium channel blocker [†]	597	20.6%	21.5%					
		Thiazides/Diuretics [†]	334	11.5%	12.0%					
		Beta blocker [†]	535	18.4%	19.3%					
		Other antihypertensive [†]	147	5.1%	5.3%					
		Missing	126	4.3%						

***Of patients on antihypertensive therapy*

† Monotherapy or in combination with other antihypertensive therapies

*Relative % = % of the total excluding the missing values

SECTION 5. BLOOD GLUCOSE CONTROL & RENAL FUNCTION

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
5.1	HbA1c result (%)	HbA1c (%)	2715	93.5%	100%	7.9	8.2	1.8	4.1	17.1
		Missing	189	6.5%						
		Sum	2904	100%	100%					
5.1.1	HbA1c (%) test date	HbA1c (%) test date provided	1645	60.6%	100%					
		Missing	1070	39.4%						
		Sum	2715	100%	100%					
5.2	eGFR	eGFR (mL/min per 1.73m ²)	2619	90.2%	100%	83.0	72.3	22.1	3.0	137.0
		Missing	285	9.8%						
		Sum	2904	100%	100%					
5.3	Serum creatinine	Creatinine (µmol/L)	2454	84.5%	100%	80.0	105.0	101.2	24.0	1192.0
		Missing	450	15.5%						
		Sum	2904	100%	100%					
5.4a	Urinary albumin result (all units)	Result	1701	58.6%	100%					
		Missing	1203	41.4%						
		Sum	2904	100%	100%					
	Urinary albumin result (mg/L)					Median	IQR	Min	Max	
	Result provided	507	17.5%	100%	13.0	5.0, 42.5	0.0	7530.0		
	Albumin:creatinine (ratio)									
	Result provided	1194	41.1%	100%	1.9	0.8, 7.6	0.0	1083.1		
5.4b	Urinary protein result (all units)	Result provided	274	9.4%	100%					
		Missing	2630	90.6%						
		Sum	2904	100%	100%					
	Urinary protein result (mg/L)									
	Result provided	122	4.2%	100%	9.0	3.0, 33.0	0.0	4400.0		
	Protein:creatinine (ratio)									
	Result provided	152	5.2%	100%	9.4	3.0, 34.4	0.0	3546.0		

*Relative % = % of the total excluding the missing values

SECTION 6. MEDICATIONS & LIPIDS

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
6.1		Aspirin								
		Yes	754	26.0%	26.1%					
		No	2120	73.0%	73.5%					
		Contraindicated	11	0.4%	0.4%					
		Missing	19	0.7%						
		Sum	2904	100%	100%					
6.2		Other antiplatelets								
		Yes	164	5.6%	5.7%					
		No	2706	93.2%	94.0%					
		Contraindicated	10	0.3%	0.3%					
		Missing	24	0.8%						
		Sum	2904	100%	100%					
6.3		Anticoagulants								
		Yes	290	10.0%	10.1%					
		No	2585	89.0%	89.7%					
		Contraindicated	8	0.3%	0.3%					
		Missing	21	0.7%						
		Sum	2904	100%	100%					
6.4		Lipid modifying therapy								
		Yes	1860	64.0%	64.4%					
		No	1027	35.4%	35.6%					
		Missing	17	0.6%						
		Sum	2904	100%	100%					
6.4.1		Statin**								
		Yes	1747	93.9%	94.0%					
		No	101	5.4%	5.4%					
		Contraindicated	10	0.5%	0.5%					
		Missing	2	0.1%						
		Sum	1860	100%	100%					
6.4.2		Fibrate**								
		Yes	237	12.7%	12.7%					
		No	1616	86.9%	86.9%					
		Contraindicated	6	0.3%	0.3%					
		Missing	1	0.1%						
		Sum	1860	100%	100%					
6.4.3		Ezetimibe**								
		Yes	318	17.1%	17.1%					
		No	1537	82.6%	82.7%					
		Contraindicated	4	0.2%	0.2%					
		Missing	1	0.1%						
		Sum	1860	100%	100%					
6.4.4		Fish oil**								
		Yes	69	3.7%	3.7%					
		No	1788	96.1%	96.2%					
		Contraindicated	2	0.1%	0.1%					
		Missing	1	0.1%						
		Sum	1860	100%	100%					
6.4.5		PCSK9**								
		Yes	18	1.0%	1.0%					
		No	1839	98.9%	98.9%					
		Contraindicated	2	0.1%	0.1%					
		Missing	1	0.1%						
		Sum	1860	100%	100%					

**Of patients on lipid modifying therapy

*Relative % = % of the total excluding the missing values

SECTION 6. MEDICATIONS & LIPIDS (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
6.5	Lipids measured									
		Yes	2052	70.7%	71.1%					
		No	835	28.8%	28.9%					
		Missing	17	0.6%						
		Sum	2904	100%	100%					
6.5.1	Total cholesterol**									
		Total cholesterol (mmol/L)	2038	99.3%	100%	4.1	4.3	1.2	1.6	11.2
		Missing	14	0.7%						
		Sum	2052	100%	100%					
6.5.2	LDL**									
		LDL (mmol/L)	1785	87.0%	100%	2.0	2.2	0.9	0.1	8.1
		Missing	267	13.0%						
		Sum	2052	100%	100%					
6.5.3	HDL**									
		HDL (mmol/L)	1793	87.4%	100%	1.2	1.2	0.4	0.3	6.0
		Missing	259	12.6%						
		Sum	2052	100%	100%					
6.5.4	Triglycerides**					Median	IQR		Min	Max
		Triglycerides (mmol/L)	1877	91.5%	100%	1.5	1.0, 2.1		0.2	12.5
		Missing	175	8.5%						
		Sum	2052	100%	100%					

**Of patients with lipids measured

*Relative % = % of the total excluding the missing values

SECTION 7. DIABETES RELATED EYE & FOOT COMPLICATIONS

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
7.1a		Retinopathy - last 12 months								
		Yes	249	8.6%	9.0%					
		No	2533	87.2%	91.0%					
		Missing	122	4.2%						
		Sum	2904	100%	100%					
7.1b		Retinopathy - previous								
		Yes	492	16.9%	17.2%					
		No	2363	81.4%	82.8%					
		Missing	49	1.7%						
		Sum	2904	100%	100%					
7.2a		Treatment for retinopathy - last 12 months								
		Yes	165	5.7%	5.7%					
		No	2710	93.3%	94.3%					
		Missing	29	1.0%						
		Sum	2904	100%	100%					
7.2b		Treatment for retinopathy - previous								
		Yes	294	10.1%	10.7%					
		No	2463	84.8%	89.3%					
		Missing	147	5.1%						
		Sum	2904	100%	100%					
7.3a		Right or left cataract - last 12 months								
		Yes	328	11.3%	11.4%					
		No	2542	87.5%	88.6%					
		Missing	34	1.2%						
		Sum	2904	100%	100%					
7.3b		Right or left cataract - previous								
		Yes	557	19.2%	20.2%					
		No	2200	75.8%	79.8%					
		Missing	147	5.1%						
		Sum	2904	100%	100%					
7.4a		Blindness - last 12 months								
		Yes	28	1.0%	1.0%					
		No	2756	94.9%	99.0%					
		Missing	120	4.1%						
		Sum	2904	100%	100%					
7.4b		Blindness - previous								
		Yes	59	2.0%	2.1%					
		No	2713	93.4%	97.9%					
		Missing	132	4.5%						
		Sum	2904	100%	100%					
7.5a		Peripheral neuropathy - last 12 months								
		Yes	345	11.9%	12.0%					
		No	2534	87.3%	88.0%					
		Missing	25	0.9%						
		Sum	2904	100%	100%					
7.5b		Peripheral neuropathy - previous								
		Yes	583	20.1%	20.3%					
		No	2287	78.8%	79.7%					
		Missing	34	1.2%						
		Sum	2904	100%	100%					
7.6a		Foot ulceration - last 12 months								
		Yes	213	7.3%	7.4%					
		No	2667	91.8%	92.6%					
		Missing	24	0.8%						
		Sum	2904	100%	100%					
7.6b		Foot ulceration - previous								
		Yes	240	8.3%	8.4%					
		No	2625	90.4%	91.6%					
		Missing	39	1.3%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 7. DIABETES RELATED EYE & FOOT COMPLICATIONS (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
7.7a		Lower limb amputation - last 12 months								
		Yes	60	2.1%	2.1%					
		No	2822	97.2%	97.9%					
		Missing	22	0.8%						
		Sum	2904	100%	100%					
7.7.1a		Minor lower limb amputation - last 12 months								
		Yes	48	80.0%	80.0%					
		No	12	20.0%	20.0%					
		Missing	0	0.0%						
		Sum	60	100%	100%					
7.7.1b		Major lower limb amputation - last 12 months								
		Yes	11	18.3%	18.3%					
		No	49	81.7%	81.7%					
		Missing	0	0.0%						
		Sum	60	100%	100%					
7.7b		Lower limb amputation - previous								
		Yes	112	3.9%	3.9%					
		No	2759	95.0%	96.1%					
		Missing	33	1.1%						
		Sum	2904	100%	100%					
7.7.2a		Minor lower limb amputation - previous								
		Yes	86	76.8%	76.8%					
		No	26	23.2%	23.2%					
		Missing	0	0.0%						
		Sum	112	100%	100%					
7.7.2b		Major lower limb amputation - previous								
		Yes	29	25.9%	25.9%					
		No	83	74.1%	74.1%					
		Missing	0	0.0%						
		Sum	112	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 8. OTHER COMPLICATIONS/EVENTS/COMORBIDITIES

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
8.1a		Cerebral stroke - last 12 months								
		Yes	34	1.2%	1.2%					
		No	2848	98.1%	98.8%					
		Missing	22	0.8%						
		Sum	2904	100%	100%					
8.1b		Cerebral stroke - previous								
		Yes	140	4.8%	4.9%					
		No	2730	94.0%	95.1%					
		Missing	34	1.2%						
		Sum	2904	100%	100%					
8.2a		Myocardial infarction - last 12 months								
		Yes	56	1.9%	1.9%					
		No	2826	97.3%	98.1%					
		Missing	22	0.8%						
		Sum	2904	100%	100%					
8.2b		Myocardial infarction - previous								
		Yes	297	10.2%	10.4%					
		No	2570	88.5%	89.6%					
		Missing	37	1.3%						
		Sum	2904	100%	100%					
8.3a		CABG/Angioplasty - last 12 months								
		Yes	70	2.4%	2.4%					
		No	2811	96.8%	97.6%					
		Missing	23	0.8%						
		Sum	2904	100%	100%					
8.3b		CABG/Angioplasty - previous								
		Yes	318	11.0%	11.1%					
		No	2550	87.8%	88.9%					
		Missing	36	1.2%						
		Sum	2904	100%	100%					
8.4a		Congestive cardiac failure - last 12 months								
		Yes	36	1.2%	1.3%					
		No	2843	97.9%	98.7%					
		Missing	25	0.9%						
		Sum	2904	100%	100%					
8.4b		Congestive cardiac failure - previous								
		Yes	143	4.9%	5.0%					
		No	2722	93.7%	95.0%					
		Missing	39	1.3%						
		Sum	2904	100%	100%					
8.5a		Peripheral vascular disease - last 12 months								
		Yes	114	3.9%	4.0%					
		No	2759	95.0%	96.0%					
		Missing	31	1.1%						
		Sum	2904	100%	100%					
8.5b		Peripheral vascular disease - previous								
		Yes	220	7.6%	7.7%					
		No	2639	90.9%	92.3%					
		Missing	45	1.5%						
		Sum	2904	100%	100%					
8.6a		End stage kidney disease - last 12 months								
		Yes	40	1.4%	1.4%					
		No	2845	98.0%	98.6%					
		Missing	19	0.7%						
		Sum	2904	100%	100%					
8.6b		End stage kidney disease - previous								
		Yes	133	4.6%	4.6%					
		No	2742	94.4%	95.4%					
		Missing	29	1.0%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 8. OTHER COMPLICATIONS/EVENTS/COMORBIDITIES (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
8.7a		Sexual dysfunction - last 12 months								
		Yes	195	6.7%	6.9%					
		No	2641	90.9%	93.1%					
		Missing	68	2.3%						
		Sum	2904	100%	100%					
8.7b		Sexual dysfunction - previous								
		Yes	311	10.7%	11.1%					
		No	2499	86.1%	88.9%					
		Missing	94	3.2%						
		Sum	2904	100%	100%					
8.8a		Dementia - last 12 months								
		Yes	18	0.6%	0.6%					
		No	2860	98.5%	99.4%					
		Missing	26	0.9%						
		Sum	2904	100%	100%					
8.8b		Dementia - previous								
		Yes	38	1.3%	1.3%					
		No	2827	97.3%	98.7%					
		Missing	39	1.3%						
		Sum	2904	100%	100%					
8.9a		Depression - last 12 months								
		Yes	267	9.2%	9.7%					
		No	2495	85.9%	90.3%					
		Missing	142	4.9%						
		Sum	2904	100%	100%					
8.9b		Depression - previous								
		Yes	572	19.7%	20.8%					
		No	2176	74.9%	79.2%					
		Missing	156	5.4%						
		Sum	2904	100%	100%					
8.10a		Anxiety - last 12 months								
		Yes	271	9.3%	9.8%					
		No	2491	85.8%	90.2%					
		Missing	142	4.9%						
		Sum	2904	100%	100%					
8.10b		Anxiety - previous								
		Yes	467	16.1%	17.0%					
		No	2281	78.5%	83.0%					
		Missing	156	5.4%						
		Sum	2904	100%	100%					
8.11a		Malignancy - last 12 months								
		Yes	88	3.0%	3.1%					
		No	2789	96.0%	96.9%					
		Missing	27	0.9%						
		Sum	2904	100%	100%					
8.11b		Malignancy - previous								
		Yes	220	7.6%	8.0%					
		No	2546	87.7%	92.0%					
		Missing	138	4.8%						
		Sum	2904	100%	100%					
8.12a		Diabetic ketoacidosis - last 12 months								
		Yes	72	2.5%	2.6%					
		No	2700	93.0%	97.4%					
		Missing	132	4.5%						
		Sum	2904	100%	100%					
8.12b		Diabetic ketoacidosis - previous								
		Yes	204	7.0%	7.4%					
		No	2549	87.8%	92.6%					
		Missing	151	5.2%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 8. OTHER COMPLICATIONS/EVENTS/COMORBIDITIES (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
8.13a		Hyperosmolar hyperglycaemic state - last 12 months								
		Yes	17	0.6%	0.6%					
		No	2754	94.8%	99.4%					
		Missing	133	4.6%						
		Sum	2904	100%	100%					
8.13b		Hyperosmolar hyperglycaemic state - previous								
		Yes	28	1.0%	1.0%					
		No	2722	93.7%	99.0%					
		Missing	154	5.3%						
		Sum	2904	100%	100%					
8.14a		Impaired awareness of hypoglycaemia - last 12 months								
		Yes	104	3.6%	3.8%					
		No	2658	91.5%	96.2%					
		Missing	142	4.9%						
		Sum	2904	100%	100%					
8.14b		Impaired awareness of hypoglycaemia - previous								
		Yes	113	3.9%	4.1%					
		No	2632	90.6%	95.9%					
		Missing	159	5.5%						
		Sum	2904	100%	100%					
8.15a		Severe hypoglycaemia - last 12 months								
		Yes	102	3.5%	3.7%					
		No	2664	91.7%	96.3%					
		Missing	138	4.8%						
		Sum	2904	100%	100%					
8.15.1		Number of episodes**								
		1-2 episodes	66	64.7%	64.7%					
		3-5 episodes	24	23.5%	23.5%					
		>5 episodes	12	11.8%	11.8%					
		Missing	0	0.0%						
		Sum	102	100%	100%					
		<i>**Of patients who reported severe hypoglycaemia in the last 12 months</i>								
8.15b		Severe hypoglycaemia - previous								
		Yes	163	5.6%	5.9%					
		No	2585	89.0%	94.1%					
		Missing	156	5.4%						
		Sum	2904	100%	100%					
8.16		Liver disease								
		Mild	324	64.5%	70.3%					
		Moderate/severe	137	27.3%	29.7%					
		Not applicable	0	0.0%	0.0%					
		Missing	41	8.2%						
		Sum	502	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 8. OTHER COMPLICATIONS/EVENTS/COMORBIDITIES (continued)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
8.17a	COVID-19 - last 12 months									
		Yes	485	16.7%	17.9%					
		No	2221	76.5%	82.1%					
		Missing	198	6.8%						
		Sum	2904	100%	100%					
8.17.1	COVID-19 hospital admission - last 12 months**									
		Yes	32	6.6%	6.6%					
		No	452	93.2%	93.4%					
		Missing	1	0.2%						
		Sum	485	100%	100%					
		<i>**Of patients who have had COVID-19 in the last 12 months</i>								
8.17b	COVID-19 - previous									
		Yes	1116	38.4%	41.6%					
		No	1568	54.0%	58.4%					
		Missing	220	7.6%						
		Sum	2904	100%	100%					
8.17.2	COVID-19 hospital admission - previous**									
		Yes	62	5.6%	5.6%					
		No	1044	93.5%	94.4%					
		Missing	10	0.9%						
		Sum	1116	100%	100%					
		<i>**Of patients who have had COVID-19 prior to the last 12 months</i>								

SECTION 9. MENTAL HEALTH SCREENING

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
9.1	Screened for diabetes distress									
		Yes	214	7.4%	7.7%					
		No	2548	87.7%	92.3%					
		Missing	142	4.9%						
		Sum	2904	100%	100%					
9.2	Screened for depression									
		Yes	192	6.6%	7.7%					
		No	2303	79.3%	92.3%					
		Missing	409	14.1%						
		Sum	2904	100%	100%					
9.3	Screened for anxiety									
		Yes	187	6.4%	7.5%					
		No	2304	79.3%	92.5%					
		Missing	413	14.2%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

PATIENT HEALTH & WELL-BEING QUESTIONNAIRE

SECTION 1. SMOKING & VACCINATION STATUS

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
Q1.1	Smoking status - current									
		Currently smoke	319	11.0%	13.6%					
		Not currently smoking	2022	69.6%	86.4%					
		Missing	563	19.4%						
		Sum	2904	100%	100%					
Q1.1.1	Smoking status - past**									
		Previously smoked	716	35.4%	38.1%					
		Previously did not smoke	1164	57.6%	61.9%					
		Missing	142	7.0%						
		Sum	2022	100%	100%					
		<i>**Of patients who are not currently smoking</i>								
Q1.2	COVID-19 vaccination in the last 6 months									
		Yes	616	21.2%	26.1%					
		No	1744	60.1%	73.9%					
		Missing	544	18.7%						
		Sum	2904	100%	100%					
Q1.3	Influenza vaccination in the last 12 months									
		Yes	1491	51.3%	63.3%					
		No	866	29.8%	36.7%					
		Missing	547	18.8%						
		Sum	2904	100%	100%					
Q1.4	Pneumococcal vaccination is up to date									
		Yes	539	18.6%	23.0%					
		No	707	24.3%	30.1%					
		Unsure	1100	31.8%	46.9%					
		Missing	558	19.2%						
		Sum	2904	94%	100%					

*Relative % = % of the total excluding the missing values

SECTION 2. HEALTH PROFESSIONAL ATTENDANCES (LAST 12 MONTHS)

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
Q2.1		Attended endocrinologist								
		Yes	1518	52.3%	64.5%					
		No	834	28.7%	35.5%					
		Missing	552	19.0%						
		Sum	2904	100%	100%					
Q2.2		Attended diabetes educator/nurse practitioner								
		Yes	1576	54.3%	66.8%					
		No	785	27.0%	33.2%					
		Missing	543	18.7%						
		Sum	2904	100%	100%					
Q2.3		Attended dietitian								
		Yes	828	28.5%	35.1%					
		No	1533	52.8%	64.9%					
		Missing	543	18.7%						
		Sum	2904	100%	100%					
Q2.4		Attended podiatrist								
		Yes	1272	43.8%	53.8%					
		No	1092	37.6%	46.2%					
		Missing	540	18.6%						
		Sum	2904	100%	100%					
Q2.5		Attended ophthalmologist								
		Yes	847	29.2%	36.0%					
		No	1505	51.8%	64.0%					
		Missing	552	19.0%						
		Sum	2904	100%	100%					
Q2.6		Attended optometrist								
		Yes	1741	60.0%	73.8%					
		No	618	21.3%	26.2%					
		Missing	545	18.8%						
		Sum	2904	100%	100%					
Q2.7		Attended psychologist/psychiatrist								
		Yes	353	12.2%	14.9%					
		No	2013	69.3%	85.1%					
		Missing	538	18.5%						
		Sum	2904	100%	100%					
Q2.8		Attended social worker								
		Yes	186	6.4%	7.9%					
		No	2178	75.0%	92.1%					
		Missing	540	18.6%						
		Sum	2904	100%	100%					
Q2.9		Attended dentist								
		Yes	1107	38.1%	46.8%					
		No	1256	43.3%	53.2%					
		Missing	541	18.6%						
		Sum	2904	100%	100%					
Q2.10		Attended physiologist/physiotherapist								
		Yes	497	17.1%	21.0%					
		No	1867	64.3%	79.0%					
		Missing	540	18.6%						
		Sum	2904	100%	100%					
Q2.11		Needed an ambulance								
		Yes	156	5.4%	6.6%					
		No	2212	76.2%	93.4%					
		Missing	536	18.5%						
		Sum	2904	100%	100%					
Q2.12		Attended the emergency department								
		Yes	251	8.6%	10.6%					
		No	2114	72.8%	89.4%					
		Missing	539	18.6%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 3. MEDICATION USE

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
Q3.1		Ever forget to take medications in the last 2 weeks								
		Yes	434	14.9%	18.4%					
		No	1926	66.3%	81.6%					
		Missing	544	18.7%						
		Sum	2904	100%	100%					
Q3.1.1		Number of times per week**								
		Number of times per week provided	387	89.2%	100.0%	2.0	3.9	4.8	0.0	40.0
		Missing	47	10.8%						
		Sum	434	100%	100%					

***Of patients who forgot to take medications*

SECTION 4. FOOT CARE

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
Q4.1		Feet checked by a health professional in the last 12 months								
		Yes	1469	50.6%	62.4%					
		No	885	30.5%	37.6%					
		Missing	550	18.9%						
		Sum	2904	100%	100%					
Q4.2		Self feet check								
		Daily	936	32.2%	40.4%					
		Weekly	526	18.1%	22.7%					
		Monthly	252	8.7%	10.9%					
		Rarely/Never	602	20.7%	26.0%					
		Missing	588	20.2%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

SECTION 5. NUTRITION/DIET MANAGEMENT

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
Q5.1		Know what foods are best to eat								
		Yes	2194	75.6%	93.0%					
		No	164	5.6%	7.0%					
		Missing	546	18.8%						
		Sum	2904	100%	100%					
Q5.2		Enough time to prepare healthy meals								
		Yes	1931	66.5%	81.9%					
		No	428	14.7%	18.1%					
		Missing	545	18.8%						
		Sum	2904	100%	100%					
Q5.3		Costs too much to eat healthy meals								
		Yes	1000	34.4%	42.4%					
		No	1356	46.7%	57.6%					
		Missing	548	18.9%						
		Sum	2904	100%	100%					
Q5.4	(T1DM)	Hard to count carbs/weigh food								
		Yes	259	32.6%	40.3%					
		No	383	48.2%	59.7%					
		Missing	153	19.2%						
		Sum	795	100%	100%					

SECTION 6. PHYSICAL ACTIVITY

Item	Field	Category	Total	%	Relative %*	Median	Mean	SD	Min	Max
Q6.1		Moderate or vigorous intensity physical activity								
		150 mins/week or more	841	29.0%	35.7%					
		Less than 150 mins/week	721	24.8%	30.6%					
		Rarely/never	791	27.2%	33.6%					
		Missing	551	19.0%						
		Sum	2904	100%	100%					
Q6.2		Muscle strengthening								
		Yes	984	33.9%	41.9%					
		No	1364	47.0%	58.1%					
		Missing	556	19.1%						
		Sum	2904	100%	100%					

*Relative % = % of the total excluding the missing values

MISSING DATA

TABLE 1. OVERALL MISSING DATA

	Amount of missing data in variables					
	0-5%	6-10%	11-15%	16-20%	21-40%	>40%
Proportion of variables with missing data*	61.1%	13.7%	2.3%	19.1%	1.5%	2.3%

*Relates to the proportion of variables/fields according to the amount of missing data in each variable, e.g. 61.1% of variables had 5% or less of missing data.

TABLE 2. MISSING DATA (CLINICAL DATA COLLECTION FORM) BY FIELD AND DATA COLLECTION METHOD

Question No.	Question	All (n=2904)		Paper-based (n=927)		REDCap (n=1864)	
		n	%	n	%	n	%
		Patient Demographics					
1.0	How was the consultation conducted?	32	1.1	27	2.9	5	0.3
1.1	Date of birth	0	0.0	0	0.0	0	0.0
1.2	Sex	0	0.0	0	0.0	0	0.0
1.2.1	Currently pregnant (of females aged 18-55 years)	5	1.0	1	0.6	2	0.6
1.3	Date of visit	0	0.0	0	0.0	0	0.0
1.4	NDSS registrant	47	1.6	18	1.9	14	0.8
1.5	Aboriginal/Torres Strait Islander	22	0.8	15	1.6	0	0.0
1.6	Initial visit	131	4.5	21	2.3	5	0.3
1.7	Interpreter required	118	4.1	14	1.5	0	0.0
1.8	Main language spoken at home	133	4.6	20	2.2	0	0.0
1.9	DVA	52	1.8	23	2.5	5	0.3
1.10	Country of birth	32	1.1	14	1.5	2	0.1
1.11	Residential postcode	2	0.1	2	0.2	0	0.0
Diabetes Type & Management							
2.1	Date of diagnosis	29	1.0	14	1.5	11	0.6
2.2	Type of diabetes	3	0.1	1	0.1	0	0.0
2.3	Blood glucose monitoring	98	3.4	17	1.8	0	0.0
2.3.1	Finger prick - Check as often as recommended	18	0.6	10	1.1	5	0.3
2.3.2	Finger prick - Number of times a day	21	0.7	11	1.2	7	0.4
2.3.3	Was the sensor worn for ≥14 days in the last 3 months?	33	1.1	2	0.2	3	0.2
2.3.3.1	If YES, percentage of time sensor was active	106	3.7	28	3.0	50	2.7
2.4	Management method	8	0.3	8	0.9	0	0.0
2.4.1	Insulin - duration	154	7.9	72	11.5	37	3.0
2.4.2	Insulin - mode	12	0.6	6	1.0	4	0.3
Weight & Height							
3.1	Weight	80	2.8	32	3.5	25	1.3
3.2	Height	151	5.2	67	7.2	44	2.4
Blood Pressure							
4.1	Blood pressure	212	7.3	110	11.9	78	4.2
4.1.1	Measured in clinic or self-reported	98	3.4	9	1.1	0	0.0
4.2	Antihypertensive treatment	126	4.3	16	1.7	3	0.2
4.2.1	Antihypertensive medications	0	0.0	0	0.0	0	0.0

Question No.	Question	All (n=2904)		Paper-based (n=927)		REDCap (n=1864)	
		n	%	n	%	n	%
		Renal Function & Blood Glucose Control					
5.1	HbA1c	189	6.5	55	5.9	122	6.5
5.1.1	HbA1c - Test date	1070	39.4	321	36.8	693	39.8
5.2	eGFR	285	9.8	85	9.2	189	10.1
5.3	Serum creatinine	450	15.5	112	12.1	323	17.3
5.4a	Urinary albumin	1203	41.4	347	37.4	812	43.6
5.4b	Urinary protein	2630	90.6	858	92.6	1659	89.0
Medications & Lipids							
6.1	Aspirin	19	0.7	15	1.6	3	0.2
6.2	Other antiplatelets	24	0.8	17	1.8	5	0.3
6.3	Anticoagulants	21	0.7	17	1.8	3	0.2
6.4	Lipid modifying therapy	17	0.6	15	2.5	2	0.2
6.4.1	On lipid modifying therapy - Statin	2	0.1	0	0.0	1	0.1
6.4.2	On lipid modifying therapy - Fibrate	1	0.1	0	0.0	1	0.1
6.4.3	On lipid modifying therapy - Ezetimibe	1	0.1	0	0.0	1	0.1
6.4.4	On lipid modifying therapy - Fish oil	1	0.1	0	0.0	1	0.1
6.4.5	On lipid modifying therapy - PCSK9 inhibitor	1	0.1	0	0.0	1	0.1
6.5	Lipids measured	17	0.6	15	1.6	2	0.1
6.5.1	Lipids measured - Total cholesterol	14	0.7	2	0.3	11	0.9
6.5.2	Lipids measured - LDL	267	13.0	94	13.6	159	12.4
6.5.3	Lipids measured - HDL	259	12.6	85	12.3	159	12.4
6.5.4	Lipids measured - Triglycerides	175	8.5	47	6.8	124	9.7
Diabetes Related Eye & Foot Complications							
7.1a	Retinopathy - last 12 months	122	4.2	20	2.2	3	0.2
7.1b	Retinopathy - previous	49	1.7	24	2.6	8	0.4
7.2a	Retinopathy treatment - last 12 months	29	1.0	20	2.2	4	0.2
7.2b	Retinopathy treatment - previous	147	5.1	27	2.9	8	0.4
7.3a	Cataract - last 12 months	34	1.2	18	1.9	11	0.6
7.3b	Cataract - previous	147	5.1	26	2.8	8	0.4
7.4a	Blindness - last 12 months	120	4.1	16	1.7	3	0.2
7.4b	Blindness - previous	132	4.5	23	2.5	8	0.4
7.5a	Peripheral neuropathy - last 12 months	25	0.9	18	1.9	4	0.2
7.5b	Peripheral neuropathy - previous	34	1.2	25	2.7	6	0.3
7.6a	Foot ulceration - last 12 months	24	0.8	18	1.9	3	0.2
7.6b	Foot ulceration - previous	39	1.3	29	3.1	7	0.4
7.7a	Lower limb amputation - last 12 months	22	0.8	16	1.7	3	0.2
7.7.1	Minor/major - last 12 months	1	1.7	1	4.2	0	0.0
7.7b	Lower limb amputation - previous	33	1.1	23	2.5	7	0.4
7.7.2	Minor/major - previous	2	1.8	1	2.6	1	1.4

Question No.	Question	All (n=2904)		Paper-based (n=927)		REDCap (n=1864)	
		n	%	n	%	n	%
		Other Complications/Events/Comorbidities					
8.1a	Cerebral stroke - last 12 months	22	0.8	18	1.9	4	0.2
8.1b	Cerebral stroke - previous	34	1.2	29	3.1	5	0.3
8.2a	Myocardial infarction - last 12 months	22	0.8	18	1.9	4	0.2
8.2b	Myocardial infarction - previous	37	1.3	30	3.2	5	0.3
8.3a	CABG/Angioplasty - last 12 months	23	0.8	19	2.0	4	0.2
8.3b	CABG/Angioplasty - previous	36	1.2	30	3.2	5	0.3
8.4a	Congestive cardiac failure - last 12 months	25	0.9	19	2.0	5	0.3
8.4b	Congestive cardiac failure - previous	39	1.3	31	3.3	7	0.4
8.5a	Peripheral vascular disease - last 12 months	31	1.1	22	2.4	6	0.3
8.5b	Peripheral vascular disease - previous	45	1.5	36	3.9	6	0.3
8.6a	End stage renal disease - last 12 months	19	0.7	15	1.6	4	0.2
8.6b	End stage renal disease - previous	29	1.0	24	2.6	5	0.3
8.7a	Sexual dysfunction - last 12 months	68	2.3	51	5.5	8	0.4
8.7b	Sexual dysfunction - previous	94	3.2	74	8.0	10	0.5
8.8a	Dementia - last 12 months	26	0.9	19	2.0	5	0.3
8.8b	Dementia - previous	39	1.3	30	3.2	5	0.3
8.9a	Depression - last 12 months	142	4.9	21	2.3	8	0.4
8.9b	Depression - previous	156	5.4	35	3.8	8	0.4
8.10a	Anxiety - last 12 months	142	4.9	22	2.4	7	0.4
8.10b	Anxiety - previous	156	5.4	35	3.8	8	0.4
8.11a	Malignancy - last 12 months	27	0.9	18	1.9	7	0.4
8.11b	Malignancy - previous	138	4.8	30	3.2	7	0.4
8.12a	Diabetic ketoacidosis - last 12 months	132	4.5	20	2.2	4	0.2
8.12b	Diabetic ketoacidosis - previous	151	5.2	37	4.0	6	0.3
8.13a	Hyperosmolar hyperglycaemic state - last 12 months	133	4.6	20	2.2	5	0.3
8.13b	Hyperosmolar hyperglycaemic state - previous	154	5.3	37	4.0	6	0.3
8.14a	Impaired awareness of hypoglycaemia - last 12 months	142	4.9	20	2.2	9	0.5
8.14b	Impaired awareness of hypoglycaemia - previous	159	5.5	37	4.0	9	0.5
8.15a	Severe hypoglycaemic state - last 12 months	138	4.8	19	2.0	11	0.6
8.15.1	Severe hypoglycaemic state episodes - last 12 months	0	0.0	0	0.0	0	0.0
8.15b	Severe hypoglycaemic state - previous	156	5.4	39	4.2	10	0.5
8.16	Liver disease	41	1.4	26	2.8	12	0.6
8.17a	COVID-19 - last 12 months	198	6.8	56	6.0	29	1.6
8.17.1	COVID-19 hospitalisation- last 12 months	1	0.2	1	0.7	0	0.0
8.17b	COVID-19 - previous	220	7.6	73	7.9	34	1.8
8.17.2	COVID-19 hospitalisation - previous	10	0.9	7	1.9	3	0.4
Mental Health Screening							
9.1	Screened for diabetes distress	142	4.9	25	2.7	4	0.2
9.2	Screened for depression	409	14.1	104	11.2	192	10.3
9.3	Screened for anxiety	413	14.2	106	11.4	194	10.4

TABLE 3. MISSING DATA (PATIENT HEALTH & WELL-BEING QUESTIONNAIRE) BY FIELD AND DATA COLLECTION METHOD

Question No.	Question	All (n=2904)		Paper-based (n=927)		REDCap (n=1864)	
		n	%	n	%	n	%
		Patient Questionnaire - Smoking & Vaccination Status					
1.1	Currently smoke	563	19.4	291	31.4	230	12.3
1.1.1	Previously smoked	142	44.5	93	16.7	39	2.8
1.2	COVID-19 vaccination - last 6 months	544	18.7	277	29.9	225	12.1
1.3	Flu vaccination - last 12 months	547	18.8	278	30.0	227	12.2
1.4	Pneumococcal vaccination – up-to-date	558	19.2	285	30.7	229	12.3
Patient Questionnaire - Health Professional Attendances							
2.1	Endocrinologist	552	19.0	280	30.2	231	12.4
2.2	Diabetes Educator/Nurse Practitioner	543	18.7	275	29.7	228	12.2
2.3	Dietitian	543	18.7	276	29.8	229	12.3
2.4	Podiatrist	540	18.6	274	29.6	226	12.1
2.5	Ophthalmologist	552	19.0	285	30.7	228	12.2
2.6	Optometrist	545	18.8	280	30.2	226	12.1
2.7	Psychologist/Psychiatrist	538	18.5	274	29.6	225	12.1
2.8	Social worker	540	18.6	276	29.8	225	12.1
2.9	Dentist	541	18.6	276	29.8	227	12.2
2.10	Exercise Physiologist/Physiotherapist	540	18.6	275	29.7	227	12.2
2.11	Needed an Ambulance for diabetes	536	18.5	273	29.4	224	12.0
2.12	Attended the Emergency Department for diabetes	539	18.6	275	29.7	226	12.1
Patient Questionnaire - Medication Use							
3.1	Not taken medications as recommended (last 2 weeks)	544	18.7	276	29.8	229	12.3
3.1.1	Number of times per week	47	10.8	37	25.2	9	3.2
Patient Questionnaire - Foot Care							
4.1	Feet checked by health professional	550	18.9	280	30.2	232	12.4
4.2	Self-foot check	588	20.2	304	32.8	242	13.0
Patient Questionnaire - Nutrition/Diet Management							
5.1	(Adapted) Don't know what goods are best to eat	546	18.8	279	30.1	228	12.2
5.2	(Adapted) Insufficient time to prepare healthy meals	545	18.8	278	30.0	229	12.3
5.3	Too costly to eat well	548	18.9	278	30.0	232	12.4
5.4	(T1DM) Too hard to count carbs/weigh food	153	19.2	82	35.7	62	11.7
Patient Questionnaire - Physical Activity							
6.1	Moderate/vigorous intensity physical activity	551	19.0	277	29.9	233	12.5
6.2	Muscle strengthening exercise	556	19.1	282	30.4	234	12.6

POST DATA COLLECTION QUESTIONNAIRE RESULTS

At the end of the data collection period, we disseminated a post data collection questionnaire to staff at participating sites. Overall, we received feedback from 41 respondents, which may have included multiple staff from a site. More than half of respondents were from Centre of Excellence/Tertiary care (56.1%), 14.6% from Secondary care and 29.3% were from Primary care. The results in Table 3 highlight that there was a general approval of the 'Process' including the information provided, data definitions form and overall format. Respondents from sites who undertook web-based data collections were slightly more satisfied than respondents from sites who undertook paper-based data collections, with the exception of resource documents and data definitions.

TABLE 4. POST DATA COLLECTION QUESTIONNAIRE RESULTS BY DATA COLLECTION METHOD

Questionnaire category	Likert Scale: 1 = Poor, 3 = Midpoint, 5 = Good (Mean + SD)		
	All (n=41)	Paper-based (n=18)	REDCap (n=23)
Resource documents	4.0 ± 0.7	4.1 ± 0.9	4.0 ± 0.5
Data definitions document	4.3 ± 0.8	4.4 ± 1.1	4.2 ± 0.6
Format (layout of data items)	3.8 ± 1.0	3.5 ± 1.0	4.0 ± 1.0
Ease of form completion	3.9 ± 1.0	3.5 ± 1.0	4.1 ± 0.8
REDCap training webinar	4.0 ± 0.8	3.9 ± 0.9	4.1 ± 0.7
Time to complete the form			
Less than 10 minutes		33.3%	34.8%
10 - 15 minutes	NA	50.0%	34.8%
16 – 20 minutes		0.0%	4.3%
21 - 30 minutes		5.6%	17.4%
More than 30 minutes		11.1%	8.7%

ADCQR COMMITTEES

ADCQR Scientific Advisory Committee Membership

Member name	Role title and organisation	Contribution
Professor Sophia Zoungas (Chair)	Head, School of Public Health and Preventive Medicine, Monash University and Clinical Endocrinologist, Alfred Health and Monash Health, Melbourne [VIC]	Registry Lead and Data Custodian
Associate Professor Sofianos Andikopoulos	Chief Executive Officer, Australian Diabetes Society [NSW]	National Peak Body Representative
Ms Taryn Black	Chief Strategy Officer, Diabetes Australia [QLD]	National Peak Body Representative
Associate Professor Wendy Davis	Epidemiologist and Applied Biostatistician, The University of Western Australia [WA]	Data/Science Expert
Professor Barbora de Courten OAM	Deputy Dean and Distinguished Professor of Medicine, School of Health & Biomedicine, RMIT University and Specialist Physician, Monash Health [VIC]	Clinical Representative
Dr Gary Deed	General Practitioner and Medical Director, Mediwell Medical Clinic [QLD]	Primary Health Sector Representative
Professor Jeff Flack	Conjoint Professor, School of Medicine, Western Sydney University and Senior Staff Specialist Endocrinologist and Head, Department of Diabetes & Endocrinology and Director, Diabetes Centre, Bankstown-Lidcombe Hospital [NSW]	Clinical Representative
Professor Jenny Gunton	Head, Centre for Diabetes, Obesity and Endocrinology Research and Head, Westmead Institute for Medical Research and Clinical Endocrinologist / Diabetologist, Westmead Hospital [NSW]	Clinical Representative
Mr Trevor Jones	Person living with Type 2 Diabetes [WA]	Consumer Representative
Dr Konrad Kangru	General Practitioner, Whitsunday Doctors Service [QLD]	Primary Health Sector Representative
Associate Professor Odette Pearson	Co-Lead Aboriginal Health Equity Theme, South Australian Health & Medical Research Institute [SA]	Aboriginal and Torres Strait Islander Representative and Data/Science Expert
Ms Megan Phelan	Policy Officer, Clinical Quality Registry Section, Health Modelling, Partnerships and Evaluation Branch, Health Economics and Research Division, Australian Government Department of Health and Aged Care [ACT]	Australian Government Department of Health and Aged Care Representative
Ms Sally Rayner	Director, Clinical Quality Registry Section, Health Modelling, Partnerships and Evaluation Branch, Health Economics and Research Division, Australian Government Department of Health and Aged Care [ACT]	Australian Government Department of Health and Aged Care Representative
Professor Jane Speight	Chair, Behavioural and Social Research in Diabetes and Foundation Director, The Australian Centre for Behavioural Research in Diabetes [VIC]	Data/Science Expert
Ms Natalie Wischer OAM	Chief Executive Officer, National Association of Diabetes Centres [VIC]	National Peak Body Representative

ADCQR Project Executive

Name	Role
Professor Sophia Zoungas	Registry Lead
Ms Dimitra Giannopoulos	Project Manager
Professor Susannah Ahern	Technical Advisor
Professor Arul Earnest	Senior Biostatistician
Dr Ella Zomer	Research Lead
Dr Ahmad Reza Pourghaderi	Senior Data Scientist
Dr Hossein Nejati	Senior Data Manager/Analyst
Ms Trieu-Anh Truong	Data Manager
Ms Mahima Choudhary	Project Officer

APPENDICES



17942

Patient ID

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Site ID

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Section 7. Diabetes Related Eye & Foot Complications

	<u>Diagnosed in the last 12 months</u>		<u>Diagnosed previous to the last 12 months</u>	
	Yes	No	Yes	No
7.1 Retinopathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Treatment for retinopathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3 Right or left cataract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Blindness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.5 Peripheral neuropathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.6 Foot ulceration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7 Lower limb amputation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>if YES (Select all that apply) → 7.7.1</i>		<input type="checkbox"/> Minor <input type="checkbox"/> Major		7.7.2 <input type="checkbox"/> Minor <input type="checkbox"/> Major

Section 8. Other Complications/Events/Comorbidities

	<u>Diagnosed in the last 12 months</u>		<u>Diagnosed previous to the last 12 months</u>	
	Yes	No	Yes	No
8.1 Cerebral stroke	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Myocardial infarction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.3 CABG/Angioplasty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.4 Congestive cardiac failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.5 Peripheral vascular disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.6 End stage kidney disease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.7 Sexual dysfunction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.8 Dementia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.9 Depression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.10 Anxiety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.11 Malignancy (exclude non-melanotic skin cancers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.12 Diabetic ketoacidosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.13 Hyperosmolar hyperglycaemic state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.14 Impaired awareness of hypoglycaemia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.15 Severe hypoglycaemia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>if YES → 8.15.1 No. of episodes</i>		<input type="checkbox"/> 1-2 <input type="checkbox"/> 3-5 <input type="checkbox"/> >5		
8.16 Liver disease	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate/Severe <input type="checkbox"/> Not applicable		<u>Previous to the last 12 months</u>	
	<u>Last 12 months</u>		<input type="checkbox"/> Yes <input type="checkbox"/> No	
8.17 Has the patient tested positive to COVID-19?	<input type="checkbox"/> Yes <input type="checkbox"/> No		8.17.2 <input type="checkbox"/> Yes <input type="checkbox"/> No	
<i>if YES → 8.17.1 Was the patient hospitalised?</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No		

Section 9. Mental Health Screening (if not previously diagnosed)

9.1 Has the patient been screened for diabetes distress in the last 12 months using a validated measure? Yes No
(e.g. PAID, DDS)

9.2 Has the patient been screened for depression in the last 12 months using a validated measure? Yes No
(e.g. PHQ_9)

9.3 Has the patient been screened for anxiety in the last 12 months using a validated measure? Yes No
(e.g. GAD-7)

Please indicate whether the patient health and well-being questionnaire will be completed?

Yes → Please complete the questionnaire on page 3.

No → Thank you for completing the ADCQR data collection form.



17942

PATIENT HEALTH & WELL-BEING QUESTIONNAIRE
Australian Diabetes Clinical Quality Registry

PATIENT FORM
Page 3 of 3

 Patient ID

 Site ID

(OFFICE USE ONLY - Site staff to complete Patient ID)

Please answer all questions by marking the appropriate box

 Cross box like this:

Section 1. Smoking & Vaccination Status

 1.1 Do you currently smoke tobacco? Yes No → 1.1.1 ***if NO***, did you previously smoke tobacco? Yes No
 [i.e. cigarettes/cigars/e-cigarettes(vaping)]

 1.2 Have you had a COVID-19 vaccination in the last 6 months? Yes No

 1.3 Have you had a flu (influenza) vaccination in the last 12 months? Yes No

 1.4 Are you up to date with your pneumococcal vaccination? Yes No Unsure

Section 2. Health Professional Attendances

 2.1 Have you seen an Endocrinologist in the last 12 months? Yes No

 2.2 Have you seen a Diabetes Educator/Nurse Practitioner in the last 12 months? Yes No

 2.3 Have you seen a Dietitian in the last 12 months? Yes No

 2.4 Have you seen a Podiatrist in the last 12 months? Yes No

 2.5 Have you seen an Ophthalmologist in the last 12 months? Yes No

 2.6 Have you seen an Optometrist in the last 12 months? Yes No

 2.7 Have you seen a Psychologist/Psychiatrist in the last 12 months? Yes No

 2.8 Have you seen a Social Worker in the last 12 months? Yes No

 2.9 Have you seen a Dentist in the last 12 months? Yes No

 2.10 Have you seen an Exercise Physiologist/Physiotherapist in the last 12 months? Yes No

 2.11 Have you needed an Ambulance for your diabetes in the last 12 months? Yes No

 2.12 Have you attended the Emergency Department for your diabetes in the last 12 months? Yes No

Section 3. Medication Use

 3.1 Sometimes people do not take their medications as recommended. Has this happened to you in the last 2 weeks? Yes No

 3.1.1 → ***if YES***, how many times?

Section 4. Foot Care

 4.1 Have you had your feet checked by a health professional in the last 12 months? Yes No

 4.2 How often do you self check your feet? Daily Weekly Monthly Rarely/Never

Section 5. Nutrition/Diet Management

 5.1 Do you know what foods are best to eat? Yes No

 5.2 Do you have enough time to prepare healthy meals? Yes No

 5.3 Does it cost too much to eat healthy meals? Yes No

 5.4 If you have type 1 diabetes - Do you find it hard to count carbs/weigh food? Yes No

Section 6. Physical Activity

 6.1 How many minutes per week of moderate or vigorous intensity physical activity do you usually do?
 (e.g. brisk walking, lawnmowing, swimming, or more vigorous activity such as jogging)
 150 mins/week or more
 Less than 150 mins/week
 I rarely/never do moderate or vigorous physical activity

 6.2 Do you do any muscle strengthening exercise in a usual week?
 (e.g. lifting weights or household tasks that involve lifting, carrying or digging) Yes No

THANK YOU FOR COMPLETING THE QUESTIONNAIRE.
PLEASE RETURN TO STAFF.

ADCQR DATA DEFINITIONS

Identifiers	
Patient ID	Compulsory field. Enter identifier such as record number <u>or</u> use the following nomenclature: site ID, the first 2 letters of the first name, and the first 2 letters of the surname (e.g. NNNFFSS) to enable you to check your records if there is a query from the ADCQR regarding the data.
Site ID	Unique site identifier (assigned by the ADCQR Secretariat).
Staff initials (optional)	Site staff initials.
Visit conduct	Record if the consultation was conducted in person , by video or by phone .
Participant information sheet given	Mark if the patient was provided with the participant information sheet.
Section 1. Patient Demographics	
Date of birth	Record the patient's date of birth as DD/MM/YYYY .
Sex	Mark Male <u>or</u> Female <u>or</u> Other to indicate the person's recorded sex at birth.
Currently pregnant	If sex is female, mark Yes <u>or</u> No to indicate if the patient is currently pregnant.
Date of visit	Record the date the patient attended as DD/MM/YYYY .
Initial visit	Mark Yes <u>or</u> No to indicate if this is an initial visit assessment at this site.
Aboriginal/Torres Strait Islander	Mark Yes <u>or</u> No to indicate Aboriginal/Torres Strait Islander background.
Main language spoken at home	Record the patient's main language spoken at home.
Interpreter required	Mark Yes <u>or</u> No to indicate if the patient requires an interpreter.
Residential postcode	Record the patient's residential postcode.
NDSS registrant	Mark Yes <u>or</u> No to indicate if the patient is registered on the National Diabetes Services Scheme (NDSS).
Country of birth	Record the patient's country of birth.
DVA	Mark Yes <u>or</u> No to indicate if the patient's medical care charges are met by the Department of Veterans' Affairs (DVA).
Section 2. Diabetes Type & Management	
Date of diagnosis	Record first diagnostic blood glucose estimation as MM/YYYY . [If date unknown other than year, record as 01/YYYY].
Type of diabetes	Mark Type 1 <u>or</u> Type 2 <u>or</u> Other (secondary causes) <u>or</u> Don't know , to indicate the clinical classification of diabetes. <i>Please note: Female patients with a diagnosis of gestational diabetes mellitus (GDM) (not known to have established diabetes, i.e. a diagnosis of diabetes prior to pregnancy) are excluded from the Registry and should not have data collected.</i>
Self-monitoring of glucose	Mark how blood glucose levels are self-monitored by the patient. If multiple, tick all that apply within the last 12 months. None: No regular blood glucose monitoring is performed. Finger pricking: A blood sample is obtained via a finger-prick and is analysed using testing strips and a glucometer. Continuous Glucose Monitoring (CGM): Subcutaneous/interstitial glucose monitoring systems that automatically provide the user (and/or carer) with real-time glucose data via a receiver or compatible phone running an application. To indicate that a patient uses CGM, this system should have been used for at least 1 month over the last 12 months. Flash Glucose Monitoring: A factory calibrated subcutaneous/interstitial glucose monitoring system that currently requires the user (and/or carer) to scan the attached sensor with a reader or compatible phone running an application in order to view recent glucose data. To indicate that a patient uses Flash Glucose Monitoring, this system should have been used for at least 1 month over the last 12 months.
Finger pricking - Does the patient check their blood glucose level as often as	If monitoring glucose by finger pricking, mark if the patient checks their blood glucose as often as recommended (Yes/No/Unsure of recommended frequency).

ADCQR DATA DEFINITIONS

recommended?	
Finger pricking - How many times a day?	If monitoring glucose by finger pricking, indicate the number of times the patient does finger pricking per day on average.
If using Flash/CGM, time using sensors	If monitoring glucose using Flash/CGM, mark Yes or No to indicate if the patient has worn a sensor for a minimum of 14 days in the last 3 months. If Yes , mark the percentage of time the sensor was active (<70% or ≥70%)
Management method	If multiple, tick all that apply . DPP4 – dipeptidyl peptidase IV, GIP – glucose-dependent insulinotropic polypeptide, GLP1 – glucagon-like peptide 1, SGLT2 – sodium-glucose cotransporter-2. See the Living Evidence Guidelines in Diabetes for treatment recommendations and information on each drug class. These guidelines can be found on the Australian Diabetes Society website, or with the direct links below: https://www.diabetessociety.com.au/living-evidence-guidelines-in-diabetes
Insulin duration	If the patient is on insulin, record the number of years/months the patient has been on insulin.
Insulin mode	If the patient is on insulin, mark the mode of administration(s). If multiple, tick all that apply . Basal: Intermediate-acting or long-acting insulin injection(s). Basal bolus: Insulin regime that utilises any type of basal insulin as well as any type of bolus insulin. Pre-mixed insulins are excluded from this category. Pre-mixed: Injection of any pre-mixed combination of intermediate or long-acting insulin with either short-acting or very short-acting insulin. Pump: Mode of insulin delivery being via continuous subcutaneous insulin infusion. If using a pump, mark the type of pump: CSII Automated or CSII Non-automated If using a CSII Automated pump, mark if it is a hybrid closed loop system: The simultaneous and integrated use of continuous glucose monitoring and an insulin pump with a control algorithm that may increase and decrease basal insulin delivery based on real-time interstitial glucose results.
Section 3. Weight & Height	
Weight	Record in kilograms the weight measurement without shoes or jacket. Weight may be measured in clinic or self-reported by the patient.
Height	Record in metres the height measurement without shoes. Height may be measured in clinic or self-reported by the patient.
Section 4. Blood Pressure	
Blood pressure	Record systolic / diastolic (mmHg) measured after 5 minutes sitting, [1st and 5th phases] . Mark the option that describes where blood pressure was measured (In clinic/Self-reported)
Anti-hypertensive treatment	Mark Yes or No to indicate if the patient is on treatment for hypertension.
Anti-hypertensive medications	If Yes , select the anti-hypertensive medication(s) the patient is currently taking. ACE – angiotensin converting enzyme, ARB – angiotensin II receptor blocker. Thiazides also include thiazide-like diuretics. If on a combination tablet, tick all that apply.
Section 5. Blood Glucose Control & Renal Function	
HbA1c result	Record the most recent Haemoglobin A1c (HbA1c) result [%] in the last 12 months, or tick 'Not tested'. 'Not tested' refers to a test which has not been ordered by the patient's clinician/health practitioner in the last 12 months.
HbA1c test date	If HbA1c was measured, record the date as MM/YYYY for the most recent Haemoglobin A1c (HbA1c) result in the last 12 months.
eGFR	Record the result for the most recent eGFR [mL/min per 1.73m²] in the last 12 months, or tick 'Not tested'. If the result is reported as eGFR ≥90, record as 90.

ADCQR DATA DEFINITIONS

	'Not tested' refers to a test which has not been ordered by the patient's clinician/health practitioner in the last 12 months.
Serum creatinine	Record result measurement of serum creatinine [$\mu\text{mol/L}$] in the last 12 months, or tick 'Not tested'. 'Not tested' refers to a test which has not been ordered by the patient's clinician/health practitioner in the last 12 months.
Urinary albumin	Record amount of albumin [mg/L] or ratio . If the result is less than the lower limit of detection provided by the pathology service, please record the lower limit of detection. Example: If reported as <0.05 please record as 0.05. Tick 'Not tested' if a test has not been ordered by the patient's clinician/health practitioner in the last 12 months.
Urinary protein	Record amount of albumin [mg/L] or ratio . If the result is less than the lower limit of detection provided by the pathology service, please record the lower limit of detection. Example: If reported as <0.05 please record as 0.05. Tick 'Not tested' if a test has not been ordered by the patient's clinician/health practitioner in the last 12 months.
Section 6. Medications and Lipids	
Aspirin	Mark Yes or No to indicate whether the patient is on aspirin. Indicate if contraindicated.
Other anti-platelets	Mark Yes or No to indicate whether the patient is on any other anti-platelet treatment (e.g. clopidogrel, ticagrelor or prasugrel). Indicate if contraindicated.
Anti-coagulants	Mark Yes or No to indicate whether the patient is on anti-coagulants (e.g. warfarin or non-vitamin K antagonist oral anticoagulants (NOAC)). Indicate if contraindicated.
Lipid modifying treatment	Mark Yes or No to indicate whether the patient is on lipid lowering treatment. If Yes , indicate whether they are on statin, fibrate, ezetimibe, fish oil, PCSK9 inhibitor. PCSK9 – proprotein convertase subtilisin/kexin type 9. Indicate if contraindicated. If on combination tablet, tick all that apply.
Lipids measured	Mark Yes or No to indicate if lipids have been measured in the last 12 months.
Total Cholesterol, LDL, HDL, Triglycerides	Record the most recent result(s) for <i>total, LDL & HDL cholesterol</i> and <i>triglycerides</i> [mmol/L] in the last 12 months or tick 'Not tested'. <i>Recorded lipids can include fasting or non-fasting results.</i> 'Not tested' refers to a test which has not been ordered by the patient's clinician/health practitioner.
Section 7. Diabetes Related Eye & Foot Complications	
Mark Yes or No to indicate diagnosis/detection of diabetes related eye and foot problems in the last 12 months AND/OR previously (prior to the last 12 months). Answer all questions.	
Retinopathy	Mark Yes or No to indicate if the ophthalmological assessment revealed any diabetic retinopathy or maculopathy.
Treatment for retinopathy	Mark Yes or No to indicate if the patient has had any treatment for retinopathy. Includes any of the following: laser photocoagulation treatment, intravitreal VEGF inhibitor injection, or vitrectomy.
Right or left cataract	Mark Yes or No to indicate if the patient currently has a cataract or has had one removed.
Blindness	Mark Yes or No to indicate if the patient became legally blind (visual acuity <6/60) in either eye.
Peripheral neuropathy	Mark Yes or No to indicate clinical judgement following assessment using pin prick and vibration (using a Biothesiometer or tuning fork) or Monofilament. Includes the presence of both painful and non-painful neuropathy. Also includes the presence of Charcot foot.
Foot ulceration	Mark Yes or No to indicate past history of foot ulceration.
Lower limb amputation	Mark Yes or No to indicate lower limb amputation. Amputation of toe, forefoot or leg [above or below knee], not due to trauma or causes other than vascular disease.
Minor/Major Lower Limb	If the patient has had an amputation in either lower limb, indicate if minor and/or

ADCQR DATA DEFINITIONS

Amputation	major. Minor = Amputation of the toe(s) or foot (below the ankle) Major = Amputation above the ankle.
Section 8. Other Complications/Events/Comorbidities	
Mark Yes or No to indicate diagnosis/detection or event in the last 12 months AND/OR previously (prior to the last 12 months). Answer all questions.	
Cerebral stroke	Mark Yes or No to indicate if the patient has had a diagnosis of ischaemic stroke (Does not include transient ischaemic attack or haemorrhagic stroke).
Myocardial infarction	Mark Yes or No to indicate if the patient has had a myocardial infarction evidenced by ECG changes, plasma enzyme changes or medical documentation.
CABG/Angioplasty	Mark Yes or No to indicate if the patient has had Coronary Artery Bypass Graft (CABG) surgery, coronary angioplasty or stent.
Congestive cardiac failure	Mark Yes or No to indicate if the patient has symptomatic congestive cardiac failure with response to specific therapy.
Peripheral vascular disease	Mark Yes or No to indicate if the patient has peripheral vascular disease. Yes: Absence of both dorsalis pedis <u>and</u> posterior tibial pulses in either foot and/or symptoms of peripheral vascular disease (e.g. intermittent claudication, rest pain, tissue loss/gangrene) and/or Ankle-Brachial Pressure Index <0.9 and/or confirmatory arterial ultrasound or angiography and/or previous revascularisation procedure (incl. angioplasty, stent insertion or surgical bypass).
End stage kidney disease	Mark Yes or No to indicate if the patient has any of the following: stage 5 chronic kidney disease (eGFR <15mL/min/1.73m ²) and/or dialysis-dependent (haemodialysis or peritoneal dialysis) and/or renal transplant recipient.
Sexual dysfunction	Mark Yes or No to indicate if the patient has/had experienced any of the following: If male: History or treatment of failure to achieve or maintain erection sufficient for satisfactory sexual intercourse. If female: History of persistent and recurrent problems with sexual response, desire, orgasm or pain that cause distress or relationship strain associated with diabetes.
Dementia	Mark Yes or No to indicate if the patient has had a formal diagnosis of dementia from a clinician or prescribed dementia-specific pharmacotherapy.
Depression	Mark Yes or No to indicate if the patient has had a formal diagnosis of depression from a clinician or prescribed pharmacotherapy for depression.
Anxiety	Mark Yes or No to indicate if the patient has had a formal diagnosis of anxiety from a clinician or prescribed pharmacotherapy for anxiety.
Malignancy	Mark Yes or No to indicate if the patient has had any type of malignancy. <i>Exclude non-melanoma skin cancers.</i>
Diabetic Ketoacidosis (DKA)	Mark Yes or No to indicate if the patient has had any hospital admission involving diabetic ketoacidosis as evidenced by blood results (glucose, ketones, pH) or medical documentation.
Hyperosmolar Hyperglycaemic State (HHS)	Mark Yes or No to indicate if the patient has had any hospital admission involving hyperosmolar hyperglycaemic state as evidenced by blood results (glucose, osmolality) or medical documentation.
Impaired awareness of hypoglycaemia	Mark Yes or No to indicate if the patient has had any of the following: - Reduced ability to perceive the onset of hypoglycaemia. Includes: - Reduced symptoms of hypoglycaemia - Lower recognition of those symptoms, e.g. through diminished severity of symptoms or because those symptoms are occurring at a lower glucose level than previously - Change in symptom type, whereby the patient does not 'recognise' the new symptom as being related to hypoglycaemia onset
Severe hypoglycaemia	Mark Yes or No to indicate severe hypoglycaemia requiring assistance of another person to actively administer carbohydrates, glucagon, or other corrective actions.
Number of episodes	If Yes to 'Severe hypoglycaemia', mark the number of episodes (1-2, 3-5 or >5).
Liver disease	Indicate severity of liver disease <u>or</u> if not applicable . Mild: cirrhosis <u>without</u> portal hypertension, chronic hepatitis.

ADCQR DATA DEFINITIONS

	Moderate to severe: cirrhosis <u>with</u> portal hypertension.
COVID-19 positive	Mark Yes or No to indicate if the patient has tested positive to COVID-19 confirmed by a positive Rapid Antigen Test (RAT) or Polymerase Chain Reaction (PCR) test in the last 12 months AND/OR previously (prior to the last 12 months).
COVID-19 hospitalisation	If Yes to 'COVID-19', mark Yes or No to indicate if the patient was admitted to hospital. Any hospital admission, including to a general medical ward or intensive care unit (ICU).
Section 9. Mental Health Screening	
Diabetes distress	Mark Yes or No to indicate if the patient has been screened for diabetes distress using a validated questionnaire/measure in the last 12 months. Example: Problem Areas In Diabetes questionnaire (PAID) screening tool, Diabetes Distress Scale (DDS).
Depression	Mark Yes or No to indicate if the patient has been screened for depression using a validated questionnaire/measure in the last 12 months. Example: Patient Health Questionnaire (PHQ-9) screening tool. <i>This only applies to patients who have NOT had a formal diagnosis of depression from a clinician or prescribed pharmacotherapy for depression in the last 12 months.</i>
Anxiety	Mark Yes or No to indicate if the patient has been screened for anxiety using a validated questionnaire/measure in the last 12 months. Example: Generalized Anxiety Disorder scale (GAD- 7) screening tool. <i>This only applies to patients who have NOT had a formal diagnosis of anxiety from a clinician or prescribed pharmacotherapy for anxiety in the last 12 months.</i>
PATIENT HEALTH & WELL-BEING QUESTIONNAIRE	
Section 1. Smoking & Vaccination Status	
Currently smoke tobacco	Mark if the patient currently smokes <u>any tobacco material</u> (Yes/No). [i.e. cigarettes/cigars/e-cigarettes(vaping)]
Previously smoked tobacco	If No to 'Currently smoke tobacco', mark if the patient previously smoked <u>any tobacco material</u> (Yes/No).
COVID-19 vaccination	Mark if the patient had a COVID-19 vaccination in the last 6 months (Yes/No).
Flu/Influenza vaccination	Mark if the patient had a flu (influenza) vaccination in the last 12 months (Yes/No).
Pneumococcal vaccination	Mark if the patient is up-to-date with their pneumococcal vaccination (Yes/No/Unsure).
Section 2. Health Professional Attendances	
Endocrinologist	Mark if the patient attended an Endocrinologist in the last 12 months (Yes/No).
Diabetes Educator/Nurse Practitioner	Mark if the patient attended a Diabetes Educator/Nurse Practitioner in the last 12 months (Yes/No).
Dietitian	Mark if the patient attended a Dietician in the last 12 months (Yes/No).
Podiatrist	Mark if the patient attended a Podiatrist in the last 12 months (Yes/No).
Ophthalmologist	Mark if the patient attended an Ophthalmologist in the last 12 months (Yes/No).
Optometrist	Mark if the patient attended an Optometrist in the last 12 months (Yes/No).
Psychologist/Psychiatrist	Mark if the patient attended a Psychologist/Psychiatrist in the last 12 months (Yes/No).
Social Worker	Mark if the patient attended a Social Worker in the last 12 months (Yes/No).
Dentist	Mark if the patient attended a Dentist in the last 12 months (Yes/No).
Exercise Physiologist/Physiotherapist	Mark if the patient attended an Exercise Physiologist/Physiotherapist in the last 12 months (Yes/No).
Ambulance	Mark if the patient needed an Ambulance for their diabetes in the last 12 months (Yes/No).

ADCQR DATA DEFINITIONS

Emergency Department	Mark if the patient attended an Emergency Department for their diabetes in the last 12 months (Yes/No).
Section 3. Medication Use	
Medication use practices	Mark if the patient has not taken their medications as recommended in the last 2 weeks (Yes/No). If Yes, indicate the number of times.
Section 4. Foot care	
Feet Checked	Mark if the patient has had their feet checked by a professional (e.g. doctor, nurse, podiatrist) in the last 12 months (Yes/No).
Self-check of feet	Mark the option that best describes how often the patient self-checks their feet (Daily, Weekly, Monthly, Rarely/never).
Section 5. Nutrition/Diet Management	
Do you know what foods are best to eat?	Mark if the patient has enough knowledge about what foods and how much are best to eat (Yes/No).
Do you have enough time to prepare healthy meals?	Mark if the patient has enough time to prepare healthy meals (Yes/No).
Does it cost too much to eat healthy meals?	Mark if the patient feels it costs too much to eat healthy meals (Yes/No).
If you have Type 1 diabetes, do you find it hard to count carbs/weigh food?	If the patient has type 1 diabetes, mark if the patient finds it hard to count carbs and/or weigh food (Yes/No).
Section 6. Physical Activity	
Physical activity	Mark the usual weekly duration of time (150 mins/week or more, less than 150 mins/week, or rarely/never) spent performing moderate or vigorous intensity physical activity. Physical activity is calculated in 'total minutes per week' by summing the total minutes of walking, moderate and/or vigorous physical activity in a usual 7-day period. Vigorous physical activity is weighted by a factor of two to account for its greater intensity. <i>Intensity of physical activity</i> is defined by The National Physical Activity Guidelines for Australians: Moderate physical activity causes a slight but noticeable increase in breathing and heart rate, the person can comfortably talk but not sing. Vigorous physical activity causes the person to 'huff and puff,' talking in full sentences between breaths is difficult.
Muscle strengthening exercise	Mark whether the patient does any muscle strengthening exercise in a usual week. (Yes/No). Muscle strengthening activities are physical activities that maintain or improve the strength, power, endurance and size of skeletal muscles. This can be physical activity with free weights, body weight or resistance machines/bands, or house/garden activities that involve muscular effort, such as, lifting, carrying or digging.