OntarioMD

OntarioMD Inc.

Electronic Medical Records

SPECIFICATION

Appendix D – Reporting of Diabetes Data Requirements

FINAL

Date: January 17, 2011
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Ontario
eHealth Ontario

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1. INTRODUCTION

1.1 SCOPE / PURPOSE OF THE DOCUMENT

The following Appendix defines structured reporting of diabetes information.

OntarioMD, in collaboration with the MOHLTC defined these requirements in Specification v3.0 to support the movement of data from the EMR to external applications.

This data will potentially be used for:

- Export to a diabetes registry/management application.
- Analysis of diabetes data for the purpose of internal practice surveillance, program planning, Plan-Do-Study-Act (PDSA) cycles, etc.

The expected outcome of this report is structured data, saved to disk, organized to allow for the movement of diabetes information.

Transport of structured report is out-of-scope for this document. It is assumed that the process for the information to be uploaded will be based on the existence of a report saved to disk, or other media.

1.2 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

TERM	MEANING
AHFS	**A**merican **H**ospital **F**ormulary **S**ervice
DIN	**D**rug Identification Number
ICD10-CA	**I**nternational **C**lassification of **D**iseases, 10th Revision, Clinical Modification
ISO 3166-2	Codes for the representation of names of countries and their subdivisions -- Part 1: Country codes. http://www.iso.org/iso/en/ISOOnline.frontpage
OHIP	**O**ntario **H**ealth **I**nsurance **P**lan
OHN	**O**ntario **H**ealth **N**umber
WHO	**W**orld **H**ealth **O**rganization
MOHLTC	**M**inistry of **H**ealth and **L**ong-**T**erm **C**are

1.3 RELATED DOCUMENTS AND REFERENCES

DOCUMENT NAME	VERSION	DATE
EMR Document Mapping	1.0	17-Jan-2011
Appendix A - EMR Baseline Requirements	Final / v4.0	17-Jan-2011
Appendix B – Data Portability Requirements	Final / v4.0	17-Jan-2011
Appendix C – Chronic Management Disease Requirements	Final / v4.0	17-Jan-2011

2. DIABETES EXPORT

2.1 DIABETES REPORTING REQUIREMENTS

For the purposes of the Diabetes Export, the following terms and abbreviations are defined and is applicable to all tables in this section:

Diabetes CDS Schema is:

- a data structure that is used to export data for the provincial Diabetes Registry
- comprised of CDS Categories

Structured Field - is a data element described in Section 2.1 – Diabetes Reporting Schema and behaves according to the definitions contained in the CDS Schema in Tables 1 to 7

Scoring Key: **M** = Mandatory criteria for certification
W = Weighted criteria

Status Key: **N** = New requirement for EMR Specification 4.0
P = Previous requirement from CMS Specification 3.0
U = Updated from a previous CMS Specification 3.0
R = Retired from previous CMS Specification 3.0

Requirement	Guidelines	M/W	Status	Discussion/Comments
a) Supports export of all provisioned diabetes information within the EMR per the diabetes reporting schema described in section 2.1. Reporting will be based on the following parameters. ▪ **Report Start Date** – first date of reported information (selected by user) ▪ **Report End Date** – Last date of reported information (selected by user) ▪ - **Report Run Date** – The date the report is run (automatically passed by the system)	Reported information comes from: ▪ Lab results as stored within the EMR ▪ Diabetes information as described in Appendix C ▪ Medications documented within the EMR ▪ Immunizations/Vaccinations documented within the EMR ▪ Demographic and other patient data documented within the EMR In order for this requirement to be met this must be user administered and does not require an EMR vendor to attend the process.	M	P	Data elements to be reported for this functionality leverage those within the Core Data Set described in Appendix B.
b) Provides the ability to export diabetes information: ▪ For patients of all providers in the EMR; and ▪ For patients of a selected provider in the EMR.		M	P	
c) EMR must provide a method of providing users with the ability to determine which patients are included in a report. At a minimum, certified EMR Offerings must support the export of all diabetes data described in the reporting schema for: ▪ all patients with relevant diagnoses; and ▪ patients pre-identified for report inclusion	Vendors may utilize cohort criteria identified in Appendix A - 2.1.1(f), or use another method of identifying patients to be included within the report. Must have the ability to save population(s) of patients for report inclusion for future use.	M	P	
d) EMR must load the schema file for diabetes reporting real-time from OntarioMD website, prior to running the diabetes report.	Schema definition file will contain a list of all medications required as a part of this report (identified by DIN).	M	P	As new medications become available, the list of medications to be included in this report will be updated periodically by OntarioMD. It is expected that vendors will reconcile their report with this updated list. Data elements to be reported will not change within the schema.

2.2 DIABETES REPORTING SCHEMA

This section identifies the Diabetes CDS Data Categories using the following headings:

1. Report Information
2. Patient Demographics
3. Diabetes Diagnosis
4. Medications
5. Vaccinations/Immunizations
6. Laboratory Results
7. Care Elements

For the purposes of this section, the following terms and abbreviations are defined and shall be applied to all tables in this section:

CDS ID # -represent a unique identifier by which any data element in Appendix D will be identified. New data elements added to the 'Diabetes CDS Schema' are identified by '**N'**

Data Element means:

- a unit of data as set out in the CDS schema. "Data Element" means that data in column 1 of all tables in the CDS Schema.
- **" * "** this symbol means that CDS Data Category, or a subsection within a CDS Data Category or a data element may be repeated.
  - An example of a category that may be repeated is a patient that is on more than one medication or immunization.
  - An example of a subsection that repeats as a group is a patient demographic that contains a group of related fields (such as related contact person information for more than one contact) that will repeat together.

Required Fields:

- Y - the data element is a minimum requirement for the construction of a valid CDS record. A data element that is required (i.e. marked as Y) must have a value in the XML file in order for the file to be valid. If there are no records for a given heading, then this information would not be required.

Definition means a detailed description of the Data Element**.**

Code Source means the source of the coding system or specific codes that are valid for a given data element.

Data Type means the characteristic of the data listed.

- **DATE**: YYYY-MM-DD
  - YYYY = four-digit year , MM = two-digit month, DD = two-digit day of month (01 through 31)
- **DATE/ TIME**: YYYY-MM-DDThh:mm:ss.sTZD

- YYYY = four-digit year, MM = two-digit month, DD = two-digit day of month (01 through 31)
- hh = two digits of hour (00 through 23), mm = two digits of minute (00 through 59)
- ss = two digits of second (00 through 59), s = one or more digits representing a decimal fraction of a second
- TZD = time zone designator (Z or +hh:mm or -hh:mm)

- **NUM** (numeric)
- **AN** (alphanumeric) - means the data that does not have restrictions on special characters (e.g. * ‘ -).
- **AB (**alphabetic)

Form means a predefined data format designed to further define the Data Element in CDS Schema

- **Code:** means the source of the coding system or specific codes that are valid for a given data element.
- **Text**
- YYYY-MM-DD
- YYYY-MM-DDThh:mm:ss.sTZD

Length means the maximum number of characters that is represented in a particular Data Element in CDS Schema

- **NL -** No Limit
- **BOT** – Based On Type
- **TBD** – To Be Determined

Business Rules – as relates to Diabetes Export.

1. *REPORT INFORMATION*

To provide the receiver of this report information related to the parameters used to generate the report data.

Reported fields are as listed in Table 1, below.

Table 1: Report Information

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
1	Report Start Date	Y	Start date of reporting range.	DATE /TIME	YYYY-MM-DDThh:mm:ss.sTZD	30	W3C Date Standard	Report Start Date as defined by user running the report.
2	Report End Date	Y	End date of reporting range.	DATE /TIME	YYYY-MM-DDThh:mm:ss.sTZD	30	W3C Date Standard	Report End Date as defined by user running the report. Must be on or later than Report Start Date.
3	Report Run Date	Y	Date report was run	DATE /TIME	YYYY-MM-DDThh:mm:ss.sTZD	30	W3C Date Standard	Report Run Date time stamped by system.

2. *PATIENT DEMOGRAPHICS*

All patient demographics information is to be reported as of *Report Run Date*. Reported fields are as listed in Table 2, below.

Table 2: Patient Demographics

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
4	(*) Name Part	Y	A part of a name. Typical name parts for person names are given names and family names. A name part may have a type signifying the role of the part in the whole name, and a qualifier for more detail about the name part type.	AN	Text	50		At a minimum Family Name and Given Name must be provided. See Section: Working with Name Part Elements (Appendix B)
5	(*) Name Part Type	Y	Indicates whether the name part is a first/given name, middle name, initial or family name.	AN	Code	4	See Appendix B - Table 1.2 – Name Part Type	Name Part Type must be valid code: See Section: Working with Name Part Elements (Appendix B)
6	(*) Name Part Qualifier		For any corresponding name a qualifier is required to distinguish the person's name.	AN	Code	2	See Appendix B - Table 1.3 – Name Part Qualifier	Name Part Qualifier must be valid code. See Section: Working with Name Part Elements (Appendix B)
7	Date of Birth	Y	The date on which the patient was born.	DATE	YYYY-MM-DD	10	W3C Date Standard	
8	Health Card		Health Card identifier for the patient's primary healthcare insurance (e.g. OHN)	AN	Text	20		
9	Health Card Version		Currently OHN version code associated with Health Card	AB	Text	2		
10	Gender	Y	The reported sexual identity of a person for administrative purposes.	AN	Code	1	See Appendix B - Table 1.7 – Gender	Gender must be valid code.
11	Mailing Street Address line 1		A line of text that may include unit and street address information or postal delivery information within a municipality.	AN	Text	50		If only one of Mailing or Residential address is provided by the export, assume these addresses are identical, on import.
12	Mailing Street Address line 2		A line of text that may include unit and street address information or postal delivery information within a municipality.	AN	Text	50		If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
13	Mailing City		A line of text that includes the city for postal delivery purposes	AN	Text	80		If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
14	Mailing Country & Province/State		A code associating a country subdivision to an address	AN	Code	7	ISO 3166-2	If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
15	Mailing Postal/Zip Code		A code that is assigned by a country's postal service to a postal delivery area.	AN	Text	10		Postal/Zip code must not contain spaces. If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
16	Residence Street Address line 1		A line of text that may include unit and street address information or postal delivery information within a municipality.	AN	Text	50		If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
17	Residence Street Address line 2		A line of text that may include unit and street address information or postal delivery information within a municipality.	AN	Text	50		If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
18	Residence City		City where the person lives	AN	Text	80		If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
19	Residence Country & Province/State		A code associating a country subdivision to an address.	AB	Code	7	ISO 3166-2	If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
20	Residence Postal/Zip Code		A code that is assigned by a country's postal service to a postal delivery area.	AN	Code	10		Postal/Zip code must not contain spaces. If only one of Mailing or Residential address is provided, assume these addresses are identical, on import.
21	Resident Phone		Phone number where person lives					
22	Primary Physician ID	Y	Physician’s OHIP Billing Number	NUM	Text	6		
23	Patient email		The email address preferred by the patient.	AN	Text	50		Validate the email has an @ sign and extension after the period.
24 N	Primary Physician CPSO		Primary Physician CPSO number	AN	Text	5		

3. *DIABETES DIAGNOSIS*

Information about the diabetes diagnosis of the patient.

Diagnosis information is to be reported as of *Report Run Date*. Reported fields are as listed in Table 3, below.

Table 3: Diabetes Diagnosis

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
25	Diagnosis Code	Y	An ICD10-CA diagnosis code for diabetes.	AN	Text	20	ICD10-CA	Vendor must map diabetes diagnosis in their own system to one of the following two ICD10-CA codes: ▪ E10.9 - Type 1 diabetes mellitus without (mention of) complication; or ▪ E11.9 - Type 2 diabetes mellitus without (mention of) complications
26	Diagnosis Code System Name	Y	Description of coding system used to code diagnosis	AN	Text	250		Coding system will always be ICD10-CA for this diabetes report.
27	Onset Date	Y	Date of onset/diagnosis	DATE	YYYY-MM-DD	10	W3C Date Standard	May contain exact or partial date if known

4. *MEDICATIONS*

All active medications in the EMR as of Report End Date need to be reported for the following drug classes (Based on AHFS drug classification):

20:12.18 - Platelet-Aggregation Inhibitors, includes ASA
24:08.44.04 - Angiotensin-Converting Enzyme Inhibitors
24:08.44.08 - Angiotensin II Receptor Antagonists
24:06 - Antilipemic Agents
68:20 - Antidiabetic Agents

All active patient medications for the above drug classes documented in the EMR as of *Report End Date* must be reported for the relevant patient. Active medications are those not identified within the system as discontinued. Any medication identified as discontinued with an end date between *Report Start Date* and *Report End Date* must also be reported.

The list of reportable DINs is contained within the CDS schema document. This list will include both active and inactive medications as defined by Health Canada.

Reported fields are as listed in Table 4, below.

Table 4: Medications

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
28	Prescription Written Date		The written date of the current prescription	DATE	YYYY-MM-DD	10	W3C Date Standard	Full date or partial date are acceptable.
29	Start Date		The start date of the current prescription.	DATE	YYYY-MM-DD	10	W3C Date Standard	Must be on or after the written date.
30	Drug Identification Number	Y	Representative Drug Identification Number (DIN).	AN	Text	20		Required if the medication is coded within the exporting EMR's Drug Database.
31	Medication Name (previously Name)	Y	The name assigned to a drug.	AN	Text	120		
32	Drug Strength (previous Strength)		The quantity of the ingredient in a drug.	AN	Text	10	Example : IngredientX 250mg/5ml: DrugQuantity250mg, DrugVolume=5ml IngredientY: 250mg/ml: DrugStrength=250mg, DrugStrengthUnitOfMaseure=1ml IngredientZ 250mg/tablet DrugStrength=250mg,	The drug strength from the drug database when DIN is provided **else** the strength as entered by the provider. Upon export, just the strength of the first ingredient is expected to be exported for the case the drug has a representative DIN else the strength as entered by provider.

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
							DrugStrengthUnitOfMaseure=tablet	
33	Drug Strength Unit of Measure (previously Strength Unit Of Measure)		Drug's strength unit of measure, as prescribed in the source system	AN	Text	20	See above	
34	Number of Refills/Repeats (previous Number of Refills)		Subsequent fills that follow the initial prescription.	NUM	Text	100		
35	Dosage		Dose *amount and unit of measure of* medication intended to be consumed during a single administration as prescribed in the source system.	AN	Text	120		Dosage unit of measure must be mapped to HL7 standard. Example 'Dosage & Dosage Unit of Measure' : 2 tsp , 2 puffs, 2%, 5 ml, 250 mg
36 N	Dosage Unit of Measure		Unit of measure of a drug dosage taken at any one time.	AN	Text	50		
37	Drug Form (previously Form)		Form of administration, as prescribed in the source system.	AN	Text	120		Form must be mapped to HL7 standard.
38	Route		Route of administration, as prescribed in the source system	AN	Text	120		Route must be mapped to HL7 standard.
39	Frequency		Frequency of prescribed use, as prescribed in the source system	AN	Text	120		Exporting source system should map medication frequency to the values catalogued in Appendix B.
40	Duration		*Number of days* of medication to be dispensed for the first administration of the prescription.	NUM	Text	1k		If the source system supports durations that are other than day (ie weeks, montth, year) then upon export the duration must be calculated in 'days'.
41 N	Refill Duration		Number of days of medication to be dispensed for the refills of the prescription.	NUM	Text	1k		If the source system supports durations that are other than day (ie weeks, months, year) then upon export the duration must be calculated in 'days'. The 'Refill Duration' applies just to one refill.
42	Quantity		The quantity of medication to be dispensed for the first administration of the prescription	NUM	Text	1k		It is assumed that the unit of measure is the same as the Dosage Unit of Measure.

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
43 N	Refill Quantity		The quantity of medication to be dispensed for the refills of the prescription	NUM	Text	1k		It is assumed that the unit of measure is the same as the Dosage Unit of Measure.
44	Long Term Medication		Indicator for Long-Term Medication	AN	Code	1	Yes (Y) or No (N)	
45	Past Medication		Indicator for discontinuation of medication treatment plan.	AN	Code	1	Yes (Y) - medication has been discontinued. No (N) - current medication	
46	Prescribed By Last Name		Last name of prescriber	AN	Text	50		
47	Prescribed By First Name		First name of prescriber	AN	Text	50		
48	Prescribed By Identifier		OHIP Physician number of prescriber	NUM	Text	6		
49	Notes		Notes the provider may attach to the prescription record to communicate with the pharmacist	AN	Text	32k		**Implementation Note:** The field length issues (CMS3.02 length of 32k/32000 versus MR2009 field length of 2000) will be resolved in a subsequent release of the EMR specification.
50	Prescription Instructions		Refers to directions for use.	AN	Text	32k		
51	Patient compliance		Typically used to indicate that the patient is compliant with the medication as prescribed.	AN	Text	1		The values for this data element must be “Y”, “N”, or blank. If blank the patient’s compliance with their medication has not been documented in the EMR.

5. *VACCINATIONS/IMMUNIZATIONS*

To report all influenza immunizations and pneumococcal vaccinations documented for a patient within the EMR
In the case of the same immunization, vaccine and or booster administered multiple times then there will be one such record for each occurrence.

All patient vaccination/immunizations documented in the EMR as administered or refused between *Report Start Date* and *Report End Date* (inclusive) must be reported for the relevant patient. Reported fields are as listed in Table 5, below.

Table 5: Immunizations

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
52	Immunization Name	Y	Vaccination or immunization administered/refused.	AN	Text	120		One of: ▪ influenza, ▪ pneumococcal
53	Date	Y	Date that the immunization was administered or refused	DATE	YYYY-MM-DD	10	W3C Date Standard	If immunization is flagged as refused, date refers to the date refused. Date must be between Report Start Date, and Report End Date.
54	Refused Flag	Y	A flag to indicate that the immunization was not given but refused	AB	Text	1		Either Yes (Y) or No (N).

6. *LABORATORY RESULTS*

May contain multiple records to represent each of the electronically received or manually entered Laboratory Results.

It is mandatory to export all relevant Laboratory Results electronically received or manually entered into the EMR.
All results must be reported for the following lab tests, as documented in the EMR:

- Hemoglobin A1C
- LDL Cholesterol
- Urine Albumin-Creatinine Ratio
- eGFR

Each relevant patient lab result documented in the EMR with Collection Date/Time between *Report Start Date* and *Report End Date* must be reported for the relevant patient. Reported fields are as listed in Table 6, below.

Table 6: Laboratory Results

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
55	Laboratory Name	Y	Name of the Lab delivering the Test Results	AN	Text	120		Lab responsible for issuing the test result (not necessarily the lab performing the test)
56	Test Name Reported by Laboratory		Test name reported by Laboratory	AN	Text	120		
57	Test Code		Test Code Reported by the Laboratory	AN	Text	50		
58	Test Result Name	Y	LOINC Code of reported lab result	AN	Text	120		If the EMR maintains LOINC codes for lab results, the list of Laboratory Test LOINC Codes to be reported must be defined within the schema definition file. If the EMR does not maintain LOINC code for lab results, the Offering must map the appropriate lab result to a representative LOINC code for the purposes of this report. Code mapping must be one of: **4548-4** (Hemoglobin A1C) **22748-8** (LDL Cholesterol) **14959-1** (Urine Albumin-Creatinine Ratio) **33914-3** (eGFR)
59	Accession Number		Accession number issued by lab for the test result(s) report	AN	Text	120		Required if Lab provides this information.
60	Result Value	Y	The numeric result value	AN	Text	120		Required where there is a numeric test result. Include

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
								decimal places.
61	Result Unit of Measure	Y	Unit of Measure as supplied by the Lab associated with the Result Value	AN	Text	120		Includes unit quantity and unit of measure numeric and alpha numeric. Required where a test result value is provided
62	Reference Range Low Limit		A numeric value where it exists	NUM	Text	1k		Required where there is a numeric test result. Include decimal places
63	Reference Range High Limit		A numeric value where it exists	NUM	Text	1k		Required where there is a numeric test result. Include decimal places
64	Reference Range Text		Where lab sends high and/or low data that can't be parsed as high or low reference range	AN	Text	1k		
65	Lab Requisition Date/Time		Date & Time that the lab test was ordered	DATE /TIME		30	W3C Date Standard	Date format: YYYY-MM-DDThh:mm:ss.sTZD
66	Collection Date/Time	Y	The date and time that the specimen was collected	DATE /TIME		30	W3C Date Standard	Date followed by Time as recorded by the Testing Lab. Collection Date/Time must be between Report Start Date, and Report End Date. Date format: YYYY-MM-DDThh:mm:ss.sTZD
67	(*) Date/Time Result Reviewed		The date the lab result is reviewed	DATE /TIME		30	W3C Date Standard	Date followed by Time as recorded by the Testing Lab. Date format: YYYY-MM-DDThh:mm:ss.sTZD
68	(*) Result Reviewer First Name		The First Name of the authorized person that reviewed result	AN	Text	50		
69	(*) Result Reviewer Last Name		The Last Name of the authorized person that reviewed result	AN	Text	50		
70	(*) Result Reviewer OHIP Physician Number		The OHIP Physician Number of the authorized person that reviewed result	AN	Text	6		
71	Result Normal / Abnormal Flag	Y	A flag set by the lab to indicate a test result is deemed normal, abnormal or unknown	AN	Code	1	Abnormal (Y), Normal (N) or Unknown (U)	If there is no CDS Data available in this data field the EMR must translate the value of this data field to Unknown (U).

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
72	Text – Test Results Information reported by the Laboratory		Results Information reported by the Laboratory that must be left unstructured (e.g. microbiology results, cytology, etc.)	AN	Text	32k		It is important to delineate lines with a carriage return where there are multiple lines of text.
73	Notes from Lab		Notes Associated from Results reported by Lab	AN	Text	32k		
74	Text – Physician's notes		Physicians Notes Associated with Results Reported	AN	Text	32k		

7. *CARE ELEMENTS*

Care elements refer to clinical data captured as a part of the clinical encounter (as described in Appendix C – Chronic Disease Management Requirements).
May contain multiple records to represent each patient health-related characteristic documented within the EMR.

All care elements documented in the EMR between *Report Start Date* and *Report End Date* must be reported for the relevant patient.
Reported fields are as listed in Tables 7.1 – 7.13, below.

Table 7.1: Smoking Status

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
75	Smoking Status	Y	Patient Status as a smoker.	AN	Text	1		Must be one of: Y – Yes N – No
76	Date Smoking Status Recorded	Y	Date smoking status recorded.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if smoking status recorded.

Table 7.2: Smoking Packs/Day

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
77	Smoking Packs/Day	Y	Reported number of Packs/Day smoked.	NUM	Text	2	WHIC CDM Data Standards Appendix C, Item 3.6	
78	Date Smoking Packs/Day Recorded	Y	Date Smoking Packs/Day Recorded	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if smoking packs/day recorded..

Table 7.3: Weight

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
79	Weight	Y	Measured patient weight.	NUM	Text	1k		Weight must be reported in kg for this report.
80	Weight Unit of Measure	Y	Unit of measure	AN	Text	10		This will always be **kg** for this report.
81	Date Weight Recorded	Y	Date weight recorded	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if weight reported.

Table 7.4: Height

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
82	Height	Y	Measured patient height in cm	NUM	Text	1k		Height must be reported in cm for this report.
83	Height Unit of Measure	Y	Unit of measure	AN	Text	10		This will always be cm for this report
84	Date Height Recorded	Y	Date height recorded	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if height reported..

Table 7.5: Waist Circumference

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
85	Waist Circumference	Y	Measured patient waist circumference in cm	NUM	Text	1k		Waist Circumference must be reported in cm for this report.
86	Waist Circumference Unit of Measure	Y	Unit of measure	AN	Text	10		This will always be **cm** for this report.
87	Date Waist Circumference Recorded	Y	Date waist circumference recorded	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if waist circumference reported.

Table 7.6: Blood Pressure

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
88	Systolic Blood Pressure	Y	Measured systolic blood pressure in mmHg	NUM	Text	1k		Blood pressure must be reported in mmHg for this report.
89	Diastolic Blood Pressure	Y	Measured diastolic blood pressure in mmHg	NUM	Text	1k		Blood pressure must be reported in mmHg for this report.
90	BP Unit of Measure	Y	Unit of measure	AN	Text	10		This will always be mmHg for this report.
91	Date Blood Pressure Recorded	Y	Date blood pressure recorded	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if blood pressure reported.

Table 7.7: Screening for Further Complications - Diabetes

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
92	Exam Performed Code	Y	Code for the screening performed.	AN	Text	1k	Code is one of: **32468-1** (Retinal Exam) **11397-7** (Foot Exam) **Neurological Exam** (No Code)	To report diabetes-related patient screening activities.
93	Date Exam Performed	Y	Date exam was performed.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if exam reported.

Table 7.8: Motivational Counselling - Diabetes

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LENGTH	CODE SOURCE	BUSINESS RULES
94	Counselling Performed	Y	Diabetes-related motivational counselling.	AN	Text	1k	One of: ▪ Nutrition ▪ Exercise ▪ Smoking Cessation ▪ Other	Each instance of counselling documented must have its own record.
95	Date Item Addressed	Y	Date counselling was conducted.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if counselling reported.

Table 7.9: Self-Management/Collaborative Goal Setting - Diabetes

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
96	Code Value	Y	Code representing self-management or collaborative goal setting	AN	Text	7	LOINC	This value will always be **44943-9** for this report.
97	Documented Goals Text	Y	Text of the documented diabetes-related self-management or collaborative goals.	AN	Text	NL	WHIC CDM Data Standards Appendix C, Item 3.16	The descriptive text of the documented goals..
98	Documentation Date	Y	Date goals documented.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if goals reported.

Table 7.10: Self-Management Challenges/Barriers to Self-Management - Diabetes

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
99	Code Value	Y	Code representing barriers to self-management	AN	Text	7	LOINC	This value will always be **44941-3** for this report.
100	Challenges Identified (Y/N)	Y	Reports whether the patient has identified any challenges or barriers to self-management of diabetes.	AN	Text	1	WHIC CDM Data Standards Appendix C, Item 3.17	Either Yes (Y) or No (N).
101	Documentation Date	Y	Date challenges identified	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if challenges identified.

Table 7.11: Education/Self-Management Training - Diabetes

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
102	Education/Training performed (Y/N)	Y	Reports whether the patient has had any diabetes-related education, or self-management training	AN	Text	1		Either Yes (Y) or No (N).
103	Documentation Date	Y	Date education/training documented.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if education/training reported.

Table 7.12: Hypoglycemic Episodes

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
104	Number of Reported Episodes	Y	Patient self-reported frequency of episodes since last appointment.	NUM	Text	8		
105	Documentation Date	Y	Date frequency of hypoglycemic episodes reported.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if frequency of hypoglycemic episodes reported.

Table 7.13: Self-Monitoring of Blood Glucose

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
106	Self-Monitoring Y/N	Y	Patient report of whether they perform self-monitoring of blood glucose.	AN	Text	1		Either Yes (Y) or No (N).
107	Documentation Date	Y	Date status of self-monitoring of blood glucose reported.	DATE	YYYY-MM-DD	10	W3C Date Standard	Mandatory if self-monitoring of blood glucose reported.

3. RETIRED REQUIREMENTS / CDS CATEGORIES / DATA ELEMENTS

3.1 RETIRED REQUIREMENTS

There are no retired requirements from Appendix D v4.0

3.2 RETIRED DIABETES CATEGORIES

There are no retired Diabetes Categories from Appendix D v4.0.

3.3 RETIRED DATA ELEMENTS

Following CDS Data Elements have been retired from Appendix D v4.0

CDS #	DATA ELEMENT	REQ FIELD	DEFINITION	DATA TYPE	FORM	LEN	CODE SOURCE	BUSINESS RULES
Medications								
R1	End Date		The end date of the current prescription	DATE	YYYY-MM-DD	10	W3C Date Standard	
R2	Last Refill Date		The date of the last refill	DATE	YYYY-MM-DD	10	W3C Date Standard	
Laboratory Results								
R3	Date/Time Result received by EMR		The date the lab result is received on the EMR	DATE /TIME		30	W3C Date Standard	Date followed by Time as recorded by the Testing Lab. Date format: YYYY-MM-DDThh:mm:ss.sTZD