



Indian Health Service

Division of Diabetes
Treatment and Prevention



IHS Diabetes Care and Outcomes Audit
Audit 2024 Orientation
2/6/2024



Today's Audit Topics

1. Overview
2. Process and methods
3. Changes for 2024
4. Data Quality Check and more
5. Resources
6. Website and WebAudit demonstrations

Diabetes Audit Team

Carmen Hardin, MSN
Director, DDTP

Lori Butcher
RPMS Developer

Renee Chase, RN
Federal Lead DMS RPMS

Lani Desaulniers, MD
Clinical Consultant

Jermaine Gonzales
WebAudit Developer

Nancy Haugen, MSN
ADC Representative
Great Plains Area

Melanie Knight
SDPI Program Coordinator

Sarah Murray, MPH, PMP
DDTP Project Manager

Meera Narayanan, RD, CDE
Director, Diabetes Surveillance
Alaska Area

Tracy Nelson, MSN
ADC Representative
Portland Area

Lisa Nielsen
DMS Project Manager

Angela Pinto-Yazzie
DMS Software
Deployment/Tester

Kelly Samuelson
IT Quality Analyst, Senior

Karen Sheff, MS
Biostatistician

Skip Squires
DMS Technical Lead

Dorinda Wiley-Bradley, RN
Diabetes Audit Consultant

Mark Williams
Visual DMS Developer

**Area Diabetes Consultants and
Support Staff**

Abbreviations

- **ADC** = Area Diabetes Consultant
- **AI/AN** = American Indian/Alaska Native
- **Audit** = IHS Diabetes Care and Outcomes Audit
- **BP** = Best Practice = SDPI Diabetes Best Practice
- **DDTP** = IHS Division of Diabetes Treatment and Prevention
- **DMS** = RPMS Diabetes Management System
- **GPRA** = Government Performance and Results Act
- **EMR** = Electronic Medical Record (RPMS or other)
- **I/T/U** = IHS, Tribal, and Urban
- **RKM** = Required Key Measure
- **RPMS** = IHS Resource and Patient Management System
- **SDPI** = Special Diabetes Program for Indians
- **SOS** = SDPI Outcomes System



Audit Overview



What is the Audit and why do it?

What: A process for assessing diabetes care and health outcomes for American Indian and Alaska Native people with diagnosed diabetes.

Why:

1. To work towards the goal of providing all diabetes patients with the highest quality of care, as outlined in the [IHS Diabetes Standards of Care](#)
2. To assess the diabetes care provided at a facility, including strengths and areas for improvement
3. To fulfill requirements of Special Diabetes Program for Indians (SDPI) grants (participation in Annual Audit)
4. To contribute to Area and IHS outcome measures and reports

Diabetes Standards of Care and Resources for Clinicians and Educators

Main "landing" page

The screenshot shows the main landing page for the Indian Health Service (IHS) Diabetes Standards of Care and Resources for Clinicians and Educators. The page features a dark blue header with the IHS logo and navigation links. The main content area is titled "Clinical Resources" and includes a search bar, a list of resources, and a section for "Diabetes Standards of Care and Resources for Clinicians and Educators".

U.S. Department of Health and Human Services
Indian Health Service
The Federal Health Program for American Indians and Alaska Natives

Search IHS

A to Z Index Employee Resources Feedback

About IHS Locations for Patients for Providers Community Health Careers@IHS Newsroom

Division of Diabetes Treatment and Prevention (DDTP) Clinical Resources

Division of Diabetes Treatment and Prevention (DDTP)

About Us

Clinical Training

Search DDTP and SDPI

IHS Diabetes Audit

Clinical Resources

Diabetes Standards of Care and Resources for Clinician and Educators

Diabetes Treatment Algorithms

Diabetes Education Lesson Plans

Diabetes Educator Tools

Kidney Health

Fact Sheets and Publications

Special Diabetes Program for Indians (SDPI)

Audit/SOS Login

Clinical Resources

The IHS Division of Diabetes developed the resources below specifically for clinicians and educators working with American Indian and Alaska Native diabetes patients.

Search Division of Diabetes and SDPI

Standards of Care Algorithms Diabetes Education Lesson Plans Diabetes Educator Tools Kidney Health

Diabetes Standards of Care and Resources for Clinicians and Educators

The Diabetes Standards of Care and Resources for Clinicians and Educators are intended to provide guidance to clinicians and educators as they care for American Indian and Alaska Native people who have or are at risk for type 2 diabetes. Use the [Recommendations At-a-Glance](#) as a quick reference. For each diabetes care topic, click on the link below to find regularly-updated recommendations, useful clinical tools and resources, and patient education materials.

Diabetes Care Topics by Group

- Prevention, Diagnosis, & Management
- Diabetes-Related Conditions
- Education & Nutrition

Blood Pressure SOC

The screenshot shows the page for Blood Pressure Standards of Care and Resources for Clinicians and Educators. The page features a dark blue header with the IHS logo and navigation links. The main content area is titled "Diabetes Standards of Care and Resources for Clinicians and Educators" and includes a section for "Blood Pressure".

U.S. Department of Health and Human Services
Indian Health Service
The Federal Health Program for American Indians and Alaska Natives

Search IHS

A to Z Index Employee Resources Feedback

About IHS Locations for Patients for Providers Community Health Careers@IHS Newsroom

Division of Diabetes Treatment and Prevention (DDTP) Clinical Resources Diabetes Standards of Care and Resources for Clinicians and Educators Blood Pressure

Diabetes Standards of Care and Resources for Clinicians and Educators

Blood Pressure

Blood pressure (BP) control in people with diabetes is essential to reduce the risk of diabetes complications, including heart attack, stroke, heart failure, retinopathy, and kidney disease. Hypertension (HTN) or high BP is defined as a systolic BP greater than or equal to 130 mmHg or a diastolic BP greater than or equal to 80 mmHg. Hypertension in people with diabetes is common and often requires multiple medications to achieve targeted goals.

Resource Links

- Diabetes Care Topics
 - » [View All Topics](#)
- Recommendations At-a-Glance for All Topics
 - » [Online version](#)
 - » [Print version](#) [PDF - 269 KB]

Clinical Practice Recommendations

Clinician & Educator Resources

Patient Education Resources

CME Training

Division of Diabetes Treatment and Prevention (DDTP)

About Us

Clinical Training

Search DDTP and SDPI

IHS Diabetes Audit

Clinical Resources

- Diabetes Standards of Care and Resources for Clinician and Educators
- Diabetes Treatment Algorithms
- Diabetes Education Lesson Plans
- Diabetes Educator Tools
- Kidney Health
- Fact Sheets and Publications
- Special Diabetes Program for Indians (SDPI)
- Audit/SOS Login

<https://www.ihs.gov/diabetes/clinician-resources/soc/>

Indian Health Service Division of Diabetes Treatment and Prevention



When are Audits done?

1. **Annual Audit: Once per year, data submitted to and processed by DDTP**
 - a. Audit Period for 2024: Jan 1-Dec 31, 2023
 - b. Due date for Audit 2024: 3/15/2024
2. **Interim Audits*: Can be many times per year, for SDPI, Area, or local use**
 - a. Period of care: Locally or Area determined
 - b. Due date: Locally or Area determined

*Use of Audit tools for any purpose other than the Annual Audit.

Who conducts Audits?

I/T/U health care facilities associated with an SDPI grant and others

- Different types of facilities: clinics, health stations, hospitals
- Vary in size: <25 to >5000 diabetes patients
- Use a variety of EMR systems: RPMS and others

What does the Audit measure?

Audit Form (2 pages)

- Blood pressure
- Height and weight
- Tobacco use
- Exams
- Education
- Medications
- Immunizations
- Lab results
- Comorbidities: depression, CVD, TB
- More ...

There are changes (almost) every year!

IHS Diabetes Care and Outcomes Audit, 2024

NOTE: It is highly recommended that you review the [Audit 2024 instructions](#) prior to conducting an Audit.

Audit Period Ending Date: 12 / 31 / 2023

Facility Name: _____

Reviewer initials: _____

State of residence: _____

Month/Year of Birth: ____/____

Birth Sex: Male
 Female
 Unknown

Date of Diabetes Diagnosis: ____/____/____

DM Type: Type 1
 Type 2

Tobacco/Nicotine Use (during Audit period)

Tobacco
Screened for tobacco use:
 Yes
 No

Tobacco user:
 Yes
 No

Tobacco cessation counseling/education received:
 Yes
 No

Electronic Nicotine Delivery Systems (ENDS)*
Screened for ENDS use:
 Yes
 No

ENDS user:
 Yes
 No

*ENDS include: vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and epipes which contain nicotine.

Vital Statistics

Height (last ever): _____ ft _____ in

Weight (last in Audit period): _____ lbs

Hypertension (documented diagnosis ever):
 Yes
 No

Blood pressure (last 3 during Audit period):
____/____ mmHg
____/____ mmHg
____/____ mmHg

Version: 7/24/2023

Examinations (during Audit period)

Foot (comprehensive or sensation and vascular status)
 Yes
 No

Eye (dilated exam or retinal)
 Yes
 No

Dental:
 Yes
 No

Depression
Screened for depression (ever):
 Yes
 No

Depression an active diagnosis:
 Yes
 No

Education (during Audit period)

Nutrition:
Prescribed (as of the end of the Audit period):
 RD
 Other
 None

Physical activity:
 Yes
 No

Other diabetes:
 Yes
 No

Diabetes Therapy

Select all prescribed (as of the end of the Audit period):

TB diagnosis (latent or active) documented (ever):
 Yes
 No

TB test done (most recent):
 Skin test (PPD)
 Blood test (QFT-GIT, T-SPOT)
 No test documented

TB test result:
 Positive
 Negative
 No result documented

If TB diagnosed and/or test result positive, treatment initiated (e.g., isoniazid, rifampin, rifapentine, others):
 Yes
 No
 Unknown

If TB result negative, test date:
Date: ____/____/____

Version: 7/24/2023

PAGE 2

ACE Inhibitor or ARB
Prescribed (as of the end of the Audit period):
 Yes
 No

Commonly prescribed medications include:
ACE Inhibitors: benazepril, captopril, enalapril, fosinopril, lisinopril, ramipril
ARBs: candesartan, irbesartan, losartan, olmesartan, telmisartan, valsartan

Aspirin or Other Antiplatelet/Anticoagulant Therapy
Prescribed (as of the end of the Audit period):
 Yes
 No

Commonly prescribed medications include:
Antiplatelets: aspirin (Equisol), dipyridamol (Protasal), edoxaban (Savaysa), enoxaparin (Lovenox), rivaroxaban (Xarelto), warfarin (Coumadin)
Anticoagulants: apixarin, aspirin/dipyridamol (Aggrenox), clostazol (Plavix), clopidogrel (Plavix), prasugrel (Effient), ticagrelor (Brilinta)

Statin Therapy
Prescribed (as of the end of the Audit period):
 Yes
 No
 Allergy/intolerance/contraindication

Commonly prescribed medications include: atorvastatin, fluvastatin, lovastatin, pitavastatin, pravastatin, rosuvastatin, simvastatin

Cardiovascular Disease (CVD)
Diagnosed (ever):
 Yes
 No

Tuberculosis (TB)
TB diagnosis (latent or active) documented (ever):
 Yes
 No

Hepatitis C (HCV)
HCV diagnosed (ever):
 Yes
 No

If not diagnosed with HCV, screened at least once (ever):
 Yes
 No

Retinopathy
Diagnosed (ever):
 Yes
 No

Amputation
Lower extremity (ever), any type (e.g., toe, partial foot, above or below knee):
 Yes
 No

Immunizations
Influenza vaccine (during Audit period):
 Yes
 No

Pneumococcal [PCV15, PCV20, or PPSV23] (ever):
 Yes
 No

Td, Tdap, DTaP, or DT (in past 10 years):
 Yes
 No

Tdap (ever):
 Yes
 No

Hepatitis B complete series (ever):
 Yes
 No
 Immune

Shingrix/recombinant zoster vaccine (RZV) complete series (ever):
 Yes
 No

Laboratory Data (most recent result during Audit period)

A1C: _____ %

A1C Date obtained: ____/____/____

Total cholesterol: _____ mg/dL

HDL cholesterol: _____ mg/dL

LDL cholesterol: _____ mg/dL

Triglycerides: _____ mg/dL

Serum Creatinine: _____ mg/dL

eGFR: _____ mL/min/1.73 m²

UACR: _____ mg/g (Quantitative urine albumin-to-creatinine ratio)

Local Questions (Optional)

Select one:
 C1
 C2
 C3

C4
 C5
 C6

C7
 C8
 C9

Text: _____

Page 2 of 2



12 month (Audit) period for most including:

- Tobacco screening and use
- Weight
- Blood pressure
- Education
- Exams
- Labs



Exceptions

- Height (last ever)
- TB test/results/treatment (ever)
- Immunizations (except flu)
- Health conditions (e.g., HTN, CVD)
- Medications (as of Audit period end)

Look for key words, such as: “Audit period”, “ever”

Special Cases

- For most items, one response is selected or provided for each patient.
- Exceptions:
 1. Skip patterns: Some items will be skipped, based on response to previous item.
 - a. Tobacco/ENDS use
 - b. Tobacco cessation
 - c. TB items
 - d. HCV screening
 2. Diabetes therapy: Select **all** that apply.

Hepatitis C (HCV)

HCV diagnosed (ever):

1 Yes

2 No

→ If not diagnosed with HCV, screened at least once (ever):

1 Yes

2 No

Diabetes Therapy

Select **all** prescribed (as of the end of the Audit period):

1 None of the following

2 Insulin

3 Metformin [*Glucophage*, others]

4 Sulfonylurea [*glipizide*, *glyburide*, *glimepiride*]

5 DPP-4 inhibitor [*alogliptin (Nesina)*, *linagliptin (Tradjenta)*, *saxagliptin (Onglyza)*, *sitagliptin (Januvia)*]

6 GLP-1 receptor agonist [*dulaglutide (Trulicity)*, *exenatide (Byetta, Bydureon)*, *liraglutide (Victoza, Saxenda)*, *lixisenatide (Adlyxin)*, *semaglutide (Ozempic, Rybelsus, Wegovy)*]

7 SGLT-2 inhibitor [*bexagliflozin (Brenzavvy)*, *canagliflozin (Invokana)*, *dapagliflozin (Farxiga)*, *empagliflozin (Jardiance)*, *ertugliflozin (Steglatro)*, *sotagliflozin (Inpefa)*]

8 Pioglitazone [*Actos*] or rosiglitazone [*Avandia*]

9 Tirzepatide [*Mounjaro*]

10 Acarbose [*Precose*] or miglitol [*Glyset*]

11 Repaglinide [*Prandin*] or nateglinide [*Starlix*]

12 Pramlintide [*Symlin*]

13 Bromocriptine [*Cycloset*]

14 Colesevelam [*Welchol*]

WebAudit Input and Output

Input=data file or paper forms

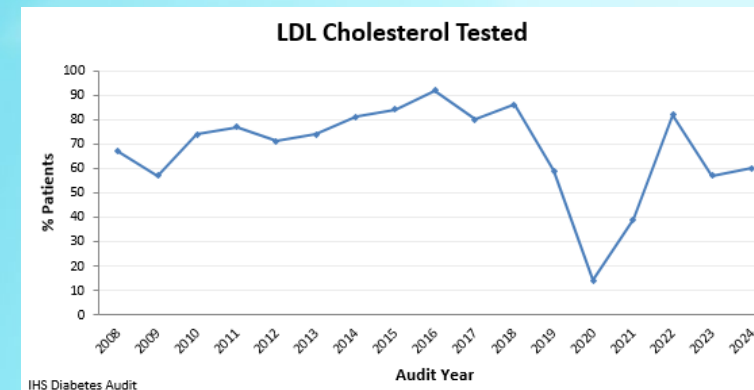
Output=reports and graphs

```
Audit2024DemoData_N5.txt - Notepad
File Edit Format View Help
AUDITDATE^FACILITYNA^REVIEWER^STATE^MOB^YOB^SEX^DODX^DMTYPE^TOBSCREEN^TOBACCOUSE^TOBCOUNSEL^ENDSSCREEN^ENDSUSE^FEI
12/31/2022^DEMODATA^KLS^NM^3^1963^2^1/19/2012^2^1^2^ ^1^2^5^3.78^171^1^127^80^126^81^105^62^1^1^1^2^1^1^1^2^2^1
12/31/2022^DEMODATA^KLS^NM^3^1953^1^11/3/1995^2^1^2^ ^1^2^5^0.91^133^1^153^88^134^64^151^77^1^1^1^2^1^1^1^2^1^1
12/31/2022^DEMODATA^KLS^NM^5^1964^2^3/1/1985^2^1^2^ ^1^2^5^4^180^1^123^73^136^97^128^84^1^1^1^2^2^1^4^1^1^2^1^1^2^1
12/31/2022^DEMODATA^KLS^NM^3^1957^1^6/10/2011^2^1^2^ ^1^2^5^0.63^160^1^147^74^138^81^157^71^1^1^1^2^1^1^1^2^1^1^2^2^1
```



Diabetes WebAudit

- Facility Administration**
Enter facility information and lock data.
- Data Processing**
Submit (entry or upload), view, download, and check data.
- Reports**
Generate reports and graphs.



Audit Report (Output)

Sample section from WebAudit


IHS Diabetes Care and Outcomes Audit - WebAudit
Audit Report for 2024 (Audit Period 01/01/2023 - 12/31/2023)
Facility: Test13

Annual Audit

17 charts were audited from 17 patients determined to be eligible by Test13.
Unless otherwise specified, time period for each item is the 12-month Audit Period.

	# of Patients (Numerator)	# Considered (Denominator)	Percent	Area Percent	IHS Percent
Birth Sex					
Male	5	17	29%		
Female	12	17	71%		
Unknown			0%		
Age					
< 20 years	1	17	6%		
20-44 years	8	17	47%		
45-64 years	4	17	24%		
≥ 65 years	4	17	24%		
Diabetes Type					
Type 1	5	17	29%		
Type 2	12	17	71%		
Duration of Diabetes					
< 1 year	1	17	6%		
< 10 years	5	17	29%		
≥ 10 years	1	17	6%		
Diagnosis date not recorded	11	17	65%		


There are changes every year!



Big picture: encounters to data submission (1)

Throughout the year:

1. Patient encounters take place – Including in-person and telehealth visits with providers, medication refills, lab tests, immunizations, education provided, others.
2. Information about all encounters is documented in EMR (or paper chart).
3. Other (historical) information may also be documented (e.g., TB diagnosed >10 years ago).



Big picture: encounters to data submission (2)

At Audit time:

1. Identify eligible patients with diabetes at facility.
2. Gather data for these patients by one of two methods.
3. Review data quality (round 1) – if possible, generally RPMS only.
4. Submit data via the WebAudit.
5. Review data quality (round 2) – all, using WebAudit.

See [Audit 2024 Instructions](#) for additional information.

WebAudit

- The WebAudit is a set of internet-based tools for Audit data submission, processing, and reporting.
- All Annual Audit data are submitted to DDTP via the WebAudit.
- Can also be used for Interim (non-Annual) Audits.
- Data and reports from previous year's Audits are retained.
- At least one person each from facility has access.



Audit Processes and Methods

Before you begin

- **Notify your Area Diabetes Consultant** that you are planning to start Audit activities.
- **Gather and review** resources and materials.
 - From DDTP: [Audit resources webpage](#)
 - Local: Previous year's reports, site specific documentation, others

Eligible patients (1)

First, identify patients who meet **all of the following** criteria:

1. Have a diagnosis of diabetes mellitus.
2. Are American Indian or Alaska Native.
3. Have at least one visit (**in person or telehealth**) during the one-year Audit period to one of these clinics (numbers in parentheses are IHS specific clinic codes):
 - a. General (01)
 - b. Diabetic (06)
 - c. Internal Medicine (13)
 - d. Pediatric (20)
 - e. Well Child (24)
 - f. Family Practice (28)
 - g. Chronic Disease (50)
 - h. Endocrinology (69)

Eligible patients (2)

Then, **exclude** patients who:

1. Received the majority of their primary care during the Audit period outside of your facility.
2. Are currently on dialysis AND received the majority of their primary care during the Audit period at the dialysis unit.
3. Died before the end of the Audit period.
4. Were pregnant during any part of the Audit period.
5. Have prediabetes (as determined by documented diagnosis or impaired fasting glucose [IFG], impaired glucose tolerance [IGT], or elevated A1C level).
6. Moved permanently or temporarily before the end of the Audit period.

Gather Data: Electronic Audit

1. **Update** diabetes registry/patient list in your EMR, as needed, to include only eligible patients OR identify diabetes patients via search.
2. **Prepare** electronic medical record system for current Audit software (2024).
3. **If using RPMS/DMS,**
 - a. Run and review Data Quality Check Report.
 - b. Correct as many errors as possible.
4. **Create** Audit data file for 12-month time period of interest (“Audit period”) in the specified format for the current year.
5. **Retrieve** Audit data file – may require assistance from IT staff.

Electronic Audits: RPMS vs. other EMRs

- Below are selected items. There are many other differences!
- Resources for both are available on the Audit website.

Activity	RPMS	Other EMR
Software programming: done by ...	IHS	Software company or vendor
Identify eligible patients	Registry or QMAN search	System dependent
Preparation	-Install DMS patch 17 -Update site-populated taxonomies -Review & update registry OR create list of diabetes patients	System dependent
Education documentation	RPMS-specific coding	System dependent

Audit Data File

Details (aka specifications): Available in the [Audit 2024 Instructions](#)

List of Audit Data Fields

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
1	AUDITDATE	Ending date of the one-year Audit period: 12/31/2023 for Annual Audit 2024	N/A	mm/dd/yyyy	
2	FACILITYNA	Name or abbreviation for the facility	N/A	Character (max length=20)	For confirmation purposes only, since the WebAudit will automatically supply and display the name.
3	REVIEWER	Reviewer's initials	N/A	Character (max length=3)	
4	STATE	Postal abbreviation for last known state of residence	N/A	Character (max length=2)	Do not populate if patient's address is outside of the US (e.g., in Canada).
5	MOB	Month of birth	N/A	# with value 1-12	
6	YOB	Year of birth	N/A	YYYY	
7	SEX	Birth sex	N/A	# field with: 1=Male 2=Female 3=Unknown	
8	DODX	Date of diabetes diagnosis	N/A	mm/dd/yyyy	If unknown, leave as value 07/01/yyyy

Sample

```
Audit2024DemoData_N5.txt - Notepad
File Edit Format View Help
AUDITDATE^FACILITYNA^REVIEWER^STATE^MOB^YOB^SEX^DODX^DMTTYPE^TOBSCREEN^TOBACCOUSE^TOBCOUNSEL^ENDSSCREEN^ENDSUSE^FE
12/31/2023^DEMOMATA^KLS^NM^6^1963^2^1/19/2012^2^1^1^1^1^2^5^3.78^171^1^127^80^126^81^105^62^1^1^1^2^1^2^1^1^2^2^1
12/31/2023^DEMOMATA^KLS^NM^3^1953^1^11/3/1995^2^1^2^ ^1^2^5^0.91^133^1^153^88^134^64^151^77^1^1^1^2^1^2^1^1^2^1^1
12/31/2023^DEMOMATA^KLS^NM^5^1964^2^3/1/1985^2^1^2^ ^1^2^5^4^180^1^123^73^136^97^128^84^1^1^2^2^1^4^1^1^2^1^1^2^1
12/31/2023^DEMOMATA^KLS^NM^3^1957^1^6/10/2011^2^1^2^ ^1^2^5^0.63^160^1^147^74^138^81^157^71^1^1^1^2^1^2^1^1^2^2^1
12/31/2023^DEMOMATA^KLS^NM^12^1959^2^1/1/1982^2^1^2^ ^1^2^5^3^169^1^128^79^124^78^119^73^1^1^1^1^1^ ^2^1^1^2^1^1^2^1
```



Gather Data: Manual Audit

1. **Select** charts to review from eligible patients according to [Audit 2024 Instructions](#) (all or a random sample).
2. **Review** each selected medical chart.
3. **Complete** one Audit 2024 form for each chart.

Paper Audit Form

IHS Diabetes Care and Outcomes Audit, 2024

NOTE: It is highly recommended that you review the [Audit 2024 Instructions](#) prior to conducting an Audit.

Audit Period Ending Date: 12 / 31 / 2023

Facility Name: _____

Reviewer initials: _____

State of residence: _____

Month/Year of Birth: ____/____

Birth Sex: 1 Male
2 Female
3 Unknown

Date of Diabetes Diagnosis: ____/____/____

DM Type: 1 Type 1
2 Type 2

Tobacco/Nicotine Use (during Audit period)

Tobacco

Screened for tobacco use:

- 1 Yes
2 No

→ Tobacco user:

- 1 Yes
2 No

← Tobacco cessation counseling/education received:

- 1 Yes
2 No

Examinations (during Audit period)

Foot (comprehensive or "complete", including evaluation of sensation and vascular status):

- 1 Yes
2 No

Eye (dilated exam or retinal imaging):

- 1 Yes
2 No

Dental:

- 1 Yes
2 No

Depression

Screened for depression (during Audit period):

- 1 Yes
2 No

Depression an active diagnosis (during Audit period):

- 1 Yes
2 No

Education (during Audit period)

Nutrition:

- 1 RD
2 Other } 3 Both RD and Other
4 None

Physical activity:

- 1 Yes

Submit and Review Data via the WebAudit

Step	WebAudit Tool(s)
1 Enter # eligible patients (NOT number Audited)	Enter Facility Info
2 Submit data (choose one) Electronic Audit Manual Audit	Upload Data Data Entry
3 Check data for potential errors → edit data as needed	Data Quality Check View/Edit Data
4 Review reports and graphs of results → edit data as needed	Audit Reports & Trends Graphs View/Edit Data
5 “Lock” data	Lock Facility Data
6 Complete Audit evaluation (optional)	Link on screen and in email

Electronic Audits – Common Issue #1

Issue: Audit data file created with “old” software version.

What you’ll see in the WebAudit (example):

Upload Data

Audit 2024

▲ ERROR

Line 1 of your uploaded file has 76 fields. There should be 77 fields in each line.

Please check your file and [upload again](#).

Solution: Update software, if needed. Create new Audit data file with current version then upload.

Electronic Audits – Common Issue #2

Issue: Very low percentage of patients with education provided.

What you'll see in the WebAudit (example):

Diabetes-Related Education					
Nutrition – by any provider (RD and/or other)	3	468	1%		
Nutrition – by RD	3	468	1%		
Physical Activity	21	468	4%		
Other diabetes education	2	468	0%		
Any of above	25	468	5%		

Solution: Requires troubleshooting in your EMR. Could be an issue with data entry, coding, or where EMR is “looking” for this information.

Electronic Audits – Common Issue #3

Issue: Very low percentage of patients with results for a lab test.

What you'll see in the WebAudit (example):

LDL cholesterol	0	291	0%		
LDL <100 mg/dl	0	291	0%		
LDL 100-189 mg/dl	0	291	0%		
LDL ≥190 mg/dl	0	291	0%		
Not tested or no valid result	291	291	100%		

Solution: Requires troubleshooting in your EMR. In RPMS, most likely due to taxonomy updates needed.

Electronic Audits – Common Issue #4 (1)

Issue: Large number of patients missing all key data fields



What you'll see in the WebAudit (example):

Summary of Audit Potential Data Errors for 2024 Facility: Test02 Sample Data 2024 Annual Audit	
Multiple – See error message	387

Electronic Audits – Common Issue #4 (2)

Issue: Large number of patients missing all key data fields

What you'll see in the WebAudit (example):

List of Audit Potential Data Errors for 2024									
Facility: Test02 Sample Data									
2024 Annual Audit									
Edit	WebAudit ID	Yr/Mo of Birth	Sex	Date of Diagnosis	Field Name	Value	Error Type	Error Message	Comments
	2318	1958 / 10	M	04/02/2014	Multiple – See error message	None	Potential	Record is missing data for ALL of the key fields: weight, blood pressure, A1C, LDL value, and uACR value.	Add comment
	2075	1948 / 9	M	04/06/2007	Multiple – See error message	None	Potential	Record is missing data for ALL of the key fields: weight, blood pressure, A1C, LDL value, and uACR value.	Add comment

Solution: Could result from patients not truly eligible (should be removed) OR patients only having telehealth visits during Audit period (okay). If necessary, create and upload a new data file.



Changes for 2024

Gender

2023

Input

Sex: 1 Male
 2 Female
 3 Unknown

Report

Gender			
Male	40	89	45%
Female	49	89	55%

Input

2024

Birth Sex 1 Male
 2 Female
 3 Unknown

NOTE: Values and logic remain the same. Changes are to labels and addition of new report item.

Report

Birth Sex			
Male	43	89	48%
Female	45	89	51%
Unknown	1	89	1%

Tobacco/Nicotine Use: Input

2023

Tobacco/Nicotine Use

Screened for tobacco use (during Audit period):

1 Yes
 2 No

Tobacco use status (most recent):

1 Current user
 2 Not a current user
 3 Not documented

Tobacco cessation counseling/education received (during Audit period):

1 Yes
 2 No

Electronic Nicotine Delivery Systems (ENDS)*

Screened for ENDS use (during Audit period):

1 Yes
 2 No

ENDS use status (most recent):

1 Current user
 2 Not a current user
 3 Not documented

*ENDS include: vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and e-pipes.

2024

Tobacco/Nicotine Use (during Audit period)

Tobacco

Screened for tobacco use:

1 Yes
 2 No

Tobacco user:

1 Yes
 2 No

Tobacco cessation counseling/education received:

1 Yes
 2 No

Electronic Nicotine Delivery Systems (ENDS)*

Screened for ENDS use:

1 Yes
 2 No

ENDS user:

1 Yes
 2 No

*ENDS include: vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and e-pipes which contain nicotine.

1. **Timeframe:** Now during Audit period for all (previously use could be prior)
2. **Skip pattern:** Added for tobacco and ENDS screening

Tobacco/Nicotine Use: Report

2023

Tobacco and Nicotine use			
Tobacco use screening during Audit period			
Screened	64	89	72%
Not screened	25	89	28%
Tobacco use status (most recent)			
Current tobacco user	22	89	25%
In current users, counseled?			
Yes	11	22	50%
No	11	22	50%
Not a current tobacco user	67	89	75%
Tobacco use not documented	0	89	0%
Electronic nicotine delivery system (ENDS) use screening during Audit period			
Screened	49	89	55%
Not screened	40	89	45%
ENDS use status most recent			
Current ENDS user	0	89	0%
Not a current ENDS user	63	89	71%
ENDS use not documented	26	89	29%
Current user of both tobacco and ENDS	0	89	0%
Current user of tobacco and/or ENDS	22	89	25%

2024

Tobacco and Nicotine Use			
Tobacco use			
Screened	524	578	91%
If screened, user	93	524	18%
If user, counseled	85	93	91%
Electronic nicotine delivery system (ENDS) use			
Screened	331	578	57%
If screened, user	1	331	0%
User of both tobacco and ENDS*	1	330	0%
User of tobacco and/or ENDS*	52	330	16%

*Excludes patients not screened for both tobacco and ENDS use

Blood pressure categories: report only

Blood pressure (last 3 during Audit period):

____/____ mmHg

____/____ mmHg

____/____ mmHg

NOTE: Input remains the same – up to three values per patient. See Instructions and Data File Specifications for details.

Report Changes

Blood Pressure (BP) - Based on one value or mean of two or three values

2023

<140/<90

140/90 - <160/<100

160/100 or higher

BP category undetermined

2024

<130/<80

130/80 - <140/<90

140/90 - <160/<100

160/100 or higher

BP category undetermined

140/<90

Blood pressure changes: other report sections

Hypertension

Diagnosed ever

Diagnosed hypertension and mean BP <140/<90

Add new item:
Diagnosed hypertension and mean BP <130/<80

Diagnosed hypertension and ACE inhibitor or ARB currently prescribed

52

68

Chronic Kidney Disease (CKD) (In age ≥ 18 years)

CKD²

CKD² and mean BP <140/<90

Add new item:
CKD[2] and mean BP <130/<80

CKD² and ACE inhibitor or ARB currently prescribed

14

CKD² and GLP-1 receptor agonist currently prescribed

4

CKD² and SGLT-2 inhibitor currently prescribed

3

Combined Outcomes Measure

Patients age ≥40 years meeting ALL of the following criteria: A1C <8.0, Statin currently prescribed*, and mean BP <140/<90

18

77

23%

Replace with:
Patients age ≥40 years meeting ALL of the following criteria: A1C <8.0, Statin currently prescribed*, and mean BP <130/<80

*Excludes patients with an allergy, intolerance, or contraindication

Blood pressure/tobacco changes: other report sections

Cardiovascular Disease (CVD)

CVD diagnosed ever	40	89	45%
CVD and mean BP <140/<90			55%
CVD and not current tobacco user			
CVD and aspirin or other antiplatelet/anticoagulant therapy currently prescribed	26	40	65%
CVD and GLP-1 receptor agonist currently prescribed	7	40	18%
CVD and SGLT-2 inhibitor currently prescribed	4	40	10%
CVD and statin currently prescribed* *Excludes patients with an allergy, intolerance, or contraindication	24	38	63%

Replace with: CVD and mean BP <130/<80

Replace with:
CVD and not tobacco user*
*Excludes patients not screened for tobacco use

Blood pressure/tobacco changes: other report sections

Diabetes-Related Conditions (In age \geq 18 years)			
Severely obese (BMI \geq 40.0)	14	89	16%
Hypertension diagnosed ever	68	89	76%
Current tobacco user	22	89	25%
CVD diagnosed ever	40	89	45%
Retinopathy diagnosed ever	14	89	16%
Lower extremity amputation ever, any type (e.g., toe, partial foot, above or below knee)	7	89	8%
Active depression diagnosis during Audit period	3	89	3%
CKD stage 3-5	10	89	11%
Number of diabetes-related conditions			
Diabetes only	7	89	8%
Diabetes plus:			
One	28	89	31%

Delete this item

Remove TOBACCO (current tobacco user) from calculation for all six items in this section

Added: two new medications

□7 SGLT-2 inhibitor [bexagliflozin (*Brenzavvy*), canagliflozin (*Invokana*), dapagliflozin (*Farxiga*), empagliflozin (*Jardiance*), ertugliflozin (*Steglatro*), sotagliflozin (*Inpefa*)]

Added: SDPI RKM items (1)

Immunizations		
Influenza vaccine during Audit period	41	89
Pneumococcal vaccine (PCV15, PCV20, or PPSV23) - ever	69	89
Td/Tdap/DTaP/DT - past 10 years	59	89
Tdap - ever	76	89
If not immune, hepatitis B complete series - ever	47	88
Immune - Hepatitis B	1	89
In patients age \geq 50 years Shingrix/recombinant zoster vaccine (RZV) complete series - ever	25	70

← Add new item: Hepatitis B complete series ever or immune to hepatitis B

Added: SDPI RKM items (2)

Tuberculosis (TB) Status

TB diagnosis documented ever and/or positive test result ever	7
If not diagnosed, TB test done ever (skin test or blood test)	48
If TB diagnosis documented and/or positive test result, treatment initiated ever	4

Add new item:
TB test done ever or TB diagnosed ever

Hepatitis C (HCV)

Diagnosed HCV ever	7	89	8
In patients not diagnosed with HCV and age \geq 18 years, screened ever			0

Add new item:
HCV test done ever or HCV diagnosed ever

SDPI RKM Report: Blood Pressure Control RKM

Blood Pressure (BP) Control

BP <140/<90 mmHg (one value or mean of 2 or 3 values)

Replace with:

BP <130/<80 mmHg (one value or mean of 2 or 3 values)

Other minor changes

Examples:

- **Form**
 - Label change: “Urine Albumin: Creatinine Ratio” to “**Quantitative** urine albumin-to-creatinine ratio”
- **Report**
 - Italicize brand names for medications: SGLT-2 inhibitor [bexagliflozin (*Brenzavvy*), canagliflozin (*Invokana*), dapagliflozin (*Farxiga*), empagliflozin (*Jardiance*), ertugliflozin (*Steglatro*), sotagliflozin (*Inpefa*)]

Impact on Data File specifications

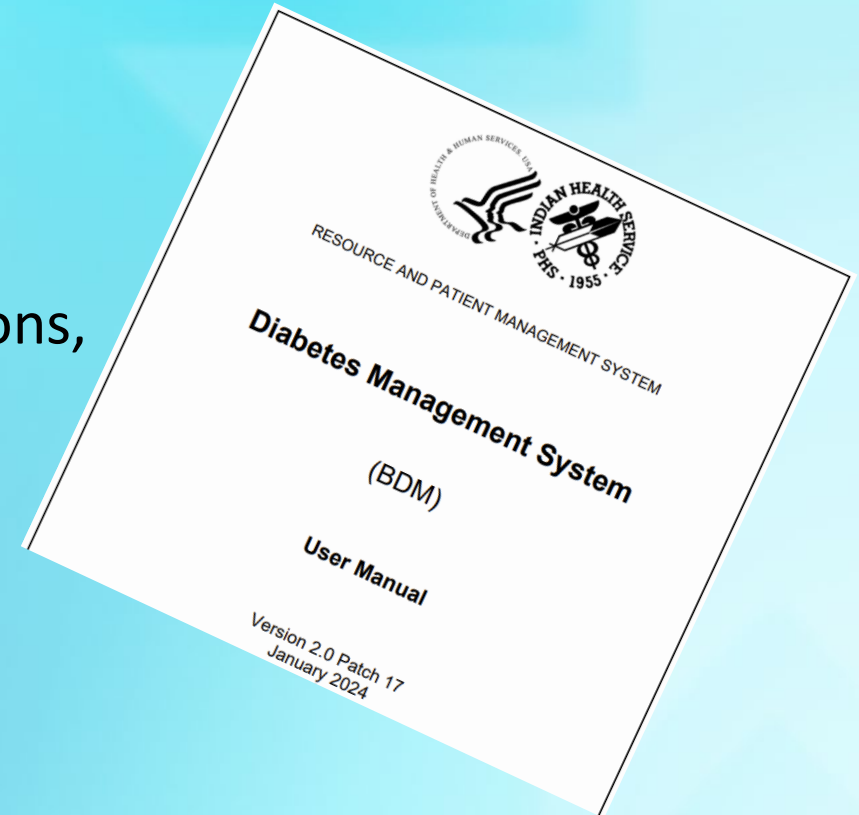
Columns: 77 total (same as 2023)

- 1-10: No change
- 11: Change from TOBACCO to TOBACCOUSE
- 12-13: No change
- 14: Change from ENDSSTATUS to ENDSUSE
- 15-77: No change

Carefully review **2024** Audit Data File Specifications before programming!

What's New for Audit 2024 RPMS/DMS

1. **Documentation:** User Manual updated.
2. **Pre-Diabetes Audit:** New menu and reports.
3. **Changes to Audit Form and Reports** integrated throughout.
4. **Logic changes:** diabetes education, immunizations, others.
5. **Additional details and information:** [DMS User Manual for Version 2.0 Patch 17](#)



What's New for Audit 2024 WebAudit

1. Audit Form and Report changes integrated throughout.
2. Others, mostly “behind the scenes”.



Data Quality Check and More

Data Quality Check (1)

Checks each data item and looks for things that **might be** or **are definitely** incorrect.

- Two types of errors:
 - **Potential:** Value might be incorrect. Generally values that are higher or lower than expected (e.g., $A1c < 2$).
 - **Definite:** Value is definitely incorrect **according to Audit logic**. Generally dates and skip patterns (e.g., date of diagnosis is before date of birth; received cessation counseling but not a current tobacco user).
- Two report sections:
 - **Summary:** Number of errors for each data field.
 - **List:** Details for each error.

Data Quality Check (2)

Review the Summary and then the List. Look for:

1. **Large number** of errors for one or more fields. If found:
 - a. Stop and explore possible reasons.
 - b. Create and upload a new data file, if necessary.
2. **Small number** of errors for one or more fields. If found:
 - a. Review each one.
 - b. Determine if corrections are necessary.
 - a. If so, make corrections in WebAudit.
 - b. If not, note in Comment.

Data Quality Check (3)

- WebAudit and DMS versions have the same checks, for the most part.
- If data are corrected:
 - in EMR before uploading, errors will not appear in WebAudit version.
 - in WebAudit but not EMR, errors will still appear in EMR version.
- Be sure to verify data before making any changes in EMR.

Data Quality Check Summary - WebAudit

Summary of Audit Potential Data Errors for 2024

Facility: Test36

2024 Annual Audit

There are **77** records for this facility.
137 Potential Data Errors were found.
Table sorted by Field Name ascending.

 [Download PDF Version](#)

Field Name ^ v	Number of Potential Errors
Date of Diabetes Diagnosis	35
DM Therapy: Insulin	1
ENDS user	10
Multiple – See error message	7
Tobacco Cessation Counseling	77
Tobacco user	7

Data Quality Check Details - WebAudit




List of Audit Potential Data Errors for 2024

Facility: Test21 LB
2024 Annual Audit

There are 2 records for this facility.
5 Potential Data Errors were found.
Table sorted by Field Name ascending.

 [Download PDF Version](#)

 [Download Excel Version](#)

Edit	WebAudit ID	Yr/Mo of Birth	Sex	Date of Diagnosis	Field Name	Value	Error Type	Error Message	Comments
	1002	1960 / 7	F	06/01/1960	Date of Diabetes Diagnosis	06/01/1960	Definite	Date of Diagnosis is earlier than Date of Birth. You must check both dates and change one or both dates.	Add comment
	1002	1960 / 7	F	06/01/1960	DM Therapy: Insulin	2	Potential	Response for this medication is inconsistent with DM type 1. Check DM type and therapy and change one or both if necessary.	Add comment
	1001	1990 / 5	F	03/01/2022	ENDS use status	None	Potential	Missing value. Enter a value if possible.	Add comment

Data Quality Check Details - DMS

LAB

Jan 28, 2024

Page 1

DIABETES AUDIT EXPORT DATA QUALITY CHECK REPORT
Audit Date 12/31/ 2023 (01/01/ 2023 to 12/31/ 2023
Facility: DEMO HOSPITAL

PATIENT NAME	HRN	DOB	SEX	AGE	VALUE	ERR TYPE
DEMOPAT, JOE	104017	02/05/1953	M	65		POTENTIAL
ERROR: ALL KEY DATA MISSING-Data is missing for all key fields: weight, blood pressure, Alc, LDL, uACR.						
DEMOPAT, MARY ANN	103886	08/29/2001	F	17	05/15/1983	DEFINITE
ERROR: DATE OF DX BEFORE YOYB-Date of Diabetes Diagnosis is before year of birth.						
DEMOPAT, MARY ANN	103886	08/29/2001	F	17	35	DEFINITE
ERROR: DURATION OF DM-Duration of Diabetes is less than 0 or greater than the patient's age.						
DEMO, BENJAMIN SR	893856	08/06/2012	M	6	07/12/2011	DEFINITE
ERROR: TB TEST DATE < YOYB-Date of TB Test is earlier than year of birth.						

Audit Data Security

Manual Audits: Paper forms contain patient data and should be handled according to facility policies.

Electronic Audits

- RPMS/DMS Audit data files and some reports contain patient data and should be handled according to facility policies.
- Save DMS Audit files in a secure location, as instructed by your facility.

WebAudit

- Do not give your username/password to anyone.
- Lock your workstation or log out if you need to do something else.
- Handle files and documents with patient data (from View/Download Data or Data Quality Check tool) according to facility policies.

Tips for a Successful Audit

1. **Review** the Instructions and other materials before starting.
2. **Start early!** Average time spent in 2023 was ~40 hours, but can take (sometimes much) longer depending on the situation at your facility.
3. **WebAudit access:** If you ever had but don't remember your login info, contact us instead of creating a new account.
4. **WebAudit**
 - a. **Login** – In your browser, bookmark the [Audit website](#) or [WebAudit login page](#).
 - b. **Data Entry** – Use the tab and number keys.

Audit Types: Annual vs. SDPI RKM Data vs. Interim

	Annual Audit	Interim for SDPI RKM	Interim Other
Frequency	Once per year	As many as needed	As many as needed
WebAudit Type	Annual	Interim	Interim
WebAudit Versions Available	Current year only	Current + previous year	Current + previous year
Conducted When	Feb through mid-March	One or more times a year	Any time of year
Period Covered	2024: Jan 1-Dec 31, 2023	Jan 1-Dec 31	Locally determined
Due Date	2024: 3/15/2024	2023 Final: 1/31/24 2024 Baseline: 2/29/24	Determined by Area or program
Who is included	Electronic: All eligible DM patients Manual: All or sample of eligible DM patients	SDPI Target Group	Determined by Area or program
Data reviewed by DDTP	Yes	In SOS only	No
Data used for national reports	Yes	Yes (baseline & final only)	No

Audit Resources

1. **Website:** <https://www.ihs.gov/diabetes> -> Select “IHS Diabetes Audit” from menu
 - a. Materials: Form, Instructions, Checklists, RPMS/DMS documentation
 - b. Training: Live, recorded, DMS
 - c. Other information and resources
2. **Support**
 - a. Audit team (WebAudit & general questions): email diabetesaudit@ihs.gov
 - b. [Area Diabetes Consultants](#)/Area Audit Support
 - c. RPMS questions and support (OIT Service Desk):
<https://www.ihs.gov/Helpdesk/>
 - d. RPMS DMS recorded training: <https://www.ihs.gov/rpms/training/recording-and-material-library/>

Upcoming Audit 2024 Webinars

- **RPMS DMS Overview**
 - Tuesday, 2/13/2024
 - 3pm ET / 2pm CT / 1pm MT / 12pm PT / 11am AKT (90 minutes)
 - Introduction to the RPMS Diabetes Management System with a focus on conducting the Diabetes Audit.
 - Time for Q&A
 - Will be recorded.
- **Audit Reports**
 - Tuesday, 2/20/2024
 - 3pm ET / 2pm CT / 1pm MT / 12pm PT / 11am AKT (1 hour)
 - Overview of changes to Audit Reports for 2024 and guidance for reading and reviewing Audit reports.
 - Time for Q&A
 - Will be recorded.



Website & WebAudit Demonstrations