RESOURCE AND PATIENT MANAGEMENT SYSTEM

Diabetes Management System

(BDM)

User Manual

Version 2.0 Patch 14
January 2021

Office of Information Technology
Division of Information Resource Management

Table of Contents

Version History

Version	Date	Author	Section	Page #	Summary of Change
1.1	12/20/2018	Lee Baliton, Lori Butcher, Chris Lamer, Karen Sheff, Skip Squires, and Mark Williams			Patch 12 updates to the menus and workflow in addition to supporting the 2019 Audit
1.2	10/21/2019	Lori Butcher, Mark Williams, Skip Squires			Patch 13 updates to menus and workflow in addition to supporting the 2020 audit
1.3	11/6/2019	Cece Butler, Karen Sheff, Skip Squires			Revising with input from the Diabetes stakeholders
1.4	11/17/2020	Lori Butcher, CeCe Butler, Karen Sheff			Revised for Patch 14

Preface

This manual has been developed for physicians, mid-level practitioners, nurses, case managers, and diabetes coordinators responsible for the care of Native Americans with diabetes or conditions predisposing them for development of diabetes. It provides instructions for:

- The setup and maintenance of the Resource and Patient Management System (RPMS) Diabetes Management System, including:

  - Taxonomies of Medications, Lab Tests, Health Factors, and Education Topics.
  - Identifying patients with a diagnosis of diabetes or pre-diabetes for local registers.
  - Identifying those health care providers who will be allowed to use the system for monitoring patients with diabetes or pre-diabetes.
  - Modifying flow sheets for the care of patients with diabetes.

- Setting up automatic notification for patients newly diagnosed with diabetes, pre-diabetes conditions, or diabetic complications.

- Entry of data items into the Patient Care Component (PCC) for optimizing patient care and reporting capabilities.

- Performing an electronic Diabetes or Prediabetes Audit.

- Generating a variety of reports for patient and program management.

Note: RPMS software, including the Diabetes Management System, is subject to periodic updates based on IHS Diabetes Standards of Care. This manual provides documentation for those standards in effect as of November 2020.

1.0   Introduction

Within American Indian and Alaska Native populations, diabetes exacts a great toll in both morbidity and mortality. The Diabetes Management System (DMS) of the IHS Resource and Patient Management System (RPMS) provides a unique capability for improving the care and management of patients with this significant health problem.

The Diabetes Management System is continually reviewed and updated to reflect current standards of care for patients with diabetes or conditions predisposing patients to develop this disease. The Diabetes Management System is designed to provide the capability to monitor the overall effectiveness of a diabetes program using an automated audit system and as a supplement to the Case Management System and PCC Management Reports which have been used together in the past to meet these needs.

Long-standing features of the Diabetes Management System include:

- A Diabetes Register using the PCC Case Management System.

- A Diabetes Flow Sheet included on the PCC Health Summary.

- Monitoring and prompting of health maintenance reminders on the Health Summary.

- Standard nomenclature for recording diabetes exams and education on PCC forms.

- Tools for conducting Diabetes Audits.

- Case Management System report options.

- E-mail bulletins identifying newly diagnosed diabetic patients or those with new complications.

In addition, the system provides for:

- Automatic installation of the IHS Diabetes Register if it has not already been installed at a site.

- Installation of the IHS Prediabetes Register if it has not already been installed at a site.

- Simplified population of taxonomies of medications, laboratory tests, education topics, and health factors required by the Diabetes Management System.

- An automated Diabetes Audit report that can be generated for an individual patient, a template of patients, the entire IHS Diabetes Register at a facility, or for a random sample of patients from the Register.

- An automated Pre-Diabetes Audit report that can be generated for an individual patient, a template of patients, the entire IHS Pre-Diabetes Register at a facility, or for a random sample of patients from the Register.

- A Diabetes Patient Care Summary.

- Entry of a Register as the Subject for QMan searches.

- A menu of follow-up reports for identifying patients with unmet standards of care.

New features introduced in Version 2 Patch 14 for the 2021 Audit include:

- Added an option to allow the user to run a diabetes audit for a cohort of patients across multiple registries.

The logic changes for the 2021 Audit are detailed in Appendix A of the Diabetes Audit User Addendum:

- Individual Audit Form

  – Added Shingrix Vaccine series ever

  – Modified Pneumococcal Vaccine to include only Pneumovax (PPSV23)

  – Modified the TB section:

    ▪ Added TB diagnosis ever

    ▪ Modified the logic for TB test done (most recent) and TB test result

    ▪ TB Tx now states, "initiated vs. completed" and includes those with a TB diagnosis or positive test results

  – Updated the ENDS section to exclude non-nicotine from use status

- Cumulative Audit Report

  – Minor text changes

  – Modified the TB section

  – Added Shingrix item

The system capitalizes on data contained in the PCC and minimizes redundant data entry for local Diabetes Coordinators. Detailed instructions for implementing and utilizing the Diabetes Management System's features are included in this manual.

2.0   Orientation

Throughout this manual, sample computer dialogues are included to illustrate the performance of various steps. Within these dialogues, computer-generated text appears in gray-shaded boxes. User responses in the dialog appear in bold type (Figure 2-1).

You will be required to press the Enter key for accepting default values and entering data. Within the sample computer dialogues that appear in this manual, the Enter key will be indicated as [ENT] (Figure 2-1).

```
Select Taxonomy Maintenance Option: BUL  Enter Bulletin For A Taxonomy
Select TAXONOMY NAME: NEW DIABETICS           DIABETIC TAXONOMY
Select MAIL GROUP: DIABETES TEAM
  Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 15TH)? No// Y
(Yes) [ENT]
   MAIL GROUP COORDINATOR: USER,DAVID K         DKR
  Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 1ST for this
BULLETIN)
? No// Y  (Yes) [ENT]
Select MEMBER: USER,DAVID K          DKR
Are you adding 'ROSS,DAVID K' as a new MEMBER (the 1ST for this MAIL
GROUP)? No// Y  (Yes) [ENT]
Select MEMBER: USER,BETSY
```

Figure 2-1:Sample computer dialogue

List Manager (ListMan)

This version of the Diabetes Management System uses a screen display called List Manager to display options for review and entry of data. Data displays in a window-type screen. Menu options for editing, displaying, or reviewing the data display in the bottom portion of the window. Even though you may be using a personal computer as an RPMS terminal, you cannot use the mouse for pointing and clicking to select a menu option. Additional menu options for displaying, printing, or reviewing data can be viewed by typing two question marks (**??**) at the "Select Option" prompt. Entering the symbol or letter mnemonic for an action at the "Select Action" prompt will result in the indicated action.

> **Note:** In the example Screen Display on the next page (Figure 2-2). two question marks (**??**) have been typed at the "Select Action" prompt to display the list of secondary options available to the user.

```
Register Data              Nov 13, 2020 15:14:01      Page:  1 of 1
      PATIENT: DEMO,KARLA KAY                          AGE: 29
      ADDRESS: 1400 W 3RD STREET,ALB,NM,87119          DOB: 08/03/1989
        PHONE: 555-555-3538                            HRN: 135272
PRIM CARE PROV: DOCTOR,DONNA                           RES: CONTRA
COSTA
        STATUS: DECEASED
```

```
WHERE FOLLOWED:
      CASE MGR:
      CONTACT:
    ENTRY DATE: NOV 13,2020                      LAST EDITED:
     DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen      QU Quit          ?? for More Actions
1  Register Status      6  Comments            11 Health Summary
2  Where Followed       7  Local Option Entry  12 DM Care Summary (DPCS)
3  Case Manager         8  Last Visit          13 Print Letter
4  Client Contact       9  Review Appointments Q  Quit
5  DX/Date of Onset     10 Audit Status


The following actions are also available:
+    Next Screen         <    Shift View to Left  PS   Print Screen
-    Previous Screen     FS   First Screen         PL   Print List
UP   Up a Line           LS   Last Screen          SL   Search List
DN   Down a Line         GO   Go to Page           ADPL Auto
Display(On/Off)
>    Shift View to Right  RD  Re Display Screen     Q    Quit

Enter RETURN to continue or '^' to exit:
```

Figure 2-2: Sample ListMan screen

Table 2-1: Menu Options

Menu Option	Description
+	In a display that fills more than one page, typing a plus sign (**+**) at Select Action displays the next full screen
-	If you reviewed several screens in a display, return to the previous screen(s) by typing a hyphen (**-**) at Select Action.
↑	Press the up arrow key at Select Action to move back one line at a time.
↓	Press the down arrow key at Select Action to move forward one line at a time.
→	Press the right arrow key at Select Action to move the screen display to the right.
←	Press the left arrow key at Select Action to move to the left.
FS	In a multi-page display type FS at Select Action to return to the First Screen of the display.
LS	In a multi-page display, type LS at Select Action to go to the Last Screen in the display.
GO	If you know which page of a multi-screen display you wish to review, type **GO** at Select Action to go directly to that screen.
RD	Type **RD** at Select Action to redisplay the screen.
PS	Type **PS** to print what is currently displayed on the screen to a selected device.

Menu Option	Description
PL	Type **PL** to print an entire single or multi-screen display (called a List) to a selected device.
SL	Typing **SL** prompts you to enter a word that you wish to search for in the List. Type the word to search for and press Enter to display any entries containing that word. For example, if you were many pages into a patient's face sheet and wanted to know the patient's age, you can type **SL**, **AGE**, and press Enter to return to the age entry.
ADPL	Auto display (On/Off) — Selecting this option allows the user to either display or hide the list of menu options at the bottom of the screen.
QU	Entering **QU** at Select Action: closes the screen and returns you to the menu.

> **Note**: All other RPMS conventions are applicable:

For certain types of data fields, primarily those that utilize lists of possible entries—such as facilities, diagnoses, communities, or patients—press the space bar, Enter, to insert the last entry used for that field.

The Caret: Use the caret, also known as the up-hat (^, Shift-6), a special control character, to exit from a particular activity or data entry sequence. Typing the caret at any prompt will usually return you to the proceeding prompt or menu level. Use the caret also to exit from long data displays such as vendor lists that usually involve many screens.

Any time a possible answer is followed by double forward slashes (//), pressing the Enter key will default to the entry displayed. If an alternative response is desired it must be typed after the double slashes (//).

Example:

```
   Enter new result? Y// [ENT]
        New Result:  153
         Enter new result? Y// N [ENT]
      Enter new patient?  Y//
```

Figure 2-3: Accepting a default entry

Help can be obtained at any data entry caption by typing one, two, or three question marks (**?**, **??**, or **???**).

Typing three question marks (**???**) at the prompt for selecting a menu option will display a brief summary of each of the options in that menu.

2.1   System Requirements

Please consult the latest Installation Guide for RPMS system requirements and Visual DMS special requirements.

2.2   Security Keys

System users will require the following Security Keys:

Diabetes Management System:

BDMZMENU
BDMZ REGISTER MAINTENANCE
BDMZ SWITCH OLD DX ENTRIES

Case Management System:

ACMZMENU

PCC Management Reports:

APCLZMENU
APCLZ TAXONOMY SETUP

QMan

AMQQZMENU
AMQQZCLIN
AMQQZRPT

Health Summary (Generate Multiple Health Summaries)

APCHSMGR

Automatic notification of the case manager or diabetes coordinator of all newly diagnosed cases of diabetes or patients with glucose values indicative of impaired fasting glucose or impaired glucose tolerance enhances effective use of the Diabetes Management System. VA FileMan can be used for setting up the Diabetes Mail group and identifying members of the mail group who should receive the bulletins. A brief overview of setting up notification bulletins for patients newly diagnosed with diabetes, diabetic complications, or abnormal glucose values is provided in Appendix A.

3.0   The IHS Diabetes Register & Pre-Diabetes Register

The standard **IHS Diabetes Register** and the standard **IHS Pre-Diabetes Register** are tools for maintaining a list of your patients with diabetes or pre-diabetes, their disease type, complications, family members, and case review dates. Both Registers facilitate the addition, inactivation, and removal of patients from the list; entry of data to be monitored for patients on the list; printing of case summaries; generation of reports; and retrieval of virtually all clinical data entered into the PCC for patients on the list.

The Standard **IHS Diabetes Register** is installed automatically with installation of the Diabetes Management System (BDM Version 1.0) if not already present. Because this is Version 2.0 Patch 14, all updates through Patch 14 must be installed. It provides a core set of data items with predefined lists and standard definitions. It also permits you to establish your own lists and definitions in support of these data items. The IHS Diabetes Register helps simplify the process of creating a Case Management-based register, but you are in no way limited to this core set of data items and the lists that accompany them. Remember that you always have access to all existing PCC demographic and clinical data without keeping these items in the Diabetes Register.

You may wish to create additional registers. Using the Create Register option in the Case Management System, you may create new registers or change the name of the existing register, perhaps to maintain multiple registers for communities or facilities within a single service unit. However, in order for the Diabetes Management software to work with a register, the word **Diabetes** must be in the name of the register. If you change the name of an existing register, you will be asked if you wish to re-index files. You must answer **Yes**.

The following data items are automatically included in the I**HS Diabetes Register**:

Table 3-1: IHS Diabetes Register data items

Patient Status
Active
Inactive
Transient
Unreviewed
Deceased
Non-IHS
Lost to follow-up
Noncompliant

Diagnosis	
Gestational DM	
Type 1	**Onset Date:** (for Complication)
Impaired Glucose Tolerance	
Type 2	**Primary Provider:** (display only)
Onset Date: (for Diagnosis)	**Register Provider:**

Entry Date:	**Case Mgr:**
Date entered in Register	
	Last Review Date:
Last Edited Date:	
	Next Review Date:
Contact:	
Where followed:	

Upon installation of the Diabetes Management System, the Case Management System is no longer required for entry of the Diabetes-related data items in the list above. However, if you elect to maintain data elements that are not contained in the list above, you must enter those data elements using the data entry option in the Case Management System.

3.1   IHS Pre-Diabetes Register

The installation of the IHS Pre-Diabetes Register takes place within the Case Management System Version 2.0. Patch 6 includes the installation instructions for this Register. The software can be requested from the Office of Information Technology (OIT) Software Quality Assurance (SQA) IHS website.

```
                    ***************************************
                    **      CASE MANAGEMENT SYSTEM      **
                    ***************************************
                                VERSION 2.0
                                SELLS HOSP

                                MAIN MENU

    CR     Create/Modify Register Structure
    AU     Add Authorized Users
    BL     Build Supporting Lists
    DL     Display Supporting Lists ...
    AD     Add/Delete Patients ...
    DE     Data Entry
    RG     Report Generation ...
    RD     Resource Directory ...
    QM     Q-Man (PCC Query Utility)
    DEL    Delete Entire Register
    LTR    Manage Recall Letters ...
    PDM    Install Pre-Diabetes Register
           Install IHS Diabetes Register


Select Case Management System menu option:  PDM   Install Pre-Diabetes
Register

This option will quide the User through the following:"

        A = Installing the IHS National Pre-Diabetes Register"
            if you currently are not using a Pre-Diabetes Register."

   OR

        B = Converting an existing Case Management-based register to the
"IHS
            Pre-Diabetes Register, renaming your register and adding the
            following Elements:

"Register Data, Case Review Dates, Diagnoses, Complications,
 Diagnostic Criteria, and Risk Factors included in the IHS  standard."

      Answer NO if you have an existing Pre-Diabetes Register."

    Answer YES if want the IHS National Pre-Diabetes Register
    installed."
```

The following data items are automatically included in the **IHS Pre-Diabetes
Register:**

Table 3-2: IHS Pre-Diabetes Register data items

Patient Status
Active
Inactive
Transient
Unreviewed

Patient Status
Deceased
Non-IHS
Lost to follow-up
Noncompliant

	Diagnostic Criteria
	Pre-Diabetes 75 Gram OGTT 140-199 mg/dl FPG 100-125 mg/dl
Diagnosis Impaired Fasting Glucose (IFG) Impaired Glucose Tolerance (IGT) Other Abnormal Glucose	**Metabolic Syndrome** Men – Waist Circumference >4 0 Women – Waist Circumference >35 TG > 150 mg/dl HDL < 40 mg/dl – Men HDL < 50 mg/dl – Women BP > 130/85 mm Hg FPG > 100 mg/dl
	Onset Date: (for Complication)
	Primary Provider: (display only)
Onset Date: (for Diagnosis)	**Register Provider:**

Entry Date:	Case Mgr:
Date entered in Register	
	Last Review Date:
Last Edited Date:	
	Next Review date
	Risk Factors: BMI > 25 Family HX - Type 2 Diabetes Hx of Gestational Diabetes Mother - Gestational Diabetes Polycystic Ovary Disease
Where followed:	

4.0   Register Maintenance (RM)

The Register Maintenance option of the Main Menu is used for customizing the Diabetes Management System to meet the needs of your program. Before you begin using the Diabetes Register, you must define members of the Diabetes Team who will be using the Register, identify the patients who will be included in the Register, and set up lists of medications, exams, lab tests, complications, and other parameters you will be using to monitor the patients in your population with diabetes. This must be done at the facility level because of variations in terminology and file entries at various facilities.

Each of the options within the Register Maintenance Menu will be described in this section and examples will be given on how to use the option.

- To Select the Register Maintenance menu, type **RM** at the "Select Diabetes Management System Option" prompt.

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
         BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
            ****************************************************
            **              DIABETES MANAGEMENT SYSTEM          **
            ****************************************************
                          VERSION 2.0 (Patch 14)
                          2020 DEMO HOSPITAL (INST)
                                 MAIN MENU


     RM     Register Maintenance ...
     AS     Audit Setup ...
     AR     Audit Reporting ...
     PDM    Prediabetes Audit ...

 Select Diabetes Management System Option: RM
```

Figure 4-1: Selecting the RM option

4.1   User Setup (US)

User Setup allows you to identify those members of the diabetes team who will be allowed access to the Register. For security reasons, only users with Manager Authority can add other authorized users or modify register components. A sample dialog for adding authorized users is provided.

Adding a new user to DMS

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
               ****************************************************
               **               DIABETES MANAGEMENT SYSTEM       **
               ****************************************************
                              VERSION 2.0 (Patch 14)
                              2020 DEMO HOSPITAL (INST)
                                REGISTER MAINTENANCE

     RM       Register Management ...
     PM       Patient Management
     DMU      Update Diabetes Patient Data
     AP       Add Patients from Template
     DEL      Delete Patient from the Register
     LM       Letter Management ...
     RR       Register Reports ...

 Select Register Maintenance Option: RM
```

Figure 4-2: Navigating to User Setup

1. Type **US** at the "Select Register Maintenance Option" prompt from the Register Maintenance menu.

2. Type **1** (Add/Remove DMS Authorized Users) at the "Which one" prompt.

3. Type the user's name at the "Select NEW DMS User" prompt. The process of adding/deleting occurs in a single step. If the system detects that the person is not currently an authorized user, it adds them immediately.

4. Type **YES** or **NO** at the "Remove USER as a user of the Diabetes Management System?" prompt, where USER is the user's name you typed in step 3.

5. Type **YES** or **NO** at the "Allow USER Register Manager Authority?" prompt, where USER is the user's name you typed in step 3.

6. This process can be repeated until all authorized users of the Register have been entered.

```
          **               DIABETES MANAGEMENT SYSTEM       **
          ****************************************************
                           VERSION 2.0
                           2013 DEMO HOSPITAL
                           REGISTER MANAGEMENT

     US     User Setup
     FS     Flow Sheet Setup
     LM     ADD/EDIT DMS Letters

 Select Register Management Option: US  User Setup

      Select one of the following:

          1          Add/Remove DMS Authorized User
```

```
            2          List Current DMS Authorized Users

Which one: 1   Add/Remove DMS User

Select NEW DMS User: USER,BENJAMIN P            BPC

USER,BENJAMIN P is an Authorized User
of the Diabetes Management System.

Remove USER,BENJAMIN P as a user
of the Diabetes Management System? NO// [ENT]

Allow USER,BENJAMIN P's REGISTER MANAGER AUTHORITY? NO// Y
```

Figure 4-3: Adding a new user to DMS

Listing Current DMS Users

1. Type **US** at the "Select Register Maintenance Option" prompt from the Register Maintenance menu.

2. Type **2** (List Current DMS Users) at the "Which one" prompt.

3. The system will display a list of current DMS Authorized users.

```
    Current DMS Authorized Users  Manager Authority
    ----------------------------  -----------------
    USER,BENJAMIN P               YES
    USER,BETSY                    YES
```

Figure 4-4: Listing the current DMS users

4.2   Flow Sheet Setup (FS)

The **Flow Sheet Setup** option allows selection of those diabetes-related measurements or values to be displayed in a table format either in a stand-alone report or as an attachment to a Health Summary.

A Flow Sheet table is designed to print on a single sheet of paper 80 columns wide. It will be divided into columns with a header over each column. You will need to determine the type of data to display in each column, the labels for each column, and which data items to display in each column.

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
        BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
            ****************************************************
            **            DIABETES MANAGEMENT SYSTEM        **
            ****************************************************
                        VERSION 2.0 (Patch 14)
                        2020 DEMO HOSPITAL (INST)
                          REGISTER MANAGEMENT

   US    User Setup
```

```
    FS      Flow Sheet Setup

Select Register Management Option: FS  Flow Sheet Setup

     Select one of the following:

Flow Sheet List               Nov 13, 2020 12:16:29       Page:    1 of
1
    NO. Flow sheet
    --- -----------------------------
    1   DIABETES
    2   DIABETIC FLOWSHEET
    3   EXAMFLOW
    4   Health Factor
    5   MEDICATIONS
    6   SAMPLE001

        - Prev Screen  QU Quit  ?? More Actions
1    SELECT Flow Sheet    2    ADD Flow Sheet
Select ACTION: Quit// 1   SELECT Flow Sheet

Which Flow Sheet:  (1-6): 2
```

Figure 4-5: Adding a new user to DMS

Overview of Process

1. Print the Flow Sheet (or a health summary displaying a Flow Sheet) for an existing diabetes patient.

2. Flow Sheets may be modified or added to the system using the RPMS Health Summary Maintenance Menu or the Diabetes Management System.

3. When using the Diabetes Management System, select **FS** from the Register Maintenance Main Menu.

4. A list of the current Flow Sheets available in your system will display.

5. You will be given options to ADD a new Flow Sheet or Select an existing Flow Sheet.

6. Select the existing Diabetes Flow Sheet.

7. Then select the menu option to Review the components of the Diabetes Flow sheet.

Figure 4-6 shows an example of an original diabetes Flow Sheet.

```
FLOW  SHEET Components          Nov 13, 2020 12:20:21     Page:    1 of  2
    DIABETIC FLOWSHEET


    Flowsheet Components
    NO.  ORDER  TYPE               LABEL                 WIDTH
    ---  -----  ------------------ --------------------  -----
    1     5     MEASUREMENT        Wt.                     3
                WEIGHT
```

```
         2      10      LAB RESULT              DM Labs                 8
                        _GLUCOSE
                        _PS A1c
                        _GLUCOSE
                        URINE Protein (POCT)
                        _SQL Glucose,Body Fluid
         3      15      MEASUREMENT             BP                      7
                        BLOOD PRESSURE
         4      20      EXAMINATION             Foot Chk.               9
                        FOOT INSPECTION
         5      25      MEDICATION              DM Meds                 20
+           - Prev Screen   QU Quit   ?? More Actions
1     EDIT Component                         3     REVIEW Component Members
2     DELETE Component

Select ACTION: Next Screen//
```

Figure 4-6: Example of an original diabetes Flow Sheet

4.2.1   Reviewing Flow Sheet Components

The design for the original Diabetes Flow sheet is demonstrated by using the option for Reviewing Flow Sheet Components for the Diabetes Flow Sheet. In reviewing the Diabetes Flow Sheet on the next page, you will note that it consists of four columns, each of which is identified as a NO. (The number identifies the placement of that data element on the Flow Sheet, e.g., 1 means that data element will be in column 1 on the Flow Sheet.)

The first row contains weight and has a label of Wt. and is three spaces wide. The second row column contains lab results, has a label of DM Labs, and is 815 spaces wide. The only labs chosen to display are _GLUCOSE, PS A1c; _GLUCOSE, URINE Protein (POCT), _SQL Glucose, Body Fluid cholesterol, LDL cholesterol, HDL, Hemoglobin A1C, glucose, glucose, other, triglyceride, and urine protein. The third row contains blood pressure, has a label of BP, and is seven spaces wide. The fourth row contains foot inspection, has a label of Foot Chk., and is nine spaces wide. The fifth row contains medication, has a label of DM Meds, and is 20 spaces wide. The second column contains examinations, has a label of Foot Chk., and is 10 spaces wide. It contains only one exam, the Diabetic Foot Check.

```
FLOW SHEET Components           Nov 05, 2020 13:56:39   Page: 1 of 2
DIABETIC FLOW SHEET

     Flowsheet Components
     NO.   ORDER  TYPE                    LABEL                   WIDTH
     ---   -----  -------------------     --------------------    -----
     1     5      MEASUREMENT             Wt.                     3
                  WEIGHT
     2     10     LAB RESULT              DM Labs                 8
                  _GLUCOSE
                  _PS A1c
                  _GLUCOSE
                  URINE Protein (POCT)
                  _SQL Glucose,Body Fluid
     3     15     MEASUREMENT             BP                      7
```

```
                    BLOOD PRESSURE
      4    20    EXAMINATION            Foot Chk.              9
                    FOOT INSPECTION
      5    25    MEDICATION            DM Meds                20

+          - Prev Screen  QU Quit  ?? More Actions
1    EDIT Component                      3    REVIEW Component Members
2    DELETE Component
Select ACTION: Next Screen// 3
```

Figure 4-7: Reviewing Flow Sheet components

4.2.2   Deleting a Component

1. To edit the existing Diabetes Flow Sheet, type **2** at the "Select Action" prompt.

2. Remove each of the four components on the Diabetes Flow Sheet.

```
+          - Prev Screen  QU Quit  ?? More Actions
1    EDIT Component                      3    REVIEW Component Members
2    DELETE Component
Select ACTION: Next Screen// 2
```

Figure 4-8: Deleting a component

4.2.3   Designing a new Diabetes Flow Sheet

The original Diabetes Flow Sheet often became lengthy and hard to read. A new Diabetes Flow Sheet may be designed as follows by choosing the option to ADD Flow Sheet from the previous menu once the original components have been removed. In the example, the Diabetes Flow Sheet is redesigned to display Weight, Blood Pressure, Hgb A1C, Glucose, Cholesterol, Creatinine, Urine Protein, and Triglyceride.

```
FLOW SHEET Components          Nov 05, 2020 14:41:14    Page:  1 of  1
DIABETIC FLOW SHEET

    Flowsheet Components
    NO.  ORDER  TYPE                  LABEL              WIDTH
    ---  -----  ------------------    ----------------   -----

- Prev Screen  QU Quit  ?? More Actions

1    EDIT Component                      3    REVIEW Component Members
2    DELETE Component
Select ACTION: Quit//   1
```

Figure 4-9: Designing a new Diabetes Flow Sheet

On the subsequent screen to enter new components, you will be prompted to enter:

1. The order the item should appear in the display (which column).

2. The data type of the item. Type one question mark (**?**) to review the data types available to use on the Flow Sheet.

3. The label or header to be used at the top of each column.

4. The width of the column.


```
DIABETES FLOW SHEET              Components
  ORDER          TYPE               LABEL              WIDTH

  ┌───┐  ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
  │ _ │  │              │  │              │  │              │
  │   │  │              │  │              │  │              │
  │   │  │              │  │              │  │              │
  │   │  │              │  │              │  │              │
  │   │  │              │  │              │  │              │
  │   │  │              │  │              │  │              │
  └───┘  └──────────────┘  └──────────────┘  └──────────────┘

  COMMAND:                   Press <PF1>H for help     Insert
```

Figure 4-10: Designing a new Diabetes Flow Sheet (steps 1-4)

Example:

1. Type **1** for the order (of display) of the first component at the blinking cursor.

    a. Press the Tab key to move to the **Data Item Type** field.

    b. Type the first data type as Measurement.

    c. Press the Tab key to move to the **LABEL** field.

    d. Type **WT** to indicate this column will be Weight.

    e. Press the Tab key to move to the **WIDTH** field.

    f. Type a value of 10 for the width of this field.

2. Press the Tab key to return to the order of the next component and type **2**.

    a. Press the Tab key to move to the **Data Item Type** field.

    b. Type **Measurement** again to indicate the data type for Blood Pressure.

    c. Press the Tab key to move to the **LABEL** field.

    d. Type **BP** as a header for this column.

    e. Press the Tab key to move to the **WIDTH** field.

    f. Type a value of **10** for the width of the field..

3. Press the Tab key to return to the order of the next component and type **3**.

a. Press the Tab key to move to the **Data Item Type** field.

b. Type **Lab** to indicate the data type for Hgb A1C.

c. Press the Tab key to move to the **LABEL** field.

d. Type **A1C** as a header for this column.

e. Press the Tab key to move to the **WIDTH** field.

f. Enter a value of **10** for the width of the field.

4. Continue this process until all eight components have been defined for the modified Diabetes Flow Sheet.

```
DIABETIC FLOW SHEET              Components
   ORDER          TYPE              LABEL           WIDTH

    1        MEASUREMENT         WT                 10
    2        MEASUREMENT         BP                 10
    3        LAB RESULT          A1C                10
    4        LAB RESULT          GLUCOSE            10
    5        LAB RESULT          CHOL               10
    6        LAB RESULT          CREAT              10
    7        LAB RESULT          UR PROT            10
    8        LAB RESULT          TRIG               10



   COMMAND:            Press <PF1>H for help     Insert
```

Figure 4-11: Designing a new Diabetes Flow Sheet (example)

5. To exit this screen, press the F1 and E keys.

4.2.4   Defining Items

The next step in the Flow Sheet development is to identify the data to be displayed under each Label. It is recommended that only a single data type or member be selected for each component of the Flow Sheet.

1. Begin by selecting option **3**, Review component members, by typing **3** at the "Select Action" prompt.

2. Begin with the first column or component by typing **1** at the "Which Flow Sheet Component(s)" prompt.

```
      DIABETIC FLOWSHEET

      Flowsheet Components
      NO.   ORDER  TYPE                   LABEL                WIDTH
      ---   -----  -------------------    --------------------  -----
      1      5     MEASUREMENT            Wt.                    3
                   WEIGHT
      2     10     LAB RESULT             DM Labs                8
                   _GLUCOSE
                   _PS A1c
                   _GLUCOSE
                   URINE Protein (POCT)
                   _SQL Glucose,Body Fluid
      3     15     MEASUREMENT            BP                     7
                   BLOOD PRESSURE
      4     20     EXAMINATION            Foot Chk.              9
                   FOOT INSPECTION
      5     25     MEDICATION             DM Meds                20

- Prev Screen  QU Quit  ?? More Actions
1    EDIT Component                     3    REVIEW Component Members
2    DELETE Component
Select ACTION: Next Screen// 3   REVIEW Component Members

Which Flow Sheet Component(s):  (1-6): 1
```

Figure 4-12: Defining Flow Sheet items (steps 1-2)

3. Type **1** at the "Select Action" prompt to add members for each component of the
    Flow Sheet. This process is similar to how you added members to the taxonomies
    of drugs and medications in the taxonomy setup section.

```
Component Members      Nov 05, 2020 15:08:39      Page:  1 of  1


MEASUREMENT
---------------------------
1     WEIGHT

- Prev Screen  QU Quit  ?? More Actions

1    ADD Member        2    DELETE Member
Select ACTION: Quit// 1
```

Figure 4-13: Defining Flow Sheet items (step 3)

4. The first measurement in the example given will be WT. Type **WT** at the "Which
    Measurement" prompt. When WT is added it will display in the list of component
    members under the **MEASUREMENT** component. Only the one measurement of
    WT will display for this component.

```
     Select
     MEASUREMENT          to add to the
     MEASUREMENT          component of the
     DIABETIC FLOWSHEET   Flow Sheet

Which MEASUREMENT: WT
```

Figure 4-14: Defining Flow Sheet items (step 4)

5. To quit, press Enter at the "Select Action: Quit" prompt.

6. Choose to review Flow Sheet component 2. Add a single member of BP.

7. Continue with this process to add members for each of the eight Flow Sheet Components.

8. As the components and their members are defined, not all of the data can be displayed on one screen. Press Enter at the "Select Action: Next Screen" prompt to display the rest of the components and members. The plus (+) and minus (-) signs may be used to move between the first and second screens of the display, as well.

9. When the process is complete, display the Diabetes Flow Sheet once more to ensure that all components, labels, and members have been defined correctly. Also, display a health summary for a patient known to have diabetes to ensure that the Flow Sheet is displayed correctly. If the column widths are too wide, the data on the Flow Sheet will "wrap" and it will be difficult to read. This may be corrected by changing one or more of the column widths to a smaller number.

```
FLOW SHEET Components       Nov 05, 2020 11:30:14     Page: 1 of  2

     DIABETIC FLOWSHEET

     Flowsheet Components
     NO.  ORDER  TYPE                   LABEL                WIDTH
     ---  -----  -------------------    --------------------  -----
     1     5     MEASUREMENT            Wt.                     3
                 WEIGHT
     2     10    LAB RESULT             DM Labs                 8
                 _GLUCOSE
                 _PS A1c
                 _GLUCOSE
                 URINE Protein (POCT)
                 _SQL Glucose,Body Fluid
     3     15    MEASUREMENT            BP                      7
                 BLOOD PRESSURE
     4     20    EXAMINATION            Foot Chk.               9
                 FOOT INSPECTION
     5     25    MEDICATION             DM Meds                20

+          - Prev Screen   QU Quit  ?? More Actions

1    EDIT Component                    3     REVIEW Component Members
2    DELETE Component
```

```
Select ACTION: Next Screen//
```

Figure 4-15: Defining Flow Sheet items (step 9)

10. The resulting Flow Sheet will be similar to Figure 4-16.

```
** CONFIDENTIAL PATIENT INFORMATION -- JAN 25,2020 11:40 AM  [DKR] **
** PATIENT,RAE #100003  (DMS DIABETIC FLOW SHEET SUMMARY)  pg 1 *******

PATIENT,RAE    DOB: NOV 10,1973
DEMO HOSPITAL HEALTH RECORD NUMBER: 100003
777 N. 33RD ST.,TOMBSTONE,AZ,88776

------------------------ FLOW SHEETS (max 1 year) ----------------------
---

DIABETIC FLOW SHEET
            WT    BP      A1C   GLUCOSE CHOL  CREA   UR PROT  TRIG
 ----------------------------------------------------------------------
 05/10/05 : 235  :145/80 : 9.2H :       :       : .3   : NEGAT :
          :      :       :      :       :       :      : IVE   :
 ----------------------------------------------------------------------
 11/03/04  : 240  :150/85 : 9.5H :  n/r :  250H:       :       : 310H
```

Figure 4-16: Resulting Flow Sheet

> **Note**: If a laboratory test has been ordered but no results are
> available for display, "n/r" will display under the
> appropriate header for that date. See the Glucose column in
> the above sample Flow Sheet.

4.3   Add Patients from Template (AP)

This option allows you to add patients with a diagnosis of diabetes to the Diabetes Register as a group. It may also be used to periodically add a template of patients newly diagnosed with diabetes. This process will not result in duplication of patients already in the Register.

Adding to the template

1. Type **AP** at the "Select Register Maintenance Option" prompt.

```
   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
Select Register Maintenance Option: AP
```

Figure 4-17: Adding to the template (step 1)

2. Type the name of the template of patients, which is to be added to the Register at the "Which Search Template" prompt.

3. Type **YES** or **NO** at the "Is that what you want?" prompt. If you type **YES**, the patients will be added in an Active Status.

```
Which SEARCH TEMPLATE: DKR NEW DM DX

CHOOSE 1-2: 2  DKR A1C>9      (Feb 29, 2018)      User #2852 File #9000001
INQ
        There are 350 patients in this SEARCH TEMPLATE.
        The following transfer has been selected:

        From SEARCH TEMPLATE: DKR A1C>9
          To CMS register:  2017 DIABETES REGISTER
        Transfer Status:    A - ACTIVE

        Is that what you want? No// Y  (Yes)
```

Figure 4-18: Adding to the template (steps 2–3)

4.4   Add/Edit DMS Letters (LM)

Use this option to develop custom letters. A personalized letter may be sent to an individual patient using the **ADD/EDIT DMS Letters** option in the Register Management (**RM**) Menu option. In addition, using the Follow-Up Needed (**FU**) option, in the Register Reports (**RR**) menu, you may generate letters to a group of patients with the same follow-up needs. This option will allow you to edit an existing letter, add a new letter, delete a letter type, or list letter inserts.

The *Education Text Follow up Inserts* will print the follow up item needed and then will automatically print the associated Education for that follow up item. Using the **Follow Up** Insert Item will print only the follow up items due and not the associated education text.

You can insert each text follow-up individually, or for each follow up item needed you can use the item |TEXT FOLLOW UP|.

1. To access the Add/Edit DMS letter option, type **LM** at the "Select Register Maintenance Option" prompt.

```
   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
Select Register Maintenance Option: LM
```

Figure 4-19: Selecting the LM option

2. Select **LAE** from the secondary menu:

```
                       VERSION 2.0 (Patch 14)
                      2020 DEMO HOSPITAL (INST)
                          LETTER MANAGEMENT


   LAE    ADD/EDIT DMS Letters
   CLS    Print Custom Letters for Selected Patients

Select Letter Management Option: LAE
```

3. The system will display the available options at the bottom of the screen.

```
DMS Letters                    Nov 05, 2020 11:30:14      Page: 1 of  1
NO.  LETTER
---  ------------------------------
1     DIABETES LETTER 1




- Previous Screen   QU Quit   ?? for More Actions
1  EDIT Letter             3  DELETE Letter
2  ADD Letter              4  List Letter Inserts
Select Action: Quit//  4
```

Figure 4-20: Available options for the LM option

Before attempting to review or develop any custom letters, it is highly recommended that you determine what kind of word-processing editor was assigned to you when you were set up as a user in RPMS. Please review Section 4.4 of this manual to set your text editor to screen editor instead of line editor. After making this alteration, when you encounter the word-processing field for developing letter text, a window should open, and text may be entered in the open window. The list of word-processing commands available for developing a letter is included in Appendix B.

Begin by selecting option **4**, List Letter Inserts. The Letter inserts (First Name, Last Name, Address, Provider Name, Chart, Date, Follow up, and Education Follow up) can be inserted automatically by the system when the letter is generated. Letter inserts may be entered by text (upper case must be used) or number. This option provides you with basic instructions on how to use these within the body of a letter. See Figure 4-26.

```
NO.  INSERT
---  -------------------
1       FIRST NAME
2       LAST NAME
3       ADDRESS
4       PRIMARY CARE PROVIDER
5       REGISTER PROVIDER
6       FOLLOW UP
7       CHART
8       DATE
```

```
9          EDUCATE
10         FOOT EXAM EDUCATION
11         EYE EXAM EDUCATION
12         DENTAL EXAM EDUCATION
13         FLU SHOT EDUCATION
14         PNEUMO EDUCATION
15         TETANUS EDUCATION
16         TB TEST EDUCATION


+          Enter ?? for more actions
I  Individual Insert Information        -  Previous Screen
H  General Insert Information           Q  Quit
+  Next Screen
Select Action: +//
```

Figure 4-21: Basic instructions for editing a letter

The **EDIT letter** option allows you to review the structure of a letter. In the example on the next page, option **1 EDIT** was selected to show the structure of Diabetes Letter 1.

Note that the letter inserts 1, 2, and 3 were used to put the patient's name and address in the header as well as the patient's first name in the greeting. The body of the letter was typed and where follow-up needs are to be displayed, the letter insert 5 was used to indicate the system was to generate those entries into the letter. If letter insert 4, **Primary Care Provider**, is used in the salutation, the name of the provider identified as the patient's primary provider will be inserted.

If you plan to develop a number of letters and some of them will be lengthy, you may find it easier to use a personal computer on which a standard word processing program like MS Word can be run in one window while RPMS is running in another window. The letters can be developed in Word and the text copied and pasted into the open word processing field in the RPMS application. Technical assistance can be provided if you wish to use this technique for letter development.

> **Note**: There are no security locks on letters. It is highly recommended that one user does not alter another user's letters.

```
==[ WRAP ]==[ INSERT ]==============<   >==============[ <PF1>H=Help ]====

|DATE|


|FIRST NAME| |LAST NAME|
|ADDRESS|

Dear |FIRST NAME|:

I have recently reviewed your records and note that you have missed your
last three appointments.  The records indicate that you are overdue for
```

```
a number of healthcare items which are important in ensuring that you are
not developing any complications associated with your diabetes.  Please
call Mary Smith, our Clinic Diabetes Coordinator, to schedule an
appointment during the month of October.  Her telephone number is 743-7865.
The records show that you have the following healthcare needs:

|TEXT FOLLOW UP|

Sincerely,
|PROVIDER NAME|

Press F1 followed by E to exit this screen.
<======T=======T=======T=======T=======T=======T=======T======T=======□
```

Figure 4-22: Sample letter setup

The above letter setup resulted in the following letter:

```
MAY 20, 2003


RAE PATIENT
777 N. 33RD ST.
TOMBSTONE, AZ  88776


Dear RAE:

I have recently reviewed your records and note that you have missed your
last three appointments.  The records indicate that you are overdue for a
number of healthcare items which are important in ensuring that you are not
developing any complications associated with your diabetes.  Please call
Mary Smith, our Clinic Diabetes Coordinator, to schedule an appointment
during the month of October.  Her telephone number is 555-7865.

The records show that you have the following healthcare needs:

        CREATININE                  *NO* CREATININE on record.

A CREATININE level is done at least yearly and is included as a part of a
group of tests run on one blood sample that helps indicate the health of
your kidneys, liver and other organs.  This information helps guide your
medical provider to recommend the most effective treatment to help keep you
healthy and lower your risk of complications caused by diabetes.

        INFLUENZA                   *NO* INFLUENZA on record.

A FLU SHOT is recommended yearly for all people with diabetes and is
usually given starting in September.  People do not become infected with
flu from flu shots - though they can have a mild fever or muscle aches for
a day or two as the body clears the vaccine.

        PNEUMO                      *NO* PNEUMO on record.

PNEUMONIA VACCINATION is recommended at least once for people with diabetes
to help prevent pneumonia - a Booster is often given at age 65 if it has
been more than 5 years since your last pneumonia vaccination.


Sincerely,
```

```
BENJAMIN USER
```

Figure 4-23: Sample letter

4.4.1   Choosing a Word Editing Editor

It is highly recommended that you review an existing letter before attempting to develop a new one. The example letters shown in this section use VA Screen Editor. If you currently are using VA Line Editor, you will be unable to develop the custom letters as described in this section. If you see the following (Figure 4-24) when entering a word processing field, your default editor has been set to the RPMS line editor. Change to the full screen editor as follows.
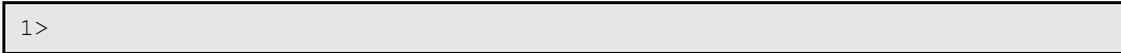
```
1>
```

Figure 4-24: Line Editor screen

1. At any prompt for a menu option, type **TBOX**. ToolBox is a secondary menu option that all users have but do not normally see on their screen. See Figure 4-25.

2. Type **EDIT** at the "Select User's Toolbox Option" prompt. The system will open a window.
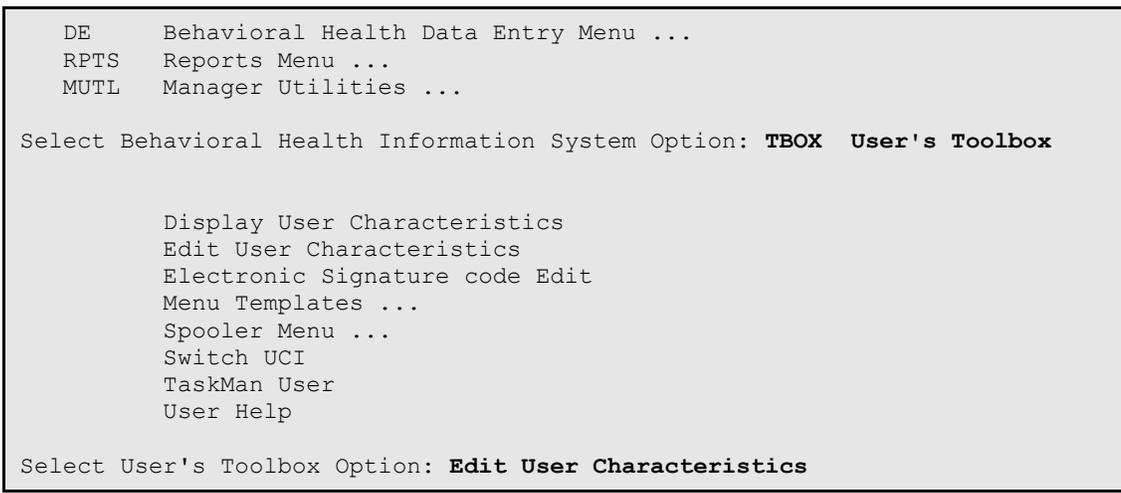
```
    DE      Behavioral Health Data Entry Menu ...
    RPTS    Reports Menu ...
    MUTL    Manager Utilities ...

Select Behavioral Health Information System Option: TBOX   User's Toolbox


         Display User Characteristics
         Edit User Characteristics
         Electronic Signature code Edit
         Menu Templates ...
         Spooler Menu ...
         Switch UCI
         TaskMan User
         User Help

Select User's Toolbox Option: Edit User Characteristics
```

Figure 4-25: Using TBOX

3. Press the down arrow key to move to the "Preferred Editor" field.

4. Type **SC** at the "Preferred Editor:" field and then press Enter to see the editor change to SCREEN EDITOR – VA FILEMAN.

5. Continue to press the down arrow until the cursor reaches the "Command" prompt.

6. Type **S** at the "Command" prompt and press Enter.

7. Type **E** at the "Command" prompt and press Enter to save and exit the screen. The Edit User Characteristics screen and fields are shown in Figure 4-26.

```
                        EDIT USER CHARACTERISTICS
NAME: PATIENT,SAMANTHA A                                  PAGE 1 OF 1
_____

                      INITIAL: SAS                      PHONE:
                    NICK NAME:                    OFFICE PHONE:
                                                   VOICE PAGER:
                                                 DIGITAL PAGER:


    ASK DEVICE TYPE AT SIGN-ON: DON'T ASK
                    AUTO MENU: YES, MENUS GENERATED
                    TYPE-AHEAD: ALLOWED
              TEXT TERMINATOR:
            PREFERRED EDITOR: SCREEN EDITOR - VA FILEMAN


Want to edit VERIFY CODE (Y/N):
_____
     Exit      Save      Refresh

Command:  Press E and answer "YES" when asked whether you wish to save
changes.

COMMAND: S [ENT]      Press <PF1>H for help     Insert
      E [ENT]
```

Figure 4-26: Setting Screen Editor

4.5   Print Custom Letters for Selected Patients (CLS)

This option can be used to print a letter for one patient or a selected set of patients.

1. Select **CLS** from the Letter Management menu:

```
                        VERSION 2.0 (Patch 14)
                        2020 DEMO HOSPITAL (INST)
                            LETTER MANAGEMENT


    LAE    ADD/EDIT DMS Letters
    CLS    Print Custom Letters for Selected Patients

Select Letter Management Option: CLS
```

2. The system will display the available letters at the top of the screen. Choose the letter you wish to print.

```
      DMS letters currently on file:

NO.  LETTER                 NO.  LETTER                 NO.  LETTER
---  -------------------    ---  --------------------   ---  ----------------
 1   Diabetes Letter         2   Mary's F/U


Select LETTER NO.:  (1-2):

Select Action: Quit//  1
```

3. You will be prompted to choose from the following options:

```
      Select one of the following:

          1          Individual Patient(s)
          2          Search Template of Patients
          3          Members of a Case Management Register

Create list for letters by:
```

4. Select the appropriate response. If #1 is chosen you will be prompted to enter patient names or chart numbers. If #2 is chosen you will be prompted to enter a search template name and if #3 is chosen you will be prompted to enter the name of a register.

5. You will then be prompted whether you want to print the letters to a printer or to browse the letters on your screen.

5.0   Entering/Deleting Patients on the Diabetes Register

There are four ways to add patients to the Diabetes Register:

- Enter patients manually, one at a time

- Transfer patients from a QMan-generated search template1

- Transfer patients from a File Manager file2

- Add patients to the Register using the Data Entry mnemonic, REG

1. QMan is a menu option in Diabetes Management. However, you will need three additional security keys to use QMan for Diabetes Management. See your Site Manager for assignment of the security keys: **AMQQZMENU**, **AMQQZCLIN**, and **AMQQZRPT**.

2. Transfer of patients from a File Manager file is seldom, if ever, required. It involves using FileMan to do a search for a file of patients with diabetes, creating a template of those patients, and then using the menu option for transferring this template of patients into the Diabetes Management System. If this functionality is required, please seek technical assistance from your local or area Information Systems personnel.

Each of the standard methods for entering patients into the Diabetes Register is described in Sections 5.1 through 5.5.

5.1   Entering Patients Manually

Enter the chart number or name (Last Name,First Name) of the patient to be added to the Register. If the patient is not currently a member of the Register you will be prompted to add the patient. See example in Figure 5-1.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
           BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
             ****************************************************
             **              DIABETES MANAGEMENT SYSTEM         **
             ****************************************************
                         VERSION 2.0 (Patch 14)
                         2020 DEMO HOSPITAL (INST)
                            REGISTER MAINTENANCE


   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
```

```
Select Register Maintenance Option: PM   Patient Management

Select PATIENT NAME: DEMO,LAURA MARIAN
                                       F 07-12-1988 XXX-XX-3297   TST
133250

     DEMO,LAURA MARIAN is not on
     the 2017 DIABETES REGISTER

Add this client to the Register? NO// Y
```

Figure 5-1: Entering patients manually

As soon as the Enter key has been pressed, the following screen will display (Figure 5-2) and you may begin to display, edit, or print data on this patient.

```
Register Data          Nov 14, 2020 15:57:10           Page:  1 of 1
       PATIENT: DEMO,LAURA MARIAN                        AGE: 30
       ADDRESS: 1709 OCOTILLO AVENUE,ALB,NM,87119        DOB: 07/12/1988
         PHONE: 555-555-4108                             HRN: 133250
PRIM CARE PROV:                                          RES: RIVERSIDE
        STATUS: ACTIVE
WHERE FOLLOWED:
      CASE MGR:
       CONTACT:
    ENTRY DATE: NOV 14,2020                   LAST EDITED:
     DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:



- Previous Screen       QU Quit          ?? for More Actions
1  Register Status      6  Comments              11 Health Summary
2  Where Followed       7  Local Option Entry    12 DM Care Summary
(DPCS)
3  Case Manager         8  Last Visit            13 Print Letter
4  Client Contact       9  Review Appointments   Q  Quit
5  DX/Date of Onset     10 Audit Status
Select Action: Quit//
```

Figure 5-2: Entering patients manually, screen 2

5.2   Transferring Patients from a QMan-Generated Search Template

This two-step process allows you to 1) quickly identify all diabetes patients who are active at your facility, based on PCC data, and 2) load them into your IHS Diabetes Register. For active IHS User population statistics, patients are generally considered to be active if they have had one or more visits for diabetes in the past three years. For the purposes of the Diabetes program, more stringent criteria more closely resembling GPRA criteria may be desired.

Each facility may have different criteria for identifying the patients who will be added to the template. In the following example, the search criteria used are that the patient had at least one diagnosis of diabetes codes as identified in the taxonomy SURVEILLANCE DIABETES, lived in the service unit area (GPRA taxonomy of communities), and had at least two visits to core medical clinics (01,06,10,12,13,20,24,28,57,70,80,89) in the last three years. This may result in patients inadvertently being added to the Register because of miscoding, but they can be easily recognized by age or chart review and removed.

> **Note**: Your facility may already have a taxonomy of communities
> in the service area used in GPRA reports. The site manager
> would know the name of this taxonomy.

The specific QMan dialogue to accomplish this search follows. User responses and instructions are in **bold** type.

```
*****  SEARCH CRITERIA  *****

Subject:  LIVING PATIENTS
Attribute of Living Patients:  DX
Enter DX:  [SURVEILLANCE DIABETES]

ICD codes in this range =>
   [QMan lists all codes  in the taxonomy]
Enter Another DX: [ENT]
Want to save this group for future use?  NO
First condition of Diagnosis:  SINCE
Exact Date:  (Enter the date 3 years ago)
Next condition of Diagnosis:  AT LEAST
Value:  1
Next condition of Diagnosis:  [ENT]
Attribute of Living Patients: COMMUNITY[ENT]
Community: GPRA COMMUNITIES [ENT]
   Members of GPRA Taxonomy =>

ADAIR
AFTON
BARTLESVILLE
BIXBY
BROKEN ARROW
CATOOSA
CHELSEA
CLAREMORE
JAY
LOCUST GROVE
MIAMI
PRYOR
SAPULPA

Enter ANOTHER COMMUNITY: [ENT]

The following have been selected =>

    ADAIR
    AFTON
    BARTLESVILLE
```

```
        BIXBY
        BROKEN ARROW
        CATOOSA
        CHELSEA
        CLAREMORE
        JAY
        LOCUST GROVE
        MIAMI
        PRYOR
        SAPULPA

Want to save this COMMUNITY group for future use? No//   (No)
Computing Search Efficiency
Rating..........................................
..........


   Subject of search: PATIENTS
        ALIVE TODAY
        CURRENT COMMUNITY (ADAIR/AFTON...)

Attribute of LIVING PATIENTS: VISIT

SUBQUERY: Analysis of multiple VISITS


First condition of "VISIT": CLINIC

Enter CLINIC: [CORE MEDICAL CLINICS

Members of CORE MEDICAL CLINIC Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE
WOMEN'S HEALTH SCREENING
URGENT CARE
EVENING CLINIC
IMMUNIZATION

Enter ANOTHER CLINIC: [ENT}

The following have been selected =>
        GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE
WOMEN'S HEALTH SCREENING
URGENT CARE
EVENING CLINIC
IMMUNIZATION
DIABETIC

Want to save this CLINIC group for future use? No// [ENT]  (No)

Next condition of "VISIT": DURING THE PERIOD
Exact starting date: 6/1/17  (JUN 01, 2017)
```

```
Exact ending date: 6/1/20   (JUN 01, 2020)


       Subject of subquery: VISIT
       CLINIC (DIABETIC/INTERNAL MED...)
       BETWEEN BETWEEN JUN 1,2017 and JUN 1,2020@23:59:59

Next condition of "VISIT": AT LEAST
Enter the value which goes with AT LEAST _ EXIST; e.g., AT LEAST _ EXIST 3,
AT LEAST _ EXIST 10, etc.
Value: 2


       Subject of subquery: VISIT
       CLINIC (DIABETIC/INTERNAL MED...)
       BETWEEN BETWEEN JUN 1,2017 and JUN 1,2020@23:59:59
       AT LEAST 2 EXIST

Next condition of "VISIT": [ENT]

Computing Search Efficiency Rating....


  Subject of search: PATIENTS
     ALIVE TODAY
     CURRENT COMMUNITY (ADAIR/AFTON...)
     DIAGNOSIS (250.01/250.11...)
       Subject of subquery: VISIT
       CLINIC (DIABETIC/INTERNAL MED...)
       BETWEEN BETWEEN JUN 1,2017 and JUN 1,2020@23:59:59
       AT LEAST 2 EXIST


Attribute of LIVING PATIENTS: [ENT]

*** Q-Man Output Options ***
Select one of the following:
  1  DISPLAY results on the screen
  2  PRINT results on paper
  3  COUNT 'hits'
  4  STORE results of a search in a FM search template
  5  SAVE search logic for future use
  6  R-MAN special report generator
  9  HELP
  0  EXIT
Your choice:  4 - Store Results of Search in FileMan Template

Enter the name of the search template:  PTS FOR IHS DM REGISTER

Are you adding 'PTS FOR IHS DM REGISTER' as a new sort template?  YES
Description:  [ENT]

Want to run this task in background?  NO
```

Figure 5-3: Transferring Patients from a QMan-Generated Search Template

QMan will then display each patient that matches the specified criteria as it stores the
patients in the template called PTS FOR IHS DM REGISTER. When finished, the
number of patients stored is displayed.

A site setting up the Register for the first time may choose to include or exclude different attributes in selecting patients to transfer. For example, by selecting the additional attribute of Community, you may limit the patients in the Register only to the communities in your service population. Another way of delimiting the group of patients to be included in the template is to select DX of [SURVEILLANCE DIABETES] as an attribute with no time limitations, and then selecting VISIT with limiting conditions of clinics and time frames. Other sites may choose to restrict the patients in the template even more by selecting a QMan attribute of Classification and limiting the Class to Indian/Alaska Native.

For the next step of loading the patients into your Register, exit QMan and return to the Diabetes Management System main menu.

1. Type **RM** the "Select Diabetes Management System Option" prompt in the Register Maintenance menu option.

2. Type **AP** at the "Select Register Maintenance Option" prompt.

```
REGISTER MAINTENANCE


   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...

Select Register Maintenance Option: AP  Add Patients from Template
```

Figure 5-4: Transferring Patients from a QMan-Generated Search Template (steps 1–2)

3. Type **PTS FOR IHS DIABETES REGISTER** at the "Which Search Template" prompt. If the transfer is approved the system will then move all of the patients from the search template into the IHS Diabetes Register and assign them the status of **ACTIVE**.

```
             Select SEARCH TEMPLATE to transfer
             patients to the Diabetes Register


Which SEARCH TEMPLATE: 890926

(Jun 23, 2020)        User #2881 File #2    INQ


         There are 1 patients in this SEARCH TEMPLATE.

    SEARCH SPECIFICATION NOT ENTERED


         The following transfer has been selected:
```

```
            From SEARCH TEMPLATE: 890926
              To CMS register:  IHS DIABETES
            Transfer Status:    A - ACTIVE

            Is that what you want? No// Y




            Transfer of patients is complete.
            All patients should be reviewed and all
            patient data updated in the IHS DIABETES register
```

Figure 5-5: Transferring Patients from a QMan-Generated Search Template (step 3)

When this process is complete, you should review the patients transferred into the register to determine their appropriateness. You may delete patients or change their status to Inactive, Transient, Unreviewed, Deceased, Lost to Followup, Non-IHS, or Noncompliant using the **Edit Register Data** option under the Patient Management menu.

5.3   Adding Patients Using REG Mnemonic

If a provider notes that a patient is not on the Diabetes Register or a related Register, they may alert PCC Data Entry staff to add that patient to the appropriate Register. The provider must identify the Register to which they wish the patient added. For example, if a provider wishes a patient to be added to the IHS DIABETES Register he/she would record REG- IHS DIABETES in the Chief Complaint section of the PCC Encounter Form. Data Entry staff may then use the REG mnemonic to add the patient to the specified register.

> **Note**:   The REG mnemonic is distributed as Not Allowed in PCC
> Data Entry patch 8. In order to use this mnemonic, the Data
> Entry Supervisor will need to use the **MNE Update PCC
> Mnemonic's Allowed/Not Allowed** menu option to allow
> use of this mnemonic.

When using the REG mnemonic, Data Entry staff will need to select which type of Register will be updated. The Diabetes Registers are Case Management Registers. A sample dialogue of using the REG mnemonic is displayed below.

```
MNEMONIC: REG [ENT]       Add Patient to a Register     ALLOWED      NON-
VISIT/VISIT MNEMONIC
The following is a list of registers this patient can be added to.
If you choose a CASE MANAGEMENT REGISTER you will be prompted to
enter which of the 36 CMS registers to add the patient to.

 1) IMMUNIZATION REGISTER
 2) ASTHMA REGISTER
 3) WOMEN'S HEALTH REGISTER
 4) CASE MANAGEMENT REGISTER
```

```
Enter the REGISTER you wish to add WATERMAN,BECKY to: (1-99999): //4[ENT]
Enter the name of the CASE MANAGEMENT Register: IHS DIABETES [ENT]

        Adding WATERMAN,BECKY
            to the IHS DIABETES REGISTER CMS Register.

WATERMAN,BECKY has been added to the IHS DIABETES REGISTER Register.
```

Figure 5-6: Sample dialogue of using the REG mnemonic

5.4   Deleting Patients from the Register

This option may be used to remove a patient from the Register if the patient is no longer active, is deceased, or has moved. The recommendation is to use this option only to remove patients from the Register if they do not have a diagnosis of diabetes. Other patients may be moved into a different Status category as opposed to deleting them. Deleting a patient from the Register results in the loss of any data that may have been stored in the Register for that patient including diagnosis, date of onset, complications, date of onset of complications, or date added to the register.

To delete a patient from the register, type **DEL** at the "Select Diabetes Management System Option" prompt. When prompted, type the chart number or name of the patient to be deleted from the register. You will be warned that all data on that patient will be removed from the IHS Diabetes Register. If you are certain, type **YES**. The dialogue will indicate that deletion of that patient from the IHS Diabetes Register is complete.

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
         BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
            *****************************************************
            **              DIABETES MANAGEMENT SYSTEM          **
            *****************************************************
                         VERSION 2.0 (Patch 14)
                         2020 DEMO HOSPITAL (INST)
                            REGISTER MAINTENANCE


   RM     Register Management ...
   PM     Patient Management
   DMU    Update Diabetes Patient Data
   AP     Add Patients from Template
   DEL    Delete Patient from the Register
   LM     Letter Management ...
   RR     Register Reports ...
Select Register Maintenance Option: DEL [ENT]
```

Figure 5-7: Deleting patients from the register

5.5   Periodic Addition of New Cases to Your Register

After your register is installed and your initial group of patients has been entered, enter newly diagnosed cases using the manual entry process described. It is critical that the local Diabetes Coordinator is notified as new patients are diagnosed or move into the service area. There are several mechanisms to identify patients newly diagnosed with diabetes, but no mechanism exists for adding patients automatically to the Register. The four methods of identification are described below.

Referral Copy of PCC Form

When a healthcare provider diagnoses a new case of diabetes, diagnoses a new complication, or is aware that the patient being seen for diabetes is new to the facility, the provider should indicate a referral to the Diabetes Coordinator in the lower right section of the PCC Encounter Form and forward the referral (yellow) copy of the form to the Diabetes Coordinator. Medical Records staff should be alert to these referrals and forward the yellow copy to the Diabetes Coordinator if the provider of service has not already done so. The provider may also make a notation on the PCC Encounter form for Data Entry staff to add this patient to the Diabetes Register. This may be accomplished by the Data Entry operator using the REG mnemonic for a Case Management Register.

Notation on Health Summary or Case Summary

Some facilities use the PCC Health Summary and/or the Case Management System Case Summary as turn-around documents. Following review of the Health Summary or Case Summary, the provider may make notations on the Summary regarding new diabetes cases or new diabetes complications and forward the Summary to the Diabetes Coordinator for updating the register.

QMan Search

Using QMan, you can print a list of newly diagnosed cases or new complications since your last update of the register. The list should be reviewed by the Diabetes Coordinator and appropriate entries made in the register. The following QMan dialogue (Figure 5-8) is used to find new cases or complications. User responses and instructions are in bold type.

```
                    *****  SEARCH CRITERIA  *****


    Subject: LIVING PATIENTS
    Attribute of Living Patients:   DX
    ENTER DX: [SURVEILLANCE DIABETES]
Enter Another DX:  [ENT]
Want to save this group for future use?  YES
Enter name for this taxonomy:  DM & COMPLICATIONS CODES
First condition of Diagnosis:  FIRST
How many?  1
Next condition of Diagnosis:  SINCE
```

```
Exact Date:  (Enter date you last updated register with new cases and/or
complications.)
Next condition of Diagnosis:  [ENT]
Attribute of Living Patients:  [ENT]

*** Q-Man Output Options ***
Select one of the following:
  1  DISPLAY results on the screen
  2  PRINT results on paper
  3  COUNT 'hits'
  4  STORE results of a search in a FM search template
  5  SAVE search logic for future use
  6  R-MAN special report generator
  9  HELP
  0  EXIT
Your choice:  2 - Print Results
Device:  (Enter printer device number.)
```

Figure 5-8: QMan search

After you have printed the results of your QMan search, you can review charts and
manually add the patients on your list to the Diabetes Register using the PM Patient
Management menu option.

Mailman Bulletin

Each time a diagnosis of diabetes or one of the standard complications is entered into
the PCC, a program will determine if this is a new case or new complication for the
patient at your facility. If it is new, a Bulletin will be generated in the RPMS Mailman
System announcing the new case. See the example in Figure 5-9:

```
Subj: DM NEW CASE  [#6732] 19 November 20 13:10  20 Lines
From: POSTMASTER  in 'IN' basket.  Page 1  **NEW**
----------------------------------------------------------------------
    Patient Name: TEST,PATIENT            SSN: 222-22-2222
    Chart No.: HC 27689   DOB: 10/12/1953

    This patient was seen on NOV 18, 2020 @14:04 at IHS FACILITY
    with the following diagnosis:

    ICD10 Code: E10.9  ICD Description: DM UNCOMPL/T-II/NIDDM,UNCONTR
    Provider Stated: DM TYPE 2 - UNCONTROLLED
    Patient's Community: IHS COMMUNITY
    Patient's Service Unit: IHS SERVICE UNIT
    Patient's Tribe: NON-INDIAN BENEFICIARY
    Tribal Blood Quantum: NONE


    Patient's Health Records:
This is the first time that this patient has been seen for the diabetes
diagnosis listed above.  Please take appropriate follow up action.


Select MESSAGE Action: IGNORE (in IN basket)/ /
```

Figure 5-9: MailMan bulletin

The Bulletin, or Mail Message, will be automatically routed to the local Diabetes Coordinator. Each time the Coordinator signs on to RPMS, the Coordinator will be notified that new mail messages are waiting to be read. If you are not already using Mailman within your facility, you will need to discuss this capability with your Site Manager.

> **Note**:   See Appendix B for directions on setting up this automatic notification system.

6.0   Patient Management

The IHS Diabetes Register has been designed to minimize the data entry required for maintenance. One key to achieving this goal is to optimize the use of data entered through the PCC process. Another key is to limit the non-PCC data maintained in the register to as few items as possible and to items that require infrequent updating after initial entry into the register.

```
All data items are entered or modified on the Patient Screen that is
displayed when the main menu option, PM Patient Management is selected.  To
initiate an interactive session, enter the patient name or chart number.

   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...



Select Register Maintenance Option: PM


Select PATIENT NAME: PATIENT,BARRY
```

Figure 6-1: Selecting the PM option

6.1   Edit Register Data

If the patient is a new addition to the Register, only demographic data from Registration will display as shown in Figure 6-2 may be added or updated using option **1 Edit Register Data**.

```
Register Data            Nov 14, 2020 12:17:06      Page:  1 of  1
       PATIENT: TEST,PATIENT TEN                         AGE: 18
       ADDRESS:                                          DOB: 01/01/2000
         PHONE:                                          HRN: 123456
PRIM CARE PROV:                                          RES: TOPPENISH
        STATUS: ACTIVE
WHERE FOLLOWED:
      CASE MGR:
       CONTACT:
    ENTRY DATE: NOV 14,2020                      LAST EDITED:
     DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:

- Previous Screen       QU Quit          ?? for More Actions
1  Register Status      6  Comments          11 Health Summary
2  Where Followed       7  Local Option Entry  12 DM Care Summary (DPCS)
3  Case Manager         8  Last Visit         13 Print Letter
4  Client Contact       9  Review Appointments   Q  Quit
5  DX/Date of Onset     10 Audit Status
```

```
Select Action: Quit// 1
```

Figure 6-2: Editing register data

Very few data items are included in the register itself. These items should be entered when you add patients to the register and modified as needed.

You may enter data into each field beginning with the **Status** field. Press Enter after recording data or press Tab to move through the fields to be edited.

Typing one question mark (**?**) at each field will display the choices or the type of data to be entered:

STATUS:

A Active – Patients who receive their primary health care at your facility and who have had care at your facility within the last year.

I Inactive – Patients not seen within the last two years.

T Transient – Patients seen at your clinic within the past year who do *not* receive their primary diabetic care at your facility, but only visit your clinic periodically for medications, or other services.

U Unreviewed – Patients on the Register who have not had a chart Audit and medical review.

D Deceased – Patients who are deceased. Note that this status will be automatically updated if a date of death is recorded in Registration. However, if a patient's status is changed to deceased in the Register, the patient registration file is not automatically updated.

N Non-IHS - Non-Indian patients who receive their diabetic care at your facility.

L Lost to Follow-up – patients seen at your facility within the past two years but who have not had a visit in the last year.

N Noncompliant – Patients with repeated documented refusals of recommended services.

> **Note**: Most of the register reports include only active patients.

WHERE FOLLOWED: (Optional) **2 Where Followed** – If the service unit has one or more field clinics, health clinics, or health stations, it may be of value identifying the facility where the patient routinely goes for health care.

CASE MGR: (Optional) – **3 Case Manager** This is the nurse or health care provider that has been assigned or has assumed responsibility for managing a patient's health care.

CONTACT: (Optional) – **4 Client Contact** Type Name of Contact. This is a free text entry of 1–30 characters to identify an alternative contact if a patient does not have a telephone.

ENTRY DATE: This date is entered automatically when the patient is added to the Register. You may override this date with a date from your records.

LAST EDITED: This field is filled automatically by the system with the date you or another authorized system user last entered or modified any data.

DIAGNOSIS: Enter the Diabetes diagnosis from the list. Make sure that the same Diabetes diagnosis is on the patient's Integrated Problem List (IPL), sot that other clinicians can see it.

ONSET DATE: Enter the Date of Onset for the Diabetes diagnosis. Make sure that the Date of Onset is also documented on the patient's Integrated Problem List (IPL), so that other clinicians can see it.

If you wish to return to a field to modify the data, you may type a caret (^) followed by the name of that field or caption to return. When all data is entered, at the "Command" prompt, type **S** and press Enter to save your entries. Then, type **E** and press Enter to exit the **Edit Register Data** option.

6.2   Adding Diagnosis

To add or modify Diagnosis for a patient, choose **5 Diagnosis** from the menu screen. You will have the option to edit an existing Diagnosis, add a new Diagnosis, or delete a Diagnosis.

```
Register Data            Nov 16, 2020 14:20:36      Page: 1 of 1
      PATIENT: TEST,PATIENT TEN                        AGE: 18
      ADDRESS:                                         DOB: 01/01/2000
        PHONE:                                         HRN: 123456
PRIM CARE PROV:                                        RES: TOPPENISH
CY
       STATUS: ACTIVE
WHERE FOLLOWED:
      CASE MGR:
      CONTACT:
   ENTRY DATE: NOV 14,2020                  LAST EDITED: NOV 16,2020
    DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:

- Previous Screen         QU Quit          ?? for More Actions
1  Register Status        6  Comments              11 Health Summary
```

```
2   Where Followed          7   Local Option Entry   12 DM Care Summary (DPCS)
3   Case Manager            8   Last Visit           13 Print Letter
4   Client Contact          9   Review Appointments  Q  Quit
5   DX/Date of Onset        10 Audit Status


Select Action: Quit// 5
```

Figure 6-3: Adding complications, screen 1

In the patient example given, **Impaired Glucose Tolerance** is currently listed. So, another Diagnosis will be added, **Type 2**.

```
Complications               Sep 21, 1999 14:32:44        Page:  1 of  0
Register Diagnoses               Nov 16, 2020 08:10:58           Page:   1 of
1
Make sure that the date of onset is also documented on the
patient's problem list so other clinician's can see it.
Problem list entries can be modified using EHR.

DIABETES RELATED PROBLEMS ON THE PROBLEM LIST
PROB #  DX          PROVIDER NARRATIVE                      DATE OF ONSET
STATUS
------------------------------------------------------------------------------
None on file

    Register Diagnosis
    NO.  Diagnosis                       ONSET DATE
    ---  ------------------------------  ----------
    1    IMPAIRED GLUCOSE TOLERANCE      NOV 15,2020



- Previous Screen          QU Quit          ?? for More Actions
1 Add Diagnosis    2   Edit Diagnosis    3   Delete Diagnosis
Select Action: Quit// 1
```

Figure 6-4: Adding complications, screen 2

You will be given the choice of entering one or more of the following Diagnoses.

> **Note**: This display is the Diagnosis List created under Register
> Maintenance.

```
1   IMPAIRED GLUCOSE TOLERANCE
2    GESTATIONAL DM
3    TYPE 1
4    TYPE 2
```

Figure 6-5: Diagnosis, screen 3

When prompted for Which DIAGNOSIS (1-4):, enter the number.

To add Onset Date and other details for each Diagnosis, choose option, **2 Edit**.

You will be prompted to choose the number of the Diagnosis you wish to edit. A window will display with prompts for DATE OF ONSET, SEVERITY. Use the Tab key to move between fields. To display the list of Diagnosis Severity, at the caption, SEVERITY: type one question mark (**?**). A list of four choices will display for you to select from. Diagnosis Severity is not a required entry.

```
N         NORMAL
M         MILD
MO        MODERATE
S         SEVERE
Diagnosis
    NO.  Diagnosis                       ONSET DATE
    ---  ------------------------------  ----------
    1    IMPAIRED GLUCOSE TOLERANCE      NOV 2020

- Previous Screen        QU Quit         ?? for More Actions
1 Add Diagnosis    2  Edit Diagnosis    3   Delete Diagnosis
Select Action: Quit// [ENT]
```

6.3   Add Case Comments

Free text case comments may be added to the Register indicating either nursing care plans, patient history or other information relevant to a patient's care. Select option **6 Comments.**

```
Register Data             Nov 14, 2020 15:48:20      Page: 1 of  1
      PATIENT: TEST,PATIENT TEN                      AGE: 18
      ADDRESS:                                       DOB: 01/01/2000
        PHONE:                                       HRN: 123456
PRIM CARE PROV:                                      RES: TOPPENISH
        STATUS: ACTIVE
WHERE FOLLOWED:
      CASE MGR:
      CONTACT:
    ENTRY DATE: NOV 14,2020                  LAST EDITED: NOV 16,2020
     DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen        QU Quit          ?? for More Actions
1  Register Status      6  Comments           11 Health Summary
2  Where Followed       7  Local Option Entry  12 DM Care Summary (DPCS)
3  Case Manager         8  Last Visit          13 Print Letter
4  Client Contact       9  Review Appointments  Q  Quit
5  DX/Date of Onset    10 Audit Status
Select Action: Quit// 6
```

Figure 6-6: Adding case comments, screen 1

To add Comments, select option **1 Edit Comments**. A window will open, displaying the patient's name. To enter free-text comments, press Enter at the "Comments" prompt to open a word-processing field.

```
PATIENT: GREENJEANS,BARRY

 (Press the Enter key to edit COMMENTS or <TAB> to skip.)
 COMMENTS:  [ENT]



Exit     Save     Refresh
Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND:                              Press <PF1>H for help    Insert
```

Figure 6-7: Adding case comments, screen 2

Enter free-text comments just as you would using any word processor. The lines will wrap automatically. Press F1 followed by the H key to display all the options for editing text.

```
==[ WRAP ]==[ INSERT ]======< CASE COMMENTS >======[ <PF1>H=Help ]====
This 36 year old patient was brought in by his wife because of recent
excessive weight loss, lack of energy, and loss of appetite.  By his own
account, he is a heavy drinker and smoker.  He is employed as a long
distance driver for a trucking firm.  DKR 05/2/03
```

Figure 6-8: Adding case comments, screen 3

Neither the date of the comment entry nor the identity of the person entering the text is stored with a comment. Therefore, it is recommended that any comment entry be accompanied by date and initials. When all comments have been entered, press the F1 key (PF1) followed by E to close the word processing window. You may save and exit from the comment option by typing **S** and pressing Enter, followed by typing E and pressing Enter. Exit the Comment window by typing **Q** to Quit or pressing Enter.

> **Note**:   The Case Summary is the only option that allows display of case comments entered via this menu option.

6.4   Local Option Entry

The local option entry may be edited by selecting **7 Local Option Entry**. Enter 0–9 at the prompt then enter the appropriate text.

6.5   Last Visit

The last visit the patient has made to your healthcare facility may be displayed by selecting **8 Last Visit**. All visit-related data for that date will display including purpose of visit, providers, measurements, exams, and labs.

6.6   Review Appointments

To review future appointments for a patient, select **9 Review Appointments**. This option will display future appointments only if the RPMS Scheduling Package is used at your facility.

6.7   Audit Status

The status of compliance with the IHS Diabetes Standards of Care can be monitored at any time for a single patient by selecting **10 Audit Status**. You will be prompted to enter a date. This date will be considered the ending date of the Audit period. For most data items, all data for the period one year prior to this date will be reviewed. This allows the provider to determine which standards of diabetes care have not been met prior to the date of this visit. Future dates may be used.

6.8   Health Summary

The Health Summary for the patient may be displayed by selecting **11 Health Summary**. You will be prompted for Health Summary Type and may select any of the standard IHS distributed Health Summaries or a custom site-developed Health Summary. All of the secondary menu options discussed in Table 2-1 of this manual may be used for searching, displaying, or printing data from this health summary.

6.9   Case Summary

The Case Summary for a patient may be displayed by selecting option **12 Case Summary**. You will be prompted as to whether you want to also display the PCC Health Summary. The display of the Case Summary may require several screens, therefore the display and print options described in Table 2-1 may be used. Typing two question marks (**??**) will display the choices.

> **Note**: The Case Summary is the only menu option that allows display of case comments.

```
Browse on Screen              Nov 16, 2020 10:39:51    Page:  1 of 2
********** CONFIDENTIAL PATIENT INFORMATION [LVB]  Nov 16, 2020 **********
DIABETES PATIENT CARE SUMMARY           Report Date:  11/16/2020


Patient: TEST,PATIENT TEN               HRN: 123456


DATE OF DEATH: 01/18/2017


Age:  DECEASED: 01/18/2017 (DOB 01/01/2Sex: FEMALE00)
CLASS/BEN: INDIAN/ALASKA NATIVE         Designated PCP:


Date of DM Diagnosis:
Diabetes type: (1 or 2):


BMI:        Last Height:  0.00
            Last Weight:


Tobacco Use:


+         Enter ?? for more actions
+   NEXT SCREEN          -    PREVIOUS SCREEN     Q    QUIT
Select Action: +//
```

Figure 6-9: Adding case comments, screen 3

6.10   Print Letter

A custom letter to the patient can be generated by choosing menu option **13 Print Letter**. Developing letters suitable for different situations can be performed by using **Add/Edit DMS Letters** under the Register Maintenance Menu Option described in Section 4.1.

When the **Print Letter** option is selected, you will be prompted with a list of custom Diabetes Management Letters. Select the number of the letter you wish to print and enter the Device number of the printer you wish to use.

7.0   Update Diabetes Patient Data (DMU)

The DMU option was developed to enable Diabetes Coordinators to update certain diabetes-related data in the PCC if it is documented in the chart but has not been recorded in PCC. This includes both patient care data as well as refusals of service. The option is especially useful at small facilities which are not using the RPMS Laboratory or Pharmacy Packages or who use outside contracted providers for dental, eye, or podiatry services.

This option may also be used by certified Diabetes educators to directly enter the health factors relating to educational assessment and record the data items associated with education documentation including provider, level of understanding, length of educational session, individual or group setting, identify the objectives met, and the behavior code. It is often difficult to find the space to document these data items on a traditional PCC Encounter Record. However, a PCC Encounter Record still must be completed for each patient encounter documenting the patient encounter with the educator for statistical and billing purposes.

Data entered via DMU creates an "event" or "historical" type visit in PCC and therefore does not contribute to the PCC visit error report run prior to PCC visit exports. Before using the option, you need to review the health summary of the patient whose PCC record is to be updated, to ensure that the data truly does not reside in PCC. If the data is indeed missing and you plan to update the record, begin by selecting the DMU option and enter the name or chart number of the patient whose record will be updated.

```
                        PCC DATA ENTRY
                  Diabetes Patient Data Update

Select PATIENT NAME:  PATIENT,BARRY   M 05-09-1963 001040010    SE 100035

The data you enter for the above patient will be updated in the PCC
database.

Do you wish to continue? Y// [ENT]

Okay, one more thing ... If you intend to update the DM Date of Onset, you
must have the patient's DM problem number available from the problem list
The problem number must be entered in the correct field in the following
format: XXnn, where XX is the facility abbreviation and nn is the
problem number, e.g.: MU7

Do you wish to continue? Y// [ENT]
```

Figure 7-1: Updating Diabetes Patient Data, screen 1

Data may be entered for any of the data items displayed on the screen.

```
                  *****  DIABETES PATIENT DATA UPDATE  *****
Patient Name: PATIENT,BARRY                    HRN: 168923
------------------------------------------------------------------------------
--
Problem Number:                        Date of DM Onset:
Height Date:                           Height Value:
Weight Date:                           Weight Value (lbs):
BP Date:                               BP Value:
Any HEALTH FACTORS to record?  N
Foot Exam Date:                        Foot Exam Result:
Eye Exam Date:                         Eye Exam Result:
Depression Screening Date:                Depression Screening Result:
Dental Exam Date:

Do wish to enter Td, Flu, Pneumococcal or HEP B immunizations?  N

PPD Date:                     PPD Reading:
Any EDUCATION to record? N  Any LABs to enter? N Any Medications to Enter?
N_____
```

Figure 7-2: Update Diabetes Patient Data, data items

Date of DM Onset

If you plan to append a Date of DM Onset, the patient must first have an active
problem of diabetes. That problem number must be specified before you will be
allowed to enter a date of onset. You may determine the problem number by
reviewing the active problem list of the patient's health summary. On the following
Health Summary, the patient has an active problem of Diabetes recorded on 4/15/02
but there is no date of onset. This would normally be seen as a date in parenthesis
after the problem, e.g., DIABETES MELLITIS TYPE 2 (onset 04/82). The problem
number is SE3.

```
----------------------- ACTIVE PROBLEMS ----------------------------

           ENT.    MODIFIED
  SE1      05/03/67 05/03/67 ANEMIA DUE TO DEFICIENT INTAKE OF IRON
  SE3      04/15/02 04/15/02 DIABETES MELLITIS TYPE 2
```

Figure 7-3: Updating Diabetes Patient Data, active problem

The date of onset may be updated by recording the date of onset of April 1982 on
problem SE3 using the DMU option. After recording this data, the changes may be
saved by typing **S** and then pressing the Enter key followed by typing **E** and then
pressing the Enter key at the "COMMAND:" prompt to save and exit the DMU
screen.

```
                  *****  DIABETES PATIENT DATA UPDATE  *****
Patient Name: PATIENT,BARRY                    HRN: 100035
---------------------------------------------------------------
 Problem Number: **SE3**                      Date of DM Onset: **4/1982**
```

Figure 7-4: Updating Diabetes Patient Data, date of onset

When the active problem list on the Health Summary is reviewed, it will now reflect the date of onset. If the patient does not have an active problem of Diabetes, the DMU option may not be used to add a date of onset.

```
----------------------- ACTIVE PROBLEMS --------------------------

              ENT.    MODIFIED
  SE1         05/03/67 05/03/67 ANEMIA DUE TO DEFICIENT INTAKE OF IRON
  SE3         04/15/02 05/30/03 DIABETES MELLITIS TYPE 2  (onset 04/82)
```

Figure 7-5: Updating Diabetes Patient Data, updated screen

Health Factors

The categories of health factors that may be updated using the DMU option include:

- Self-Monitoring of Blood Glucose

- Tobacco Use

- Electronic Nicotine Deliv System (ENDS)

- TB Health Factor

- Barriers to Learning

- Readiness to Learn

- Learning Preference

```
Problem Number:                       Date of DM Onset:
Height Date: MAR 12,2020              Height Value: 56
Weight Date: MAR 12,2020              Weight Value (lbs): 234
BP Date: MAR 12,2020                  BP Value: 145/80

Any HEALTH FACTORS to record?  Y [ENT]
```

Figure 7-6: Updating Diabetes Patient Data,, Health Factors

Begin by typing Y and pressing the Enter key to indicate that you will be updating the patient's record with health factors. A screen will open in which you can identify one or more categories of health factors to update. Use the Enter or Tab keys to move through the fields. The date of the health factor will default to the date the update was made unless you change the date to the date that the health factor was actually recorded.

```
                    HEALTH FACTOR UPDATE
Enter the appropriate Health Factor for each category you wish to update

Tobacco Use:                                    DATE: JUN 30,2020

Electronic Nicotine (ENDS) Use:                 DATE: OCT 20,2020

TB Health Factor:                               DATE: JUN 30,2020
```

```
Self Monitoring Blood Glucose:                        DATE: JUN 30,2020

Barriers to Learning:                                 DATE: JUN 30,2020

Learning Preference:                                  DATE: JUN 30,2020
```

Figure 7-7: Updating Diabetes Patient Data, Health Factor Choices to update

The choice of health factors to enter under each category may be displayed by typing two question marks (**??**) when the cursor is blinking next to a health factor category. The choices will display at the bottom of the screen.

```
Must be a Diabetes Self Monitoring Health Factor

Choose from:
SELF MONITORING BLOOD GLUCOSE - NO
SELF MONITORING BLOOD GLUCOSE - REFUSED
Press RETURN or ENTER to continue or '^' to exit: [ENT]
SELF MONITORING BLOOD GLUCOSE - YES
```

Figure 7-7-8: Updating Diabetes Patient Data, Self Monitoring of Blood Glucose Health Factors

The Enter key must be pressed as many times as necessary to display all the choices for that category.

When the cursor is once more blinking next to the category of health factor, the choice may be entered by typing the first few letters of that health factor. Select the number of the correct health factor. The date may also be changed to the date the health factor was documented.

```
Self Monitoring Blood Glucose: SELF [ENT]          DATE: 6/10/20

Barriers to Learning:                              DATE: JUN 30,2020

Readiness to Learn:                                DATE: JUN 30,2020

Learning Preference:                               DATE: JUN 30,2020
_____
1      SELF MONITORING BLOOD GLUCOSE - NO
2      SELF MONITORING BLOOD GLUCOSE - REFUSED
3      SELF MONITORING BLOOD GLUCOSE - YES

Choose 1-3 or '^' to quit: 2 [ENT]
```

Figure 7-7-9: Updating Diabetes Patient Data, ,Entering Self-Monitoring Health Factor

If more than one match is found, all matches will display in a numbered list at the bottom of the screen and the choice may be made by number.

When all health factor data has been updated, the screen may be closed by pressing the Enter key when the cursor is blinking on the "Close" COMMAND:.

Td, Influenza, or Pneumovax immunizations

In order to update Td, Influenza or Pneumovax immunizations, type **Y** to indicate that you will be making one or more entries in this field.

```
Do wish to enter Td, Influenza or Pneumovax immunizations?  Y [ENT]
```

Figure 7-10: Updating Diabetes Patient Data, Immunizations

A vaccine and the date given must be documented for each immunization type documented. The Enter or Tab keys may be used to move between fields. If the first few letters of a vaccine are entered, any vaccines in that category that match those letters will display and the correct vaccine may be chosen by number.

```
                          Immunization Update
                           Immunization Update
|
|For each immunization you are updating you must enter the immunization
|that was given and the date it was given.
|
| INFLUENZA:                              DATE FLU SHOT GIVEN:
|
|
| PNEUMOCOCCAL:    [ENT]                  DATE PNEUMOCOCCAL GIVEN:
|
|
| TD:                                     DATE TD GIVEN:
|
|
| HEPATITIS B:                            DATE HEP B GIVEN:
|
|
|1     PNEUMOCOCCAL CONJUGATE VACCINE       PNEUM-CONJ    100
 2     PNEUMOCOCCAL POLYSACCARIDE VACCINE    PNEUMO-PS     33
```

Figure 7-11: Updating Diabetes Patient Data, Entering Pneumovax vaccine

When immunization data updates have been completed, press the Enter key until the cursor drops to COMMAND: where the word "Close" is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Education

In order to enter Medications, Laboratory Tests, or Patient Education, type **Y** to indicate that you will be making entries in this field.

```
Any EDUCATION to record?Y Any LABs to enter?N Any Medications to Enter?Y
```

Figure 7-12 Updating Diabetes Patient Data, Education

A screen will open to allow entry of the desired information. Use standard IHS Patient Education mnemonics for recording education topics. If the category of the topic is typed, e.g., DM or DMC, the list of topics in that category will display below the data entry box. The Enter key may be pressed as many times as necessary to review the entire list of topics in that category before selecting the number of the desired topic.

```
Enter all Education Topics you wish to record
After you enter a topic name and press ENTER you will be prompted for
additional information about that topic

TOPIC: DMC  [ENT]
TOPIC:
TOPIC:
TOPIC:
TOPIC:

_____
_
1      DMC-ACUTE COMPLICATIONS        DMC-AC
2      DMC-BEHAVIORAL GOALS (MAKING HEALTHY CHANGES)      DMC-BG
3      DMC-BLOOD SUGAR MONITORING, HOME       DMC-BGM
4      DMC-CHRONIC COMPLICATIONS (PREVENTION & TREATMENT)      DMC-CC
5      DMC-DIABETES MEDICINE - INSULIN       DMC-IN
Choose 1-5 or '^' to quit: 5 [ENT]
```

Figure 7-13: Updating Diabetes Patient Data, Entering new education topic

When an education topic has been selected and the Enter key is pressed, a screen will open to allow entry of additional information about that educational encounter. The only required fields are those underlined or highlighted. If choices for a field are unknown, two question marks (**??**) may be typed and information about that field definition will display.

```
DM EDUCATION: DMC-DIABETES MEDICINE - INSULIN
DATE EDUCATION PROVIDED: JUN 10,2020      [ENT]
PROVIDER: SHORR,GREGORY       [ENT]
LEVEL OF UNDERSTANDING: POOR     [ENT]
LENGTH OF EDUCATION (MINUTES): 60     [ENT]
INDIVIDUAL/GROUP: INDIVIDUAL  [ENT]
OBJECTIVES MET:
BEHAVIOR CODE: ?? [ENT]

_____
Choose from:
GS       GOAL SET
GM       GOAL MET
GNM      GOAL NOT MET
```

Figure 7-14: Updating Diabetes Patient Data, Entering educational data items

When education topic data updates have been completed, press the Enter key until the cursor drops to COMMAND: where the word "Close" is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Laboratory Tests

In order to enter Laboratory Tests, type **Y** to indicate that you will be making entries in this field.

```
Any EDUCATION to record?N Any LABs to enter?Y Any Medications to Enter?N
```

Figure 7-15: Updating Diabetes Patient Data, Laboratory tests

A screen will open to allow entry of the desired information. Type only the first few letters of the laboratory test. Matching tests will display in a list at the bottom of the screen. Select the number of the correct test. Record the date of the test and the result. When entering numeric data, enter only the numeric results not any flags or other indications of normal or abnormal.

```
Lab Test Name               Date of Test      Value

CHOLESTEROL                 DEC 15,2020       340
TRIGLYCERIDE                DEC 15,2020       510
LDL                         DEC 15,2020       210
HDL                         DEC 15,2020       40
```

Figure 7-16: Updating Diabetes Patient Data, updated lab test information

Upon completion of entry of the laboratory test information, press the Enter key until the cursor drops to COMMAND: where the word "Close" is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Medications

In order to enter Medications, type **Y** to indicate that you will be making entries in this field.

```
Any EDUCATION to record?N Any LABs to enter?N Any Medications to Enter?Y
```

Figure 7-17: Updating Diabetes Patient Data, Medications

A screen will open to allow entry of the desired information. Type the first few letters of the medication and select the correct medication from the list that will display at the bottom of the screen. Enter the date and the quantity of medication dispensed. SIG is optional information and does not need to be entered.

```
Drug Name               Date Dispensed Qty        SIG

Aspirn 81MG TAB          May 2,2020    100

Any EDUCATION to record?N  Any LABs to enter?N Any Medications to enter?Y

------------------------------------------------------------------------
```

```
Close     Refresh

Enter a command or '^' followed by a caption to jump to a specific field.
-----------------------------------------------------------------------



COMMAND: Close                    Press <PF!>H for help    Insert
```
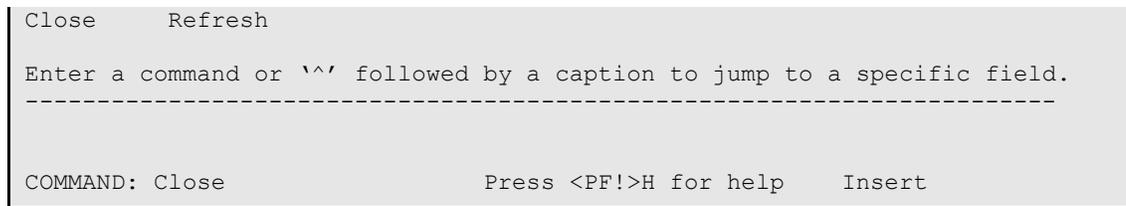
Figure 7-18: Updating Diabetes Patient Data, Recording medication data

Upon completion of entry of the medication information, press the Enter key until the cursor drops to COMMAND: where the word "Close" is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Height, Weight, BP, Foot Exam, Eye Exam, Dental Exam, Pap Smear, Mammogram, EKG, and PPD

Each of these data items requires entry of the date of the exam, measurement, skin test or procedure. When the Enter key is pressed after recording the date, you will be prompted to enter the result of the measurement - height in inches, weight in pounds, blood pressure, or PPD reading. For EKG, Foot Exam, and Eye Exam you will be prompted to enter a result of **NORMAL** or **ABNORMAL**. PAP Smears and Mammogram only require entry of a date.

> **Note**: Be extremely careful about accurately recording data as it will be passed directly to PCC when the data is saved, and you exit the screen. Only data entry staff can delete or correct inaccurate data once it has been stored in PCC. If you do need to delete incorrectly recorded data BEFORE exiting from the DMU screen, position the cursor in the erroneous field using the ↓ or ↑ keys or the Tab key and either type over the incorrect data with the correct data or type "@" which is the RPMS symbol used for deletion.

```
            *****  DIABETES PATIENT DATA UPDATE  *****
Patient Name: DEMO,POLLY                        HRN: 143782
-----------------------------------------------------------------------------
-
Problem Number:                        Date of DM Onset:
Height Date: MAR 12,2020               Height Value: 66
Weight Date: MAR 12,2020               Weight Value (lbs): 234
BP Date: MAR 12,2020                   BP Value: 145/80


Any HEALTH FACTORS to record?  N

Foot Exam Date:                        Foot Exam Result:
Eye Exam Date: 2/10/2020               Eye Exam Result: NORMAL
Dental Exam Date:                      Pap Smear Date:
Mammogram Date:            EKG Date:            EKG Result:
Do wish to enter Td, Influenza or Pneumovax immunizations?  N
PPD Date: MAR 12,2020        PPD Reading: 5
Any EDUCATION to record? Y  Any LABs to enter? N Any Medications to Enter?
N

_____
_
```

Figure 7-19: Diabetes Patient Data, Update

Once all the desired data has been updated on the DMU screen, typing **S** and then
pressing the Enter key followed by typing **E** and then pressing the Enter key will save
the data and result in an updated PCC database.

When the PCC database update has completed, you will be prompted to enter any
refusals. Begin by typing **Y** to indicate that one or more refusals will be documented
and then record the date the refusal was documented.

```
Exit     Save     Refresh

Enter a command or '^' followed by a caption to jump to a specific field.


COMMAND: E                              Press <PF1>H for help
Insert

Updating PCC database....hold on a moment...

Do you want to enter any Patient REFUSALS? N//Y [ENT]
Enter Date of Refusal: 6/10/20 [ENT]
```

Figure 7-20: Updating Diabetes Patient Data, updating the PCC database and entering
            refusals

This tool may be used to document any services that could not be provided to a
patient because they were medically contra-indicated, the patient failed to respond to
follow up, the provider discontinued the service, the patient failed to respond, or the
patient refused the service. Refusals may be documented for:

- Education Topics

- EKG

- Exams

- Immunizations

- Laboratory Tests

- Mammogram

- Measurements

- Medication/Drugs

- PAP Smear

- Radiology Exam

- Skin Test

Select the Refusal type from the list of Refusal Types. The above list may be displayed by typing two question marks (**??**) when prompted for refusal type.

Identify the Refusal Type by typing the first few letters.

Type the name of the specific item that was refused, e.g., name of medication if a MEDICATION/DRUG, name of laboratory test if a LABORATORY TEST, specific immunization if an IMMUNIZATION, etc. When entering a Refusal Type of EKG, you will be prompted for the DIAGNOSTIC PROCEDURE RESULT:. There is only one choice, ECG SUMMARY.

Enter the refusal reason from the following list:

- R   Refused Service

- N   Not Medically Indicated

- F   No Response to Followup

- P   Provider Discontinued

- U   Unable to Screen

```
Enter REFUSAL TYPE: ?? [ENT]

  Choose from:
  EDUCATION TOPICS
  EKG
  EXAM
  IMMUNIZATION
  LAB
  MAMMOGRAM
  MEASUREMENTS
  MEDICATION/DRUG
  PAP SMEAR
  RADIOLOGY EXAM
  SKIN TEST

Enter REFUSAL TYPE: EKG
Enter the DIAGNOSTIC PROCEDURE RESULT value: ?
```

```
   Answer with DIAGNOSTIC PROCEDURE RESULT:
  ECG SUMMARY
Enter the DIAGNOSTIC PROCEDURE RESULT value:  ECG SUMMARY [ENT]
Enter Refusal Reason: REFUSED SERVICE
creating Refusal entry in PCC...


Would you like to enter another refusal? N//
```

Figure 7-21: Updating Diabetes Patient Data, documenting EKG refusal

Upon completion of data entry for one refusal you may enter additional refusals by typing **Y** when prompted to enter another refusal.

The last step in using the DMU option for updating Diabetes-related data is to display the patient's health summary and individual Audit to ensure that updated data is accurately displayed.

8.0   Register Reports (RR)

Numerous reports can be generated from the IHS Diabetes Register through the Diabetes Management System's Register Reports option. These reports contain a combination of demographic data, clinical data from the PCC, and register data that you have entered.

To generate reports of your register data, use the **RR** Register Reports option on the Diabetes Management System main menu.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
               ******************************************************
               **              DIABETES MANAGEMENT SYSTEM          **
               ******************************************************
                              VERSION 2.0 (Patch 14)
                              2020 DEMO HOSPITAL (INST)
                                 REGISTER MAINTENANCE


   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...

 Select Register Maintenance Option: RR  Register Reports
```

Figure 8-1: Selecting the RR option

By selecting **RR Register Reports** you can choose to display or print register data in a number of different ways. The reports listed in Figure 8-2 are available.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
               ******************************************************
               **              DIABETES MANAGEMENT SYSTEM          **
               ******************************************************
                              VERSION 2.0 (Patch 14)
                              2020 DEMO HOSPITAL (CMBA)
                                 REGISTER REPORTS MENU

   CS      Individual Register Patient Case Summary
   MS      Multiple Register Patient Case Summaries
   ML      Master List
   GEN     Register Patient General Retrieval (Lister)
   PR      Patient and Statistical Reports
   LPRA    List Patients on a Register w/an Appointment
   NDOO    DM Register Pts w/no recorded DM Date of Onset
   FU      Follow-up Needed
   MRDA    Multiple Registries Community DM Audit
```

```
Select Register Reports Option:
```

Figure 8-2: Register Reports Menu

8.1   Individual Register Patient Case Summary (CS)

The Case Summary displays or prints all data contained in the Diabetes Management System for a single patient. For the IHS Diabetes Register, this includes demographic information, register status data, diabetes diagnosis, complications, review dates, and any case comments that have been entered. The Case Summary also includes the patient's PCC Problem List. To produce an individual Case Summary, select the **Individual Case Summary** menu option and enter the patient's name or chart number. The Case Summary is generated instantaneously. You have the option of including a PCC Health Summary at the end of the Case Summary. For this report, you may retrieve data for all patients on the Diabetes Register regardless of status.

```
      Select DIABETES Register


      ---   ------------------------------
      1     2017 DIABETES REGISTER
      2     IHS DIABETES
      3     IHS PRE-DIABETES
      4     DEMO DIABETES REGISTER
      5     MOHAVE DIABETES REGISTER
      6     PARKER DIABETES REGISTER

Which REGISTER:  (1-6):
```

Figure 8-3: Select Register

8.2   Multiple Register Patient Case Summaries (MS)

This option allows you to produce Case Summaries (Section 8.1) for all patients or a subset of patients in your IHS Diabetes Register. After selecting the option, you will be asked to specify a sorting order for the Case Summaries. You may sort by Patient (alphabetical order), Community of Residence, Facility where Followed, Case Manager, or Next Review Date. After selecting the sort order, you will specify whether to retrieve data for everyone in the register or for a subset of patients. For example, if you select Community for the sort order, you can print all patients in the register grouped by community, or you can choose a specific community in order to print only those patients within that particular community. Likewise, if you select Next Review Date as your sort order, you can specify a time period and list only those patients whose next review date falls in that range or list all patients in the register in the order of their next review date. This option retrieves only active patients. All other patients are excluded. You may save your report results in a search template for later data retrievals.

```
                            2020 DEMO HOSPITAL (CMBA)
                                   DEMO,SKIP

                    DIABETES REGISTER MULTIPLE PATIENTS SUMMARIES

This report will print patient summaries for a selected set of patients.
You may select individual patients by name/HRN or you may select a group
of patients by any combination of the following attributes:- Register
Status
     - Community of Residence
     - Case Manager
     - Where Followed
     - Next Review Date


Enter the Name of the Register: 2017 DIABETES REGISTER

     Select one of the following:

          I          Individual Patient Names/HRNs
          A          Group of Patients by Attribute

Select Patients By: I// ndividual Patient Names/HRNs
Select PATIENT NAME: demo
  1    DEMO,ALISTER LANE          <A>   M 05-20-1980 XXX-XX-4693    TST
124625
  2    DEMO,ASHLEY                <A>   F 02-25-1930 XXX-XX-5631    TST
114649
  3    DEMO,BENJAMIN SR                 M 08-06-2012 XXX-XX-9932    TST
893856
  4    DEMO,DEJON                       M 11-27-2002 XXX-XX-0095    TST
115569
  5    DEMO,FERN                  <A>   M 01-01-1960 XXX-XX-1230    TST
142601
ENTER '^' TO STOP, OR
CHOOSE 1-5: 2
  DEMO,ASHLEY                     <A>   F 02-25-1930 XXX-XX-5631    TST
114649
Select PATIENT NAME:

Include PCC HEALTH SUMMARY? NO//
DEVICE: HOME//   Virtual
```

Figure 8-4: Multiple Register Patient Case Summaries Prompts

```
        ********** CONFIDENTIAL PATIENT INFORMATION  **********
***************  2017 DIABETES REGISTER      REGISTER
********************
     CLIENT:  DEMO,ASHLEY                          CHART:  114649
                                   PRIMARY CARE PROVIDER: DEMO,DONNA
        DOB: FEB 25,1930                            AGE: 88 YRS
   CONTACT: NOT STATED                        COMMUNITY: PARKER
                                             HOME PHONE: 555-555-9833
*************************   INSURANCE INFORMATION
**************************
INSURANCE                      NUMBER     SUFF COV  EL DATE  SIG DATE END
DATE

     **********************  PATIENT INFORMATION
************************
```

```
        STATUS: ACTIVE                          CASE PRIORIT: NOT STATED
        REGISTER PRV: NONE ASSIGNED             INIT ENTRY: FEB 8,2020
        CASE MANAGER: NONE ASSIGNED             WHERE FLWD: NOT STATED
        PUB HLTH NRS:NONE ASSIGNED

End of report for ASHLEY DEMO
Press <ENTER> to continue.....
```

Figure 8-5: Patient Summary

8.3   Master List (ML)

The Diabetes Management Master List produces a list of all active patients and
displays their Chart Number, Case Manager, Public Health Nurse, and Next Review
Date. You can sort the list by Patient Name (alphabetical order), Age, Community of
Residence, Case Manager, Public Health Nurse, Sex, Status*, or Facility where
Followed. You may also sort by a combination of these register items, for example,
alphabetical order by Patient Name by Community. The report output may be stored
in a search template to be used for additional data retrievals.

> **Note**: Inactive, Transient, Unreviewed, Deceased, Lost to Follow-
> up, Non-IHS, and Noncompliant patients are included
> when the Master List is sorted by Status. If you choose to
> sort patients by Status, you may list patients for one or
> more of the status categories. This is the only report in
> Diabetes Management, other than Individual Case
> Summary and General Retrieval that displays patients who
> are not classified as Active.

```
                        2020 DEMO HOSPITAL (CMBA)
                               DEMO,SKIP

                        DIABETES REGISTER MASTER LIST

This report will list all patients on the Diabetes Register.
You will be able to select which patients will be included on the list
based on any of the following:
     - Register Status
     - Age
     - Community of Residence
     - Gender
     - Case Manager
     - Where Followed


Enter the Name of the Register: 2017 DIABETES REGISTER
Do you want to select register patients with a particular status? Y// ES
Select status: A// ACTIVE
Select another status:

Would you like to restrict the master list by Patient age range? NO//

     Select one of the following:
```

```
                O          One particular Community
                A          All Communities
                S          Selected Set of Communities (Taxonomy)

Include Patients: A// ll Communities

      Select one of the following:

          M          MALES
          F          FEMALES
          U          UNKNOWN
          A          ALL Genders

Include which Gender(s): A// LL Genders
Do you want to select register patients with a particular CASE MANAGER? N//
O
Do you want to select patients with a particular facility WHERE FOLLOWED?
N// O

This list can be sorted by a primary and optionally a secondary sort value.


      Select one of the following:

          P          Patient Name
          S          Register Status
          A          Age
          C          Community
          G          Gender
          M          Case Manager
          W          Where Followed

Select Primary Sort Value: Patient Name
You can optionally sort by a second sort value.  If you do not pick a
secondary sort value it will default to patient name.


      Select one of the following:


          S          Register Status
          A          Age
          C          Community
          G          Gender
          M          Case Manager
          W          Where Followed

Select Secondary Sort Value: Age

      Select one of the following:

          P          Print the List
          B          Browse the List on the Screen
          S          Save as a Search Template

Output Type: P// Browse the List on the Screen

      Select one of the following:

          I          Include ALL Patients
          E          Exclude DEMO Patients
          O          Include ONLY DEMO Patients
```

```
Demo Patient Inclusion/Exclusion: E// Include ALL Patients
```

Figure 8-6: Diabetes Register Master List Prompts

```
OUTPUT BROWSER                 Nov 12, 2020 14:33:47        Page:   1 of
3

            ********** CONFIDENTIAL PATIENT INFORMATION **********
SHS                                                                  Page
1
                        2020 DEMO HOSPITAL (CMBA)
                      DIABETES REGISTER MASTER LIST
            Total number of patient selected for this report: 34

                                           LAST        LAST        NEXT
HRN     PATIENT                 CASE MANAGER    VISIT       REVIEW
REVIEW
-----------------------------------------------------------------------
----

894038  DEMO,CARRIE                              12/01/19
101465  DEMO,MARIE                               11/04/20  01/23/19
04/24/21
106581  DEMORADO,PHYLLIS N                       02/07/18
890625  DEMOSO,MONICA                            12/15/17
115425  DEMOA,GARRETT WILLIA                     11/19/18
+        Enter ?? for more actions
>>>
+    NEXT SCREEN         -    PREVIOUS SCREEN      Q    QUIT
Select Action: +//
```

Figure 8-7: Diabetes Register Master List Output

8.4   Register Patient General Retrieval (Lister) (GEN)

This report produces a list of patients on the Diabetes Register by the criteria that you choose. The report format is extremely flexible; you can specify the selection criteria, the data items to be printed, and the sorting order. You can print a detailed patient list or just counts of those patients that match the criteria you select. The first page of the report output is a summary page that displays the selection criteria, print items, and sort variable that you have requested.

> **Note**: Only the items selected as a Component Item of your
>   Register will appear as a choice of selection.

After selecting the report option, enter the name of a previously defined report or press Enter to bypass the first prompt. Then, in three separate steps, you will be prompted to identify your selection criteria, data items to print for each patient, and the sorting order. All of the selections are listed in Figure 8-8. You may save the selected variables for future use by entering **YES** when prompted to save them and then naming the report template.

If you design a report that is 80 characters or fewer in width, it can be displayed on the screen or printed. If your report is 81 to 132 characters wide, it must be printed on a printer capable of producing 132-character lines or a printer set up for condensed print.

Selection Criteria

```
REGISTER:  IHS DIABETES


              CASE MANAGEMENT REGISTER PATIENT GENERAL RETRIEVAL


This report will produce a listing of Patients on a Register selected by the
user.  You will be asked (in three separate steps) to identify your
selection criteria; what you wish displayed for each patitent; and the
sorting order for your list.  You may save the logic used to produce the report
for future use.  If you design a report that is 80 characters or less in width,
it can be displayed on your screen or printed.  If your report is 81-132
characters wide, it must be printed - and only on a printer capable of
producing 132 character lines.



Do you want to use a PREVIOUSLY DEFINED REPORT? N//


The Patients displayed can be SEARCHED based on any of the following criteria:

1)   Patient Name          14)  Class/Beneficiary     27)   Next Review Date
2)   Patient Sex           15)  Cause of Death        28)   Where PT Followed
3)   Patient DOB           16)  Medicare Eligibility  29)   Date Last Edited
4)   Birth Month           17)  Medicaid Eligibility  30)   Register Provider
5)   Patient Age           18)  Priv Ins Eligibility  31)   Care-Plan Comment
6)   Patient DOD           19)  Primary Care Provide  32)   Complications
7)   Mlg Address-State     20)  Register Status       33)   Complication Comment
8)   Mlg Address-Zip Code 21)  Initial Entry Date    34)   Diagnoses
9)   Living Patients       22)  Inactivation Date     35)   Date of Onset
10)  Chart Facility        23)  Case Priority         36)   Recall Date
11)  Patient Community     24)  Case Manager
12)  Patient Tribe         25)  PHN
13)  Eligibility Status    26)  Last Review

        <Enter a list or a range.  E.g. 1-4,5,20 or 10,12,20,30>
        <<HIT RETURN to conclude selections or bypass screens>>

     Select Patients based on which of the above:  (1-34):
```

Figure 8-8: Register Patient General Retrieval (Lister)

After pressing Enter to use all the patients in the Register or entering specific selection criteria, you can choose to select one of the following:

T   Total Count Only

S   Sub-counts and Total Count

D   Detailed Patient Listing

F   Delimited Export File

If the delimited export file option is chosen, a file name will be assigned by the system. This file will be written and reside on the main RPMS server. Make a note of the file name as you will have to request that this file be emailed, sent via FTP, or returned to you on a floppy disk, CD, or USB device by your site manager. If you choose to continue, you can select from the list of fields to be included in the file. The resulting file can be imported into Excel, ACCESS, SAS, or a variety of PC-based programs used for data analysis.

```
     Choose Type of Report: D// F  Delimited Export File


I am going to create a file called ACM612.5 which will reside in
the C:\EXPORT directory.
Actually, the file will be placed in the same directory that the data
export globals are placed.  See your site manager for assistance in finding
the file after it is created.  PLEASE jot down and remember the following
file name:
               **********   ACM612.5    **********

The records that are generated will be '^' delimited.  The fields
will be the fields you select in the next screen and will be in the order
that you select them.

Do you want to continue?? Y// [ENT]

REGISTER:  2017 DIABETES REGISTER     USER:  DEMO,SKIP
                          PRINT Data Items Menu
The following data items can be selected to be output to a '^' delimited
file.
Choose the data items in the order you want them to be output.

1)   Patient Name        13)   Home Phone           25)   Case Priority
2)   Patient Chart #     14)   Mother's Name        26)   Case Manager
3)   Patient Sex         15)   Patient Community    27)   PHN
4)   Patient SSN         16)   Patient Tribe        28)   Last Review Date
5)   Patient DOB         17)   Eligibility Status   29)   Next Review Date
6)   Birth Month         18)   Class/Beneficiary    30)   Where PT Followed
7)   Patient Age         19)   Cause of Death       31)   Date Last Edited
8)   Patient DOD         20)   Patient's Last Visit 32)   Client Contact
9)   Mlg Address-Street  21)   Primary Care Provide 33)   Register Provider
10)  Mlg Address-State   22)   Register Status
11)  Mlg Address-City    23)   Initial Entry Date
12)  Mlg Address-Zip Code 24)  Inactivation Date
       <Enter a list or a range.  E.g. 1-4,5,18 or 10,12,18,30>
       <<HIT RETURN to conclude selections or '^' to exit>>
Select print item(s):  (1-33):
     Items selected for flat file output:
            Patient Name
            Patient Chart #
            Patient Sex
            Patient SSN
            Patient DOB
            Classification/Beneficiary
```

```
 Would you like to select additional PRINT criteria? NO//
```

Figure 8-9: Register Patient General Retrieval (Lister), screen 2

```
 REGISTER:  2017 DIABETES REGISTER     USER:  DEMO,SKIP

 The Patients displayed can be SORTED by any one of the following:

     1)   Patient Name                 15)   Next Review Date
     2)   Patient Age                  16)   Date Last Edited
     3)   Patient Community            17)   Case Priority
     4)   Patient Sex                  18)   Case Manager
     5)   Patient Tribe                19)   PHN
     6)   Patient Chart #              20)   Where PT Followed
     7)   Primary Care Provider (PCC)  21)   Register Provider
     8)   Classification/Beneficiary   22)   Inactivation Date
     9)   Eligibility Status           23)   Initial Entry Date
     10)  Cause of Death               24)   Mlg Address-Zip Code
     11)  Patient DOB                  25)   Mlg Address-State
     12)  Patient DOD                  26)   Birth Month
     13)  Register Status
     14)  Last Review Date

 <<If you don't select a sort criteria the report will be sorted by Patient
 Name.>>

 Sort Patients by which of the above:  (1-26):
```

Figure 8-10: Register Patient General Retrieval (Lister), screen 3

If you do not select a sort criterion the file will be sorted alphabetically by Patient Name.

Users can seek assistance from Area Diabetes Consultants for importing this flat file, delimited by the caret (^), into a PC-based software program.

If the option to print a Total Count is chosen, the total number of patients meeting the search criteria is displayed. If the option for Sub-counts and Total Counts is chosen, you will be prompted to indicate how you would like to have the counts sorted. For example, if you would like to do a count of your diabetic register patients sorted by community, you can press Enter on the Search screen, then select Community on the Sort screen. The resulting report would display total and sub-counts as shown in Figure 8-11.

```
                          REPORT SUMMARY


     CMS REGISTER PATIENT Selection Criteria:

     Items selected for flat file output:
           Patient Name
           Patient Chart #
           Patient Sex
           Patient SSN
           Patient DOB
           Classification/Beneficiary
```

```
      CMS REGISTER PATIENT SORTING Criteria:
            CMS REGISTER PATIENTS will be sorted by:  Patient Name

DEVICE: HOME//   Virtual


CMS File being generated....

DOS File Being Created'
Please Standby - Copying Data to DOS File X:\EXPORT\ACM2963.4
```

Figure 8-11: Register Patient General Retrieval (Lister), screen 4

If the option for a detailed patient listing is chosen, you will be prompted to identify which data items to printed and how you would like them sorted. Print items are shown in Figure 8-12.

```
1)   Patient Name          12)  Home Phone          23)  Inactivation Date
2)   Patient Chart #        13)  Mother's Name       24)  Case Priority
3)   Patient Sex            14)  Patient Community    25)  Case Manager
4)   Patient SSN            15)  Patient Tribe       26)  PHN
5)   Patient DOB            16)  Eligibility Status  27)  Last Review Date
6)   Patient Age            17)  Class/Beneficiary   28)  Next Review Date
7)   Patient DOD            18)  Cause of Death      29)  Where PT Followed
8)   Mlg Address-Street     19)  Patient's Last Visit 30) Date Last Edited
9)   Mlg Address-State      20)  Primary Care Provide 31) Client Contact
10)  Mlg Address-City       21)  Register Status     32)  Register Provider
11)  Mlg Address-Zip Code   22)  Initial Entry Date
```

Figure 8-12: Print items

> **Note**:   Only one sort criterion may be used.

Sort Criteria are shown in Figure 8-13.

```
    1)   Patient Name                14)   Last Review Date
    2)   Patient Age                 15)   Next Review Date
    3)   Patient Community           16)   Date Last Edited
    4)   Patient Sex                 17)   Case Priority
    5)   Patient Tribe               18)   Case Manager
    6)   Patient Chart #             19)   PHN
    7)   Primary Care Provider (PCC) 20)   Where PT Followed
    8)   Classification/Beneficiary  21)   Register Provider
    9)   Eligibility Status          22)   Inactivation Date
    10)  Cause of Death              23)   Initial Entry Date
    11)  Patient DOB                 24)   Mlg Address-Zip Code
    12)  Patient DOD                 25)   Mlg Address-State
    13)  Register Status
```

Figure 8-13: Sort Criteria

> **Note**: The numbers of the Select, Sort, and Print items will correspond to the actual data item structure of the diabetes register that you have created. The data items will be limited to those you have included in your register and those available from the PCC database.

For more information about using this report option, please refer to the Case Management (Version 2.0) User's Manual.

8.5   Patient and Statistical Reports (PR)

This report option produces patient lists or counts. It includes reports for the following seven categories:

> **Note**: Only Active patients are included in this report.

- Register Data

- Complications

- Diagnoses

- Family Members

- PCC Problem List

- Case Review Date

- Case Comments

```
           *************************************
                2017 DIABETES REGISTER REGISTER
           *************************************

                      STATISTICAL REPORTS

      1)   REGISTER DATA                 5)   PCC PROBLEM LIST
      2)   COMPLICATIONS                 6)   CASE REVIEW DATE
      3)   DIAGNOSES                     7)   CASE COMMENTS
      4)   FAMILY MEMBERS


      Report Option ==>
```

Figure 8-14: Statistical Reports

Most reports can be sorted by Patient Name, Community, Facility where Followed, Age, Sex, or a combination of these factors. Additionally, you can be selective in specifying which patients to retrieve. For example, you can select to retrieve only patients with a specific diagnosis or complication, then sort the list by any of the above factors. By indicating the patients you want to retrieve and the sorting variables, you can generate a specific report, for example, all patients with major amputations who live in Santa Fe and are between the ages of 40 and 50.

```
                    **************************************
                        2017 DIABETES REGISTER REGISTER
                    **************************************

                            REPORT SORTING UTILITY

            The DIAGNOSES report can be sorted by one or more
            of the following attributes.  '<==' indicates a mandatory
    selection.

               1) AGE                                5) SEVERITY
               2) CURRENT COMMUNITY                   6) SEX
               3) DIAGNOSIS                           7) WHERE FOLLOWED
               4) PATIENT

               Your choice:
```

Figure 8-15: Statistical Reports

When you request these reports, you will be asked whether you want a Patient or
Statistical report. By responding with **P**, for patient, the system will generate a patient
listing. A response of **S**, for statistical, will result in a display of counts without a
patient listing.

You will also be asked whether you want to store the output from the report in a
search template. If you respond **YES**, you will be asked to enter a name for the
template. The name may be up to 30 characters long. After naming the template, the
report will be generated and the patients will be stored in a template for use in QMan
retrievals, as specified in the Retrieval of Clinical Data section of this manual. In
Figure 8-16, a report is generated for all patients with Type 2 diabetes and stored as a
search template for further queries.

> **Note**: All patients in the Register must have an assigned diagnosis
>   to generate an accurate report.

```
           Your choice: 3   DIAGNOSIS

 Do you want to sort by a particular DIAGNOSIS? No// Y  (Yes)

 Which DIAGNOSIS: TYPE 2

 Within DIAGNOSIS, want to sort by another attribute? No//   (No)

       'P'atient or 'S'tatistical report? ==> Patient

 Store Report Result as Search Template? NO// YES

 Search Template: TYPE 2 DM PTS
   Are you adding 'TYPE 2 DM PTS' as a new SORT TEMPLATE? No// Y  (Yes)

       An unduplicated patient list resulting from this report
       will be stored in the.........>

                 **  TYPE 2 DM PTS  ** Search Template.
```

```
A brief report will be printed after the search template is complete.
You must enter a device for this report OR you may queue at this time.


DEVICE: HOME//   Virtual


...HMMM, JUST A MOMENT PLEASE...
CMS DIAGNOSIS FOR THE CLIENT STATISTICS          NOV 12,2020  17:01    PAGE 1
        DIAGNOSIS
------------------------------------------------------------------------
-----

COUNT     1


End of report.  Strike <CR> to continue.
```

Figure 8-16: Patient and statistical report

8.6   List Patients on a Register w/an Appointment (LPRA)

This option permits the diabetes coordinator to review appointments for all patients
entered in the Diabetes Register to ensure that the appropriate scheduling has
occurred. This option only works if the facility is using the RPMS Scheduling
Package. Select the **LPRA List Patients on a Register w/an Appointment** option.
Enter the beginning date for appointment review and the ending date.

```
This option will print a list of all patients on a register
e.g. Diabetes Register) who have an appointment in a date range
in any clinic or in a selected set of clinics.



You will be asked to enter the name of the register, the date range of the
appointments and the clinic names if selecting a set of clinics.


Enter the Name of the Register: 2017 DIABETES REGISTER

Enter Beginning Appointment Date:  10/1/2020  (OCT 01, 2020)
Enter Ending Appointment Date:  12/31/2020  (DEC 31, 2020)

     Select one of the following:

        A         ANY Clinic
        S         One or more selected Clinics

Include patients with Appointments to: A// [ENT] NY Clinic

     Select one of the following:

        P         PRINT the List
        B         BROWSE the List on the Screen

Output Type: P// [ENT] RINT the List

     Select one of the following:
```

```
         I          Include ALL Patients
         E          Exclude DEMO Patients
         O          Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// Include ALL Patients
DEVICE: HOME//   Virtual
```

Figure 8-17: Listing patient appointments

The report displays as shown in Figure 8-18.

```
   SHS                          Nov 12, 2020                        Page
1

      PATIENTS ON THE 2017 DIABETES REGISTER REGISTER WITH AN APPOINTMENT
               Appointment Dates: Oct 01, 2020 to Dec 31, 2020
                              CLINICS: ANY

HRN     PATIENT NAME                  CLINIC NAME          DATE
TIME
----------------------------------------------------------------------------
--
999999 PATIENT,BARRY                  DIABETIC CLINIC       OCT 12,1999
10:00
888888 PATIENT,RAE                    INTERNAL MEDICINE (P  FEB 4,2000
08:15

End of report.  PRESS ENTER:
```

Figure 8-18: Listing patient appointments, screen 2

8.7   DM Register Pts w/no recorded DM Date of Onset (NDOO)

When calculating the duration of diabetes for the cumulative Audit, the earliest of the date of onset from the diabetes register or the problem list date of onset is used. Duration of diabetes is calculated from that date to the date of the Audit. If neither the date of onset in the register nor the date of onset in the problem list is recorded, the duration of diabetes is not calculated. A report to identify those patients on the Register who do not have a date of onset recorded may be run by selecting the **NDOO DM Register Pts w/no recorded DM Date of Onset** option.

```
                       2020 DEMO HOSPITAL (CMBA)
                             User, Demo

This report will list patients who are on the Diabetes Register who do not
have a date of diagnosis recorded in either the Register or on the problem
list.


Enter the Name of the Register: 2017 DIABETES REGISTER
Do you want to select register patients with a particular status? Y// ES
Which status: A// [ENT] ACTIVE
```

```
      Select one of the following:

          P           PRINT the List
          B           BROWSE the List on the Screen

Output Type: P// [ENT] RINT the List

      Select one of the following:

          I           Include ALL Patients
          E           Exclude DEMO Patients
          O           Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// [ENT] xclude DEMO Patients
DEVICE: HOME// PRINTER NAME OR NUMBER
```

Figure 8-19: DM Register Pts w/no recorded DM Date of Onset

The resulting report not only lists those patients with no date of onset recorded but also identifies whether the patients have a diagnosis of diabetes on the active problem list.

```
           ********** CONFIDENTIAL PATIENT INFORMATION **********
SHS                                                                  Page
1
                        2020 DEMO HOSPITAL (CMBA)
     DIABETES REGISTER PATIENTS WITH NO RECORDED DATE OF ONSET OF DIABETES
                Patients on the 2017 DIABETES REGISTER Register

PATIENT NAME            HRN    DOB              LAST DM DX   #DM DXS DM ON
PL
-------------------------------------------------------------------------
----
DEMO,MONICA             890625 Jan 19, 1957  F  Mar 03, 2017   67       YES
DEMO,AARON V            144227 May 07, 1993  M                 0        NO
DEMO,BRAZ               103193 Sep 07, 2010  M                 0        NO
DEMO,JESSICA            101578 Jul 10, 1957  F  Nov 12, 2020   14       NO
DEMO,CHRISTIAN JA       135554 Nov 19, 1989  M                 0        NO
DEMO,DANIEL MICHA       135205 Feb 10, 1986  M                 0        NO
DEMO,RHIANNON RAIN      144277 Jan 20, 1995  F  Oct 28, 2017   4        NO
TEST,AMY                679458 Dec 23, 1934  F  Jan 06, 2019   3        YES
TEST,DONNA              13976  Feb 17, 1954  F  Dec 29, 2018   1        NO
End of report.   HIT RETURN:
```

Figure 8-20: DM Register Pts w/no recorded DM Date of Onset, report sample

Once these patients are identified, the charts may be reviewed, or the patients queried to determine the date or estimated date of onset. An actual date, a month and a year, or just a year can be used as a date of onset when updating Register data.

8.8   Follow-up Needed (FU)

The **Follow-up Needed** report option allows you to identify members of the Register who are delinquent in receiving or have never had exams, procedures, patient education, immunizations, vaccines, or lab tests identified by the Diabetes program. A report of those patients identified as requiring follow-up may be generated, custom letters may be generated, or both a report and letters may be generated.

You can choose to generate the report for all members of the Register, only Active patients, Inactive patients, Transient patients, Unreviewed patients, Non-IHS patients, Noncompliant, or Deceased patients. The report can be generated for all members of the Register, a template of patients, or patients with specific diagnoses. In addition, the report may be sorted by community, where the patients are followed, or by their register provider. In the following example (Figure 8-21), a report on active patients in the Register who do not have current PAP smears on record will be generated by selecting the **FU Follow-up Needed** option.

```
          DIABETES REGISTER - FOLLOW-UP NEEDED REPORTS
          (Patients due now or within the next 30 days.)

          1      ALL Exams/Procedures-----------------------------
            11    Foot Exam                  12    Eye Exam
            14    Depression Screening       18    Dental Exam
          2      ALL Patient Education--------------------------
            21    Nutrition                  22    Physical Activity
            23    General Info
          3      ALL Immunizations/Vaccines-----------------------
            31    Seasonal Flu Shot          32    Pneumococcal
            33    Td/Tdap                    34    TB Test
            35    Hepatitis B
          4      ALL Lab Tests------------------------------------
            41    LDL Cholesterol            42    HDL Cholesterol
            43    Cholesterol                44    Triglyceride
            45    Creatinine                 46    Hemoglobin A1c
            47    Estimated GFR              48    A/C Ratio
            49    Hepatitis C Screening

          Type 'ALL' to include ALL Follow-up Needed
          Which Report:

          Which Report: 3

      Select one of the following:

          1          Use Register Members
          2          Use A Search Template

Which Group: Use Register Members// [ENT]

Select the Patient Status for this report

      Select one of the following:

          A          Active
          I          Inactive
```

```
            T          Transient
            U          Unreviewed
            D          Deceased
            N          Non-IHS
            NON        Noncompliant
            Z          All Register Patients

Which patients: Active// [ENT]

Select the Diabetes Diagnosis for this report

      Select one of the following:

          1          Type 1
          2          Type 2
          3          Type 1 & Type 2
          4          Gestational DM
          5          Impaired Glucose Tolerance
          6          All Diagnoses

Which Diagnosis: All Diagnoses// 2  Type 2 <<Note: If a Register Diagnosis
has not been assigned to all patients, you must choose 6 All Diagnoses for
an accurate report. >>

Include list of patient's
upcoming appointments? NO// [ENT]

Print the Follow-up Report/Letters by

      Select one of the following:

          1          Community
          2          Primary Provider
          3          Where Followed

Which one: Community// [ENT]  <<Press Enter to select ALL Communities >>

(Press <ENTER> to select ALL Communities

Which Community:

Communities Selected:

          ALL

      Select one of the following:

          1          Follow-up Report
          2          Follow-up Letter
          3          Both

Which one: Follow-up Report// [ENT]

      Select one of the following:

          I          Include ALL Patients
          E          Exclude DEMO Patients
          O          Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// [ENT] xclude DEMO Patients
```

```
DEVICE: HOME// << Enter name or number of printer >>
```

Figure 8-21: Using the FU option

The resulting report displays the patients, chart numbers, and date of last Pap smear.
Only those patients who have not had a Pap smear in the last eleven months or are
due for a Pap smear in the next 30 days are displayed. The report is sorted
alphabetically by patient name within each community. Each of the follow-up reports
can be limited to patients within a specific community or followed by a specific
primary provider. To better coordinate the patients' care, an option to display future
appointments is also included in the report.

```
FOLLOW-UP REPORT                    Nov 12, 2020 18:29:53           Page:  1 of
1

    2017 DIABETES REGISTER Register - Active Patients
    Follow-up Report: ALL Immunizations/Vaccines              Page: 1
    (For ** TYPE 2 ** Diabetics Only.)
    (For Patients due now or within the next 30 days)
    REPORT DATE: NOV 12,2020

COMMUNITY       PATIENT                  HRN    STATUS
--------------- ----------------------- ------ --------------------
AJO       PATIENT,JILL             101476  *NO* IMM on record.
AJO       PATIENT,AMANDA           101422  last HEP B  MAY 16,2018
AKCHIN    PATIENT,ALLISON          101387  last PNEUMO AUG 29,2018
ANEGAM    PATIENT,JENNIFER         101321  last TDAP   OCT 10,2019
ANEGAM    PATIENT,DARLENE          101240  last FLU    JUL 13,2020
ARTESA    PATIENT,LAURA            100089  last FLU    AUG 21,2019
ARTESA    PATIENT,MAUDE            100047  last TDAP   DEC 11,2019
BIG FIELDS PATIENT,LRAINE          100266  last HEP B  AUG 13,2017




          - Previous Screen   Q Quit   ?? for More Actions

Select Action:Quit//
```

Figure 8-22: Using the FU option, screen 2

This option can be used again to generate a letter to each of these patients indicating
that they are overdue for a Pap smear. When you choose the option to print a letter,
you are prompted to select one of the letters set up in Register Maintenance. A
custom letter can be designed for each of the follow-up Diabetic Care needs identified
by this report.

8.9   Multiple Registries Community DM Audit (MRDA)

This report will search two or more Diabetes Registers to combine a list of patients
from a particular community. You can run the audit just for the subset of patients who
live in a particular community. Choose **MRDA** from the Register Reports menu.

```
                        2020 DEMO HOSPITAL (INST)
                              DEMO,LORI

                 MULTIPLE REGISTER COMMUNITY DIABETES AUDIT

This report will search two or more Diabetes Registers to combine
a list of patients from a particular community. You can run the audit
just for the subset of patients who live in a particular community.


Do you wish to continue? Y// ES    =>> Answer Y to continue


In order for the 2021 DM AUDIT Report to find all necessary data, several
taxonomies must be established.  The following taxonomies are missing or
have no entries:
LABORATORY TEST taxonomy  [BGP HEP C TESTS TAX] contains a panel test:
HEPATITIS C PROFILE and should not.
DRUG taxonomy  [DM AUDIT AMYLIN ANALOGUES] has no entries
DRUG taxonomy  [DM AUDIT COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT GLP-1 ANALOG DRUGS] has no entries
LABORATORY TEST taxonomy  [DM AUDIT HGB A1C TAX] contains a panel test: HGB
A1c (R) and should not.
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUG] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries
End of taxonomy check.  HIT RETURN:

  Select DIABETES Register
  No. Register Name                   # Active # members  Last patient update
                                       members
  --- ----------------------------- -------- --------- -------------------
   1   2017 DIABETES REGISTER            535      539   11/09/2020
   2   2020 KDS DIABETES REGISTER         13       13   10/26/2020
   3   IHS DIABETES                      553      556   09/11/2020
   4   DEMO DIABETES REGISTER             29       29   10/05/2020
   5   PARKER DIABETES REGISTER        1,002    1,012   10/03/2020
   6   SDPI NON DIABETES                 158      158   10/04/2020

This response must be a list or range, e.g., 1,3,5 or 2-4,8

Select Diabetes Register(s):  (1-6): 3,6 =>>  Choose the registers by
number per the instructions above.



You have selected the following register(s):
     IHS DIABETES
     SDPI NON DIABETES


Is this correct? Y//



Do you want to select register patients with a particular status? Y// ES
Select status: A// ACTIVE
Select another status:


Limit the patients who live in a particular community ? N// YES
Select COMMUNITY NAME: PARKER
```

```
PARKER     LA PAZ     ARIZONA     285     0415285

     Select one of the following:

         1           Indian/Alaskan Native (Classification 01)
         2           Not Indian Alaskan/Native (Not Classification 01)
         3           All (both Indian/Alaskan Natives and Non 01)

Select Beneficiary Population to include in the audit: 1//   Indian/Alaskan
Native (Classification 01)

There are 443 individual patients in those registers that meet this
criteria.


Enter the date of the audit.  This date will be considered the ending
date of the audit period.  For most data items all data for the period one
year prior to this date will be reviewed.

Enter the Audit Date:  123120   (DEC 31, 2020)

     Select one of the following:

         I           Include Pregnant Patients
         E           Exclude Pregnant Patients

Select whether to include or exclude pregnant patients in the audit: E//
xclude Pregnant Patients
okay, hold on...this may take a few minutes..

There are 443 patients selected so far to be used in the audit.


     Select one of the following:

         A           ALL Patients selected so far
         R           RANDOM Sample of the patients selected so far

Do you want to select: A// LL Patients selected so far

     Select one of the following:

         1           Print Individual Reports
         2           Create AUDIT EXPORT file
         3           Audit Report (Cumulative Audit)
         4           Both Individual and Cumulative Audits
         5           SDPI RKM Report

Enter Print option: 1// 3  Audit Report (Cumulative Audit)  >> Choose the
output type

     Select one of the following:

         I           Include ALL Patients
         E           Exclude DEMO Patients
         O           Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// xclude DEMO Patients


     Select one of the following:
```

```
          P           PRINT Output
          B           BROWSE Output on Screen

Do you wish to: P//




Samples of the various outputs can be found in the user addendum manual.
```

Figure 8-23: Multiple Registries Community DM Audit

9.0 Retrieval of Clinical Data from the PCC for Patients in the IHS Diabetes Register

Both PCC Management Reports and QMan can be used to retrieve a variety of data on patients in the IHS Diabetes Register.

9.1 PCC Management Reports

Use the Body Mass Index (BMI) Reports tool in PCC Management Reports to follow patients with diabetes. You can run the reports on all the patients in your Register or selected groups based on search templates using the Patient and Statistical Report option or QMan. In the following example (Figure 9-1), a BMI report will be run on the TYPE 2 DM PTS template. Begin by selecting the **BMI** menu option from the main PCC Management Report Menu.

```
                        DEMO HOSPITAL


   PLST    Patient Listings ...
   RES     Resource Allocation/Workload Reports ...
   INPT    Inpatient Reports ...
   QA      Quality Assurance Reports ...
   DM      Diabetes Program QA Audit ...
   APC     APC Reports ...
   PCCV    PCC Ambulatory Visit Reports ...
   BILL    Billing Reports ...
   BMI     Body Mass Index Reports ...
   ACT     Activity Reports by Discipline Group ...
   CNTS    Dx & Procedure Count Summary Reports ...
   IMM     Immunization Reports ...
   DR      PCC Patient Data Retrieval Utility
   RT      Report Template Utility ...
   STS     Search Template System ...
   QMAN    Q-Man (PCC Query Utility)
   FM      FileMan (General) ...
   TB      Tuberculosis Report

Select PCC Management Reports Option:  BMI
```

Figure 9-1: PCC management reports

There are several different report options for displaying Body Mass Index, but for the purpose of this example, a list of patients with height, weight and BMI sorted by BMI will display. Therefore, the **Listing of Patients with Height/Weight/BMI (LPAT)** option has been selected.

```
        *****  RISK FOR OVERWEIGHT PREVALENCE REPORT  *****

                        PATIENT LIST
This report will produce a listing of all patients of the age and sex
that you specify.  The report will list their weight, height and BMI.
```

```
  Select one of the following:

          S         Search Template of Patients
          P         Search All Patients

Select List : Search Template of Patients [ENT]

Enter Visit SEARCH TEMPLATE name:    TYPE 2 DM PTS
                        (Sep 27, 2020)      User #605 File #9000001

     Select one of the following:

          M         Males
          F         Females
          B         Both

Report should include: B// [ENT]

Do you wish to include ONLY Indian/Alaska Native Beneficiaries? N// Y

Enter a Range of Ages (e.g. 5-12) [HIT RETURN TO INCLUDE ALL RANGES]:
[ENT]

No age range entered.  All ages will be included.

Select one of the following

          R         Report (Printed or Browsed)
          S         Sort Template

Type of Output: R//[ENT]

 Select one of the following:

          P         Patient Name
          A         Age of Patient
          B         BMI
Sort the report by: P// B

Do you wish to suppress patient identifying data (name,chart #)? N// [ENT]
DEVICE: HOME// Enter Printer number
```

Figure 9-2: PCC management reports, screen 2

The resulting report is displayed in Figure 9-3.

```
DKR                          DEMO HOSPITAL                        Page 1
                   OVERWEIGHT/OBESITY PREVALENCE REPORT
                             PATIENT LISTING

               Report includes: MALES & FEMALES / ALL AGES
               Report Includes: INDIAN/ALASKA NATIVES ONLY
               Search Template of Patients: DM TYPE 2 PTS
                                                          >=      >=
                                       DATE OF         NHANES NHANES
PATIENT NAME    HRN #  HEIGHT WEIGHT WEIGHT  AGE SEX  BMI  85TH%  95TH%
----------------------------------------------------------------------
PATIENT,BARR   100005 63.8   222.1  01/24/18 33  M   39.6   N      Y
PATIENT,SALLY  100000 64.0   333.0  08/07/19 47  F   58.9   N      Y
```

Figure 9-3: PCC management reports, screen 3

9.2   QMan

QMan, the PCC query tool, provides virtually unlimited access to PCC clinical data for patients in your IHS Diabetes Register. Many of the follow-up reports formerly requiring QMan to generate are now available through the **Follow-up Report** menu option of the Diabetes Management System. In using QMan, all of the patients in your Register may be used as the subject of your query by entering **REGISTER** as the subject and IHS Diabetes (or the name of your local diabetes register) when prompted for a Register. You may also use QMan for retrieving clinical data on specific subsets of the patients in your register. These subsets of patients are referred to as cohorts or search templates.

You can use the **Master List** or **Patient and Statistical Reports** option to create templates of patients. Both of these options are accessed from the **Register Reports** menu in the Diabetes Management System. Using these report-generating options, you can create a template of all patients in your register, all active patients, patients in selected age groups or communities, patients with selected diagnoses or complications, or patients in other categories as needed.

> **Note**: It is extremely important to remember that if sorting by diagnosis, each patient in the Register must have been assigned a diagnosis or the resulting report will be invalid.

The process for generating templates is described in Section 8.5.

Formal QMan training for Diabetes Coordinators is essential to optimize use of the link between the Diabetes Register and the PCC. Instructions on using QMan will not be provided in this manual. The remainder of this section provides QMan dialogue for producing three QMan outputs. These outputs are representative of the many QMan searches of PCC clinical data that are available to you.

9.2.1   Using Register as the Subject of a Search

In this example, a list of the last Hemoglobin A1C for each patient in the Register will be created. User responses and instructions are in bold type.

1. Type **REGISTER** at the "What is the subject of your search" prompt.

2. Type the name of your Register at the "Which CMS Register" prompt.

3. Type the Status of the patients at the "Which Patients" prompt.

4. Type the Diabetes Diagnosis of the patients for this report at the "Which Diagnosis" prompt.

    Remember, you may only select a specific diagnosis if all of your patients have been assigned a Register diagnosis.

5. Type the desired attribute at the "Attribute of IHS Diabetes Register" prompt.

```
What is the subject of your search?  LIVING PATIENTS // REGISTER
Which CMS REGISTER: IHS DIABETES
      Select the Patient Status for this report

          1      Active
          2      Inactive
          3      Transient
          4      Unreviewed
          5      Deceased
          6      Non-IHS
          7      All Register

Which patients: 1// [ENT]

Select the Diabetes Diagnosis for this report

    Select one of the following:

          1           Type 1
          2           Type 2
          3           Type 1 & Type 2
          4           Gestational DM
          5           Impaired Glucose Tolerance
          6           All Diagnoses

Which Diagnosis: All Diagnoses//

Attribute of IHS DIABETES REGISTER: A1C
```

Figure 9-4: Using Register as the Subject of a Search (steps 1-4)

6. Type the first condition at the "First condition of attribute" prompt.

7. Type the value at the "Value" prompt.

8. Type another condition or press Enter to continue at the "Next condition of attribute" prompt.

9. Type a selection from the QMan Output Options at the "Your Choice" prompt.

10. If a clinical attribute was chosen, choose between values of the clinical attribute, an extended display of the values, or unduplicated patients by typing a number for the selection at the "Your Choice" prompt.

```
        SUBQUERY: Analysis of multiple HEMOGLOBIN A1CS
          First condition of "HEMOGLOBIN A1C": LAST
               Enter the value which goes with LAST; e.g., LAST 3, LAST
10,
               etc.
               Value: 1
          Next condition of "HEMOGLOBIN A1C": [ENT]

     Select one of the following:

          1          DISPLAY results on the screen
          2          PRINT results on paper
          3          COUNT 'hits'
          4          STORE results of a search in a FM search template
          5          SAVE search logic for future use
          6          R-MAN special report generator
          9          HELP
          0          EXIT

Your choice: DISPLAY// 1

You have 3 options for listing HEMOGLOBIN A1C RESULTS =>

     1) List every RESULTS meeting search criteria.
     2) List every RESULTS and EXPANDED LAB REPORT meeting search
        criteria.
     3) List all PATIENTS with RESULTS you specified, but DO NOT list
        individual RESULTS or EXPANDED LAB REPORT (FASTEST OPTION!!)
        (Displays UNDUPLICATED list of PATIENTS)
Your choice (1-3): 1// [ENT]
```

Figure 9-5: Using Register as the Subject of a Search (steps 5–9)

A section of the resulting report displays as shown in Figure 9-6.

```
PATIENTS             DEMO   A1C        A1C DATE
                     NUMBER %
-------------------------------------------------------
PATIENT,SALLY*       100010    13.3 H    JAN 12,2018
PATIENT,BARRY        100035    10.8 H    SEP 22,2020
PATIENT,RUTH         100383    6.5       DEC 1,2018
PATIENT,MEGAN        100557    4.5       JUL 13,2019
PATIENT,BARBARA      100643    7.8 H     DEC 1,2018
PATIENT,MAXINE       100771    10.0 H    DEC 1,2018
PATIENT,DARLENE      101240    8.4 H     JUL 13,2019
PATIENT,ROSE         101599    6.0       JUL 13,2019
PATIENT,BARRY        101860    7.2 H     DEC 1,2018
```

Figure 9-6: Using Register as the subject of a search, sample report

9.2.2   Using a Template of Patients with Diabetes as an Attribute

In this example, a search will be made using the Type 2 DM Patients template as an attribute and a query will be made to determine which of them have not been seen in the dental clinic in the last year. To use a template of patients as an attribute, begin by identifying your search subject as LIVING PATIENTS. When you are prompted for an Attribute of the patients, type the left bracket symbol followed by the name of your template: **[TYPE 2 DM PTS**. You will then be given four options related to your template. Select option **1** to indicate that the patients to be searched must be members of your template.

The following QMan examples (Figure 9-7 through Figure 9-9) will produce the list of patients who have not been seen in the Dental Clinic in the last year. User responses and instructions are in bold type.

1. Type subject of your search at the "What is the subject of your search" prompt.

2. Type the attribute at the "Attribute" prompt.

3. Type a number for the selection list at the "Your Choice" prompt.

```
What is the subject of your search?  LIVING PATIENTS // [ENT]

Attribute: [TYPE 2 DM PTS
Select one of the following =>

   1) LIVING PATIENTS must be a member of the TYPE 2 DM PTS
      cohort
   2) LIVING PATIENTS must NOT be a member of the TYPE 2 DM PTS
      cohort
   3) Select a random sample of the TYPE 2 DM PTS cohort
   4) Count the number of entries in the TYPE 2 DM PTS cohort

Your choice (1-4): 1// [ENT]
```

Figure 9-7: Using a Template of Patients with Diabetes as an Attribute (steps 1-3)

4. Type an attribute at the next "Attribute" prompt.

5. Type the first condition of the attribute, **During**, at the "First Condition/Attribute of VISIT" prompt.

6. Type the date or the date one year ago at the "Exact Date" prompt.

7. Type the next condition at the "Next Condition/Attribute of Visit" prompt.

8. Type the name of the clinic, **Dental**, at the "Clinic" prompt.

9. Type the name of another clinic or press the Enter key to continue at the next "Enter Clinic" prompt.

10. Type the next condition, **NULL**, at the "Next Condition/Attribute of Visit" prompt. Null means that the patient has not had a dental clinic visit in the past year.

11. Type the next condition or press Enter to continue at the "Next Condition/Attribute of Visit" prompt.

12. Type the next attribute or press Enter to continue at the "Next Attribute" prompt.

13. Type the number for the selection of QMan Output Options at the "Your Choice" prompt.

```
Attribute:  VISIT
First Condition/Attribute of VISIT:  SINCE
Exact Date:  T-365
Next Condition/Attribute of VISIT:  CLINIC
Enter Clinic:  DENTAL
Enter Clinic:  [ENT]
Next Condition/Attribute of VISIT:  NULL
Next Condition/Attribute of VISIT:  [ENT]
Next Attribute:  [ENT]

* * Q-Man Output Options * *
Select one of the following:
  1 DISPLAY results on the screen
  2 PRINT results on paper
  3 COUNT 'hits'
  4 STORE results of a search in a FM search template
    [ETC.]

Your Choice:  DISPLAY// 1
```

Figure 9-8: Using a Template of Patients with Diabetes as an Attribute (steps 4–13)

QMan will display the patients in your cohort who have not visited the dental clinic in the past year. A dash (-) in the Visit column indicates that no visit to the dental clinic within the designated time frame has occurred.

```
PATIENTS          DEMO  VISIT
(Alive)           NUMBER
------------------------------------------------------------

PATIENT,RAE*      100003 -
PATIENT,SALLY*    100010 -
PATIENT,BARRY     100035 -
Total: 3
```

Figure 9-9: Using a template of patients with diabetes as an attribute, sample

9.2.3   More Complex QMan Search for Multiple Attributes

At times QMan can be used for more sophisticated retrievals like following liver function tests on patients in the Register taking drugs known to have a hepatotoxic effect.

In this example, the entire Register can be used as the subject, RX can be used as an attribute, and AST, ALT, GGT, or LDH can be used as additional attributes. It is difficult to perform QMan searches for multiple clinical attributes because of a limiting factor in display called "Rule of Last." Because of this limitation, only the value of the last clinical attribute listed will actually display. Therefore, lab values for more than one lab test cannot be displayed in a single query. In the following example (Figure 9-10), prescriptions of Glipizide issued during the last six months and SGOT values during that time frame will display.

```
What is the subject of your search?  LIVING PATIENTS // REGISTER
Which CMS REGISTER: IHS DIABETES
Select the Patient Status for this report
      Select one of the following:


         A         Active
         I         Inactive
         T         Transient
         U         Unreviewed
         D         Deceased
         Z         All Register Patients
Which patients: Active// [ENT]
Attribute of IHS DIABETES REGISTER: RX

Enter RX: GLIPIZ
     1   GLIPIZIDE 10MG TAB
     2   GLIPIZIDE 5MG TAB
CHOOSE 1-2: 1
Enter ANOTHER RX: GLIP  << If more than one formula and concentration for a
drug exists, additional entries may be added one at a time by selecting the
next entry on the displayed list each time Enter ANOTHER RX is displayed.>>
     1   GLIPIZIDE 10MG TAB
     2   GLIPIZIDE 5MG TAB
CHOOSE 1-2: 2
Enter ANOTHER RX: [ENT]


The following have been selected =>

     GLIPIZIDE 5MG TAB
     GLIPIZIDE 10MG TAB
Want to save this RX group for future use? No// [ENT]
 SUBQUERY: Analysis of multiple RXS

First condition of "RX": Since
Exact Date: T-180

Attribute of IHS DIABETES REGISTER: AST
 SUBQUERY: Analysis of multiple AST
 First condition of "AST": SINCE
 Exact Date: T-180
 Next Condition of "AST":  ANY << forces results or lack of results to
display>>
Attribute of IHS DIABETES REGISTER: [ENT]
Select one of the following:

         1         DISPLAY results on the screen
         2         PRINT results on paper
         3         COUNT 'hits'
         4         STORE results of a search in a FM search template
```

```
        5           SAVE search logic for future use
        6           R-MAN special report generator
        9           HELP
        0           EXIT

Your choice: DISPLAY// 2
```

Figure 9-10: More complex QMan search for multiple attributes

The report of patients in the Register taking Glipizide during the last six months and their AST values during that time frame appears as shown in Figure 9-11.

```
PATIENTS          DEMO  RX                    AST     AST DATE
                  NUMBER                      U/L
-----------------------------------------------------------------

PATIENT,SALLY*    100010 +                    347   SEP 6,2020
PATIENT,SALLY*    100010 +                    150   FEB 9,2020
PATIENT,MEGAN     100557 +                    -     -
PATIENT,DARLENE   101240 +                    -     -
PATIENT,ROSE      101599 +                    38    SEP 11,2020
Total: 5
```

Figure 9-11: More complex QMan search for multiple attributes, report sample

VGEN in the PCC Management Reports option for Quality Assurance Reports can also be useful when trying to combine multiple clinical attributes without the limitations of QMan displays. In Figure 9-11, the list of patients taking Glipizide drugs can be saved in a template. This template of patients can then be used in VGEN to display all four of the laboratory values of interest during the desired time frame.

9.2.4   Special QMan Outputs

In addition to providing lists of your search results, QMan can also produce age-group reports, mailing labels, health summaries, or ASCII output to use on a personal computer for statistical analysis or graphics displays. To use these features, select the **6 R-Man Special Report Generator** option when presented with QMan Output Options.

Refer to QMan Volume 3 for specific instructions on how to obtain these outputs.

10.0   Diabetes Program Audit

Each year since 1986, the IHS Division of Diabetes Treatment and Prevention has coordinated a medical records review of American Indian and Alaska Native diabetes patients from I/T/U facilities. The Audit measures 80–90 different items, some reflecting the process of diabetes care and others reflecting diabetes outcomes. The **DA Diabetes Audit** option in the Diabetes Management System allows you to either partially or fully automate the process of gathering data for the IHS Annual Diabetes Audit.

Refer to the *Diabetes Audit User Addendum* for details on the Audit.

11.0   Health Summary Tools for Diabetes Care

The tools described below – Diabetes Flow Sheet, Diabetes Patient Care Summary, Pre-Diabetes Patient Care Summary, Educational Assessment, Refusals, and DM Health Maintenance Reminders – can be included on any type of Health Summary. They are described in Section 11.1. However, it is strongly recommended that they be added to the routinely used adult health summary at your facility. At most facilities that would be the Adult Regular Health Summary or a locally developed version of the Adult Regular Summary. This recommendation is made so that these important diabetes care reminders are seen by providers at all visits, including ER and General Clinic, and not just visits to the Diabetic Clinic where the Diabetes Standard Health Summary may be used.

11.1   Diabetes Standard Summary

A special type of health summary for patients with diabetes is available: The Diabetes Standard Summary. There are several ways to display the Diabetes Standard Summary for a patient with diabetes. At the main Diabetes Management System menu, select **RM Register Maintenance** and then **PM Patient Management**. In the Patient Management dialog, option **11** will allow you to select a Health Summary type. When prompted for a health summary type, enter **DIABETES STANDARD**. The Health Summary will display on the terminal screen. This option permits the user to use the minus, plus, up arrow, and down arrow keys to scroll through the Health Summary or to return to review various items of interest.

This Health Summary is similar to the Adult Regular Summary except that it includes a Diabetes Flow Sheet at the end of the report as well as a Diabetes Patient Care Summary. The Flow Sheet contains items that have been identified for provider review at each Diabetic Clinic visit. In addition, the Diabetes Standard Summary includes a Diabetes Patient Care Summary which provides an overview of all IHS Diabetes Standards of Care for that patient. Both the Diabetic Flow Sheet and the Diabetes Patient Care Summary are triggered by the presence of a problem of Diabetes on the Active Problem list or a diagnosis of Diabetes in the last year by a primary provider. The Diabetes Standard Health Summary should be routinely printed by Health Records staff for all diabetic clinic visits.

An option can be set to automatically print the Diabetes Standard Health Summary for patients with Diabetes regardless of when or where the health summary is printed. The **Update Health Summary Site Parameters** option is included under the Health Summary Maintenance Menu. Instructions for setting up this feature are provided below.

1. In the Health Summary Maintenance Menu, select **HSSP Update Health Summary Site parameters**.

2. Identify the name of your facility.

3. Type **YES** at the "Auto-switch to DM Summary" prompt.

4. At the "Default DM Health Summary Type" prompt, type **DIABETES STANDARD**.

```
Select HEALTH SUMMARY SITE PARAMETERS SITE NAME: DEMO HOSPITAL [ENT]
SITE NAME: DEMO HOSPITAL// [ENT]
AUTO-SWITCH TO DM SUMMARY: YES [ENT]
DEFAULT DIABETES SUMMARY TYPE: DIABETES STANDARD [ENT]
```

A sample Diabetes Flow Sheet is shown in Figure 11-1. Remember that only data that has been entered into the PCC will display on the Health Summary Flow Sheet.

```
---------------- FLOW SHEETS (max 10 visits or 2 years) -----------------

DIABETES FLOW SHEET
          WT         BP          A1C      CHOL     CREAT     PROT     TRIG
-------------------------------------------------------------------------
01/14/20  :196      :133/77     :        :        :        :        :
-------------------------------------------------------------------------
01/12/20  :207      :104/66     :10.1     :        :        :        :
-------------------------------------------------------------------------
10/22/19  :191      :           :12.9     :        :        :        :
-------------------------------------------------------------------------
08/20/19  :193      :140/100    :10.9     :        :        :        :
-------------------------------------------------------------------------
07/16/19  :194      :162/92     :        :        :        :        :
-------------------------------------------------------------------------
06/04/19  :195      :158/92     :10.6     :        :        :        :
-------------------------------------------------------------------------
04/16/19  :188      :173/99     :        :        :        :2       :
-------------------------------------------------------------------------
03/05/19  :187      :136/77     :        :        :        :        :
-------------------------------------------------------------------------
```

Figure 11-1: Diabetes Standard Summary

> **Note**: The Flow Sheet will display when a Diabetes Standard Health Summary is retrieved, but only for those patients with a diagnosis of diabetes on the PCC Problem List (ICD codes 250.00 – 250.93) or who have had a diagnosis of diabetes within the last year by a primary provider.

11.2   Diabetes Patient Care Summary

The Diabetes Patient Care Summary, also referred to as the Diabetes Supplement provides a complete review of the patient's care in relation to the IHS National Diabetes Standards of Care. It includes virtually all data items used by the Diabetes Management System Audit Report. It is intended to alert providers to Diabetes Standards of Care for which the patient is deficient, each time the patient is seen, thus encouraging providers to attend to these needs prospectively during the course of the year. See Figure 11-2 for an example.

For more detail, please refer to the *Diabetes Audit User Addendum* for the logic and clinical data as it relates to the annual Audit.

```
********** CONFIDENTIAL PATIENT INFORMATION [SHS]  Nov 21, 2020 **********
DIABETES PATIENT CARE SUMMARY           Report Date:  11/21/2020


Patient: DEMO,ASHLEY                    HRN: 114649
Age:  90 (DOB 02/25/1930)               Sex: FEMALE
CLASS/BEN: INDIAN/ALASKA NATIVE         Designated PCP: DOCTOR,DONNA

Date of DM Diagnosis: 02/05/2020 (Problem List)
Diabetes type: (1 or 2): 2

BMI: 25.6  Last Height:  55.00 inches  02/11/2018
           Last Weight:  110 lbs        02/11/2018

Tobacco Use:
   Last Screened:
   Current Status: Not Documented
              Counseled in the past year?  N/A

Electronic Nicotine Delivery System (ENDS) use:
   Last Screened:  Never
   Current Status:

HTN Diagnosed:  No
CVD Diagnosed:  No
Last 3 BP:      131/85   08/27/2020
(non ER)        139/79   02/06/2020
                125/78   10/06/2019

ACE Inhibitor or ARB prescribed (in past 6 monthsNo:
Aspirin or Other Anti-platelet/Anticoagulant prescribed (past 6 months):
No
Statin prescribed (in past 6 months):           No

Exams (in past 12 months):
   Foot:    No
   Eye:     No
   Dental:  No

Depression - Active problem: No
             If no, screened in past year:  Yes - DX: F33.0 01/23/2020

Immunizations:
   Influenza vaccine (since August 1st):No
   Pneumococcal vaccine (ever):        No
   Td/Tdap/DTAP/DT (in past 10 yrs):   No
   Tdap (ever):                        No
   Hepatitis B complete series (ever):  Yes

TB - Last Documented Test:
     TB Test Result:
     TB Treatment Completed:

Hepatitis C (HCV)
   Diagnosed with HCV ever: No
   Screened for HCV ever: Yes 06/07/2019 HEPATITIS C Antibody (R)

Retinopathy Diagnosed: No
```

```
Amputation
   Lower extremity (ever), any type (e.g., toe, partial foot, above or
   below knee):  Yes

Laboratory Results (most recent):                    RPMS LAB TEST NAME
   A1C:                                  06/07/2019 _HGB A1C
   Next most recent A1C:                 06/06/2019 _HGB A1C

   Serum Creatinine:       0.5 mg/dL     10/10/2020 _CREATININE,SERUM KR
   eGFR:                 86.41 mL/min    10/10/2020 CKD-EPI 112016
   UACR (Quant A/C Ratio       :         06/07/2019 _MICROALB/CREAT.Rand
ur

   Total Cholesterol:                    06/07/2019 _CHOLESTEROL
   LDL Cholesterol:                      06/07/2019 _LDL-CHOLESTEROL
   HDL Cholesterol:                      06/07/2019 _HDL CHOLESTEROL
   Triglycerides:                        06/07/2019 _TRIGLYCERIDE

Education Provided (in past yr):
  Last Dietitian Visit (ever):

DEMO,ASHLEY                     DOB: 2/25/1930      Chart #TST 114649
```

Figure 11-2: Diabetes Patient Care Summary

Normally the Patient Care Summary prints after the Flow Sheet on the Diabetes Standard Health Summary. In the Patient Management dialog, the option **12 DM Care Summary (DPCS)** allows the user to display the DPCS to the terminal. This option permits the user to use the minus, plus, up arrow, and down arrow keys to scroll through the DPCS or to return to review various items. Some facilities choose to print these for each patient with diabetes prior to a clinic appointment and highlight overdue items as a reminder for the provider seeing the patient.

11.3   Pre-Diabetes Patient Care Summary

The Pre-Diabetes Patient Care Summary was distributed in Health Summary Version 2.0 Patch 12. It must be added under health summary maintenance as a supplement type to any health summaries that are routinely used at your health care facility. Printing of this supplement is triggered by a diagnosis of Impaired Glucose Tolerance, Impaired Fasting Glucose, or Metabolic Syndrome (Syndrome X) on the active problem list or made by a primary care provider in the past year. It will not print if the patient has a diagnosis of diabetes on the active problem list or a primary provider has used a diagnosis of diabetes in the past year. This supplement was designed as a tool for displaying those data items that are important in following patients who may be predisposed to developing diabetes. An example of a Pre-Diabetes Supplement is provided in Figure 11-3.

```
PRE-DIABETES PATIENT CARE SUMMARY                  Report Date:  Jun 29,
2020
Patient Name:  DEMO,BECKY    HRN: 168923
Age:  76      Sex:  F    DOB:  Sep 23, 1943
```

```
Classification:
No    Impaired Fasting Glucose
No    Impaired Glucose Tolerance
Yes   Metabolic Syndrome:  Date of first DX in PCC:  Sep 09, 2019

Case Manager:
Primary Care Provider:

 Last Height:   66 inches       May 07, 2019
Last 3 Weight: 176 lbs         Sep 06, 2019  BMI: 28.3
               173 lbs         May 07, 2018  BMI: 28.0
               172 lbs         May 07, 2018  BMI: 27.8

Last Waist Circumference: 35    Feb 16, 2019

Last 3 non-ER BP:  140/65     Sep 06, 2019
                   146/81     May 07, 2018
                   131/65     May 07, 2018

Tobacco Use:  NON-TOBACCO USER  May 07, 2018

Pre-Diabetes Education Provided (in past yr):
  Last Dietitian Visit:  Oct 04, 2018  DIET CONSULTATION
  DM-PREVENTION          Sep 09, 2019

HTN Diagnosed:  Yes
ON ACE Inhibitor/ARB in past 6 months: No
Aspirin Use (in past yr):  No

On Metformin: No
On TZD: No
On Acarbose: No
On Lipid Lowering Drugs: No

Laboratory Results (most recent):
Last Fasting Glucose:      80             Sep 09, 2019  GTT, FASTING
Last 75 GM 2 hour Glucose: 175            Sep 09, 2019  2 HR PP GLUCOSE

Total Cholesterol:       228           Sep 06, 2019  CHOLESTEROL
 LDL Cholesterol:        130.8         Sep 06, 2019   LDL
 HDL Cholesterol:        62            Sep 06, 2018   HDL
   Triglycerides:

DEMO,BECKY                   DOB: 9/23/1943    Chart #CIMH 168923
*** END  CONFIDENTIAL PATIENT INFORMATION -- 6/29/2020  1:44 PM  [CMI]
******
```

Figure 11-3: Pre-Diabetes Patient Care Summary

11.4   Other Health Summary Components

There are four other health summary components that may be desirable for Diabetes programs:

- Patient Refusals – Groups all refusals of services.

- Educational Assessment – Displays the health factors for Learning Preference, Barriers to Learning, and Readiness to Learn. These are required data elements for the IHS Patient Education program.

- Medications – Displays medications for the patient.

- Laboratory Data – Displays lab tests and results for the patient.

These components may be added using the **Create/Modify a Summary Type** menu option under Health Summary Maintenance. A segment of a health summary showing these components is displayed in Figure 11-4.

```
------------------------ EDUCATIONAL ASSESSMENT ------------------
Most recent Health Factor recorded.
Learning Preference:  LEARNING PREFERENCE-VIDEO  Sep 09, 2019
Readiness to Learn:  READINESS TO LEARN-UNRECEPTIVE  Sep 09, 2019
Barriers to Learning:  BARRIERS TO LEARNING-NO BARRIERS  Sep 09, 2019
---------- PATIENT REFUSALS FOR SERVICE (max 10 visits or 2 years) ----------


   Jun 23, 2020  SCREENING MAMMOGRAM   (RADIOLOGY EXAM)
     Refusal Type:  REFUSED SERVICE
   Jun 22, 2020  ECG SUMMARY   (EKG)
     Refusal Type:  REFUSED SERVICE

*** END  CONFIDENTIAL PATIENT INFORMATION -- 6/28/2020  2:07 PM  [CMI] ******
```

Figure 11-4: Educational Assessment and Refusals of Service Components

Appendix A   Bulletin System for Notification of Newly Diagnosed Patients

The RPMS MailMan system can be used to generate bulletins to members of a Diabetes Team, so that newly diagnosed diabetic patients, those with new complications, those with abnormal fasting glucose values, or those with abnormal 2-hour glucose tolerance test results are not lost to follow-up. The bulletins are added automatically to the facility Bulletin file during installation of the PCC Management Reports Package. Please refer to the PCC Management Reports documentation to add them manually, if they are not available.

The bulletins are:

- APCL DIABETES REG COMPLICATION

- APCL DIABETES REG NEW CASE

- APCL IFG NOTIFICATION

> **Note:** You must have Fasting Glucose lab tests added as members to the DM AUDIT FASTING GLUCOSE lab test taxonomy.

- APCL IGT NOTIFICATION

> **Note:** You must have the 2 Hr Post 75 Gm Glucose test added as a member to the DM AUDIT 75GM 2HR GLUCOSE lab test taxonomy.

Please seek assistance from your local or area IS staff if you do not have FileMan security to set up a new Mail Group, Add Members, and add that Mail Group to the PCC Management Reports Bulletins.

It is currently recommended that only the bulletins for patients newly diagnosed with Diabetes, IGT, or IFG be set up. If the complications on the complication list have been appropriately linked to ICD-9 codes as described on page X, the patients on the Diabetes Register will automatically be updated with their complications via provider POV recording and data entry coding.

A Mail Group for the Diabetes Team may already exist on your system. If not, one may be set up as follows:

```
VA Fileman Version 21.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: MAIL GROUP//
EDIT WHICH FIELD: ALL//
Select MAIL GROUP NAME: DIABETES TEAM
Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 17TH)? No// Y  (Yes)
   MAIL GROUP COORDINATOR: USER,DAVID K           DKR
Select MEMBER: USER,BETTY          BM
  Are you adding 'USER,BETTY' as a new MEMBER (the 1ST for this MAIL GROUP)? No// Y
(Yes)
Select MEMBER: USER,DAVID K
Are you adding 'USER,DAVID' as a new MEMBER (the 2ND for this MAIL GROUP)? No// Y
(Yes)
DESCRIPTION:
  No existing text
  Edit? NO//Y
==[ WRAP ]==[ INSERT ]=====< DESCRIPTION >======[ <PF1>H=Help ]====
THIS GROUP RECEIVES BULLETINS FOR NEWLY DIAGNOSED DIABETICS AND THOSE WITH NEW
COMPLICATIONS.

TYPE: PRIVATE
ORGANIZER: USER,DAVID K
COORDINATOR: USER,DAVID K
Select AUTHORIZED SENDER:
ALLOW SELF ENROLLMENT?: NO
REFERENCE COUNT:
LAST REFERENCED:
RESTRICTIONS: 0
```

Figure A-1: Setting up a mail group for the Diabetes team

Additional entries to the mail group may be made for remote members outside the local facility but will require assistance from the IHS National Mailman Coordinator.

Once the mail group and members have been defined, all that remains is assigning this mail group to the desired APCL Bulletins:

```
VA Fileman Version 21.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: BULLETIN
EDIT WHICH FIELD: ALL// [ENT]


Select BULLETIN NAME: APCL
     1   APCL DIABETES REG COMPLICATION
     2   APCL DIABETES REG NEW CASE
CHOOSE 1-2: 2  APCL DIABETES REG NEW CASE
NAME: APCL DIABETES REG NEW CASE  Replace
SUBJECT: DM NEW CASE// [ENT]
Select MAIL GROUP: DIABETES TEAM
Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 1ST for this BULLETIN)
? No// Y
Select MAIL GROUP:
DESCRIPTION:
This bulletin will be sent to diabetes control officer when a patient is seen for
the first time for a dm diagnosis

  Edit? NO//
MESSAGE:. . .
       . . .
was seen on |3| at |15|
with the following diagnosis:
     ICD10 Code: |1|  ICD Description: |8|
     Provider Stated: |4|
 This is the first time that this patient has been seen for the
diabetes diagnosis listed above.  This patient/visit may require
your follow-up.  Please review the patient's medical record at your
earliest convenience for further information.

  Edit? NO// [ENT]
```

Figure A-2: Assigning a mail group to the desired APCL Bulletins

Repeat the process for the bulletins APCL DIABETES REG COMPLICATION, APCL IFG NOTIFICATION, and APCL IGT NOTIFICATION.

To be sure that the bulletin system works correctly, add a new diabetic complication as a Purpose of Visit to a DEMO, PATIENT in your facility database. If the Mail Groups and Bulletins have been set up correctly, you should see, within a few minutes of entering the complication as a Purpose of Visit, a notice that you have a new mail message when signing on to RPMS.

Appendix B   Word Processing Commands

This appendix lists the commands used in the ScreenMan word processing fields. These commands can be accessed at any time in the word processing screen by pressing **F1**(**PF1** on some keyboards) followed by the **H** key.

B.1   Summary of Key Sequences

Navigation

```
Incremental movement              Arrow keys
One word left and right           <Ctrl-J> and <Ctrl-L>
Next tab stop to the right        <Tab>
Jump left and right               <PF1><Left> and <PF1><Right>
Beginning and end of line         <PF1><PF1><Left> and <PF1><PF1><Right>
Screen up or down                 <PF1><Up> and <PF1><Down>
                                        or: <PrevScr> and <NextScr>
                                        or: <PageUp>  and <PageDown>
Top or bottom of document         <PF1>T and <PF1>B
Go to a specific location         <PF1>G
```

Exiting/Saving

```
Exit and save text                <PF1>E
Quit without saving               <PF1>Q
Exit, save, and switch editors    <PF1>A
Save without exiting              <PF1>S
```

Deleting

```
Character before cursor           <Backspace>
Character at cursor               <PF4>  or  <Remove>  or  <Delete>
From cursor to end of word        <Ctrl-W>
From cursor to end of line        <PF1><PF2>
Entire line                       <PF1>D
```

Settings/Modes

```
Wrap/nowrap mode toggle           <PF2>
Insert/replace mode toggle        <PF3>
Set/clear tab stop                <PF1><Tab>
Set left margin                   <PF1>,
Set right margin                  <PF1>.
Status line toggle                <PF1>?
```

Formatting

```
Join current line to next line    <PF1>J
Reformat paragraph                <PF1>R
```

Finding

```
Find text                         <PF1>F  or  <Find>
Find next occurrence of text      <PF1>N
Find/Replace text                 <PF1>P
```

Cutting, Copying, and Pasting

```
   Select (Mark) text                    <PF1>M at beginning and end of text
   Unselect (Unmark) text          <PF1><PF1>M
   Delete selected text                  <Delete> or <Backspace> on selected text
   Cut and save to buffer            <PF1>X on selected text
   Copy and save to buffer         <PF1>C on selected text
   Paste from buffer                     <PF1>V
   Move text to another location    <PF1>X at new location
   Copy text to another location    <PF1>C at new location
```

Appendix C   Visual DMS

A graphical user interface (GUI) or Windows-based version is available for the Diabetes Management System (DMS) software. The GUI version of the software contains most of the existing functionality of the traditional "roll and scroll" RPMS application, including patient management, register maintenance, running reports, and running the Diabetes Audit.

To avoid redundancy, this section only includes the steps for using the Visual DMS and does not include background information such as how to use the patient management list manager, set up taxonomies, add or delete users, or run reports. This information is included in prior sections of the User Manual.

C.1   Getting Started

1. After the DMS GUI is installed, a shortcut will appear on the Windows desktop that is labeled **Visual DMS**. Double-click that icon to open the DMS GUI.
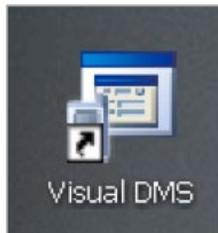
Figure C-1: Visual DMS shortcut

2. The program screen will display briefly before you are prompted to enter an RPMS server and port.
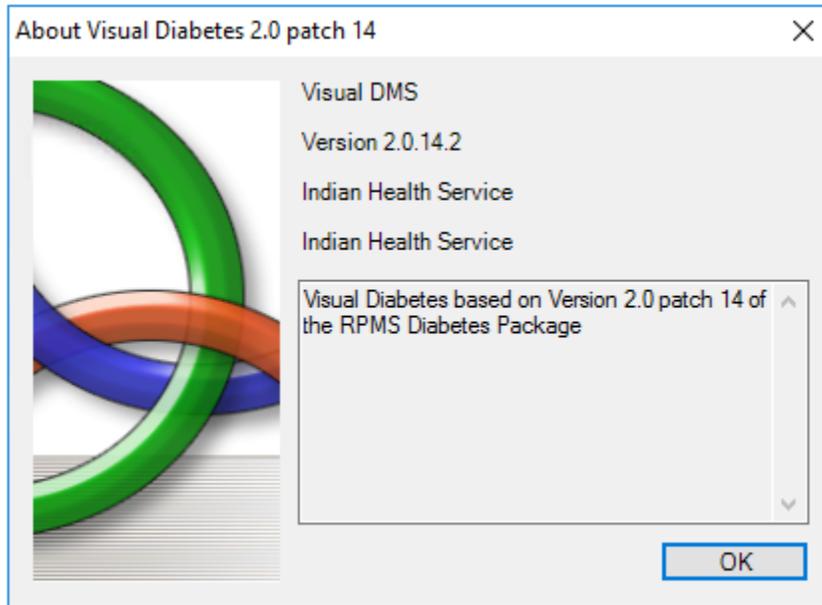
Figure C-2: Visual DMS splash screen

3. On the RPMS server address screen, select the server you want to connect to from the list and enter your access and verify codes. Click **OK**.

> **Note:** This information will be saved and will not need to be changed unless you select a different server.
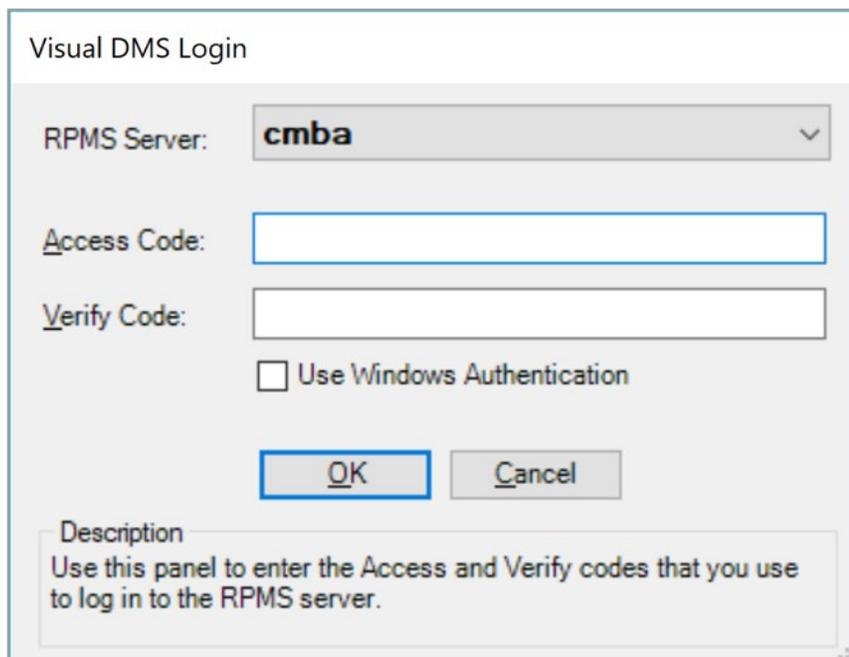
Figure C-3: Visual DMS Login screen

4. If you are a multidivisional site the following box will display. Select the appropriate division from the list displayed.
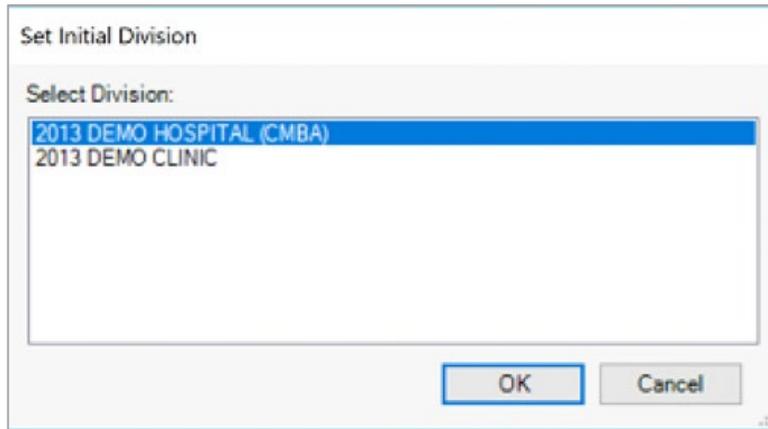
Figure C-4: Select Initial Division screen

5. A list of Registers for which you are an authorized user will display. Click on the Register Name that you wish to use.

Figure C-5: Select Register list

6. The **Visual DMS** window displays, as shown in Figure C-6.
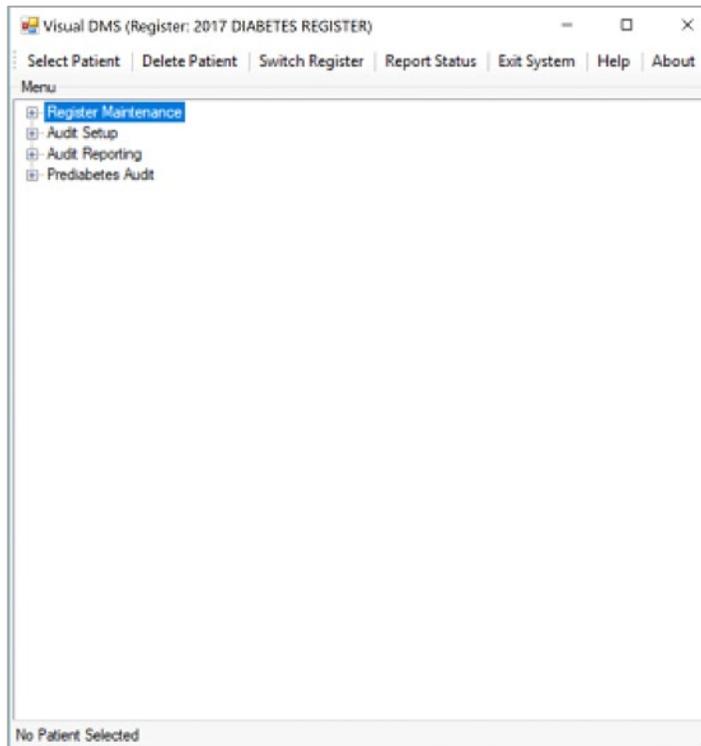
Figure C-6: Visual DMS main menu

Select a Register to begin using either the listed options or select from the toolbar at the top of the window. The name of the Register that you are currently using displays in the title bar of the window.

The window can be enlarged by either clicking on the box in the upper right corner of the screen or using the mouse to resize. To use the mouse, point it at the lower right-corner of the screen, hold down the left mouse button, and drag to resize the window.

A plus sign (+) in a box preceding a menu item indicates more menu options in that category. Display the options by clicking the plus sign.

C.2   Toolbar Options

There are seven toolbar options and four main menu options. The seven toolbar options are described in the following sections.

C.2.1   Select Patient

Click the **Select Patient** button to select a patient and use any of the **Patient Management** options. Patients can be identified by Last Name, First Name, Date of Birth, SSN, or Chart Number.

Click the **Display** button or press **Enter** to view a list of matching patients. If the list is too long to display on a single page, use the scroll bar or click the **More** button to view additional names. Click on a name in the list to select a patient.
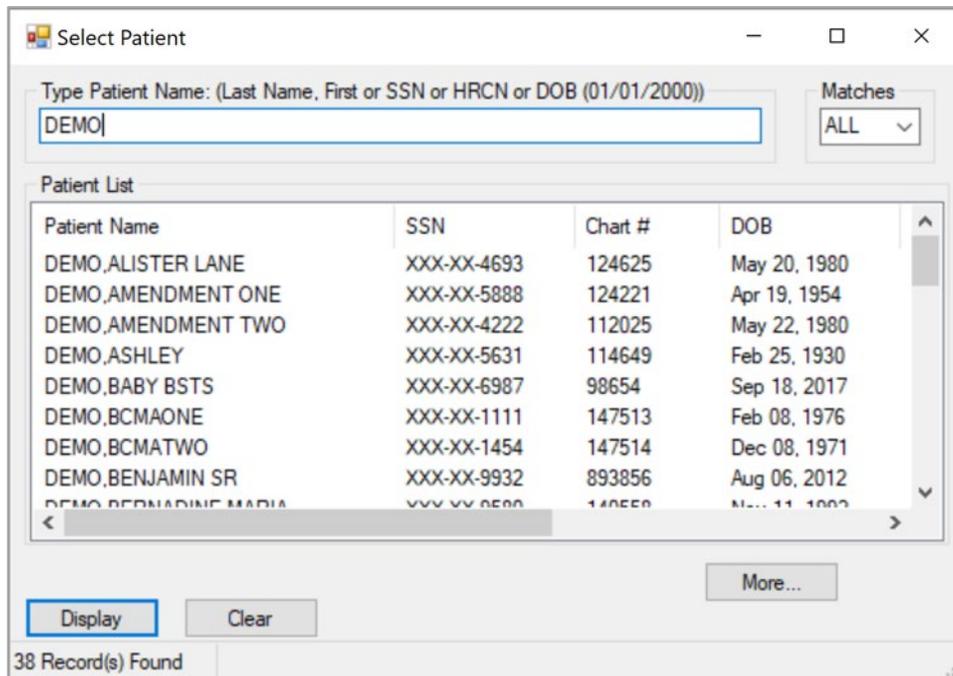
Figure C-7: Select Patient window

If you select a patient who is not currently a member of the Register, you will be asked if you wish to add the patient to the Register. Click **Yes** to add the patient to the Register.

If you click on the Select Patient toolbar button while working on another patient, a warning box will ask if you wish to switch patients. Click **Yes** to switch or **No** to continue working with the same patient.

The Register with which you are currently working always displays in the title bar at the top of the window. If you have a patient currently selected, their identifying information displays in the gray bar at the bottom of the window. See Figure C-8.
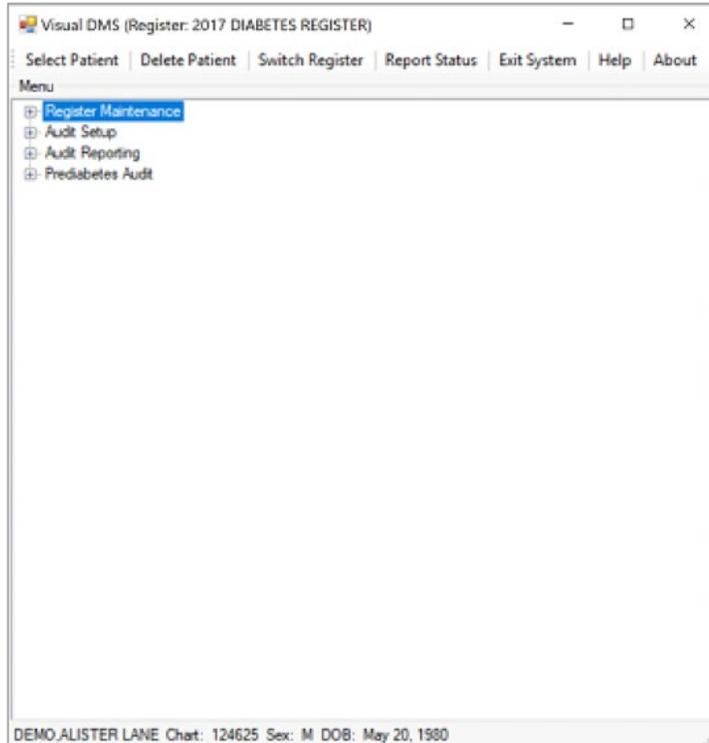
Figure C-8: Visual DMS with patient selected

C.2.2   Delete Patient

To delete a patient from the Register, click the **Delete Patient** option. If you click this option while working with a patient (the name displayed at bottom of the window), the program will assume that you wish to delete this patient. Click **Yes** to delete this patient.

If no patient is selected and you click the **Delete Patient** option, you will be prompted to identify the patient you wish to delete (patient's Last Name, First Name, Chart Number, or Date of Birth). Click on the patient to immediately delete the record from the Register.

> **Warning:** Deletion is *final*. Any Register data associated with this patient will be deleted as well.

C.2.3   Switch Register

If you are an authorized user of other Registers, click on this Toolbar option to switch to another Register. Click on the **Register Name** you wish to view from the displayed list.

C.2.4   Report Status

Click the **Report Status** button to display any reports that are currently running or that have been completed. You can click on a report name to automatically open it in Microsoft Word. Reports can be printed or saved as with any other Word document. If a report is no longer needed, delete it by clicking to place a check mark in the box in front of the report, then clicking the **Delete** button on the toolbar.

C.2.5   Exit System

Clicking the **Exit System** button on the toolbar, will result in the display of pop-up that displays: **Are You Sure You Want to Exit?.** Click **Yes** or **No** as appropriate. Click the **X** in the upper right corner of the window to exit.

C.2.6   Help

Click the **Help** button on the toolbar to display the online help. Help is also available on each applicable form.

C.2.7   About

Click the **About** button on the toolbar to display the current version of Visual DMS. Click **OK** to close the window.

C.3   Menu Options

There are four main menu options in Visual DMS that correspond to the traditional RPMS Diabetes Management System Menu options. These options will be explained in the following sections.
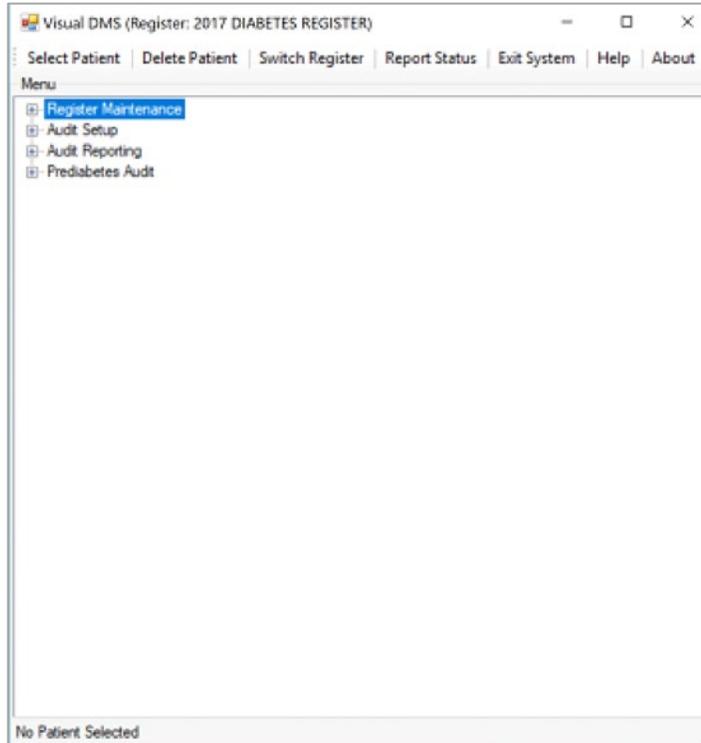
Figure C-9: Visual DMS main menu

C.3.1   Register Maintenance

1. Open the **Register Maintenance Menu** by clicking the plus sign (+) in front of **Register Maintenance**.

2. A submenu with the following options displays: **Register Management**, **Patient Management**, **Update Patient Data**, **Add Patients from Template**, and **Register Reports**. These options correspond to the same menu options in RPMS.
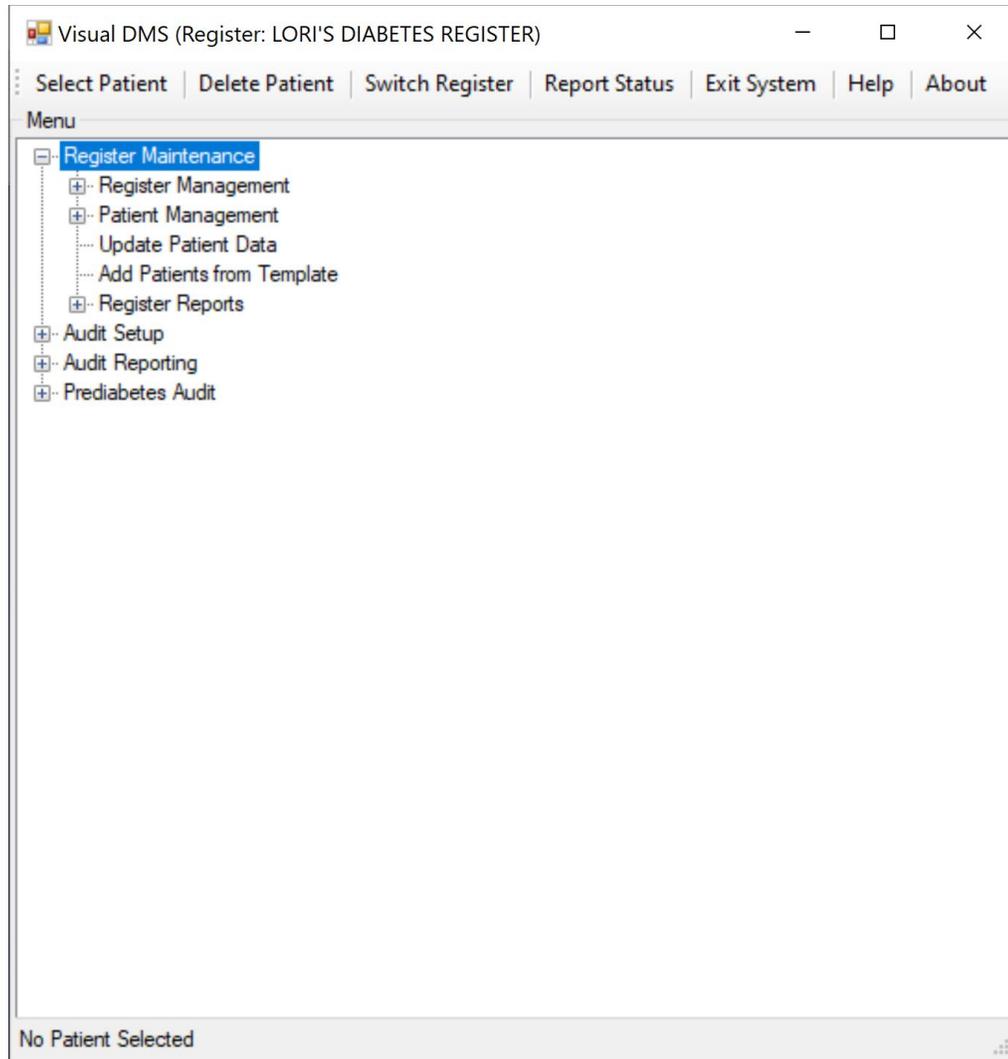
Figure C-10: Register Maintenance Menu option

3. The **Patient Management** options are disabled until a patient is selected using the **Select Patient** option on the toolbar.

4. The selected patient's name will display in the gray bar at the bottom of the window.

5. The menu options will be described below.

6. When finished with the **Register Maintenance Menu**, click the minus sign (**-**) in front of **Register Maintenance** to close the menu.

C.3.1.1   Register Management

Click the plus sign (**+**) in front of **Register Management** to expand this menu. The only available option is **User Setup**.
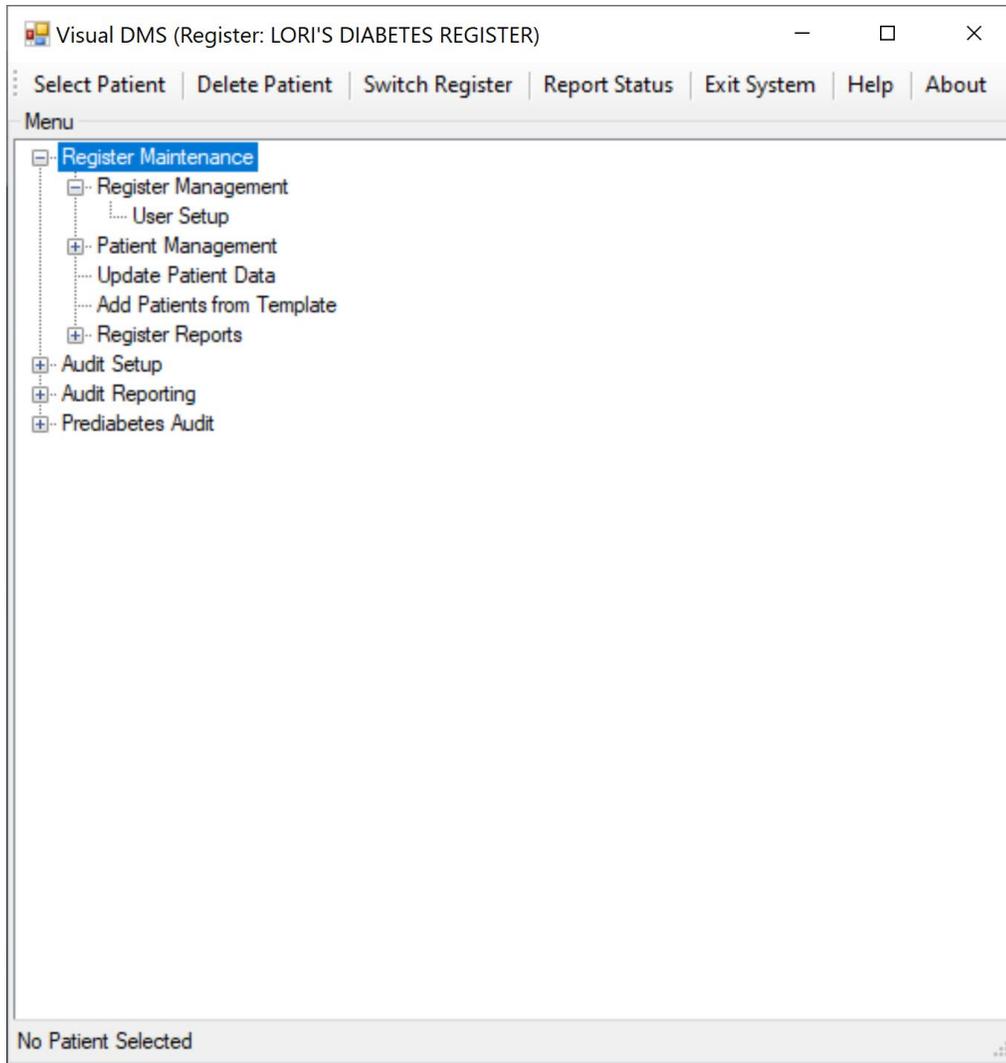
Figure C-11: Register Management

C.3.1.2   User Setup

Click **User Setup** to review current authorized users of the Register and update the user list.
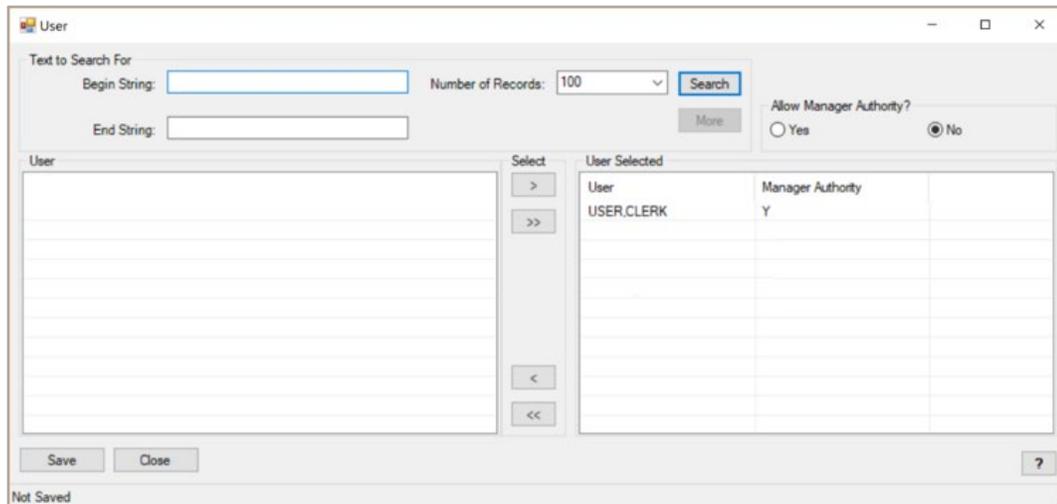
Figure C-12: User selection

1. Current users of the Register will be listed in the **User Selected** list. Those who have Manager authority will have a **Y** in the **Manager Authority** column.

2. If additional authorized users are to be added to the Register, type the first few letters of that user's last name in the Begin String box. A list of matching entries will display. Either click and drag a user's name from the **User** list to the **User Selected** list or select the user and click the right arrow to move them into the **User** list. If User(s) are to be removed from the **User Selected** list, either drag their name back to the **User** list or select their name and click on the left arrow (<).

3. If a user is to be give manager authority, click the **Yes** button under **Allow Manager Authority?**, and then click the User's name. Manager authority may be removed in a similar manner, by clicking the **No** button under **Allow Manager Authority?** And then click the name(s) of user(s) who will not be allowed manager authority.

4. When the list of authorized users has been updated, click the **Save** button to save changes. Close the **User** window.

C.3.2   Patient Management

Click the plus sign (+) next to **Patient Management** to open the **Patient Management** menu.
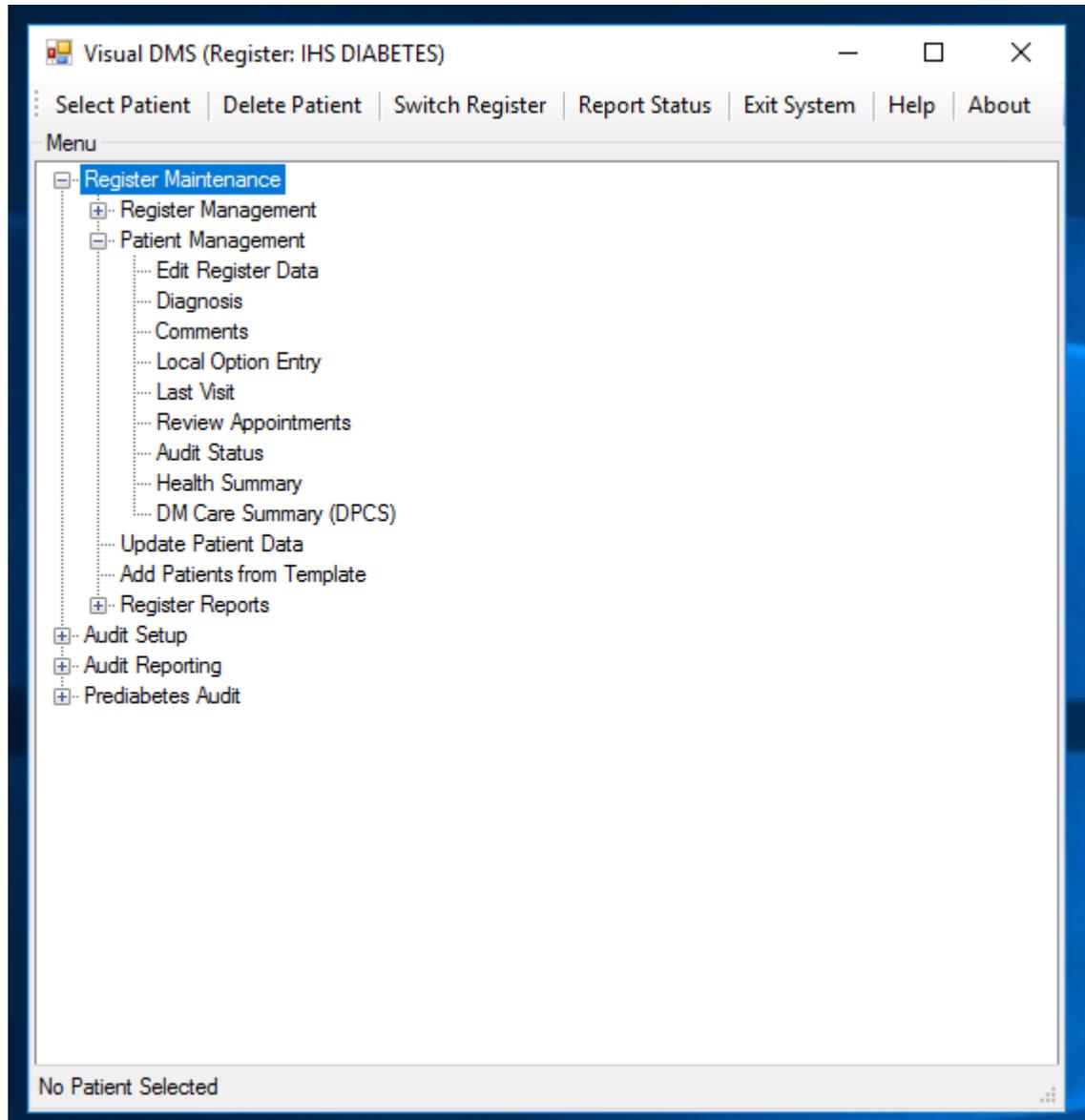
Figure C-13: Patient Management options

C.3.2.1   Edit Register Data

1. Use the **Patient Profile** dialog to change **Register Status**, **Where Followed**, **Case Manager**, **Contact**, **Last Review**, and **Next Review Date**.

Figure C-14: Patient Profile dialog

2. Change date fields, as needed, by clicking on the date (month, day, or year) and using the up or down arrows to change the month, date, or year. The date and year can also be changed by typing the desired new date or year to replace the one displayed. Alternatively, click the arrow to open a calendar and browsed to a date by scrolling, using the right and left arrows. Click a date on the calendar to select it.

3. The **Contact** field is a free text field in which to enter patient contact information.

4. Click the **Select** button to the right of the field **Case Manager** to display a list. Browse the list to find the desired entry and click on it.

5. The **Where Followed** field requires a match on the name of a facility. Type the first few letters of the facility name in the **Begin String** box and click **Search**.

6. Click on the name of the facility where the patient is followed.

7. When all data entry is complete, click **Save** to exit. Then click the **X** in the upper right corner of the window to close the **Patient Profile** dialog and stop editing the register data.

C.3.2.2   Diagnosis

Click the **Diagnosis** menu option to open the **Diagnosis** dialog.

Please note that if your site also utilizes Certified EHR (Electronic Health Record) and the Integrated Problem List (IPL), the diagnoses entered here with date of onset should also be entered into the IPL, so that all clinicians will be aware of the diagnoses.

Figure C-15: Diagnosis dialog

1. To add a new diagnosis, select a **Diagnosis** from the list. Then, select the severity from the **Severity** list and enter an **Onset Date**. Click **Add** to add it to the **Diagnosis List** box.

2. To delete a diagnosis, select the check box next to it and click the **Delete Checked Items** button. Click **Yes** to proceed at the following dialog.

Figure C-16: Delete diagnosis confirmation

3. Click the **X** in the upper right corner to close the diagnosis dialog.

C.3.2.3   Comments

1. Enter case comments by clicking the **Comments** option.

2. Enter any comments in the free text field and click **Save** when the entry is complete. The **Not Saved** text in the gray bar at the bottom of the window is replaced by **Saved**.

3. Close the screen by clicking the **X** in the window's upper right corner or click **Close**.
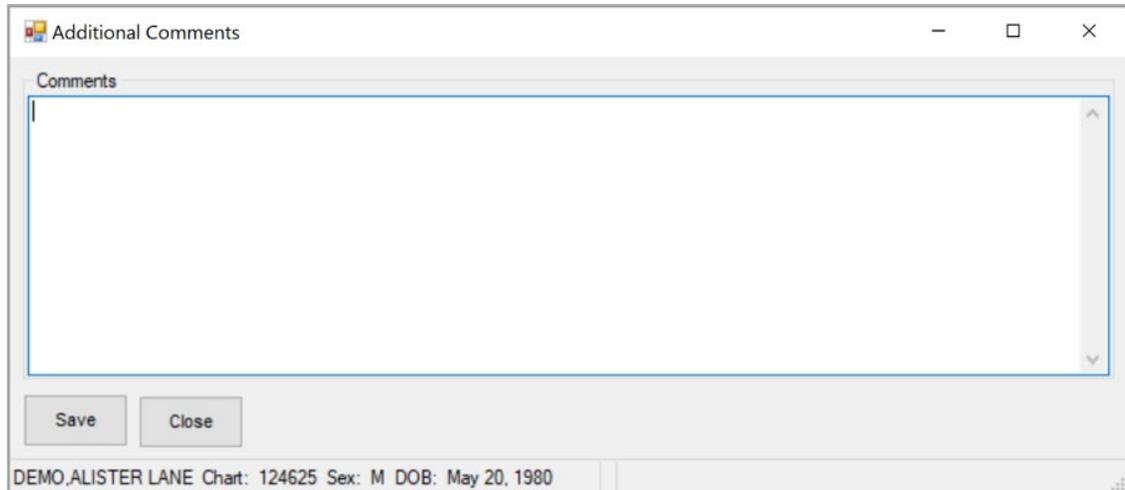
Figure C-17: Additional Comments dialog

C.3.2.4   Local Option Entry

Click the **Local Option Entry** menu option to open the **Local Option Entry** window.

1. Enter the **DM Audit Local Option** code and text click **OK** to save.

2. Click **Close** or close the dialog to exit the **Local Option Entry** form.
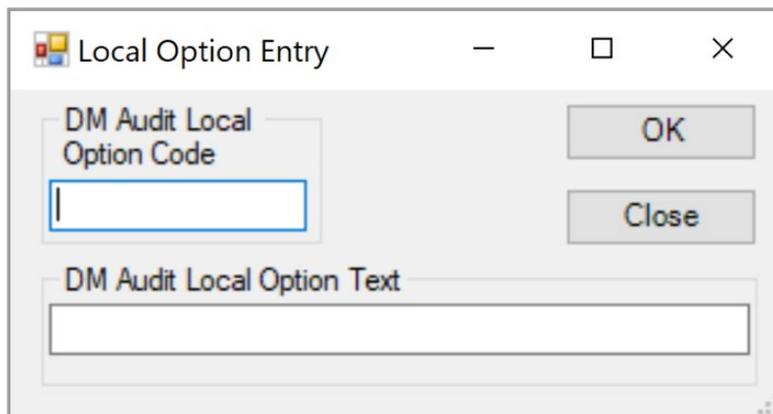
Figure C-18: Local Option Entry window

C.3.2.5   Last Visit

1. Display the patient's last visit by clicking the **Last Visit** menu option.

2. The visit record will open in Microsoft Word. Users can browse or print the visit record, as needed.

3. When the record review is complete, close the Word window by clicking the **X** in the upper right corner.
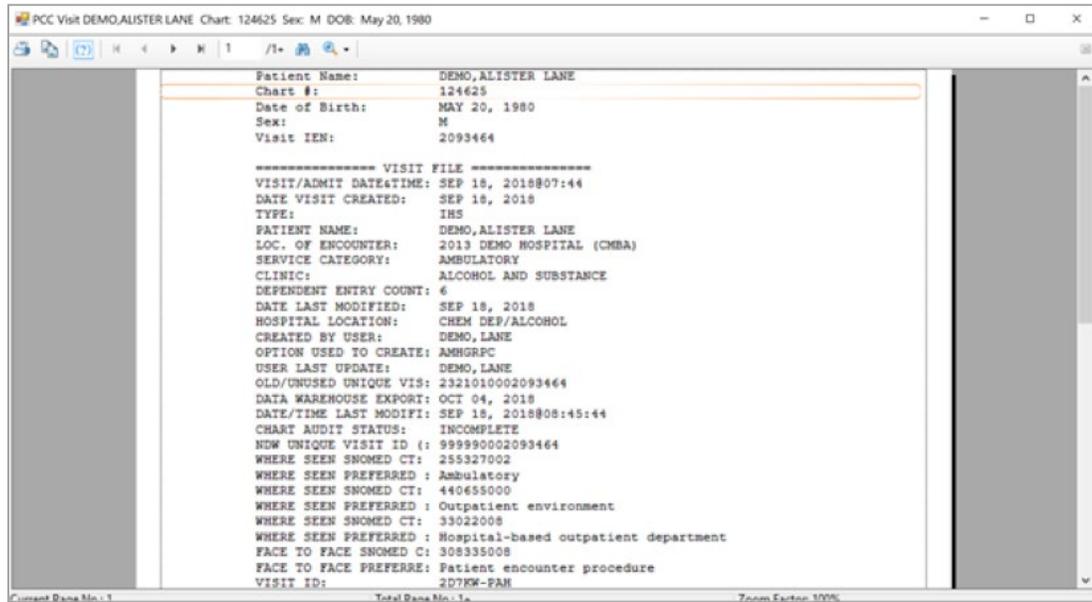
Figure C-19: Last Visit display

C.3.2.6   Review Appointments

Click the **Review Appointments** menu option to display a list of scheduled appointments for the selected patient.

1. This list will only include appointments made in the IHS Scheduling or PIMS Scheduling modules.

2. The list will display in a Crystal Reports document.

3. The user can print or browns the list as needed.

4. Close the Crystal Reports document by clicking the **X** in the upper right corner when the review is complete.
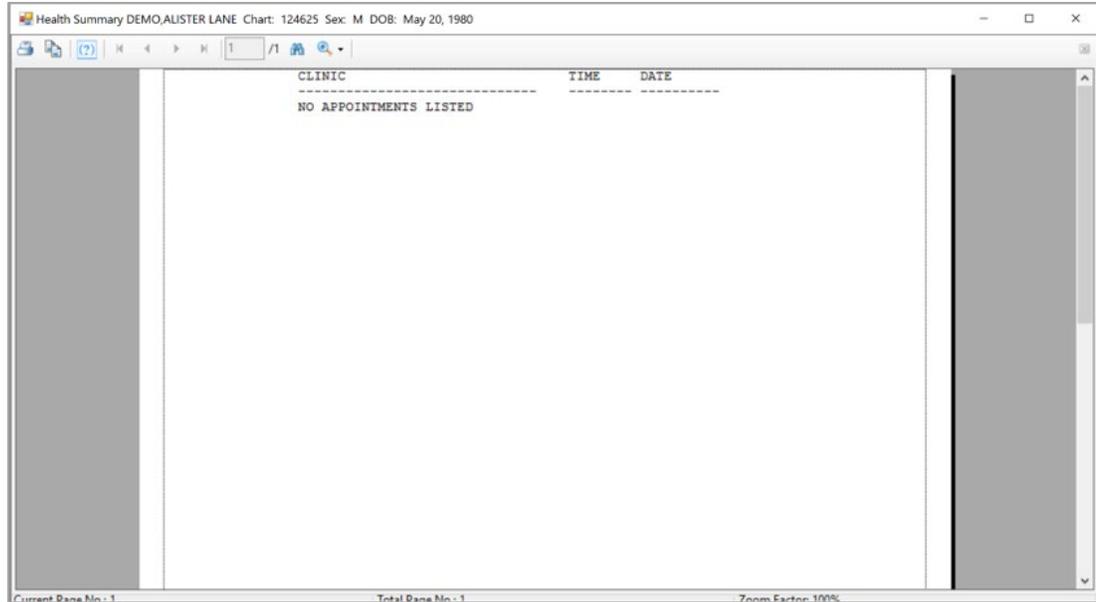
Figure C-20: Review appointments

C.3.2.7 Audit Status

Click the **Audit Status** menu option to display the **Audit Status** screen.

1. When the window for setting the Audit options opens, use the calendar to select the Audit date or change it by typing in a new day, month, and/or year in the date box.

2. When entries are complete, click the **Print** button. The Audit will display in a Crystal Reports document.

3. Browse or print the Audit, as needed.

4. When the review is complete, close the Crystal Reports document by clicking the **X** in the upper right corner.
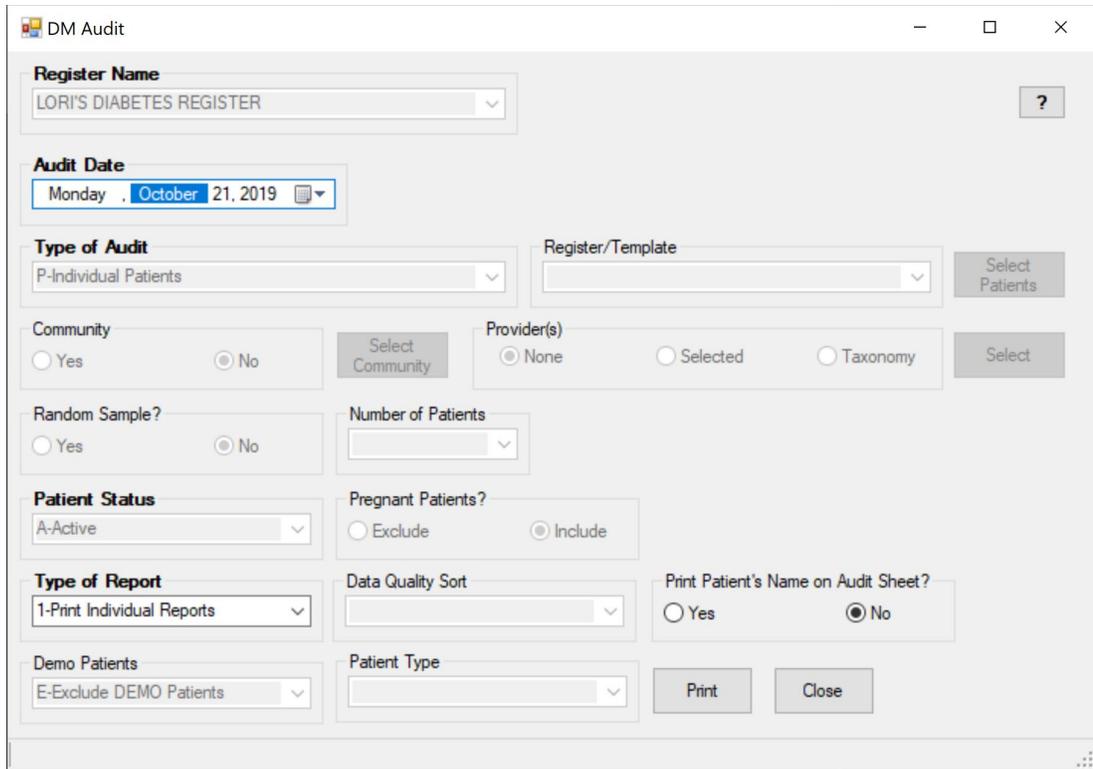
Figure C-21: DM Audit screen
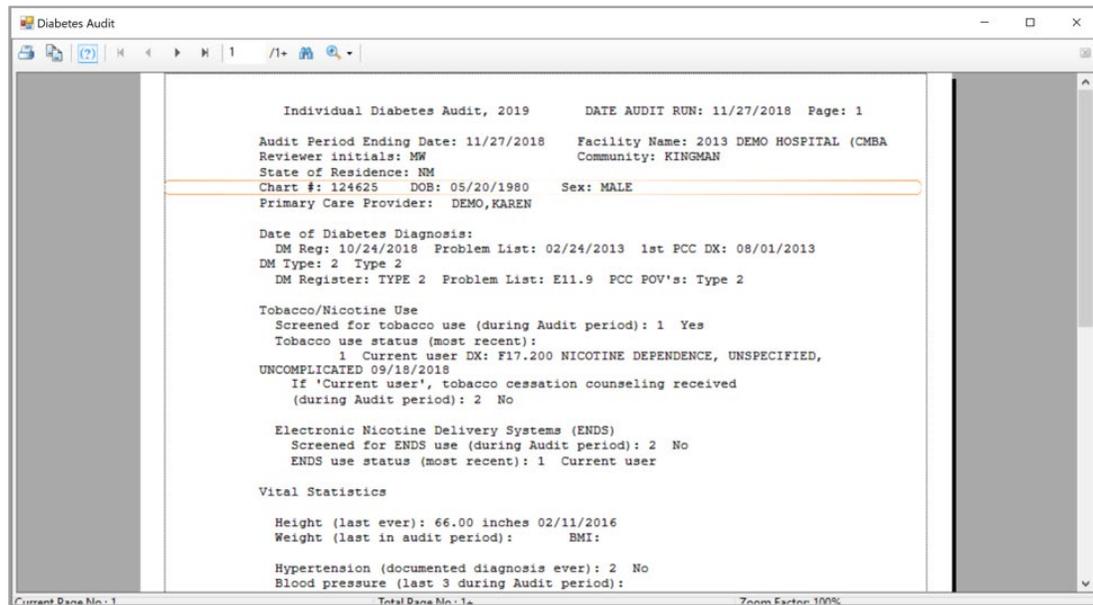
Figure C-22: Individual Audit

C.3.2.8   Health Summary

Click the **Health Summary** menu option to open **Health Summary** window.

1. Click the arrow next to **Health Summary Type** to display the available choices.
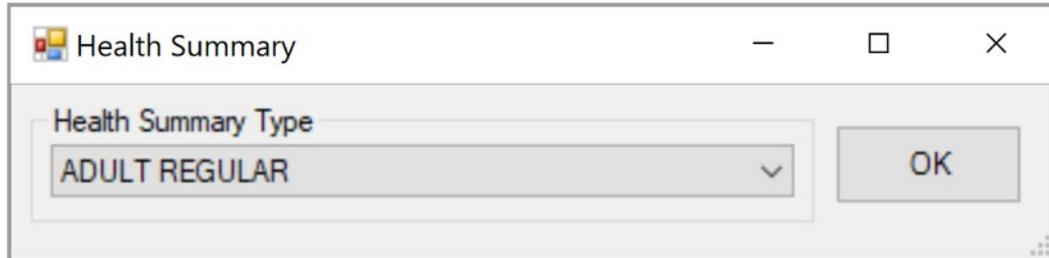
Figure C-23: Health Summary dialog

2. Select a health summary type and click **OK**.

3. The health summary will display in Crystal Reports. Browse or print the health summary as needed.

4. Click the **X** in the upper right corner to close the **Health Summary** dialog.
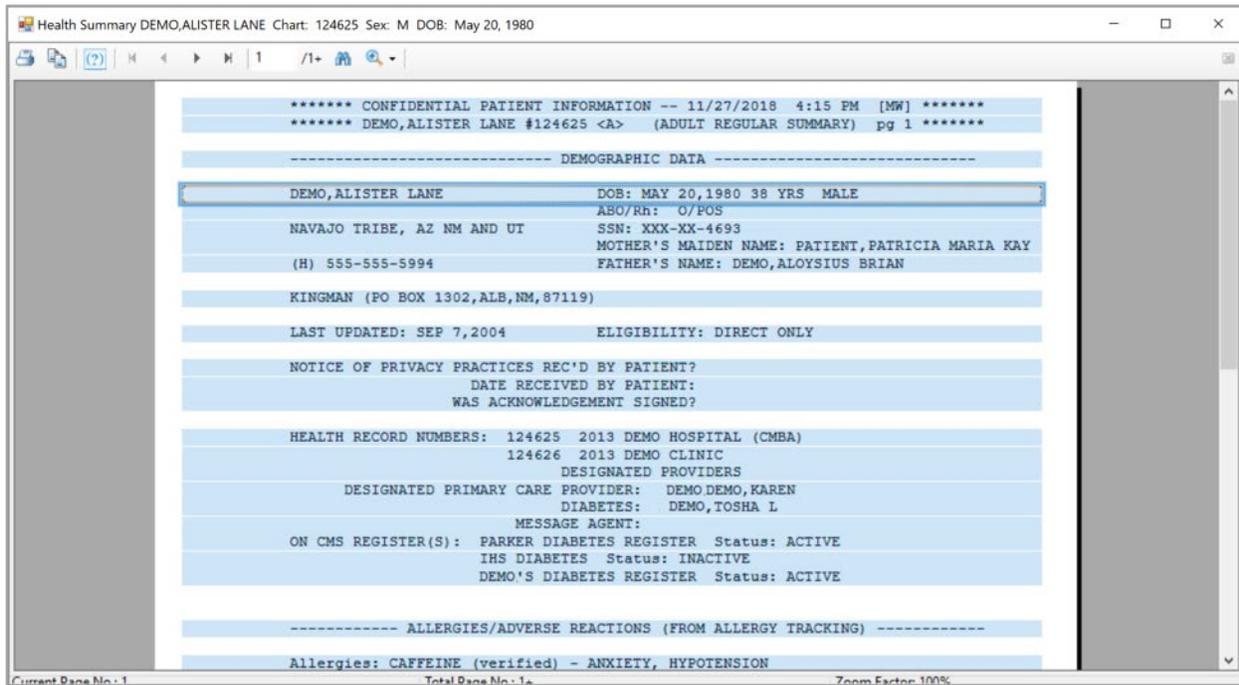
Figure C-24: Health Summary display

C.3.2.9   DM Care Summary (DPCS)

1. Click the **Diabetes Care Summary** (**DPCS**) menu item to open **Diabetes Care Summary** (**DPCS**).

2. A Crystal Reports document will open, displaying the **Summary**.

3. Click the **X** in the upper right corner to close the Crystal Reports document.

Figure C-25: DM Care Summary display

C.3.3 Update Patient Data

1. Click the **Update Patient Data** menu option.

2. Update the applicable information on the **Diabetes Patient Data Update** form.

3. Select the **Education Topics**, **Labs**, **Meds**, **Imms**, **Health Factors**, or **Refusals** button from the toolbar to update the data for these items.

Figure C-26: Update Patient Data dialog

4. Once you have updated the **Diabetes Patient Data Update** form and any of the selectable items, click the **Save** button on the toolbar to save all items.

5. Click the **Education Topics** button to update Education Topics.
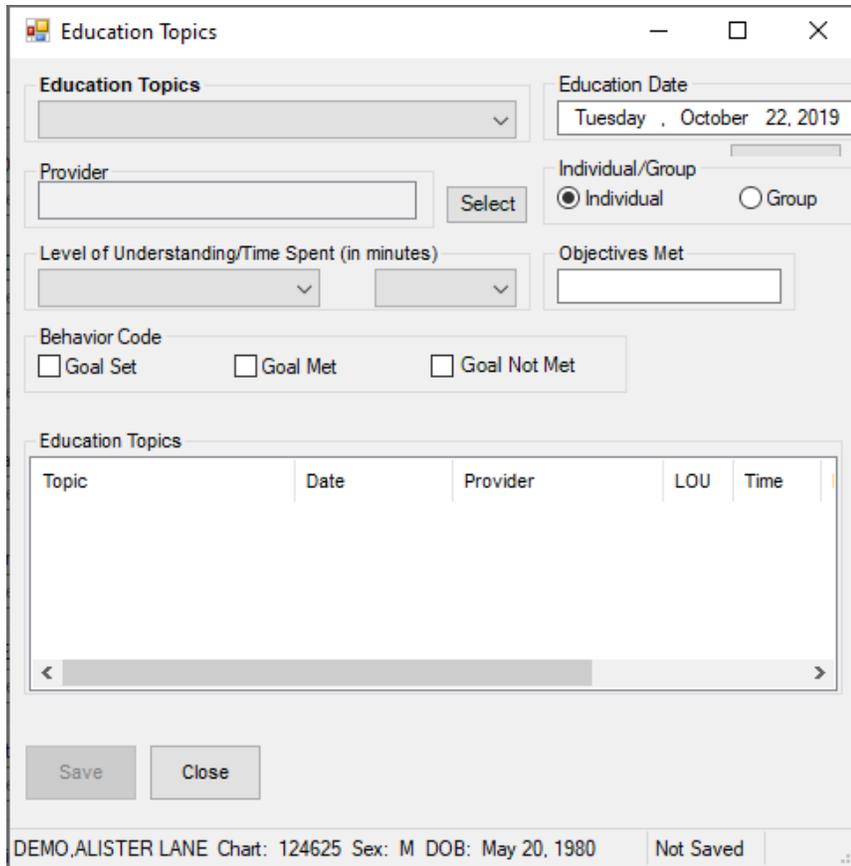
Figure C-27: Education Topics dialog

6. Select the appropriate Education Topic, and complete any other needed information, click **Save**.

7. Click the **Labs** button to update Labs.
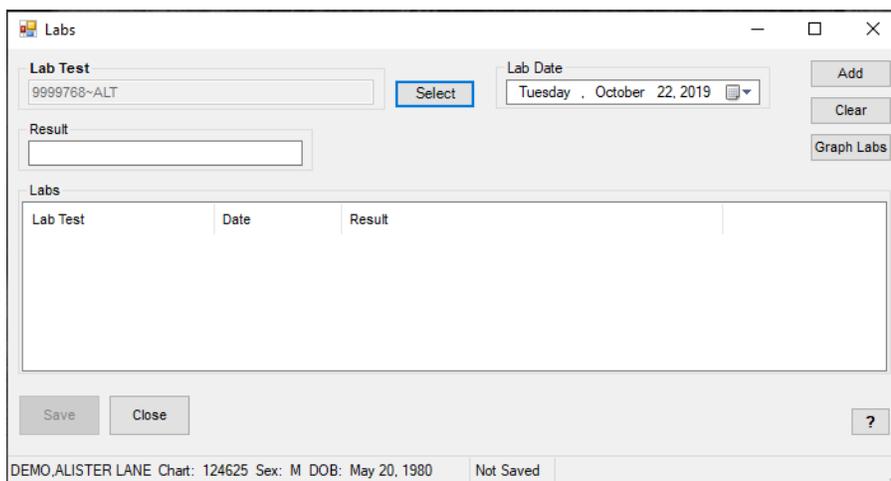
Figure C-28: Labs dialog

8. Click the **Select** button to select a Lab Test. Once you select a Lab Test, enter the result. Click the **Add** button to add it to the list and repeat this process for additional labs. When all desired labs have been entered, click **Save**.

9. Click the **Meds** button to update Meds.

Figure C-29: Medications dialog

10. Click the **Select** button to select a Medication. Once you select a Medication, then enter the **Quantity** and **SIG**. Click the **Add** button to add it to the list and repeat this process for additional Medications. When all desired Medications have been entered, click **Save.**

11. Click the **Imms** button to update Immunizations.

Figure C-30: DM Immunizations dialog

12. Update the Immunizations and click **Save**.

13. Click the **Health Factors** button to update Health Factors.

Figure C-31: DM Health Factors dialog

14. Update the Health Factors and click **Save.**

15. Click the **Refusals** button to update Refusals.

Figure C-32: Refusals/Not Medically Indicated dialog

16. Use the drop down menu to select a **Type of Refusal**. Once you have selected the **Type of Refusal**, select the item refused and enter the **Refusal Reason.** Click the **Add** button to add it to the list; once it is added, you can repeat the process for additional Refusals. Once all desired refusals have been entered click **Save**

C.3.4   Add Patients from Template

1. Click the **Add Patients from Template** menu option, if you have a template of patients that you wish to add to the Register.

Figure C-33: Search Template dialog

2. Click the arrow next to the **Search Template** box to view a list of available templates. Select the desired template and click **OK**.

3. A pop-up window will display indicating if the patients have been added successfully. Click **OK** to close the pop-up window.

C.3.5   Register Reports

Click the plus sign (+) in front of **Register Reports** to display the **Register Reports** options. No patient needs to be selected to run reports.
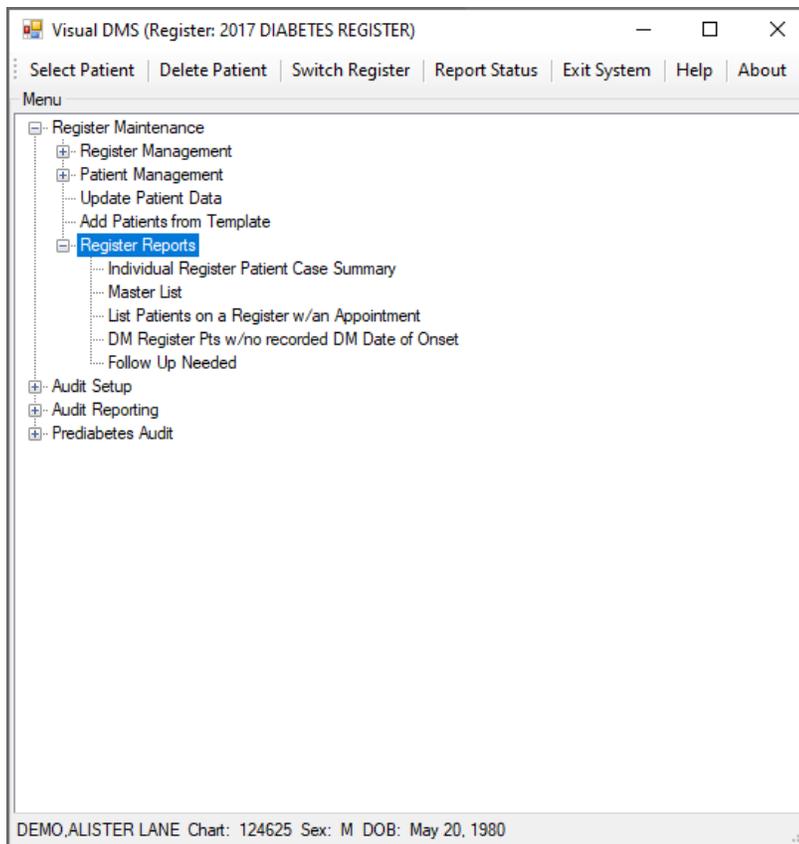
Figure C-34: Register Reports options

C.3.5.1 Individual Register Patient Case Summary

1. To review the Individual Case Summary, click the **Individual Register Patient Case Summary** menu option.

2. The case summary will display as a Microsoft Word document that the user can browse or print.

3. Close the document when the review is complete.
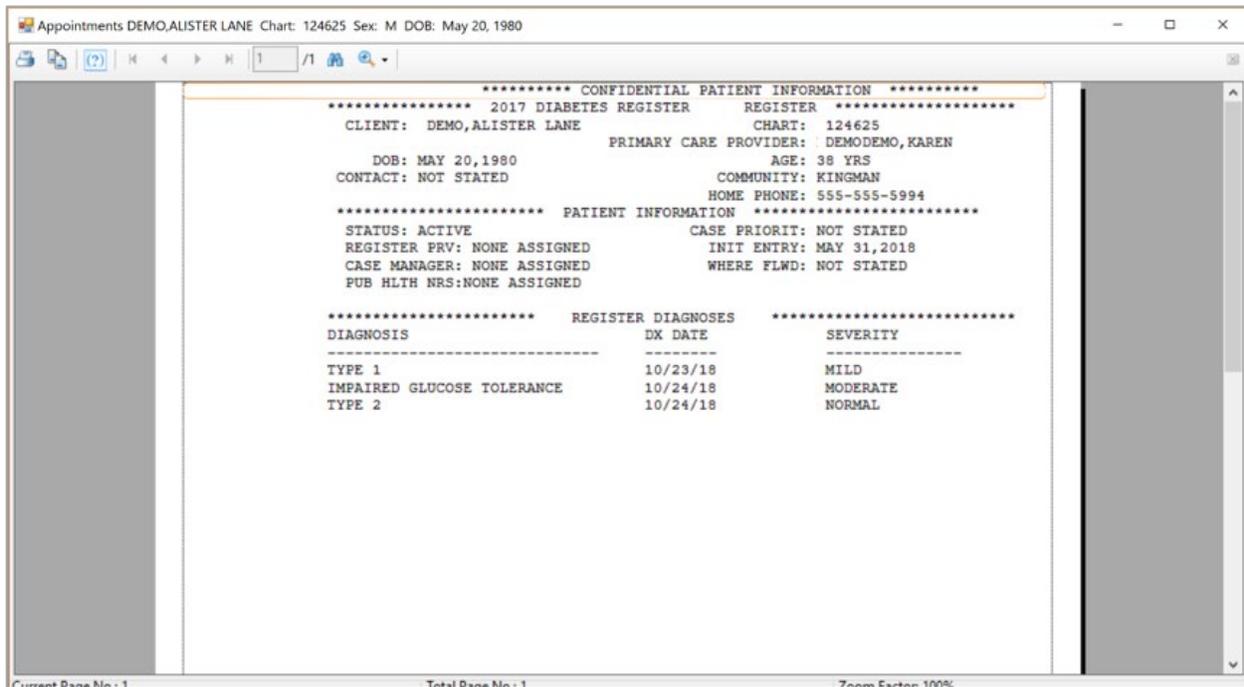
Figure C-35: Individual Register Case Summary

C.3.5.2 Master List

Click the Master List menu item to open the **Master List** dialog.

Figure C-36: Master List options

1. Select the **Register Name** from the list and specify any other parameters you would like to use.

2. Click **Queue** to queue the report.

3. Once the report is queued to run, click the **Report Status** option on the main window toolbar to review the report progress.

Figure C-37: Report Status Check

4. Click a report to review it.

5. The report will display in a Crystal Reports document that the user can save or print.

When review of the report is complete, close the Crystal Reports document by clicking the **X** in the upper right corner.

If a report is no longer needed, select the check box to the right of the report name. Then, click the **Delete Checked Items** option on the toolbar to delete all checked reports.

C.3.5.3   List Patients on a Register w/an Appointment

This report will allow you to print a list of patients on a Register with appointments within a specified date range in all or in selected clinics.

1. Begin by clicking the **List Patients on a Register w/an Appointment** menu option.

2. When the **List Patients on Register with An Appointment** window opens, click the arrow next to the **Register Name** box to display a list of Registers. Select the desired Register for the report.

Figure C-38: List Patients on Register with an Appointment window

3. Click the arrow next to the **Appointment Begin Date** or **Appointment End Date** to select a date. The month, day, or year may be changed by clicking on each and using the up or down arrows to set the date.

4. If you wish to see all appointments, regardless of clinic, select **Any** under **Select a Clinic**. If you wish to only review appointments for one or more particular clinics, click the **Select Clinic** button.

Type the first three letters of the clinic with a scheduled appointment in the beginning string box. When the list of matching clinics displays, the desired clinic may be highlighted and dragged into the column on the right. You may also highlight the clinic and click on the right arrow (>) button to move the clinic into the right column. When all desired clinics have been added to the **Clinic Selected List**, click on the **Save** button.

5. Click the **Queue** button to run the report. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper right corner.

6. The report status can be checked by clicking on the **Report Status** button on the toolbar. See Section C.3.5.2 for complete instructions.

C.3.5.4   DM Register Pts w/no Recorded DM Date of Onset

This report identifies patients on the Register who do not have a date of onset of diabetes recorded in RPMS.

1. Begin by clicking on the menu option, **DM Register Pts with No Recorded DM Onset**. A window will display that allows selection of the Register to be reviewed and identify, if necessary, the status of the patients who will be reviewed for the report.

Figure C-39: DM Patients with No Date of Onset

2. Click the arrow next to **Register Name**. Select a **Register Name** from the list displayed.

3. Click on **Yes** or **No** in the **Select a Status** box.

4. Use the arrow next to the **Patient Status** box to display the list of statuses. Click to select the desired status.

5. Click the **Queue** button to run the report. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper right corner.

6. The report status can be checked by clicking the Report Status button on the toolbar. See Section C.3.5.2 for complete instructions.

C.3.5.5   Follow Up Needed

This option will allow the user to generate a report of patients that are due now or within the next 30 days for specific diabetes care needs.

1. Begin by clicking the **Follow up Needed** menu option.

Figure C-40: Follow Up Report dialog

2. Identify which follow-up report is needed. Either highlight the option in the **Report Types** list and click the arrow to move it to the **Reports Type Selected** box or drag it from the list on the left to the list on the right.

3. Determine whether the report will be run for members of your register or for a preselected group of patients stored in a search template. If **Search Template** is chosen, use the list of search templates to identify the desired search template of patients for the report.

4. Select the **Patient Status** for the report.

5. Select the **Diabetes Diagnosis** for the report.

6. If you are using the IHS Scheduling Package or PIMS, determine whether you wish to see a list of appointments for patients on the report by selecting **Yes** or **No** in the **Include Patient Appointments** box.

7. If you wish to see scheduled appointments, indicate the beginning and end dates using the calendars. Click the arrow to change the month or day or use the up and down arrow keys.

8. The report may be printed by **Community**, **Primary Provider**, or **Where Followed**. Make your selection by using the arrow next to the **Print by** box and clicking the desired selection.

9. If **Print By** Community is selected, you may choose all or individual communities. If **Selected Communities** is chosen, a window will open where the first few letters of the desired community may be chosen by typing them in the Begin String box. Click the right arrow (>) button to move the desired community into the **Communities Selected** box. This process may be repeated as many times as necessary to identify all communities to be included in the report. When all communities have been selected, click the **Save** button. Close the **Community** window.
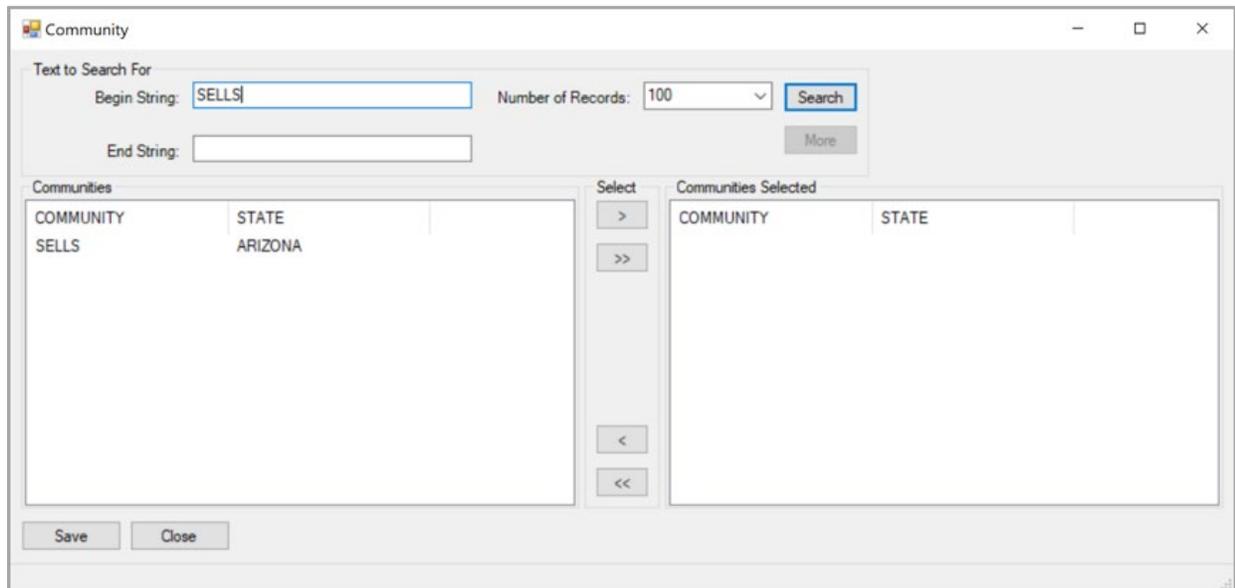
Figure C-41: Community dialog

10. Click the box next to **Type of Report** to select the **Follow Up Report**.

11. Select **the Report Run Date/Time** from the calendar.

12. When all desired options have been selected, click the **Queue** button to initiate the report generation.

13. Once the report is queued to run, click the **Report Status** option on the toolbar of the main window to review the progress of the report.

C.3.6   Audit Setup

Click the plus sign (+) next to the **Audit Setup Menu** option to open the submenu.
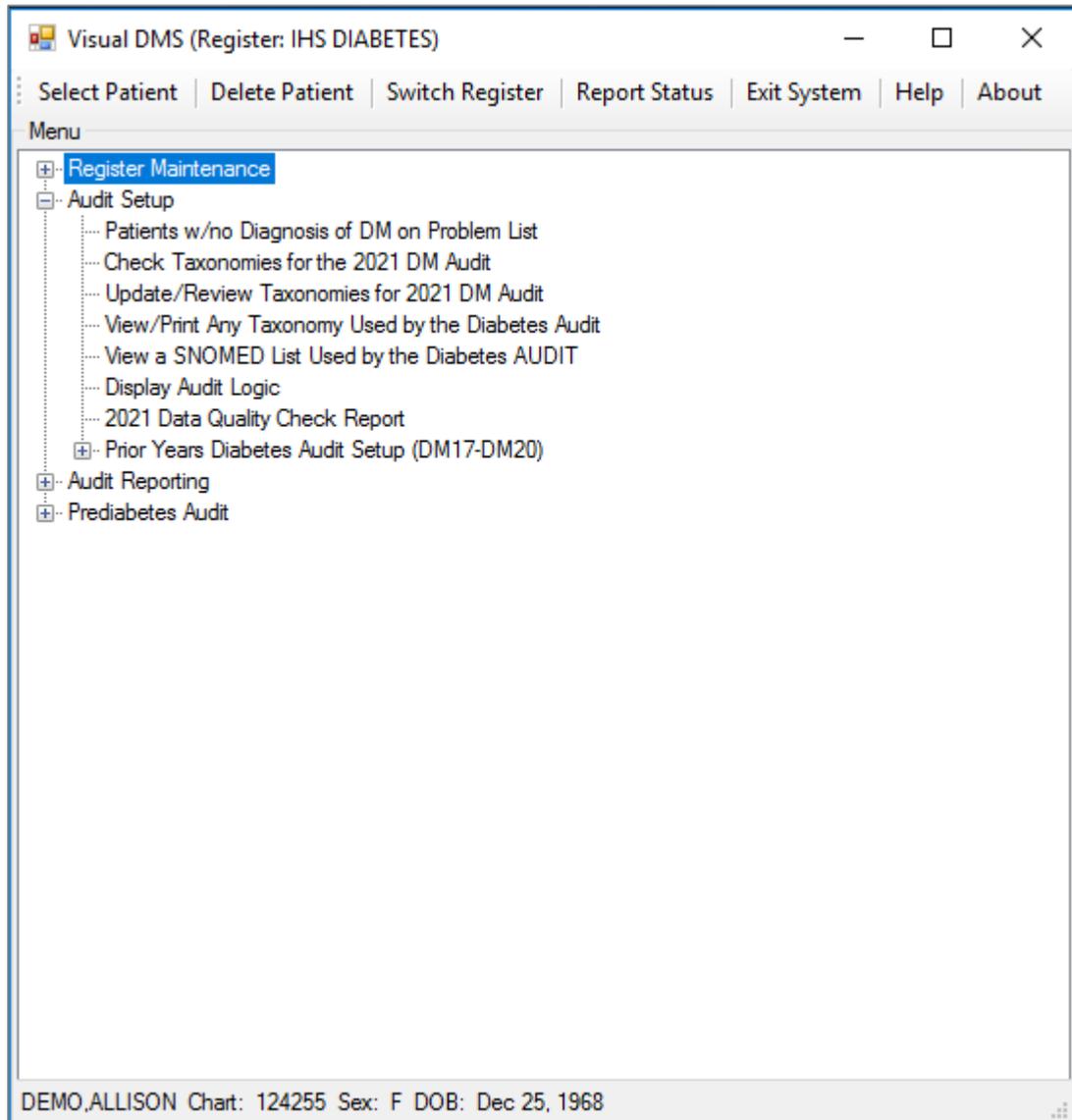
Figure C-42: Audit Setup options

C.3.6.1   Patients w/no Diagnosis of DM on Problem List

This report identifies patients who do not have a diagnosis of diabetes on their problem list but are on your register or have a certain number of diabetes diagnosis codes.

1. Click on the **Patients with No DX of DM on Problem List** menu option.

2. A window will open which allows you to define the report criteria.

Figure C-43: DM Patients with No Dx of DM on Problem List

3. Click either **Those who are members of a Register** or **Those with N Diabetes Diagnoses**. N refers to the number of diabetes diagnoses a patient has had.

4. If you select **Those with N Diabetes Diagnoses**, you will need to select the **Number of Dx**. If you select **Those who are members of a Register**, you will need to select a **Register Name**.

5. To restrict your list to only those patients whose most recent diabetes diagnosis is since a certain date, click the arrow next to the **Restrict to recent Diabetes DX?** to select a date. Click on the desired date of how far back you wish to look at diagnoses. You can also click on the month, date, or year and use the up or down arrows to change those entries.

6. When your selections are completed, click the **Queue** button. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper right corner.

7. You can check the report status by clicking on the **Report Status** button on the toolbar.

C.3.6.2　Check Taxonomies for the 2021 DM Audit

1. Click the **Check Taxonomies for the 2021 DM Audit** menu option to determine whether any taxonomies have not been populated. The result of the taxonomy check will display in a result box.

2. Close the box by clicking the **X** in the upper right corner.

```
Result                                                    —    □    ×

Result


In order for the 2021 DM AUDIT Report to find all necessary data, several
taxonomies must be established.  The following taxonomies are missing or have
no entries:
LABORATORY TEST taxonomy  [BGP CREATINE KINASE TAX] contains a panel test: ..CRSU C...
LABORATORY TEST taxonomy  [BGP HEP C TESTS TAX] contains a panel test: SQL HCV Ab S...
DRUG taxonomy  [DM AUDIT AMYLIN ANALOGUES] has no entries
DRUG taxonomy  [DM AUDIT COLESEVELAM DRUGS] has no entries
LABORATORY TEST taxonomy  [DM AUDIT HGB A1C TAX] contains a panel test: HGB A1C (R)...
DRUG taxonomy  [DM AUDIT INCRETIN MIMETIC] has no entries
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUG] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries




                                    OK
```

Figure C-44: Check Taxonomies for the 2021 DM Audit

C.3.6.3　Update/Review Taxonomies for 2021 DM Audit

Click the menu option, **Update/Review Taxonomies for 2021 DM Audit**, to open the taxonomy update window.
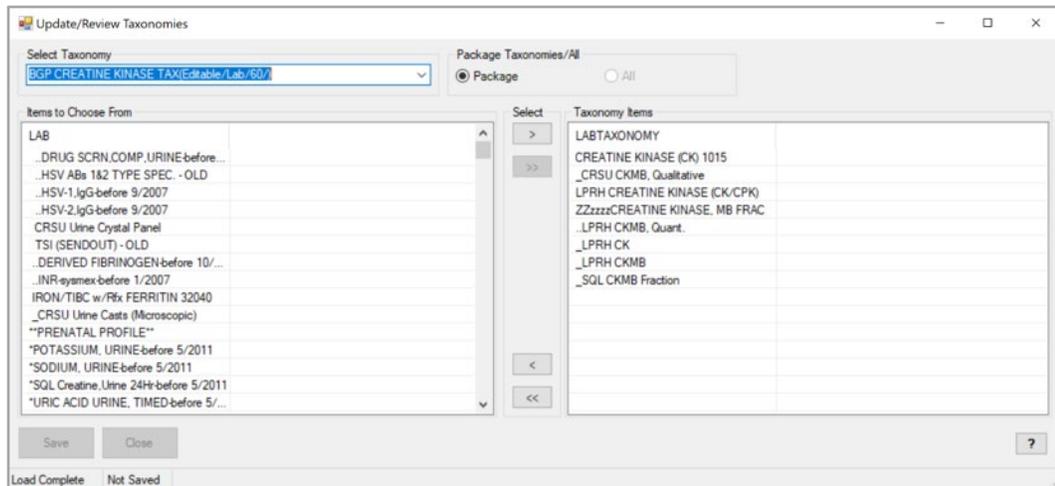
Figure C-45: Update/Review Taxonomies for 2021 DM Audit

1. Select a taxonomy that you want to update from the list.

2. Select the items you want in the taxonomy from the left column titled **Items to Choose From** and click the right arrow button (>) to move them to the **Taxonomy Items** column on the right, click **Save**.

3. To remove an item from the taxonomy, select the item(s) to remove in the Taxonomy Items List View and click the left arrow button (<) button to remove them. Click **Save**.

4. Click Close or the **X** to exit.

C.3.6.4   View/Print Any Taxonomy Used by the Diabetes Audit

Click the **View/Print Any Taxonomy** used by the Diabetes Audit.

1. Select the **Audit Year** and **Taxonomies** to print. Click **Print**.
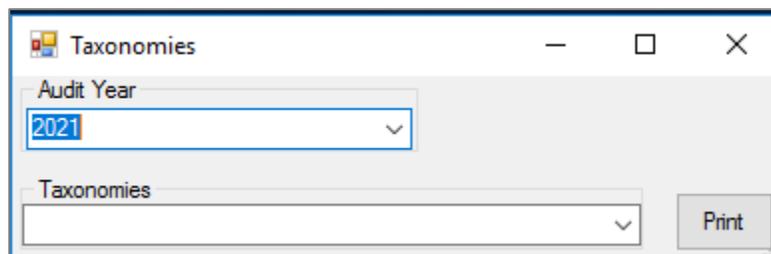
Figure C-46: Audit and Taxonomy Selection

2. The taxonomy displays in Crystal Reports.
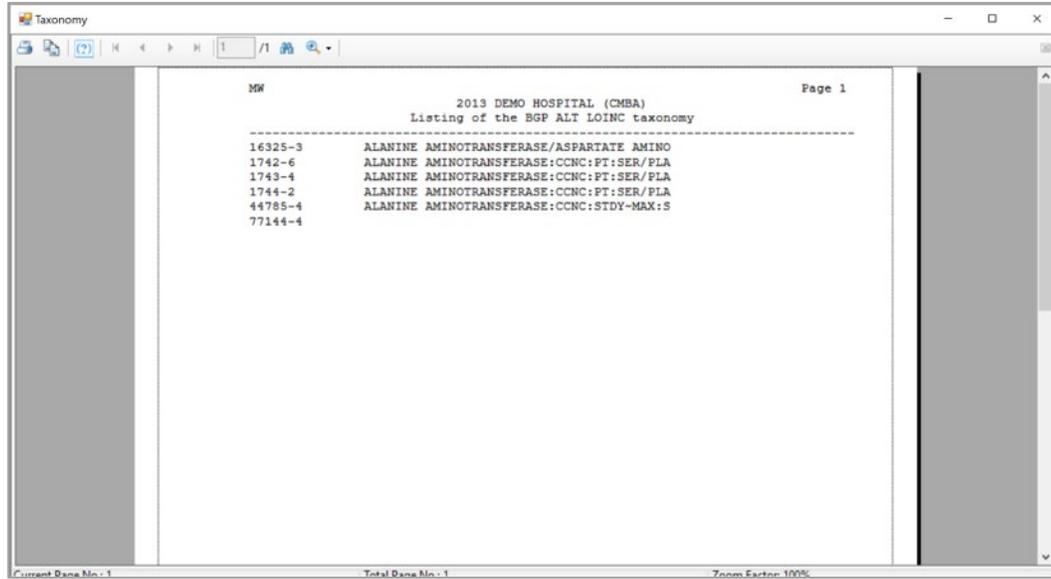
Figure C-47: Taxonomy Listing

3. Click **Close** or the **X** to exit.

C.3.6.5   View a SNOMED List Used by the Diabetes AUDIT

Click the **View a SNOMED List Used by the Diabetes AUDIT**.

1. Select the **Audit Year** and **SNOMED Lists** to print. Click **Print**.
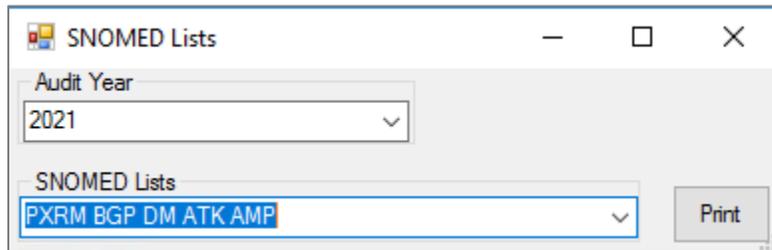
Figure C-48: Audit Year and SNOMED List Selection

2. The SNOMED list displays in Crystal Report, click the **X** to close the display.

Figure C-49: SNOMED List sample

C.3.6.6   Display Audit Logic

1. Click the **Display Audit Logic** menu item.

2. Select the **Audit Year** from the list.

Figure C-50: Display Audit Logic options

3. Select the Logic Item you want to display from the **Logic Items List** and click the right arrow button (>). To display all Logic Items, click the double-right arrow (>>) button. Click **OK**.

4. The result is displayed in Crystal Reports. Click the **X** in the upper right corner to close the display.
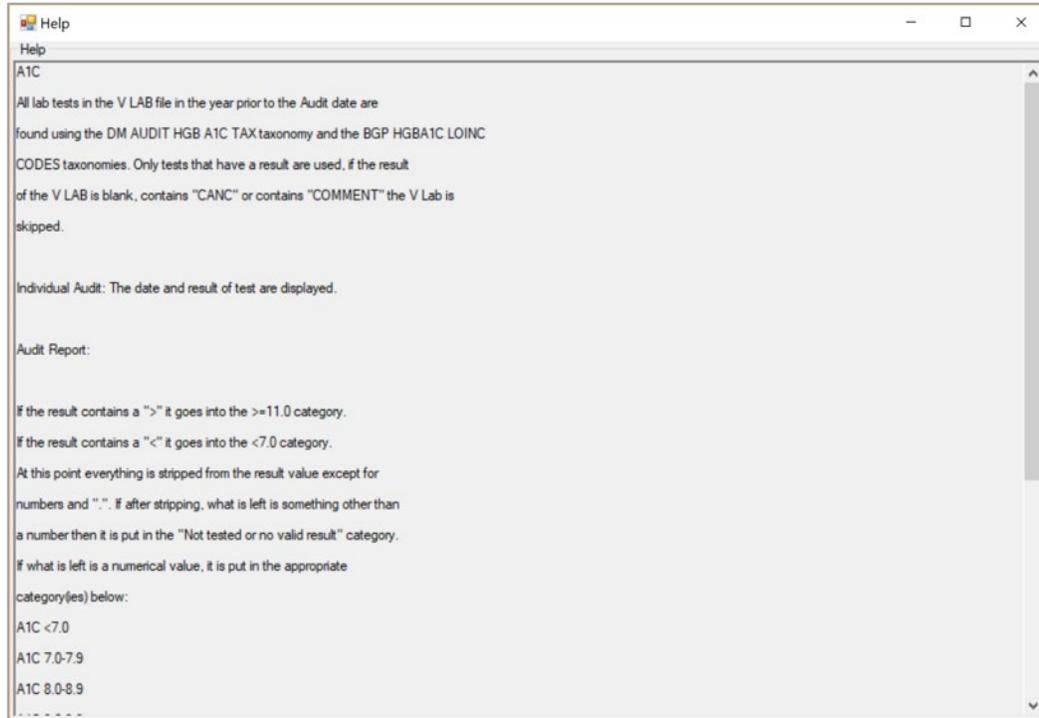
Figure C-51: Display Audit Logic

C.3.6.7   2021 Data Quality Check Report

1. Click the **2021 Data Quality Check Report** menu item to display the **Taxonomy Check**. Before the Audit window opens, a taxonomy check will run, and the results will display on the screen.

2. Close the **Taxonomy Check Result** screen.
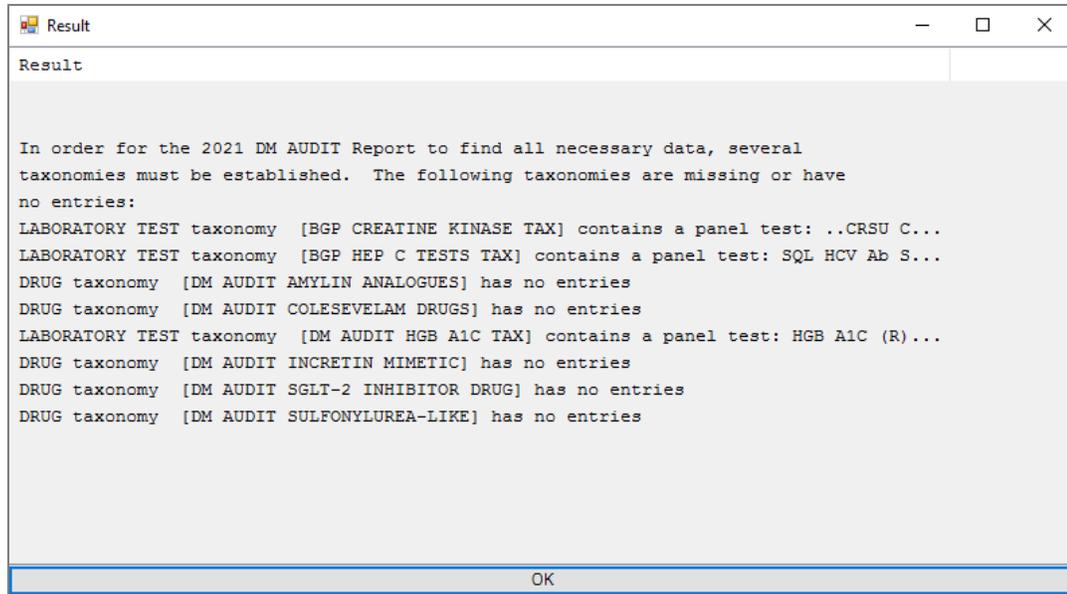
Figure C-52: Taxonomy Check Results

3. The **Data Quality Report** dialog displays.
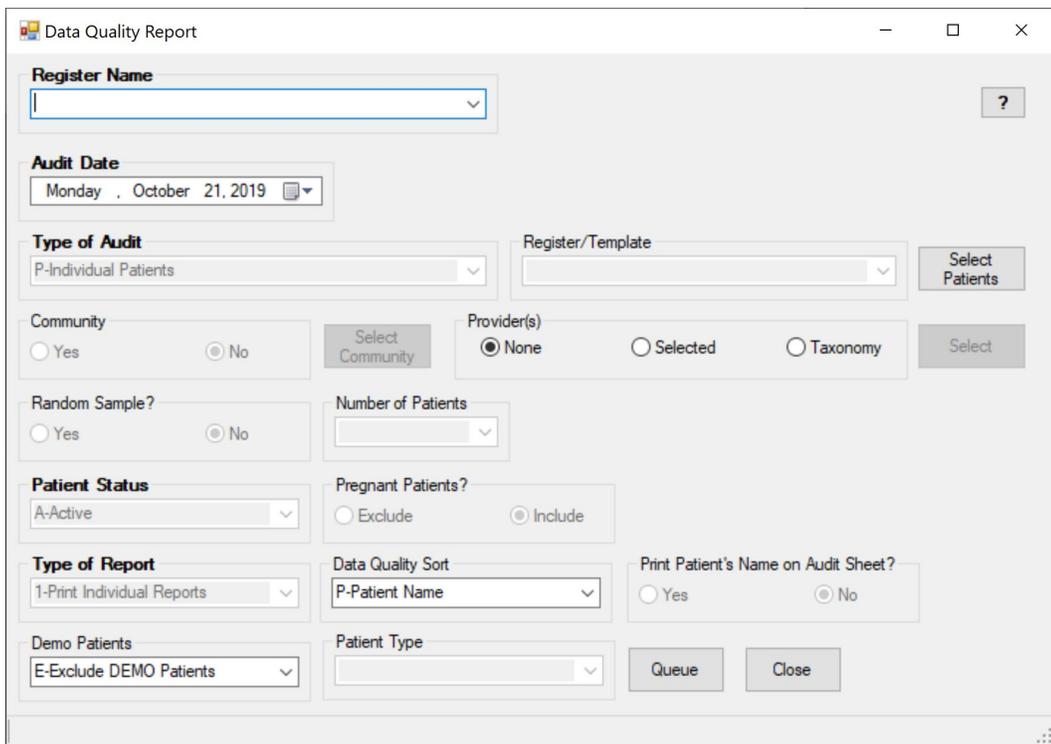
Figure C-53: Data Quality Report options

4. Select a **Register Name** from the box, the **Audit Date** from the calendar, the **Type of Audit**, and any other options. Click **Queue**.

5. The report is queued. Use the **Report Status Toolbar** button from the **Main Menu** to view a list of reports. Click to display the report.

Figure C-54: Data Quality Check Report

C.3.6.8   Prior Years Diabetes Audit Setup (DM17 - DM20)

Click the plus sign (+) next to **Prior Years Diabetes Audit Setup (DM17-DM20)** to open the menu.
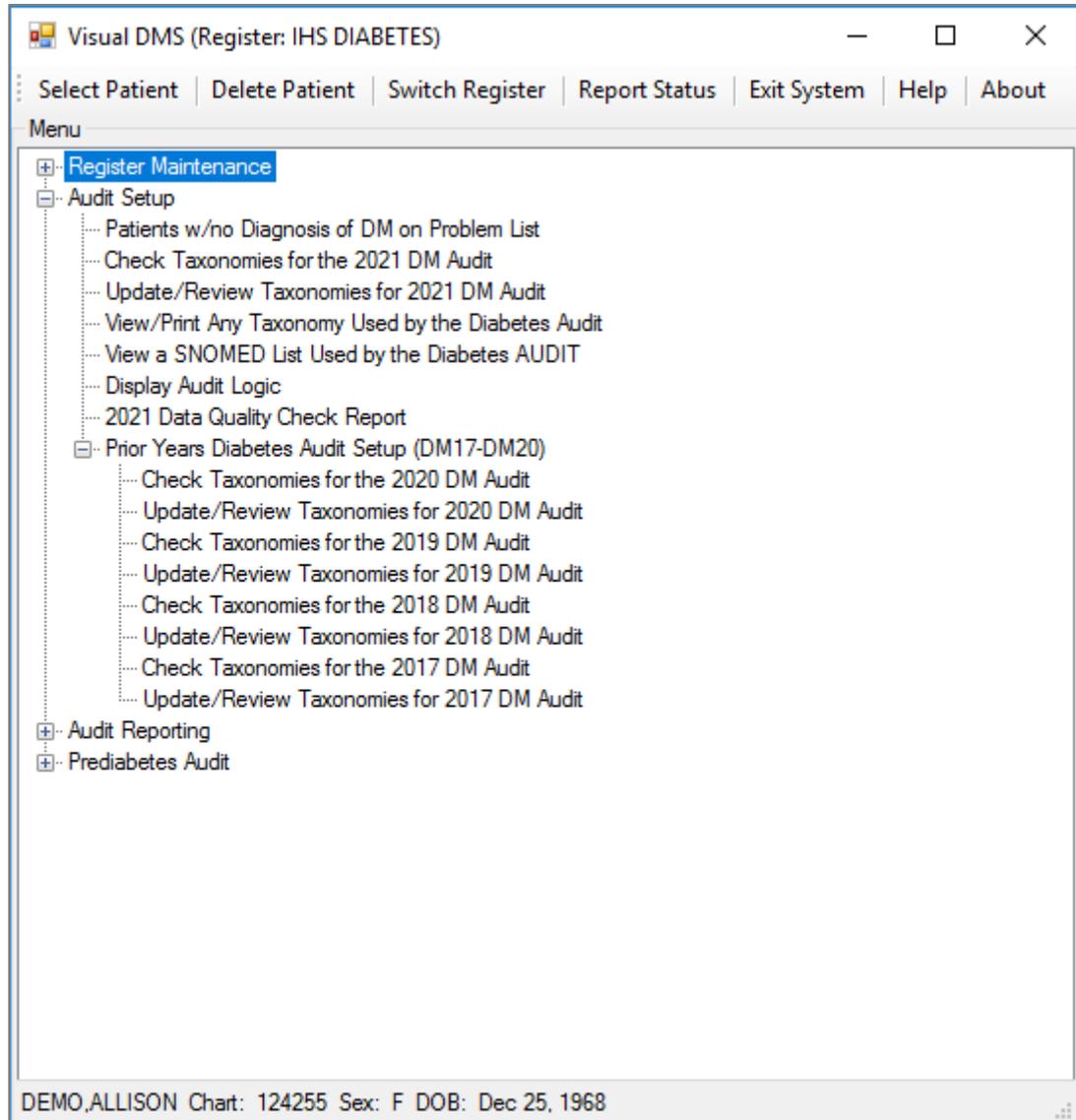
Figure C-55: Prior Years Options

Select any of the menu options. The options work the same as the **Check Taxonomies for the 2021 DM Audit** and **Update/Review Taxonomies for the 2021 DM Audit**.

C.3.7   Audit Reporting

Click the plus sign (+) in front of **Audit Reporting** to open this menu.
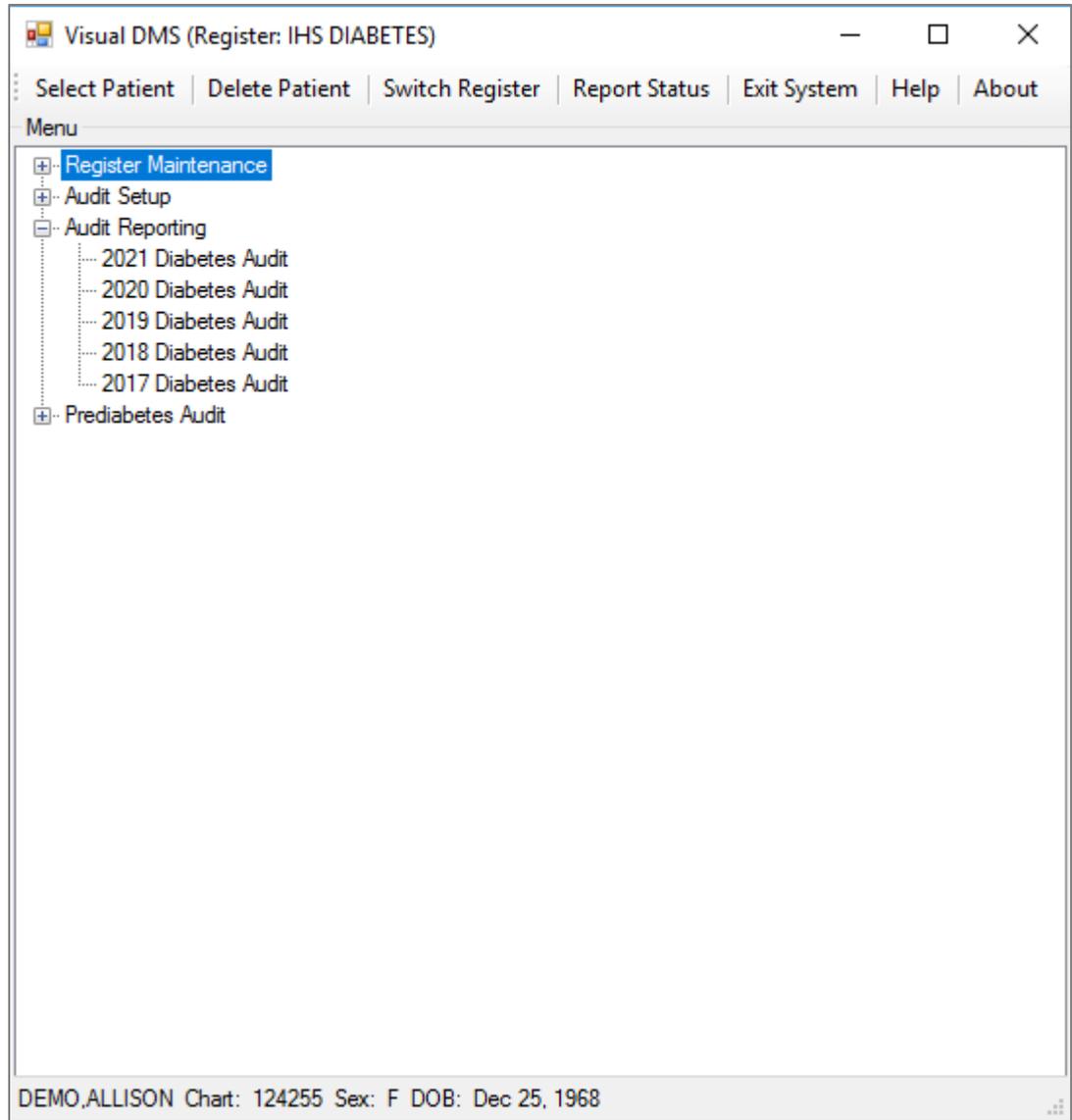
Figure C-56: Audit Reporting options

C.3.7.1   2021 Diabetes Audit

1. Click on the **2021 Diabetes Audit** menu option to run the 2021 Audit. Before the Audit window opens, a taxonomy check will run, and the results will display on the screen.
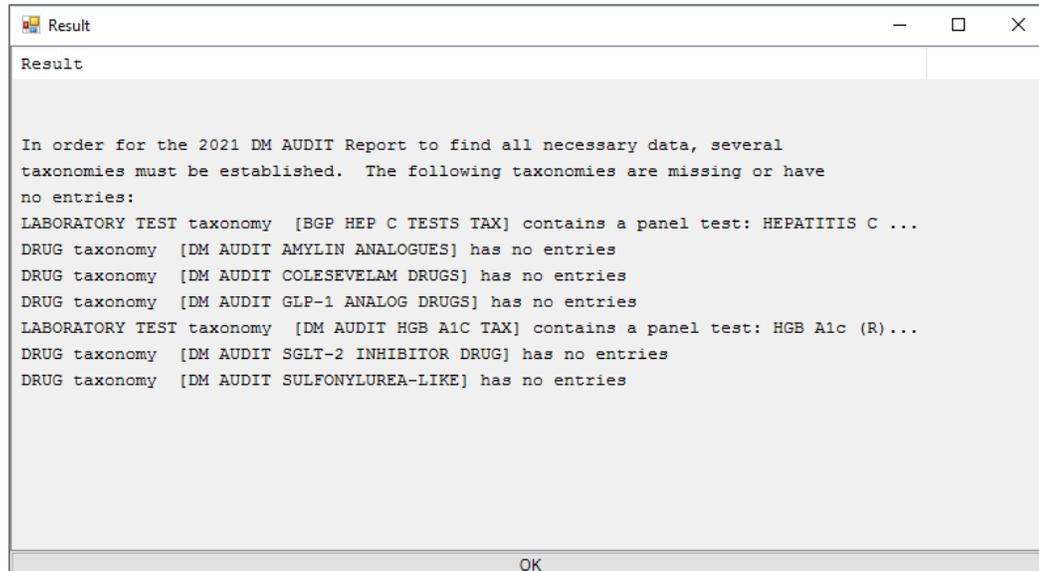
Figure C-57: Taxonomy Check Results

2.　Close the **Taxonomy Check Result** screen.
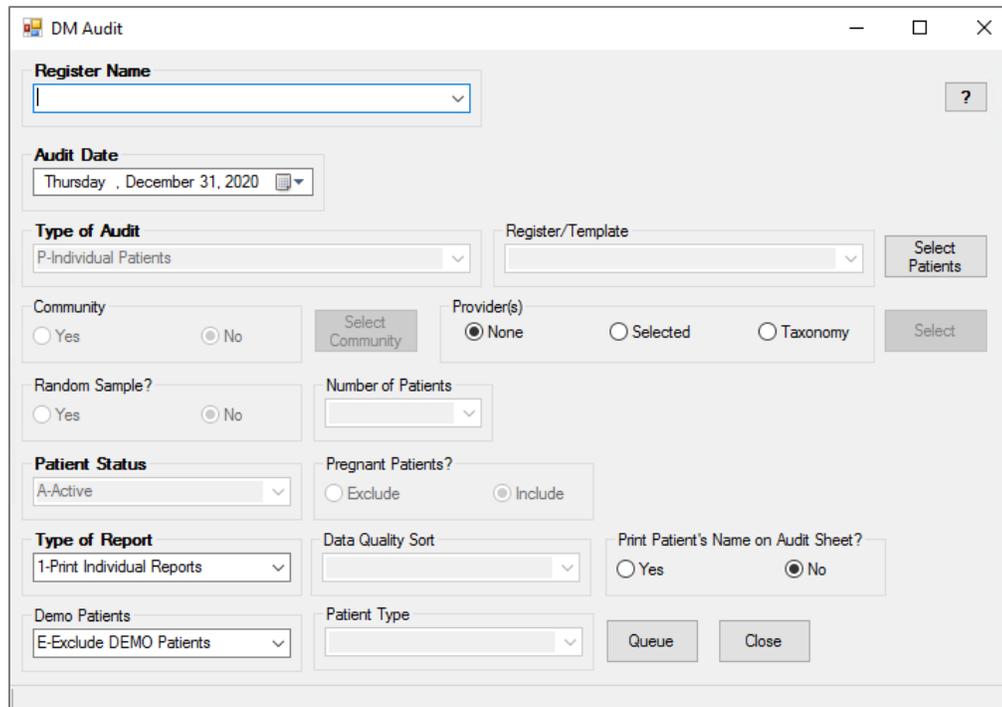
Figure C-58: Diabetes Audit options

3.　Select a **Register Name** from the list of available registers.

4.　Select the **Audit Date** from the calendar. Alternatively, use the up or down arrow keys to select the month, day, or year to change the Audit date.

5. Select the **Type of Audit**:

   P – **Individual Patients**

   S – Search Template of Patients

   C – Members of a CMS Register

   E – E Audit (predefined set of patients)

6. If you choose **Individual Patients**, click on the **Select Patients** button that is highlighted when this selection is made. Enter patients one at a time by chart number, last name, first name, or date of birth on the patient selection screen. If you only enter a last name, the entire list of matching patients may be displayed by clicking on the **Display** button. Click on patients who you wish to include in the Audit. Their names will appear on the **Patients Selected** screen. Repeat the process until all desired patients are identified. Click the **Save** button when the list is complete.

7. If you choose **Search Template of Patients**, select the desired template from the Register/Template list.

8. If you choose **Members of a CMS Register**, select the desired register from the Register/Template list .

9. If you choose **E Audit**, indicate if you want **Only ACTIVE members of the register selected** and select a **Community Taxonomy**.

10. If you wish to run the Audit on patients that live in a particular community, click **Yes** in the **Select Community** box. A window will display where you can type the first few letters in the community name in the **Begin String** box. When the list of communities displays, click on the desired community.

11. If you wish to run the Audit by either a provider, selected providers, or a taxonomy of providers, click on the appropriate button in the **Provider(s)** box. Then click the **Select** button to select providers or the taxonomy you wish to use. A window will open where you can type the first few letters of the primary care provider's last name in the **Begin String** box. When the list of providers displays, click on the desired provider's name, then the right arrow button; repeat if multiple providers are desired. If selecting a **Taxonomy** a list of taxonomies will display.

12. If you chose the run the Audit on **Members of a CMS Register**, you may answer **Yes** or **No** in the **Select a Random Sample?** box. If you select **Yes**, you will be prompted to enter the **Number of Patients**.

13. Use the **Patient Status** box to identify the status of the patients to be included in the Audit.

14. Use the **Pregnant Patients?** box to indicate whether pregnant patients should be included or excluded.

15. Select the **Type of Report** you wish to run:

    1 – **Print Individual Reports**

    2 – Create Audit Export File

    3 – Cumulative Audit Only

    4 – Both Individual and Cumulative Audit

    5 – SDPI RKM Report

16. Choose whether to exclude **Demo Patients**.

17. Select **Patient Type**.

18. When all selections are made for the DM Audit, click the **Queue** button. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper right corner.

19. The report status may be checked by clicking the **Report Status** button on the toolbar.

20. The **Individual** or **Cumulative Audit** may be opened by clicking on the report when it shows a status of complete.

21. It will open in a Crystal Reports document.

22. The report can be printed or browsed. The document may be closed when review is complete by clicking the **X** in the upper right corner.

C.3.7.2   2017 - 2020 Diabetes Audit

This is the same functionality as the 2021 Diabetes Audit. See the *Diabetes Audit User Addendum* for complete instructions.

C.3.8   Prediabetes Audit

Click the plus sign (+) next to the **Prediabetes Audit** menu.
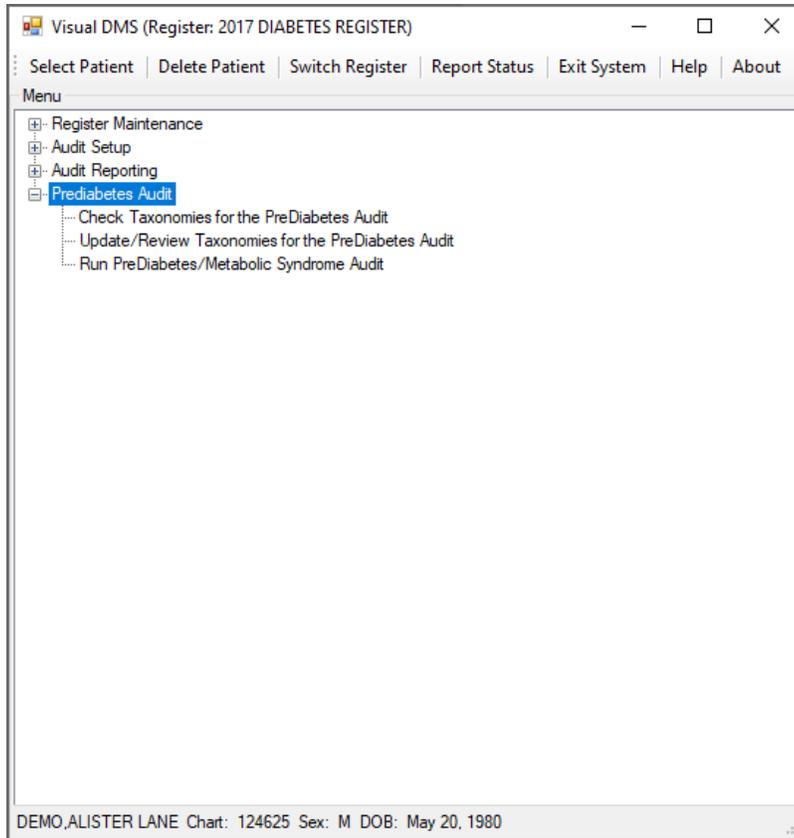
Figure C-59: Prediabetes Audit Options

C.3.8.1   Check Taxonomies for the Prediabetes Audit

Click on the **Check Taxonomies for the Prediabetes Audit** menu option to determine whether any taxonomies have not been populated. The result of the taxonomy check will display in a result box.

Close the box by clicking **X**.
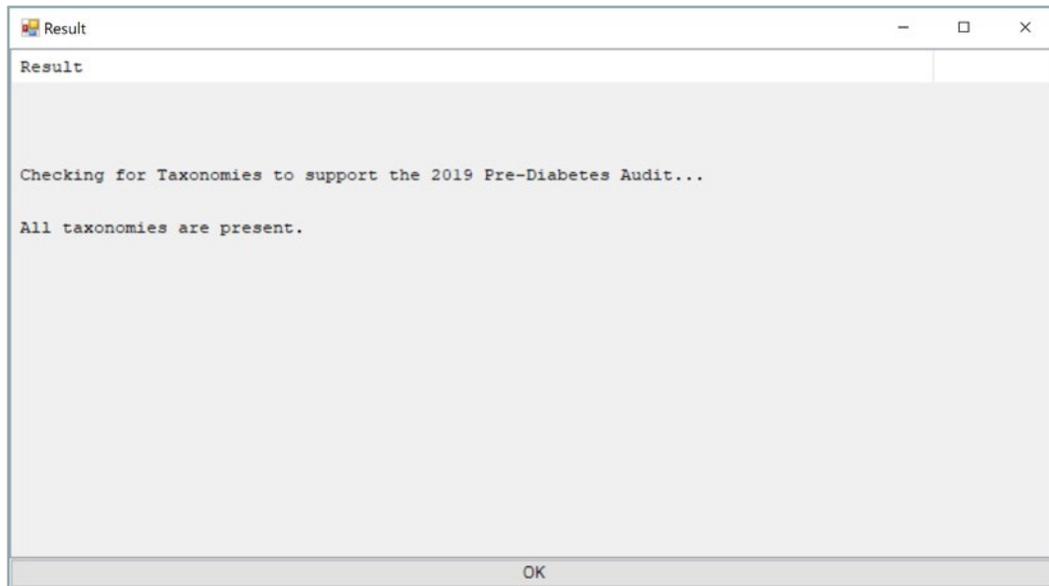
Figure C-60: Taxonomy Check Results

C.3.8.2 Update/Review Taxonomies for the Prediabetes Audit

1. Click the **Update/Review Taxonomies for the Prediabetes Audit** menu option to open the **Update/Review Taxonomies** window.
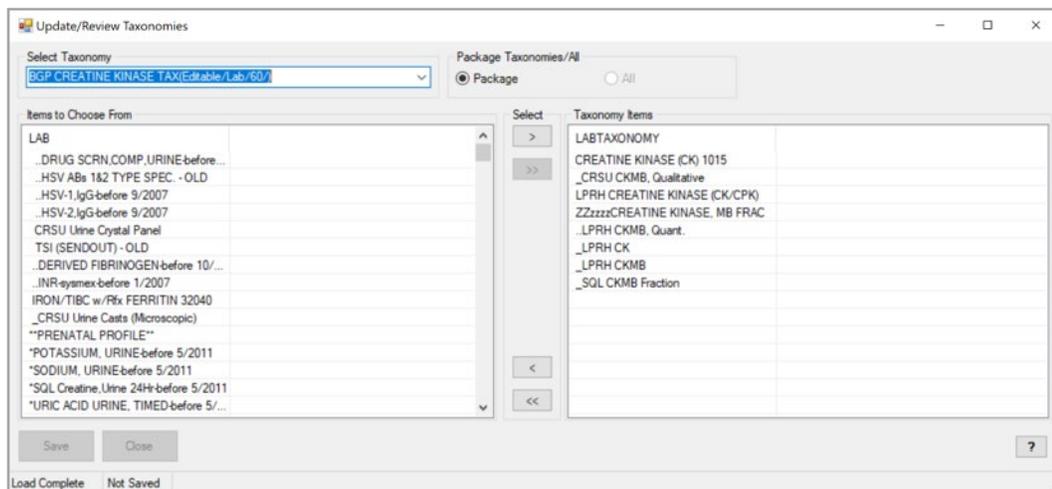

Figure C-61: Update/Review Taxonomies

2. Select the taxonomy to update from the list.

3. Select the items for the taxonomy from the **Items to Choose From** list view and click the right arrow (>) button to move them to the **Taxonomy Items** list view. Click **Save**.

4. To remove items from the taxonomy, select the items in the **Taxonomy Items** list view and click the left arrow (<) button to remove them. Click **Save**.

5. Click **Close** or the **X** in the upper right corner to exit.

C.3.8.3   Run Prediabetes/Metabolic Syndrome Audit

The **Prediabetes/Metabolic Syndrome Audit** may be run if you have identified patients who have any of the conditions associated with an increased risk of developing diabetes and have added those patients to a Prediabetes Register.

1. To begin, click the **Run Prediabetes/Metabolic Syndrome Audit** menu option.

2. Before the Audit window opens, a taxonomy check will be run, and the results displayed on the screen. Close the taxonomy **Result** check screen.
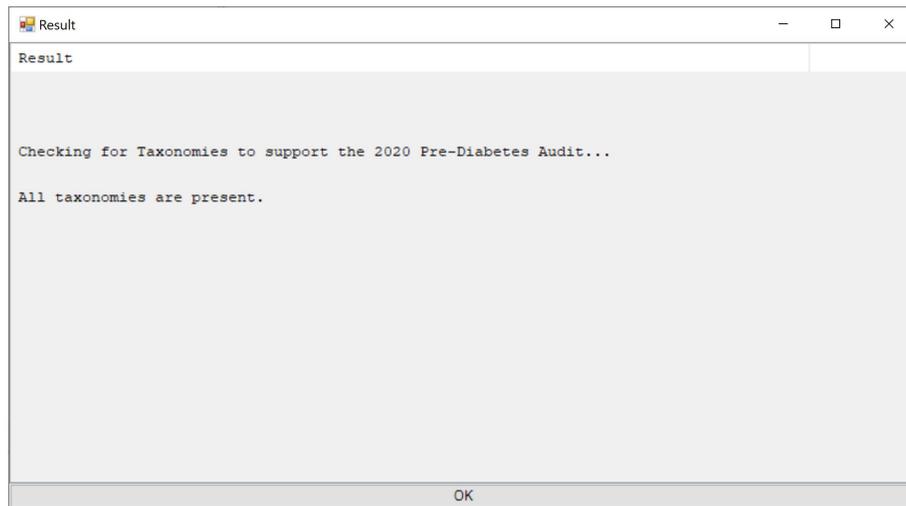

Figure C-62: Taxonomy Check Results

Figure C-63: Prediabetes Audit Options

3. Use the list next to the **Register Name** box to display a list of available registers. Click on the **Register** which is to be audited.

4. Click the arrow to display a browsable calendar and select the **Audit Date**. Alternatively, use the up or down arrow keys to change the month, day, or year of the Audit date.

5. Click the arrow to select the **Type of Audit** as one of the following:

   P – Individual Patients

   S – Search Template of Patients

   C – Members of a CMS Register

6. If you choose Individual Patients, you must select the patients to be included in the Audit by clicking the **Select Patients** button that is highlighted when this selection is made. Enter patients one at a time by chart number, last name, first name, or date of birth on the patient selection screen. If you only enter last name, the entire list of matching patients may be displayed by clicking the **Display** button. Click on patients who you wish to include in the Audit. Their names will display in the **Patients Selected** screen. The process may be repeated until all desired patients have been identified for the Audit. Click the **Save** button when the list is complete.

7. If you choose **Search Template of Patients**, you will see a box to select the search template. Use the arrow next to the box to see the available choices and select the desired search template.

8. If you choose Members of a CMS Register, the selected register will be used.

9. If you choose **E Audit**, you will see a check box asking if you want **Only ACTIVE members of the register selected**, and you will need to select a **Community Taxonomy**.

10. If you wish to run the Audit on patients that live in a particular community, click **Yes** in the **Select a Community** box. A window will display where you can type the first few letters in the community name in the **Begin String** box. When the list of communities displays, click on the desired community.

11. If you wish to run the Audit for a single provider, multiple providers, or a taxonomy of providers, click the **Selected** radio button to select a provider or providers, to select a Taxonomy of providers, click the **Taxonomy** radio button, click the **None** radio button to not run the audit by a provider. Then click the S**elect** button to select providers, or the taxonomy you wish to run the audit with. A window will open where you can type the first few letters of the primary care provider's last name in the **Begin String** box. When the list of providers displays, click on the desired provider's name, then the right arrow button, repeat if multiple providers are desired. If selecting a Taxonomy, a list of taxonomies will display.

12. If you chose the run the audit on **Members of a CMS Register**, you may answer **Yes** or **No** in the **Select a Random Sample** box. If you answer **Yes**, you will be prompted to enter the Number of Patients. Use the arrow to identify the number of patients in the random sample.

13. Use the arrow next to the **Patient Status** box to identify the status of the patients to be included in the audit. Click the desired status in the displayed list.

14. Choose whether to exclude or include pregnant patients.

15. Use the arrow next to the **Type of Report** box to identify what type of report is to be generated. Click on the desired report format.

    1 – Print Individual Reports

    2 – Cumulative Audit Only

    3 – Both Individual and Cumulative Audit

16. Choose whether to exclude DEMO patients.

17. Select **Patient Type**.

18. When all selections have been made for the DM Audit, click the **Queue** button. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper right corner.

19. The report status may be checked by clicking on the **Report Status** button on the toolbar.

20. The **Individual** or **Cumulative Audit** may be opened by clicking on the report when it shows a status of complete.

21. It will open in a Crystal Reports document.

22. The report may be printed or browsed. The document may be closed when the review is complete by clicking the **X** in the upper right corner.

Appendix D 2021 Pre-Diabetes Audit Logic

D.1   Audit Date

This is the date of the Audit, supplied by the user. It is used as the ending date to calculate the time range when looking for values. For example, if the Audit date is September 30, 2005 then data is examined during the year prior to this Audit date (October 1, 2004 to September 30, 2005).

Individual Audit: The Audit date displays (e.g., SEPTEMBER 30, 2005).

Cumulative Audit: N/A

D.2   Reviewer

Initials of the person who ran the Audit.

Individual Audit: The initials display.

Cumulative Audit: N/A

D.3   Facility Name

This is the name of the facility at which the Audit is being run.

Individual Audit: The name of the facility displays.

Cumulative Audit: N/A

D.4   Area

This is the two-digit IHS Area code for this facility, taken from the **Location** table.

Individual Audit: The area code displays (e.g., 10).

Cumulative Audit: N/A

D.5   Service Unit

This is the two-digit IHS Service Unit code for this facility, taken from the **Location** table.

Individual Audit: The service unit code displays (e.g., 10).

Cumulative Audit: N/A

D.6   Facility Code

This is the two-digit facility code for this facility.

Individual Audit: The facility code displays (e.g., 01).

Cumulative Audit: N/A

D.7   # of Patients on Pre-Diabetes Register

This is the number of active patients on the pre-diabetes register. The user is prompted to enter the name of their register.

Individual Audit: The total number of active patients in the register displays.

Cumulative Audit: The total number of active patients in the register displays.

D.8   Tribal Affiliation

The patient's tribe code as entered in Patient Registration.

Individual Audit: Three-digit tribe code and name of tribe display.

Cumulative Audit: N/A

D.9   Community

This is the community in which the patient resides at the time of the Audit.

Individual Audit: State-county-community code and community name display.

Cumulative Audit: N/A

D.10   Chart

Health record number of the patient at the facility at which the Audit is run.

Individual Audit: The chart number displays.

Cumulative Audit: N/A

D.11   DOB

The patient's date of birth.

Individual Audit: The date of birth displays.

Cumulative Audit: The age of the patient is calculated from the Audit date and used in the age tally on the cumulative Audit.

D.12   Gender

Gender of the patient.

Individual Audit: Male or Female

Cumulative Audit: A tally by gender displays on the cumulative Audit.

D.13   Primary Care Provider

The name of the primary care (designated) provider documented in RPMS.

Individual Audit: The name of the primary care provider displays.

Cumulative Audit: N/A

D.14   Classification

Classification is determined in the following manner:

1. Impaired Fasting Glucose

    The system first looks at the problem list for a documented problem with ICD code 790.21 - IMPAIRED FASTING GLUCOSE. If one is found, it will display "Problem List:" with the date of onset, if the date of onset is documented. The system then looks at all of a patient's purpose of visits for code 790.21. If it finds one, it displays the dates of the earliest one found and the latest one found.

2. Impaired Glucose Tolerance

    The system first looks at the problem list for a documented problem with ICD code 790.22 - IMPAIRED GLUCOSE TOLERANCE. If one is found, it will display "Problem List" with the date of onset, if the date of onset is documented.

    The system then looks at all of a patient's purpose of visits for code 790.22. If it finds one, it displays the dates of the earliest one found and the latest one found.

3. Metabolic Syndrome

    The system first looks at the problem list for a documented problem with ICD code 277.7 - DYSMETABOLIC SYNDROME X. If one is found, it will display "Problem List" with the date of onset if the date of onset is documented.

The system then looks at all of a patient's purpose of visits for code 277.7. If it finds one, it displays the dates of the earliest one found and the latest one found.

4. Other Abnormal Glucose

The system first looks at the problem list for a documented problem with ICD code 790.29 - OTHER ABNORMAL GLUCOSE. If one is found, it will display "Problem List" with the date of onset if the date of onset is documented.

The system then looks at all of a patient's purpose of visits for code 790.29. If it finds one, it displays the dates of the earliest one found and the latest one found.

5. CMS Register Diagnoses

The system will display all diagnoses documented in the Pre-Diabetes register for this patient. The date of onset recorded will also display.

In addition, the system searches for a diagnosis of Diabetes on the problem list and in the purpose of visits recorded for the patient. If any are found they are displayed along with the date of the diagnosis.

Sample output on Individual Audit:

```
CLASSIFICATION (all that apply):
 1 IFG – No
 2 IGT – Yes
   Last POV in PCC: 790.22  Date: May 01, 2004
   First POV in PCC: 790.22  Date: Mar 17, 2004
 3 METABOLIC SYNDROME – No
 OTHER ABNORMAL GLUCOSE (790.29) – No
 CMS Register DX: May 01, 2004 IMPAIRED GLUCOSE TOLERANCE
 PLEASE NOTE:  Diabetes is on the Problem list for this patient
 PLEASE NOTE:  Diabetes has been used as a diagnosis in PCC: Apr 02, 2005
```

Figure D-1: Individual Audit Output

D.15   Height

The last recorded height value and the date the height was taken.

Individual Audit: The height must have been recorded any time prior to the Audit date and displays with the date the height was recorded.

Cumulative Audit: N/A

D.16   Weight

The last three recorded weight values on a non-prenatal visit and the date the weight was recorded.

Individual Audit: The weight must have been recorded prior to the audit date and not be on a visit on which one of the diagnoses was prenatal care.

Cumulative Audit: N/A (See BMI)

D.17 Waist Circumference

The last recorded Waist Circumference measurement on or before the audit date displays with the date recorded.

Individual Audit: The waist circumference value and date recorded are displayed.

Cumulative Audit: N/A

D.18 Last 3 BPs

The last three recorded blood pressure (BP) values and dates. BPs taken in the ER (ER Clinic) are skipped.

Individual Audit: The last three BPs in the year prior to the audit date that were taken on non-ER clinic visits are displayed.

Cumulative Audit: If the patient has three documented BPs they are used to determine blood pressure control in the cumulative audit.

D.19 Hypertension Documented

Is a diagnosis of hypertension documented? If hypertension is on the problem list or the patient has at least three visits with a diagnosis of hypertension.

Individual Audit: A Yes or No displays.

Cumulative Audit: Used in the ACE Inhibitor tally.

D.20 Diet Instruction

Has diet instruction been given?

The values in the audit are:

- 1 RD
- 2 Other
- 3 Both RD & Other
- 4 None
- 5 Refused

Logic:

All visits in the year prior to the audit date are examined.

If there is a visit on which a Dietician or Nutritionist is the provider and no other visit with a diet patient education topic documented, a value of 1 - RD is assigned. No further processing is done.

If there is a visit for which a Dietician or Nutritionist is the provider and another visit for which a patient education topic in the DM AUDIT DIET EDUC TOPICS taxonomy, a topic ending in "-N" or a topic ending in "-DT" is documented and the provider is not a dietician or nutritionist then the value is 3 - Both RD & OTHER. No further processing is done.

If there is a visit for which a patient education topic in the DM AUDIT DIET EDUC TOPICS taxonomy, a topic ending in "-N" or a topic ending in "-DT" is documented and no visit to a DIETICIAN or NUTRITIONIST then a 2 -Other is assigned. No further processing is done.

If a refusal of one of these education topics is documented, the value is 5 – Refused.

If none of the above is documented, the value is 4 – None.

Individual Audit: The value calculated as described above displays.

Cumulative Audit: Percentages are calculated of who had diet instruction includes values 1–3. The percentage of the patients who refused also displays.

D.21   Exercise Instruction

Has exercise instruction been given?

The values in the audit are:

1   Yes   2   No   3 Refused

Logic:

All visits in the year prior to the audit date are examined.

If there is a visit on which a patient education topic in the DM AUDIT EXERCISE EDUC TOPICS taxonomy, or any topic ending in "-EX" is documented then a 1 - Yes. No further processing is done.

All visits in the year prior to the audit date are examined for a POV of V65.41, and if one is found, 1 - Yes displays.

If a refusal of one of these education topics is documented the value is 3 – Refused.

If neither of the above is documented, the value is 2 – None.

Individual Audit: The value calculated as described above is displayed.

Cumulative Audit: Percentages are calculated of who had exercise instruction includes value of 1. The percentage of the patients who refused is also displayed.

D.22   Tobacco Use

Tobacco-use status of the patient. The tobacco use is determined in the following way:

1. The last TOBACCO health factor recorded on or before the audit date is found. This is done using the DM AUDIT TOBACCO HLTH FACTORS taxonomy. If the health factor contains "CURRENT" or "CESS," the patient is assumed to be a current user and a value of 1 - Current user is assumed, if any of the other TOBACCO health factors are recorded then a value of 2 - Not a current user is used.

2. If no health factor has been recorded, the PCC problem list is scanned for smoking related diagnoses. If the diagnosis recorded is 305.13 - Tobacco Use in Remission then the patient is assumed to be 2- Not a current user. All other diagnoses fall into 1 - Current User.

3. If no health factor and no smoking diagnosis is found on the problem list, all PCC purpose of visits in the year prior to the audit date are scanned. If any of the diagnoses is a smoking related diagnosis the same logic used in the problem list is used.

4. The V Dental file is searched for documentation of ADA code 1320 in the year prior to the audit date. If it is found the value 1 - Current User is assigned.

5. If none of the above is found, a 3 - Not documented is used.

Individual Audit: The logic described above is used to display one of the following three statements:

- 1   Current User
- 2   Not a current user
- 3   Not Documented

Cumulative Audit: The logic above is used to tally tobacco use.

D.23   Referred for Cessation Counseling

Did the patient have cessation counseling?

Logic used:

1. A documented health factor that resides in the DM AUDIT CESSATION HLTH FACTOR taxonomy is searched for in the year prior to the audit date. If one is found, the value is YES.

2. A documented Patient Education topic that resides in the DM AUDIT SMOKING CESS EDUC taxonomy is searched for in the year prior to the audit date. If one is found, a Yes is assumed.

3. A documented refusal of cessation patient education is searched for in the year prior to the date of the audit. If one is found, then REFUSED is used as the value.

Individual Audit:

- If a health factor is found a YES and the date it was recorded is displayed.

- If an education topic is found a YES and the date if was recorded is displayed.

- If a refusal is found, the word Refused is displayed.

- If none of the above, a No is displayed.

Cumulative Audit:

If the patient is documented as a tobacco user (value of 1 in tobacco use) the number counseled (YES value), the number not counseled (NO or REFUSED value) are tallied in the cumulative audit. (There is not a separate tally of refused in the official 2001 audit).

D.24   DM Therapy

All Visits in the 6 months prior to the audit date are reviewed. If any medication in the taxonomy specified is found, then an 'X' is placed by the therapy name. If no medications are found, then all documented medication refusals in the past year are reviewed to see if any med within any of the below listed taxonomies was refused. If it was an X, it is placed beside item 9 - Unknown/Refused. If no medications or refusals are found, then the Diet & Exercise Alone item is marked with an 'X'.

We are unable to calculate the Unknown/Refused group.

Table D-2: Therapy and Taxonomy Name

Therapy	Taxonomy Name
Sulfonylurea	DM AUDIT SULFONYLUREA DRUGS
Metformin	DM AUDIT METFORMIN DRUGS
Acarbose	DM AUDIT ACARBOSE DRUGS
Glitazones	DM AUDIT TROGLITAZONE DRUGS

Individual Audit:

Each therapy found will display with an X next to it. If a refusal is found the Unknown/Refused column will have an X next to it. If none are found, then the X is placed beside Unknown/Refused.

Cumulative Audit:

The patient is put in the appropriate category depending on what therapies are found:

- **Metformin**: If metformin is found.

- **Acarbose**: If Acarbose is found.

- **Glitazone**: If glitizones found.

- **Sulfonylurea**: If sulfonylurea is found.

- **Unknown/Refused**: If no meds are found or a refusal is found.

D.25   ACE Inhibitor

If any drug in the DM AUDIT ACE INHIBITORS taxonomy has been prescribed in the 6 months prior to the audit date, a Yes is displayed. If any of the drugs in the DM AUDIT ACE INHIBITORS taxonomy is documented as refused, then it is counted as "Refused." A not medically indicated documentation is considered a No.

If none of the above criteria is met, a **No** displays.

Individual Audit: A **Yes**, **No**, or **Refused** displays.

Cumulative Audit: Used in the calculation of those with hypertension and those with proteinuria.

D.26   Aspirin/Anti-Platelet Therapy

If any drug in the DM AUDIT ASPIRIN DRUGS taxonomy has been prescribed in the year prior to the audit date, the term "Aspirin" is displayed. If a drug in the DM AUDIT ANTI-PLATELET DRUGS taxonomy is prescribed, the term "Other" is displayed. If both are prescribed the term "Both" is displayed. If a refusal is on file the term "Refused" is displayed.

Otherwise, a No is displayed.

Cumulative Audit:

Used in the calculation of those Daily Aspirin Therapy totals. Only the Yes and No are calculated. We cannot calculate the 'Undetermined' category.

D.27   Lipid Lowering Agent

If any drug in the DM AUDIT LIPID LOWERING DRUGS or DM AUDIT STATIN DRUGS taxonomy has been prescribed in the 6 MONTHS prior to the audit date the following values will display:

- 1 – Statin

- 2 – Other

- 3 – Both

If a refusal of any drug within the above-mentioned taxonomies is documented the value 5- Refused is displayed, Otherwise, a No is displayed.

Cumulative Audit:

Used in the calculation of those with TOTAL CHOLESTEROL >=240 (if total cholesterol is documented and result can be determined.) Used in the calculation of those with LDL cholesterol > 100 (if LDL is documented and LDL value can be determined).

D.28   EKG

The date of the last EKG before the audit date. EKG is searched for the following ways:

ECG Summary in the V DIAGNOSTIC PROCEDURE file. (This is populated by the EKG mnemonic in data entry).

ICD OPERATION/PROCEDURE codes 89.51, 89.52 or 89.53

CPT Codes: 93000-93024, 93040-93042, 93224-93237, 93268-93268, 93270-93272, 93278-93278

Individual Audit: The date of last EKG is displayed.

Cumulative Audit: The date is used to determine % performed in past 3 years, past 5 years and ever.

D.29   Fasting Glucose

The last Fasting Glucose test in the V LAB file are found. The taxonomy used to find these tests is the DM AUDIT FASTING GLUCOSE TESTS lab taxonomy. If no test in that taxonomy is found, then the V LAB file is searched for a LOINC code in the DM AUDIT FASTING GLUC LOINC code taxonomy.

Individual Audit: The date and result of the test is displayed. If there is no result, the result will be blank, but the date will display.

Cumulative Audit: A tally of those with a fasting glucose test and those without will display.

D.30   75 GM 2 Hour Glucose

The last lab test in the year prior to the audit date that is a member of the DM AUDIT 75GM 2HR GLUCOSE taxonomy is found in V LAB. If no test in that taxonomy is found, then the V LAB file is searched for a LOINC code in the DM AUDIT 75GM 2HR LOINC code taxonomy.

Individual Audit: The date of the test and the result are displayed.

Cumulative Audit: A tally of those who had the test done and those who did not is displayed.

D.31   Total Cholesterol

The last lab test in the year prior to the audit date that is a member of the DM AUDIT TOTAL CHOLESTEROL TAX taxonomy is found in V LAB. If no test in that taxonomy is found, then the V LAB file is searched for a LOINC code in the BGP CHOLESTEROL LOINC code taxonomy.

Individual Audit: The date and result of the test is displayed. If there is no result, the result will be blank, but the date will display.

Cumulative Audit: The result of the test is examined and is put into the following categories. If the result is blank OR the 1st digit of the result is not a number then it is put in the Unable to determine result category since we cannot interpret the result. For example, if the value is "cancelled," it will fall into unable to determine.

- Desirable (<200 mg/dl)

- Borderline (200-239 mg/dl)

- High (240 mg/dl or more)

- Unable to determine result

- Not tested

D.32   HDL Cholesterol

The last lab test in the year prior to the audit date that is a member of the DM AUDIT HDL CHOLESTEROL TAX taxonomy is found in V LAB. If no test in that taxonomy is found, then the V LAB file is searched for a LOINC code in the BGP HDL LOINC codes taxonomy.

Individual Audit: The date and result of the test is displayed. If there is no result, the result will be blank, but the date will display.

Cumulative Audit: The result of the test is examined and is put into the following categories. If the result is blank OR the 1st digit of the result is not a number then it is put in the Unable to determine result category since we cannot interpret the result. For example, if the value is "cancelled", it will fall into unable to determine.

- HDL <35 mg/dl

- HDL 35-45 mg/dl

- HDL 46-55 mg/dl

- HDL >55

- Unable to determine result

- Not tested

D.33   LDL Cholesterol

The last lab test in the year prior to the audit date that is a member of the DM AUDIT LDL CHOLESTEROL TAX taxonomy is found in V LAB. If no test in that taxonomy is found, then the V LAB file is searched for a LOINC code in the BGP LDL LOINC codes taxonomy.

Individual Audit: The date and result of the test is displayed. If there is no result, the result will be blank, but the date will display.

Cumulative Audit: The result of the test is examined and is put into the following categories. If the result is blank OR the 1st digit of the result is not a number then it is put in the Unable to determine result category since we cannot interpret the result. For example, if the value is "cancelled," it will fall into unable to determine.

- LDL <100 mg/dl

- LDL 100-129 mg/dl

- LDL 130-160 mg/dl

- LDL >160

- Unable to determine result

- Not tested

D.34   Triglycerides

The last lab test in the year prior to the audit date that is a member of the DM AUDIT TRIGLYCERIDES TAX taxonomy is found in V LAB. If no test in that taxonomy is found, then the V LAB file is searched for a LOINC code in the BGP TRIGLYCERIDE LOINC codes taxonomy.

Individual Audit: The date and result of the test is displayed. If there is no result, the result will be blank, but the date will display.

Cumulative Audit: The result of the test is examined and is put into the following categories. If the result is blank OR the 1st digit of the result is not a number then it is put in the Unable to determine result category since we cannot interpret the result. For example, if the value is "cancelled", it will fall into unable to determine.

- TG <150 mg/dl

- TG 150-199 mg/dl

- TG 200-400 mg/dl

- TG >400 mg/dl

- Unable to determine result

- Not tested

Appendix E   Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is ***FOR OFFICIAL USE ONLY***. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (ROB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general ROB for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).

- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS website: https://home.ihs.gov/security/index.cfm.

> **Note**: Users must be logged on to the IHS D1 Intranet to access these documents.

The ROB listed in the following sections are specific to RPMS.

E.1   All RPMS Users

In addition to these rules, each application may include additional ROBs that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

E.1.1   Access

RPMS users shall

- Only use data for which you have been granted authorization.

- Only give information to personnel who have access authority and have a need to know.

- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or nonpublic agency information.

- Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not

- Retrieve information for someone who does not have authority to access the information.

- Access, research, or change any user account, file, directory, table, or record not required to perform their *official* duties.

- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.

- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their jobs or by divulging information to anyone not authorized to know that information.

E.1.2   Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the functions they perform, such as system administrator or application administrator.

- Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

E.1.3   Accountability

RPMS users shall

- Behave in an ethical, technically proficient, informed, and trustworthy manner.

- Log out of the system whenever they leave the vicinity of their personal computers (PCs).

- Be alert to threats and vulnerabilities in the security of the system.

- Report all security incidents to their local Information System Security Officer (ISSO).

- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.

- Protect all sensitive data entrusted to them as part of their government employment.

- Abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and information technology (IT) information processes.

E.1.4   Confidentiality

RPMS users shall

- Be aware of the sensitivity of electronic and hard copy information and protect it accordingly.

- Store hard copy reports/storage media containing confidential information in a locked room or cabinet.

- Erase sensitive data on storage media prior to reusing or disposing of the media.

- Protect all RPMS terminals from public viewing at all times.

- Abide by all Health Insurance Portability and Accountability Act (HIPAA) regulations to ensure patient confidentiality.

RPMS users shall not

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.

- Store sensitive files on a portable device or media without encrypting.

E.1.5   Integrity

RPMS users shall

- Protect their systems against viruses and similar malicious programs.

- Observe all software license agreements.

- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.

- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not

- Violate federal copyright laws.

- Install or use unauthorized software within the system libraries or folders.

- Use freeware, shareware, or public domain software on/with the system without their manager's written permission and without scanning it for viruses first.

E.1.6   System Logon

RPMS users shall

- Have a unique User Identification/Account name and password.

- Be granted access based on authenticating the account name and password entered.

- Be locked out of an account after five successive failed login attempts within a specified time period (e.g., one hour).

E.1.7   Passwords

RPMS users shall

- Change passwords a minimum of every 90 days.

- Create passwords with a minimum of eight characters.

- If the system allows, use a combination of alpha-numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.

- Change vendor-supplied passwords immediately.

- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts or batch files).

- Change passwords immediately if password has been seen, guessed, or otherwise compromised, and report the compromise or suspected compromise to their ISSO.

- Keep user identifications (IDs) and passwords confidential.

RPMS users shall not

- Use common words found in any dictionary as a password.

- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).

- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.

- Reuse passwords. A new password must contain no more than five characters per eight characters from the previous password.

- Post passwords.

- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.

- Give a password out over the phone.

E.1.8   Backups

RPMS users shall

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.

- Make backups of systems and files on a regular, defined basis.

- If possible, store backups away from the system in a secure environment.

E.1.9   Reporting

RPMS users shall

- Contact and inform their ISSO that they have identified an IT security incident and begin the reporting process by providing an IT Incident Reporting Form regarding this incident.

- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not

- Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

E.1.10   Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall

- Utilize a screen saver with password protection set to suspend operations at no greater than 10 minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on the screen after some period of inactivity.

Hardware

RPMS users shall

- Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).

- Keep an inventory of all system equipment.

- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not

- Eat or drink near system equipment.

E.1.11   Awareness

RPMS users shall

- Participate in organization-wide security training as required.

- Read and adhere to security information pertaining to system hardware and software.

- Take the annual information security awareness.

- Read all applicable RPMS manuals for the applications used in their jobs.

E.1.12   Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that

- Are in writing.

- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.

- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.

- Ensure adequate storage of files, removal, and nonrecovery of temporary files created in processing sensitive data, virus protection, and intrusion detection, and provide physical security for government equipment and sensitive data.

- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall

- Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not

- Disable any encryption established for network, internet, and Web browser communications.

E.2   RPMS Developers

RPMS developers shall

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.

- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.

- Only access information or code within the namespaces for which they have been assigned as part of their duties.

- Remember that all RPMS code is the property of the U.S. Government, not the developer.

- Not access live production systems without obtaining appropriate written access and shall only retain that access for the shortest period possible to accomplish the task that requires the access.

- Observe separation of duties policies and procedures to the fullest extent possible.

- Document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change, and reason for the change.

- Use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.

- Follow industry best standards for systems they are assigned to develop or maintain and abide by all Department and Agency policies and procedures.

- Document and implement security processes whenever available.

RPMS developers shall not

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.

- Grant any user or system administrator access to RPMS unless proper documentation is provided.

- Release any sensitive agency or patient information.

E.3   Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators, have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.

- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.

- Advise the system owner on matters concerning information technology security.

- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.

- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.

- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need-to-know basis.

- Verify that users have received appropriate security training before allowing access to RPMS.

- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.

- Document and investigate known or suspected security incidents or violations and report them to the ISSO, Chief Information Security Officer (CISO), and systems owner.

- Protect the supervisor, superuser, or system administrator passwords.

- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).

- Watch for unscheduled, unusual, and unauthorized programs.

- Help train system users on the appropriate use and security of the system.

- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.

- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.

- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords and delete or reassign related active and backup files.

- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.

- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.

- Shall follow industry best standards for systems they are assigned to and abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties

- Grant any user or system administrator access to RPMS unless proper documentation is provided.

- Release any sensitive agency or patient information.

Glossary

Amputation

To cut a limb from the body.[i]

Caret (^)

A caret, also known as a circumflex, up-hat, or hat, is used as a piece delimiter in a global. The caret is denoted as "^" and typed by pressing **Shift-6** on the keyboard.

CRS

Clinical Reporting System: A RPMS program for running standard reports for facility or service unit performance on GPRA indicators.

CVA

Short for Cerebrovascular accident, also known as a stroke.

Default Response

A suggested response that can be activated simply by pressing the Return key. For example: "Do you really want to quit? No//." Pressing the Return key tells the system you do not want to quit. "No//" is considered the default response.

Device

The name of the printer you want the system to use when printing information. Home means the computer screen.

Diabetes

Referring to Diabetes Mellitus, a variable disorder of carbohydrate metabolism caused by a combination of hereditary and environmental factors and usually characterized by inadequate secretion or utilization of insulin, by excessive urine production, by excessive amounts of sugar in the blood and urine, and by thirst, hunger, and loss of weight.

Discharge

To release a patient from care

DOB

Date of Birth

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[i] Merriam Webster Medical Dictionary, www.intelihealth.com

DOS

Date of Service

Enter Key

Used interchangeably with the Return key. Press Enter to show the end of an entry such as a number or a word. Press Enter each time you respond to a computer prompt. If you want to return to the previous screen, press Enter without entering a response. This will return you to the previous menu screen. The Enter key on some keyboards is shown as the Return Key. Whenever you see [ENT] or the Enter key, press the Enter or Return key.

Export

To format data so it can be used by another application.

Fields

Fields are a collection of related information that comprises a record. Fields on a display screen function like blanks on a form. For each field, you will find a prompt requesting specific types of data. There are nine basic field types in RPMS programs, and each collects a specific type of information.

File

A set of related records or entries treated as a single unit.

FileMan

The database management system for RPMS.

Free Text Field

This field type will accept numbers, letter, and most of the symbols on the keyboard. There may be restrictions on the number of characters you are allowed to enter.

Full Screen Editor

A word processing system used by RPMS. In many ways, the Full Screen Text Editor works just like a traditional word processor. The lines wrap automatically, the up, down, right, and left arrows move the cursor around the screen, and a combination of uppercase and lowercase letters can be used.

Global

In MUMPS, global refers to a variable stored on disk (global variable) or the array to which the global variable may belong (global array).

GPRA Indicators

The Government Performance and Results Act (GPRA) requires Federal agencies to report annually on how the agency measured up against the performance targets set in its annual Plan. IHS GPRA indicators include measures for clinical prevention and treatment, quality of care, infrastructure, and administrative efficiency functions.

Hypertension

High arterial blood pressure.

I/T/U

Abbreviation referring to all IHS direct, tribal, and urban facilities. Using the abbreviation, I/T/U generally means that all components of the Indian health care system are being referred to.

ICD Codes

One of several code sets used by the healthcare industry to standardize data. The International Classification of Disease is an international diagnostic coding scheme. In addition to diseases, ICD also includes several families of terms for medical-specialty diagnoses, health status, disablements, procedure and reasons for contact with healthcare providers. IHS currently uses ICD-9 for coding.

Imminent

Almost or ready to occur.

Interfaces

A boundary where two systems can communicate.

Kernel

The set of MUMPS software utilities that function as an intermediary between the host operating system and application packages, such as Laboratory and Pharmacy. The Kernel provides a standard and consistent user and programmer interface between application packages and the underlying MUMPS implementation. These utilities provide the foundation for RPMS.

Line Editor

A word-processing editor that allows to you edit text line by line.

Logic

The detailed definition, including specific RPMS fields and codes, of how the software defines a denominator or numerator.

MailMan

>Short for Mail Manager, MailMan is a VA-based utility that facilitates messaging for a number of RPMS packages.

Mandatory

>Required. A mandatory field is a field that must be completed before the system will allow you to continue.

Menu

>A list of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection. When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).

Microalbuminuria

>Albuminuria characterized by a relatively low rate of urinary excretion of albumin typically between 30 and 300 milligrams per 24-hour period[ii]

Myocardial Infarction

>Also known as a MI or heart attack; infarction of the myocardium that results typically from coronary occlusion, that may be marked by sudden chest pain, shortness of breath, nausea, and loss of consciousness, and that sometimes results in death.[iii]

Mnemonic

>A short cut or code that is designated to access a particular menu option, data entry option, name, or facility.

Namespace

>A unique set of two to four alpha characters that are assigned by the database administrator to a software application.

Narrative Description

>A detailed description given using words rather than codes.

[ii] Ibid.

[iii] Ibid.

Option

> An entry in the Option file. As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by TaskMan.

Outpatient Treatment

> Treatment that occurs within a medical facility that does not involve an overnight stay.

Prompt

> A field displayed onscreen indicating that the system is waiting for input. Once the computer displays a prompt, it waits for you to enter some specific information.

Provider

> One who provides direct medical care to a patient (i.e., physician, nurse, physician's assistant).

Provider Codes

> Codes that are assigned at the time a provider is added as a new user to RPMS and denotes the provider's discipline.

QMan

> Short for Query Manager

Queuing

> Requesting that a job be processed at a later time rather than within the current session.

Return key

> Press the Return key to indicate the end of an entry such as a number or a word. Press the Return key each time you respond to a computer prompt. If you want to return to the previous screen, press the Return key without entering a response. This will take you back to the previous menu screen. The Return key on some keyboards is shown as the Enter Key. Whenever you see [RET] or the Return key, press the Return or Enter Key.

Retinopathy

> Any of various noninflammatory disorders of the retina including some that cause blindness.

Routine

A program or sequence of instructions called by a program that may have some general or frequent use. MUMPS routines are groups of program lines that are saved, loaded, and called as a single unit via a specific name.

RPMS

Resource and Patient Management System; a suite of software packages used by IHS.

Select

To choose one option from a list of options.

Site Manager

The person in charge of setting up and maintaining the RPMS System at the facility or area level.

Submenu

A menu that is accessed through another menu.

Taxonomy

Grouping of functionally related data elements.

Text Editor

A word processing program that allows you to enter and edit text.

Triage

Sorting patients by the urgency of their need for care.

Type 1 Diabetes

Diabetes of a form that usually develops during childhood or adolescence and is characterized by a severe deficiency of insulin secretion resulting from atrophy of the islets of Langerhans and causing hyperglycemia and a marked tendency toward ketoacidosis. Also called insulin-dependent diabetes, *insulin-dependent diabetes mellitus*, *juvenile diabetes*, *juvenile-onset diabetes*, *type 1 diabetes mellitus*.[iv]

[iv] Ibid.

Type 2 Diabetes

Diabetes mellitus of a common form that develops especially in adults and most often in obese individuals and that is characterized by hyperglycemia resulting from impaired insulin utilization coupled with the body's inability to compensate with increased insulin production. Also called *adult-onset diabetes*, *late-onset diabetes*, *maturity-onset diabetes*, *non-insulin-dependent diabetes*, *non-insulin-dependent diabetes mellitus*, *type 2 diabetes mellitus*.[v]

Utility

A callable routine line tag or function. A universal routine usable by anyone.

Variable

A character or group of characters that refers to a value. MUMPS recognizes 3 types of variables: local variables, global variables, and special variables. Local variables exist in a partition of the main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays.

Walk-In

A patient who walks into a medical facility seeking care but who does not have an appointment.

Word Processing Field

This is a field that allows the user to write, edit, and format text for letters, MailMan messages, etc.

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[v] Ibid.

Acronym List

Acronym	Term Meaning
CRS	Clinical Reporting System
CVA	Cerebrovascular Accident
DMS	Diabetes Management System
DOB	Date of Birth
DOS	Date of Service
GPRA	Government Performance and Results Act
GUI	Graphical User Interface
ICD	International Classification of Disease
IHS	Indian Health Service
MI	Myocardial Infarction
RPMS	Resource and Patient Management System
VA	Veteran's Administration

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

Phone: (888) 830-7280 (toll free)

Web: https://www.ihs.gov/itsupport/

Email: itsupport@ihs.gov