CDEMS User Guide

Last Updated 02/01/2010

In this guide, you will learn how to:

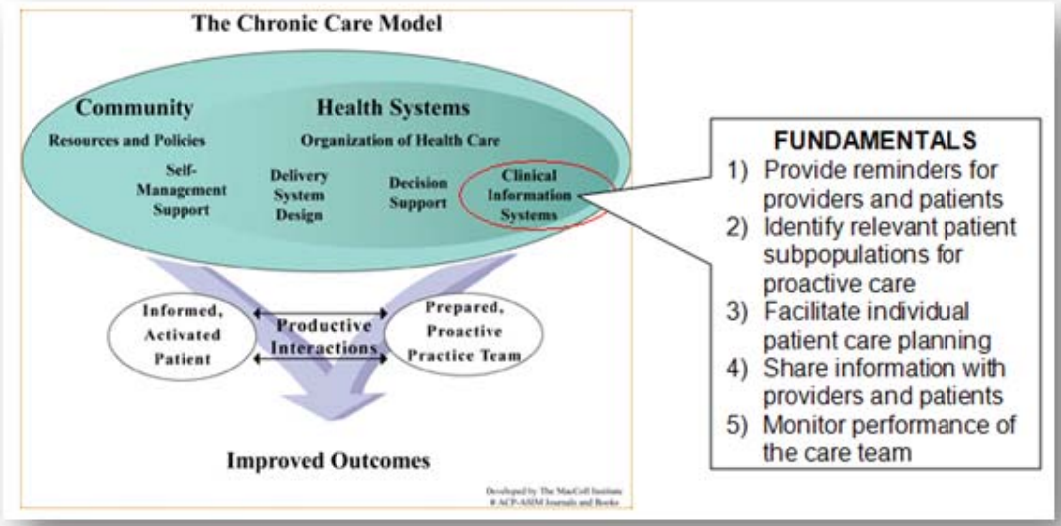
- ✓ Set-up your CDEMS chronic disease patient registry
- ✓ Maintain your registry
- ✓ Use your registry for targeting patient care

Section 1 – Establishing an Office Flow for Registry Use

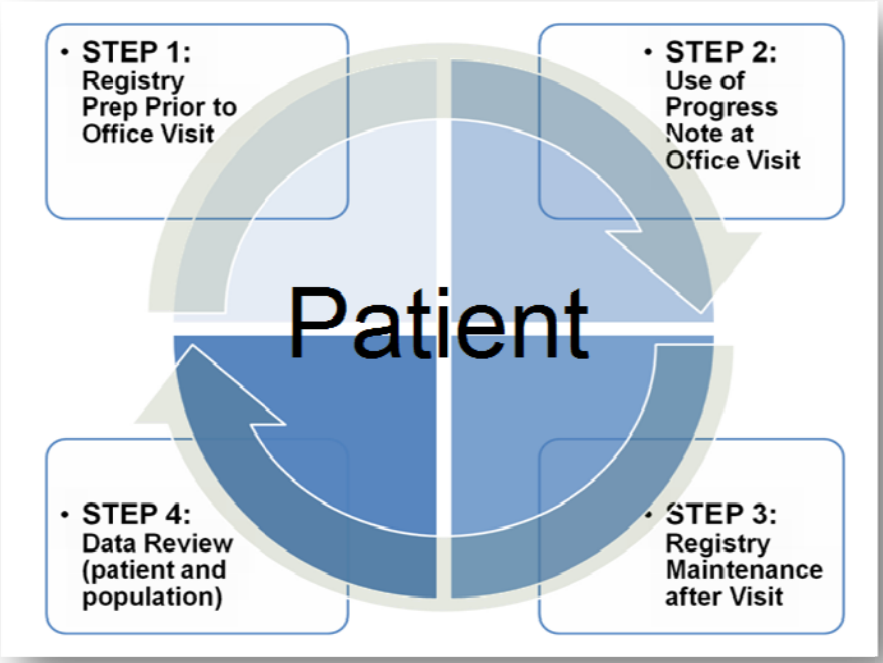
The Chronic Disease Electronic Management System, or CDEMS, is a robust electronic patient registry designed to aid health care professionals in tracking and targeting care among patients with chronic health conditions. CDEMS, an open-source public domain registry, was originally developed by the Washington State Department of Health but has been significantly modified by the West Virginia University Office of Health Services Research (WVU OHSR). Registry modifications have been based primarily on user feedback, needs and requests.

CDEMS is founded to a large extent on the Care Model[1]. This model outlines the basic elements for improving care in health systems at the community, organization, practice, and patient levels. CDEMS facilitates quality of care improvement by addressing key elements of the Care Model (Clinical Information Systems, Decision Support, Delivery System Design, and Self-Management). More specific information on how CDEMS addresses the Clinical Information Systems component of the Care Model is outlined in the figure below.

[1] Improving Chronic Illness Care: http://www.improvingchroniccare.org/index.php?p=The_Chronic_Care_Model&s=2



Registry modules currently include diabetes, cardiovascular health, asthma, prevention screening measures, and black lung. However, CDEMS is flexible to accommodate additional health conditions and can be adapted to fit individual health center office flows. There are, however, general guidelines for CDEMS use. Please refer to the diagram below and the following description.



STEP 1: Registry Prep Prior to Office Visit

Prior to a patient in CDEMS coming to your care site for an office visit, some general preparatory work should take place. This includes:

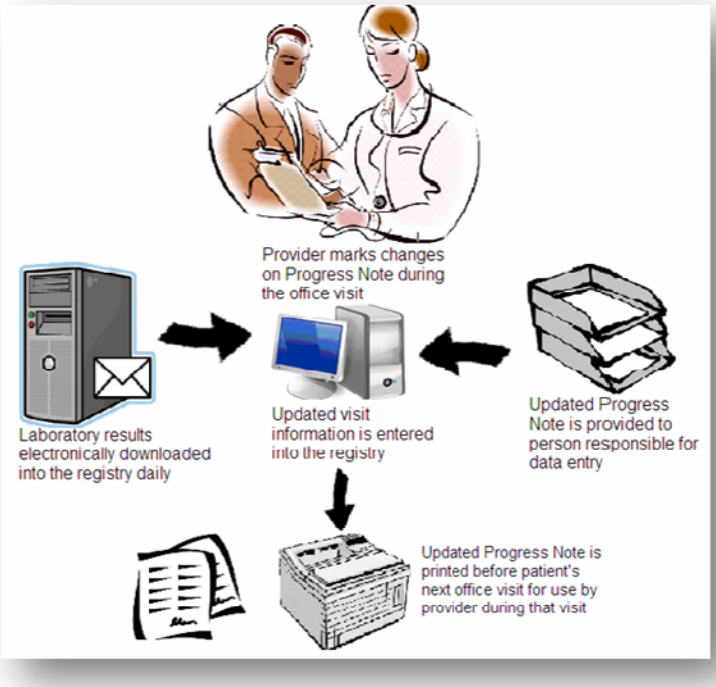
- ✓ Running the laboratory interface so that all laboratory results are up-to-date. This saves a significant amount of time in data entry and helps to ensure accuracy.
- ✓ Printing the patient's progress note (optional) or other pertinent reports to be used at point of care
- ✓ Review of progress note data for accuracy

STEP 2: Use of Progress Note at Office Visit

The CDEMS progress note is now equipped to handle direct data entry. This is particularly useful in the event that the registry is being used at point of care. If this is not the case, the progress note can simply be used in its traditional sense, on paper, and printed from the registry to be updated by hand. The Progress Note offers the care provider with a comprehensive summary of each patient's health profile, current medication classes, services provided and services overdue, and laboratory history with highlights of laboratory results that are either overdue or outside recommended care guidelines. General office-flow guidelines for using the progress note are as follows:

- ✓ The progress note is made available to the primary care provider for use during the office visit. The note is reviewed, and updated information marked as appropriate.
- ✓ Patient-specific graphs and guidelines can be printed and shared with the patient, as supplemental forms of patient self-management and patient education

The diagram below depicts this more traditional use of the registry.



STEP 3: Registry Maintenance after Visit *(If printing the Progress Note)*

After the office visit, the progress note is circulated to the health center member(s) in charge of data entry. New information from the note is entered into the registry. An updated progress note is printed prior to the patient's next office visit, and used once again at the point-of-care.

STEP 4: Data Review (patient and population)

Throughout the care process, providers and members of the health center team can use the CDEMS Reporting Tool to conduct:

- ✓ Patient-level reporting, to target specific patients in need of care as determined by the health center
- ✓ Aggregate reporting, such as summary reports for an entire patient population
- ✓ Patient reminders (letters and call lists), which can be generated to remind the patient of specific services or laboratory tests they need and to contact them to receive this care
- ✓ Reports to monitor data quality, completeness, and accuracy

A Note on Registry Set-up:

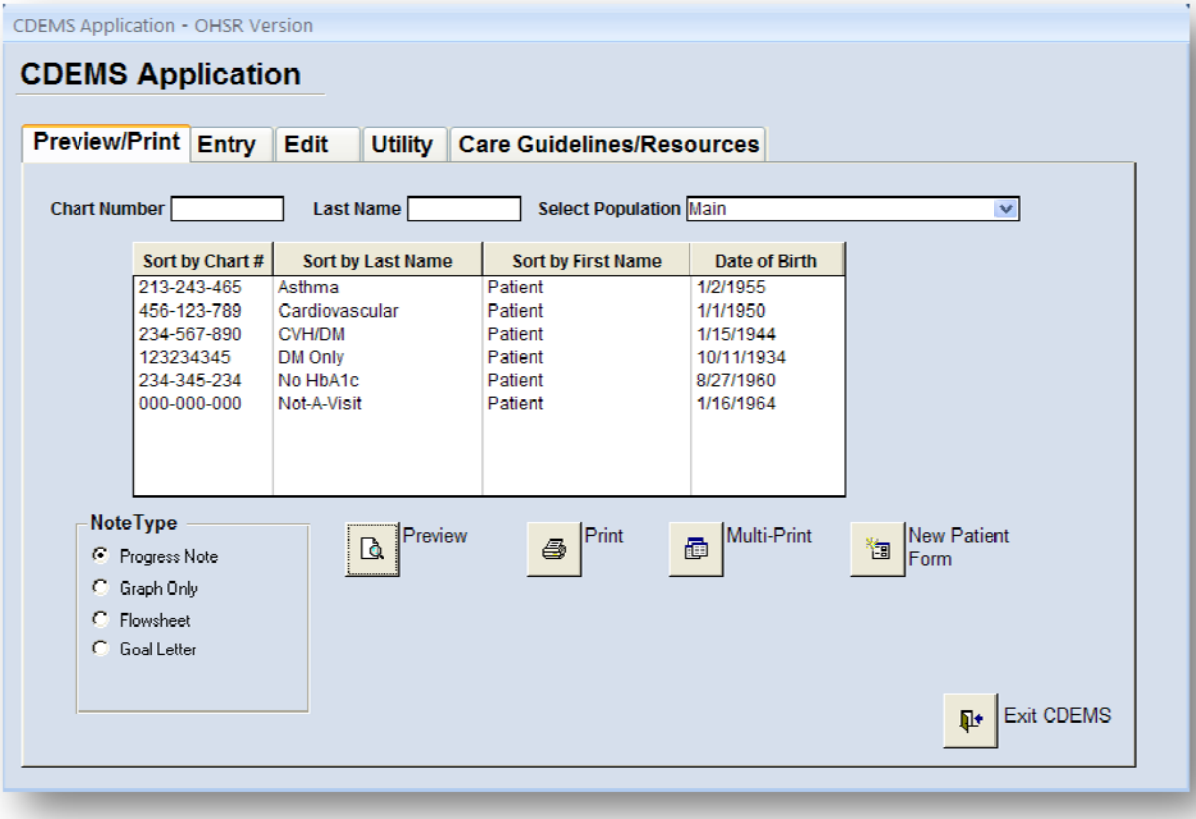
Generally, patient registries are built by utilizing data from patient billing systems or practice management systems. This is a considerable time-saver in constructing the registry, and also helps to insure the accuracy of the data. The WVU OHSR offers a full-range of technical support for registry use; from start-up to providing guidance in full registry implementation and use in quality assurance.

Please make sure to keep your registry data secure. CDEMS is a password protected registry, which helps in securing patient information; as do secure computer log-ins and appropriate network and server permissions.

Section 2 – The CDEMS Application

To open the CDEMS Application, double click on the CDEMS Application icon. *(For information on installing CDEMS, see the "CDEMS_ReadMe_Install" file included within the CDEMS installation package.)* You will be prompted to enter the registry password. The default password is the stock password, located in the ReadMe file. This password can be reset by using the Security Utility within Microsoft Access.

The CDEMS Application will open. A sample view is below.



Please note the Preview/Print, Entry, Edit, and Utility tabs within this form. These four main functions will allow you to successfully create, maintain, and query your CDEMS patient registry. Additionally, the Care Guidelines/Resources tab provides links to national standards of patient care, continuing education opportunities and other quality of care resources.

CDEMS currently includes modules for diabetes, cardiovascular health, asthma, prevention screening measures, and black lung. However, CDEMS can be modified to include other chronic conditions or medical conditions of interest, as well as the appropriate labs, services, and special measures. For assistance in doing so, please contact the WVU OHSR at the contact information provided at the end of this document.

2.a – Preview/Print tab

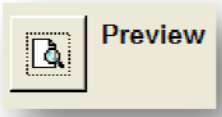
By default, the CDEMS Application opens in the Preview/Print tab. This tab allows you to:

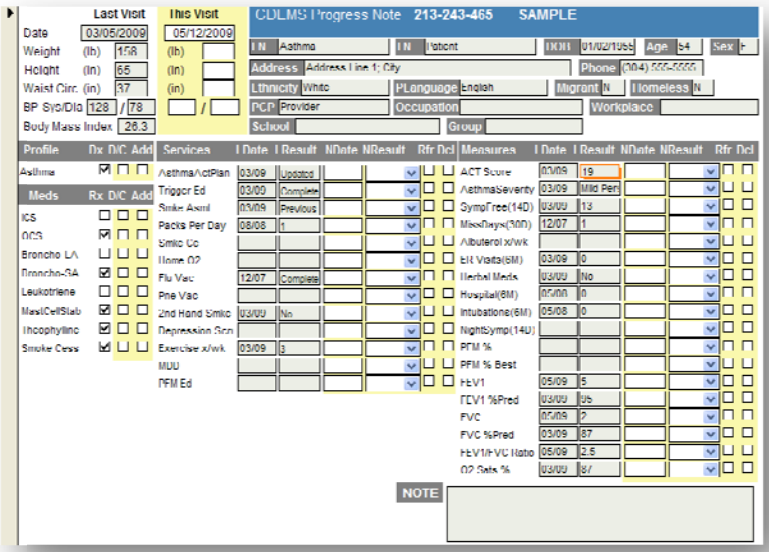
- Preview and print a patient's progress note and graphed results
- Preview and print a patient's flow sheet
- Preview and print a patient's goal letter
- Batch-print multiple patient forms
- Print a blank data collection form for a new patient not already included in your registry

To quickly locate a patient within your list of patients in the registry, try one of the following methods:

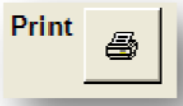
- ✓ **Filter Patient List** – If you know only part of the chart number, enter the first digit or character to view a subset of charts beginning with that character. For example, if you know the first number of the chart begins with a 5, type the number the "5" in the chart number box, then press Enter on your keyboard. Likewise, the patient's last name can key keyed (in full or in part) to locate the patient. To return to a display of all patients, delete the chart number or last name from the search box and press Enter.
- ✓ **Sort Patient List** - A patient name can be located by doing a sort on chart number, last name, or first name. To do so, click the sort buttons corresponding to these listings above the patient table. Find the desired patient using the scroll bar to the right of the patient list box.

To preview a patient's progress note, first highlight that patient by clicking on their chart number, name, or date of birth within the list of patients. Once you have done so, the patient's line of information will be highlighted in black. Next, click the **Preview** button. This allows you to preview a patient's progress note without printing it. A sample registry Progress Note is below.



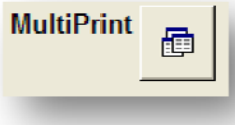


To print a patient's progress note, click the **Print** button. Please note that there are two pages to the CDEMS Progress Note. While the first page presents all demographic, medication, service and measures information,

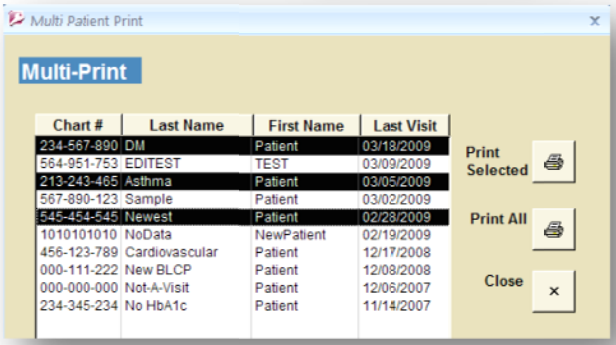


the second page presents a graphical display of a two-year history of a patient's blood pressure and weight, as well as other laboratory values you wish to display.

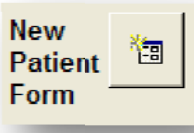
Clicking the **MultiPrint** button will allow you to print the progress notes of each patient of interest within your registry without having to print each record individually.

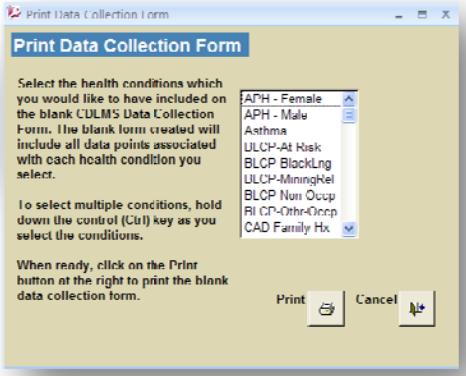


➢ After clicking on MultiPrint, a new form will appear which allows you to **Print All** or **Print Select** by highlighting only those patients for which you would like to print a progress note. Press and hold the Shift key as you click to select multiple patients. When ready, click the **Print Selected** button. Please note that this form also displays the last visit date for each patient.

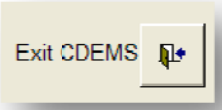


Next, you will find the **New Patient Form** button. Clicking this button will open the Print Data Collection Form. In order to print a blank data collection form for a new patient with a specific chronic disease who will be added to your CDEMS patient registry, highlight the appropriate options. If you are uncertain as to whether the patient has more than one chronic disease (for example, diabetes plus asthma), it will be helpful to select all conditions so that all possible data points are within the data collection form. If you are aware of a specific chronic disease, you need only select it for the proper data collection points to be within the data collection form.





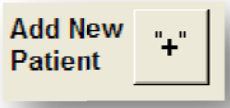
Finally, within the Print tab you will find the **Exit CDEMS** button. Click this button when you are ready to exit CDEMS. Please note that this same close box is found within all other tabs.

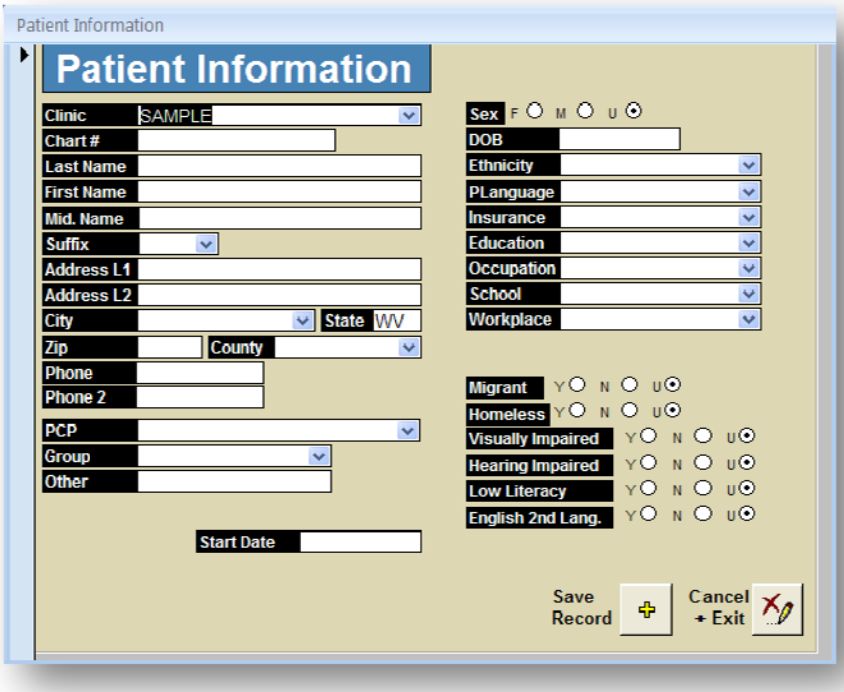


2.b – Entry tab

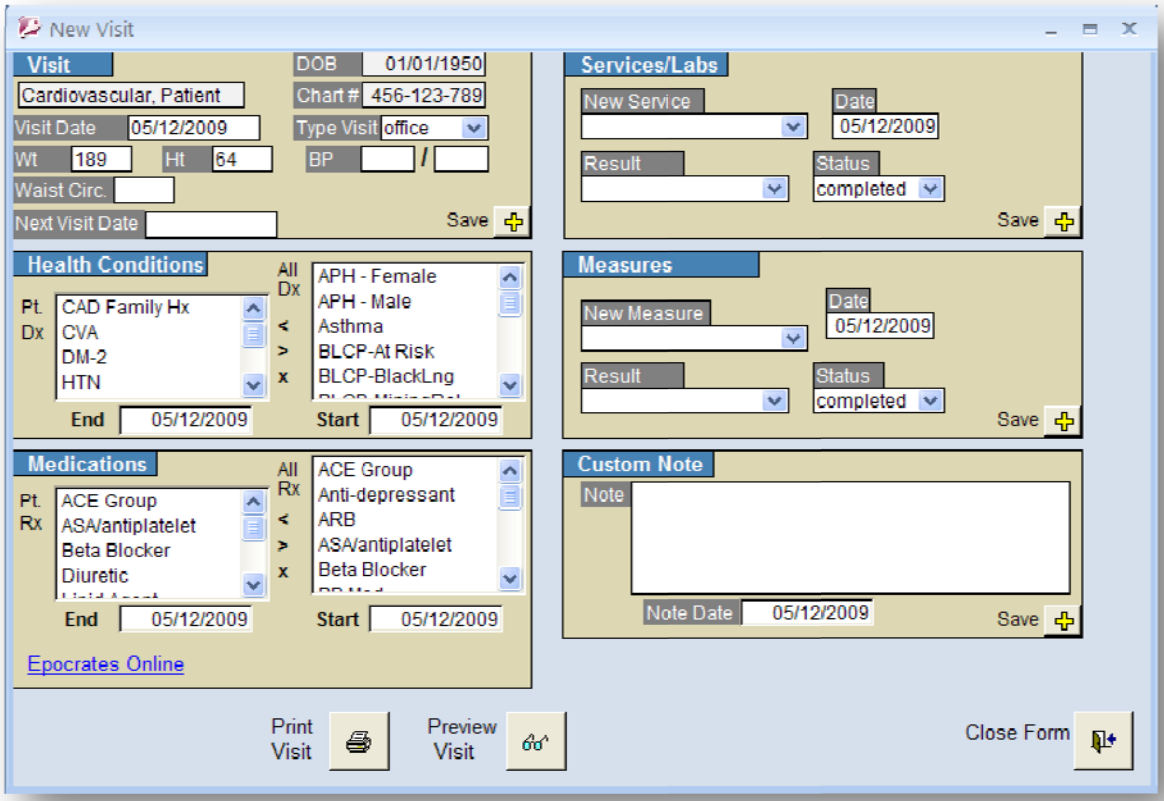
Within the Entry tab, you can add new data to patients already within your CDEMS patient registry, and add new patients to your registry. These topics will now be covered individually.

First, let's begin by reviewing the **Add New Patient** button. Clicking this button will bring you to the Patient Information form. This form allows you to enter a patient's name, chart number, address, contact information, primary care provider, insurance, occupation, and other important information. Once you have completed entering all patient data, click the **Create Record** button near the bottom of the form to save your information. The new patient will then be listed within the list of patients. After this information has been entered and saved, you may later edit it if necessary. These steps will be covered within the Edit section of this user manual. The figure below presents a sample of this form.

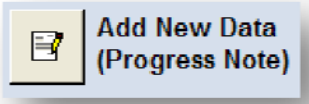




To add new visit or lab information to an existing patient within your registry, first click on the name or chart number of the patient of interest. Once the patient is highlighted, click the **Add New Data** button. This opens the New Visit form, which is divided into six sections. Each of these sections will be covered separately for clarity. The figure below presents the New Visit form.



If entering data directly into the progress note, please use the following as a guide:



- ✓ For the vitals at the top-left of the form, enter the weight, height, and waist circumference. The current date is automatically placed within the “This Visit” date field.
- ✓ For diagnoses, click on the appropriate Add box to add a condition. The current date is automatically applied to the result.
- ✓ For medications, click on the appropriate Add box to add a medication. The current date is automatically applied to the result.
- ✓ For Services, use the appropriate drop-down box in the NResult field to note the result of the service. The current date is automatically applied to the result. If the service date is not the current date, enter the correct date for the service within the NDate field.
- ✓ For Labs (if hand-entering), enter the result of the lab within the appropriate NResult field. The current date is automatically applied to the result. If the lab date is not the current date, enter the correct date for the lab within the NDate field.

Once all data are entered, click the Save button in the top-right of the form. The Application can be closed and reopened during the process of caring for the patient. All data are stored as of the visit date, unless otherwise specified. You may click the Save button at any time (multiple times) throughout the data entry process.

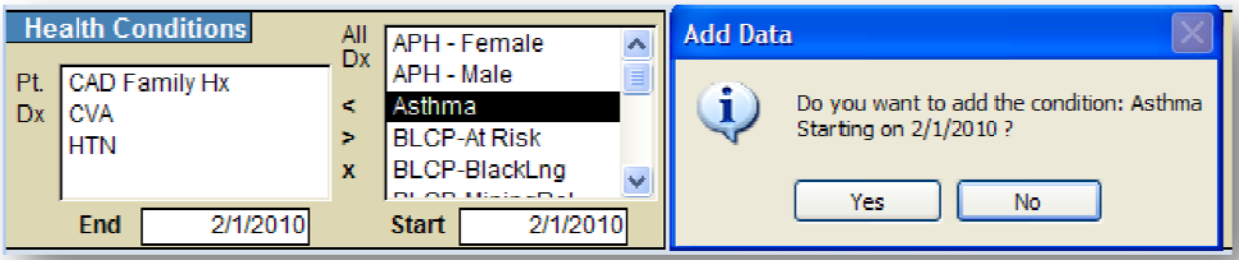
If entering data in the standard data entry form, please use the following as a guide:

Visit

The first section of the New Visit form is labeled Visit. Here, the patient's name and chart number already appear, as well as their last recorded weight and height if available. You can now enter the date of the new visit; the type of visit (i.e., office, lab, phone, non-medical, or benefits counseling) by using the drop down box by Type Visit; the patient's updated height, weight and blood pressure; plus, the next scheduled visit date. Once these new data have been entered please be sure to click the **Save button** within the bottom right corner of the Visit portion of the form.

Health Conditions

Within the Health Conditions section of the form, you can add new condition to a patient's health profile by highlighting the condition within the All Dx box and clicking the < symbol, or by double-clicking the condition. (Please note that a health condition must be added to a patient's profile in order for the CDEMS Progress Note to contain the appropriate data fields.) When you do so, you will be prompted by the following message:

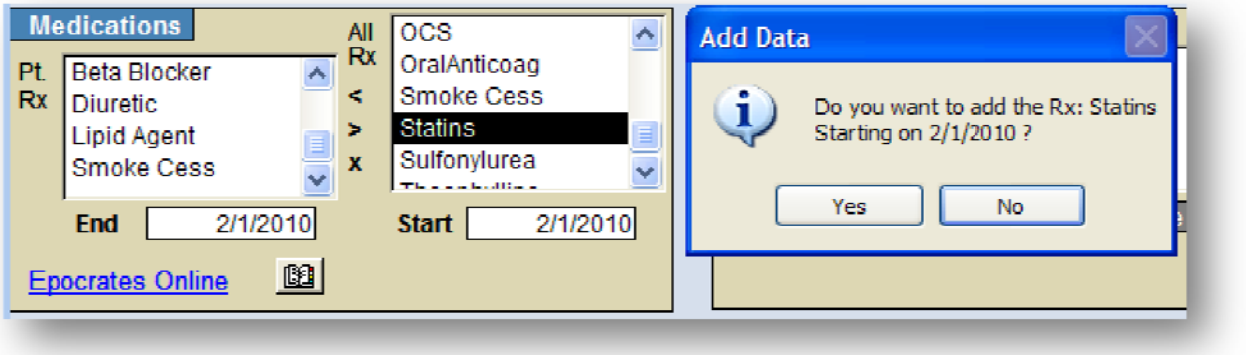


Clicking "Yes" will add the condition, according to the start date specified. Clicking "Yes" automatically saves the changes. If you wish to remove a diagnosis from a patient's list of current health conditions, enter the end-date of the health condition and click the > symbol, or double-click the condition to be removed. This step will archive the diagnosis. These same steps can also be taken within the Edit portion of CDEMS, to be covered later. If you wish to delete a diagnosis once it has been added, highlight the diagnoses you wish to delete and click the X. As a precaution, you will be asked if you are sure that you want to delete the specific condition.

Please note the start and end date boxes located at the bottom of the Health Conditions section of this form. When adding a new health condition, the date within the start date box will be applied. If removing or deleting a health condition, the date within the end date box will be applied.

Meds

Next, please note the Meds portion of the form. Using the same technique that you just applied to add specific health conditions, highlight the medication classification which the patient has been prescribed and then click the < symbol or double-click the medication to add it to their list of current medications. When you do so, you will be prompted by the following message:



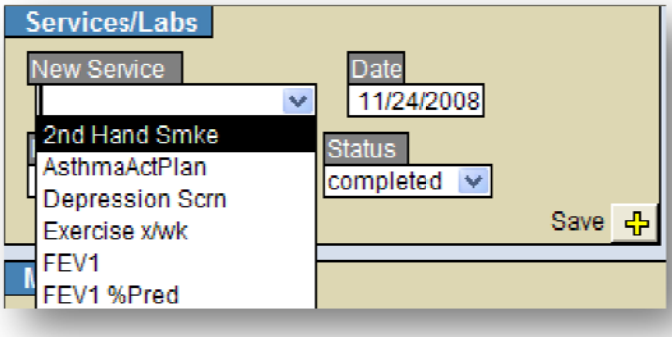
Clicking “Yes” will add the specific medication classification, according to the start date specified. Clicking “Yes” automatically saves the changes. If you wish to remove a medication classification in the case of a medication change, use the > symbol. This step will archive the medication. These same steps can also be taken within the Edit portion of CDEMS, to be covered later. If you wish to delete the medication classification once it has been added, highlight the medication you wish to delete and click the X. As a precaution, you will be asked if you are sure that you want to delete the specific medication.

Please note the start and end date boxes located at the bottom of the Health Conditions section of this form. When adding a new health condition, the date within the start date box will be applied. If removing or deleting a health condition, the date within the end date box will be applied.

See the document “Diabetes and Cardiovascular Medications by Classification” for a list of brand name and generic medications by classification. See the document “Asthma Medication by Classification” for a list of brand name and generic asthma medication by classification. These documents are included in the CDEMS user materials.

Services/Labs

Next, please note the Services/Labs section of the New Visit form. Using the New Service drop down box, you may choose the specific services provided to the patient on this specific date, as well as the status of the service (i.e., completed, declined, referral). You may also type in the first one to two letters of the data field to auto-search and locate it. Only those services/labs associated with the specific patient's health conditions will appear.



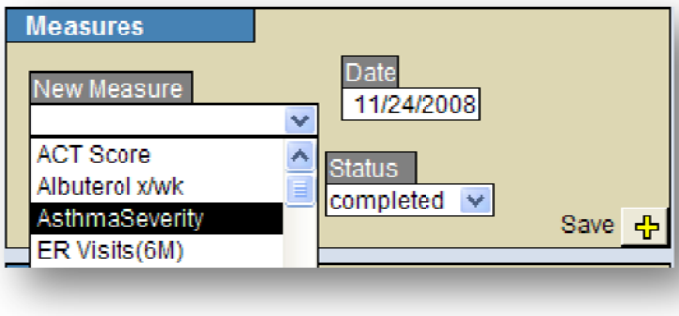
Once you have entered data for the field, click the Save button within the bottom right corner of this form to save the new service entered. Repeat this process to enter the type and status of each service/lab offered. Please note that the list of services and labs are arranged alphabetically. When appropriate, discrete data choices are provided in a drop-down menu customized for each service. Discrete choices can be added according to health center needs.

In most instances, your health center will have an electronic laboratory interface with CDEMS, eliminating the need for hand-entry of laboratory values. Current interfaces for CDEMS include LabCorp, LabDaq, Quest, Dynacare, PAML, and Rockwood. Dual interfaces, in the event of more than one laboratory service being used, are also available. Additional documentation on using the lab interfaces is available within the CDEMS user materials.

See tlkpSetup within the CDEMS Application to view all current services, labs, and special measures by health condition.

Special Measures

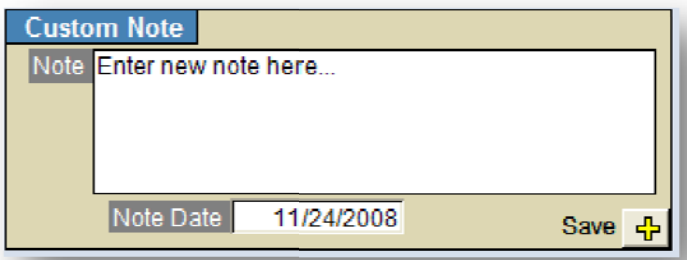
Within the Special Measures section of the New Visit form, click the New Measure drop down box to select the type of measure being entered. Data entry steps are the same as for Services/Labs listed above. Once these new data have been entered please be sure to click the Save button. Again, only those special measures associated with the specific patient's health conditions will appear. Special measures cover additional asthma and black lung data points.



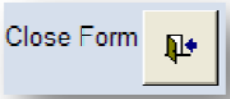
Note: See the Setup Wizard within the CDEMS Application Utility tab to view all current services, labs, and special measures by health condition.

Custom

Finally, the New Visit form allows you to enter customized notes. Once you have keyed in the new information, please click the Save button.



Again, please be sure to save all changes before clicking the Close Form button to exit.

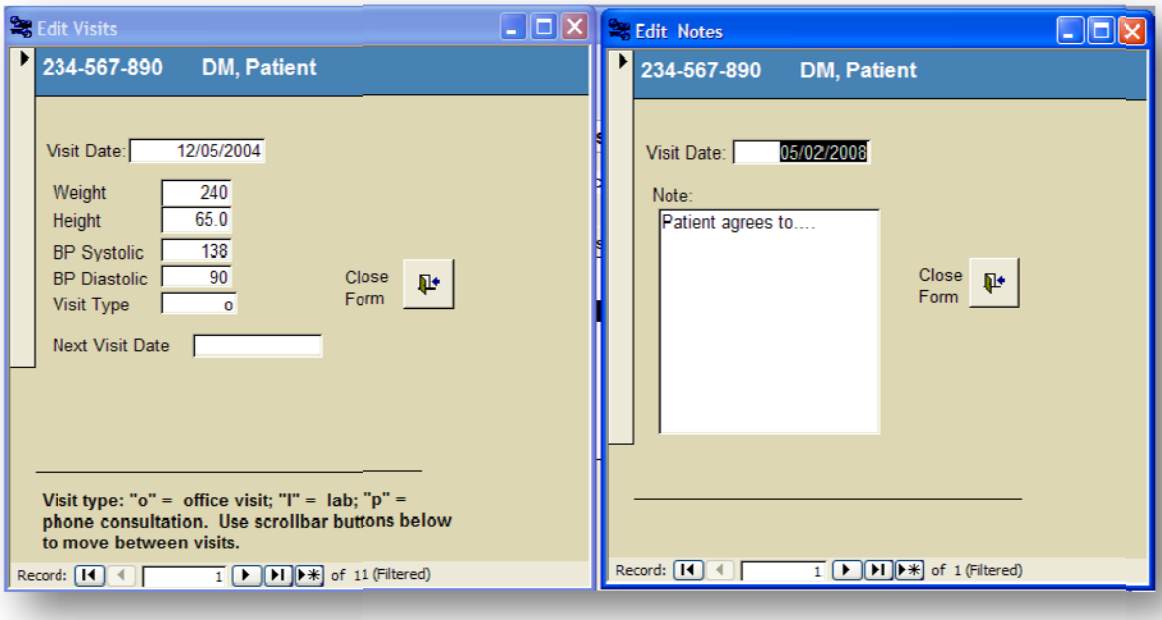


2.c – Edit tab

Within the Edit tab within the CDEMS Opening Screen, you will find a number of options for editing your patient registry if necessary. These options will be covered individually for clarity.

Edit Visits and Edit Notes

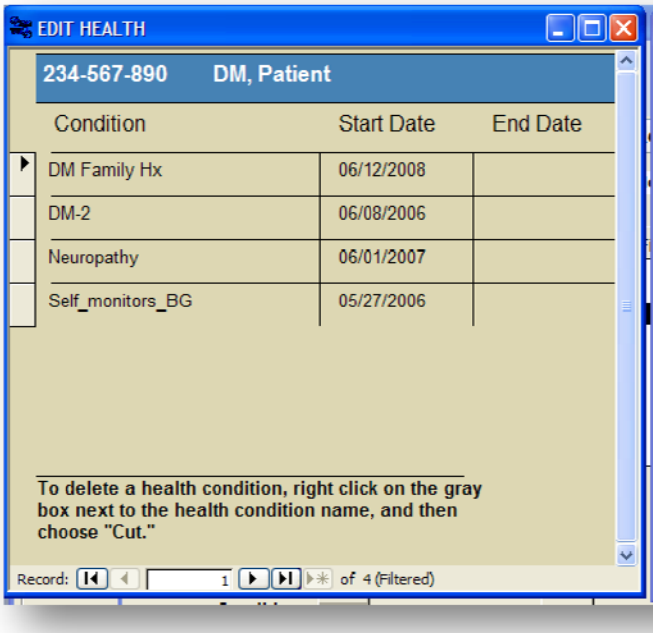
First, note the Edit Visits and Edit Notes buttons. If you find that you have need of editing the visits or notes of a particular patient, first highlight that patient in the list of patients and then click the Edit Visits or Edit Notes buttons.

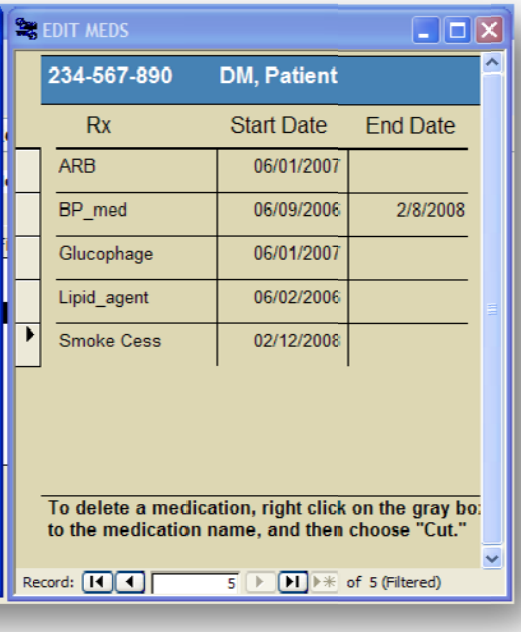


Note the Record selection located at the bottom of each form. Click the arrows to locate the specific date of the visit or note which you wish to edit. Changes are saved automatically after you key them, and you may click the Close Form button when finished.

Edit Meds and Edit Conditions

Within the Edit Meds and Edit Conditions buttons, you can edit a patient's current medications and diagnoses. You can do this in one of two ways. First, you can retype the type of diagnosis or medication. However, note that if you retype a new diagnosis or medication this new entry must be spelled exactly the same way as the choices already presents within CDEMS. We suggest that you delete the information you wish, save and close the Edit forms, and then add the new information within the Entry section of CDEMS. Second, you may right click on the arrow next to the entry which you wish to edit and then choose Cut. As a precaution, you will receive a message to ensure that this is the action you wish to take.



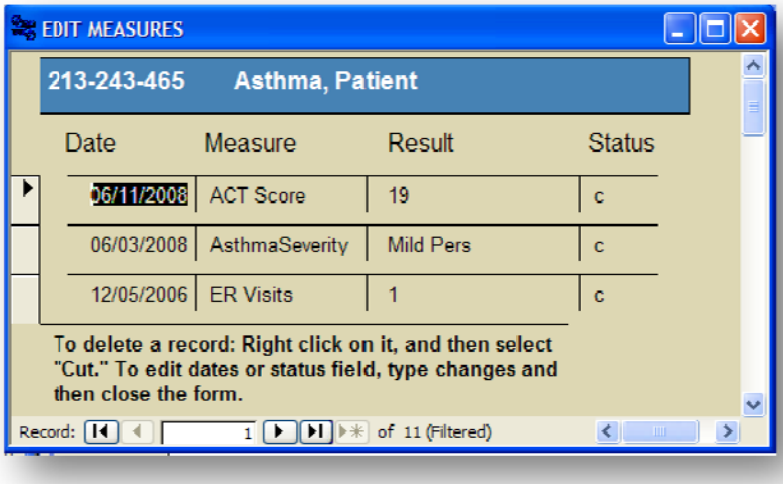


Edit Services and Edit Labs

As with the preceding instructions on editing meds or conditions, you can edit existing Services or Labs of a particular patient. Again, we suggest that if you delete any data within this form that you add the new data within the Entry section of CDEMS rather than trying to key in the changes within the Edit forms.

Edit Additional Measures

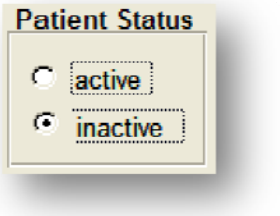
Within the Edit Additional Measures form, you can correct any incorrect data that has been recorded within the Special Measures section. As with the preceding instructions on editing meds or conditions, we suggest that if you delete any data within this form that you add the new data within the Entry section of CDEMS rather than keying the changes within the Edit Measures form.



Edit Patient Info

Within the Edit Patient Info form, you can easily update a patient's personal information. For instance, if a patient moves or changes telephone numbers, primary care provider, or insurance, this portion of the Edit tab allows you to make these modifications. The figure below presents a sample of the Edit Patient Information Form.

To make a patient inactive if, for example, they move or are no longer coming to your facility for care, simply enter the date they became inactive within the Inactive Date field and click the Save Record button. All inactive patients are grouped within the "inactive" list, which can be viewed by choosing this option from the Patient Status box. Conversely, delete the inactive date and save to re-active a patient.



You can delete a patient within this form. **Please be careful! Deletions cannot be undone!** Usually a patient is deleted from the registry if a duplicate record was accidentally created. Otherwise, it is safer to move a patient to inactive status and retain the information.

2.d – Utility tab

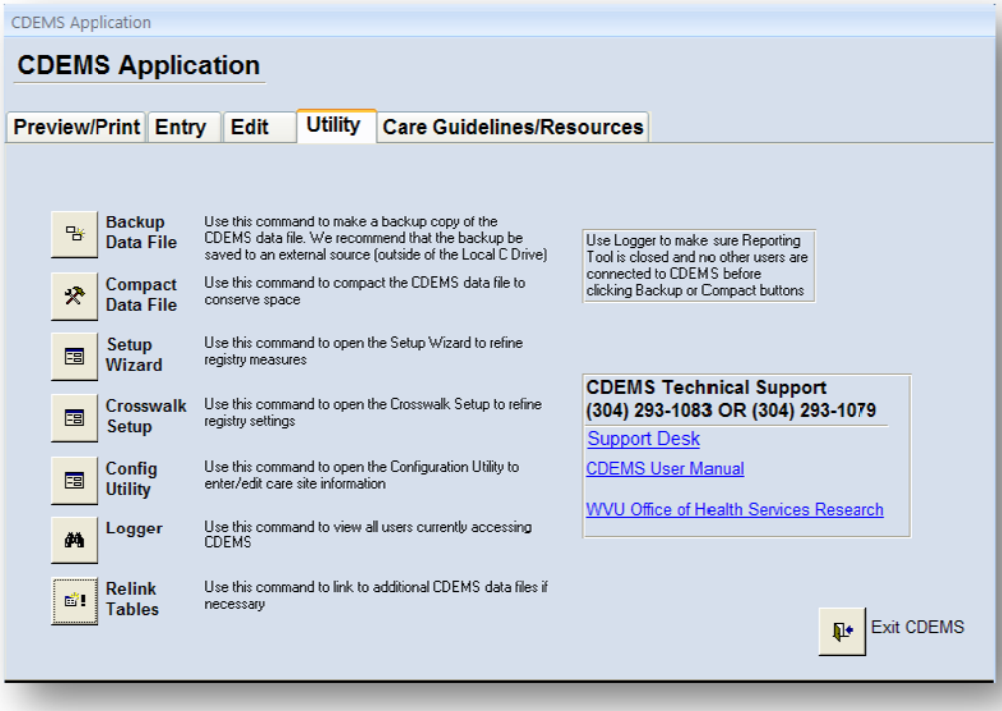
Within the Utility tab, there are registry three main tools for your use. These tools are:

- ✓ Backup Data File (used to backup the CDEMS data file, which will automatically be given a backup name with the data and time of the backup being made and can be saved in your location of choice – which ideally is an external source, outside of the local C drive). **It is critical to make a regular back-up schedule of your CDEMS data file. This schedule should include the "who," "when," and "how" of securing a backup copy of the data.** It is a good practice to backup your data file after data entry sessions, or at least weekly. Ideally, an auto-backup is configured that runs daily to automatically create a backup copy of your registry data file.

➢ **Store the backup copies of your registry data in a secure location**

- ✓ Compact Data File (used to conserve space / decreased the size of the CDEMS data file)
- ✓ Setup Wizard (used to access the Setup Wizard to make registry customizations)
- ✓ Crosswalk Setup (used to further refine registry settings, stored in tlkpCrosswalk)
- ✓ Config Utility (used to open the Configuration Utility to enter/edit information on your health center(s)
- ✓ Logger (used to view all users currently accessing your CDEMS data file)
- ✓ Relink Tables (used to switch to an alternate CDEMS data file)

Also within the Utility tab, you'll find contact information for registry technical support at the WVU OHSR, a link to the OHSR Support Desk, and a link to this CDEMS User Manual. The figure below presents this screen.



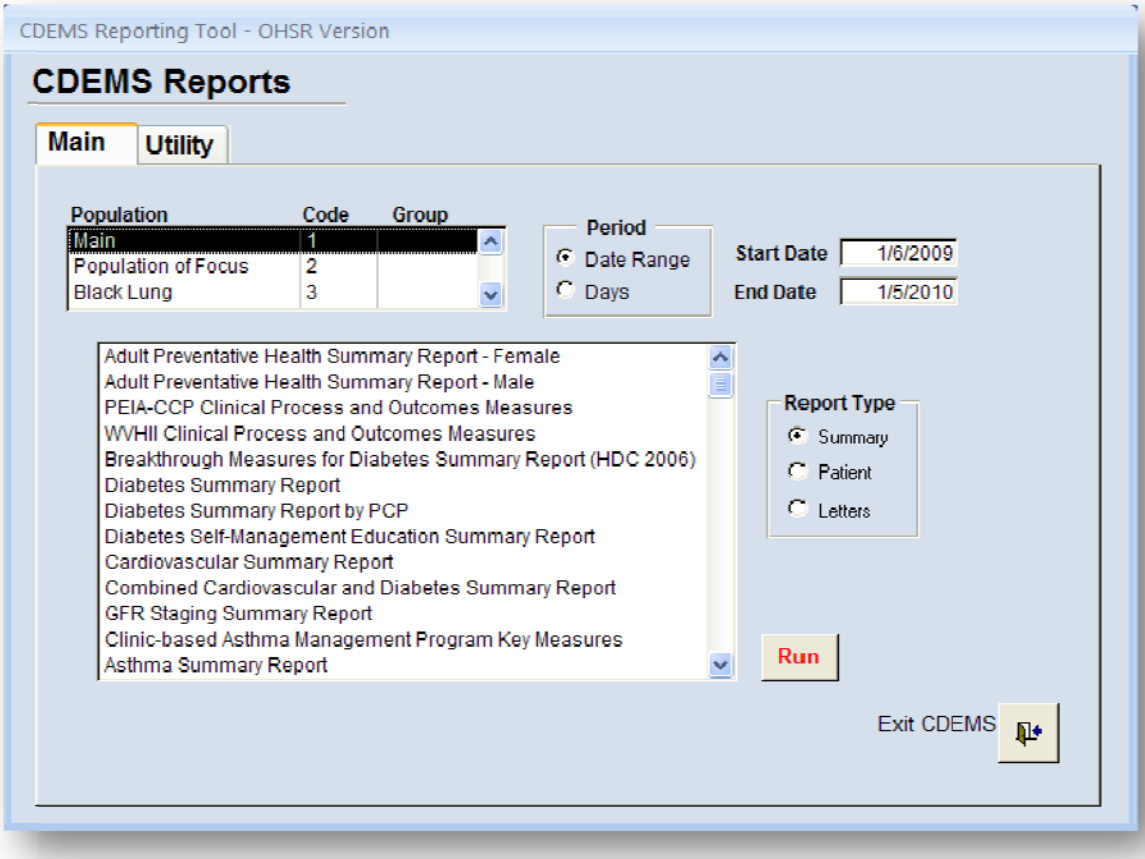
2.e – Care Guidelines/Resources tab

Within the Guidelines/Resources tab, there are links to national standards of patient care and other resources. The figure below presents this screen.

Section 3 – The CDEMS Reporting Tool

To open the CDEMS Reporting Tool, double click on the CDEMS Reporting Tool icon. *(For information on installing CDEMS, see the "CDEMS_ReadMe_Install" file included within the CDEMS installation package.)* You will be prompted to enter the registry password. The default password is the stock password, located in the ReadMe file. This password can be reset by using the Security Utility within Microsoft Access.

The CDEMS Reports form will open. Please see the figure below for a view of the Reports form.



The Reporting Tool provides for population-level and patient-level reporting. All population-level, or summary, reports are listed first within the list of available reports. Following these are patient-specific reports used to further target care. Additionally, there are "**Create-A-Report**" and a "**Create-A-List**" options located at the end of the list. These tools are available in the event that you wish to create a new summary report or patient list not already available, or scale-down an existing report for your specific needs. Once you create a new report or patient list, you'll be prompted to save the report if you wish and name it for later reference.

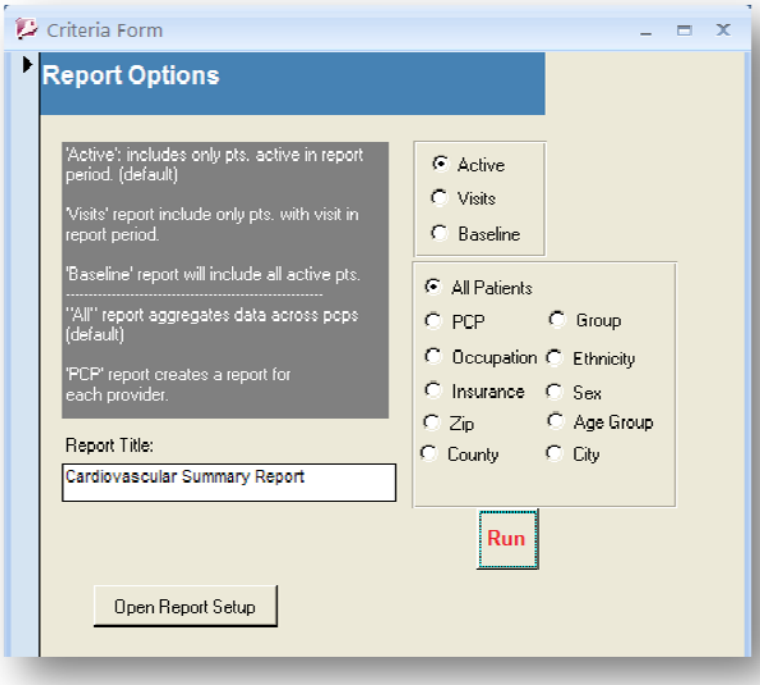
Please note the **Start Period** and **End Period** boxes within this form. Specifying these dates will provide you with reports that reflect ONLY the time period of interest. The dates that you specify will be noted on the reports once you run them, but please keep your time frame in mind when interpreting the report results. Additionally, please note the **Date Range** and **Days options** within the

Period box. These options allow for reports to be generated by either time period or according to the past XXX days in which you are interested.

When running summary reports, you will be prompted to make certain specifications within the Criteria form, which allows you to specify the types of data upon which you wish to base the Summary Report. Please note that you can run summary reports by the following criteria:

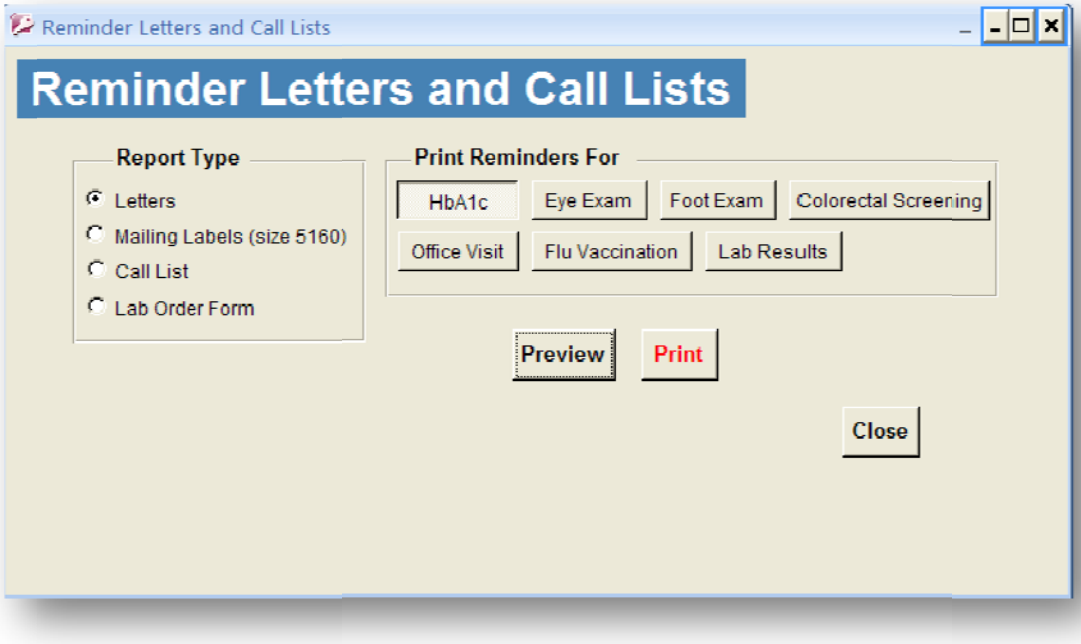
- All Patients
- PCP
- Occupation
- Insurance classification
- Zip code
- County of residence
- Demographic criteria
- Special group criteria (used to sub-populate patients within the same clinic code).

- You may also choose between Active patients, patients with visits, and Baseline patients. The Active option includes only those patients who are active within the report period specified, while Baseline includes all patients within the registry regardless of time period. When ready, click the OK button to generate the report.



Reminder Letters and Call Lists

Access the letters tool by clicking on the Reminder Letters radio button within the Reporting Tool. You have the option of printing patient reminder letters and/or call lists for patients in need of an HbA1c, eye exam, foot exam, flu vaccination, office visit, and colorectal cancer screening. You have additional options of running these reports by all conditions, or by only specific conditions.



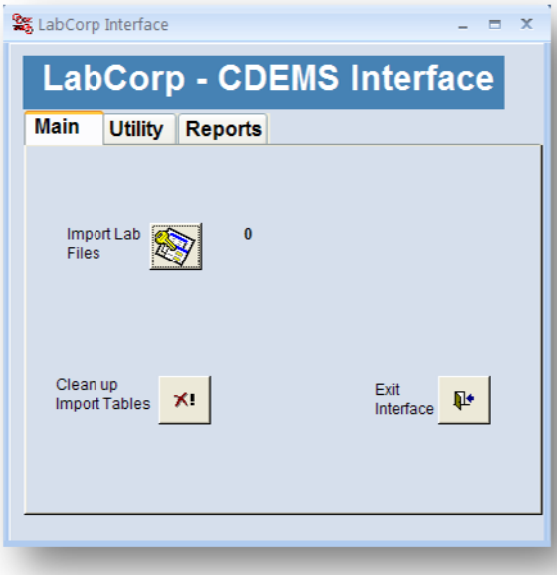
Mailing labels (size 5160) for each patient will be automatically generated and available for print from within the Report Type portion of the form. If you prefer, a call list for the appropriate patients can be printed.

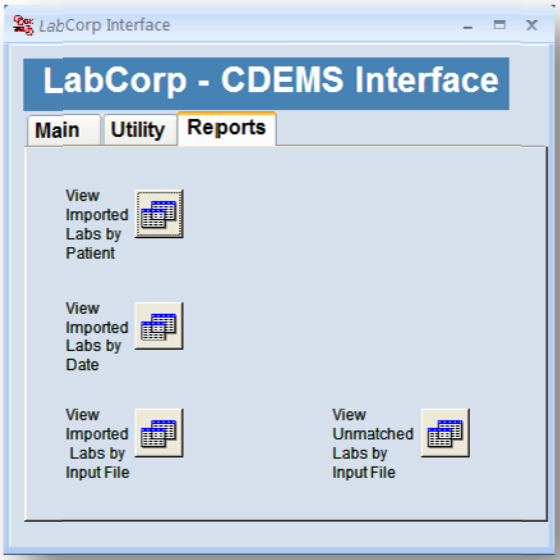
Section 4 – Electronic Laboratory Interfaces

CDEMS is capable of interfacing with a number of laboratory companies across the United States. This list includes:

- ✓ LabCorp
- ✓ Quest
- ✓ LabDaq
- ✓ PAML
- ✓ Rockwood
- ✓ Dynacare

Your CDEMS registry can also interface with more than one laboratory company in the event that your health center, for example, uses both an outside laboratory service and an in-house laboratory system. The CDEMS laboratory interfaces read through the raw data file supplied to your health center via the laboratory company, and imports each patients' laboratory values into your registry. Data fields are match according to unique patient identifiers.





The WVU OHSR will provide all technical support necessary to establish a laboratory interface with your registry. Once established, the interface works by the click of the "Import Lab Files" button within the Main tab. These interfaces include a special reporting tool within the Reports tab to allow your health center to view all laboratory values that were imported by date and/or by patient. To aid in troubleshooting, the Reports tab also offers reports of labs imported by input file, and unmatched labs by input file.

Section 5 – Black Lung Clinics Program Reporting

This special addition to the CDEMS User Guide covers CDEMS use for Health Resources and Services Administration (HRSA) Black Lung Clinics Program (BLCP) reporting. The measures included are specific to the reporting needs of BLCP clinics, and are based on the **2008 BLCP Database Manual** released by HRSA. For general information on entering, editing, and importing data using the CDEMS Application, please refer to earlier portions of the CDEMS User Guide. Likewise, refer to earlier portions of the CDEMS User Guide for information on using the CDEMS Reporting Tool and/or Reminder Letter and Call List tool.

5.a - The CDEMS Application

To enter data specific to the HRSA BLCP, open the CDEMS Application by double clicking on the CDEMS Application icon. You will then be prompted to enter the password.

Following the **2008 BLCP Database Manual** released by HRSA, CDEMS data points specific to BLCP reporting are as follows. For reference, the 2008 BLCP Database Manual labeling is also supplied.

Demographics	
CDEMS	**2008 BLCP Database Manual**
Age	Age
Sex	Sex
Race/Ethnicity • Hispanic/Latino • Black • Native Hawaiian/Pacific Islander • Am Indian/Alaska Native • White • Multiracial • Unknown	Race/Ethnicity • Hispanic/Latino • African American or Black • Native Hawaiian/Other Pacific Islander • American Indian/Alaska Native • White • More than one race • Unknown
Occupation • ActiveMiner • Fmr-RetMiner • OtherOccpRel • Other	Occupation • Active Miner • Former/Retired Miner • Other Occupationally Related • Other

Health Conditions (Primary Pulmonary Diagnosis)	
CDEMS	**2008 BLCP Database Manual**
BLCP-At Risk	At Risk
BLCP-BlackLng	Black Lung (Includes patients with obstructive and restrictive impairments caused by coal mine dust exposure)
BLCP-Non-Occp	Non-Occupational Lung Disease (disease such as COPD from tobacco, non-occupational asthma, TB, etc)
BLCP-Othr-Occp	Other Occupational Lung Disease (disease not related to mining, i.e. asbestosis, occupational asthma, hypersensitivity pneumonitis, etc)
BLCP-MiningRel	Mining Related Lung Disease (related to mining other than coal)

Note: Please assign only one primary pulmonary diagnosis to each patient.

Level of Disability	
CDEMS	**2008 BLCP Database Manual**
Level 0	Does not meet any level requirements, but is at risk for developing Black Lung disease
Level 1	Disability Level I – FEV1 80% or greater
Level 2	Disability Level II – FEV1 60-80% or greater
Level 3	FEV1 less than 60% but usually greater than 40%
Level 4	FEV1 40% or less of predicted
Level 5	Homebound

Encounters	
CDEMS	**2008 BLCP Database Manual**
office	Medical Encounter
non-medical	Non-Medical Encounter
benefits cnsl	Benefits Counseling

Services / Labs	
CDEMS	**2008 BLCP Database Manual**
6 Min Walk	6 minute walk test
ABG (exer)	Arterial blood gas (exercise)
ABG (rest)	Arterial blood gas (resting)
Audiometry	Audiometry
B-reading	B-reading
BL Education	Black Lung Education
BL Outreach	Black Lung Outreach
Broncho Prov	Bronchoprovocation Challenge
Chest x-ray	Chest x-ray
Diff Capacity	Diffusion Capacity
FEV1, FVC (pre; post)	Spirometry Pre & Post Bronchodilator
Flu Vac	Influenza Vaccine
Full Exer Phys	Full exercise physiology with metabolics
Health Asmt	Health Assessment
Nebulizer	Nebulizer

Services / Labs	
CDEMS	**2008 BLCP Database Manual**
Pne Vac	Pneumovax Vaccine
PulmRehab-Ph2	Phase II Pulmonary Rehabilitation – Outpatient Pulmonary Rehab (patient sessions)
PulmRehab-Ph3	Phase III Pulmonary Rehabilitation –Maintenance (patient sessions)
PulseOx (rest)	Pulse Oximetry (Resting)
Smke Asmt	Smoking Assessment
Smke Ce	Smoking Cessation
T Lung Capacity	Lung Volume

5.b - The CDEMS Reporting Tool

To generate reports specific to the HRSA BLCP, open the CDEMS Reporting Tool by double clicking on the CDEMS Reporting Tool icon. You will then be prompted to enter the password.

CDEMS provides reports specific to the **BLCP Database Manual (08/31/2007)** released by HRSA. The following information cross-references the BLCP Database Manual tables with the appropriate CDEMS reports. For further information on generating CDEMS reports, please refer to the CDEMS User Manual.

Table 1: Age Groups

	Number of Total Users	**Number of Coal Miners**
CDEMS Report	BLCP Summary Report (by Patients with Visits)	BLCP Summary Report (by Occupation and Patients with Visits)

Table 2: Gender

	Number of Total Users	**Number of Coal Miners**
CDEMS Report	BLCP Summary Report (by Patients with Visits)	BLCP Summary Report (by Occupation and Patients with Visits)

Table 3: Ethnicity

	Number of Total Users	**Number of Coal Miners**
CDEMS Report	BLCP Summary Report (by Patients with Visits)	BLCP Summary Report (by Occupation and Patients with Visits)

Table 4: Race

	Number of Total Users	**Number of Coal Miners**
CDEMS Report	BLCP Summary Report (by Patients with Visits)	BLCP Summary Report (by Occupation and Patients with Visits)

Table 5: Medical User Diagnostic Mix

	Number of Medical Users in Current Year
CDEMS Report	BLCP Summary Report (by Patients with Visits) *(See "Pts Count" within the Demographics section)*

Table 6: Medical User Occupation Mix

	Number of Medical Users
CDEMS Report	BLCP Summary Report (by Patients with Visits) *(See "Occupation" counts within the Demographics section)*

Table 7: Level of Disability

	Level of Disability
CDEMS Report	BLCP Level of Disability by Diagnosis

Table 8: Encounters

	Number of Encounters Total	**Number of Encounters to Miners**	**Number of Encounters to Users with Black Lung**
CDEMS Report	BLCP Encounters by Occupation and Diagnosis	BLCP Encounters by Occupation and Diagnosis	BLCP Encounters by Occupation and Diagnosis

Table 10: Pulmonary Rehabilitation

	Total Users	**Total Miners**
CDEMS Report	BLCP Pulmonary Improvement by Diagnosis	BLCP Pulmonary Improvement by Occupation

Table 12: Procedures/Services

	Number Provided
CDEMS Report	BLCP Count of Labs, Services, and Measures

Table 13: Benefits Counseling Activities

	Number Provided
CDEMS Report	BLCP Count of Labs, Services, and Measures

Section 6 – Support

Please feel free to contact the West Virginia University Office of Health Services Research for clinical information systems support, registry implementation, requests for special reporting, and registry customizations. We're also available to help with provider, medical staff, and patient self-management education. We appreciate having the opportunity to work with you.

- **Cecil Pollard, MA – Director**
  (304) 293-1080 cpollard@hsc.wvu.edu
- **Trisha Petitte, RN, BSN, MPA – Assistant Director, Health Improvement Consultant**
  (304) 293-1084 tpetitte@hsc.wvu.edu
- **Adam Baus, MA, MPH – Program Coordinator, Sr.; Clinical Information Systems Support**
  (304) 293-1083 abaus@hsc.wvu.edu
- **Mary Swim, BA – Applications Programmer, Clinical Information Systems Support**
  (304) 293-1079 mswim@hsc.wvu.edu
- **Nell Stuart, MS, RD, LD, CDE – Health Improvement Consultant**
  (304) 276-3785 nstuart@hsc.wvu.edu
- **Marie Gravely, MA, RD, LD, CDE, Health Improvement Consultant**
  (304) 482-6016 mgravely@hsc.wvu.edu

Remote support is available via our Help Desk at the following web address: http://support.wvuohsr.org.

Please telephone either Adam Baus or Mary Swim above prior to logging-in.