

LibreHealth Electronic Health Record

The **LibreHealth EHR** log in page can be accessed using Google Chrome and other common browsers. LibreHealth EHR is an open source EHR which means the programming code can be downloaded for free and shared with others. Also, this is an educational version, loaded with about 9600 de-identified data from NHANES. You should have received login instructions from your instructor that included a username and password. Your instructor may have created a new name for your clinic (facility). It is likely that your status will be physician so you will have access to almost all functions. Your instructor will have administrator privileges.

To access the online database: go to the website ***nhanes.librehealth.io*** and enter your login information. Press the Login button to access your Homepage.

Please note that the default language is English, but access the down arrow to see how many other languages are available for this EHR.



LibreHealth EHR

Username

Pass Phrase

Language  Language choices

Libre EHR

v1.0.1 | Acknowledgments, Licensing and Certification

The EHR Homepage:

Your **Homepage** will display your name in the upper right corner and multiple menu tabs with drop-down menus at the top of the screen. In this screen shot, the user is “Administrator.” Click on your username and you will see the choices: user preferences, change pass phrase and log out.

Select **user preferences** which allow you to change:

1. Appearance: the default is for the calendar and message center to appear. You can change that to Dynamic finder or Patient Add/Search if you like as well as the color of the theme. Your instructor (Administrator) may have already changed this for the clinic. Also, consider increasing the patient list size to 25 or 50
2. Locale: change the defaults if you like
3. Report: look at the defaults
4. Calendar: look at the defaults and change accordingly
5. When you are done, click the Save button at the bottom

The screenshot displays the EHR homepage with two main sections: a patient list on the left and a calendar on the right. The patient list is titled 'Patient Finder' and shows a table of patients with columns for Last Name, First Name, Home Phone, SSN, Date of Birth, External ID, and Patient ID. The calendar is titled 'Calendar' and shows a weekly view for July 10, 2017, to July 16, 2017. The calendar interface includes a 'Providers' dropdown menu with options like 'All Facilities', 'Administrator, Administrator', 'Hoyt, Robert', and 'Student, Test'. A yellow arrow points to the 'Minimize icon' on the Patient Finder tab. Another yellow arrow points to the 'Facilities' and 'Users' dropdown menus in the calendar interface.

Last Name	First Name	Home Phone	SSN	Date of Birth	External ID	Patient ID
Abbott	Steve		64580	2009-02-01		2323
Abbott	Jewel		71554	1983-01-19		9022
Abbott	Allan		63568	1997-11-22		1352
Abbott	Ginger		70507	1936-01-19		8028
Abbott	Hugh		70520	1949-12-23		8040
Abbott	Lucinda		62556	1985-09-12		376
Abbott	Iva		62574	2003-08-07		394
Abbott	Ralph		65524	1953-08-27		3232
Abbott	Chris		65557	1986-06-		3263

Hover over the tabs at the top of the screen to access the drop-down menus.

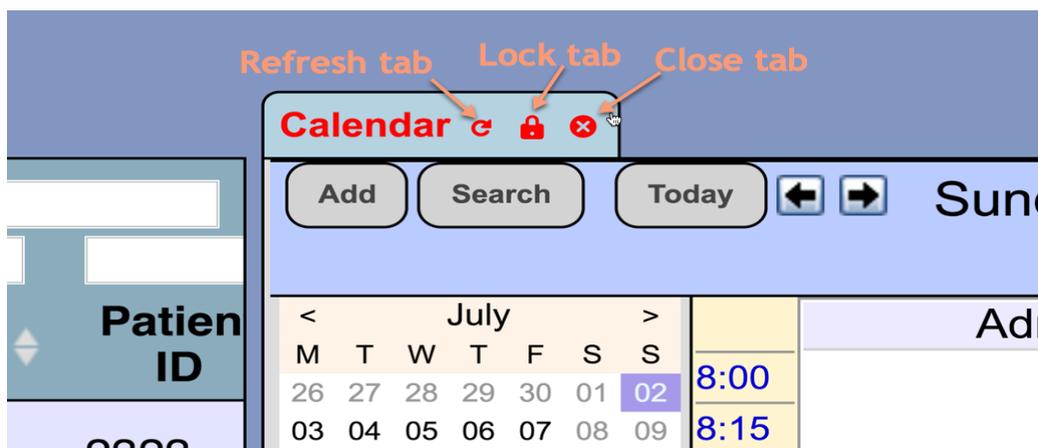
The drop-down menu will allow you access to various pages, to add and edit any patient information or reports.

Calendar Tab

In the **Calendar** tab, you will be able to see your daily schedule and add additional entries. You can view the calendar by day, week or month. The facilities are listed in a drop-down menu and all users for the clinic are listed. Note the Add and Search buttons and the fact that **Calendar** is the first tab in the top menu. Your instructor has already set the working hours of each Provider (student) in the clinic.

To schedule an appointment, either find the date and time by navigating that page or select the Add button. This will bring up a patient appointment. Be sure it says Office Visit, give the date and time, select the Facility, Patient and Provider and leave Status as None. Click the save button.

Any open tabs can be closed by selecting the X displayed at the top of the opened tab. If you want to minimize the tab, click on the lock icon. Also, look for the slider below each window to aide navigation.



Patient Finder

Existing patients can be found accessing the **Patient/Client Tab** and then selecting the **Finder** tool. You can search by first name, last name, SSN, DOB and Patient ID. (see screen shot)

Enter the patient information in the **Finder** tool and press Enter to find patient. Once found, click

on the patient's last name and that will bring up their Summary page. Note at the bottom of the finder page it should say something like "Showing 1 to 50 of 9,364".

The screenshot shows the LibreHealth EHR interface. At the top, there is a navigation menu with tabs: Calendar, Flow Board, Messages, Patient/Client, Fees, Procedures, Administration, Reports, Miscellaneous, Popups, and Help. The Patient/Client tab is selected. Below the navigation, there is a patient information section for Steve Abbott (2323) with a DOB of 2009-02-01 and Age of 8. A red arrow points to the 'Finder' button in the Patient/Client dropdown menu, labeled 'Finder tool'. Below this, there is a 'Patient Finder' window with a search bar and a table of 10 patients. A red arrow points to the search bar, labeled 'Enter patient information'. The table lists patients with columns for Last Name, First Name, Home Phone, SSN, Date of Birth, External ID, and Patient ID.

Last Name	First Name	Home Phone	SSN	Date of Birth	External ID	Pat
Abbott	Steve		64580	2009-02-01		2323
Abbott	Jewel		71554	1983-01-19		9023
Abbott	Allan		63568	1997-11-22		1323
Abbott	Ginger		70507	1936-01-19		8023
Abbott	Hugh		70520	1949-12-23		8023
Abbott	Lucinda		62556	1985-09-12		3723
Abbott	Iva		62574	2003-08-07		3923
Abbott	Ralph		65524	1953-08-27		3223
Abbott	Chris		65557	1986-06-22		3223
Abbott	Theodore		65567	1996-06-02		3223

Add/New Search for a Patient:

New patients can be created by selecting the **Add/New Search** button in the drop-down menu of the **Patient/Client Tab**. To add a new patient, hover over the **Patient/Client Tab** at the top of the screen and press **Add/New Search**. (see screen shot). This will bring up a new window. (see screen shot). You will use this when you create your own test patient. Notice the boxes in the lower right so you can input stuff such as insurance and contact information. Final step is to select "Create New Patient". Practice searching for patients.

Sample patients. While there is information on all patients such as medical problems, medications, vital signs and simple labs, we have selected 10 patients and populated their charts with realistic scenarios, such as encounter notes and images. A table of the 10 sample patients follows the two screen shots.

LibreHealth EHR

Secure https://nhanes.librehealth.io/interface/main/tabs/main.php?url=TAB_ONE_DEFAULT

Calendar Flow Board Messages **Patient/Client** Fees Procedures Administration Reports Miscellaneous Popups Help

Patient: None

Calendar Add Search

June						
M	T	W	T	F	S	S
29	30	31	01	02	03	04
05	06	07	08	09	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	01	02

Providers

All Users
Administrator, Administrator
Hoyt, Robert

Finder
Add
New/Search
Summary
Visits
Records
Visit Forms
Import

Wednesday, June 28, 2017

8:30
8:45
9:00
9:15
9:30
9:45
10:00
10:15
10:30
10:45
11:00

Administrator Administrator

Patient: None

Patient Finder Search or Add Patient

Search or Add Patient

Search or Add Patient

Face Sheet

NAME: <input type="text"/>	Sex: <input type="text" value="Unassigned"/>
DOB: <input type="text"/>	Marital Status: <input type="text" value="Unassigned"/>
Address: <input type="text"/>	City: <input type="text"/>
State: <input type="text" value="Unassigned"/>	Postal Code: <input type="text"/>
S.S.N.: <input type="text"/>	License/ID: <input type="text"/>
Mobile Phone: <input type="text"/>	Contact Email: <input type="text"/>
Billing Note: <input type="text"/>	

Contacts
 Privacy
 Employer
 Social Statistics
 Insurance

Search Create New Patient

Sample patients

Patient Name	Age	SSN	Primary Diagnoses
Jimmy Jennings	61	62259	Diabetes, Obesity, CAD, COPD, HTN
Deloris Khan	75	62589	Polymyalgia rheumatica
Everett Monroe	54	67513	HTN, hyperlipidemia, CAD
Henry Willis	35	62180	Cystic fibrosis, asthma
Sonja Bryan	38	67504	Obesity, Pregnancy, Pre-eclampsia
Dennis Kelley	22	62161	Depression, ADHD, acute pericarditis
Eddie Schneider	19	62253	Acute sacral stress fracture
Myra Patrick	64	65448	Cerebral infarction, HTN, hyperlipidemia, mild depression
Andre Salas	63	63579	Diabetes, renal dialysis
Danny Jarvis	70	71869	Old MI, HF, CAD

Select one of these patients and search by last name or SSN. Once found, double click on their last name and you should be taken to their summary sheet. The following screen shot is of Jimmy Jennings. You will need to access many of the features in this summary list, but be sure you see the upper right options to create a new encounter and where to find old encounters. You can also go to the menu, select **Patient/Client** and then select **Visits** and accomplish the same thing. This Summary can also be found under the **Patient/Client** tab in the top menu.

The screenshot displays the patient summary for Jimmy Jennings (DOB: 1955-08-05, Age: 61). At the top, there are navigation options: "To create new encounter" (indicated by a yellow arrow) and "To locate past encounters" (indicated by a yellow arrow). The patient's name "Jennings, Jimmy" is highlighted in the search bar. The summary page is organized into several sections:

- Navigation:** History | Report | Documents | Transactions | Issues | Ledger
- Tags (expand)**
- Billing (expand)**
- Demographics (expand)**
- Insurance (expand)**
- Notes (expand)**
- Patient Reminders (expand)**
- Disclosures (expand)**
- Amendments (collapse)**
- Labs (collapse)**
- Vitals (collapse)**
- Clinical Reminders (collapse)**: Assessment: Colon Cancer Screening (Past Due) ? Assessment: Prostate Cancer Screening (Past Due) ?
- Appointments (collapse)**: 2017-07-25, 09:00 am (Tuesday) Status (-) Office Visit Robert Hoyt
- Medical Problems (collapse)**: Mild intermittent asthma, uncomplicated 2005; Unspecified osteoarthritis, lumbar spine 2015; Heart failure, non-systolic 2014; Emphysema, unspecified, moderate 2000; Unspecified chronic bronchitis 2000; Essential (primary) hypertension 1996; Pure hypercholesterolemia, unspecified 1996; Obesity 1990; Type 2 diabetes mellitus without complications 1996
- Allergies (collapse)**: Statin induced myalgias (unassigned)
- Medications (collapse)**: ALBUTEROL 2 puffs q 6 hours prn; DILTIAZEM 180mg TID; HYDROCHLOROTHIAZIDE 25mg qd; INSULIN GLARGINE 45 units q day; MONTELUKAST 10mg qd; PANTOPRAZOLE 40mg po for reflux

Before you go through each feature of the **Summary** page, please note the sections below the patient name:

1. **History:** where you will find more history, such as family history and lifestyle (smoking, drinking, illicit drugs, etc.). Click the edit button and you will see an inventory of risk factors you can select and exam results
2. **Report:** This is where you can generate a variety of summary reports you might want to use if you are referring a patient to another physician. This will be used later in one of the student exercises.
3. **Documents:** this is where important documents can be stored or where we chose to archive images, such as a chest x-rays and EKGs.
4. **Issues:** a summary of major problems with an option to add and edit

Be sure to access the following Summary options and note that if you would like to return to the main summary page, either choose Back or click on the Patient's Name (blue) in the upper left.

1. **Demographics:** where you can add and edit demographic information. Please note that under the Privacy tab, a patient can select whether they want to have a patient portal and how they would like to be contacted (email, SMS, etc.)
2. **Insurance:** where insurance details are stored
3. **Labs (trend):** Click on this to see laboratory results (most patients only have one set of lab results). Note the labs are organized by LOINC codes. For example, 2085-9 means HDL cholesterol. Click on toggle all, the submit and you should see the results of about 11 results. The far-right column lists whether the results are abnormal or not.
4. **Vitals (trend):** Click on the trend and you will see results such as height, weight, BMI, blood pressure, pulse, etc. You can also graph vital signs if more than one set have been performed.
5. **Clinical reminders:** lists any screening that is due. Click on the edit button and the main tab will show you what reminders are pertinent for this patient and which are due or not due. There are two general plans in the EHR; one is preventative care and the other is related to diabetes. Click on the Admin tab and you will see which defaults are turned on and which are not. Active alerts mean there is a popup the clinician sees when something is due. One of the student exercises is to create a new Clinical Decision Rule (CDR).
6. **Appointments:** This is another way to see what appointments a patient has and to enter a new one.

7. **Medical problems:** Should list the outstanding medical problems. Click edit. You will note the problem, when it began and possibly ended, the ICD-10 code, the status (active) and when it was modified. Click the **Add button**. There is a drop-down list of common medical disorders you can use. Place the diagnosis in the title box. In the coding box, click on it and it will take you to a search window. In the drop-down menu select ICD-10 (the diagnosis code the US is now using). Enter sinusitis and there will be multiple choices appearing. Select the first one “J01.00 Acute maxillary sinusitis, unspecified
8. **Allergies:** Click on the Add button to see how new allergies can be added. There is a drop-down list for common allergies.
9. **Medications:** Lists all medications, when begun or stopped and status. Click Add and note the drop-down list of common drugs that can be selected for ease of inputting.
10. **Surgeries:** where surgeries are inputted
11. **Immunizations:** where immunizations are inputted. In this case, immunizations are associated with a CVX code. Click on edit and search for CVX code 43 (hepatitis B vaccine). Prior immunizations are listed here and the option to print out the immunization record. If you would like to see a list of all CVX codes click [here](#).
12. **Prescriptions:** where new prescriptions are written and printed out or faxed. There will be an exercise on this process later.

Other Important EHR Menu Items

Procedures tab:

1. Configuration: this is where new lab tests (not in the system) are entered
2. Pending review: is where new results will appear. The user should review and “sign” as evidence of the results being reviewed.
3. Patient results: labels the procedure as NHANES lab panel inputted December 31, 2016. This is the typical lab panel for each patient. It gives you the name of the lab test, when it was collected and reviewed. The code column is the LOINC codes for lab work. A patient must be selected to see the results.
4. Lab overview gives you the same view as you would see with the Lab trends in any patient summary

5. Electronic reports: Providers (clinicians) can search by date to see what lab they have ordered in the past
6. Other tabs under procedures: ignore

Reports tab: (there will be exercises on reports later)

1. Clients (see screen shot below)
 - a. List: Search for patient visits between dates with possibility of CSV download
 - b. Patient list by referrer: Search for patient visits between dates from referrals
 - c. Rx: Search for prescriptions by facility between dates. Can search by new medications ordered or by patient
 - d. Patient list creation: Create a patient list based on dates, patient ID, age, gender and drop-down choices of demographics, problems, medications, allergies, lab results and communications
 - e. Clinical: Search by facility, dates, age range, gender, ethnicity, problem, drug, immunization (not CVX codes), lab result, communication and lab results
 - f. Immunization registry: Search by dates and CVX codes
2. Clinic
 - a. Report Results: Where you can investigate the Automated Measure Calculations (AMC) such as; what percent of charts record smoking history in patients over age 13. Look at numerator and denominator
 - b. Standard Measures: Search for passive/active alerts and patient reminders by provider
 - c. Quality Measures:
 - d. Automated Measure Calculations (AMC): Search engine
 - e. Visits
 - f. Appointments: Search engine
 - g. Encounter: Search engine

Calendar Flow Board Messages Patient/Client Fees Procedures Administration Reports Miscellaneous Popups Help

Patient: **Steve Abbott(2323)**

DOB: 2009-02-01 Age: 8

Clients	List
Clinic	Patient List By
Visits	Referrer
Financial	Rx
Procedures	Patient List Creation
Insurance	Clinical
Blank Forms	Immunization Registry
Services	

3. Miscellaneous tab:

- a) Patient education: Link externally to patient education web sites
- b) Patient portal dashboard: Management site for patient portals