CHR Training Script

1) **Introduction and Goals**

a) Who is the Hawai'i Health Information Exchange
   i. Hawai'i HIE is a non-profit organization and the state-designated Health Information Exchange (HIE)
   ii. Mission: Improve quality of care, increase efficiency, and reduce costs through effective use of electronic health records (EHRs) and electronic exchange of clinical data

b) Goals of training super user
   i. Train the office Super User, trainee is the CHR expert in the practice
   ii. Responsibilities of Super User
      1. Act as organizational administrator "Keeper of the CHR"
      2. Train other users
      3. Notify Hawai'i HIE when users or providers leave the organization
      4. Request new user or provider access
      5. Regularly update results inbox data sources
      6. Assist others in turning results inbox on or off
      7. Complete training, product and service evaluations

c) Purpose of the Community Health Record
   i. Provide access to medical records from across multiple health care and computer systems in one online and secure source.
   ii. Allow almost real-time access to clinical reports and results
   iii. Improve access to complete information in order to support clinical decision making

2) **Initial Log-in**

a) Log into Community Health Records
   i. https://chr.healthenet.org
   ii. Usernames are unique to each user will be provided by the Hawai'i HIE
   iii. Password standard on initial log-in hhie@hhi3
   iv. Password change required to initial log-in
      - Password requirements 8 digits, 1 alpha, 1 numeric, 1 symbol
      - Change password every 90 days
      - Can't repeat last 5 passwords
      - Password reset from log-in screen

b) Acceptance of EULA and Password
   i. Read and accept EULA
      - Need to scroll through entire EULA in order to activate accept button
      - Screen needs to be at 100% for the button to work.
   ii. Change Password
   iii. Security Questions
      - Used by Hawai'i HIE to positively identify user when calling for support
      - Necessary for password self-reset

c) Splash Page
   i. Results inbox, Referrals, Messaging (if present will be addressed later)
   ii. User Admin Preferences under Users name
   iii. Search bar

3) Conduct Patient Search

a) Initiate Patient Search

The patient search function is a two-step process, first to locate the patient and second to bring the patient into focus. Patient search can be based on any of the following elements;

i. Patient Name- One or more letters from the beginning of the last name
ii. Medical Record Number- One or more digits from the MRN
iii. Social Security Number- Full or last four digits
iv. Date of Birth- Use MM/DD/YYYY format

b) Positively Identify Patient

Patient search results positively match patients based on complicated matching algorithms. These algorithms consider identifiers such as Name, Sex, DOB, MRN, SSN, Address, Telephone Number and Zip Code in order to positively match a patient.

If a patient is positively matched the two files are merged into one and a + sign is visible. This ensures that matching is only a true match. As a result patient Sam, Sammy, and Samuel are all recognized as the same individual based on non-name criteria. If a patient is not positively matched then the separate files are not merged.

Hawai'i HIE errs on the side of caution and merges patients only on algorithms with greater than 95% confidence. As a result, you are much more likely to see duplicate patients rather than improperly merged patients.

c) Access Additional Records (AAR)

Access to records is based on the user's role and previous association with the patient

Providers are automatically associated with patients when they order tests, are cc'd on results or write notes in the hospital

Users mapped to those providers then have rights to view that patient's information

If the patient hasn't been previously associated with the provider then they will need to access additional records to view the patients information

The ability to view patients with whom the provider does not already have an association is dependent on the user role the user was assigned

- ED providers will only need to AAR when looking for confidential results
- Established providers have the ability to AAR and to establish relationships with new patients

- Staff with query have the ability to AAR but not establish relationships
- Staff without query do not have the ability to AAR or establish relationships

As a user you are required to select the reason for completing an expanded search from the drop down box. The reason should be consistent with why you are accessing the patients chart. Some of the main reasons used include *the patient is new to my practice* or *I have an established clinical relationship with this patient.*

4) The Patient Chart: "Bringing The Patient Into Focus"

After the search is completed and the desired patient is chosen, the patient is "brought into focus" and the Patient Summary appears. While the Patient Summary is the default landing page, we want to talk about the standard pieces before moving into the summary.

The Face Sheets button is addressed specifically because is high yield for practices and generally immediately provides information that the practice did not already know. This additional information grabs the user's attention and engages them with the product.

a) Name and demographic header

A header will appear at the top of every page. It includes basic patient identifiers, the facility where the information is coming from. The header remains when scrolling through the chart so that the user can always see which chart they are viewing.

i) Demographics including patient name, gender and age.
ii) 30 day readmit notification: If it is within 30 days of the patients last hospital discharge, the CHR will indicate this as <30 days in red.
iii) Breadcrumbs for easier navigation
iv) Results Inbox, Messages, Referrals: Addressed at the end

b) Create Care Summary

The Create Care Summary tab creates an exportable copy of the full patient record similar in content to the current Meaningful Use Transition of Care Summary providers are receiving from the hospitals.

- Creates exportable CCD
- Very comprehensive
- Future development to make "Build your own care summary"

c) Profile and Face Sheets

This tab provides access to both patient Demographics and Face Sheet. These pages contain basic information about the patient encounters and is high yield for the practice.

i) Demographics

The page contains demographic information including the address and insurance information for the patient. Includes:

- Patient Demographics

- Emergency Contact Information
- Insurance Information

The amount of information available varies by the data source. For example, labs do not submit as much as much information as hospitals.

ii) Face Sheet

The Face Sheets Tab is one of the most useful tabs in the Community Health Record. It is high yield for the practice and provides easy recognition of how the patient has accessed care and why. Clinical information includes:

- Location Seen
- Visit dates
- Admission and discharge dates
- Associated Provider
- Problems Identified
- Procedures Completed

d) Filters

Filters are present at the top of each page

i) Filters include:
   - All
   - ED
   - Inpatient
   - Outpatient

ii) May also filter by clicking on top of columns in charts

iii) Filtering is especially important for the Medication Query (more to come)

5) Patient Summary

****Before starting training on tabs, "drive" for a moment and start the Medication Query , this will allow the results to be present by the time you are ready to talk about Medication Query****

Alternatively, if you forget to start the medication query early, utilize the query time to ask if the client has any questions.

The patient summary is the default landing page and provides a basic overview for the patient.

a) It highlights the three most recent clinical activities under each category

b) Categories include:
   - Problems/Conditions
   - Medications
   - Results
   - Allergies
   - Procedures
   - Reports
   - Care Summaries.

c) User can "Drill down" by selecting "All" under each category for full data

d) Summary page is customizable from gear icon to the right of the screen

Workaround: "Diagnosis not available" currently seen in Hilo Medical Center (HMC) and lab problems. Hawai'i HIE is working to address.

Workaround: The summary page sounds very useful; however the limited information currently available makes this page not so desirable. Many fields are not currently available from our data sources. As a result, they are often blank or with "No results available". Currently recommendation is to acknowledge future capacities and move past summary page as quickly as possible if the page is blank on the patient you look up.

6) Encounter

Contains two parts 1) Problem List and 2) Encounter History

a) Problem List
- Displays all problems identified on each sources ADT
- "No records to display" means no data was sent by the data contributors. It does NOT mean the patient has no problems.
- Problems appear directly how data sources send them
- Problems are sortable by clicking on header

b) Encounter History
i) Displays a history of all the encounters the patient has had with the Community Health Record data contributors since contributor started sending data.
ii) Organized sequentially starting with the most recent visit
iii) Data appears how it was sent by specific contributing organization
iv) Encounter data may include:
- Date
- Setting – Ambulatory, Inpatient, ED
- Problem
- Link to Face Sheet

Workaround: The Encounters tab is very similar to the Face Sheets tab. While the Encounters tab is easily assessable on the left, the Face Sheets tab is the preferred source of the encounter information due to the inclusion of problems and providers directly in the scrollable encounter viewer. Minimize direction to the Encounters tab and instead direct users to the Face Sheets encounter information.

7) Results

The Results tab is the second most commonly used area of the CHR. The naming "Results" may be confusing to some users due to the tab containing more than just lab results.

a) Results include any type of report, result or note contributed by a data source.
b) Specific "Results" include:
- Lab Results
- Pathology Reports
- Radiology Imaging Reports
- Cardiac Studies- EKG's, ECHO's, Stress Tests
- Consult Notes
- History and Physicals (H&P's)

- Progress Notes
- Discharge Summaries

c) Results display as provided by the data contributor, same content as what now faxed
d) Almost real-time. Timing determined by data sender, but generally sent after note or result is signed by the attending provider.
e) Only final results are available in the CHR
f) Results are filterable using the toggles, "googling" for a result, or by clicking on headers

Workaround: Currently the naming conventions across data contributors are not standardized. As a result, some organizations provide more detail in their naming than others. For example, Queen's Medicla Center radiology describe their reports much more specifically than Hilo. I.e. Queen's says Chest X-ray PA and Lateral vs Hilo says radiology report. Hawai'i HIE is working to standardize naming conventions to ease usability and efficiency.

Workaround: Lab results are listed separately but when opened all of the labs that were ordered on that lab order appear. As a result the user may need to scroll through multiple other labs to see the lab they chose.

Common Question: Charting of labs over time or viewing all of one lab type on one screen is currently not supported by the CHR. It is a great idea, but not on the Medicity road map at this time.

8) Medication

The medication feature is used for viewing allergies, medication fill history, and medication alerts. There is also the capacity to view inpatient medication orders, but the Hawai'i HIE is not currently using this field so it is turned off.

a) Allergies
- Allergies listed are contributed directly from data sources
- Absence of allergies does NOT mean No Known Drug Allergies but rather only that no allergies were contributed from the data source

Workaround: Allergies may appear as duplicates. This is a result of the way that data sources contribute data regarding allergies. It is recommended to sort by date in order to limit duplicates.

Workaround: "Results not available" does NOT mean "No known drug allergies" and the patient does not have any allergies. Instead it means that there are no allergies being contributed by a data source. Currently Castle is unable to send discrete allergy information thus all Castle patients will appear to have "Results not available"

b) Medication Alerts
- Medication alerts are based on the medication fill history
- Alerts are meant to be identify possible problems
- Specific alerts include: drug-drug interactions, duplicates in therapy, and possible non-compliance based on fill history.

Workaround: Alerts do NOT consider drug-allergy interactions as there is no communication between the medication fill history and the allergies field.

9) Query Medication History

The medication history provides on-demand information about the prescription fill history.

a) Purpose is to help bridge medication knowledge gap
- Difference between what is prescribed and what is actually filled
- Patients getting care and prescriptions from multiple providers

- Provides 12 month medication fill history
- Last query time provided at top of result

b) Complete On-Demand Query by selecting "Query Medication History"
- Single patient can only be queried once every 24 hours
- Takes about 60 seconds
- Users should be cautioned queries cost the Hawai'i HIE and should only be repeated as truly necessary

c) Data Included:
- Medication name and strength
- Quantity dispensed
- Fill date
- Prescribing Provider (availability dependent on data source)
- Pharmacy Filled (availability dependent on data source)

d) Data Quality and Sources
- Health Care Systems (HCS) is data aggregator
- Includes data from over 20 local and national Pharmacy Benefit Managers, Insurance Companies, Claims Adjudicators, and Pharmacies.
- Surescripts is just one of their data sources
- About 90% of patients have some results returned

e) Improved Usability
- Results returned in alphabetical order
- Need to sort by last fill date for easier use
- Print feature prints alphabetically, caution against use

Workaround: The medication fill history is not a 100% complete listing of medications being taken by the patient and should not represent a complete medication record.

Workaround: Currently list is displayed reverse alphabetically and is not de-duplicated. As a result, need to sort by fill date to view current medications.

Workaround: Currently when user selects print, the medication list prints in alphabetical fashion, as a result there are many duplicates. Hawai'i HIE is working to change this.

Workaround: Current gaps in medication fill history include some cash pay pharmacies, UHA insurance, Kaiser insurance and medications filled at the VA.

10) Documents

This function will be used to access and generate Continuity of Care Documents (CCD).

a) CCD Repository
- i) CCD's can be created and downloaded for incorporation into the providers EMR.
- ii) Future development Documents Tab will also contain CCD's contributed by community data sources
- iii) Specific sources may include:
  - Pharm2Pharm Medication Reconciliations
  - Ambulatory Visit Summaries

b) External Documents
   i) A query to receive CCD's that may be available on-demand from other providers or data sources in the community.
   ii) Hawaii Pacific Health (HPH) will soon be contributing data on demand in this fashion.

11) Results Inbox

Notification of new events or results such as discharge from the hospital

a) About the Results Inbox
   i) The inbox is custom to what the user wants to see and is maintained by the user
   ii) All users by default have it turned on but can turn off through preferences tab
   iii) Each inbox is separate; there are no shared inboxes.
   iv) Delivery based on associated provider as ordering provider or cc'd.
   v) Specific Available Information Includes:
      - Admission and Discharge Face Sheet Notifications
      - Lab Results
      - Radiology Reports
      - Transcribed Reports- ie Discharge Summary, Consult Notes, H&P
      - Other Clinical Documents

b) Accessing the Results Inbox
   i) Results Inbox accessible through "Home" search page
   ii) Number of new results appears on "Home" search page
   iii) Clicking on Results Inbox opens Inbox
   iv) Unviewed results appear in white including
      - Date/Time Resulted
      - Patient Name
      - DOB
      - Type of Result
      - Description of Result
      - Alerts
      - Ordering Provider
      - Resulting Facility
   v) Click on patient to view results
   vi) Results will appear below
   vii) Access complete CHR Record through "View Results in Patient Record" link within the result itself
   viii) Printing available or download to PDF
   ix) Select remove from list after viewing and/or printing
   x) Results will only stay in the inbox for 30 days. However, it is best practice to delete messages after viewing to prevent message accumulation which will result in sluggishness of the system.

c) Results Inbox Maintenance

i) Managed by the individual user through User Preferences near the users name in upper right corner
ii) User needs to periodically check setting and add any new data sources
iii) Click on arrow by Users Name and select “Account Preferences”
iv) Within “Account Preferences” select “Delivery Rules”
v) If user wants to turn Inbox off select “Remove” until all rules are gone. Then select Save and Exit.
vi) To update delivery preferences select “Edit” on the Rule Chart
vii) Within “Delivery Rule Detail” verify all desired data types and sources are checked for both inpatient (IP), Outpatient (OP) and Confidential (Conf) patients.
viii) Available data includes:
    - General Cardiology
    - Interventional Radiology and Cardiac Catheter Lab
    - Face Sheets (Admission and Discharge)
    - Laboratory
    - Radiology
    - Medical Transcribed Reports (H&P’s, Consults, Discharge Summaries)
    - Pathology
ix) Advanced Delivery Rules allow access higher frequency of results. HIGHLY recommend users only select the following:
    - Admission
    - Discharge
    - Abnormal
    - Normal
    - Critical
    - Stat
    - Routine
    - Final
    - Corrected
    - DO NOT SELECT Preadmission or When Update is Received or user will get inundated with messages
x) Select Save on Delivery Rule Detail
xi) Select Save and Exit from Account Preferences