DHCS CSI Data Quality Improvement Project CSI Webinar #1 CSI Kickoff

Mental Health Data Alliance, LLC (MHData)

December 14th, 2017

Project Goals

- Support the ability to submit good data to the current state CSI and DCR mental health data systems
- 2. Close the feedback loop for counties to validate that they have good data in the CSI and DCR state mental health data systems
- Improve the value of state CSI and DCR mental health data systems for counties, the state and stakeholders

Approach

Over 1.5 years:

- Provided counties with 2 reports which provide an overview of current data and errors for CSI and DCR
- Met with counties to review reports and identify potential causes of data patterns and inconsistencies
- Work with counties and DHCS to improve processes to submit data to DCR and CSI
- 4. Provide counties with 2 reports which provide an overview of improved data for CSI and DCR

Overview of CSI System

- The CSI System collects data pertaining to mental health clients and the services they receive at the county level.
- A basic principle of the CSI system is that it reflects both Medi-Cal and non-Medi- Cal clients and services provided in the County/City/Mental Health Plan program.

Submitting CSI Data

• Counties send a CSI Submission File to DHCS monthly and are required to submit data no later than 60 days after the end of the month in which the services were provided.

CSI Reporting Requirements

- 1. Who needs to be reported?
- 2. What needs to be reported?
- 3. Reporting Periodic Records
- 4. Health Information Systems

Who needs to be reported?

- CSI system reflects Medi-Cal clients, non-Medi-Cal clients, and services provided in County, City/Mental Health Plan programs
 - County-staffed providers: all clients & services must be reported
 - Contract Providers: Clients & services provided in contract with County Mental Health Program must be reported.
- "All persons served in treatment programs must be reported to the CSI System. This includes both Medi-Cal and non-Medi-Cal clients, and persons served by the private practitioners that were formerly in the Fee-For-Service System" (MH-Ltr98-03).
- Exceptions:
 - State Hospital and Conditional Release CONREP clients
 - Phase I (Inpatient) Consolidation providers and services

References: 10-Reporting Tips - Tip One - April 2016 (Technical Supplement F); MH-Ltr98-03

What needs to be reported?

- Client record information at first contact
- 24 Hour Services (Mode o5)
- Day Services (Mode 10)
- Outpatient Services (Mode 15)
- Periodic Records

• References: 10-Reporting Tips - Tip One - April 2016 (Technical Supplement F); MH-Ltr98-03

Reporting Periodic Records

- Periodic Records, which contain data elements that change such as living arrangement, <u>are collected</u> and submitted at:
 - First Contact with County Mental Health Plan
 - Annually thereafter for active or continuing clients
 - Formal Discharge from County Mental Health Plan
- After initial collection at admission, it is expected that the periodic data would be collected concurrently with outcome measures.

References: Reporting Periodic Data, MH-Ltr98-03.

Reporting Periodic Records

1. AT "FIRST CONTACT" WITH THE COUNTY MENTAL HEALTH PLAN

<u>"First contact" Periodic data collection and reporting</u>: Collection and reporting of Periodic record data for all County Mental Health Plan clients at "first contact," or prior to the initial provision of mental health services, ensures baseline functioning level data are collected at the beginning of each client's contact with the County Mental Health Plan.

2. "ANNUALLY THEREAFTER" FOR ALL ACTIVE OR CONTINUING COUNTY MENTAL HEALTH PLAN CLIENTS

"Annual" Periodic data collection and reporting: Collection and reporting of Periodic record data on an annual basis for all active or continuing County Mental Health Plan clients ensures that current functioning level data are collected for analysis with baseline functioning level data to relate changes in a client's functioning levels over time.

County Mental Health Plans are encouraged to utilize a client's annual Universal Method to Determine Ability to Pay (UMDAP) appointment to collect Periodic record data for annual reporting. Ideally, CMHPs should report Periodic record data annually (e.g., within a twelve month period) for all active or continuing clients.

3. AT "FORMAL DISCHARGE" FROM THE COUNTY MENTAL HEALTH PLAN

<u>"Formal discharge" Periodic data collection and reporting</u>: Collection and reporting of Periodic record data at formal discharge (i.e., no further mental health services needed, client has reached treatment goals) from the County Mental Health Plan ensures that functioning level data as of "formal discharge" are collected for analysis with baseline and annual functioning level data to assess treatment efficacy of services delivered by the County Mental Health Plan.

References: Reporting Periodic Data

Health Information Systems

MHP HIS Requirements:

- o (a) The MHP shall maintain a health information system that collects, analyzes, integrates, and reports data and provides information on areas including, but not limited to, utilization, grievances and appeals as required by title 42 CFR section 438.242(a).
- (b) The basic elements of the health information system as required by title 42 CFR section 438.242(b) shall, at a minimum:
- (1) collect data on a beneficiary and provider and on services furnished to beneficiaries;
- (2) ensure that data received from providers is accurate and complete by verifying the accuracy and timeliness of reported data; screening the data for completeness, logic, and consistency; and collecting service information in standardized formats to the extent feasible and appropriate.

Contracted Provider HIS Requirements:

- Contracted providers shall maintain a health information system that collects, analyzes, integrates, and reports data.
- The system shall ensure that data received from providers is accurate and complete.
- The system shall make all collected data available to the Department and, upon request, to CMS.

Reference: 2013-2018_MHP_Contract_pg54; 9 CCR § 1810.376

Reporting Reference Links

- Reporting Tips Tip One
- Reporting Tips Tip Five
- <u>DMH Letter 1997</u>
- <u>DMH Letter 1998</u>
- FSP Data Collection Requirements
- Health Information Systems Requirements
- MHP Contract Example (pages 1, 2, 52)

Summary of Issues Related to Specific Service Types

- 1. Issues with calibrating EHRS to report services to CSI
- 2. Issues with Mode o5 service reporting are common
- 3. Issues with Mode 15 Collateral are common
- 4. Issues with Mode 15 Linkage/Brokerage services are common
- Mode 10 Crisis Stabilization units are unrealistically low for NetSmart Avatar submitting entities

Summary of Issues Related to Total Clients and Providers

- 1. EHR may hold records in suspension indefinitely which might otherwise cause a CSI error
- 2. Programs and providers may not be calibrated to report to CSI

Summary of CSI Error Issues

- Issues with switching to IDC-10
- 2. Mode 05 dates overlap
- 3. Provider File Issues
- 4. SSNs for undocumented clients
- 5. Clients no longer qualifying for a special population
- 6. Primary Language as Portuguese or other
- 7. Units of time incorrect
- 8. Missing client records
- 9. Issues attempting to overwrite records
- 10. Unknown "Relational" error
- 11. Batch data correction process unknown or unclear

EHR Related Issues

- NetSmart Avatar, NetSmart CMH, Echo ShareCare, InSist or Cerner Anasazi experienced various issues related to the upgrade to ICD-10
- Cerner Anasazi might not be reporting "Single Contacts"
- Profiler EHR might be experiencing continuous decline in clients reported
- 4. Periodic Records not representative of newly collected periodic assessments
- 5. Switching EHRs often results in large increases and decreases in clients and services reported

- Summary of Issues Related to the General CSI System
 - 1. There is no way to view CSI data or data reports to understand what data is in CSI
 - 2. There is no ability to roll back, revert or cancel an entire batch after submission
 - Nontraditional clients who receive CSI type services cannot be reported
 - 4. There are complaints that support is slow and difficult to access for the system

Issues: Service Types

- 1. Issues with calibrating EHRs to report services to CSI. Each EHR must be calibrated to report the appropriate services to CSI. As new programs and providers are added, these must also be flagged for CSI reporting as necessary. Submitting entities have noted that there are some business rules in certain EHRs, including those which relate to Medi-Cal billing, which hamper their ability to report all appropriate services to CSI. Further investigation is needed to identify barriers to reporting related to each EHR's business rules and calibration.
- 2. Issues with Mode o5 service reporting are common. Many submitting entities have challenges with reporting or understanding their Mode o5 services. There were 111 Mode o5 related issues for 50 of 58 counties identified for further research. Some of these issues relate to out-of-county services. Submitting entities are not able to retrieve data from CSI on services provided which are submitted to CSI from out-of-county. In the next phase, this project will produce a supplemental out-of-county service report. Additional Mode o5 issues relate to barriers in EHRs to set up Mode o5 services for reporting, as well as in-county Mode o5 services which are reported directly to the state for Medi-Cal billing and never captured in the submitting entities EHR, rendering such services unavailable for reporting to CSI.

Issues: Service Types

- Issues with Mode 15 Collateral are common. Submitting entities commonly report a bulk of their collateral services under other codes, such as with the Mode 15 (30-38, 40-48, 50-57) Mental Health Services code. A change in reporting code might have occurred for many counties when they began using and calibrated Cerner Anasazi, as several of these counties' collateral services fall off in the same month this EHR was implemented.
- 4. **Issues with Mode 15 Linkage/Brokerage services are common.** Several submitting entities have communicated that while they provide Mode 15 Linkage/Brokerage services, the services are not reported to CSI because they cannot be claimed for billing through Medi-Cal.
- 5. Mode 10 Crisis Stabilization units are unrealistically low for NetSmart Avatar submitting entities. NetSmart Avatar submitting entities of Humboldt, Riverside, San Francisco and San Mateo are showing unrealistically low units of service for Mode 10 Crisis Stabilization. The units are likely representative of contacts with clients rather than hours of service.

- 1. **Preliminary Recommendation 1:** DHCS to create a process to help validate data after EHR switch.
 - > DHCS may also benefit from involving certain vendors to validate that the interfaces work correctly and identify/minimize/resolve configuration errors.
- **2. Preliminary Recommendation 2:** Submitting entities along with their EHR vendors should review and modify as necessary the calibration to report services to CSI.
 - > Submitting entities should ensure that all CSI reportable services are being exported to CSI submission files and work with vendors to calibrate EHR or fix EHR issues or bugs.

Issues: Clients and Providers

- 1. EHR may hold records in suspension indefinitely which might otherwise cause a CSI error. Some EHRs hold records in suspension when records would otherwise cause a CSI error if submitted. In some cases, the issue relates to a conflict in business rules between the EHR and the CSI system. In these cases, the errors are not addressed and may expire after 12 months, resulting in a loss of submission records, services and total client counts. In one example, Cerner Anasazi holds all Mode 05 records in suspension when a client is discharged from one facility and admitted to another on the same day as this causes a CSI error with regard to overlapping dates of Mode 05 service.
- 2. Programs and providers may not be calibrated to report to CSI. After initial calibration of the EHR, when a new provider or program is added, the submitting entity may not have a process in place to identify and flag appropriate programs and providers for reporting to CSI, resulting in a steady decline over time as old programs and providers are retired and new programs and providers become established.

- 1. **Preliminary Recommendation 1:** Vendors and submitting counties should report the number of records which expire without resolution after being held in suspension.
 - When records held in suspension are not addressed, after a period of time, an EHR may no longer flag and try to send the records. For some EHRs the record expires and can no longer be reported after one year. If a record held in suspension is never fixed and sent to CSI, once expired, it should be captured as an unresolved error for that submitting entity. Currently these unresolved errors for suspended records expire silently without report, and DHCS has no documentation of how much information is being lost due to this approach to reporting.
- 2. **Preliminary Recommendation 2:** Submitting entities should have a process to flag new providers, programs and services for report to CSI.
 - Submitting entities should ensure that all CSI reportable services are being exported to CSI submission files, and if not already established, create a process to flag any new programs, providers and services for reporting as they come online.

Issues: CSI Errors

- 1. Issues with switching to IDC-10. Some EHRs experienced issues with the system upgrade to accommodate ICD-10. As a result, the following submitting entities submitted files which generated large numbers of fatal service record errors relating to diagnoses and medical condition fields: Butte, El Dorado, Fresno, Imperial, Lassen, Marin, Monterey, Placer, San Bernardino, San Francisco, Santa Cruz, San Luis Obispo, Tehama, Tulare, Ventura, Yolo. These counties are using one of the following EHRs: NetSmart Avatar, NetSmart CMH, Echo ShareCare, InSist or Cerner Anasazi.
- 2. **Mode o5 dates overlap**. Several submitting entities experienced an error that Mode o5 service dates in record overlapped with a previous record. Overlapping dates can occur when a client is discharged from one Mode o5 facility and admitted to another on the same day. Submitting entities are requesting further instruction from DHCS with regard to reporting data in these circumstances.
- 3. **Provider File issues.** Several submitting entities experience issues related to the Provider File. Further research is needed as to the cause of these errors.
- 4. SSNs for undocumented clients. Errors arise for invalid SSNs for undocumented clients.

Issues: CSI Errors

- 5. Clients no longer qualifying for a special population. When clients no longer qualify for a special population, such as when a client ages out of childhood special populations, the EHR client record is often not updated, causing errors.
- 6. **Primary Language as Portuguese or other.** San Francisco is experiencing a CSI error when primary language is set to Portuguese or Other.
- 7. **Units of time incorrect.** On occasion, EHRs are not set up to report the correct type of units of time. Sometimes this is captured as an error, other times, it is not captured but can be seen in the data pattern as a sudden unrealistic increase or decrease in units for a type of service without an associated change in client counts.
- 8. **Missing client records.** The following submitting entities are experiencing issues with service records not matching client records: Lassen, Santa Barbara, Santa Cruz, Sutter-Yuba, and Tehama. In some cases, the EHR will suspend a client record from submission due to incomplete or missing information which would otherwise cause a CSI error while sending up the service record, which ultimately causes an error due to the missing client record.

Issues: CSI Errors

- 9. **Issues attempting to overwrite records.** Submitting entities attempting to submit files to overwrite records are experiencing issues which cause replicate records and/or records with errors.
- Unknown relational error. There are circumstances in which submitting entities are experiencing large numbers of fatal service record errors due to "Relational Error" without further description. Submitting entities require more information in the error code to determine the cause of the error. Submitting entities affected include: San Francisco and Tri-City.
- Batch data correction process unknown or unclear. Submitting entities with thousands of errors cannot reasonably correct errors one by one in the user interface. Submitting entities feel that they require more instruction on the method to address large numbers of fatal errors or replicate records with a batched process.

- 1. Preliminary Recommendation 1: Submitting entities to propose enhancements to CSI/DCR for error processing.
 - DHCS has indicated that the error preview is limited by the time it takes to run the validations required to identify potential errors. DHCS has indicated that it is technically feasible to expose the application programming interface (API) to allow the counties to run the validation for themselves, though this would likely take the same amount of time and require the counties to run their own overnight batch jobs, etc.
 - The nature of a relational database is that fields must pass specific validations in relation to each other (e.g., Sacramento resides within California, not Nevada). Incorrect information cannot be committed to the database, since it does not meet the relational rules. DHCS's way of addressing this is to place the information in a hidden table, which is not directly accessible/editable by users. In DCR (prior to BHIS migration), users could only view 10 error records at a time, which was cumbersome for larger counties which may have had hundreds/thousands of errors. While Avatar (and potentially other EHR's) has field level validations and error messages based on DHCS documentation and regulations, users can often still bypass these errors and submit erroneous information.
 - Counties have indicated that they would like an easy way to preview the data before processing (since the flat file format is difficult to read), view errors after they have been processed (more than 10 at a time), and/or download errors in bulk. DHCS has indicated that some of this functionality will be provided by BHIS (e.g., error file download) and other functionality would be an enhancement to BHIS (e.g., preview of the data). As of this report, Cambria was not able to validate the functionality of DCR within BHIS to validate what will or will not be provided.

- 2. Preliminary Recommendation 2: DHCS to provide submitting entities with additional error processing training.
 - While DHCS has indicated that information about their system exists in user manuals and their analysts are available to answer questions, some counties are not clear on how to access/view errors, download XML files, upload error files (increment the sequence number), update errors in bulk, etc. DHCS may consider providing advanced training to county administrators that addresses common and/or complex error processing scenarios. This would minimize the reactive approach to error processing.

Issues: EHR Related

- NetSmart Avatar, NetSmart CMH, Echo ShareCare, InSist or Cerner Anasazi experienced various issues related to the upgrade to ICD-10. In some cases patches were released to address the issues, but some submitting entities utilizing these EHR experienced a large number of fatal errors during the process to switch to ICD-10.
- 2. **Cerner Anasazi might not be reporting "Single Contacts".** There is an issue in Cerner Anasazi in which clients served as "single contact", such as crisis services and hospital inpatient clients are not being reported to CSI. This many affect many or all submitting entities utilizing Cerner Anasazi. Siskiyou, a submitting entity utilizing Cerner Anasazi by Kings View provided the following feedback on this issue.
 - "The CSI design, as approved by the California customers (aka CalSIG), never included an option for reporting Single Contact services. The CSI Design excluded Single Contact services as the instructions/directions from Cerner indicated that use of the Single Contact feature was not intended for "reportable" services such as Crisis services. Cerner is currently working on an upgrade that will expand the CSI system to include Single Contact services in an effort to accommodate the practices of existing customers. All counties supported by Kings View are instructed at the start of implementation/ conversion to avoid use of the Single Contact function as Single Contact encounters are similarly not covered by the billing algorithms in place."

Issues: EHR Related

- 3. **Profiler EHR might be experiencing continuous decline in clients reported.** More research is needed to identify if this is an issue with this EHR. Santa Clara is the only county utilizing this EHR. County has a ticket in with the vendor. County thinks that EHR is not reporting new clients, only existing clients.
- 4. **Periodic Records not representative of new periodic assessment.** More research is needed, but EHRs appear to be reporting periodic records more often than periodic assessment information is collected from clients. In some cases, submitting entities are not yet entering periodic assessment information into EHR, but periodic records are being sent by EHR regardless. It is unclear what information is included in periodic records. All EHRs are affected.
- 5. Switching EHRs often results in large increases and decreases in clients and services reported. When submitting entities switch EHRs, the new setup may flag greater or fewer programs and services for reporting to CSI. Some EHRs may closely couple Medi-Cal reporting with CSI reporting, making the reporting of service which are not billed to Medi-Cal difficult. In addition, it is very difficult to test data submission with de-identified data when switching EHR. This provides a challenge to submitting entities to perform testing. If a submitting entity can't send up real data, then they can't predict what the real errors would be once there is a switch to production submission of real data. Submission of fake data results in fake errors and fake results. Testing should be permitted on real data.

- 1. Preliminary Recommendation 1: DHCS create a process to help validate data after EHR switch.
 - DHCS may also benefit from involving certain vendors to validate that the interfaces work correctly and identify/minimize/resolve configuration errors.
 This process should include the ability to test real data submissions.
- 2. Preliminary Recommendation 2: DHCS meet with each EHR vendor and associated submitting entities utilizing their EHR.
 - DHCS should meet with each vendor and all associated submitting entities to provide guidance and answer questions with regard to which data is CSI reportable; information on recent changes to business rules, including ICD-10; methods for submitting batch corrections of data; processes for data validation and other topics identified in this report or from vendors.

Issues: General CSI System

- 1. There is no way to view CSI data or data reports to understand what data is in CSI. Submitting entities cannot currently validate whether all of their data is in CSI because outside of the reports for this project, they have not had any capacity to view CSI client or service records or record counts. In addition, since submitting entities cannot pull CSI data reports, the system has no value to them, and submitting data has become a chore with little or no return on investment of time, effort and resources.
- 2. There is no ability to roll back, revert or cancel an entire batch after submission. There are instances in which a submitting entity submits a file which results in a large number of unexpected errors, and it would be easier for the submitting entity to roll back or cancel the submission and resubmit rather than cull out records with errors for resubmission.

Issues: General CSI System

- 3. Nontraditional clients who receive CSI type services cannot be reported. Clients who are undocumented (have no SSN) or who have mild illness (without a qualifying diagnosis) are not allowed in reporting, despite that the submitting entity may provide them with CSI reportable services.
- 4. There are complaints that support is slow and difficult to access for the system. Submitting entities have communicated that they have trouble receiving response DHCS helpdesk. Some counties who have engaged the helpdesk have been very happy with the interaction and help. However, there may be a potential barrier between contacting DHCS and first engaging help.

- 1. Preliminary Recommendation 1: DHCS to examine help desk processes to identify efficiencies, improve communications with the end user, and develop a process manual.
 - The current process requires multiple touch-points, depending on the type of issue. It is also not clear whether or not DHCS staff is providing feedback to the county users about how the issue is being handled. Help desk staff indicated that there was no manual to guide them in their work. We recommend developing a manual which can provide guidance on how issues can be handled; this will provide guidance on how to address issues and communicate with end users, as well as facilitate consistency and uniformity in actions and response.

- 2. Preliminary Recommendation 2: DHCS policy decision for password reset.
 - When passwords are lost, it can take DHCS weeks to help users reset passwords, which locks users out of the system for weeks and reduces data timeliness and quality. DHCS does not allow self-reset of user passwords. In the current process, the user must reach out via phone or email to the DHCS help desk to request a reset. Password self-reset is technically feasible, though DHCS Program needs to make a decision to allow county users to do so. MHDATA recommends looking into automated approaches to resetting user passwords. Alternatively, MHDATA recommends considering having a vendor specializing in technical support to manage technical help desk requests.

- 3. Preliminary Recommendation 3: DHCS should provide counties with access to county level reports on a regular schedule.
 - DHCS should provide submitting entities monthly, quarterly, semi-annual, and/or annually pushed reports for download through BHIS, similar to the reports provided by this project or designed in coordination with county staff to be valuable for MHPs. In addition, or alternatively, DHCS should consider implementing a data reporting tool to allow submitting entities to pull down aggregated or batched client-level data.
- 4. Preliminary Recommendation 4: DHCS should consider a policy decision to share summary data between counties.
 - Submitting entities reported that it would be helpful to benchmark/baseline their county data to other similar or nearby counties (as opposed to only comparing to the State data). This would help them for planning purposes and to see how they are doing. Currently, counties have no access to other counties' data. There is a HIPAA data sharing restriction against counties viewing live data from other counties. DHCS may consider providing summary reports (de-identified) from other comparable counties to allow the counties to set milestones.

Additional Issues

- Out of county services
 - There appears to be some discrepancies in how out of county services are reported. It may be that different counties have different understandings of who is responsible for reporting what information when services are provided out-of-county.
 - We will be posting on BHIS a supplemental Data Quality Report for Out of County Services in the next few weeks.
- Nontraditional service types
 - Some MHSA funded services are reported as collateral or linkage/brokerage, however many of the services funded by MHSA do not fit into the typical CSI service categories.

Next Steps

- We have identified a majority of the issues and barriers to data quality
- We have proposed initial thoughts about possible solutions
- We need to work with MHPs, vendors and providers to identify, prioritize and carry out the most impactful and feasible solutions
- Webinars will be held to discuss and finalize plans for resolving issues and technical support will be available as MHPs move through the process to remediate barriers to data quality

CSI Webinar Schedule

February	8th	CSI: Out of County Services
February	15th	CSI: The Provider File, Non-Medi-Cal providers and keeping it current
February	22nd	CSI: Periodic Records - Initial Meeting
March	ıst	CSI: Errors related to ICD-10
March	8th	CSI: Errors related to Mode o5 Services (e.g., dates overlapping)
March	15th	CSI: Summary Reports #1: brainstorming data summary reports by client counts, service types and providers
March	22nd	CSI: NetSmart Avatar & other NetSmart Specific Issues
March	29th	CSI: Cerner Anasazi & other Cerner Specific Issues
April	5th	CSI: Echo ShareCare Specific Issues
April	12th	CSI: Summary Reports #2: brainstorming data summary reports by client counts, service types and providers
April	19th	CSI: Clinician's Gateway Specific Issues
April	26th	CSI: Insist Specific Issue
May	3rd	CSI: Profiler Specific Issue
May	ıoth	CSI: Welligent Specific Issue
May	17th	CSI: Summary Reports #3: finalize data summary reports by client counts, service types and providers
May	24th	CSI: Support, training, documentation, FAQs, and using the Help Desk
May	31st	CSI: Correction and Batch correction of CSI errors
June	7th	CSI: Pre-submission validation and soft submissions before committing data
June	14th	CSI: Suspended records and restrictive or faulty error rules (SSNs for undocumented, Portuguese, lagging client records, "relational")
June	21St	CSI: Process for switching EHRs and testing data
June	28 th	CSI: Capturing MHSA Services and Non-traditional clients

Register at: http://www.mhdata.org/events/dcr-kickoff-nov2

Updated CSI Data Quality Reports

- Several counties have expressed interest an updated CSI Data Quality Report during this next phase.
- We are currently investigating the feasibility of providing those reports
- Quick Poll: Who would want an updated CSI Data Quality Report through FY 2016/2017?

Questions or Comments?

Resources

Mental Health Data Alliance:

info@mhdata.org

• DHCS:

mhsdata@dhcs.ca.gov

DHCS CSI Data Quality Improvement Project

Mental Health Data Alliance, LLC (MHData)

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