Toolkit for Evaluation, Assessment, and Measurement for Adult Community Services and Supports Programs

Version 1.0.0

Deliverable 4 of Contract 16MHSOAC016

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Mental Health Services
Oversight & Accountability Commission

WELLNESS • RECOVERY • RESILIENCE

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We are especially grateful to the members of the Toolkit Evaluation Advisory Group who provided important methodological consultation, measurement advice, and revisions to ensure that Toolkit materials are accurate and accessible to the broadest audience possible.

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TOOLKIT FOR EVALUATION, ASSESSMENT, AND MEASUREMENT

FOR ADULT COMMUNITY SERVICES AND SUPPORTS PROGRAMS

About the Toolkit

The **Toolkit for Evaluation, Assessment, and Measurement for Adult Community Services and Supports Programs** is a **resource for program evaluation and continuous quality improvement**. The Toolkit is **free and optional** for California counties and programs as part of efforts by the Mental Health Services Oversight and Accountability Commission to provide additional evaluation support without creating additional requirements.

TOOLKIT FEATURES

- Materials to **determine readiness** for an evaluation system
- **Assessment measures** for tracking, monitoring, and evaluating client outcomes
- Guidance on **integrating evaluation data** into existing client health record systems
- **Data entry templates** and **automated dashboards** depicting client progress
- Materials that can be **customized to meet local needs**
- Recommendations for **data analysis** and **reporting**

Table of Contents

INTRODUCTION

IN THIS SECTION

What is the Toolkit?

Why was the Toolkit developed?

Who should use the Toolkit?

How can the Toolkit be used and adapted?

What is the *Toolkit for Evaluation, Assessment, and Measurement for Adult Community Services and Supports Programs*?

The University of California San Diego Health Services Research Center (HSRC), in partnership with the Mental Health Services Oversight and Accountability Commission (MHSOAC), developed the *Toolkit for Evaluation, Assessment, and Measurement for Adult Community Services and Supports Programs* (the Toolkit).[1] This Toolkit includes resources for California counties and programs to:

1. Determine organizational readiness for adopting a system for tracking, monitoring, and evaluating adult Community Services and Supports (CSS) programs
2. Successfully implement a system for tracking, monitoring, and evaluation
3. Create and use evaluation reports on data collected from the system

TOOLKIT MATERIALS ARE BROKEN DOWN INTO FIVE SECTIONS.

I. Preparation

Determine how to customize the Toolkit using decision trees.

Learn about the resources needed to implement an evaluation system.

Assess the feasibility of implementing an evaluation system.

Access a sample data use agreement for negotiating the sharing of data between organizations.

II. Assessment Measures

Access assessment forms that can be completed by clinicians, clients, and clients' family members and friends.

Learn about the benefits of assessment and program evaluation.

Review training materials that provide guidance on the implementation of measures.

III. Data Entry and Reporting

Access data entry and reporting tools for processing assessment data.

Review techniques and recommendations on how to assess and report on client progress.

IV. Electronic Data Capture System Integration

Learn about options for collecting and storing data.

Learn how to use and create a data integration plan.

Access step-by-step instructions for integrating the Toolkit into common electronic data capture systems.

V. Supplemental Materials

Access communication materials that can be used for introducing programs to the Toolkit.

Learn about resources for additional assistance with the Toolkit.

Find answers to frequently asked questions about the Toolkit.

[1] An early draft of the Toolkit was presented to stakeholders using the working title, *Toolkit for Evaluation, Assessment, and Monitoring for Adult Community Services and Supports Programs.*

Why was the Toolkit developed?

From 2014 to 2016, HSRC, in partnership with the MHSOAC, developed a system for tracking, monitoring, and evaluating outcomes of adult clients served by the CSS component of the Mental Health Services Act (MHSA). This system was created using (1) input from stakeholders, (2) reviews of current legislation, and (3) consideration of existing data collection methods.

Upon completion of this system, the MHSOAC commissioned HSRC for a second project involving the development of a set of resources and tools that would assist counties that wish to adopt an evaluation system for their adult CSS programs. The result of this project is Toolkit you are reading now, which includes among its many resources: guidance on preparing to implement an evaluation system; assessment forms; data entry and reporting tools; and support for integrating assessment measures into commonly used electronic data capture systems (EDCs).

For additional information on the history and development of the Toolkit, please see Appendix B and Appendix C.

Who should use this Toolkit?

The Toolkit is intended for county behavioral health departments, mental health staff, program evaluation professionals, and other individuals involved in assessing, evaluating, and measuring adult CSS program client outcomes.

Individuals who may use the Toolkit include, but are not limited to:

- Clinical or Medical Directors
- Program Directors and Managers
- Mental Health Researchers
- Program Evaluation and Quality Improvement Analysts
- County Informatics Coordinators

How is the Toolkit organized?

The Toolkit divides materials and resources into five main sections:

I. Preparation
II. Assessment Measures
III. Data Entry and Reporting
IV. Integration into Existing Electronic Systems
V. Supplemental Materials

Information about each tool is provided below.

Section I. Preparation

Resource	Description
Outcome Measures Decision Flow Charts (page 9)	The Outcome Measures Decision Flow Charts were developed to help teams or individuals from counties and programs determine the measures or data elements to collect based on needs and program characteristics.
Feasibility Checklist (page 11)	The Feasibility Checklist was designed to help counties assess their readiness for implementing a system for tracking, evaluation, and measurement. The tool comprises a list of criteria that counties and programs would need to implement a successful system for evaluation.
Data Use Agreement (page 15)	The Toolkit includes a sample data use agreement that counties and programs may use to negotiate the sharing of data with State entities.

Section II. Assessment Measures

Resource	Description
Assessment Measures (page 17)	The Toolkit includes questionnaires that can be completed by clinicians, clients, and clients' family members or friends. Additional information regarding the selection and development of the assessments is included.
Benefits of Program Evaluation (page 23)	This brief section provides an explanation of the value of administering assessments and conducting program evaluation activities.
Assessment Measures Training (page 25)	Assessment measures training materials include a recommended training plan and a manual that provides an overview of instruments contained in Toolkit and scoring and interpretation guidance.

Section III. Data Entry and Reporting

Resource	Description
Data Entry and Reporting Tools Instructions (page 30)	In addition to providing general instructions for Toolkit users, the Data Entry and Reporting Tools Instructions document contains additional information about the development of the tools for advanced users.
Data Dashboards and Reporting (page 32)	The Toolkit includes a supplement that details the data dashboards provided in the Toolkit.
Statistical Guidance (page 34)	The statistical guidance section includes suggestions for data representation and a summary of data reporting strategies for assessment items included in the Toolkit assessment forms.

Section IV. Electronic Data Capture System Integration

Resource	Description
Data Integration Guidance (page 40)	The Data Integration Guidance materials were developed to guide counties and programs through the steps required for integrating the measures included in this Toolkit into EDCs.
Data Integration Plan Template (page 51)	Included in this Toolkit is a general data integration plan template, which outlines the process of data integration.
Integration Into Common EDCs (page 52)	Materials include detailed integration information for specific EDCs used across behavioral health programs in California.

Section V. Supplemental Materials

Resource	Description
Toolkit Information Flyer (page 62)	The Toolkit flyer provides a basic overview of the Toolkit.
Sample Training Announcement Email (page 62)	The sample email may be used to invite providers to participate in introductory Toolkit trainings.
Training Announcement Flyer (page 62)	The Toolkit includes a sample training announcement flyer, which counties can use to announce Toolkit trainings.
Additional Resources (page 63)	Additional resources include websites and contact information to obtain more information about many of the tools that are included in the Toolkit.
Frequently Asked Questions (page 65)	The Frequently Asked Questions section poses the common inquiries regarding the Toolkit.

Accessing Additional Tools

The icons below identify additional Toolkit materials.

Icon	Description
	Some tools are individual files that have been embedded within the main Toolkit document. These can be accessed by clicking on the icons next to their description. Documents will open in a new window. If documents do not open in a new window, you may need to adjust your PDF viewer settings (Go to *Edit* ▸ *Preferences* ▸ *Documents* ▸ Unselect *Open cross-document links in same window*).
	This icon identifies Toolkit materials that are available as separate files. Contact the MHSOAC to access these resources.

How can the Toolkit be adapted?

The Toolkit takes into account the uniqueness of counties throughout California. Components of the Toolkit may be adapted as needed to align with the local needs and contexts of counties and programs. *Discretion is advised to ensure that use and modification of materials included in the Toolkit align with best practices in the field and adhere to current local polices and regulations.*

The Toolkit provides options that counties or programs may wish to consider given the availability of resources. Special consideration was given to accommodate the needs of small, typically rural counties[2] that often face unique challenges due to factors such as low population density, limited staffing capacity, and greater geographic diversity.

The examples below present ways in which programs and counties may adapt the Toolkit to suit local needs.

- Small counties with limited capacity may use the entire Toolkit to assist with the tracking and evaluation of client outcomes from beginning to end of services across all programs.
- Counties with advanced technological capacity and an existing EDC may wish to integrate the measures included in the Toolkit into their existing systems.
- Measures may be excluded from the set of outcome assessments that programs should implement depending on local goals, requirements, or needs. For example, programs may wish to use just the intake form and demographics to aid in the fulfillment of state reporting requirements. See the Outcome Measures Decision Tool for more guidance on how to adapt the measures included in this Toolkit.

[2] The 2010 Census defines small counties as those having a population less than 200,000 residents.

What are the steps for implementing the Toolkit?

This section provides guidance on how to apply the Toolkit once an organization has committed itself to using the Toolkit.

1. **Planning and Development**

   The first phase for using the Toolkit is to determine how to collect client and program information. During this process, a program can also identify the information they would like to capture from both clients and their program through a variety of measures. This process involves weighing the pros and cons of existing measures and considering replacing these measures with the State-approved instruments included in the Toolkit. The intention of the Toolkit is to assist your programs in maximizing efficiency in tracking, monitoring, and evaluating program data, not to create more work for your program and staff. The Toolkit's preparation tools (including the Outcome Measures Decision Flow Charts and Feasibility Checklist) can assist programs understand what they could collect based on their specific needs.

2. **Integration**

   The Toolkit was designed to supplement work and evaluation practices that programs already use. After establishing what to collect and how it should be collected, it is important to consider existing organizational processes. Again, the feasibility checklist and decision support tools can assist with this. In addition, the Toolkit provides support materials to assist with integrating measures with existing EDCs. These materials include a general data integration plan and a description of processes for integration into commonly used EDCs. If your program does not already use an EDC, the Toolkit provides Excel tools for data entry.

   One of the most important elements to having a successful integration process is training on new procedures. To assist with this, the Toolkit includes materials and suggestions for how to instruct and inform staff of various methods of data collection, data entry, and analysis.

3. **Implementation**

   Once an organization has completed the preparation and integration phases, it may use the many materials that the Toolkit offers, such as data entry templates and dashboards, to assist with simplifying the reporting of program and client information.

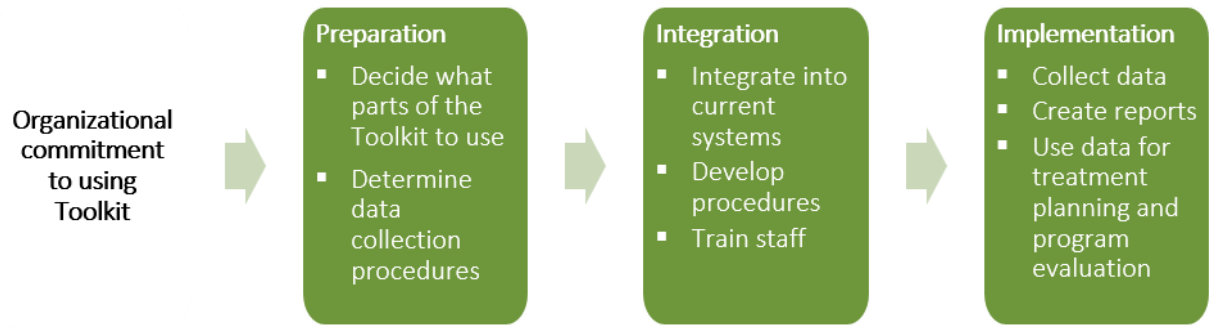


Figure i-1. Recommended Toolkit Implementation Timeline

PREPARATION

SECTION I

IN THIS SECTION

Determine how to customize the Toolkit using decision trees.

Learn about the resources needed to implement an evaluation system.

Assess the feasibility of implementing an evaluation system.

Access a sample data use agreement for negotiating the sharing of data between organizations.

Outcome Measures Decision Flow Charts

Purpose

The purpose of the Outcome Measures Decision Flow Charts is to help teams or individuals from counties and programs determine which measures and data elements to collect based on needs and program characteristic and make decisions regarding how data should be collected and processed.

Who should use these tools?

Teams or individuals from counties and programs who would like guidance on how to select and administer measures included in the Toolkit.

Description of Flow Charts

There are two sets of flow charts: Assessment Selection and Assessment Completion Decisions.

Assessment Selection Flow Charts

The Assessment Selection Flow Charts are designed to lead individuals through thinking about their clients' characteristics (e.g., ability to complete self-assessments, family member or friend involvement), program characteristics (e.g., availability of staff), and data needs (e.g., satisfaction data, outcomes data) in order to determine which of the measures included in the Toolkit are appropriate. Flow charts are divided into three areas: Client and Family/Friend Self-Report Measures, Intake and Discharge Information, and Clinician Assessment.

Instructions for completing the Assessment Selection Flow Charts

1. There are five flow charts, which are listed below. Select the questionnaire or data element that you are considering:
   - Client Self-Report Measures: Creating Healthy Outcomes Integrated Self-Assessment (CHOIS) and Patient-Reported Outcomes Management Information System (PROMIS) Global Health
   - Client-Completed Measures: Mental Health Statistics Improvement Program (MHSIP) Consumer Survey
   - Family- or Friend-Completed Measures: Illness Management and Recovery Scale – Family or Friend Version (IMR-FF)
   - Intake and Discharge Information
   - Clinician Assessment (*Note:* The Clinician Assessment Flow Chart includes three pages.)
2. Start at the left where indicated.
3. Follow the arrows to the first decision box.
4. Answer each question by selecting a "branch" that corresponds most closely with your program's characteristics. *Note:* The Clinician Assessment flow chart includes three pages. Gray boxes indicate when the chart should continue on a separate page.
5. The final box of the Assessment Measures Flow Chart identifies the measure or data elements that should be collected.

Assessment Completion Decisions Flow Charts

The Assessment Completion Decisions Flow Charts require individuals to consider program characteristics to develop procedures for using the assessment measures. Flow charts are listed below.

1. **When should the assessment be completed?**
   This flow chart identifies the assessments that should be completed at intake, follow-up, and discharge.
2. **When should assessments be completed based on contact frequency with clients?**
   This flow chart helps determine how often (e.g., quarterly, every six months) assessments should be administered based on a program's contact frequency (i.e., Do programs meet with clients daily or weekly, monthly or quarterly, or less than once per quarter?).
3. **Who should complete the assessment(s)?**
   Assessments may be completed by administrative staff and mental health staff (e.g., clinicians, social workers, peer specialists).
4. **How should data be collected and reported?**
   Data may be collected using an existing electronic data capture system or the Toolkit data collection spreadsheets.

Outcome Measures Decision Flow Chart

Click on the icon to access flow charts to assist with making **assessment selection decisions.**

Click on the icon to access flow charts to assist with making **assessment completion decisions**.

Feasibility Checklist

Purpose of the Tool

In order to implement a successful evaluation system, it is necessary to take into account the organizational infrastructure that should be in place. The Feasibility Checklist is designed to encourage counties and programs to consider their characteristics and resources while assessing their readiness for adoption of a new system. The Feasibility Checklist will help identify the county's or program's strengths. In addition, this tool may also be used to determine if there are obstacles that may prevent the success of the system and prompt discussions on how to mitigate such obstacles.

Design

The Feasibility Checklist comprises 44 statements that represent criteria that should be in place prior to the launch of an evaluation system in order for the system to be successful. These items were informed by stakeholder input and recommendations.

Feasibility Checklist items are grouped into five domains.

- **Leadership:** The leadership domain assesses the degree to which county and/or program leadership is supportive of and is willing to invest resources in data collection, evaluation, and quality improvement efforts.
- **Frontline and Other Support Staff – Time:** Evaluation, assessment, and measurement are essential to ensuring programs meet the needs of the people served. However, such activities may be an additional time burden on staff. This domain addresses the degree to which staff are able to incorporate evaluation, assessment, and measurement activities into their workloads.
- **Frontline and Other Support Staff – Resources:** This domain addresses staff members' proficiency in the skills that are necessary for the implementation of an evaluation system. This domain also explores the availability of resources such as translators and existing data collection systems.
- **Trainings:** The Trainings domain assesses whether staff have received or have the time to receive instruction on the skills and knowledge required for data collection, assessment, evaluation, and quality improvement (e.g., cultural competence, basic computer skills).
- **Technical Requirements:** This domain includes items that examine the county's or program's technological capacity for implementing an evaluation system.

Individuals completing the Feasibility Checklist should review and rate each item based on the county's or program's Current Situation and Future Situation on a scale of 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

- The **Current Situation** rating aids in identifying current organizational needs and informs resource planning.
- The **Future Situation** rating requires counties or programs to reflect on the likelihood of implementing an evaluation system within the next year. This helps counties or programs create realistic plans for preparing for the launch of an evaluation system.

Who should use the Feasibility Checklist?

The Feasibility Checklist is recommended for counties or programs that wish to implement the Toolkit or any other data collection and reporting system. It is suggested that five to ten staff members at county and program levels with different job roles should review the checklist.

When should the Feasibility Checklist be used?

This tool should be used prior to implementing the Toolkit or any other data collection and reporting system to help facilitate decision-making and planning processes. Users may consider reviewing the Outcome Measures Decision Tools included in the Toolkit before completing the Feasibility Checklist.

Feasibility Checklist Completion Activity Guide

Use this Feasibility Checklist Completion Activity Guide to help facilitate the completion of the Feasibility Checklist. **The Feasibility Checklist should be used to stimulate dialogue and should not be considered a definitive assessment of feasibility for implementing an evaluation system.**

Recommended Introductory Activities

Prior to completing the Feasibility Checklist, determine the following:

- Goals for implementing an evaluation system
- Benefits of implementing an evaluation system
- Assessment measures required by the county or program by reviewing the Outcome Measures Decision Tools

Instructions for Completing the Feasibility Checklist

Collaborative completion of this Feasibility Checklist by five to ten staff members with different roles at various levels within the organization (e.g., leadership, management, front line staff, support staff) is recommended, as this would draw on the unique perspectives of individuals involved in service delivery. All participating staff members should be encouraged to contribute to the Feasibility Checklist discussion and provide honest responses. In order to help paint a clear picture of staff members' views and experiences, it may be beneficial to have staff members at each level complete the Feasibility Checklist individually prior to commencing a larger group discussion.

Feasibility Checklist Instructions

Review each item on the Feasibility Checklist. Ideally, a program that wishes to implement an evaluation system should have these criteria and resources in place. Use the Feasibility Checklist Rating Scale to assign a rating to each item.

For each statement:

1. Indicate how much you agree that each statement reflects your program's or county's Current Situation in the "Current" column (this may include any considerations related to potential costs).
2. Think about what your program or county needs to accomplish to be ready for an evaluation system within a year (including any funds that may be made available during this time). In the "Future" column, indicate the likelihood of implementing an evaluation system within a year based on your program's or county's anticipated resources after it has had time to plan and implement any necessary changes.

Feasibility Checklist Rating Scale

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Scoring the Feasibility Checklist and Determining Next Steps

The five domain scores (i.e., Leadership, Frontline and Other Support Staff – Time, Frontline and Other Support Staff – Resources, Training, and Technical Requirements) can be obtained by calculating the average item score within individual domains. The Toolkit provides an Excel spreadsheet that summarizes this information automatically. The Toolkit also includes a Feasibility Checklist Score Interpretation Guide, which provides suggestions for using domain scores to determine areas where resources are low and where additional planning efforts should be focused. Use the accompanying Identifying Next Steps Worksheet to note strengths (domains with the highest scores) and areas of need (domains with the lowest scores), and to initiate dialogue regarding further plans for developing an evaluation system.

Feasibility Checklist

Click on the icon to access the **Feasibility Checklist**, which includes the Feasibility Checklist Score Interpretation Guide and Identifying Next Steps Worksheet.

An **Excel version of the Feasibility Checklist** that automatically calculates scores is available. Please contact the MHSOAC for more information.

Data Use Agreement

Purpose

The assessments in this Toolkit capture personally identifiable protected health information (PHI). All appropriate security measures must be taken when storing, managing, and sharing data between organizations.

The Toolkit includes a sample data use agreement (DUA) for negotiating the terms of sharing of data between agencies. This sample document may be modified and used as a template for counties or programs that do not have an existing DUA form. Please adhere to local protocols for establishing DUAs.

What is a DUA?

A DUA is a contractual document required under the Privacy Rule under the Health Insurance Portability and Accountability Act (HIPAA) that allows for the transfer of data between a data owner and an outside entity.[3] The DUA must be entered into before use or disclosure of a limited data set (PHI that excludes 16 categories of direct identifiers).

Sample DUA

Click on the icon to access a **sample DUA**. The document may be modified for sharing data between counties and contractors. **Please follow the appropriate protocols within your county or organization (e.g., consult with the organization's legal counsel) for executing DUAs.**

Additional Information

The following publicly available documents provide additional information about the HIPAA Privacy Rule and DUAs.

Table I-1. Additional Resources for Negotiating DUAs

Resource	Author	Description	Link
DUA Toolkit: A guide to data use agreements	Health Care Systems Research Network	Provides general guidance on establishing DUAs	http://www.hcsrn.org/en/Tools%20&%20Materials/GrantsContracting/HCSRN_DUAToolkit.pdf
Protecting Personal Health Information in Research: Understanding the HIPAA Privacy Rule	Department of Health & Human Services	Explains the HIPAA Privacy Rule in a research context	https://privacyruleandresearch.nih.gov/pdf/HIPAA_Privacy_Rule_Booklet.pdf

[3] The Privacy Rule is in Title 45 of the Code of Federal Regulations, Part 160 and Subparts A and E of Part 164. Full text can be found at the HIPAA Privacy Web site (https://www.hhs.gov/hipaa/index.html).

ASSESSMENT MEASURES

SECTION II

IN THIS SECTION

Access assessment forms that can be completed by clinicians, clients, and clients' family members and friends.

Learn about the benefits of assessment and program evaluation.

Review training materials that provide guidance on the implementation of measures.

Assessment Measures

The assessment measures included in the Toolkit were informed by stakeholders and lessons learned during Phase 1 of the project. For more information about the process for selecting assessment measures, please refer to the Validated Measures Review.

What measures should my county or program use?

The measures implemented at each county or program depends on various factors (e.g., existing outcome measures, level of contact with clients). The Outcome Measures Decision Flow Chart and Feasibility Checklist, which can be found in Section I, can help you determine if the Toolkit assessment measures are appropriate for your county or program.

Assessments

The Toolkit includes a range of data elements described below that may be captured in the assessment forms included in the Toolkit.

Figure II-1. Toolkit Assessments

Note. Abbreviations: Patient-Reported Outcomes Measurement Information System (PROMIS), Creating Health Outcomes Integrated Self-Assessment (CHOIS), Mental Health Statistics Improvement Program (MHSIP), Illness Management and Recovery Scale – Family or Friend Version (IMR-FF)

Clinician-completed Assessments

The Intake Assessment and Clinician Assessment should be completed by clinicians or other program staff.

- **Intake Assessment:** The Intake Assessment captures basic intake and demographic information (e.g., gender, race, age) that may be used to track key populations served by a program. This assessment should be completed during a client's first visit to the program.
- **Clinician Assessment:** The Clinician Assessment should be completed at Intake, Follow-up, and Discharge. The full Clinician's Assessment includes the following components:
  - **Key Outcomes:** Client outcome data elements completed by the clinician or mental health staff that analyze a wide variety of outcomes, such as housing, employment, critical events, and health.
  - **Illness Management and Recovery Scale (IMR):** The IMR instrument was developed for the Illness Management and Recovery Program to assess the intervention's success in helping individuals with mental illness better manage their illness and move towards recovery. Although the IMR Scale was designed for the IMR intervention, they can also be used to track outcomes with individuals participating in other illness self-management programs. The tool includes 15 items rated on a five-point behaviorally anchored scale that taps into the following areas of self-management: progress toward goals, mental illness knowledge, involvement of family and friends, contact with individuals outside family, time spent in structured roles, symptom distress, impaired functioning, relapse prevention, relapse of symptoms, psychiatric hospitalizations, coping, involvement with self-help activities, effective medication use, functioning affected by alcohol, and functioning affected by drug use. The IMR should be completed by a mental health professional.
  - **Milestones of Recovery Scale (MORS):** The MORS, a validated outcome recovery measure, is a single-item scale that tracks the recovery process of individuals with a mental illness from the perspective of agency staff who provide services. The scale was designed as an administrative tool to evaluate the effectiveness of mental health services and to assess whether clients are receiving an appropriate level of care. The MORS comprises three underlying dimensions: level of risk, level of engagement, and level of skills and supports. The scale consists of eight levels ranging from "extreme risk" to "advanced recovery." Raters are instructed to select the level describing the modal milestone of recovery that an individual displayed over the past month.
  - **Goals:** Clinician-rated recovery items regarding housing, education, mental health, substance use, physical health, social health, family reunification, and employment for those clients for whom these goals are relevant or appropriate.

Client-completed Assessments

The Toolkit includes two self-assessments, which should be completed by clients at intake, follow-ups, and discharge. Staff should be trained in administering the assessments in a manner that encourages participation by helping clients recognize its usefulness in understanding their individual recovery needs.

Programs may administer one or both of the self-assessments listed below. When selecting which self-report measures to use, consider the level of burden they present to clients. The choice of self-report measures may depend on the general abilities of the client to complete the measures.

- **Patient Reported Outcomes Measurement Information System – Global Health Short Form (PROMIS Global Health):** PROMIS Global Health form is a self-report measure comprised of 10 items that assess general domains of health and functioning, including overall physical health, mental health, social health, pain, fatigue, and overall perceived quality of life.
- **Creating Healthy Outcomes Integrated Self-Assessment (CHOIS):** The CHOIS is a client-completed measure that reflects mental health issues from the client's perspective. It was designed to (a) screen for potential mental health issues in programs that do not focus primarily on mental health (e.g., primary care, non-psychiatric hospitals, substance use treatment) and (b) assess changes in mental health when used pre- and post-treatment in mental healthcare settings.

In addition to the self-assessments described above, the Toolkit includes an instrument that allows clients to provide input on the care they receive.

- **Mental Health Statistics Improvement Program (MHSIP) Consumer Survey:** The 36-item MHSIP Consumer Survey measures client perceptions of and satisfaction with the care they receive. Administration of the survey is required for some programs by the California Department of Health Care Services (DHCS). The version of the MHSIP Consumer Survey included in the Toolkit is for counties to summarize their MHSIP data and for optional administration of the survey (i.e., by programs that wish to collect additional Consumer Perception Survey [CPS] data outside the bi-annual data collection windows, by programs that may not be required to collect CPS data to obtain the information if they wish to do so).

Family/friend-completed Assessments

- **Illness Management and Recovery Scale – Family or Friend Version (IMR-FF):** The family member- or friend-completed version of the IMR was developed to allow those who know the person in recovery well to participate in assessing recovery progress. It gives these supporters a clear pathway to provide input to the healthcare providers and may reveal critical information to healthcare providers that might not come in the course of a usual appointment. The IMR-FF was developed by the State of California by modifying the Illness Management and Recovery Practitioner Survey.

Additional Information about Toolkit Assessments

Click on the icons below to access additional information about the measure selection process and details about each measure.

Validated Measures Review: detailed information about measure selection

Outcome Measures Decision Grid: details about each measure (i.e., content, frequency of administration, approximate length of administrations, available translations, copyright, training requirement)

Supplemental information about the MORS

Assessment Forms

Click on the icons below to access printable assessment forms.

Intake Assessment

Clinician Assessment

PROMIS Global Health

CHOIS – English language version

CHOIS – English language version (large print)

CHOIS – Spanish language version

CHOIS – Vietnamese language version

MHSIP Consumer Survey

IMR- FF

Assessment Coversheets

Click on the icons below to access coversheets that can help clinicians communicate the purpose of the CHOIS and IMR-FF. These can be attached to the assessment forms.

CHOIS Coversheet

IMR-FF Coversheet

Assessment Schedule

Assessment scheduling should be flexible in order to accommodate challenges that are inherent in mental health treatment (e.g., missed appointments, miscommunications), as well as accommodating a program's workflow to decrease burden.

A regular assessment schedule should be based on the natural pattern for creating and updating treatment plans or conducting follow-up appointments. In general, when a treatment plan is due, an assessment should also due (i.e., intake at the beginning of service, follow-up at treatment plan updates). For most clinical programs, six-month intervals are appropriate for follow-up assessments, as this time allows the clinician to build rapport with a client and observe progress. However, to accommodate the breadth of provider types and diversity of service delivery, the Toolkit provides programs with the opportunity to opt for other assessment schedules.

Table II-1. Recommended Assessment Schedule

Form	Description	Who should complete the form?	Complete at **Intake**	Complete at **Follow-up**	Complete at **Discharge**
Intake Assessment	Intake assessment data element domains include: ▪ Intake Information ▪ Client Information	Administrative Staff	✓		
Clinician Assessment	Intake assessment data element domains include: ▪ Key Indicators (i.e., Housing, Employment, Critical Events, and Health) ▪ Discharge Information* ▪ IMR ▪ MORS ▪ Goals†	Clinician (or other mental health staff, [e.g., social worker, peer specialist]), Administrative staff may complete Discharge Information items	✓	✓	✓
PROMIS Global Health	Short form (10 items) assessing client-rated general health outcomes	Client	✓	✓	✓
CHOIS	33-item form used for screening or assessing client-rated mental health outcomes	Client	✓	✓	✓
MHSIP Consumer Survey	36-item form assessing client perceived satisfaction with mental health services	Client		✓	✓
IMR-FF	Family/Friend-Rated Outcomes	Client's Supporters	✓	✓	✓

Note. Abbreviations: Patient-Reported Outcomes Measurement Information System (PROMIS), Creating Health Outcomes Integrated Self-Assessment (CHOIS), Mental Health Statistics Improvement Program (MHSIP), Illness Management and Recovery Scale – Family or Friend Version (IMR-FF)

* Discharge items completed at discharge only.

† Goals items completed at follow-up and discharge only.

Benefits of Program Evaluation

As mental health staff, your primary goal is to help people you serve. This section explores how data collection and program evaluation activities can help you improve the work you do with your clients.

What is program evaluation?

Program evaluation is a systematic assessment of a program's effectiveness. Information gathered from a program evaluation may help to strengthen the quality of program services, thus, improving the positive impact on client outcomes.

Why invest time in program evaluation activities?

Helping clients

Evaluation may help track an individual's recovery progress and inform treatment planning. It also promotes an integrated recovery orientation and facilitates communication between the client and clinician. For instance, administering client-reported measures conveys the importance of seeing the client as a whole person and our interest in multiple aspects of their health and quality of life in addition to psychiatric symptoms.

Continuous program improvement

Program evaluation involves systematically collecting information about the effect that a program is having on the people it serves. In addition, program evaluation may capture information about how integrated and culturally appropriate programs are. This information can help us adjust and improve programs to better meet the needs of our clients.

Accountability

Program evaluation helps demonstrate how well a program meets its goals, how well a program is being implemented as planned, and whether target populations are receiving adequate services. Additionally, participation in program evaluation activities may help improve the chances of securing future funding to continue and grow beyond current funding sources and expand new services or sites.

How can evaluation data help the people you serve?

Evaluation data may be used to supplement clinician opinion through providing a means of documenting and measuring recovery progress and outcomes. In addition, outcome assessments may help identify strengths that may encourage recovery and increase a client's health and quality of life. Finally, collecting evaluation data may enhance the therapeutic dialogue and, as a result, increase client involvement in treatment planning, encourage shared goals and recovery monitoring, and increase the sharing of information between treatment team members.

What are the benefits of self-assessment?

The measures described in the Toolkit include client self-assessments (i.e., PROMIS-Global Health, CHOIS). In addition to providing information for providers, administering self-assessments to clients can be therapeutic. Benefits include:

- Helping clients prepare for meetings with health care professionals by identifying the issues that are important for them to discuss
- Increasing client involvement in treatment planning
- Providing milestones for collaborative goal-setting
- Helping a client understand the clinician's recovery orientation
- Increasing a client's awareness of his or her strengths
- Helping a client acknowledge or become aware of personal challenges and their impact
- Decreasing stigma about mental health issues

Assessment Measures Training

Successful adoption, sustainability, and data quality for an evaluation system rely on adequate training and support. This section provides recommendations and materials that may be used to train staff on using the assessments in this Toolkit. The following resources are included in this section:

- Training recommendations
- Assessment manuals

Counties and programs should modify training materials to suit their specialized needs and any agency-wide guidelines or criteria for training. Recommended training attendees include program directors, managers, clinicians, data analysts, and other individuals who may be using the Toolkit.

Training Recommendations

Staffing Roles

- **Training Coordinator:** Each county or program should designate an individual who is responsible for organizing trainings and managing requests for trainings. This individual may also be responsible for developing alternative training formats (e.g., web-based training, training videos) to accommodate the agency's needs.
- **Trainers:** Trainers should be individuals who have the expertise on elements of the evaluation system that staff members will be trained to use. These individuals should also be competent in instruction in a classroom-type setting.
- **Support Staff:** The agency should have staff who can provide as-needed support on areas of the evaluation system. For example, there should be at least one individual who can provide support for outcome measures beyond scheduled trainings. Additionally, there should be designated staff members who can provide technical support on electronic components of the evaluation system. These individuals would be available to provide as-needed support and troubleshooting using pre-defined support protocols.

  There should be a mechanism for processing feedback and questions to support staff in order to help implement improvements to training materials and, when appropriate, to the evaluation, assessment, and measurement system.

Training Frequency

A complete training on the evaluation system should be provided annually.

- **Refresher Trainings:** The county or program may wish to offer occasional and more frequent refresher trainings on certain modules to reinforce existing staff members' skills, provide general updates, and to train new staff members.

Training Variations

A multimodal approach to training can ensure the sustainability of an evaluation system. In addition to live in-person training, a county or program may wish to consider the following training formats based on the agency's needs and the availability of resources.

- **Webinar-based Training:** Webinar-based trainings, in which participants have the ability to ask questions, may be a feasible option for individuals who may not be able to attend a live training.
- **Train-the-trainer approach:** Stakeholders have endorsed the idea of using a "train-the-trainer" approach to assist a counties' or programs' capacity building and to empower users. This training approach focuses on intensive training of "super users" within counties or organizations who can provide localized support to staff members. Trainings may cover all aspects of the system. Trainers disseminate what they have learned through informal means (e.g., offering to be in contact with other staff members who may have questions) and formal mechanisms (e.g., planning refresher trainings or forming user groups).
- **Hands-on Training:** If resources permit, an agency may wish to consider an interactive approach to training that involves trainees using the system as a trainer provides instruction on key features. This training format is most effective with smaller groups.
- **Self-guided Training:** Although live trainings are essential to ensuring that staff members receive adequate instruction, self-guided trainings, which allow staff members to learn at their own pace, may be a practical option for providing instruction on using basic elements of an evaluation system. Online pre-recorded modules and printable manuals allow staff members to learn to use the system at their convenience. Such materials also serve as reference resources in-person training attendees. Materials should be written at an 8th grade-reading level in order to be easily understood by program staff of all education levels and to accommodate staff for whom English is not a first language. Individuals should be able to contact training and support staff should questions arise during self-guided training.

Training Modules

Training modules should include:

- **Introduction to the Toolkit:** Staff members should receive an introduction to the Toolkit (or components of the Toolkit that will be implemented) prior to receiving detailed instruction on using the Toolkit.
- **Outcome Measures:** Training on outcome measures should include an explanation of the value of measurements, detailed instructions for completing assessment items, guidance on administering client-completed assessments, and interpretation of assessment measures. Trainers may wish to incorporate real-world case studies that are relevant to the program setting to illustrate how to capture data under standard and irregular conditions.
- **Processing Data:** Training should include information about using the electronic data capture system (EDC) (if applicable), entering data into the system or Toolkit's data entry tools, and using the Toolkit's automated dashboards (see Section IV for instructions on using the Toolkit's data entry and dashboard tools).

Recommended Training Plan

The following training modules are recommended for counties and/or programs that wish to implement the Toolkit. The training plan should be customized to suit local needs and protocols.

I. What is the Toolkit?
   a. Purpose of the Toolkit
   b. Overview of Toolkit components

II. Measures
   a. Importance of Measurement
   b. Introduction to Measures in the Toolkit
      i. Review forms
      ii. Applying the measures to practice
   c. County or program protocol for using the measures
      i. Assessment Schedule
      ii. Specific instructions
   d. MORS Training

      Note: Contact Mental Health America of Los Angeles (mors@mhala.org) for information about MORS training for your county or program.

III. Processing Data
   a. Instructions on using key functions of the system, which may be the Toolkit spreadsheets or the EDC selected by the county
   b. Data Entry
   c. Using automated dashboards

Assessment Measures Training Materials

This Toolkit includes an Outcome Measures Training Manual may be modified per county or program needs and distributed as a supplemental training document.

Assessment Measures Training Materials

Click on the icon to access the **Assessment Manual**. The manual includes an overview of each assessment provided in the Toolkit, assessment scoring and interpretation guidance, and a brief introduction to the importance of program evaluation.

External Assessment Measures Training Resources

MORS

Mental Health America of Los Angeles, the creator of the MORS, requires introductory MORS training for all staff who use this tool.

For information regarding the MORS, please visit www.milestonesofrecovery.com or contact Mental Health America of Los Angeles at MORS@mhala.org or (562) 645-3222.

Using data for program evaluation

There is a wealth of information on the various approaches to conducting a program evaluation. The Centers for Disease Control and Prevention (CDC) Program Performance and Evaluation Office (PPEO) provides an overview of evaluation and resources to assist in conducting an evaluation. Visit https://www.cdc.gov/eval/index.htm for more information.

DATA ENTRY AND REPORTING

SECTION III

IN THIS SECTION

Access data entry and reporting tools for processing assessment data.

Review techniques and recommendations on how to assess and report on client progress.

Data Entry and Reporting Spreadsheets

The Toolkit includes Excel spreadsheets that may be used for data entry in the case that an EDC is not available.

How can I access data the Toolkit's data entry and reporting spreadsheets?

Contact the MHSOAC for more information on how to access data entry and reporting spreadsheets that are included in this Toolkit.

Data Entry

Data may be entered in the spreadsheets for the following six assessments:

- Intake Assessment
- Clinician Assessment
- Patient Patient-Reported Outcomes Measurement Information System - Global Health (PROMIS Global Health)
- Creating Healthy Outcomes: Integrated Self-Assessment (CHOIS)
- Illness Management and Recovery Scale – Family or Friend Version (IMR-FF)
- Mental Health Statistics Improvement Program – Consumer Survey (MHSIP Consumer Survey)

Basic Structure of the Data Entry and Reporting Tools

Each assessment has a variety of measures and, therefore, the corresponding workbooks will not all look the same. However, each assessment workbook contains the basic six worksheets outlined in the following table

Table III-1. Worksheet Functions

Worksheet Name	Function	Worksheet Name
Data Integration	Explains how to enter or import data and provides links to assessment forms	Data Integration
Report Setup	Explains how to filter data and set up the reports	Report Setup
Raw Data	Contains coded data for the assessment	Raw Data
Tables 1	Contains frequency tables for all variables in the current assessment period	Tables 1
Tables 2*	Contains frequency tables comparing matched data from the current assessment to the previous assessment	Tables 2*
Dashboard†	Contains a summary of the data using graphic displays for selected variables	Dashboard†
Codes	Contains the codebook with all variable names, labels, and values	Codes

*The Intake workbook does not include Tables 2, as data is only processed from the most recent assessment completed by each client.

†The Clinician Assessment workbook includes three dashboards: Clinician Rated Outcomes, Key Indicators, and Discharge.

Using Data Entry and Reporting Tools

The attached documents include detailed instructions for using the data entry spreadsheets and instructions for customizing the tools for advanced Toolkit users.

Instructions for Data Entry and Reporting Tools

Click on the icons below to access instructions for using the Data Entry and Reporting Tools.

Data Entry and Reporting Instructions: In addition to providing general instructions for Toolkit users, the document contains additional information about the development of the tools for advanced users.

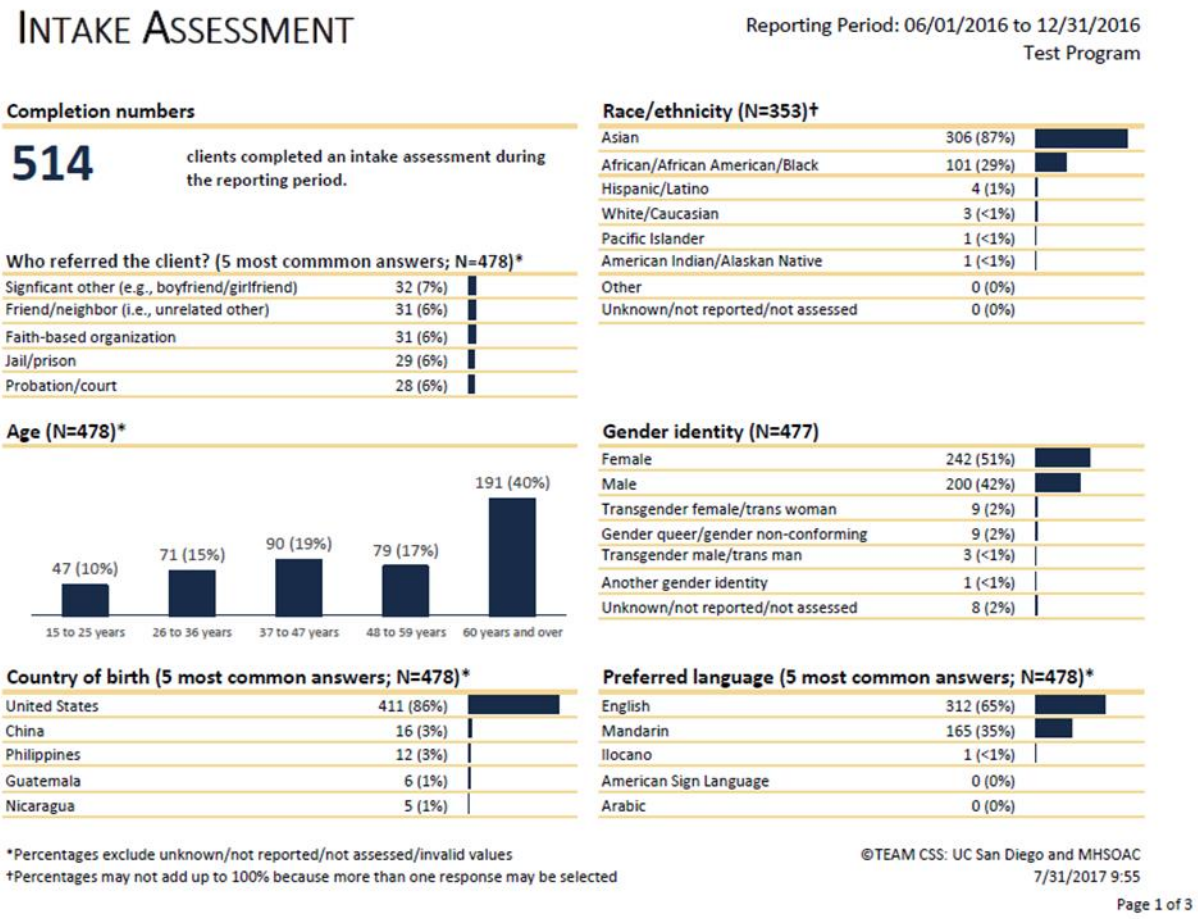
Client and Service Information System (CSI) Import Feature Instructions (Intake Assessment only): The Intake Assessment Data Entry and Reporting Tool includes a mechanism for importing relevant client data variables from the CSI. ***Note:*** Additional information on integrating CSI data into the Data Entry and Reporting Tools is available in Section IV.

Data Reporting and Dashboards

A dashboard is a succinct way of presenting variables of interest. The Toolkit provides users with a range of dashboard pages, which automatically analyze and display selected variables for user-defined timeframes. All dashboards have the following elements in common:

- Title of the dashboard page
- User defined date range
- Brief summary of analyzed items or scales and how these should be interpreted
- Data analysis displayed in chart or table format

The figure below displays a dashboard example.



INTAKE ASSESSMENT

Reporting Period: 06/01/2016 to 12/31/2016
Test Program

Completion numbers

514 clients completed an intake assessment during the reporting period.

Who referred the client? (5 most commmon answers; N=478)*

Signficant other (e.g., boyfriend/girlfriend)	32 (7%)
Friend/neighbor (i.e., unrelated other)	31 (6%)
Faith-based organization	31 (6%)
Jail/prison	29 (6%)
Probation/court	28 (6%)

Race/ethnicity (N=353)†

Asian	306 (87%)
African/African American/Black	101 (29%)
Hispanic/Latino	4 (1%)
White/Caucasian	3 (<1%)
Pacific Islander	1 (<1%)
American Indian/Alaskan Native	1 (<1%)
Other	0 (0%)
Unknown/not reported/not assessed	0 (0%)

Age (N=478)*

47 (10%) 71 (15%) 90 (19%) 79 (17%) 191 (40%)

15 to 25 years | 26 to 36 years | 37 to 47 years | 48 to 59 years | 60 years and over

Gender identity (N=477)

Female	242 (51%)
Male	200 (42%)
Transgender female/trans woman	9 (2%)
Gender queer/gender non-conforming	9 (2%)
Transgender male/trans man	3 (<1%)
Another gender identity	1 (<1%)
Unknown/not reported/not assessed	8 (2%)

Country of birth (5 most common answers; N=478)*

United States	411 (86%)
China	16 (3%)
Philippines	12 (3%)
Guatemala	6 (1%)
Nicaragua	5 (1%)

Preferred language (5 most common answers; N=478)*

English	312 (65%)
Mandarin	165 (35%)
Ilocano	1 (<1%)
American Sign Language	0 (0%)
Arabic	0 (0%)

*Percentages exclude unknown/not reported/not assessed/invalid values
†Percentages may not add up to 100% because more than one response may be selected

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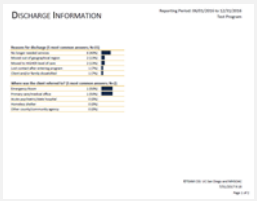
Figure III-1. Dashboard Example (Intake Assessment, page 1)

Toolkit Dashboards

The Toolkit includes 11 dashboards. For larger dashboard examples, see **Additional Dashboards Information** below.

Clinician Rated Outcomes: Intake

Clinician Rated Outcomes: IMR

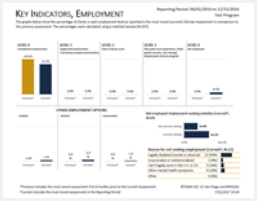


Clinician Rated Outcomes: Discharge

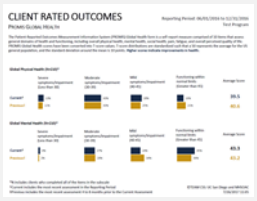
Family- or Friend-Rated Outcomes: IMR-FF

Clinician Rated Outcomes: Key Indicators – Housing

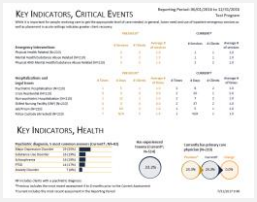
Client Rated Outcomes: CHOIS



Clinician Rated Outcomes: Key Indicators – Employment

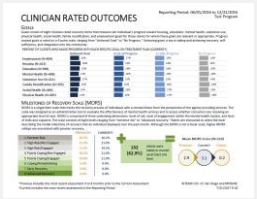


Client Rated Outcomes: PROMIS Global Health



Clinician Rated Outcomes: Key Indicators – Critical Events and Health

Client Rated Outcomes: Satisfaction – MHSIP Consumer Survey



Clinician Rated Outcomes: Goals and MORS

Additional Dashboards Information

Click on the icon to access **detailed information on and examples of dashboards** supplied in the Toolkit.

Statistical Guidance

The statistical guidance section includes suggestions for data representation and a summary of data reporting strategies for all assessment items included in the Toolkit assessment forms.

Assessment data can be reported based on research questions, including the following broad questions:

- Whom does the program serve?
- Are there any disparities in outcomes or care among certain populations?
- Are clients satisfied with program services?
- Is the program effective at helping clients improve in outcome areas?
- How do clients perceive their progress towards improvement in outcomes?
- Have participants achieved a higher level of recovery?
- Is the program cost-effective?

Note: Suggestions for data representation may go beyond the items included in the automated dashboard reports. This information was intended for users who have advanced experience with conducting statistical analyses or who want to explore the data beyond what the automated dashboards can display.

Data Representation

The table below summarizes various visual reporting methods that can be used in evaluation reports depending on the types of data collected. The data dashboard examples presented later in this chapter utilize a number of these methods.

Table III-2. Visual Reporting Methods

Data Display Types	Reporting Use
Bar Charts or Column Charts	Bar charts or column charts can be used to show frequencies, sums, and means of different variables. Examples: Gender identity, race/ethnicity, client's progress toward goals, employment, education, housing status, substance use
Pie Charts	Pie charts can be used to show proportions of variables when the sum of proportions is 100% and people cannot fall into more than one category. Examples: Age categories, preferred language
Tables	Tables can be used to display data numerically on single or multiple variables. Examples: Use of inpatient/emergency services and acute settings, employment type, program type, MORS ratings, scale ratings by item (e.g., IMR), quality adjusted life years (QALY), alcohol use, drug use, CHOIS scores, post outcomes/satisfaction summary
Time Series Charts	Time series charts can be used to display data over a certain duration of time. These will typically be line charts containing data from one or several variables. Examples: MORS scores over time, IMR scores over time, substance use over time, CHOIS scores over time
Scatter Plots	Scatter plots can be used to show the relationship of data between two variables. Examples: The relationship between age and satisfaction scores

Test of statistical significance on matched samples

Test of statistical significance (e.g., paired samples t-tests, chi-square tests) can be used to examine changes between groups of clients.

Matched samples analyses, utilizing only the cases that have complete data for each time point being measured, will allow for comparisons between assessment ratings. These paired comparisons will show changes in assessment scores for individual clients as they progress through services, and allow these changes to be more easily attributed to the program's service.

Missing items

Data may include a number of missing items. As a rule of thumb, at least half of the items are required to calculate a scale (or subscale), unless the instrument provides specific scoring instructions, which suggest otherwise.

Summary of Analysis and Reporting Strategies

The following tables summarize proposed analysis strategies for the data elements included in the Toolkit.

Table III-3. Whom does the program serve?

Data Source	Data Element	Analysis/Reporting
Intake Assessment or EDC	▪ Referral Source ▪ Date of Birth ▪ Country of Birth ▪ Zip Code of Current Residence ▪ Gender Identity ▪ Primary Language ▪ Preferred Service Language ▪ Race/Ethnicity ▪ Military Status ▪ Sexual Orientation ▪ Disabilities	▪ Frequency of client characteristics ▪ Demographic information can be used to determine the diversity of clients being served and whether disparities exist between certain populations.

Table III-4. Are there any disparities in outcomes or care among certain populations?

Data Source	Data Element	Analysis/Reporting
Client- and Clinician-completed Forms or EDC	Data elements from various outcome domains can be cross-referenced with demographics information.	▪ Demographics can be used to determine if disparities exist between certain populations by cross-referencing demographic data with data regarding services provided and client outcomes.

Table III-5. Are clients satisfied with program services?

Data Source	Data Element	Analysis/Reporting
Mental Health Statistics Improvement Program Survey (MHSIP)	▪ General satisfaction ▪ Perception of access ▪ Perception of quality and appropriateness ▪ Perception of participation in treatment planning ▪ Perception of outcome services ▪ Perception of functioning ▪ Perception of social connectedness	▪ Items from the MHSIP can be used to report client satisfaction in multiple areas: general satisfaction, perception of access, perception of quality and appropriateness, perception of participation in treatment planning, perception of outcome services, perception of functioning, and perception of social connectedness. ▪ Reports can include mean scores and/or percentages of clients who either agree or strongly agree. Reports can include means for individual items or subscales.

Table III-6. Is the program effective at helping clients improve in outcome areas?

Data Source	Data Element	Analysis/Reporting
Clinician Assessment: MORS	MORS	▪ The MORS indicates client level of mental health recovery. Reports can include mean MORS ratings at each assessment time point. In addition, reports can include percentages of clients at each time point who demonstrated improvement, a decrease, or no change/stability in ratings.
Clinician Assessment: IMR and IMR - Family or Friend Version	▪ Progress Towards Personal Goals ▪ Knowledge ▪ Involvement of Family and Friends in Mental Health Treatment ▪ Contact With People Outside of Family ▪ Time in Structured Roles ▪ Symptom Distress ▪ Impairment of Functioning ▪ Relapse Prevention Planning ▪ Relapse of Symptoms ▪ Psychiatric Hospitalizations ▪ Coping ▪ Involvement With Self-help Activities ▪ Using Medication Effectively ▪ Impairment of Functioning Through Alcohol Use ▪ Impairment of Functioning Through Drug Use	▪ The IMR captures various key indicators of recovery in multiple domains. Reports can include means from pre- and post-assessments to show overall change in scores. Reports can include means for individual items, subscales, or overall scores to show improvement. ▪ Comparisons can be made between clinician completed IMR and IMR - Family or Friend Version.
Clinician Assessment: Housing, Employment, and Critical Events or EDC	▪ Current Living Situation ▪ Stability of Housing ▪ Homelessness Past 6 Months ▪ Employment Activities: Past 6 Months and Current ▪ Employment Seeking ▪ Emergency Interventions Past 6 Months ▪ Hospitalization ▪ Jail/prison ▪ Police custody	▪ Pre- and post-data may be used to demonstrate movement in outcome domains (i.e., housing, employment, acute settings involvement, legal issues). ▪ Reports may include a comparison of frequencies, percentages, or means across assessment time points where appropriate.
Clinician Assessment: Health or EDC	▪ Trauma ▪ Current Primary Care ▪ Psychiatric Diagnosis	▪ Pre- and post-data may be used to track changes in clients' health.

Data Source	Data Element	Analysis/Reporting
Clinician Assessment: Goals	▪ Employment Goal ▪ Housing Goal ▪ Education Goal ▪ Mental Health Goal ▪ Substance Use Goal ▪ Family Reunification Goal ▪ Social Health Goal ▪ Physical Health Goal	▪ Results from goals items may indicate clinician perception of client recovery. Each item addresses a different domain of recovery. ▪ Reports may include the percentage of clients with each outcome goal on their treatment plan and the percentage of clients who did or did not make progress towards each goal.

Table III-7. How do clients perceive their progress towards improvement in outcomes?

Data Source	Data Element	Analysis/Reporting
PROMIS Global Health	▪ General Mental Health ▪ Health ▪ Emotional Problems ▪ Physical Health – General ▪ Physical Health – Everyday Activities ▪ Physical Health – Pain ▪ Physical Health – Fatigue ▪ Quality of Life ▪ Satisfaction with Social Activities and Relationships ▪ Ability to Fulfill Social Activities and Roles	▪ The PROMIS Global Health assesses general domains of health and functioning, including overall physical health, mental health, social health, pain, fatigue, and overall perceived quality of life. Reports can include means for individual items or subscales to show improvement (i.e., Global Physical Health, Global Mental Health).
Integrated Self-Assessment (CHOIS)	▪ Depression ▪ Anger ▪ Anxiety ▪ Cognitive/Memory ▪ Psychosis ▪ Suicidal Ideation ▪ Substance Use ▪ Positive Recovery	▪ The CHOIS captures the client's perspective of his/her recovery in various outcome domains. Reports can include means for individual items or subscales to show improvement.

Table III-8. Have participants achieved a higher level of recovery?

Data Source	Data Element	Analysis/Reporting
Clinician-completed Form (Discharge)	▪ Discharge Reason ▪ Referred to	▪ Reports may include the frequency and percentage of clients who were discharged, where they were referred to (if applicable), and the reason for discharge in order to provide an indication of clients who were able to graduate to lower levels of care.
MORS	Milestones of Recovery Scale	▪ Reports may include mean MORS scores at each time point. MORS results can be interpreted to determine whether clients, overall, have achieved a higher level of recovery.

Table III-9. Is the program cost-effective?

Data Source	Data Element	Analysis/Reporting
Clinician Assessment: Critical Events or EDC	Reduced Use of Jail/Acute Settings	▪ Reports may include frequencies of hospitalizations, incarcerations and client use of emergency services. If a mean or median cost can be assigned to services and/or incarcerations, these data may be used to measure cost effectiveness of reduced use of jail and acute settings.
PROMIS Global Health	Cost per Quality Adjusted Life Year (QALY)	▪ Items from the PROMIS Global Health may be used to calculate cost per QALY. More information can be found in Appendix D.

ELECTRONIC DATA CAPTURE SYSTEM INTEGRATION

SECTION IV

IN THIS SECTION

Learn about options for collecting and storing data.

Learn how to use and create a data integration plan.

Access step-by-step instructions for integrating the Toolkit into common electronic data capture systems.

Electronic Data Capture System Integration

The common data elements recommended in the Toolkit are often implemented in an electronic data capture (EDC) system. This section provides guidance on how data elements could be exported from EDC systems into data collection templates for monitoring, analysis, and reporting of program data and outcomes. This includes a detailed map of the process for integrating data collection and reporting functions with other EDC systems, including mapping of different EDC systems (e.g., Mental Health Outcomes Management System [mHOMS], Electronic Behavioral Health Solutions [eBHS], Clinician's Gateway, Netsmart Avatar, and statewide reporting systems, i.e., Client and Service Information [CSI], Data Collection and Reporting [DCR]).

EDC Business Flow

Figure IV-1 on the following page shows that the critical decision point is determining the data collection system to be implemented. Direct data entry into the Toolkit's Excel spreadsheets provides the easiest method of collecting and analyzing data. However, this Toolkit provides other options that will be discussed in the next section. These additional options may require the development of an EDC implementation plan and data mapping.

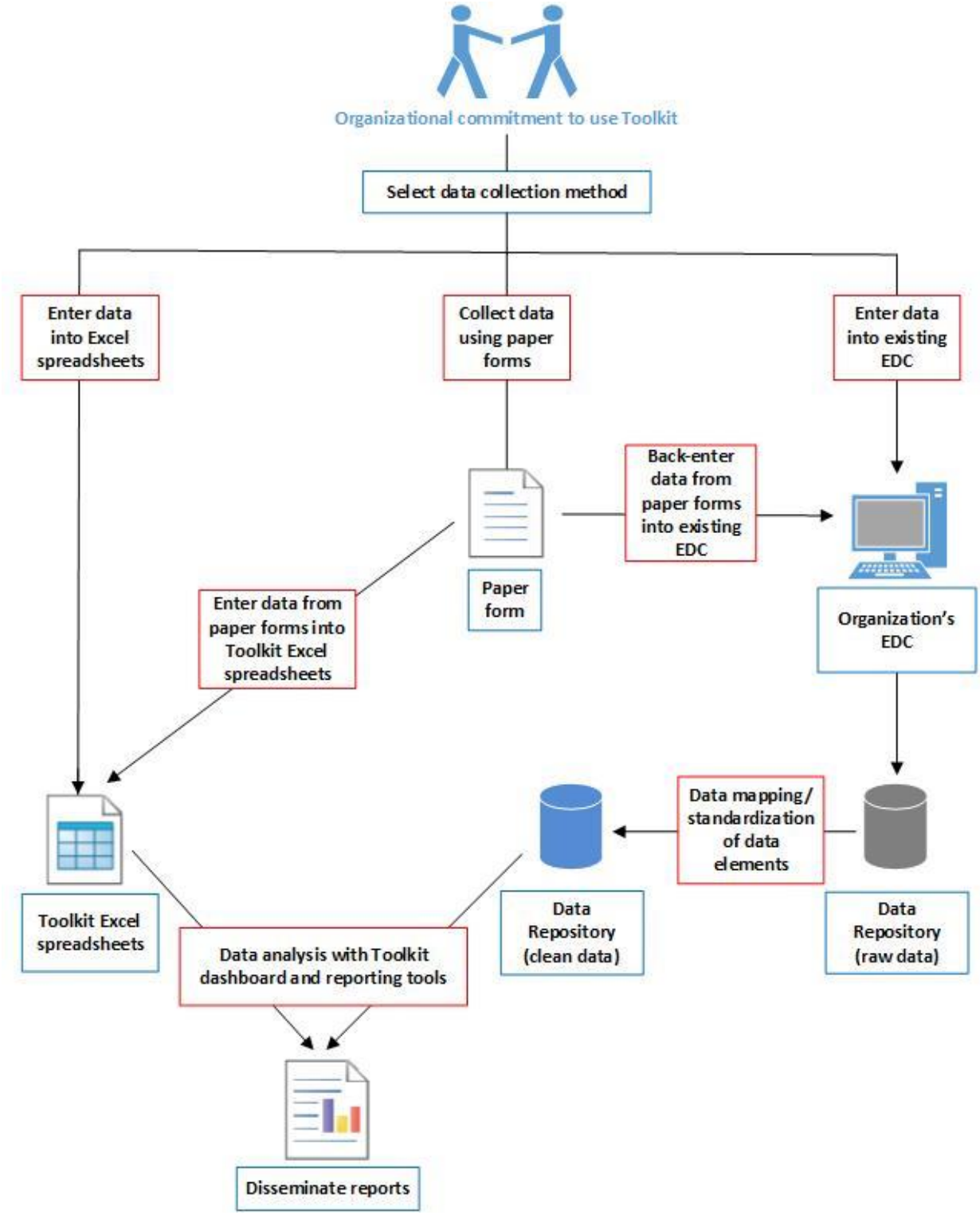


Figure IV-1. Toolkit Integration Flowchart

Note. Abbreviation: Electronic data capture system (EDC)

Variations of Implementing the Toolkit

This section provides an overview of four comment options to implement the Toolkit. The determination of the type of data collection system to use is the critical decision point and these options should be considered thoroughly.

Option 1: Using spreadsheets included in the Toolkit

In option 1 (Figure IV-2), a program enters data elements into the Toolkit data entry spreadsheet only. Since the program has no other systems to pull data from, no standardization or sanitization of data needs to occur. This system will be the least time intensive when setting up the data for analysis and reporting. Likewise, direct data entry minimizes paper work for front-line staff. Programs using this system may want to consider creating a Toolkit data entry spreadsheet for each staff member, and merging these together in order to limit other users' access to client data.

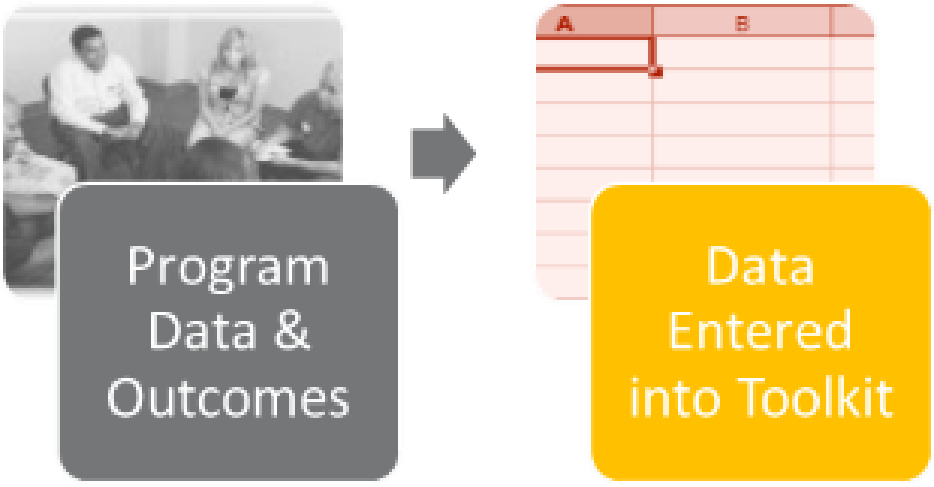


Figure IV-2. Program Using Toolkit Only

Option 2: Using an existing EDC system and the spreadsheets included in the Toolkit

In option 2 (Figure IV-3), the program will enter core data elements into their current EDC system, the Toolkit data entry spreadsheet, or both. If a program chooses to use this option, it is likely that they will be entering partial core data elements into both systems. The information in this Toolkit that explains the process for importing .csv files can be used to assist in creating a system that uses both the program's EDC and the Toolkit spreadsheet.

This option will allow the program to use their existing system, while extending their data collection by also using the Toolkit data entry spreadsheet. However, this option could create some additional user burden, with data entry and training taking place for both systems.

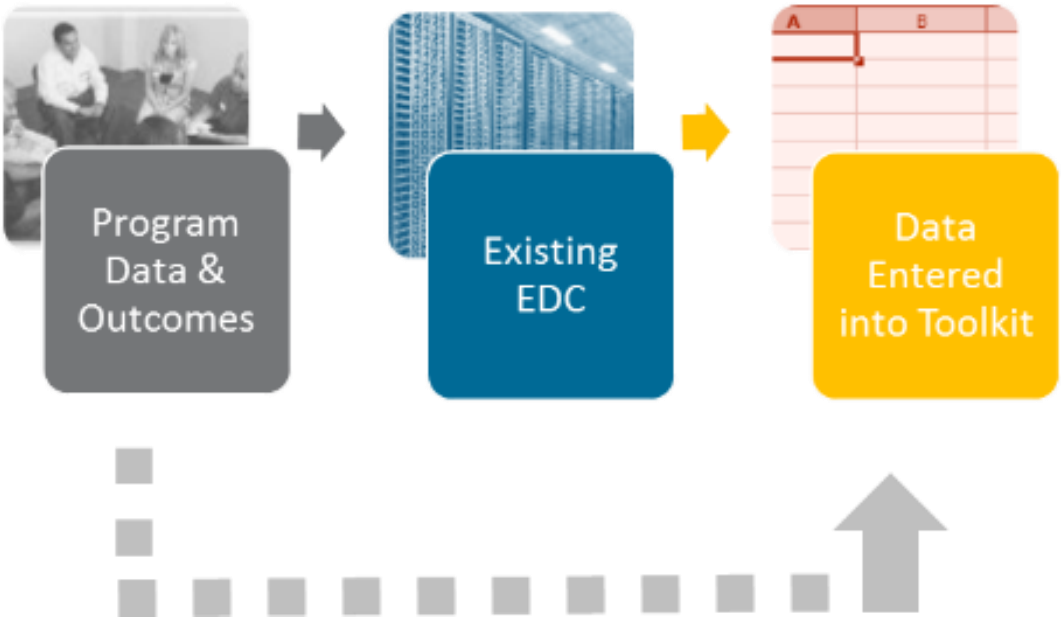


Figure IV-3. Program Using a Combination of Toolkit and Existing Data System

Option 3: Using paper forms and an EDC

In option 3 (Figure IV-4), a program will enter core data elements into the existing data system and use paper forms for additional outcome measures. These paper forms will be entered into the Toolkit data entry spreadsheet. This option is available for programs where it may be difficult to add new data elements to the existing system. However, the use of paper forms has some potential disadvantages, including less control over data quality and lack of any real-time notifications or automated reporting.

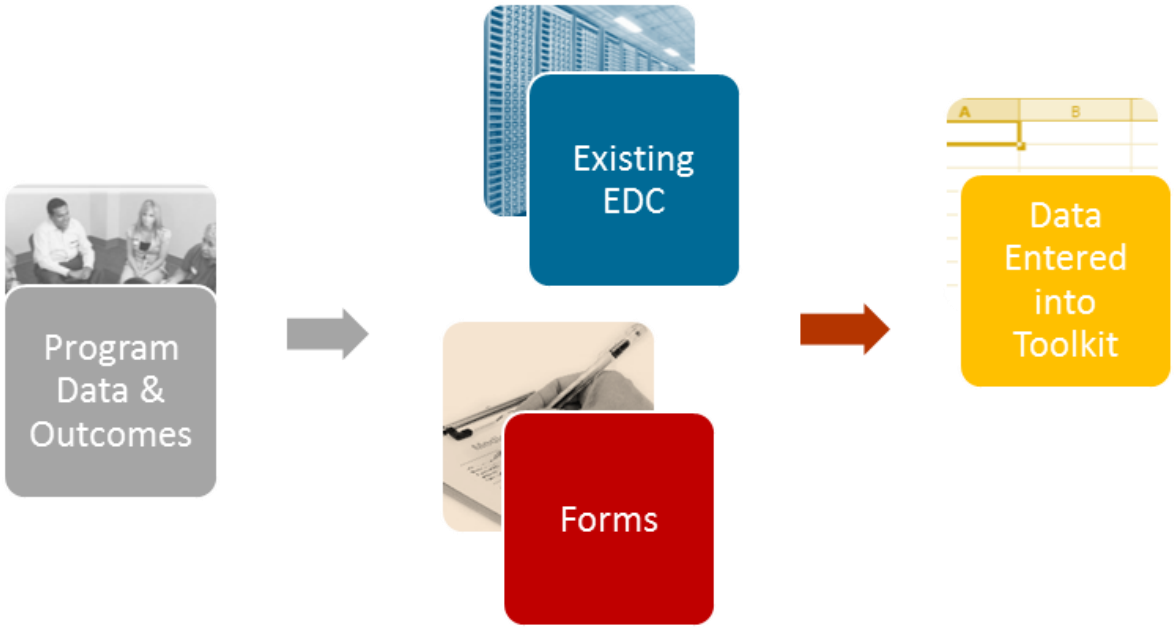


Figure IV-4. Program Collecting Data via Paper and Existing System

Option 4: Using paper forms to enter into the EDC and the Toolkit

In option 4 (Figure IV-5), a program will collect data elements on paper forms and then enter the data into an electronic system, possibly both an EDC and the Toolkit. If a program chooses this option, program staff will enter the completed data from the paper forms into the Toolkit spreadsheet and export data from the EDC.

This option is available for programs with limited computer access where it may be burdensome to create data collection systems. The Toolkit provides sample forms that can be utilized by a program. This may be a preferred method for small counties. However, the use of paper forms has some potential disadvantages, including less control over data quality, and lack of any real-time notifications or automated reporting.

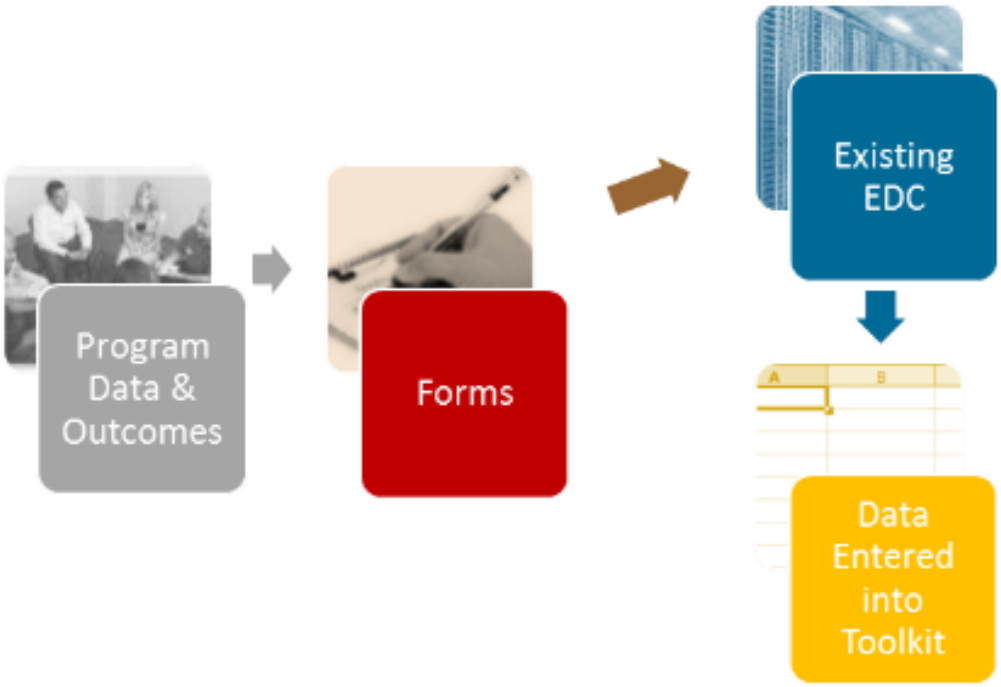


Figure IV-5. Program Entering Data via Paper Forms to be entered into an EDC and the Toolkit Spreadsheet

Integration Essentials

Programs that choose options that include using their own data collection system will need to account for how that system will integrate with the Toolkit. This could include developing a data integration plan that ensures the information from the program's data collection system is formatted to meet the requirements of the Excel spreadsheets included in the Toolkit. This process could vary in complexity based on the data collection system being utilized. The remainder of this section will address developing a data integration plan and provide resources for making that process as simple as possible. While this Toolkit provides an overall plan for integrating data with existing EDCs, the following must be considered before developing a data integration plan.

Organizational Commitment

Developing and implementing an EDC integration system requires commitment from the organization since it will involve resources at various levels for the duration of your program. This Toolkit provides a feasibility checklist that can be a resourceful tool for gauging organizational commitment and beginning the necessary discussions at various levels to determine the best methods for tracking, evaluating, and measuring your program outcomes.

Documenting Program Processes and Work Flow

The process of data integration must be considered in relation to the daily program processes and workflow. Completion of assessments, measures, data entry, data extraction, and analysis all must function as a normal part of daily practices and procedures. Therefore, understanding and mapping of daily workflow and highlighting those tasks that will effect data integration will help in developing a process that functions well with the workflow already in place. This could entail considering the following:

- Determining when clinician and client assessments and measures are completed based on appointment scheduling
- Considering electronic forms versus paper forms
- Identifying the staff who would be the most appropriate for completing data entry
- Scheduling data extraction that coincides with other business processes and reporting needs.
- Creating timelines for data reports for staff and management needs that coincide with staff responsibilities and tasks
- Developing feedback loops that will allow the data to inform program improvement

Connecting Disparate Systems

Health services are increasingly dependent on electronic systems. While such systems often promote immediate sharing of information, sometimes they are created to function independently of any other data processing system, making it difficult to connect data from one system to another. Programs that are housed within larger organizations such as hospitals or criminal justice systems may experience this more often when required to use an electronic system utilized by the parent organization. Ideally, such systems provide a means to export data into a commonly used format to permit data integration. The functionality of these larger electronic systems needs to be discussed early on in the planning process.

Inability to connect disparate systems may lead a program to choose a different database program to track client information and outcomes.

Mapping Data Sets to Enable Health Information Exchange

In the following section, this Toolkit provides information on developing a data-mapping plan. If EDC integration is pursued, it is imperative that the data is mapped to maximize the exchange of health information. This may include considering how your organization needs to view and process information in order for business practices to be accomplished. For instance, key data may need to be included in referral or intake forms in order to process medical billing. Such data may need to be in a specific format to ensure processing occurs smoothly. This may require the data to be entered in one format and exported in another in order to be analyzed in a meaningful way. These considerations highly impact the decision to pursue EDC integration.

Developing a Data Integration Plan

Establishing an EDC integration plan is an important step in ensuring an accurate and efficient system for exporting and analyzing data. The following should be considered before implementing data integration.

- System requirements (software, workstation) needed for integration
- Establishing a data timeline based on needed reports and other monitoring and evaluation needs
- Availability of staff to complete integration according to the desired data timeline and the responsibilities of each person
- Preparing for data collection into other EDCs
- Creating a data-mapping framework
- Reviewing of the verification testing needed to confirm data are mapped correctly
- Ongoing evaluation of the data integration plan

System Requirements

The Toolkit's data entry template requires Microsoft Excel 2010 or later. Additionally, adequate storage and processing for the workstation, at which the integration will be prepared, is needed. If requirements below are not met, then the system may not function optimally.

- **Hard Drive Space:** The ideal hard drive space is 500 gigabytes (GB).
- **Memory Usage:** The ideal amount of operating system memory occupied by the system is 16 gigabytes (GB) of RAM.
- **Internet:** A Broadband connection is recommended (minimum 2-3 Mbps download; minimum 1-2 Mbps Upload)
- **Operating System:** Windows 7 or later; Mac OSX 10 or later
- **Browser (for web-based applications):** An updated version of Internet Explorer, Mozilla Firefox, Google Chrome, or Safari is required.
- **Software:** Microsoft Office 2010 or higher is recommended.

Data Timeline

While outcomes and measures in the toolkit are recommended for use with participants quarterly or every six months, agencies may benefit from utilizing other timelines for monitoring and evaluation. This may include quarterly reviews in order to meet quarterly reporting deadlines. Such timelines should be developed prior to implementing an EDC integration plan.

Staffing Resources

The implementation of an EDC integration plan is time intensive and requires additional staff resources. Adequate staff time needs to be allocated for developing the integration structure and exporting data from the EDC. Questions to consider include:

- Will employees, such as information technology (IT) staff, be needed to design the structure of the integration and/or perform the ongoing extraction? Complex EDC systems often require expertise from staff outside of a program or even outside the organization to assist with establishing the framework for an ongoing export. Small EDC systems created with relational database tools such as Microsoft Access or structured query language (SQL) may be a good option utilizing internal resources. Make sure to consult with IT staff to determine the complexity of exporting data from the EDC and if additional IT staff resources are needed to accomplish a regular export.
- Are staff trained to import a file from .csv to Microsoft Excel? If not, can this training be provided, and who will provide the training?
- Who will be responsible for testing the data collection and reporting features before implementing an integration? Will staff members need to allocate additional time to this task, over and above their current responsibilities?
- Who will be responsible for the regular data exports and do they have sufficient time to devote to this ongoing task?

Preparing for Data Collection in Other EDC Systems

Your EDC may include many of the data elements utilized in this Toolkit, but there may be others that do not exist in the EDC. You will need to determine if these other data elements should be added to the EDC, and if so, assess and plan for the time and resources it will take to incorporate them. Remember, data elements must be created to allow for exporting into a .csv file.

Considerations for Entering Data into the EDC

Every EDC varies regarding the customization options for developing data entry forms and templates. Systems used by large organizations may have customization options, but these are regulated by IT specialists or the developers of the EDC. The following should be considered when deciding to enter program data into an existing EDC:

- Program data entered into an existing EDC do not conflict with client confidentiality.
- Data are entered into fields within the EDC that can be easily exported.
- The use of text documents, scanned documents, or text fields for data entry likely will not permit for appropriate export and analysis functioning and should be avoided.
- Fields within the EDC use data validation and conditional rules as needed to minimize data entry errors.

Data Exporting Requirements

As your program prepares for data collection, the functionality of your EDC for exporting data must also be considered. This includes addressing the following:

- Confirming the EDC has a mechanism to export data in a timely manner
- Ensuring staff have appropriate EDC permissions to export data if needed
- Data usage or data sharing agreements are in place to allow for exports and the sharing of information.
- Data exports are in .csv file format or can be reformatted to be imported into Microsoft Excel.

If utilizing your current EDC system is not an option or monopolizes resources that will slow down the tracking, monitoring, and evaluation process, you could consider using a Microsoft Excel spreadsheet or simple Microsoft Access database to store the remaining variables, such as clinical assessment scores and outcomes measures, and exporting these to use with the Toolkit. Whichever method is chosen, you will want to ensure you are collecting all the data elements you want to use for monitoring, reporting, and evaluating and include these in your data-mapping plan. In addition, any exporting methods and processes must be in accordance with HIPAA requirements.

Data Mapping

The most time intensive phase of integration planning is developing a data-mapping framework to ensure the data from one system are formatted to move into another system. This entails confirming that data in your EDC are in the appropriate format for ease of exporting into a .csv file. Some EDCs are large systems that require IT staff to develop export protocols, such as a hospital medical record system. While this type of EDC has the capability to export to .csv, it will require IT staff resources to do so. The process of securing these staff for this task could be time consuming given competing priorities within your organization.

Additionally, this plan requires data mapping specifications. Often this is referred to as a data dictionary, which shows how the variable properties of the EDC data elements match those needed in the Excel data entry template. This includes formatting variable name, type (e.g. text, numeric, date), length, and values for numerically coded data for text responses (e.g. gender, ethnicity, multiple-choice items).

While this is a time intensive task, it is essential to discover potential issues before implementation. Data mapping helps avoid errors during the export that impact the delivery of reports and timely monitoring of your program. This Toolkit provides a guide on how to map common EDC data to the Toolkit spreadsheet (see page 54).

Integration Testing

Even though you have developed a plan for integration and a data dictionary, before going live with the integration, you will want to test each component. This includes testing data entry, exporting, analysis, and reporting to ensure all parts of the Toolkit work accurately using EDC system data. Those staff who will be completing the periodic data integration should be the testers of this system. Likewise, it is helpful for a diversity of staff to test data entry to ensure reliability of the system by different users.

Data Integration Plan Template

The plan your program creates to assist with data integration can be as simple or as complex as needed to consider all the aspects of integration. Included in this Toolkit is a Data Integration Plan Template that can serve as an outline for the process and assist in insuring important components are included in the final data integration.

Data Integration Plan Template

Click the icon to access the **Data Integration Plan Template**.

Data Security

The Toolkit utilizes data that contains personally identifiable protected health information (PHI). Downloads and reports may include PHI that must be stored, managed, and protected under conditions meeting federal regulations (HIPAA Security Rule 45 CFR parts 160, 162, 164 Health Insurance Reform: Security Standards; Final Rule). Therefore, data integration must be compliant with all HIPAA standards, your organization's information security policy and procedures, and all major security requirements that apply to EDCs. All appropriate security measures should be taken when exporting data.

Integration Process for Common EDC Systems

There are a number of EDC systems utilized by Community Services and Supports (CSS) programs in California. While each of these will have a process for requesting modifications and exports of data, the following general guidelines can be used to work with EDC systems not created by your program.

1. **Contact the EDC vendor.** Most EDC systems have user permissions that limit your ability to make changes to the system or export data. Contact the EDC vendor to determine the process for making these changes.
2. **Review the EDC functionality**. The EDC your program uses likely serves a broader function. Take time to review how your EDC is used and the purpose of the system with the vendor and other users as needed. This will help in determining what components can be revised to support data collection needed for the Toolkit.
3. **Integrate current functionality into the process for the toolkit.** Once you have the big picture of the functionality of the EDC, determine how this fits with the process needed for the toolkit. Does the system already capture some of the data needed for the toolkit? Can the system be adapted to add fields or forms to capture additional information?
4. **Share deliverable examples and reports with vendor.** Before designing any new features, share examples of exports and reports from the toolkit so the vendor understands what the outcome will look like. This is extremely valuable for ensuring the data is entered in the proper format for the appropriate output.
5. **Develop new fields and forms**. For additional data not already included in the EDC, work with the EDC vendor to program new functions. Discuss the time it will take to create these new functions and ensure these timelines are considered in your planning.
6. **Test new features.** Have a team of program staff who will be utilizing the EDC test the new features and provide feedback for changes or errors. Retest features if any changes are needed.
7. **Develop training.** Create training materials for program staff to understand the purpose of the EDC as well as how to use the EDC in their day-to-day workflow.

This section contains detailed integration information for specific EDCs used across behavioral health programs in California. Included are details concerning the process to create forms and forms already available for use, data export and import capacity, and general information about the system.

EDC-Specific Integration Information

Click on the icons below to access detailed integration information for specific EDCs.

Integrating the Toolkit with **Echo**

Integrating the Toolkit with **Anasazi & Cerner Community Behavioral Health**

Integrating the Toolkit with **Clinician's Gateway**

Integrating the Toolkit with **eBHS**

Integrating the Toolkit with **DCR** and **CSI**

Integrating the Toolkit with **Netsmart Avatar**

Integrating the Toolkit with **mHOMS**

Additional Resources for CSI Data Integration

The Toolkit's Intake Assessment Data Entry and Reporting tool has a mechanism for uploading select CSI data. See **Section III** for more information.

Mapping Common EDC Data to the Toolkit

This section provides a general overview of developing a mapping template if you are exporting from an EDC.

The purpose of data mapping is threefold:

1. Ensure that the variable properties in the EDC are the same as those of Toolkit spreadsheet, identify where there are discrepancies, and detail the data rules needed to match variables.
2. Discover and resolve potential issues prior to integration.
3. Track the source for the data if using more than one system.

Figure IV-6 provides an example of a data-mapping template using California Client and Service Information System (CSI) reporting data. In this example, variables used in CSI are mapped to those included in the Toolkit. The variable for county used for CSI data, "SUBMITTING-COUNTY-PLAN-CODE," has a different variable name and type from the variable name and type used in the Toolkit's Data Entry and Reporting tool, thus these properties would need to be changed in order to export to the Toolkit spreadsheet correctly.

CSI Data						Toolkit Data						Integration	
Variable Name	Data Type	Format	Length	Valid Codes	Notes	Variable Name	Data Type	Format	Length	Valid Codes	Notes	Direct Map?	Recode Notes
COUNTY-CLIENT-NBR	Character	XXXXXXXXX	9	There must be no embedded blanks. Otherwise, all values accepted.	None	clientID	Text	General	Not applicable	text	None	No	CCN will be mapped onto the text field.
SUBMITTING-COUNTY-PLAN-CODE	Character	XX	2	Alameda=01; Alpine=02; Amador=03; Butte=04; Calaveras=05; Colusa=06; Contra Costa=07; Del Norte=08;	None	county	Text	General	N/A	text	None	No	Transform numerical codes to text (e.g., 1 = Alameda; 2=Alpine;

Figure IV-6. Data Mapping Sample Template

Even small discrepancies, like a different variable name, can cause issues when integrating data and attempting to complete analysis and reports. Developing a data map confirms that all data are exported correctly.

Data Entry and Reporting Tool Codebooks

Each of the Data Entry and Reporting tools included in the Toolkit contain a worksheet detailing the contents and structure of variables contained in the tools. For more information, please review the Data Entry and Reporting Instructions found in Section III.

Importing Using CSV

The Toolkit utilizes Microsoft Excel spreadsheets to collect, analyze and report data. For the purpose of this Toolkit, it is assumed the user has basic knowledge of Microsoft Excel. This section provides detailed instructions on importing data from a .csv file to Excel, for use in the Toolkit spreadsheet. Consultation with your IT staff may be needed to determine a system for exporting from your EDC to a .csv file. Most EDCs have this capability.

The method discussed below converts a .csv file to .xlsx using Microsoft Excel 2010.[4] Complete the following steps after the data is exported from your EDC to a .csv file.

Option 1: Opening a .CSV File in Excel

This first option for importing a .csv file is the simplest. However, it does require that the variable columns match the same format in the Toolkit Excel template before importing the data. If columns do not match or are not formatted correctly, the dashboard may not work properly.

Step 1: Open Excel

Open Microsoft Excel in a blank spreadsheet view. Then click on **File** and the **Open.**

Step 2: Open the .CSV File

Select all files in the drop down file option. Navigate to the .csv file you want to open and double click or select the file and then click on **Open**. This will open your .csv file in Excel.

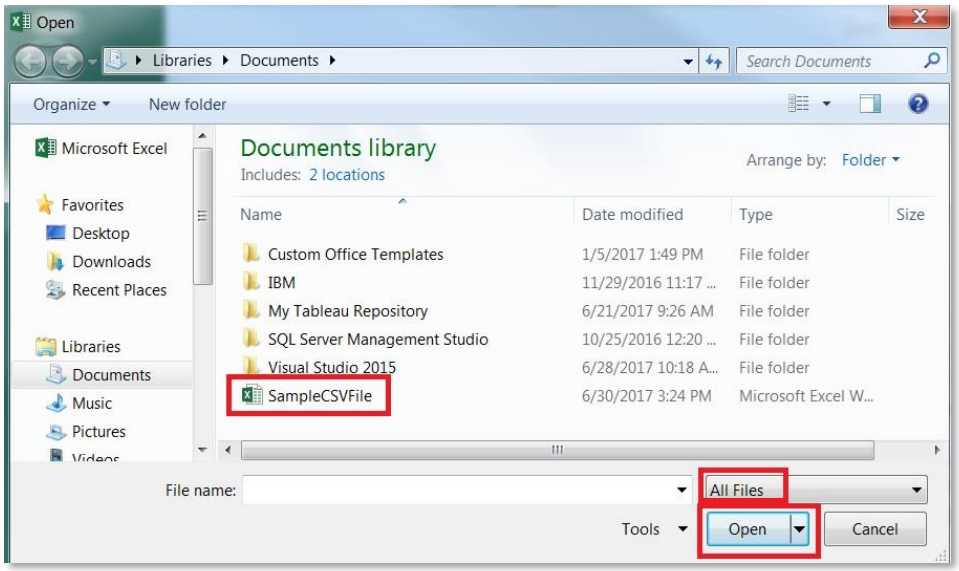


Figure IV-7. Navigate to .CSV File from Excel

Step 3: Save as an Excel File

Lastly, save the file you open as an Excel file by using the "save as" function in the **File** menu. Simply opening the file in Excel does not convert it to Excel format. It must be saved as an Excel file.

Option 2: Importing a .CSV File into Excel

This option should be used if variable properties from your EDC do not align with the Excel spreadsheet. This option gives you the ability to change the variable properties as a part of the importing process.

Step 1: Open a new Excel 2010 spreadsheet.

Open a new Excel workbook and click in the cell in the tab where you want to import the data.

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[4] Visit https://support.office.com/ for details on different versions of Excel.

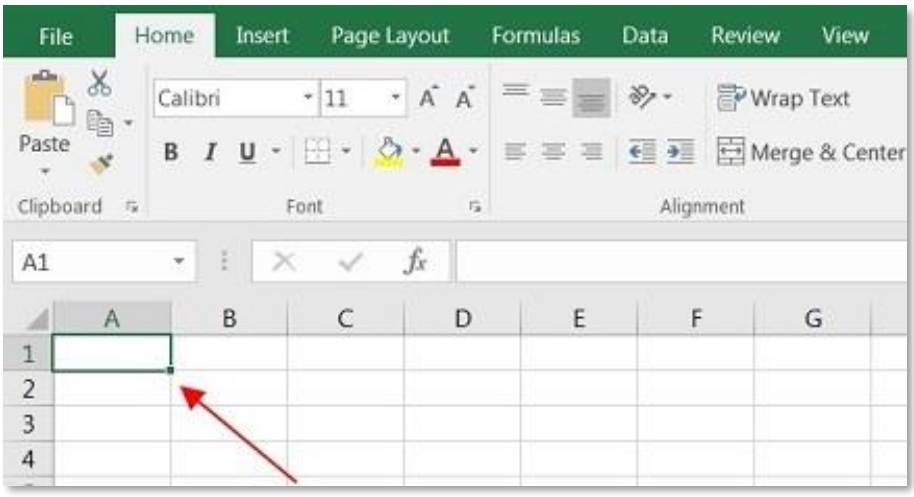

Figure IV-8. Open New Excel Workbook

Step 2: Get data from text.

On the **Data** tab, in the **Get & Transform** group, click on **From Text**.

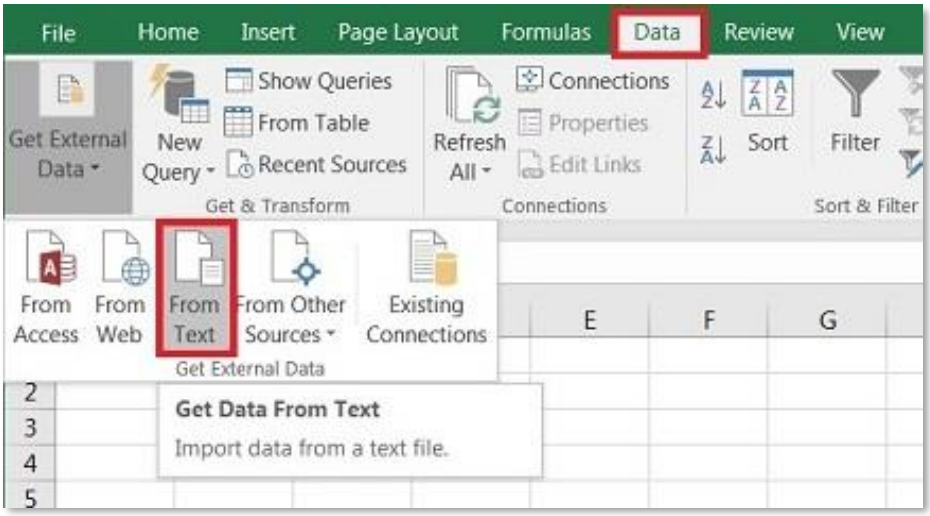

Figure IV-9. Get and Transform Data

This will open My Computer, allowing you to choose the file you want to import. Browse to the location of the .csv file. Select the file and then click **Import** or double click the .csv file. ***Note****: the Open button will change to Import when you have selected the file you want to import.*

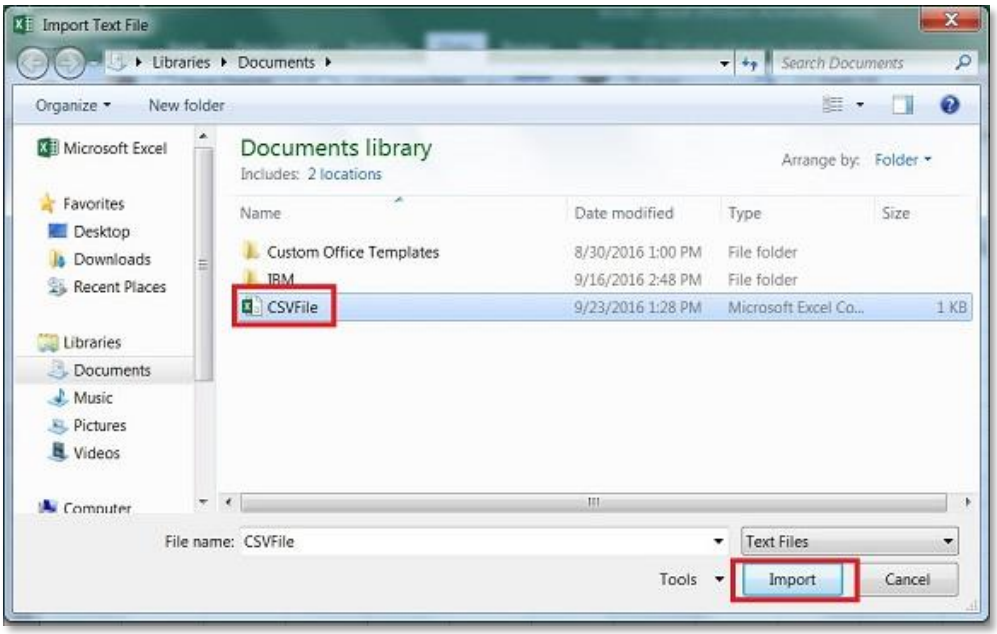

Figure IV-10. Select .CSV File

Step 3: Completing the text import wizard steps

The Text Import Wizard includes three steps.

a. Confirm the text is **delimited**. The import of the data should start at row 1. Lastly, check the box next to **My data has headers**. Double check the preview section to confirm the data are importing correctly. Then click **next**.

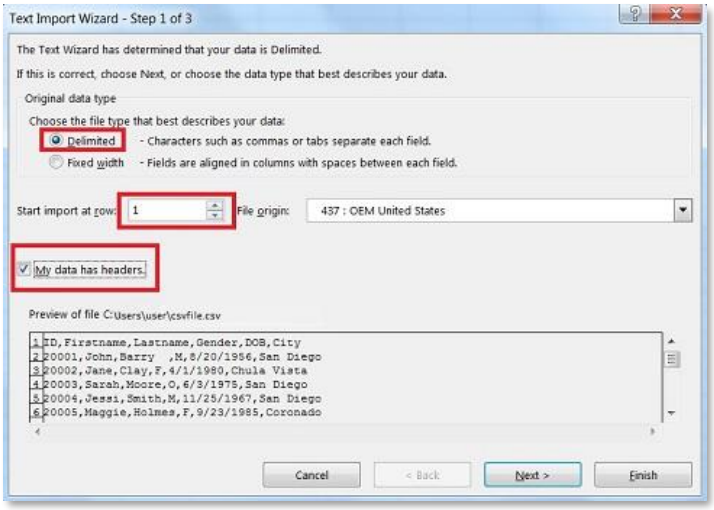

Figure IV-11. Text Import Wizard Step 1

b. Next, preview how your file is delimitated. Chose **comma** delimiter and text qualifier as **none**. Again, confirm in the data preview that your data are imported in the correct format. If your data are in a format where text is separated using a double or single quotation, then you will need to select the appropriate text qualifier.

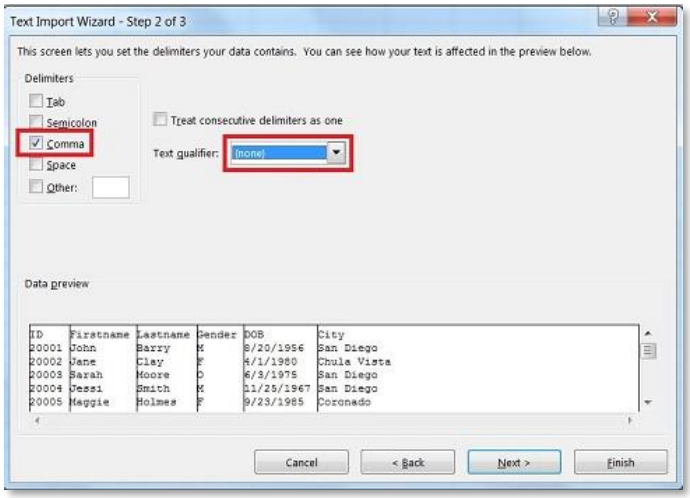

Figure IV-12. Text Import Wizard Step 2

c. The final step allows for each variable to be formatted or skipped. If you have already created a data-mapping plan and formatted your EDC data to match the format for the Toolkit, then nothing further is needed in this step. However, if there are known formatting discrepancies, this is the step that allows you to match the data format for your EDC data to the Toolkit. Click on each header to change the data format. Click **Finish** when completed and **Save** the file to the appropriate location. ***Note:*** Just importing the data does not save the .csv to an .xlsx format. You must also save the file as an .xlsx file.

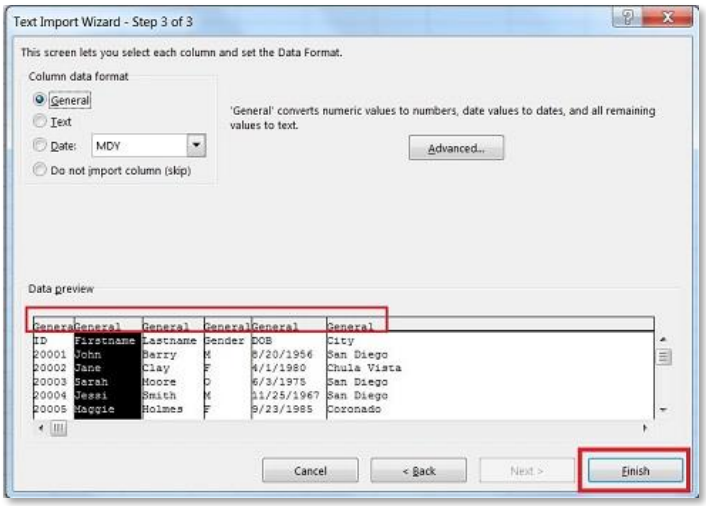

Figure IV-13. Text Import Wizard Step 3

Testing Data Import

It is extremely import to test your import with a smaller data set before setting up the final process for importing in Excel. Whichever method you choose to import, it is essential to test out the process with program data to confirm the process works as expected. A complete process for testing integration, including the import, is included in the next section.

Integration Testing

It is valuable to conduct a series of tests to ensure that data collection, import, analysis and reporting functions are operating properly before completing regular data exports. This will require identifying a point person who will be responsible for performing each task and providing feedback to appropriate IT staff and supervisors. A small sample of actual program data should be used for testing. Any issues discovered during this process should be resolved after completing the testing and then re-tested.

Data Collection Testing

- Review all data collection forms to ensure all fields needed for reports are included.
- Have front line staff use these forms and test data entry to make sure data entry flow is appropriate and all data entered into the EDC or other data collection system as expected.

Import Testing

- Confirm all variables are imported.
- Confirm all expected data records are imported.
- Confirm all variables are imported with the same properties as the variables in the Toolkit.
- Measure the time required to complete the import in order to determine staffing requirements.

Toolkit Spreadsheet Testing

- Confirm all variables are in the same order as the variables in the Toolkit.
- Confirm variable properties are correct.
- Confirm all formulas are functioning properly.
- Confirm all pivot charts and tables are working correctly.
- Confirm the Process Data button refreshes data charts and tables.

Dashboard Testing

- Review all charts and figures in the dashboard to confirm data are displayed correctly.
- Confirm all dashboard elements are working properly.
- Measure the time it takes to update the spreadsheet with new data to complete a final dashboard report in order to determine staffing requirements.

EDC Integration Challenges

For programs tackling EDC integration there are some challenges that should be noted. While these challenges need to be addressed, they do not negate the benefits of using an EDC for tracking client information and outcomes. Rather, working with your specific EDC experts to develop a system for

integrating additional key outcomes and measures could prove a valuable resource, both clinically and operationally. Likewise, accessing one data collection system could save valuable staff time.

Creating Forms in an EDC

As already noted, getting data elements into an existing EDC will require some time and effort. Be sure to let your EDC staff experts know that you will need to enter data in a format that will allow for an export to a .csv file. The information shared with your EDC staff during the planning stages will provide them with the necessary information to build forms and tools to best accomplish the export process.

Assigning Unique Identifiers to Your Program's Clients

While a client ID should be unique to a program, it could be duplicated when data from multiple programs are combined into the same database (for example, when program data are rolled up for countywide data analysis). Such conflicts are best mitigated by including both the program's client identifier and a separate unique client identifier. An example of this would be using the CSI county client ID number and a program specific client identifier.

EDC System Restrictions

Some EDCs have restricted access to components or functions of the system that would be needed for entering, managing, and exporting data. Check with your EDC staff expert to determine if such access needs to be granted to certain staff before the integration plan has begun. Also, when staffing changes do occur, make sure such access is restricted if staff move to another position within your organization and that new staff are granted the correct permissions.

Patient Consent and Confidential Information

Depending on the scope of your EDC and clients' authorization for release of information (ROI), information collected in the assessment forms and supplements may not be appropriate to include in your EDC that could be accessed by other individuals throughout your organization. For instance, an EDC within a hospital may want to consider if data elements that are not health-related (e.g., living arrangement, employment, arrest information) should be entered into the EDC since this is not essential patient information for other departments and may be considered confidential for your program only.

SUPPLEMENTAL MATERIALS
SECTION V

IN THIS SECTION

Access communication materials that can be used for introducing programs to the Toolkit.

Learn about resources for additional assistance with the Toolkit materials.

Find answers to frequently asked questions about the Toolkit.

Sample Communication Materials

This section includes sample communications that may be used to disseminate information about the Toolkit to providers. These materials provide key information introducing the Toolkit.

Counties are encouraged to modify materials as necessary.

Promotional Documents and Templates

Click on the icon to access a **printable flyer** that provides basic information about the Toolkit.

Click on the icon to access a **Toolkit announcement letter**.

Click on the icon to access a **sample training announcement flyer**.

Additional Resources

The websites and contacts below are provided as resources for more information to assist with many of the tools and measures included in the Toolkit. However, if you have technical support questions, it is recommended that you carefully review the materials provided in the Toolkit and/or consult your agency's information systems staff prior to contacting vendors directly, as the information already provided may answer your questions.

General Questions about the Toolkit

- *Mental Health Services Oversight and Accountability Commission (MHSOAC) Website*

  The MHSOAC website provides general information about the Toolkit and instructions on obtaining the Toolkit. Visit http://mhsoac.ca.gov/css-evaluation-toolkit.

Data Use Agreement (DUA)

- *DUA Toolkit: A Guide to Data Use Agreements*

  This guide provided by Health Care Systems Research Network (HCSRN)'s offers general information on how to negotiate a DUA. Visit http://www.hcsrn.org/en/Tools%20&%20Materials/GrantsContracting/HCSRN_DUAToolkit.pdf.

Data Security

- *Protecting Personal Health Information in Research: Understanding the HIPAA Privacy Rule*

  The Department of Health and Human Services developed this booklet, which explains the Privacy Rule in a research context. Visit https://privacyruleandresearch.nih.gov/pdf/HIPAA_Privacy_Rule_Booklet.pdf.

Assessment Measures

- *Illness Management and Recovery Scale (IMR)*

  The *IMR* questionnaires included in the Toolkit (i.e., IMR – Family or Friend Version and the IMR included in the Clinician Assessment) were modified, with permission, from the *Practitioner Outcome Survey: Illness Management and Recovery.* For more information about the Practitioner Outcome Survey, see the *Evaluating Your Program* document prepared by the Substance Abuse and Mental Health Services Administration (SAMHSA): http://store.samhsa.gov/shin/content/SMA09-4463/EvaluatingYourProgram-IMR.pdf.

- *Mental Health Statistics Improvement Program (MHSIP) Consumer Survey*

  The following versions of the MHSIP Consumer Survey are available from the California Institute of Behavioral Health Solutions (CIBHS) Website: Chinese, Hmong, Russian, Spanish, Tagalog, and Vietnamese. Visit https://www.cibhs.org/consumer-perception-surveys.

  Note: The version of the MHSIP Consumer Survey that is included in the Toolkit should not be used for the California Department of Health Care Services (DHCS) required administration of the MHSIP

Consumer Perception Survey (CPS). For required administration of the MHSIP CPS, please follow DHCS procedures.

- *Milestones of Recovery Scale (MORS)*

  The Milestones of Recovery Scale website provides general information about the measure and instructions on how to obtain MORS training. Visit www.milestonesofrecovery.com or contact Mental Health America of Los Angeles at MORS@mhala.org or (562) 645-3222.

- *Patient-Reported Outcomes Management Information System (PROMIS) Global Health*

  For information about the assessment, administration, and scoring, visit http://www.healthmeasures.net/explore-measurement-systems/promis.

- *Intake Assessment, Clinician Assessment, and Creating Healthy Outcomes Integrated Self-Assessment (CHOIS)*

  For more information about the Intake Assessment, Clinician, Assessment, and CHOIS, contact Andrew Sarkin at asarkin@ucsd.edu.

Program Evaluation

- *Centers for Disease Control and Prevention (CDC) Program Performance and Evaluation Office (PPEO)*

  The CDC PPEO website is a great starting point to learn more about program evaluation. Visit https://www.cdc.gov/eval/index.htm.

Data Integration Assistance

- *Mental Health Data Alliance (MHDATA) CSI Submission File Analysis Tool*

  MHDATA's CSI Submission File Analysis Tool is an Access Database tool designed to assist counties and providers with assessing CSI data submission files and CSI error files. Processing raw CSI data through the CSI Submission File Analysis Tool is an essential step for integrating CSI client data into the Toolkit's Intake Assessment Data Entry and Reporting spreadsheet. Visit http://www.mhdata.org/resources to access the CSI Submission File Analysis Tool 2.0.

Consult with your agency's information systems staff prior to contacting the vendors below.

- Echo: info@echoman.com
- UC San Diego's Mental Health Outcomes Management System (mHOMS): mhoms@ucsd.edu
- Anasazi & Cerner Community Behavioral Health: 1-800-834-3792
- Clinician's Gateway: 510-567-8181
- CIBHS: http://www.cibhs.org/contact-visit
- DHCS specialty mental health services point of contact: MedCCC@dhcs.ca.gov
- Netsmart's myAvatar: https://www.ntst.com/Contact-Us/

Frequently Asked Questions

What elements of the Toolkit are mandatory or voluntary? The MHSOAC is providing the Toolkit as a supplemental resource that should be used to enhance current practices. Use of the Toolkit is not required by the MHSOAC.

If counties implement Toolkit assessments, will they still be required to use assessment forms for the Data Collection and Reporting System (DCR)? Adoption of the Toolkit does not change other program, county, or State requirements. Toolkit measures should not be implemented if data elements are already collected via an existing system.

What should counties do if they wish to integrate data collected through other systems (e.g., Client and Services Information [CSI], DCR) with data collected using the Toolkit? The Toolkit includes guidance on importing from common sources, which includes information about how data must be formatted. Counties and programs should work with electronic data capture system providers to acquire data extracts that are compatible with the Toolkit. General data integration information will be included for less common systems.

Was the Mental Health Statistics Improvement Program (MHSIP) Consumer Perception Survey (CPS) considered for the Toolkit? How can this data be tied to the other assessments? The CPS was considered during the development of the Toolkit. A MHSIP dashboard is included in the Toolkit for counties to summarize their CPS data and for optional administration of the survey (for instance, to collect additional CPS data outside the bi-annual data collection windows or for programs that may not be required to collect CPS data to obtain the information if they wish to do so). Counties may choose to integrate information from the survey to improve their program. Counties are responsible for ensuring confidentiality of CPS data.

Will the Toolkit be updated if State data collection requirements were to change? The Toolkit may be updated and re-released if the requirements change in the future. In addition, the steps for the development of Excel tools are clearly documented in the Toolkit. Individuals with expertise in Excel may replicate these steps to update the tools to meet new requirements.

Who may use the Toolkit? The Toolkit is a free resource for counties and providers.

How is the Toolkit distributed? The Toolkit is available via the MHSOAC website. To obtain a copy of the Toolkit, individuals must complete a Toolkit Request form.

Will Toolkits be available for other programs such as Prevention and Early Intervention (PEI) and Innovations (INN)? Stakeholders expressed interest in a Toolkit for other programs that would include materials that are not in the scope of the current CSS Toolkit. Similar Toolkits may be developed for other programs should resources become available.

Printable Frequently Asked Questions Flyer

Click on the icon to access a **printable Frequently Asked Questions flyer** that can be distributed to program staff.

APPENDIX

Appendix A. Glossary of Abbreviations and Acronyms

Abbreviation or Acronym	Definition
CFR	Code of Federal Regulations
CHOIS	Creating Healthy Outcomes Integrated Self-Assessment
CPS	Consumer Perception Survey
CSI	Client and Service Information System
CSS	Community Services and Supports
CSV or .csv	Comma-separated Values
DCR	Data Collection and Reporting System
DUA	Data Use Agreement
eBHS	Electronic Behavioral Health Solutions
EDC	Electronic Data Capture
FSP	Full Service Partnership
HIPAA	Health Insurance Portability and Accountability Act
HSRC	Health Services Research Center
IMR	Illness Management Recovery and Recovery Scale
IMR-FF	Illness Management and Recovery Scale – Family or Friend Version
mHOMS	Mental Health Outcomes Management System
MHSA	Mental Health Services Act
MHSIP	Mental Health Statistics Improvement Program
MHSOAC	California Mental Health Services Oversight and Accountability Commission
MORS	Milestones of Recovery Scale
PDF	Portable Document Format

Abbreviation or Acronym	Definition
PEI	Prevention and Early Intervention
PHI	Protected Health Information
PROMIS	Patient Reported Outcomes Measurement Information System
QALY	Quality Adjusted Life Years
RAM	Random Access Memory
ROI	Release of Information
SAMHSA	Substance Abuse and Mental Health Services Administration
the State	State of California
SQL	Structured Query Language
TEAG	Toolkit Evaluation Advisory Group
the Toolkit	Toolkit for Evaluation, Assessment, and Measurement for Adult Community Services and Supports Programs
UC	University of California
XLSX or .xlsx	Filename extension (Microsoft Excel spreadsheet file)

Appendix B. Toolkit Background

Phase 1. In 2016, the University of California (UC) San Diego Health Services Research Center (HSRC) concluded the CSS Tracking, Monitoring, and Evaluation System Project. This project was an effort initiated by the California Mental Health Services Oversight and Accountability Commission (MHSOAC) to assess the efficacy of the CSS component of the Mental Health Services Act (MHSA)[5]. Historically, a larger focus had been placed on evaluating outcomes and services for clients who were being served through Full Service Partnership (FSP) programs. Therefore, the goal of the CSS Tracking, Monitoring, and Evaluation System Project was to develop a means for understanding how programs that are less intensive than FSP programs can best be tracked, monitored, and evaluated through an outcomes-based approach.

The product of the project was a system that includes (1) outcome assessments and assessment completion protocols, (2) the software needed to manage outcome measures data, and (3) data reporting formats tailored to key audiences. In order to develop the system, HSRC assembled information from a variety of sources including:

- direct input from stakeholders (e.g., program administrators and staff, system end users, individuals with lived experience) via surveys, focus groups, and a Mental Health Services Evaluation Advisory Group (MHSEAG);
- comprehensive reviews of current legislation and recommendations for implementing mental health systems;
- consultation of mental health agencies; and
- reviews of existing data collection systems, outcome measures, and validated instruments.

After piloting the system for tracking, monitoring, and evaluation in several counties throughout California, HSRC developed recommendations to assist the State with future implementation of a system. In addition, the project team further adjusted the software and revised measures to ensure the collection of the most relevant client outcome information. A key lesson learned during the pilot was that any tracking, monitoring, and evaluation system that is implemented must be designed to retain the most relevant features and data collection requirements necessary for evaluating a program, while allowing for flexibility to accommodate local needs and regulations. Additionally, there must be ample time and support to prepare for and deploy such a system.

Phase 2. Following the conclusion of the CSS Tracking, Monitoring, and Evaluation System Project, MHSOAC commissioned HSRC for a second related project. The primary purpose of Phase 2 was to develop a set of resources and tools that would assist counties that wish to adopt the tracking, monitoring, and evaluation system for adult CSS programs. In addition, Phase 2 was intended to improve

[5] CSS is the largest component of the MHSA and includes client- and family-driven services that focus on wellness and integrated service experiences for clients and families, as well as providing services for traditionally underserved populations. The CSS component includes FSP programs, which are designed to provide comprehensive services to the highest-need clients in the system (e.g., individuals with severe mental illness/emotional disturbance who have co-occurring histories of homelessness, incarceration, and/or institutionalization) as well as services for those who may not qualify for FSP services.

MHSOAC's capacity to provide ongoing technical assistance to county behavioral health departments that employ the system.

Key activities for Phase 2 included the development of materials intended to:

(a) help counties and programs determine the feasibility of adopting a comprehensive system for tracking, monitoring, and evaluating CSS programs;
(b) provide guidance to counties on developing plans to incorporate the system into current activities and workflows;
(c) assist MHSOAC in providing technical assistance to counties that wish to adopt the evaluation system; and
(d) provide resources for the negotiation the sharing of CSS evaluation data between counties and MHSOAC.

Results and recommendations generated during Phase 1 were used to develop materials and resources that would help counties and programs prepare to implement the CSS Tracking, Monitoring, and Evaluation system. Subject matter experts provided feedback on individual components of the toolkit. In addition, a Toolkit Evaluation Advisory Group (TEAG) was convened. The TEAG, which comprised a wide variety of stakeholder groups, included individuals with lived experience, front line staff, technical experts, and county staff. The purpose of the TEAG was to review toolkit materials, ensure that the needs of program staff and clients are addressed, and discuss strategies to maximize the clinical utility of the toolkit. Early drafts of Toolkit materials were presented to the TEAG for review and feedback, and adjustments were made according to the input provided.

Appendix C. TEAG Feedback

Prior to submitting the final Toolkit to the MHSOAC, TEAG members reviewed a preliminary draft and provided final comments and suggestions for improvement. A Toolkit rating form distributed with the draft Toolkit allowed TEAG reviewers to assess general organization, clarity of introductory materials, clarity of instructions, presentation of information for various audiences, and understandability of technical details. For each criteria, TEAG members selected one of the following ratings, which were assigned a score of 1 through 5: Excellent (5), Good (4), Acceptable (3), Marginal (2), and Unacceptable (1). Three TEAG members completed the rating form. Average ratings are displayed in Table C-1.

Table C-1. Average Toolkit Ratings (N=3)

Question	Average	Standard Deviation
1. Toolkit is well organized.	5.00	0.00
2. The Introduction section provides a clear overview of the Toolkit and its components	5.00	0.00
3. In general, instructions for using the Toolkit components are clear.	4.67	0.58
4. In general, the Toolkit presents information that is appropriate for a wide variety of audiences.	5.00	0.00
5. Technical details included in the Toolkit are understandable without being overwhelming.	5.00	0.00

Suggestions for improvement included rewording or adding specific instructions to provide more clarity on how to use the Toolkit and recommendations to highlight the benefits of using Toolkit materials. These comments were used to refine the final draft of the Toolkit. Overall, however, TEAG members provided positive comments about the presentation of the Toolkit. General comments are presented below.

"The document was very straightforward."

"The introduction allowed me to navigate the document quite easily."

"For the audiences it's intended for, it gives good information."

"I'm not good with technical details and I was able to follow it."

"Excellent product. I am proud to be associated with this Toolkit."

Appendix D. Quality Adjusted Life Years (QALY)

The PROMIS Global Health is a measure of quality of life that can be used to calculate quality-adjusted life years (QALYs), a measure of health utility. One year in perfect health is represented by a QALY of 1, while less than 1 represents one year of less than perfect health.

QALY is determined by weighting the amount of time spent in a health state by a utility index assigned to that health state. Clients' responses to the PROMIS Global Health may be used to estimate a EuroQol (EQ-5D) value – a utility index that assesses overall health-related quality of life on a scale of 0-1. After PROMIS Items 8, 9, and 10 are reverse coded, EQ-5D scores may be estimated using the following formula developed by Revicki et al.[6]

EQ-5D = 0.19123 + (0.00672 x Item 2) + (0.00527 x Item3) + (0.00830 x Item4) + (0.04550 x Item 7) + (0.02713 x Item 10) + (0.01305 x Item 9) + (0.00613 x Item 6) + (0.02502 x Item 8)

QALY can be calculated by multiplying the index score (in this case, the EQ-5D score) by the number of years a client is in a certain health state.[7]

QALY = Health Utility X Time

Example

A client with a serious health condition who receives no treatment may live with a health state valued at 0.6. If he receives treatment for his condition, he may live in a health state with a quality of life of 0.9. Thus for every year he is getting treatment, his health utility is 0.3 higher than without treatment.

Without Treatment: 3 years x 0.6 = 1.8 QALYs

With Treatment: 3 years x 0.9 = 2.7 QALYs

QALYs Gained from 3 years of Treatment: 2.7 - 1.8 = 0.9 QALYs

Thus, the treatment generates an additional .9 QALYs across three years or .3 QALYs per year of treatment.

Cost-Effectiveness Analysis

QALYs may be used to determine cost-effectiveness (i.e., the cost of providing a treatment to generate a certain quality of life). To estimate cost-effectiveness for a program, divide average yearly program costs by the change in QALYs generated over the year after enrolling in a treatment program based on clients' responses on the PROMIS Global Health scale.

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[6] Revicki, D. A., Kawata, A. K., Harnam, N., Chen, W.H., Hays, R. D., & Cella, D. (2009). Predicting EuroQol (EQ-5D) scores from the patient reported outcomes measurement information system (PROMIS) global item and domain item banks in a United States sample. Quality of Life Research Journal, 18, 6, 783-791.

[7] Phillips, C., & Thompson, G. (2001). *What is a QALY?* London: Hayward Medical Communications. Retrieved from: http://www.vhpharmsci.com/decisionmaking/Therapeutic_Decision_Making/Advanced_files/What%20is%20a%20QALY.pdf

Cost Effectiveness: Average Annual Cost per Person ÷ Average QALY gained for first year in program

Example

Based PROMIS Global Health administered at Intake and a one-year follow-up, the average QALY gained per person in the program is 0.05. If the average yearly per person cost of a program is $566.05, the cost per QALY gained would be $11,320.80 ($566.05 / 0.05). In other words, the program would cost $11,320.80 for each QALY gained.