The Consumer Outcomes Data Mart
A Conceptual Model

Data Mart Design Philosophy

The current document is designed to provide a functional description of the structure and operation of a Consumer Outcomes Data Mart as conceived by the Statewide Outcomes Data Mart Committee, and is the product of a series of meetings held from August 2002 through June 2003.

The document is not intended to be a formal requirements specification document for use in the design or cost estimation of the Consumer Outcomes Data Mart. Such a document will be prepared separately. Nor does the current document represent a rigid model that dictates either a fixed approach or a specific technological solution (there may be multiple ways to achieve the overall intent of the committee). It is merely a statement of guiding principles and an expression of the “look and feel” of the Outcomes Data Mart envisioned by the Statewide Outcomes Data Mart Committee.

Rationale for an Outcomes Data Mart

The Ohio Mental Health Consumer Outcomes System is an ongoing endeavor to obtain outcome measures for consumers served by Ohio’s public mental health system. Consumer outcomes provide important information for the management of consumer care, the improvement of the service delivery system, and accountability for public resources.

The primary roles (non-prioritized) of the Outcomes Data Mart are to:

- drive change and increase compliance within participating providers;
- provide further reinforcement for the collection of outcomes data by facilitating their use;
- encourage agency and board participation in the system by providing comparative data submission and Outcomes information;
- improve accountability for public mental health funds;
- provide a combined data set for the creation of comparative benchmark data;
- provide consumer access to Outcomes data (subject to all appropriate HIPAA and confidentiality requirements);
- provide an interim step toward the creation of an integrated data warehouse within ODMH; and
- extend limited data management capabilities to agencies and boards that either have limited access to their own data, or lack access to the data in data mart formats.
Where Does the Outcomes Data Mart Fit?

In an effort to account for services delivered to publicly-funded consumers, ODMH and ODADAS are implementing a state-wide management information system. Called MACSIS (for Multi-Agency Community Services Information System) the system is a multi-phased project as follows:

- **Reimbursement** — The first component of MACSIS (called Diamond) is designed to track and reimburse services funded by public dollars, and includes only those information items required to reimburse a claim for services. Aggregate information about claims processed by MACSIS can be accessed through a web-based Claims Data Mart.

- **Behavioral Health Module** — The second component of MACSIS is the Behavioral Health Module, which is designed to capture additional demographic information about consumers served, including admission and closure information. Aggregate information about consumer demographics could eventually be available through a web-based Behavioral Health Module Data Mart that is under consideration.

- **Consumer Outcomes** — Although not a part of the formal MACSIS structure, per se, the Consumer Outcomes System contains information on the health or well-being for an individual or family, as measured by statements or characteristics of the consumer, as well as by perceptions of service providers and family members. Aggregate information about outcomes can be accessed through a web-based Outcomes Data Mart that is being designed.

- **Future Data Warehouse** — The long term vision includes a Data Warehouse designed to accept information from the Diamond financial system, the Behavioral Health Module and the Consumer Outcomes System and combine it for reporting purposes. At present, such a Data Warehouse is a conceptual model only; challenges related to overall cost and emerging issues of data confidentiality will have to be addressed before such a project can be undertaken.
General Design Principles

The following principles guided the work of the Statewide Outcomes Data Mart Committee:

- **Data Mart** — Although there was an undercurrent during the conceptual design process that pushed for a more sophisticated data warehouse that could provide information relative to a number of broader behavioral health management issues, the committee recognized the need for the Outcomes Data Mart to be a simple tool to provide limited basic and accurate information about reported consumer outcomes in Ohio.

- **Limited Data Set** — The information in the Outcomes Data Mart has many uses for supporting decisions about programming, effectiveness of treatment and general accountability for public resources. However, the data contained therein have certain limitations in scope and the degree to which they are representative of the mental health population in Ohio. Therefore, the primary uses of Outcomes Data Mart information will be for management rather than research.

- **Objectivity** — The Outcomes Data Mart should provide objective information about reported consumer outcomes. No implicit value judgments about consumers getting “better” or “worse” are included in the design.

- **Confidentiality** — Best practice, Ohio statute and HIPAA requirements mandate that information contained in the Outcomes Data Mart be completely confidential; it should not be possible to use any information in the Outcomes Data Mart to identify any specific individual. Therefore: (1) no consumer identifiers will be contained in the Outcomes Data Mart; (2) the number of reporting formats and options will be limited by the design; and (3) no user downloading of raw data sets will be allowed.

- **Utility** — Attempts should be made to maximize the utility of the Outcomes Data Mart. However, no attempt should be made to try to design a tool that will be “all things to all people.”

- **No Within-Consumer Design** — Although the Outcomes Data Mart Committee would have preferred a “within-consumer” design that provided true change measures within individuals measured at multiple points during treatment, the difficulties inherent in programming and maintaining a data mart designed in such a way precluded the option. Therefore, the committee opted for a model that allows comparisons of consumer groups with a given set of characteristics to similar groups at different points in time (even though the individuals in the groups may not be the same).

- **Non-Technical Users** — The Outcomes Data Mart is not being designed primarily for technical users and researchers. Anticipated users include: (1) community mental health boards and agencies; (2) mental health consumers and family members; (3) ODMH Division of Program and Policy Development and others within ODMH; (4) ODMH Office of Program Evaluation Research; and (5) the general public. Therefore, the Outcomes Data Mart information should be accessible to a wide variety of individuals who have little sophistication using data analysis tools.

- **Ease of Use** — The Outcomes Data Mart should be easy to use, and should not require users to have prior knowledge of the specifics of the Consumer Outcomes Initiative or its instruments in order to make effective use of the data. The Outcomes Data Mart design should not force the user to perform detailed drill-downs that often “obscure the forest for the trees” and leave the user wondering, “now what did I just do?” Ideally, the user should be able to respond to a series of simple, English language prompts and get the report he or she expects. (Availability of an optional data mart interface similar to that employed by the Claims Data Mart was also endorsed by the committee. However, such an approach is not recommended as an alternative to the methodology described in the current document, but as an additional approach that is available to users requiring more detailed tables.)
Two Display Options

In keeping with the philosophy of not trying to be everything to everyone, the proposed Outcomes Data Mart interface would offer only two types of results displays — simple frequency distribution graphs and two-dimensional tables.

- **Graphs** — Graphs would be similar to those produced for the Initial Statewide Outcomes Report, with the X-axis representing the various reported values for the item or scale being displayed and the Y-axis representing the percentage of responses represented by each value.

To the extent possible, it would be desirable to have appropriate sample measures (e.g., sample size, mean, median, standard deviation) reported with each graph.

**Quality of Life**

- **N** = 13,142
- **Mean** = 3.1
- **Median** = 3.1
- **SD** = 0.8

**Scale Range:**

- 1.0-1.8 Terrible
- 1.9-2.6 Mostly dissatisfied
- 2.7-3.4 Equally satisfied/dissatisfied
- 3.5-4.2 Mostly satisfied
- 4.3-5.0 Very pleased

- **Tables** — The second display option would be a table that listed the item or scale being requested as the column and one of the following variables as the rows:
  - Time in Treatment (Difference between Admission and Administration Dates)
  - Gender
  - Race
  - Living Situation
  - Age
  - Primary Diagnosis
  - Education
  - Marital Status (Adult Consumers Only)
  - Employment Status (Adult Consumers Only)
  - Mandated Treatment Status (Adult Consumers Only)
A Simple Approach to Preparing Outcomes Reports

The key to the desired Outcomes Data Mart interface is its ability to allow a non-sophisticated user with little or no knowledge of the details of the Outcomes Initiative to frame meaningful questions and get them answered. Because the envisioned Outcomes Data Mart interface does not make the a priori assumption that the user has any in-depth knowledge of the details of the Consumer Outcomes System, it should guide the user to the desired information through a series of simple, easily understood questions such as the following:

(A) Select the Consumer Outcomes You’d Like to Include

- **Consumer Population** — Do you want to look at outcomes information for adult consumers or child & adolescent consumers?
- **Measurement Source** — Consumer outcomes scores come from multiple sources. Whose measurements of the consumer would you like to see?
- **Consumer Characteristics** — List any special characteristics of the consumers for whom you’d like to see outcomes scores.
- **Time the Consumers Have Been in Treatment** — Outcomes are measured at various points during a consumer’s treatment. Indicate the approximate time in treatment (as measured by days since admission) that best describes the consumers for whom you’d like to see outcomes scores.
- **Reporting Period** — Outcomes can be examined according to the fiscal or calendar year in which they were obtained. For what period would you like to see information?

(B) Select the Report You’d Like to Prepare

- **Outcomes to be Reported** — Outcomes are measured for several areas for a consumer’s life. From which area would you like to see information?
- **Report Format** — Outcomes can be displayed as bar graphs or tables. How would you like to display the outcomes you have selected?

Because the committee wishes to keep the time required to request a report to a minimum, the user should only have to answer a few required questions to generate a report. Non-required entry options should be defaulted to include all records. To place certain limitations on non-required data elements, the user should only need to change the values on the affected fields.

Given that users will probably run multiple similar data requests in a single session, the system should retain the previous set of entries so the user would only have to change the particular item(s) necessary to produce the next report.
## Selecting & Displaying Consumer Outcomes

Following is a sample set of query questions and possible selections for each. The information is provided simply to give the reader an idea of the steps in defining an Outcomes Data Mart information request. Although all possibilities are shown below, following selection of the consumer population (i.e., Adult, Child & Adolescent), the actual system will present only the selection options that are appropriate for that population.

**A) Select the Consumer Outcomes You’d Like to Include**

**Step 1 — Consumer Population (Required)** — Do you want to look at outcomes information for adult consumers or child & adolescent consumers? *(SELECT ONE)*

- [ ] Adult Consumers
- [ ] Child & Adolescent Consumers

**Step 2 — Measurement Source (Required)** — Consumer outcomes scores come from multiple sources. Whose measurements of the consumer would you like to see? *(SELECT ONE)*

- [ ] Adult Consumers with Severe Mental Illness (SMD)
- [ ] Adult SMD Consumers’ Providers
- [ ] Adult General Mental Health Consumers
- [ ] Child & Adolescent Consumers
- [ ] Child & Adolescent Consumers’ Parents
- [ ] Child & Adolescent Consumers’ Agency Workers

**Step 3 — Consumer Characteristics (Optional)** — List any special characteristics of the consumers for whom you’d like to see outcomes scores. If you’re not interested in a particular special selection, check the “All Combined” box (i.e., the last box in each section). *(SELECT ONE IN EACH CATEGORY)*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Group (Adult Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Male</td>
<td>[ ] Less than 25 Years</td>
</tr>
<tr>
<td>[ ] Female</td>
<td>[ ] 25–34 Years</td>
</tr>
<tr>
<td>[ ] Unknown/Missing</td>
<td>[ ] 35–44 Years</td>
</tr>
<tr>
<td>[x] All Genders Combined (Default)</td>
<td>[ ] 45–54 Years</td>
</tr>
<tr>
<td>[ ] All Genders Combined (Default)</td>
<td>[ ] 55–64 Years</td>
</tr>
<tr>
<td>[ ] All Genders Combined (Default)</td>
<td>[ ] 65+ Years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Unknown/Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] White/Caucasian</td>
<td>[ ] Unknown/Missing</td>
</tr>
<tr>
<td>[ ] Black/African American</td>
<td>[ ] Unknown/Missing</td>
</tr>
<tr>
<td>[ ] Other</td>
<td>[ ] Unknown/Missing</td>
</tr>
<tr>
<td>[x] All Races Combined (Default)</td>
<td>[ ] All Ages Combined (Default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living Situation (Adult Consumers Only)</th>
<th>Primary Diagnostic Group (Adult Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Living in Own Home/Apartment</td>
<td>[ ] Substance-Related Disorders</td>
</tr>
<tr>
<td>[ ] Living in Friend’s Home</td>
<td>[ ] Schizophrenia &amp; Other Psychotic Disorders</td>
</tr>
<tr>
<td>[ ] Living in Relative’s Home</td>
<td>[ ] Mood Disorders</td>
</tr>
<tr>
<td>[ ] Supervised Living</td>
<td>[ ] Anxiety Disorders</td>
</tr>
<tr>
<td>[ ] Nursing Facility</td>
<td>[ ] Adjustment Disorders</td>
</tr>
<tr>
<td>[ ] Foster Care</td>
<td>[ ] Personality Disorders</td>
</tr>
<tr>
<td>[ ] Mental Health treatment Facility</td>
<td>[ ] All Other Diagnoses</td>
</tr>
<tr>
<td>[ ] Homeless</td>
<td>[ ] Unknown/Missing</td>
</tr>
<tr>
<td>[ ] Correctional Facility</td>
<td>[x] All Diagnoses Combined (Default)</td>
</tr>
<tr>
<td>[ ] Other</td>
<td></td>
</tr>
<tr>
<td>[ ] Unknown/Missing</td>
<td></td>
</tr>
<tr>
<td>[x] All Living Situations Combined (Default)</td>
<td></td>
</tr>
<tr>
<td>Education Range (Adult Consumers Only)</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td>□ Less than High School Diploma/GED</td>
<td></td>
</tr>
<tr>
<td>□ High School Diploma/GED</td>
<td></td>
</tr>
<tr>
<td>□ More than High School Diploma/GED and Less than Bachelor’s Degree</td>
<td></td>
</tr>
<tr>
<td>□ Bachelor’s Degree &amp; Above</td>
<td></td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
<td></td>
</tr>
<tr>
<td>□ All Education Ranges Combined (Default)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status (Adult Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Never Married</td>
</tr>
<tr>
<td>□ Married</td>
</tr>
<tr>
<td>□ Separated</td>
</tr>
<tr>
<td>□ Divorced</td>
</tr>
<tr>
<td>□ Widowed</td>
</tr>
<tr>
<td>□ Living Together</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td>□ All Marital Status Values Combined (Default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status (Adult Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Employed Full-Time</td>
</tr>
<tr>
<td>□ Employed Part-Time</td>
</tr>
<tr>
<td>□ Sheltered Employment</td>
</tr>
<tr>
<td>□ Unemployed</td>
</tr>
<tr>
<td>□ Homemaker</td>
</tr>
<tr>
<td>□ Student</td>
</tr>
<tr>
<td>□ Retired</td>
</tr>
<tr>
<td>□ Disabled</td>
</tr>
<tr>
<td>□ Inmate of an Institution</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td>□ All Employment Status Values Combined (Default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mandated Treatment Status (Adult Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Voluntary</td>
</tr>
<tr>
<td>□ Involuntary</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td>□ All Mandated Treatment Status Values Combined (Default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group (Child &amp; Adolescent Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 5–8 Years</td>
</tr>
<tr>
<td>□ 9–11 Years</td>
</tr>
<tr>
<td>□ 12–14 Years</td>
</tr>
<tr>
<td>□ 15+ Years</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td>□ All Ages Combined (Default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary Diagnostic Group (Child &amp; Adolescent Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Attention Deficit &amp; Disruptive Behavior Disorders</td>
</tr>
<tr>
<td>□ Adjustment Disorders</td>
</tr>
<tr>
<td>□ Mood Disorders</td>
</tr>
<tr>
<td>□ Schizophrenia &amp; Other Psychotic Disorders</td>
</tr>
<tr>
<td>□ Anxiety Disorders</td>
</tr>
<tr>
<td>□ Pervasive Development Disorders</td>
</tr>
<tr>
<td>□ All Other Disorders Usually First Diagnosed at Infancy, Childhood or Adolescence</td>
</tr>
<tr>
<td>□ All Other Diagnoses</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td>□ All Diagnoses Combined (Default)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Range (Child &amp; Adolescent Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Less than First Grade</td>
</tr>
<tr>
<td>□ Grades 1–3</td>
</tr>
<tr>
<td>□ Grades 4–6</td>
</tr>
<tr>
<td>□ Grades 7–9</td>
</tr>
<tr>
<td>□ Grades 10–12</td>
</tr>
<tr>
<td>□ High School Diploma/GED &amp; Above</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td>□ All Education Ranges Combined (Default)</td>
</tr>
</tbody>
</table>
Step 4 — Time the Consumers Have Been in Treatment (Required) — Outcomes are measured at various points during a consumer's treatment. Indicate the approximate time in treatment (as measured by days since their last admissions) that best describes the consumers for whom you’d like to see outcomes scores. (SELECT ONE)

<table>
<thead>
<tr>
<th>Adult Consumers with Severe Mental Illness (SMD)</th>
<th>Child &amp; Adolescent Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 30 Days</td>
<td>☐ 30 Days</td>
</tr>
<tr>
<td>☐ 90 Days</td>
<td>☐ 90 Days</td>
</tr>
<tr>
<td>☐ 180 Days</td>
<td>☐ 180 Days</td>
</tr>
<tr>
<td>☐ 270 Days</td>
<td>☐ 270 Days</td>
</tr>
<tr>
<td>☐ 1 Year</td>
<td>☐ 1 Year</td>
</tr>
<tr>
<td>☐ 2–5 Years</td>
<td>☐ 2 Years</td>
</tr>
<tr>
<td>☐ 6–9 Years</td>
<td>☐ 3 Years</td>
</tr>
<tr>
<td>☐ 10–19 Years</td>
<td>☐ 4 Years or Greater</td>
</tr>
<tr>
<td>☐ 20 Years or Greater</td>
<td>☐ Unknown/Missing</td>
</tr>
<tr>
<td>☐ Unknown/Missing</td>
<td>☐ All Time in Treatment Values Combined</td>
</tr>
<tr>
<td>☐ All Time in Treatment Values Combined</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adult General Mental Health Consumers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 30 Days</td>
<td>☐ 30 Days</td>
</tr>
<tr>
<td>☐ 90 Days</td>
<td>☐ 90 Days</td>
</tr>
<tr>
<td>☐ 180 Days</td>
<td>☐ 180 Days</td>
</tr>
<tr>
<td>☐ 270 Days</td>
<td>☐ 270 Days</td>
</tr>
<tr>
<td>☐ 1 Year</td>
<td>☐ 1 Year</td>
</tr>
<tr>
<td>☐ 2 Years or Greater</td>
<td>☐ 2 Years</td>
</tr>
<tr>
<td>☐ Unknown/Missing</td>
<td>☐ 3 Years</td>
</tr>
<tr>
<td>☐ All Time in Treatment Values Combined</td>
<td></td>
</tr>
</tbody>
</table>

Step 5 — Reporting Period (Optional) — Outcomes can be examined according to the fiscal or calendar year in which they were obtained. For what period would you like to see information? (SELECT ONE IN EACH CATEGORY)

<table>
<thead>
<tr>
<th>Type of Year</th>
<th>Reporting Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Fiscal Year (Select from List)</td>
<td>☐ 1st Quarter (Calendar or Fiscal Year Only)</td>
</tr>
<tr>
<td>☐ Calendar Year (Select from List)</td>
<td>☐ 2nd Quarter (Calendar or Fiscal Year Only)</td>
</tr>
<tr>
<td>☒ Include Results for All Years (Default)</td>
<td>☐ 3rd Quarter (Calendar or Fiscal Year Only)</td>
</tr>
<tr>
<td></td>
<td>☐ 4th Quarter (Calendar or Fiscal Year Only)</td>
</tr>
<tr>
<td></td>
<td>☐ Unknown/Missing</td>
</tr>
<tr>
<td></td>
<td>☒ Include Results for All Quarters (Default)</td>
</tr>
</tbody>
</table>

(B) Select the Report You’d Like to Prepare

Step 6 — Outcomes to be Reported (Required) — Outcomes are measured for several areas for a consumer’s life. From which area would you like to see information? (SELECT ONE)

Note: After selecting the outcomes area for reporting, you may be given the opportunity to further specify if you wish to see information for the entire area or for one particular outcomes question that contributed to the overall score for the area being reported.

<table>
<thead>
<tr>
<th>(Adult Consumers Only)</th>
<th>(Child &amp; Adolescent Consumers Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Symptom Distress</td>
<td>☐ Problem Severity</td>
</tr>
<tr>
<td>☐ Quality of Life</td>
<td>☐ Functioning</td>
</tr>
<tr>
<td>☐ Empowerment</td>
<td>☐ Satisfaction</td>
</tr>
<tr>
<td>☐ Safety, Health &amp; Symptom Recognition/Prevention</td>
<td>☐ Hopefulness</td>
</tr>
<tr>
<td>☐ Functioning</td>
<td>☐ Restrictiveness of Living Environment</td>
</tr>
<tr>
<td>☐ Victimization</td>
<td></td>
</tr>
</tbody>
</table>
Step 7 — Report Format (Required) — Outcomes can be displayed as bar graphs or tables. How would you like to display the outcomes you have selected? (SELECT ONE)

- Prepare a Bar Graph for:
  - One Service Board (Select from List)
  - One Residence Board (Select from List)
  - One Provider Agency (Select from List)
  - The Entire State

- Prepare a Table for the Entire State
  - With a Row for Each:
    - Service Board
    - Residence Board
    - Provider Agency

Following are two examples of reports that could be generated using the proposed model. Each example shows the actual selections a user would have to make in order to generate the report in question.

Sample Report #1
A Graph of Adult Empowerment

In this example a user of the Outcomes Data Mart wants to see how adult male consumers with severe mental illness who were diagnosed with schizophrenia and had been in treatment between two and five years scored in the area of empowerment, and would like the results displayed as a bar graph for all selected consumers. What actual selections would the user have to specify and how would the resulting report appear?

(A) Select the Consumer Outcomes You’d Like to Include

Step 1 — Consumer Population (Required) — Do you want to look at outcomes information for adult consumers or child & adolescent consumers? (SELECT ONE)

- Adult Consumers
- Child & Adolescent Consumers

Step 2 — Measurement Source (Required) — Consumer outcomes scores come from multiple sources. Whose measurements of the consumer would you like to see? (SELECT ONE)

- Adult Consumers with Severe Mental Illness (SMD)
- Adult SMD Consumers’ Providers
- Adult General Mental Health Consumers

Note that only selections appropriate to adult consumers appear.
Step 3 — Consumer Characteristics (Optional) — List any special characteristics of the consumers for whom you’d like to see outcomes scores. If you’re not interested in a particular special selection, check the “All Combined” box (i.e., the last box in each section). (SELECT ONE IN EACH CATEGORY)

Gender
- Male
- Female
- Unknown/Missing
- All Genders Combined (Default)

Race
- White/Caucasian
- Black/African American
- Other
- Unknown/Missing
- All Races Combined (Default)

Living Situation
- Living in Own Home/Apartment
- Living in Friend’s Home
- Living in Relative’s Home
- Supervised Living
- Nursing Facility
- Foster Care
- Mental Health treatment Facility
- Homeless
- Correctional Facility
- Other
- Unknown/Missing
- All Living Situations Combined (Default)

Age Group
- Less than 25 Years
- 25–34 Years
- 35–44 Years
- 45–54 Years
- 55–64 Years
- 65+ Years
- Unknown/Missing
- All Ages Combined (Default)

Primary Diagnostic Group
- Substance-Related Disorders
- Schizophrenia & Other Psychotic Disorders
- Mood Disorders
- Anxiety Disorders
- Adjustment Disorders
- Personality Disorders
- All Other Diagnoses
- Unknown/Missing
- All Diagnoses Combined (Default)

Education Range
- Less than High School Diploma/GED
- High School Diploma/GED
- More than High School Diploma/GED and Less than Bachelor’s Degree
- Bachelor’s Degree & Above
- Unknown/Missing
- All Education Ranges Combined (Default)

Marital Status
- Never Married
- Married
- Separated
- Divorced
- Widowed
- Living Together
- Unknown/Missing
- All Marital Status Values Combined (Default)

Employment Status
- Employed Full-Time
- Employed Part-Time
- Sheltered Employment
- Unemployed
- Homemaker
- Student
- Retired
- Disabled
- Inmate of an Institution
- Unknown/Missing
- All Employment Status Values Combined (Default)

Mandated Treatment Status
- Voluntary
- Involuntary
- Unknown/Missing
- All Mandated Treatment Status Values Combined (Default)
Step 4 — Time the Consumers Have Been in Treatment (Required) — Outcomes are measured at various points during a consumer’s treatment. Indicate the approximate time in treatment (as measured by days since their last admissions) that best describes the consumers for whom you’d like to see outcomes scores.  *(SELECT ONE)*

- Adult Consumers with Severe Mental Illness (SMD)
  - 30 Days
  - 90 Days
  - 180 Days
  - 270 Days
  - 1 Year
  - 2–5 Years
  - 6–9 Years
  - 10–19 Years
  - 20 Years or Greater
  - Unknown/Missing
  - All Time in Treatment Values Combined

Step 5 — Reporting Period (Optional) — Outcomes can be examined according to the fiscal or calendar year in which they were obtained. For what period would you like to see information? *(SELECT ONE IN EACH CATEGORY)*

- Type of Year
  - Fiscal Year (Select from List)
  - Calendar Year (Select from List)
  - Include Results for All Years (Default)

- Reporting Period
  - 1st Quarter (Calendar or Fiscal Year Only)
  - 2nd Quarter (Calendar or Fiscal Year Only)
  - 3rd Quarter (Calendar or Fiscal Year Only)
  - 4th Quarter (Calendar or Fiscal Year Only)
  - Unknown/Missing
  - Include Results for All Quarters (Default)

(B) Select the Report You’d Like to Prepare

Step 6 — Outcomes to be Reported (Required) — Outcomes are measured for several areas for a consumer’s life. From which area would you like to see information? *(SELECT ONE)*

*Note:* After selecting the outcomes area for reporting, you may be given the opportunity to further specify if you wish to see information for the entire area or for one particular outcomes question that contributed to the overall score for the area being reported.

- Symptom Distress
- Quality of Life
- Empowerment
- Safety, Health & Symptom Recognition/Prevention

Step 6a — Specific Information to be Reported (Required) — You have selected an area comprised of several items or subscales. From which area would you like to see information? *(SELECT ONE)*

- Overall Empowerment
  - Overall Empowerment Score

*Because the Empowerment scale is comprised of several subscales, the user can choose to report overall empowerment or any one of the subscales.*
Step 7 — Report Format (Required) — Outcomes can be displayed as bar graphs or tables. How would you like to display the outcomes you have selected? (SELECT ONE)

Prepare a Bar Graph for:
- One Service Board (Select from List)
- One Residence Board (Select from List)
- One Provider Agency (Select from List)
- The Entire State

Prepare a Table for the Entire State With a Row for Each:
- Time in Treatment
- Gender
- Race
- Living Situation
- Age Group
- Primary Diagnostic Group
- Education Range
- Marital Status
- Employment Status
- Mandated Treatment Status

Because the user also specified gender and time in treatment values (i.e., males, 2-5 years), those options are not available as row variables.

(C) View the Report

The following graph is representative of the type of display that the proposed model would generate in response to the selection criteria specified.

Overall Empowerment

N=7396
Mean=2.7
Median=2.7
SD=.35

Scale Range:
1.0-1.7 Feel very unempowered
1.8-2.5 Feel somewhat unempowered
2.6-3.3 Feel somewhat empowered
3.4-4.0 Feel very empowered
Example #2
A Table of Child & Adolescent Problem Severity

In this example a user of the Outcomes Data Mart wants to see if there is a gender-based difference in the way child and adolescent consumers respond to the problem severity item “talking or thinking about death.” What actual selections would the user have to specify and how would the resulting report appear?

(A) Select the Consumer Outcomes You'd Like to Include

Step 1 — Consumer Population (Required) — Do you want to look at outcomes information for adult consumers or child & adolescent consumers? **(SELECT ONE)**
- □ Adult Consumers
- □ Child & Adolescent Consumers

Step 2 — Measurement Source (Required) — Consumer outcomes scores come from multiple sources. Whose measurements of the consumer would you like to see? **(SELECT ONE)**
- □ Child & Adolescent Consumers
- □ Child & Adolescent Consumers’ Parents
- □ Child & Adolescent Consumers’ Agency Workers

Note that only selections appropriate to child and adolescent consumers appear.

Step 3 — Consumer Characteristics (Optional) — List any special characteristics of the consumers for whom you’d like to see outcomes scores. If you’re not interested in a particular special selection, check the “All Combined” box (i.e., the last box in each section). **(SELECT ONE IN EACH CATEGORY)**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Primary Diagnostic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Male</td>
<td>□ Attention Deficit &amp; Disruptive Behavior Disorders</td>
</tr>
<tr>
<td>□ Female</td>
<td>□ Adjustment Disorders</td>
</tr>
<tr>
<td>□ Unknown/Missing</td>
<td>□ Mood Disorders</td>
</tr>
<tr>
<td>□ All Genders Combined (Default)</td>
<td>□ Schizophrenia &amp; Other Psychotic Disorders</td>
</tr>
<tr>
<td></td>
<td>□ Anxiety Disorders</td>
</tr>
<tr>
<td></td>
<td>□ Pervasive Development Disorders</td>
</tr>
<tr>
<td></td>
<td>□ All Other Disorders Usually First Diagnosed at Infancy, Childhood or Adolescence</td>
</tr>
<tr>
<td></td>
<td>□ All Other Diagnoses</td>
</tr>
<tr>
<td></td>
<td>□ Unknown/Missing</td>
</tr>
<tr>
<td></td>
<td>□ All Diagnoses Combined (Default)</td>
</tr>
</tbody>
</table>

Race
- □ White/Caucasian
- □ Black/African American
- □ Other
- □ Unknown/Missing
- □ All Races Combined (Default)

Age Group
- □ 5–8 Years
- □ 9–11 Years
- □ 12–14 Years
- □ 15+ Years
- □ Unknown/Missing
- □ All Ages Combined (Default)

Education Range
- □ Less than First Grade
- □ Grades 1–3
- □ Grades 4–6
- □ Grades 7–9
- □ Grades 10–12
- □ High School Diploma/GED & Above
- □ Unknown/Missing
- □ All Education Ranges Combined (Default)

No specific selections need to be made. All items default to “all.”
Step 4 — Time the Consumers Have Been in Treatment (Required) — Outcomes are measured at various points during a consumer’s treatment. Indicate the approximate time in treatment (as measured by days since their last admissions) that best describes the consumers for whom you’d like to see outcomes scores. *(SELECT ONE)*

Child & Adolescent Consumers
- 30 Days
- 90 Days
- 180 Days
- 270 Days
- 1 Year
- 2 Years
- 3 Years
- 4 Years or Greater
- Unknown/Missing

☑ All Time in Treatment Values Combined

Step 5 — Reporting Period (Optional) — Outcomes can be examined according to the fiscal or calendar year in which they were obtained. For what period would you like to see information? *(SELECT ONE IN EACH CATEGORY)*

Type of Year
- Fiscal Year (Select from List)
- Calendar Year (Select from List)
- Include Results for All Years (Default)

Reporting Period
- 1st Quarter (Calendar or Fiscal Year Only)
- 2nd Quarter (Calendar or Fiscal Year Only)
- 3rd Quarter (Calendar or Fiscal Year Only)
- 4th Quarter (Calendar or Fiscal Year Only)
- Unknown/Missing
- ☑ Include Results for All Quarters (Default)

No specific selections need to be made. The items default to “all.”
(B) Select the Report You’d Like to Prepare

Step 6 — Outcomes to be Reported (Required) — Outcomes are measured for several areas for a consumer’s life. From which area would you like to see information? (SELECT ONE)

Note: After selecting the outcomes area for reporting, you may be given the opportunity to further specify if you wish to see information for the entire area or for one particular outcomes question that contributed to the overall score for the area being reported.

☐ Problem Severity
☐ Functioning
☐ Satisfaction
☐ Hopefulness
☐ Restrictiveness of Living Environment

Step 6a — Specific Information to be Reported (Required) — You have selected an area comprised of several items or subscales. From which area would you like to see information? (SELECT ONE)

Overall Problem Severity
☐ Overall Problem Severity

Problem Severity Items
☐ Arguing with others
☐ Getting into fights
☐ Yelling, swearing, or screaming at others
☐ Fits of anger
☐ Refusing to do things teachers or parents ask
☐ Causing trouble for no reason
☐ Using drugs or alcohol
☐ Breaking rules or breaking the law (out past curfew, stealing)
☐ Skipping school or classes
☐ Lying
☐ Can’t seem to sit still, having too much energy
☐ Hurting self (cutting or scratching self, taking pills)
☐ Talking or Thinking About Death
☐ Feeling worthless or useless
☐ Feeling lonely and having no friends
☐ Feeling anxious or fearful
☐ Worrying that something bad is going to happen
☐ Feeling sad or depressed
☐ Nightmares
☐ Eating problems

Step 7 — Report Format (Required) — Outcomes can be displayed as bar graphs or tables. How would you like to display the outcomes you have selected? (SELECT ONE)

Prepare a Bar Graph for:
☐ One Service Board (Select from List)
☐ One Residence Board (Select from List)
☐ One Provider Agency (Select from List)
☐ The Entire State

Prepare a Table for the Entire State With a Row for Each:
☐ Time in Treatment
☐ Gender
☐ Race
☐ Living Situation
☐ Age Group
☐ Primary Diagnostic Group
☐ Education Range
The following table is representative of the type of display that the proposed model would generate in response to the selection criteria specified.

### Child & Adolescent Problem Severity
**Talking or Thinking About Death Responses by Gender**

Outcomes Records Included For:
- All Time in Treatment Values
- All Genders
- All Races
- All Living Situations
- All Age Groups
- All Primary Diagnostic Groups
- All Education Ranges
- All Years
- All Quarters

<table>
<thead>
<tr>
<th>Gender</th>
<th>0 Not at All</th>
<th>1 Once or Twice</th>
<th>2 Several Times</th>
<th>3 Often</th>
<th>4 Most of the Time</th>
<th>5 All of the Time</th>
<th>Missing or Unknown</th>
<th>Total</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>N = 5,490</td>
<td>1,035</td>
<td>345</td>
<td>267</td>
<td>111</td>
<td>2,793</td>
<td>170</td>
<td>10,211</td>
<td>1.69</td>
</tr>
<tr>
<td></td>
<td>Row % = 53.8</td>
<td>10.1</td>
<td>3.4</td>
<td>2.6</td>
<td>1.1</td>
<td>27.4</td>
<td>1.7</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Column % = 61.1</td>
<td>48.5</td>
<td>50.9</td>
<td>49.3</td>
<td>41.1</td>
<td>64.0</td>
<td>48.0</td>
<td>59.0</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>N = 3,430</td>
<td>1,082</td>
<td>329</td>
<td>271</td>
<td>159</td>
<td>1,506</td>
<td>180</td>
<td>6,957</td>
<td>1.58</td>
</tr>
<tr>
<td></td>
<td>Row % = 49.3</td>
<td>15.6</td>
<td>4.7</td>
<td>3.9</td>
<td>2.3</td>
<td>21.6</td>
<td>2.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Column % = 38.2</td>
<td>50.7</td>
<td>48.5</td>
<td>50.0</td>
<td>58.9</td>
<td>34.5</td>
<td>50.8</td>
<td>40.2</td>
<td></td>
</tr>
<tr>
<td>Missing or Unknown</td>
<td>N = 60</td>
<td>18</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>63</td>
<td>4</td>
<td>153</td>
<td>2.37</td>
</tr>
<tr>
<td></td>
<td>Row % = 39.2</td>
<td>11.8</td>
<td>2.6</td>
<td>2.6</td>
<td>0.0</td>
<td>41.2</td>
<td>2.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Column % = 0.7</td>
<td>0.8</td>
<td>0.6</td>
<td>0.7</td>
<td>0.0</td>
<td>1.4</td>
<td>1.1</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N = 8,980</td>
<td>2,135</td>
<td>678</td>
<td>542</td>
<td>270</td>
<td>4,362</td>
<td>354</td>
<td>17,321</td>
<td>1.65</td>
</tr>
<tr>
<td></td>
<td>Row % = 51.8</td>
<td>12.3</td>
<td>3.9</td>
<td>3.1</td>
<td>1.6</td>
<td>25.2</td>
<td>2.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Column % = 100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>