

# Developing Data Utilization Training Materials for Mental Health Service Providers

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# Acknowledgements

- ▶ Maryland Behavioral Health Administration
- ▶ ValueOptions®
- ▶ OMS Participants:
  - Adults, Children/Adolescents/Caregivers
  - Providers

# Outcomes Measurement System (OMS)

- ▶ OMS tracks how well people served in outpatient services in Maryland's public mental health system (PMHS) are doing over time
- ▶ Information is collected by clinicians through a collaborative interview with the consumer and/or caregiver (youth)
- ▶ Interviews are done at intake and every six months
- ▶ There are adult and a child/adolescent questionnaire versions
- ▶ Questionnaires and interview methods designed with input from providers and consumers
- ▶ The OMS began in September 2006, questionnaires revised in 2009, currently undergoing another revision.

# OMS Life Domains

- ▶ Living Situation
- ▶ Psychiatric Symptoms
- ▶ Functioning
- ▶ Employment/School Performance
- ▶ Recovery/Resilience
- ▶ Alcohol and Substance Use
- ▶ Legal Involvement
- ▶ General Health (including smoking)
- ▶ Social Connectedness of Caregiver (youth only)

# OMS Datamart

- ▶ Technology to address provider requests for results
- ▶ Available to the general public through the Maryland Mental Hygiene Administration website  
([http://maryland.valueoptions.com/services/OMS\\_Welcome.html](http://maryland.valueoptions.com/services/OMS_Welcome.html))
- ▶ Data available at state and county levels; providers able to access their own agency data
- ▶ Design approach: simple graphic and tabular presentations – *“some people like pictures and some people like numbers”*
- ▶ Analytic approaches:
  - Most recent interview (cross sectional)
  - Change from initial interview to most recent interview

# Adult OMS Data

Most Recent Interview - Fiscal Year 2014  
Statewide

Statewide

Ages - All

Genders - All

Races - All

<- Back To Welcome



Living Situation

Functioning

Substance Use

Legal

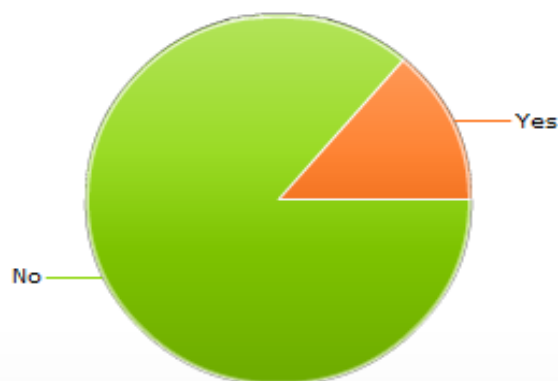
Employment

General Health

Counts

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Q3. Have you been homeless at all in the past six months?



Answer Options	# of Consumers	%
No	41,187	86.3%
Yes	6,558	13.7%
<b>Total</b>	<b>47,745</b>	<b>100.0%</b>

# Initial OMS Training Materials

## ▶ **How to Administer the Questionnaire**

- Interview Guide
- Reference Sheet (2 pages)
- Power Point Presentation

## ▶ **Datamart Navigation**

- In-person demonstrations for state administrators and Core Service Agencies
- Webinars for the provider community.



# *“If you build it, they will come” (or maybe not)*

- ▶ Once the Datamart was available, there was far less use than anticipated
- ▶ State government leadership questions how data is being used
- ▶ Diversity of knowledge/understanding re: data and evaluation become apparent in meetings with provider and system administrator communities

*The “aha” moment...*



# The Basic Questions

- ▶ What does the data mean?
- ▶ How do I know if my results are statistically different from another group?
- ▶ How do I interpret the data and use it?

# Training Materials to Address the Basic Questions

- ▶ **What does the data mean?**
  - Introduction to Data and Data Analysis
  - How OMS Items are Analyzed
- ▶ **How do I know if my results are statistically different from another group?**
  - Excel spreadsheets (4) that can be used to compare two groups and determine statistically significant differences
  - Determining Statistical Significance for OMS Data Step-by-Step Guide
- ▶ **How do I interpret the data and use it?**
  - Using Your OMS Data

# What Does the Data Mean?

## Introduction to Data and Data Analysis

- ▶ Basic primer with simple language and examples
- ▶ Concepts limited to those that would be encountered when viewing and or using OMS data
- ▶ Information included:
  - Data types: quantitative, qualitative, categorical, continuous
  - Basic data analysis: frequency tables, measures of central tendency, standard deviations
  - Statistics for comparison: statistical significance, probability levels, Chi squares , effect sizes

# What Does the Data Mean?

## How OMS Items are Analyzed

- ▶ Considered not essential for most Datamart users
- ▶ Provided in response to request from most sophisticated users
- ▶ In-depth, detailed information on how each OMS item is analyzed

# How Do I Know if My Results are Statistically Different from Another Group?

## Workbooks for Determining Statistical Significance

- ▶ Requested by more sophisticated users
- ▶ Excel workbooks (4) using Chi-Square
- ▶ Users enter data for a specific item (one tab per item)
- ▶ Workbook indicates significance (or not)
- ▶ Step-by-Step guide for using workbooks provided, includes caveats about sample sizes, interpretation, etc.

# OMS Statistical Significance Workbook

## Worksheet for Calculating Chi Square for Outcome Measurement Results

COMPLETE ONLY SHADED CELLS - ALL OTHERS WILL AUTOMATICALLY POPULATE

Orange Area: Fill in time frame and filter(s)

Green Area: Fill in name of the two groups (e.g., agencies, jurisdictions, etc.)

Yellow Area: Fill in data

**Question:** Q3. Have you been homeless at all in the past six months? (PIT)

**Adult/Child:** Adult

**PIT/COT:** Most Recent Interview (PIT)

**Time Frame:**

**Filter(s):**

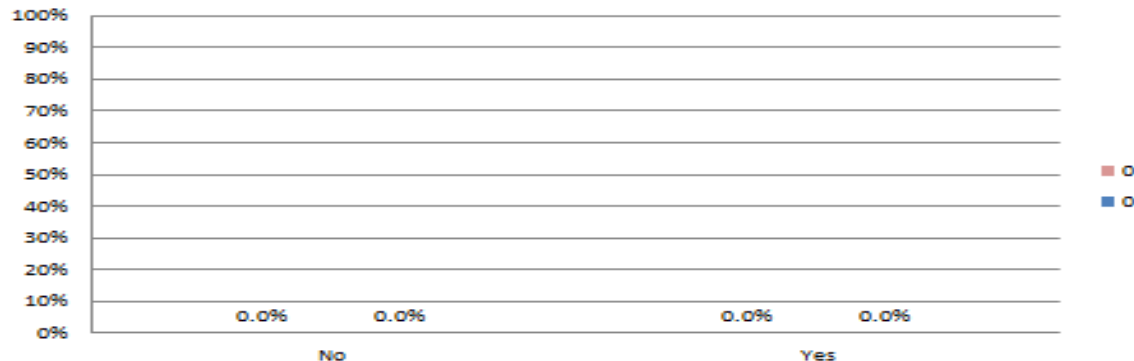
All yellow cells must have data for accurate Chi-square result

Response	Group 1	Group 2	Total
No			0
Yes			0
Total	0	0	0

Response	Percentage Distribution	
	0	0
No	#DIV/0!	#DIV/0!
Yes	#DIV/0!	#DIV/0!
Total	#DIV/0!	#DIV/0!

**Interpretation:** Chi-square cannot be calculated if a row total is zero

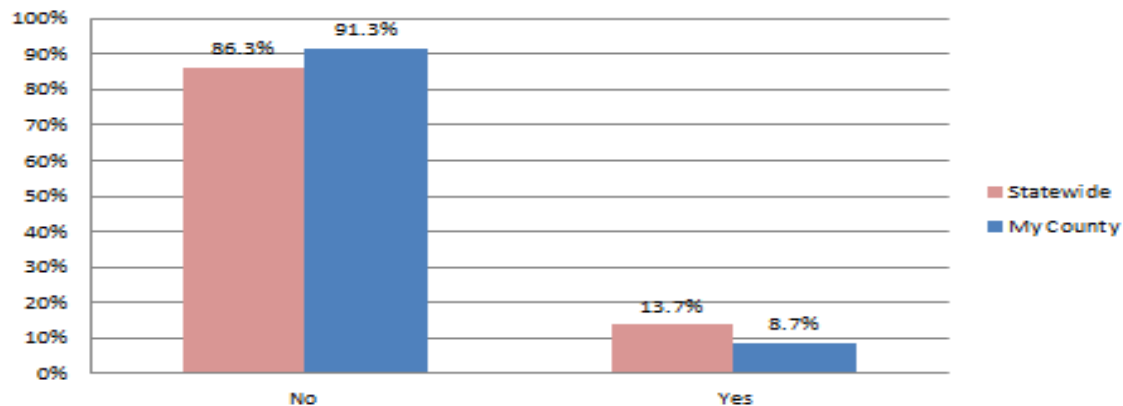
**Q3. Have you been homeless at all in the past six months? (PIT)**



# OMS Statistical Significance Workbook

Worksheet for Calculating Chi Square for Outcome Measurement Results						
COMPLETE ONLY SHADED CELLS - ALL OTHERS WILL AUTOMATICALLY POPULATE						
	Orange Area: Fill in time frame and filter(s)					
	Green Area: Fill in name of the two groups (e.g., agencies, jurisdictions, etc.)					
	Yellow Area: Fill in data					
Question:	Q3. Have you been homeless at all in the past six months? (PIT)					
Adult/Child:	Adult					
PIT/COT:	Most Recent Interview (PIT)					
Time Frame:	Fiscal Year 2014					
Filter(s):	Jurisdiction Only					
	All yellow cells must have data for accurate Chi-square result					
	Group 1	Group 2			Percentage Distribution	
Response	Statewide	My County	Total	Response	Statewide	My County
No	41187	620	41807	No	86.3%	91.3%
Yes	6558	59	6617	Yes	13.7%	8.7%
Total	47745	679	48424	Total	100.0%	100.0%
Interpretation:	Distributions differ at the .01 level					

**Q3. Have you been homeless at all in the past six months? (PIT)**





# How Do I Interpret Data and Use It?

## Using Your OMS Data

- ▶ **Outline potential uses of OMS Data**
- ▶ Describe guidelines for choosing Datamart elements based on user's needs
- ▶ **Suggest questions for use with interpreting data**
- ▶ Identify other data sources for context
- ▶ Summarize possible next steps
- ▶ Propose different considerations and formats when presenting and distributing OMS data
- ▶ Case example provided in an appendix

# How Do I Interpret Data and Use It?

## Using Your OMS Data

- ▶ Comparing a program/jurisdiction to others
- ▶ Providing data for required accreditation activities
- ▶ Planning and implementing Quality Improvement (QI) and program evaluation projects
- ▶ Responding to requests for information

# How Do I Interpret Data and Use It?

## Using Your OMS Data

### Suggested Questions to Aid in Stimulating Discussion and Interpreting Data

1. Are these the expected results? Why or why not?
2. Were the data affected by policies, procedures, or characteristics at the community, county or state level?
3. Were the data affected by contextual or programmatic factors?
4. Were the data affected by characteristics of individual staff members or the consumers being served?

*If you are comparing two sets of data for program evaluation, you may also want to ask:*

5. Did the data change after the intervention? If so, how?
6. If there is a change, is it meaningful?
7. Was implementation of the intervention a factor? What were some of the challenges encountered and how might they have affected the results?

# Challenges

## ► Diverse Target Audience

- Writing for data novices while not “talking down” to more sophisticated users
- Helping users with little data experience recognize that their own expertise forms the foundation for data interpretation
- Did not anticipate volume of training need (one document led to another...)
- Time and effort needed to use easy to understand language
- Workbook creation took on life of its own as we worked to make it fool-proof

## ► Lost Time

- Tendency to “overinclude”, then eventually cut non-OMS relevant information
- Nature of the documents created an iterative review process, delaying distribution until almost all were finalized
- Staff turnover and competing priorities
- Getting distracted by “decision by exception”

# Facilitators

- ▶ Staff turnover – fresh eyes
- ▶ Diversity of team working on all phases of OMS development
  - Differing levels of understanding of data and evaluation allowed for successful interpretation of often complex material for the masses
- ▶ Continuing stakeholder input/feedback in development of materials
- ▶ “Perfect is the enemy of the good”

# Data Training Materials (14)

## ▶ **How to Administer the Questionnaire**

- ▶ Interview Guide
- ▶ Reference Sheet (2 pages)
- ▶ Power Point Presentation

## ▶ **How to Access the Data**

- ▶ OMS Datamart Demonstration – Webinar and Slides
- ▶ OMS Dashboards – User Guide for Providers
- ▶ OMS Dashboards – User Guide for CSAs

## ▶ **How to Understand and Interpret the Data – The Basic Questions**

- ▶ Introduction to Data and Data Analysis
- ▶ How OMS Items are Analyzed
- ▶ Determining Statistical Significance for OMS Data – Step-by-Step Guide & Workbooks
  - Adult PIT – OMS Statistical Significance Workbook
  - Adult COT – OMS Statistical Significance Workbook
  - Child-Adolescent PIT – OMS Statistical Significance Workbook
  - Child-Adolescent COT – OMS Statistical Significance Workbook
- ▶ Using Your OMS Data

# Contact Information

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