

2014 Medicaid Behavioral Risk Factor Surveillance System (MBRFSS) Survey Background and Methodology

This document provides an overview of the 2014 Medicaid Behavioral Risk Factor Surveillance System survey methodology, including survey design, sampling, response rate, and analysis; and provides context for the preliminary data tables released in April 2015. A more comprehensive report will be published by OHA in the fall of 2015.

State-level data tables and supplemental documents are available online at:

www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx

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For additional information about Oregon’s Behavioral Risk Factor Surveillance System survey conducted on the general population, please visit: www.healthoregon.org/brfss/

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Background

OHA is releasing initial data tables from the 2014 Medicaid Behavioral Risk Factor Surveillance System (Medicaid BRFSS or MBRFSS) survey. The Medicaid BRFSS is a survey of Oregon Medicaid members who were enrolled in a coordinated care organization (CCO) between January and June 2014.

The primary goals of the survey were to:

- Assess the general health status of Medicaid members;
- Describe specific health behavior patterns of Medicaid members; and
- Assess key social and environmental factors and social determinants of health.

This information provides state policy makers, health service organizations, and community partners with an assessment of the health needs and characteristics of the Medicaid population.

The 2014 MBRFSS survey was sampled at the CCO level, as well as oversampled for racial/ethnic groups at the state level. OHA has posted state-level results in total and broken down by race/ethnicity categories online, and will publish a full report containing CCO-level data in the fall of 2015.

State-level data tables and supplemental documents are available online at:

www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

The project was sponsored by the Oregon Health Authority (OHA) and funded by the Center for Medicare and Medicaid Innovation (CMMI). Survey development, oversight and analysis were performed by OHA's Program Design and Evaluation Services in collaboration with several state agency partners.

This is the second time Oregon has reported health behaviors and clinical preventive health practices from a BRFSS survey of the Medicaid population. In 2004, Oregon conducted a Health Risk Health Status Survey. This earlier report is also posted online at www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

Methods

Survey Design

The 2014 MBRFSS survey questionnaire was modeled on the general population BRFSS survey questionnaire and included topics such as: chronic health conditions, health care access, physical activity and nutrition, preventive health screening, substance use, neighborhood safety and housing stability, hunger, family planning, intimate partner violence, and adverse childhood experiences. All survey questions were chosen from standard BRFSS items or other validated questionnaires.

You can find a copy of the 2014 survey online at: www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

Target Population and Sample Design

The target population for this survey was adult Medicaid members age 18 and older that had been enrolled in a coordinated care organization for at least 45 days between January and June 2014.

The following individuals were excluded from the group surveyed:

- Those aged <18.
- Fee-for-service members.
- Members with a third-party payer.
- All partial eligible members¹.
- Those with no phone number.

The total target population after exclusions was 368,662. The goal was to complete at least 400 surveys within each CCO and within state-wide race/ethnicity subgroups².

Survey Implementation

Introductory letters were sent to respondents a few days before the first scheduled calls. The interviews were conducted in English, Spanish, Vietnamese and Russian. Interviewers made up to 15 attempts to contact respondents, varying these attempts across different days of the week, and times during the day. Phone calls were made from September to December of 2014.

The survey was conducted over several waves during which a random sample of potential respondents were drawn from the total eligible group. The sampling waves continued until the target sample sizes within CCO and race/ethnicity subgroups were met. Ultimately, 59,998 were selected to participate in the survey.

About 400 surveys were completed for each CCO, leading to a total of 6,651 respondents. More respondents from race/ethnicity subgroups were selected in addition to this core sample as needed, increasing the total number of completed surveys to 7,881. Results reported as “MBRFSS State Total”

¹ Dual eligible clients were included.

² We selected all Pacific Islanders because of small numbers within this group.

were based on the 6,651 core sample, and do not include the additional respondents from the race/ethnicity “augment.”

See Appendix 1 for more details about the number of completed surveys collected by CCO, and by race/ethnicity.

Response Rate, and a Word of Caution

There were 7,881 completed surveys out of 59,998 attempts, which resulted in an unadjusted response rate of 13%. Our adjusted response rate was 17% after we removed those who were ineligible or whose listed number from the administrative dataset turned out to be non-working number. See Appendix 1 for a breakdown of adjusted response rates by CCO and race/ethnicity categories.

This low response rate occurred primarily because a large number of respondents could not be reached (50% of the sample), as they did not answer the phone, did not return voicemail, or had a blocking feature on their phone.

The results of the 2014 MBRFSS survey should be viewed with caution, as results for those Medicaid members that responded to the survey may not be generalizable to all Medicaid members, the race/ethnicity group, or to all members within a CCO.

State Level Results

The goal of this data release is to provide results for all the survey questions at the state level and by the race/ethnicity subgroups. State level results are posted online at www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

Summary of Indicators

We collapsed survey answers into simplified indicators to follow the format of BRFSS survey reporting used by the Centers for Disease Control and Prevention (CDC) and Oregon's Public Health Division. Survey results are organized into more than 60 indicators grouped across eight categories:

- Chronic / Adverse Conditions
- Risk Factors
- Medical Access / Screening
- Protective Factors
- Stress and Safety
- Substance Use
- Family Planning
- Reactions to Race (displayed for race/ethnicity results only)

A summary table of all the indicators by category, including definitions, is available online at: www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

Identification of race/ethnicity groups

There are several different ways to classify individuals into racial and/or ethnic categories. Our strategy was to create one classification, with mutually exclusive categories, using the following decision rules:

- Respondents were identified as Hispanic if they indicated their ethnicity as Hispanic / Latino, regardless of whether or not additional racial information was supplied.
- Respondents indicating more than one race were asked for their preferred race, which was the racial group used for our classification.
- Respondents indicating one race were identified as that race for our classification.

Race/Ethnicity Data Tables

Race/ethnicity results include a demographic table and the results for each of the indicators. The race/ethnicity demographic and indicator data tables are available online at: www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

Organization of the Race/Ethnicity Tables

Angina

| <u>Race/Ethnicity</u> | <u>N</u> | <u>Weighted %</u> | <u>CI</u> |
|---------------------------------|----------|-------------------|-----------|
| White | | | |
| African American | | | |
| American Indian / Alaska Native | | | |
| Asian (non-Pacific Islander) | | | |
| Pacific Islander | | | |
| Hispanic | | | |
| MBRFSS State Total | | | |

The data tables for survey results were arranged to display the following:

- **N:** the number of respondents (denominator) within the subgroup and state totals. The final row displays the MBRFSS state total, which is less than the total of the race/ethnicity subgroups because it represents the “core” sample and does not include respondents who were added for the race/ethnicity “augment” sample.
- **Weighted estimate:** the percentage of respondents with the response of interest, adjusted using administrative data to reflect the true distribution of Oregon Medicaid clients within each race/ethnicity subgroup, and within the state total (see Appendix 2 below).
- **CI, or confidence interval:** the 95% confidence interval around the estimate.

Suppression of Unreliable Estimates

We did not report estimates for any indicators based on a denominator N less than 30. This only affected two indicators within one race/ethnicity subgroup (Pacific Islanders).

CCO Level Results

The CCO-level data tables described below have been provided to CCOs for their review and are still preliminary. Final CCO-level results will be included in the full report in the fall of 2015.

Demographic Information for CCOs

We compiled demographic information to describe who participated in the survey within each CCO, and how that group compared to the MBRFSS state total.

Indicator Tables for CCOs

Survey results are presented in tables, with each row representing one indicator.

Organization of the CCO data tables:

| Indicator | N | CCO Name | | MBRFSS State Total | | BRFSS State Estimate (Wgt %) |
|------------------|---|------------|----|--------------------|----|------------------------------|
| | | Weighted % | CI | Weighted % | CI | |
| Angina | | | | | | |
| Arthritis | | | | | | |
| Asthma (current) | | | | | | |

Reading the tables from left to right provides the following information:

- **Indicator name.**
- **CCO N:** the number of respondents (denominator), within the CCO.
- **CCO weighted estimate:** the percentage of individuals with the response of interest, adjusted to reflect the true distribution of the CCO target population (see weighting section below). Estimates are bolded and accompanied by an up or down arrow to indicate a significant difference from the state total, as defined by non-overlapping confidence intervals.
- **CCO confidence interval:** the 95% confidence interval around the CCO estimate.
- **State N:** the number of respondents (denominator) within the state total.
- **State weighted estimate:** the percentage of respondents within the state total with the response of interest, adjusted to reflect the true distribution of Oregon Medicaid clients (see Appendix 2 below).
- **State confidence interval:** the 95% confidence interval around the state estimate.
- **BRFSS state estimate:** the weighted percentage with the response of interest, taken from the separately implemented and ongoing general population Oregon BRFSS survey, as available from 2012 or 2013 data. Because the target population and survey methods of the

general population BRFSS varied from the MBRFSS, these are not meant to be used for direct comparisons, but to provide a general idea for how these indicators play out within the general adult population for Oregon.

For additional information about Oregon's Behavioral Risk Factor Surveillance System survey conducted on the general population, please visit:

www.oregon.gov/oha/analytics/Pages/MBRFSS.aspx.

Appendix 1: Completed Surveys and Response Rates

The following tables display the number of completed surveys by CCO, and by race/ethnicity subgroups.

The adjusted response rate removes the following from the denominator of all potential respondents: those who were ineligible or whose listed number from the administrative dataset turned out to be a non-working number.

Completed Surveys and Response Rates, by Race/Ethnicity

| | Completed surveys | Adjusted response rate |
|---------------------------------------|-------------------|------------------------|
| White | 4,845 | 17.0% |
| African American | 429 | 11.6% |
| American Indian / Alaska Native | 292 | 13.6% |
| Asian (non-Pacific Islander) | 640 | 16.4% |
| Pacific Islander | 106 | 14.2% |
| Hispanic | 992 | 22.1% |
| Other/ Missing | 577 | 16.8% |
| Total (Core + Augment samples) | 7,881 | 16.8% |

Completed Surveys and Response Rates, by CCO

| | Completed surveys | Adjusted response rate |
|--|-------------------|------------------------|
| Allcare Health Plan | 423 | 16.4% |
| Cascade Health Alliance | 419 | 19.3% |
| Columbia Pacific | 421 | 18.1% |
| Eastern Oregon | 416 | 18.1% |
| Familycare | 418 | 16.6% |
| Health Share Of Oregon | 417 | 16.7% |
| Intercommunity Health Network | 415 | 17.8% |
| Jackson Care Connect | 400 | 16.4% |
| Pacificsource Comm. Solutions Central | 415 | 17.3% |
| Pacificsource Comm. Solutions Columbia Gorge | 413 | 19.8% |
| Primaryhealth Josephine Co | 413 | 14.9% |
| Trillium Community Health Plan | 413 | 16.9% |
| Umpqua Health Alliance | 414 | 19.6% |
| Western Oregon Advanced Health | 419 | 16.5% |
| Willamette Valley Comm. Health | 423 | 18.1% |
| Yamhill Co Care Organization | 412 | 18.5% |
| MBRFSS State Total | 6,651 | 17.3% |

Appendix 2: Weighting to Adjust Results

Survey results are often weighted so that the group who answers the survey reflects the target population on characteristics that are expected to influence outcomes. This analysis weighted the 2014 MBRFSS results to more accurately represent the age, sex, and CCO distribution in the target population, using Medicaid administrative data.

For example, younger adults are typically less likely to complete a survey compared to older adults. By applying weights (larger for younger respondents, smaller for older respondents) the age distribution becomes corrected to reflect the “true” distribution for the target population.

For survey items being used to establish estimates for the prevalence of chronic conditions it is easy to see how correcting for age could help make the results more accurate. In the table below, the results based on weighted data are slightly lower than the results based on the raw or unweighted data, and more likely reflect the chronic illness prevalence of the target population.

Example Impact of MBRFSS Weighting

| Indicator | MBRFSS State Total | |
|------------------|---------------------------|-------------------|
| | Unweighted % | Weighted % |
| Angina | 4.4 | 3.4 |
| Arthritis | 33.9 | 27.1 |
| Asthma (current) | 17.4 | 16.5 |

Because older adults were slightly more likely to respond to the survey, and because older adults were more likely to experience a chronic condition, the weighted data adjusted the estimates downward.