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Behavioral Health in Colorado

Putting the Data in Context

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Behavioral health is making headlines in Colorado. The state recently received $65 million from the federal government to help push more integration of physical and behavioral health. Foundations are increasingly funding organizations working to improve access to mental health services. Advocacy groups are turning up the volume about the importance of good behavioral health in maintaining the well-being of the whole person.

But what do we know about behavioral health of Coloradans at the state and regional levels?

The Colorado Health Institute has responded to this question with our newest workbook, Behavioral Health Data in Colorado. The workbook is a compilation of the latest available data on the behavioral health of adults, high school students and children in each of the state's 21 Health Statistics Regions (HSRs).

With all of the available data in one place, users can see how their HSR is doing on various measures of behavioral health and compare their region with others and the state as a whole.

Measuring Behavioral Health

Behavioral health can be difficult to accurately measure and assess.

The first challenge is that most data on behavioral health come from surveys, meaning the information is self-reported. And because of the persistent stigma surrounding mental illness, people are often hesitant to talk about their behavioral health, or to talk about it truthfully. And even if someone does feel comfortable sharing this information, one person's definition of depression may differ from another person's definition.

A further challenge is the inherent limitations of survey data, which are based on a sample of a larger population rather than an actual count of that population.

In order to accurately generalize survey findings to the larger population, the survey respondents must be selected randomly. One test that researchers use to understand how well a randomly selected sample represents the population is the confidence interval, a range of values that is statistically likely to contain the actual value of interest.

A confidence level of 95 percent is standard, and it is what CHI used for the behavioral health data in this workbook. It indicates that the point estimate from the sample falls within a range that contains the actual population estimate 95 percent of the time.

A wider range between the lower limit and upper limit indicates less certainty about the precision of the sample point estimate. A more narrow range represents more certainty about the precision.

Smaller sample sizes yield wider confidence intervals. For this workbook, that means the confidence intervals are wider in less populous regions and smaller in more populous regions.

Confidence intervals also indicate if one value is statistically different from another value. Two numbers are statistically different when their confidence intervals do not overlap.

The asterisks in the workbooks designate numbers that are statistically different from the state average. Numbers that do not have asterisks are still valuable, but it is important to understand that it is possible they don't differ from the state average.

An example from the workbook (See Figure 1):

- The Colorado Pregnancy Assessment Monitoring System (PRAMS) surveys a randomly selected sample of new mothers about whether their health care provider discussed depression with them during their prenatal care.

- The PRAMS estimates that 74.7 percent of mothers statewide had that conversation. The confidence interval is narrow, ranging from 73 to 76.2, meaning that 95 percent of the time, the percentage of "yes" answers would fall within that three-point range.

- In Larimer County (Health Statistics Region 2), the survey estimates that 84.3 percent of new mothers talked with their providers about depression. The Larimer County confidence interval is a bit wider, ranging from 79.6 to 88.9, but it does not overlap with the confidence interval surrounding the statewide estimate. So it is reasonable to interpret these data to mean that a higher percentage of new moms in Larimer County had the conversation about depression than the statewide percentage.

- The estimate from Health Statistics Region 11 (Routt, Jackson, Rio Blanco and Moffat counties) is 83.4, very close to the Larimer County estimate. It seems to show that women in this area of northwestern Colorado also had the depression discussion at a higher rate than the state rate. But the confidence interval for this sparsely populated region is much wider, ranging from 75.9 to 90.9. And it overlaps with the state confidence level. So this finding should be interpreted with much more caution. It is possible that there is no difference between the state estimate and the regional estimate.

Methods and Sources

The Behavioral Health Data workbook is based on six data sources. Additional information about each data source can be found by following the links below.

Colorado Health Access Survey (CHAS)

What It Is: The CHAS, conducted every other year, is the premier source of information on health insurance coverage, access to health care, and how health care is used in Colorado. More than 10,000 randomly selected households take the 20-minute survey. The data are statistically weighted to be representative of the state's population. The CHAS is fielded, analyzed and managed

Figure 1. Example of Variations in Confidence Intervals

Mothers who report that prenatal care included discussion of what to do if depressed during pregnancy or after baby is born
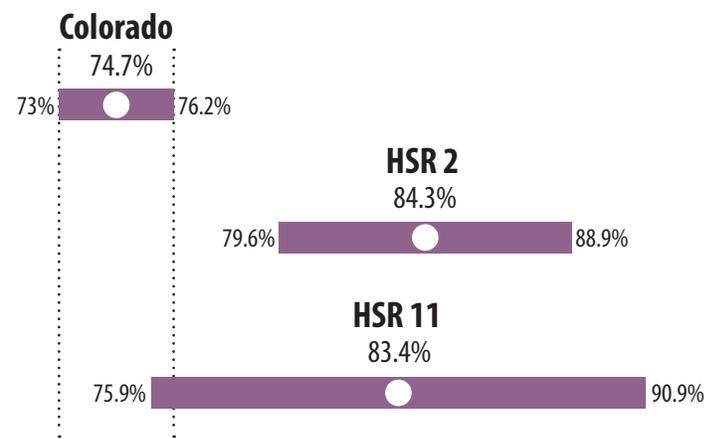
by the Colorado Health Institute. It is funded by The Colorado Trust.

Data are available from 2009, 2011 and 2013. Questions on mental health were added in 2013. New data will be available in August 2015.

CHAS Metric Used for the Workbook:

- Adults who reported that they needed mental health care in the past 12 months but did not get it at that time.

Notes or Limitations:

- The complete 2013 survey is available at http://bit.ly/Hy47hT.

Colorado Pregnancy Risk Assessment Monitoring System (PRAMS)

What It Is: Annual survey funded by the Centers for Disease Control and Prevention (CDC) and administered by the Colorado Department of Public Health and Environment (CDPHE). The PRAMS is designed to monitor the experiences of Colorado women before, during and after giving birth. The survey is mailed to a sample of new mothers. The data are weighted to be representative of that population.

The latest data available are from 2009, 2010 and 2011 PRAMS surveys.

PRAMS Metrics Used for the Workbook:

- Mothers with postpartum depression symptoms.

- Mothers who report that prenatal care included discussion of what to do if depressed during pregnancy or after baby is born.

Notes or Limitations:

- Due to the small sample size of the PRAMS, data from 2009, 2010 and 2011 were combined to calculate estimates.

Colorado Behavioral Risk Factor Surveillance System (BRFSS)

What It Is: The BRFSS is an annual survey of Coloradans ages 18 years and older funded by the CDC and administered by CDPHE. The survey includes questions on lifestyle and behaviors related to leading causes of death and disease. Topics include smoking, overweight/obesity, physical activity and use of preventive health services. The data are weighted to be representative of Colorado's population.

The latest data available are from the 2013 survey.

BRFSS Metrics Used for the Workbook:

- Poor mental health eight or more days in the past 30 days.

- Experienced serious psychological distress.

- Reported having one or more days where mental health condition or emotional problem kept them from work/usual activities.

- Currently taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem.

- Ever diagnosed with a depressive disorder.

- Strongly or slightly agree that treatment can help people with mental illness live normal lives.

- Strongly or slightly agree that people are generally caring and sympathetic to people with mental illness.

Colorado Child Health Survey (CHS)

What It Is: Administered to respondents with a child within a target age range (mostly 4 to 14) and who are willing to complete the CHS. The survey asks about their child's physical activity, nutrition, access to health and dental care, behavioral health, school health, sun safety and injury. Approximately 1,000 surveys are completed each year. Data are weighted to reflect the general population of children in the target age range.

Data are collected over the calendar year and results are released annually. The latest data available are from 2012 and 2013.

CHS Metrics Used for the Workbook:

- Overall, child has difficulties with one or more of following areas: emotions, concentration, behavior, being able to get along with other people.

- In the past 12 months, child needed mental health care or counseling.

- Ever diagnosed with: ADD/ADHD, depression, anxiety problems, or behavioral problems such as oppositional defiant disorder or conduct disorder.

- Children on medication for one or more of the following: ADD/ADHD, depression, anxiety problems, behavior problems such as oppositional defiant disorder or conduct disorder.

Notes or Limitations:

- Due to sample size, data from 2012 and 2013 were combined.

- All indicators are for children ages 4 to 14 years with the exception of "overall, child has difficulties with one or more of following areas: emotions, concentration, behavior, being able to get along with other people," which is for ages 1 to 14 years.

Healthy Kids Colorado Survey (HKCS)

What It Is: The Healthy Kids Colorado Survey is a collaboration by CDPHE, the Colorado Department of Human Services and the Colorado Department of Education. It is managed by the University of Colorado and administered in selected middle and high schools. It is an expanded version of the Youth Risk Behavior Survey, which is conducted in many states across the

country and in Colorado prior to 2013, when the state adopted the HKCS.

The survey is conducted every odd-numbered year. The latest data available is from the 2013 survey.

HKCS Metrics Used for the Workbook:

- One or more days when mental health was not good in past 30 days.

- Felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities.

- Seriously considered attempting suicide.

- Made a plan to attempt suicide.

- Attempted suicide one or more times.

- Suicide attempt resulted in injury, poisoning or overdose that had to be treated by a doctor or nurse.

Notes or Limitations:

- Jefferson County schools did not take part in the Healthy Kids Colorado Survey.

Colorado Department of Public Health and Environment Vital Records

What It Is: Vital records are official reports collected by the state on births, deaths, marriages and divorces.

Suicide numbers and rates are from 2014.

Vital Records Metrics Used for the Workbook:

- Suicide numbers and rates for adults and children ages 10 to 17.

Notes or Limitations:

- Child suicide data in regions with few cases are not included in the Workbook.