MICA Part II

Cancer Incidence MICA

The **Cancer Incidence MICA** provides cancer incidence data for Missouri residents. It operates somewhat differently from the other MICAs. Data for the **Cancer Incidence MICA** are provided by the Missouri Cancer Registry. The data submitted to DHSS each year include updated files for all previous years back to 1996. Therefore, numbers reported for prior years may change.

Some of the filters and **Optional Variables** in **Cancer Incidence MICA** are especially helpful in generating specific data queries and are highlighted here. The **Stage at Diagnosis** (in the green box above) allows users to customize their query based on whether the cancer was in situ or invasive, and if it was invasive, at which stage it was discovered.

For instance, if an analyst was interested in determining how many males and females living in the Southwest BRFSS Region were diagnosed with localized breast cancer 2009-2013 the following **Choose Your Data** and **Build Your Results** selections would be made:

Choose Your Data: Year: **Multi-Year Groups. Years Per Group: 5. Latest Year: 2013. Go.**
Choose Your Data: Geography: **BRFSS Region>>Southwest**
Choose Your Data: Stage at Diagnosis: **Stage. Localized**
Choose Your Data: Site: **Breast**
Build Your Results: Main Row: **Sex**
Build Your Results: Main Column: **Stage at Diagnosis**
Build Your Results: Statistics: **Counts and Rates**
Build Your Results: Confidence Intervals: **95% Confidence Intervals** (default in Cancer Incidence MICA)
Build Your Results: **Submit Query**

There are several important things to note when interpreting the data table generated above. First, there is a red warning that reminds users that breast cancer predominantly occurs in females, which will affect rates by sex. Notice that the female rate of 67.71 per 100,000 is much higher than the male rate of 0.42. The Total for selection, or all persons rate, uses both male and female populations in the denominator, resulting in a rate of 34.53. However, when presenting this data it might be important to decide whether to use the all persons denominator to show the broad

burden of breast cancer in the community or to focus in on the female-only rate—which is more representative of the specific condition.

Another feature that should be considered when reporting this data is that the male rate is based on only 10 cases, rendering it unreliable. As discussed on pages 17-18, any rate based on a numerator less than 20 is not considered reliable and should be used with caution. These cases are flagged in the MOPHIMS system using an asterisk and a footnote below the data table.

Procedures MICA

The **Emergency Room** and **Inpatient Hospitalization MICAs** provide data on diagnoses but not on treatments provided. The **Procedures MICA**, on the other hand, provides information on specific procedures performed. An additional difference is that **Procedures MICA** tracks every procedure performed, instead of the primary procedure as is the case for diagnosis in the other hospital-based data MICAs.

If users are interested in how many procedures are performed on an inpatient versus an outpatient setting, the appropriate selections using the **Setting Optional Variable** will allow that type of granular analysis. For example, hip replacements are more commonly performed on an

outpatient basis for younger patients, while older patients undergo the procedure in an inpatient setting.

Procedures MICA

MICA — Missouri Information for Community Assessment, DATA MICAs

⌃⌄ Choose Your Data

⌃⌄ Build Your Results

| Build a Table | Make a Map | Create a Chart | Documentation / Metadata |

Main Row: Age ▾   **Row Totals:** ☑   **Main Column:** Setting ▾   **Column Totals:** ☑

Statistics: Counts and Rates ▾   **Age Adjustment Options:** 2000 Standard Population ▾

Confidence Intervals: No Confidence Intervals ▾

Submit Query

⌃⌄ Table Results

Save Table As ▾   **Send Table to Side by Side**

Title:	Missouri Resident Procedures							
Data selected in addition to rows and columns below:	Single Year(s): 2013; Procedures: Operations on the musculoskeletal system: Hip replacement: total and partial;							

Setting:	Inpatient	Inpatient	Outpatient	Outpatient	Unknown	Unknown	Total for selection	Total for selection
Statistics:	Count	Rate	Count	Rate	Count	Rate	Count	Rate
Age								
Under 15	3	0.03 *	5	0.04 *	0	0.00	8	0.07 *
15 - 24	37	0.44	190	2.28	0	0.00	227	2.72
25 - 44	490	3.20	336	2.20	0	0.00	826	5.40
45 - 64	4,577	28.36	192	1.19	0	0.00	4,769	29.55
65 and Over	7,933	87.41	45	0.50	0	0.00	7,978	87.91
Unknown	0	0.00	0	0.00	0	0.00	0	0.00
Total for selection	13,040	18.12	768	1.34	0	0.00	13,808	19.46

Rate:	For each Age: Crude Rate per 10,000 Total for selection: Age Adjusted Rate per 10,000 using 2000 Standard Population
Source:	DHSS - MOPHIMS - Procedures MICA
Generated On:	10/4/2017 1:41:49 PM
	* Rate is unreliable; numerator less than 20

WIC (Women, Infants, and Children) MICAs

The **WIC MICAs** include five separate MICA data sets: WIC Child, WIC Infant, WIC Prenatal, WIC Postpartum, and WIC Linked Prenatal-Postpartum. Each data set contains maternal and child health indicators pertaining to that particular WIC population. Data in the **WIC MICAs** is available from 2009 forward. In 2009, the data system used to collect the WIC data changed dramatically, so comparisons to earlier years are not advised.

The WIC query pages themselves most closely resemble the **Birth MICA**. As discussed in a previous section of this handbook, **WIC** and **Birth MICAs** use internal denominators, based on known status, so instead of having **Optional Variables** to be used as filters like in the other MICAs, these systems have both **Indicators** and **Optional Variables**.

Many new indicators have been added to the **WIC MICAs**. In the **WIC Child MICA**, users can now gather data related to food and drink consumption and screen time, as well as more traditional indicators like birth weight, immunization compliance, and household smoking practices. Some of this new data is available only for more recent years- selecting older years will result in the following error message.

Though only two data years are currently available, a four county region in Central Missouri (including Boone, Callaway, Cole, and Moniteau Counties) seems to have stable rates of less than ideal fruit, vegetable, and sweetened beverage consumption, though the rate of sweetened beverage consumption seems to have decreased slightly.

WIC Child MICA

MICA
MISSOURI INFORMATION
FOR COMMUNITY ASSESSMENT
DATA MICAs

∧∨ Choose Your Data

∧∨ Build Your Results

| Build a Table | Make a Map | Create a Chart | Documentation / Metadata |

Main Row: Indicator ▼   Row Totals: ☑   Main Column: Year ▼   Column Totals: ☑

Statistics: Counts and Rates ▼

Confidence Intervals: No Confidence Intervals ▼

Submit Query

∧∨ Table Results

Save Table As ▾   Send Table to Side by Side

	Title:	Missouri Resident WIC Child Participants				
	Data selected in addition to rows and columns below:	County: Boone, Callaway, Cole, Moniteau;				
Year:	2014	2014	2015	2015	Total for selection	Total for selection
Statistics:	Count	Rate	Count	Rate	Count	Rate
Indicator						
Daily fruit consumption – less than two times	566	15.74	464	15.83	1,030	15.78
Daily vegetable consumption - less than two times	760	21.13	625	21.32	1,385	21.22
Daily sweetened beverage consumption – two or more times	1,695	47.12	1,358	46.33	3,053	46.77

Crude Rate per 100
Numerator: Daily fruit consumption – less than two times
 Denominator: Known fruit consumption
Rate: Numerator: Daily vegetable consumption - less than two times
 Denominator: Known vegetable consumption
Numerator: Daily sweetened beverage consumption – two or more times
 Denominator: Known sweetened beverage consumption

Source: DHSS - MOPHIMS - WIC Child MICA

Generated On: 10/4/2017 2:41:39 PM

TANF (Temporary Assistance for Needy Families) MICA

The **TANF MICA** contains data about the number of Missouri residents receiving welfare assistance. Tables are available for four types of residents: families, adults, children, and persons. **TANF MICA** appears to have the distinction of featuring the smallest **Choose Your Data** section of all the MICAs, but the selection of different **Relationship** choices will display additional data filters, depending on the **Relationship** selected.

For instance, **Month** is the only filter available for the Family **Relationship**, but **Age, Sex, Race, Month**, and two **Optional Variables** (Education and Time on TANF) are available for the Adult **Relationship**. **Month** will always be a filter variable because TANF data are calculated based on participation on the last day of each month. If a user selects more than one **Month** of data and then neglects to put that variable on either the **Main Row** or the **Main Column** in the **Build Your Results** section, the following error message will display. This is because it is not appropriate to aggregate months of data to generate, say, an annual total. Because participation frequencies are generated monthly, it's extremely likely that participants would be counted multiple times in annual totals, once for each month that they participated in the program.

TANF Region is a geography that is available only for the **TANF MICA**. Different Service Areas, based on total population, are composed of various groups of Missouri counties. To determine which Service Area your county belongs, click on the **Documentation/Metadata** tab in the **Build Your Results** section of the query page.

Citations

Whenever data are presented in a table, on a chart, or in narrative, the source must be cited. These citations are necessary for several reasons. First of all, citations can be extremely useful to the author of a report or presentation. They allow the author to document exactly when and where a source was accessed so that he or she can check for updates to the data at a later time. Furthermore, community health assessments and grants tend to be long-term projects. If the main author must be out of the office or moves on to a different position, citations can guide other staff members to appropriate source material.

Citations are also useful to readers. They allow readers to verify data that they may doubt. For instance, a concerned citizen may question the agency about a statistic that does not appear to match data from another source. With a citation, that reader and/or the author can locate the original source material to research possible differences in the collection, analysis, or interpretation of the data and determine the differences between the two sources. Thus, the use of citations can enhance readers' perceptions of the validity and reliability of a report. Citations can also lead readers to more in-depth information on specific topics that may interest them. For example, readers of this handbook can refer to the footnotes and the References section if interested in a particular topic covered in this course.

Perhaps most importantly, citations can help writers avoid charges of plagiarism. Plagiarism is "the uncredited use (both intentional and unintentional) of somebody else's words or ideas. . . A charge of plagiarism can have severe consequences, including . . . loss of a job, not to mention a writer's loss of credibility and professional standing."[1] A citation is necessary if another person's idea is used, even if it is restated and not directly quoted.

Several different style sheets exist, but BHCADD analysts use the American Medical Association (AMA) style to cite works published by our unit. Major peer reviewed public health journals require this style be used when submitting abstracts for potential publication. The AMA publishes manuals explaining AMA style and offers free brief tutorials and quizzes on its website, located at http://www.amamanualofstyle.com/.

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[1] Stolley K, Brizee A, Paiz JM. Overview and contradictions. Purdue University Online Writing Lab (OWL). http://owl.english.purdue.edu/owl/resource/589/01/ Updated June 7, 2013. Accessed April 10, 2014.

BHCADD recommends that in-text citations of the Profiles and MICAs list the specific MICA or Profile as the specific item cited, followed by MOHIMS as the name of the website. Bibliography entries should include the tool used as the specific item cited, MOPHIMS as the website used, the appropriate URL, and the date accessed.

Profile in-text citation:

A total of 95,514 Missouri children under the age of 6 were tested for lead poisoning in 2010.[1]

1. DHSS, Child Health Profile.

Profile bibliography entry:

Missouri Department of Health and Senior Services (DHSS). Child Health Profile. MOPHIMS (Missouri Public Health Information Management System). https://webapp01.dhss.mo.gov/MOPHIMS/ProfileBuilder?pc=1. Accessed October 11, 2017.

MICA in-text citation:

The death rate for Barry County residents decreased from 992.7 (per 100,000 residents) in 2008 to 800.1 in 2009.[2]

2. DHSS, Death MICA.

MICA bibliography entry:

Missouri Department of Health and Senior Services (DHSS). Death MICA. MOPHIMS (Missouri Public Health Information Management System). https://webapp01.dhss.mo.gov/MOPHIMS/QueryBuilder?qbc=DM&q=1&m=1. Accessed October 11, 2017.

References

AMA Manual of Style Committee. AMA Manual of Style: A Guide for Authors and Editors. AMA Style Guide. http://www.amamanualofstyle.com/ Accessed October 12, 2017.

Austin DF, Werner SB. *Epidemiology for the health sciences: A primer on epidemiologic concepts and their uses*. Springfield, IL: Charles C. Thomas; 1974.

Ballard J. *Basic concepts of data analysis for community health assessment: Presenting public health data.* Northwest Center for Public Health Practice; 2009. http://phlearnlink.nwcphp.org/kc/login/login.asp?kc_ident=kc0001&strUrl=http://phlearnlink.nwcphp.org/Default.asp Accessed September 24, 2009.

CDC. Suppression of Rates and Counts. United States Cancer Statistics https://www.cdc.gov/cancer/npcr/uscs/technical_notes/stat_methods/suppression.htm Accessed June 30, 2017.

Curtin LR.& Klein, RJ. *Direct standardization (age-adjusted death rates)*. Healthy People 2000 Statistical Notes (No. 6 – Revised).. Hyattsville, MD: National Center for Health Statistics. DHHS Publication No. PHS 95-1237. Published March 1995.

Florida Department of Health. *FloridaCHARTS user's guide: Empowering communities with health information.* Florida CHARTS. http://www.flhealthcharts.com/Charts/documents/CHARTS_USER_GUIDE_8_2012.pdf Accessed April 10, 2014.

Redelings MD, Sorvillo, F, Smith LV, Greenland S. Why confidence intervals should be used in reporting studies of complete populations. *The Open Public Health Journal* 2012:5, 52-54. http://benthamscience.com/open/tophj/articles/V005/52TOPHJ.pdf Accessed April 10, 2014.

Stolley K, Brizee A, Paiz JM. Overview and contradictions. Purdue University Online Writing Lab (OWL). http://owl.english.purdue.edu/owl/resource/589/01/ Updated June 7, 2013. Accessed April 10, 2014.