

Greetings from your MICA trainers, Andy Hunter and Becca Mickels. Spring is definitely in the air after a very mild winter by Missouri standards. With the arrival of the spring season we usually see the return of high pollen and mold spore counts, which can trigger certain forms of asthma.

The MICA system contains many pieces of information related to asthma. The **2007 County-Level Study – Health & Preventive Practices Profile** provides prevalence estimates on asthma for the population age 18 & older. The weighted percent (as shown below for the state as a whole) gives users an estimate of the burden of asthma within a specific geography. From the Missouri Profile, users can choose to examine the spatial distribution of asthma prevalence at the county level by selecting the map option.

County Level Study 2007 - Health & Preventive Practices for Missouri Adults

[County-level Study Home](#) [Select a different geographical area](#) [Main profile page](#) [Age-adjusted weighted percent](#) [Print Profile](#)

All Race Gender Age Income Rural-urban Health Insurance Status			
Indicator	Number	Weighted Percent	Download Indicator Data
Fair or poor general health status	49,368	16.8	  
Activity limitation	49,376	22.0	  
No health-care coverage	49,398	14.7	  
Did not get medical care	49,442	7.5	  
Did not get medical care due to cost or no insurance	3,653	68.5	 
Did not get medical care due to lack of transportation	3,653	3.7	 
Did not get medical care due to other reasons	3,653	27.8	 
Current cigarette smoking	49,019	23.2	  
No leisure-time physical activity	49,462	25.3	  
Less than 5 fruits and vegetables per day	46,918	76.1	  
Overweight (25.0 - 29.9 BMI)	47,694	35.7	  
Obese (>= 30 BMI)	47,694	29.1	  
Current high blood pressure	48,768	19.6	  
Ever had blood cholesterol checked - age 35 and older	42,112	89.3	 
Has high cholesterol - age 35 and older	34,759	20.2	  
Current asthma	49,305	8.5	  
Current diabetes	49,477	9.3	  
Never had a mammogram - women age 40 and older	23,158	8.7	  
No mammogram or clinical breast exam in last year - women age 40 and older	22,910	27.6	  
Never had a pap smear - women age 18 and older	28,685	3.4	 

* = Percents are not provided for indicators with less than 50 respondents.

The map option can be viewed by clicking on the icon of the shape of Missouri in the far right column (Download Indicator Data) of the asthma indicator row. The color-coded map highlights clusters of counties with high and low rates. Users can download asthma data for all geographies by clicking on the Excel or PDF icons immediately to the left of the map option.

Several other Community Data Profiles combine asthma information from a variety of sources (e.g., the emergency room, hospitalization, survey, and mortality surveillance systems). These types of data can be found in the **Child Health, Chronic Disease, Emergency Room, Hospitalization, and Minority Health Profiles**.

Several Data MICAs also provide asthma-related statistics. The asthma indicator is not always located directly on Step 6 of the MICA query screen but may be available as a drill-down indicator. For instance, on the Emergency Room MICA, look for an indicator related to asthma, which in this case would be *Respiratory (throat and lung)*.

Step Six
 Select an indicator variable (default: All Diagnoses).

This list contains the major diagnoses. Once the table is produced by major diagnoses, you are allowed to "drill down". "Drill down" allows you to look at more specific diagnoses that make up these major diagnoses.

- Brain - spinal cord - eyes - ears
- Heart and circulation
- Respiratory (throat and lung)**
- Digestive system
- Kidneys - bladder - genitalia
- Pregnancy - childbirth - reproduction
- Skin

On the resulting summary table, click on the hyperlinked label to view more specific respiratory diagnoses.

Emergency Room: Residents of Missouri		
	Year	
	2009	
Diagnosis	Number of Visits	Rate
Respiratory (throat and lung)	356,043	61.0
Rates Per 1,000		
Age Adjustment Uses 2000 Standard Population		
Rotate	Download	

Asthma is now available on this more specific list. Note that some indicators have a second drill-down option. For example, users can select the *Respiratory Infections* hyperlink to obtain information about *Influenza*, *Pneumonia* and other select respiratory infections.

Emergency Room: Residents of Missouri		
	Year	
	2009	
Diagnosis	Number of Visits	Rate
Respiratory infections	230,768	40.0
Chronic obstructive pulmonary disease and bronchiectasis [127.]	34,140	5.6
Asthma [128.]	29,335	5.1
Aspiration pneumonitis - food/vomitus [129.]	144	0.0
Pleurisy - pneumothorax - pulmonary collapse [130.]	3,396	0.6
Respiratory failure- insufficiency- arrest (adult) [131.]	836	0.1
Lung disease due to external agents [132.]	151	0.0
Other lower respiratory disease [133.]	41,731	7.0
Other upper respiratory disease [134.]	15,542	2.6
Total for Selection	356,043	61.0
Rates Per 1,000 Age Adjustment Uses 2000 Standard Population		
Rotate	Download	

The Chronic Disease MICA makes queries simpler for persons interested in asthma (or other chronic disease indicators). After selecting the Chronic Disease MICA, users can choose to view information on emergency room visits, hospitalizations and mortality by county/city, ZIP code, or on a map. In this collection of MICAs, asthma is included in the initial cause list on Step 6.

Step Six

Select a cause(s).

This list contains the major causes. To see more specific causes, make a table with major cause(s), then click on the name of the cause to "drill down" to narrower causes within it.

- Alzheimer's disease
- Asthma
- Atherosclerosis
- Cancer
- Cerebrovascular disease (Stroke)
- Chronic liver disease & cirrhosis
- Chronic obstructive pulmonary disease (COPD)

For example, within the Chronic Disease Inpatient Hospitalization map option, users can select year, gender, age, and pay source to create a map for various chronic diseases, including asthma. The map can be customized to show frequencies, crude rates, or age-adjusted rates and define categories by quartile, quintile, or significance compared to the state.

Chronic Disease Inpatient Hospitalizations

Allows you to generate a Missouri map for specific diagnoses, categorized by Year, Pay Source, Age Group, and Sex.

Step One

Sex: Age: Pay Source:

Step Two

Select Year or Years:
 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Step Three

Select Diagnosis

Alcohol/substance related disorders

Arthritis/other joint disorders

Asthma

Atherosclerosis

Cancer

Chronic obstructive pulmonary disease (COPD)

Map for selected diagnosis
 Map for more specific diagnoses within selected diagnosis

Step Four

Frequencies only Frequencies and Rates

Age-adjusted Rates:
 No Yes

Step Five

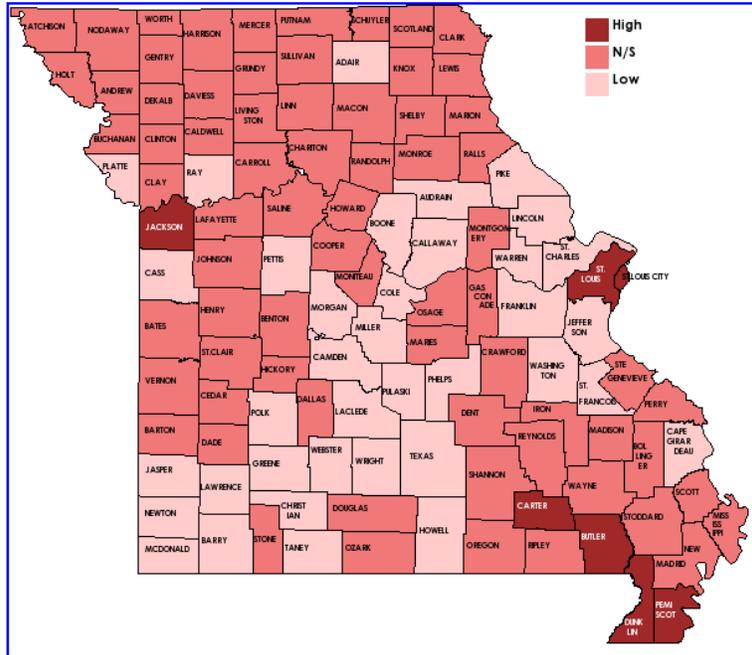
Select count intervals: Quartiles Quintiles Higher/Lower than State

Label counties: No Yes

Select color combination:

With the selections above we will create a significance map showing the distribution of asthma for children under 15 based on data from 2005-2009. Note that Step 5 allows users to choose different color schemes for the map. Submitting this query produces the following map.

Chronic Disease - Inpatient Hospitalization: Residents of Missouri
 Age: = Under 15
 Year=2005,2006,2007,2008,2009
 Diagnosis: Asthma
 Significance Map



Rates Per 10,000
 Crude Rate

@ Rate considered unreliable, numerator less than 20

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## Summer 2012 MICA Trainings

Many of you have already received an e-mail containing a link to the registration form for our MICA trainings. Training information is also available on our website at <http://health.mo.gov/data/mica/MICA/healthdatatraining.html>. As we noted in the February newsletter, this may be the last year of the Assessment Initiative grant through CDC, which is our source of funds for training-related activities. With that in mind, we have scheduled several trainings throughout the state. Please consult the table below to find training classes located near you. If you are interested in a class but the deadline has passed, please e-mail Becca or Andy and we can check to see if accommodations can be made.

| Location:                                                                                                                  | Course 1:                        | Course 2:                        | Course 3:                      |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|--------------------------------|
| <b>St. Louis County Department of Health</b><br>111 S. Meramec<br>Clayton, MO 63105                                        | May 23<br>Deadline:<br>May 7     | May 24<br>Deadline:<br>May 7     | N/A                            |
| <b>Sikeston Career and Technology Center</b><br>200 Pine St.<br>Sikeston, MO 63801                                         | June 5<br>Deadline:<br>May 25    | June 6<br>Deadline:<br>May 25    | N/A                            |
| <b>Hillyard Technical Center</b><br>3434 Faraon Street<br>St. Joseph, MO 64506                                             | June 12<br>Deadline:<br>May 29   | June 13<br>Deadline:<br>May 29   | N/A                            |
| <b>Missouri State University</b><br>Lybyer Technology Center<br>Room #212<br>605 West Main Street<br>West Plains, MO 65775 | June 19<br>Deadline:<br>June 1   | June 20<br>Deadline:<br>June 1   | June 21<br>Deadline:<br>June 1 |
| <b>Rolla Technical Institute</b><br>1304 E 10th Street<br>Rolla, Missouri 65401                                            | June 25<br>Deadline:<br>June 8   | June 26<br>Deadline:<br>June 8   | N/A                            |
| <b>Bolivar Technical College</b><br>2001 W. Broadway<br>2nd Floor<br>Bolivar, MO 65613                                     | June 27<br>Deadline:<br>June 8   | June 28<br>Deadline:<br>June 8   | N/A                            |
| <b>Moberly Area Community College – Kirksville</b><br>2105 East Normal St.<br>Kirksville, MO 63501                         | July 17<br>Deadline:<br>July 2   | July 18<br>Deadline:<br>July 2   | July 19<br>Deadline:<br>July 2 |
| <b>University of Missouri – Columbia</b><br>Strickland Hall, Room 124A<br>Columbia, MO 65211                               | August 1<br>Deadline:<br>July 13 | August 2<br>Deadline:<br>July 13 | N/A                            |

All of our courses are targeted to administrators, program managers, health educators, program planners, or other staff who need to understand and present data to inform policy or decision making related to priority health issues. Although initially designed for LPHAs, they may also be useful to community partners, including universities and colleges, elementary and secondary

schools, hospitals, non-profit organizations, and any others who utilize health data. *Please feel free to invite any other organizations that may benefit from these trainings.*

### **Course Descriptions**

**Please note that the courses build upon each other so we recommend taking them in sequence if at all possible.**

**Course 1: Introduction to Profiles and MICA** – This course includes a review of the basic statistics used in the Community Data Profiles and MICA, as well as hands-on demonstrations of the trend line, graphing, download, and other features. Multiple exercises allow participants to practice the skills covered. (This course was first offered as *Community Health Assessment and Intervention Planning*.)

**Course 2: Health Data Analysis** – The *Health Data Analysis* course explains the process of using Profiles and MICA data to generate other statistics, such as percentage change and years of potential life lost. It also provides communication strategies and examples of how to clearly communicate health data through a variety of presentation formats, such as tables, charts, maps, and narrative. These strategies can be applied to grant proposals, health assessments, newsletters, health education materials, presentations, and other publications. During class, instructors will guide participants through creation of a sample community health assessment document.

**Course 3: Health Data Workshop** – Workshop sessions include a demonstration of how to use spreadsheet and word processing software to more effectively create reports using Profiles/MICA data, followed by a brief refresher of the *Introduction to Profiles and MICA* and *Health Data Analysis* courses. During the afternoon, attending agencies will have an opportunity to gather feedback from instructors and other agencies on their own county-specific documents. Each attending agency will be required to submit a five- to ten-page document (either a completed report or a draft) for discussion. Participants and instructors will apply topics from all three training courses to address the strengths and weaknesses of each report. If time allows, additional data resources may be covered.

For a variety of reasons, we are not able to provide as many *Health Data Workshop* courses this year. We are sorry if we are not offering that course in an area near you. We tried to pick locations that did not have easy access to the *Workshop* when it was first offered last year. We may attempt to offer some sections of the *Workshop* in a webinar format in the future.

Please note that each of these courses will count for **six contact hours** toward re-accreditation through **MICH** or **six DHSS Human Resources credit hours**.

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## Data Updates

Several of the Profiles and Data MICAs have been updated since the publication of the last newsletter.

Medicaid Records MICA – through January 2012

Procedures MICA – through 2009

TANF (Temporary Assistance for Needy Families) MICA – through February 2012

Child Health Profile – through 2009 for most indicators

Chronic Disease Profile – through 2009

Diabetes Profile – through 2010 for BRFSS indicators; through 2009 for other indicators

Heart Disease Profile – through 2010 for BRFSS indicators; through 2009 for other indicators

Stroke Profile – through 2010 for BRFSS indicators; through 2009 for other indicators

Women's Health – through 2009 for most indicators

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## Recent/Upcoming Events

This winter we conducted surveys of DHSS employees and MICA users from other organizations to learn how they currently use MICA and what features and data sets they might like to see offered in the future. Thanks to everyone who participated!



Many of our recent events took place at the DHSS headquarters in Jefferson City.

We offered two days of training to DHSS staff on March 13-14. These classes were conducted because of the large number of persons who attempted to register for similar trainings in February. These DHSS employees were a lively group and even agreed to pose for a photo after two days of learning about health statistics.

We also hosted an exhibit and provided a MICA demonstration at the training for new LPHA Administrators on April 2-3.

On April 27 we got back on the road to host a poster exhibit and attend sessions at the *Healthy Lives – Health Communities: Building Health Equity in Missouri One Community at a Time* conference in Columbia.

Please refer to the Summer 2012 MICA Trainings section earlier in the newsletter for information about the large number of classes being offered this summer.

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## Public Health Spotlight

This quarter we want to honor a recent retiree from our Bureau. After more than 20 years of service to DHSS (and over 40 years to the state of Missouri), Alice Kempker retired on March 31, 2012. Alice worked as a research analyst on many projects during her time in “health statistics.” (The unit changed names many, many times during her tenure!) She was originally hired to coordinate the Manpower survey for hospitals and nursing homes. More recently Alice worked to process discharge data from hospitals and Ambulatory Surgical Centers (ASCs), which are utilized by many of the MICAs and Profiles. She also managed the files that are on display through the Hospital Revenues Profile and handled assignments related to the Office of Primary Care and Rural Health, including analysis of survey data. In addition to her regular duties, Alice spent many hours listening and offering advice as we rehearsed for MICA trainings. Beyond her work, Alice has been a loyal friend to many of us here and certainly has done her best to keep the two of us on our toes with jokes and quick wit.



**Alice wore many hats  
during her time at DHSS!**

**Happy Retirement!**

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## Q&A

A survey respondent asked how to find the “incidence rate of certain cancers for geographic areas.” These data can be found in the Cancer Registry MICA, which is one of our few sources of true incidence data. This means that the number and rate for each year represent only new cases diagnosed in that year. The data for this MICA are prepared by the Missouri Cancer Registry (MCR) at the University of Missouri – Columbia. The MCR follows data collection standards established by the North American Association of Central Cancer Registries (NAACCR) and protects their data with different confidentiality rules than those applied to the other MICAs. To learn more about MCR data policies, please view the Cancer Registry MICA definitions available at

<http://health.mo.gov/data/mica/CancerMICA/Definitions.html#confidentiality>.

Because of these alternative methods, the Cancer Registry MICA provides data in three different formats:

1. The first option provides data at the state, BRFSS region, and county levels for seven specific body sites commonly affected by cancer and all sites combined. In this option the data are available only for three-year time periods (e.g., 2007-2009). This query option does not allow users to view the data by age, race, or cancer grade.
2. The second option provides data only for the state and BRFSS regions (not counties) but does allow users to view the data by age, race, and cancer grade. The same cancer sites available in the first option are also included in this second option.
3. The third option operates in the same way as the second option but includes a more detailed list of 19 cancer sites, as opposed to only 7.

To obtain data on prostate cancer incidence in Benton County, we would need to make the following selections on the Cancer Registry MICA query screen.

## Cancer MICA

The following *step-by-step* process will allow you to customize a data table using Cancer Statistics.

**Step One**  
 Select a row variable (default value: Site).  
 Sex  Stage  State/Region/County  Site

**Step Two**  
 Select a column variable (default value: Sex).  
 Sex  Stage  State/Region/County  Site

**Step Three (Optional)**  
 If you want to choose a particular Sex do not select that variable above, choose it in the pull-down box below.

Sex:  Stage:   
 In situ  
 Invasive

**Step Four**  
 Select year(s) of interest (default: All Years).  
 1997-1999  2000-2002  2003-2005  2006-2008

**Step Five**  
 Select Statewide, BRFSS Region(s) and/or County(ies) (default: state total).  
 To select multiple counties/regions:  
 Select the first county/region with pointer and hold control key down while making additional selections. To deselect, hold the control key and point to county/region to be deselected.  
 NOTE: Separate tables must be created for either county or region data.

Barton  
 Bates  
 Benton  
 Bollinger  
 Boone  
 Buchanan

Or

Central Region  
 Kansas City Metro Region  
 Northeast Region  
 Northwest Region  
 Southeast Region  
 Southwest Region  
 St. Louis Metro Region

**Step Six**  
 Select a site (default: All).  
 This list contains the major sites.

Cervix  
 Colon, rectum and rectosigmoid  
 Lung and bronchus  
 Prostate  
 Urinary bladder  
 Corpus and uterus, NOS  
 All

**Step Seven**  
 Frequencies with Rates or Percents:   
 Age Adjustment Standard Population Selection:   
 Confidence Intervals for Rates:

This query would produce the following table.

| Cancer Registry Incidence: <a href="#">Residents of Benton County</a> |        |        |                          |      |        |      |
|-----------------------------------------------------------------------|--------|--------|--------------------------|------|--------|------|
| Year=1997,1998,1999,2000,2001,2002,2003,2004,2005,2006,2007,2008      |        |        |                          |      |        |      |
| Site: = Prostate                                                      |        |        |                          |      |        |      |
| <a href="#">Stage: Invasive</a>                                       |        |        |                          |      |        |      |
| Sex                                                                   |        |        |                          |      |        |      |
| Male                                                                  |        | Female |                          |      | All    |      |
| County                                                                | Number | Rate   | Number                   | Rate | Number | Rate |
| Benton County                                                         | 251    | 136.0  | 0                        | @    | 251    | 65.2 |
| Rates Per 100,000                                                     |        |        |                          |      |        |      |
| Age Adjustment Uses Year 2000 Standard Population                     |        |        |                          |      |        |      |
| @ Rate considered unreliable, numerator less than 20                  |        |        |                          |      |        |      |
| <a href="#">Rotate</a>                                                |        |        | <a href="#">Download</a> |      |        |      |

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Practice Exercise

Many of you have asked for additional exercises so that you can practice the skills you learned at the MICA trainings. Here is a chance for you to do so. If you would like to check your work, a possible answer is posted on the DHSS website. A link to the answer is provided at the bottom of this section.

Use the Birth MICA to answer the following questions related to premature births in Jackson County and the Kansas City metropolitan area.

- 1) Using the 2008 and 2009 data years, what is the premature birth rate for Jackson County? _____ What is the rate for the State of Missouri? _____
- 2) Use 95% confidence intervals to determine if the difference between your answers to Question 1 represents a statistically significant difference. Is the Jackson County rate significantly higher than, significantly lower than, or not significantly different from the State of Missouri rate? _____
- 3) Now calculate the premature birth rate using the same time period for a region that includes Jackson, Cass, Clay and Platte Counties. What is the rate? _____ Is this rate significantly higher than, significantly lower than, or not significantly different from the state rate at a 95% confidence level? _____
- 4) If we change the confidence level to 99%, does that change the answer to Question 3? If so, how? _____
- 5) Now use the Kansas City ZIP Code option on the Birth MICA to determine which ZIP Code in the range from 64011 through 64030 had the highest number of premature births for 2008-2009. _____ Do you get the same answer if you look for the ZIP Code with the highest rate of premature births? If the answer is not the same, which ZIP Code has the highest rate? _____

Visit <http://health.mo.gov/data/mica/MICA/solutions.html> to check the solution.

About the MICA User Group Newsletter

The MICA User Group Newsletter was created in response to user requests for communication on updates to the MICA system, descriptions of new features, additional practice exercises, announcements of training opportunities, and any other new information about data that might help them perform their jobs more efficiently.

Newsletters will be published on a quarterly basis. If you have ideas for content, please send them to Andrew.Hunter@health.mo.gov or Becca.Mickels@health.mo.gov. We would especially like to feature stories describing your success at completing projects or obtaining grants using the MICA tools as well as interviews with public health professionals about your duties and how you use MICA to accomplish them.

How to Sign Up or Opt Out

If you have enjoyed this newsletter, please feel free to share it with your colleagues and community partners. We encourage them to sign up for the MICA User Group by sending an e-mail to Andrew.Hunter@health.mo.gov or Becca.Mickels@health.mo.gov with the subject line MICA User Group. This will let us know to send newsletters to them directly so they do not miss any information. Also, we may occasionally distribute time-sensitive information on topics such as training opportunities via e-mail if the newsletter is not scheduled for publication prior to a registration deadline. Finally, the MICA User Group list helps us track the types of organizations using the tools, which is one of our performance measures.

If you would like to opt out of the MICA User Group, please send an e-mail with Unsubscribe in the subject line to Becca.Mickels@health.mo.gov. PLEASE NOTE: Depending on your position title, you may still receive other types of e-mail messages from us. For example, we are requested to send training information to all LPHA Administrators, even if they have unsubscribed from the MICA User Group.

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