

After a summer hiatus, the MICA user group newsletter has returned for the fall. It has certainly been a busy past few months. The summer trainings on MICA were a success and we thank everyone that was able to participate in them. On a personal level, it was an eventful summer as well. Andy got to attend a portion of the Olympic games in London in July. In August an even more momentous occasion occurred when Becca (and her husband Josh) celebrated the birth of a healthy baby boy on the 17th. Eli Mickels checked into the world at 6 pounds, 4 ounces. That's one small addition for Missouri Vital Statistics, one giant leap for the Mickels family! Congratulations to Becca and Josh.

Enhanced Features for Profiles--Trend Lines

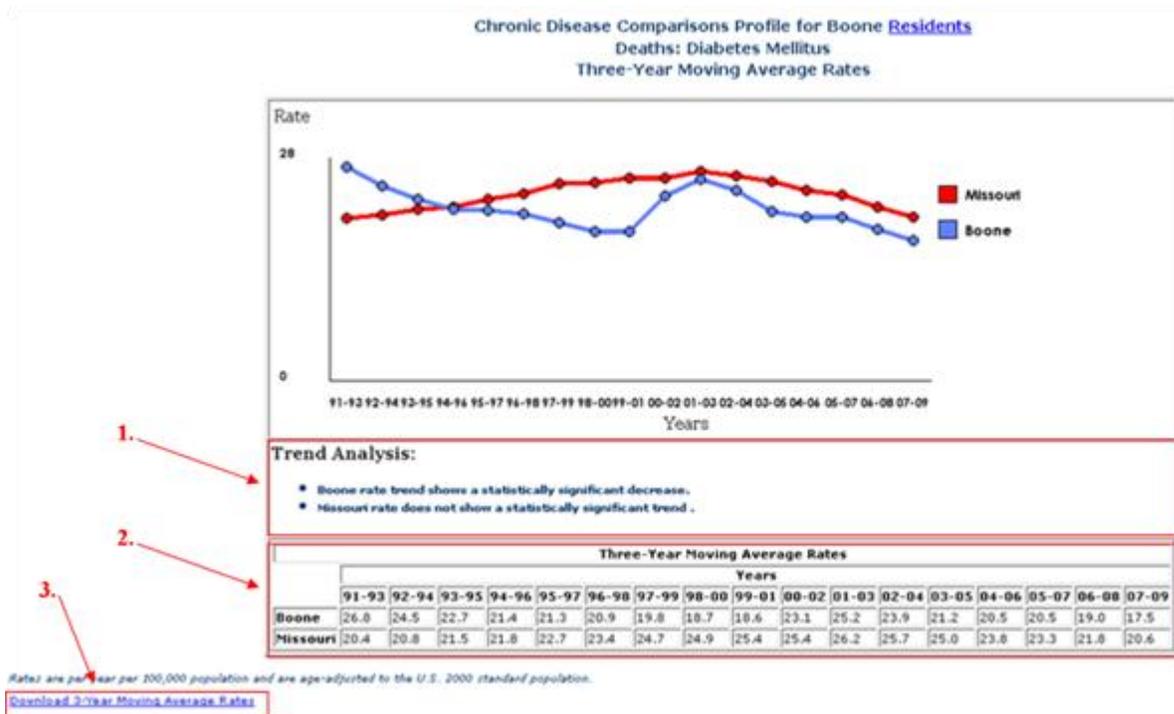
The MICA system contains many different tools determining key indicators in your community. One such tool is the "Trend Lines" feature found within the Community Data Profiles. This feature gives a visual representation of changing rates over time, and can be used to determine the urgency of a particular indicator in a community. Looking at the **Chronic Disease Comparisons Profile** as an example, we can see how this feature works. The trend line feature can be viewed by clicking on the boxes found under the "Trend Lines" column heading.

Chronic Disease Comparisons Profile - for Boone Residents

[Select a different geographical area](#) [Main profile page](#) [Print profile](#)

	Data Years	Number of Events	Rate	State Rate	Significantly Different	Ranking Quintile	Trend Lines	Comparison Bar Charts
Heart Disease								
Deaths	1999-2009	2,263	182.8	245.60	L	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	7,287	118.7	152.38	L	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ER Visits	2005-2009	8,197	12.0	12.95	L	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ischemic Heart Disease								
Deaths	1999-2009	1,439	117.3	170.32	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	2,797	45.5	55.25	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ER Visits	2005-2009	126	0.2	0.82	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stroke/Other Cerebrovascular Disease								
Deaths	1999-2009	534	51.6	54.92	N/S	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	1,616	26.7	30.37	L	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ER Visits	2005-2009	287	0.5	0.79	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
All Cancers (Malignant Neoplasms)								
Deaths	1999-2009	2,259	185.2	197.70	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	2,175	34.4	39.07	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Colorectal Cancer								
Deaths	1999-2009	197	15.7	19.39	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	213	3.4	4.89	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Colon and Rectum Cancer (SEER)								
Deaths	1999-2009	194	15.4	19.25	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lung Cancer (SEER)								
Deaths	1999-2009	634	53.3	61.41	L	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	266	4.5	5.18	L	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Breast Cancer								
Deaths	1999-2009	177	14.1	14.55	N/S	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	150	2.4	2.20	N/S	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cervical Cancer								
Deaths	1999-2009	17	1.3*	1.41	N/S		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	31	0.5	0.79	L		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prostate Cancer								
Deaths	1999-2009	110	9.3	9.10	N/S	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	239	3.7	2.78	H	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Diabetes Mellitus								
Deaths	1999-2009	248	20.4	23.78	L	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hospitalizations	2005-2009	1,065	15.1	17.32	L	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ER Visits	2005-2009	845	1.3	1.70	L	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

By clicking on the box corresponding to **Diabetes Mellitus - Deaths** we are able to see the trend line chart of Boone County vs. Missouri. The Missouri trend line is automatically shown for easy comparison. An analysis of the trend lines is also given below the chart (Point 1 in the picture below). The Trend Analysis indicates whether the trend shown is statistically significant, allowing users to determine if the trend reflects a likely true change in rate for the health indicator or if the change is more likely due to random variation. In this case, Boone County is showing a statistically significant decrease in the number of deaths, while Missouri shows no statistically significant trend over the same time period.



The trend line feature uses a three-year moving average of rates in order to create the line. The three-year averages can be seen below the “Trend Analysis” section of the chart (Point 2). The three year moving average is used because it eliminates some of the random fluctuation found when calculating rates for rare events and/or small populations.

The final feature found in the Trend Lines (Point 3) allows users to download the above rates so that the data can easily be moved to Excel or other software programs for the creation of customized charts. Customizing charts can allow all of your charts and graphics in a report or presentation to follow a standard format.

Summer Training Review

The classes took up a large part of the summer as we traveled throughout the state offering hands-on training. During the back end of the training schedule Trevor Maness, a summer intern from the University of Missouri-Columbia's Masters degree program in the School of Public Health, joined Andy and presented for the Kirksville and Columbia sites. In total, we traveled to 8 locations throughout the state offering a total of 19 classes. As statisticians, we had to check our total miles for summer 2012. We were on the road for just over 2,500 miles. Over 100 persons attended classes this year, many of whom were able to make it to multiple days of training. Unlike last year, we did not experience any tornadoes, earthquakes or fire alarms; we did however experience a close call with tornadic winds in Sikeston in June. As always, we enjoyed warm hospitality throughout the state and sampled a variety of local restaurants wherever we went. Most importantly, we hope that the participants throughout Missouri that were able to attend found the trainings a worthwhile investment of their time and energy. Please feel free to contact Becca or Andy (as many of you already have!) anytime you have questions about health data or need assistance in manipulating the MICA tools.

For those of you that took our second training class on Health Data Analysis, you will remember the 'Monty Hall' shell game. The game requires one person to make an initial choice from among three buckets, then after having been given some additional information the participant was offered the chance to switch to a different bucket. We went through most of the summer without anyone winning our 'grand prize'. Finally in Rolla, we had a breakthrough! Here is a picture of Roma Jones, assistant administrator for Dent County, with the prize cinnamon roll candle. Congrats to Roma.



For those that are curious, we played the game at 9 classes this summer. All 9 people elected to stay with their original bucket guess and we had a total of 2 winners (a 22% win rate compared to an expected win rate of 33%).

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## **Data Updates**

Cancer Registry MICA – through 2009

Medicaid Records MICA – through June 2012

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

Hospital Revenues Profile – through 2010 survey

Inpatient Hospital Profile – through 2009

\*Population MICA – includes 2010 Census counts, estimates for 2001-2009 have been revised.

\*A special note about the population estimates on MICA, after we completed the update we found out from Census Bureau that the intercensal estimates (2001-2009 time period) would likely be revised again and that the release date would be sometime this fall. So a word of warning that the 2001-2009 population estimates found on MICA are likely to be adjusted again sometime this fall/winter.

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Organizational Changes

Over the past year, the department has re-organized the unit in which the Data Dissemination team is located. Many of changes are now finalized. Late last year the unit was newly christened as the Bureau of Health Care Analysis and Data Dissemination (BHCADD). Andy is now serving as the Bureau Chief of that group. Becca received a promotion to Research Analyst IV in July. Both will continue to be involved in the development of MICA and training stakeholders on how to most effectively use the MICA tools. In addition, we are in the process of filling Becca's previous position. The new person will also assist in developmental and promotional activities.

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## **New Staff**

In the spring, we said goodbye to retiring Research Analyst Alice Kempker. This quarter we welcome Rashmi Davanagere as a Research Analyst III. Rashmi recently completed her Master's Degree from the MU School of Public Health. During her studies she completed an internship at DHSS with the Office of Primary Care and Rural Health. Prior to that Rashmi spent almost 10 years in research and data analysis for oral health and later on tuberculosis vaccines in her native India. Rashmi will work with the hospital survey data, provide assistance on hospital discharge activities and handle data requests, among other things. We welcome Rashmi to the BHCADD team.

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## Upcoming Conferences

We have two conferences scheduled for this fall. Our unit (though neither Becca nor I were in attendance) had a poster and exhibit last week at the Missouri Public Health Association Conference in Columbia. We also plan to have an exhibit at the Coordinated School Health Conference at Lodge of the Four Seasons at Lake of the Ozarks on November 30<sup>th</sup>.

Here is a photo from our exhibit in late April at the Healthy Lives-Healthy Communities conference.



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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 Emergency Room MICA to answer the following questions related to injuries and poisonings in 2009.

- 1) Of all of the counties in Missouri, which county has the highest rate of ER visits for injury and poisoning and what is the rate? \_\_\_\_\_ Which has the lowest and what is it's rate? \_\_\_\_\_
- 2) Can you be 99% sure that either of the above rates are statistically different from the state rate? \_\_\_\_\_

- 3) Compare the rates of Crawford and Saline County, can you be sure that the rates of these two counties are significantly different, using a 95% confidence interval, from one another?  
\_\_\_\_\_
- 4) Of the two counties, which has the higher number of ER visits for injuries and poisonings?  
\_\_\_\_\_
- 5) Which county has the higher number of “Sprains and Strains”? \_\_\_\_\_
- 6) Within Saline County, are there any forms of injury that are significantly different, using a 95% confidence interval, between males and females? \_\_\_\_\_ If so, which ones?  
\_\_\_\_\_

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

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We'll close with a photo from Andy's trip to London. This picture is of the Tower Bridge over the Thames River in downtown London taken the day of the Opening Ceremonies.



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**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](mailto:Andrew.Hunter@health.mo.gov) or [Becca.Mickels@health.mo.gov](mailto: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.

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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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