

MOPHIMS User Group Newsletter

May 2020- Issue #23

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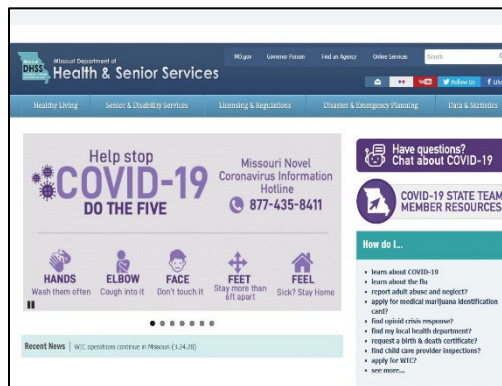
IT'S SPRINGTIME IN MISSOURI!

In this issue, we'll use the lens of the COVID-19 pandemic to shine a light on some of the data-related resources that you can use in times of emergency or crisis. We've also included an article about the recently completed county-based Vulnerability Index project, which identified Missouri counties most at-risk of bloodborne and opioid overdose outbreaks. I hope that all of our users are staying safe (and sane!) as we make our way through some largely uncharted territory. Thank you for everything that you do!



COVID-19 DATA, NOW VS FUTURE USES

While we are all facing the uncertainties of COVID-19, there are data nerds amongst us curious to know where to find the most recent data on coronavirus. The following are steps on how to access COVID-19 incidence data and more. It is important to know that data and formatting of the Dashboard will continuously be updated as it becomes available, verified, and pertinent. As of 5/27, each of the metrics highlighted in this newsletter are included in the updated Dashboard, but may be presented or ordered differently.



To start off, you will visit DHSS homepage [here](#), where you will see a purple banner as shown to the left. Click on the banner to proceed. It will take you to the page below that is up to date with everything you need to know concerning coronavirus. Links ranging from Governor Parson's Facebook page, which provides briefings to keep Missourians abreast of the state's progress in combating COVID-19, to links with information on how families can cope with coronavirus anxiety and resources available to them.

COVID-19 Outbreak

DHSS Home > Healthy Living > Health Conditions & Diseases > Communicable Diseases > COVID-19

24 hour hotline: 877-435-8411

DHSS and the CDC are responding to an outbreak of respiratory disease caused by a novel (new) coronavirus that was first detected in many locations internationally, including in the United States. The virus has been named "SARS-CoV-2" and the disease it causes has been named "coronavirus disease 2019" (abbreviated "COVID-19").



COVID-19 Testing Reported to Missouri Department of Health and Senior Services

As of 2:00 p.m. CT, April 15

Approximate update: 2:00 p.m., April 16

As commercial testing capacities increase, the coordination of patient and associated contact investigations is paramount to preventing and mitigating the spread of the virus. While performing public health priority activities, including notifying the patient, raising awareness among our communities is valuable. We will provide data as it is available, verified and pertinent.

When you scroll further down, you will see the hyperlink in red below that you can click on for additional data, including *county* data. As of April 21, 2020 there was 5,807 cases and 177 deaths in Missouri. Please note that this numbers will keep changing as they are updated daily at 2.00 p.m.

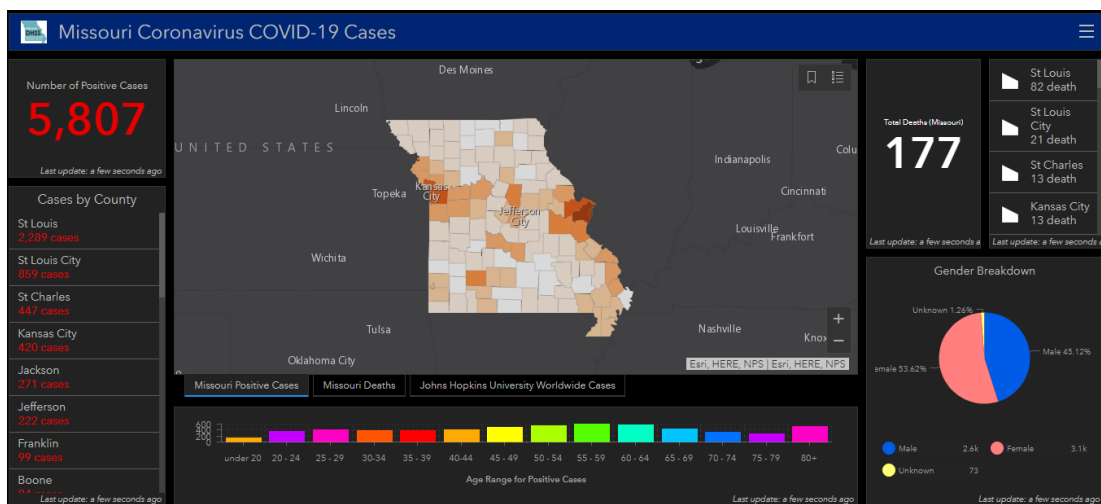
Cases in Missouri: 5,807

Total Deaths: 177

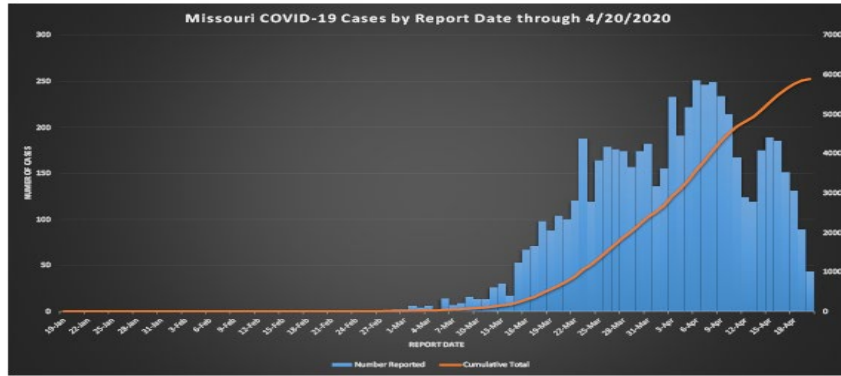
Patients tested in Missouri (by all labs): approximately 56,986

As of 2:00 p.m. CT, April 20

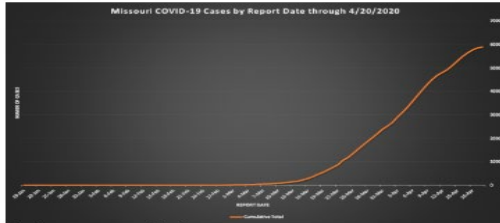
Here you will also find different graphics and visualizations presenting the data. The vertical bar charts show the number of cases that have been reported since March 1st. The cumulative total here includes all cases that tested positive for COVID-19 regardless of whether recovery status is known or unknown.



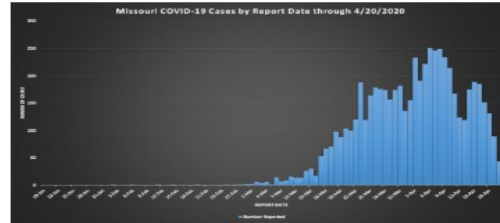
In addition, there is a Missouri map showing clusters of the pandemic in each of the 114 counties and the cities of St Louis and Kansas City. The number of cases has been broken out by different demographics, including county, age, sex, race and ethnicity. Moreover, death counts by county, age, race and ethnicity are provided. This spatial and demographic data will aid in development of strategies and programs where they are most needed.



Cumulative Total. Total number of COVID-19 cases reported in Missouri to date. Most cases will recover from their illness, but this will not change the cumulative total.



Click image to make larger.



Click image to make larger.

You can also get data on current COVID-19 hospital admissions, as well as bed and ventilator availability from the Missouri Hospital Association [here](https://www.missouri-hospital-association.org/).

COVID-19 SITUATIONAL AWARENESS UPDATE

DATE:
April 15, 2020

COVID-19 CASE SUMMARY

Positive COVID-19 Cases Identified (DHSS)		
CATEGORY	COUNT	24-HOUR INCREASE
Total Statewide COVID-19 Cases	4,895	209
Total Statewide COVID-19 Deaths	147	14

Source: EMResource (hospitals with data > 3 days old is not included)
Note: Hospitalized patient numbers may differ from MHD/DHSS due to several factors such as timing of admission or exit of acute inpatients.

SUPPLY SUMMARY

PPE and Testing Shortages		
CATEGORIES	# OF HOSPITALS EXPERIENCING	
	SHORTAGE*	CRITICAL SHORTAGE**
N95 Particulate Respirators	29	5
Surgical Masks	31	5
Face Shields	27	5
Goggles	23	5
Disposable Coveralls	29	2
Exam Gloves	29	12
Surgical Gown	17	1
PAPRs	20	8
Biological Filters	25	6
Biological Hoods	17	9
Testing Swabs	23	6

* Facility is experiencing a current or anticipated shortage of supply despite contingency strategies without
** Facility is experiencing a critical shortage, less than 2 days of supply despite contingency strategies

BED AVAILABILITY SUMMARY

Bed Availability by Type		
BED TYPE	AVAILABLE	TOTAL***
Medical Surgical	4,018	10,795
Intensive Care Units	727	2,129
Emergency Department (ED)	1,634	-

Hospitals Reporting 138 of 154
Source: EMResource (hospitals with data > 3 days old is not included)
* ED beds are being collected for frontline. Additional statewide utilization data will be available as a baseline is established.
***Total based on the annual licensing survey

Current COVID-19 Hospital Admissions

CATEGORY	COUNT	24-HOUR INCREASE
Confirmed COVID-19 Patients	594	5
Patients Under Investigation for COVID-19	430	(22)

Hospitals Reporting 129 of 154
Source: EMResource (hospitals with data > 3 days old is not included)
Note: Hospitalized patient numbers may differ from MHD/DHSS due to several factors such as timing of admission or exit of acute inpatients.

VENTILATOR AVAILABILITY SUMMARY

Available Ventilators by Type		
VENTILATOR TYPE	AVAILABLE	TOTAL
Adult Only	552	835
Adult/Pediatric	937	1,487
Pediatric	38	85

Hospitals Reporting 129 of 154
Source: EMResource (hospitals with data > 3 days old is not included)

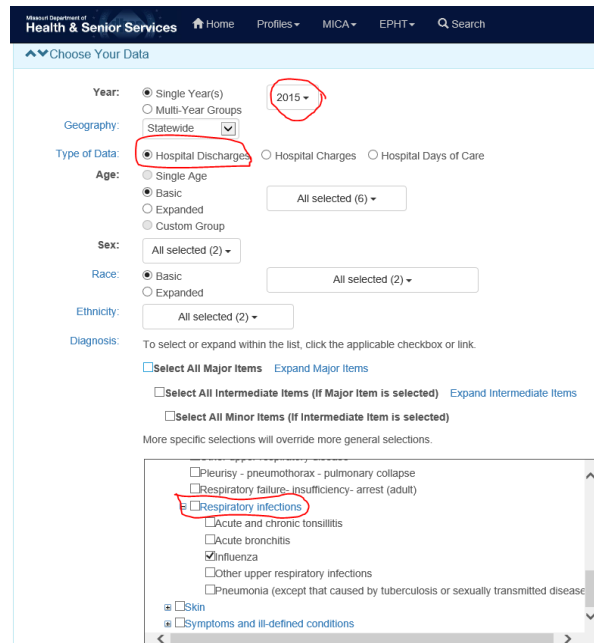
REPORTED POSITIVE COVID-19 CASE TREND

NOTES:

- Data sourced from EMResource daily at 10 a.m.
- DHSS targets the publication of daily COVID case counts at approximately 2 p.m.
- Every effort has been made to ensure the accuracy of this data. The number of available beds is based on hospital reports and will increase or decrease based on current utilization and as hospitals bring on additional bed capacity.

In the future, coronavirus mortality and morbidity data for Missouri residents will be available in the MOPHIMS system, likely as a Profile indicator, or as part of the MICA tools. For someone that is interested in knowing the total number of hospital discharges, or total dollar amount charged, or even the average number of days a patient was hospitalized, Inpatient Hospitalizations MICA would be a great place to go.

If you're unfamiliar with the system, we've included example showing how you can look up a similar respiratory infection disease from the [Inpatient Hospitalization MICA](#). Let's say we are interested in knowing how many Missouri residents were hospitalized in 2015 due to Influenza.



By leaving the defaults set on the top part of the Choose Your Data screen, then expanding the Respiratory Infections Diagnosis and clicking Influenza, we see that there were a total of **1,571** inpatient discharges statewide in 2015, with an age-adjusted rate of 2.27 discharges per 10,000 population.

Title: Missouri Resident Inpatient Hospitalizations		
Data selected in addition to rows and columns below:		
Type of Data: Hospital Discharges; Diagnosis: Respiratory (throat and lung); Respiratory infections: Influenza;		
Year:	2015	2015
Statistics:	Count	Rate
Statewide		
Missouri	1,571	2.27
Rate: Inpatient hospitalization rates are annualized per 10,000 residents and are age adjusted to the U.S. 2000 standard population.		
Source: DHSS - MOPHIMS - Inpatient Hospitalization MICA		
Generated On: 4/15/2020 4:41:58 PM		

You can also look up the total dollar amount charged towards Influenza patients in 2015 by going back up to the Choose Your Data section and choosing Hospital Charges for the Type of Data? **\$41,223,495.00** was charged to Missourians for influenza hospitalizations in 2015.

Finally you can check how many days of care went towards treating Influenza patients in 2015- **6,924** days. If you were interested in the average number of days an influenza patient spent at the hospital, you would simply divide the total number of days of care by the total number of discharges (6,964/1,571). On average, an Influenza patient spent 4.4 days at the hospital in 2015.

These are all metrics that could be useful when tracking a novel event (like the current COVID-19 pandemic) or when planning for annual trends, like those seen related to influenza.

Title: Missouri Resident Inpatient Hospitalizations		
Data selected in addition to rows and columns below:		
Type of Data: Hospital Days of Care; Diagnosis: Respiratory (throat and lung); Respiratory infections: Influenza;		
Year:	2015	
Statistics:	Days of Care	
Statewide		
Missouri	6,924	

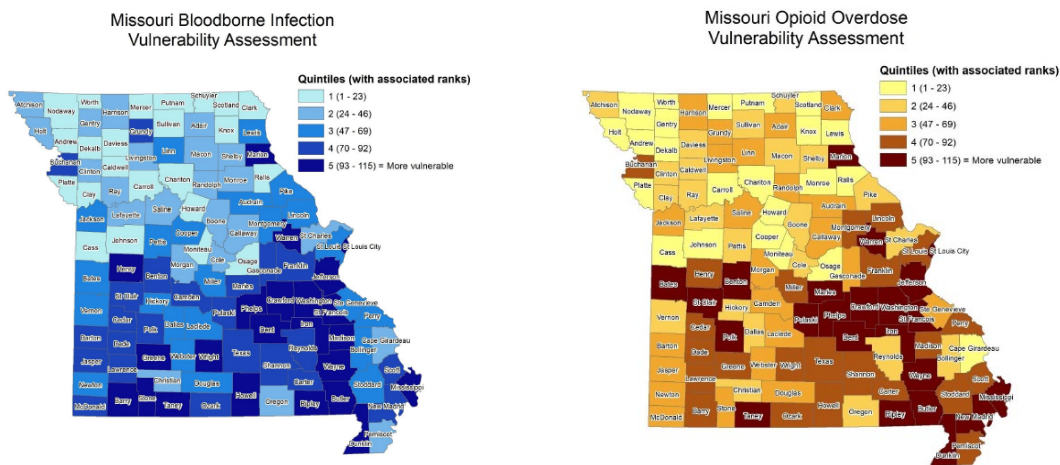


Opioid Overdose and Bloodborne Infection Vulnerability Assessments and Plan

This is Becca Mickels from the Bureau of Reportable Disease Informatics (BRDI). Long-time readers may recall that I used to work on the BHCADD team and was often the one sending you these newsletters. A perk of my new role is that I still get to work with my BHCADD friends on various projects. One of these projects has been the development of the opioid overdose and bloodborne infection vulnerability assessments and related plan. These were completed under an opioid crisis supplemental grant from the CDC.

This grant required Missouri to develop a methodology that ranks each county's risk for these two conditions. In order to accomplish this mission, BRDI brought together data rock stars from various units as well as rock stars from the related subject areas to develop a methodology that uses data from a variety of sources. A draft version of the assessments report was shared with local partners at six meetings across the state. After local feedback was incorporated, the results were published on the DHSS website at <https://health.mo.gov/data/opioids/assessments.php>.

The assessments identified a wide variety of counties as vulnerable to these conditions, from extremely rural counties to the metropolitan St. Louis City. Most of the identified counties are located in the southern part of the state but a couple (Marion and Warren) are found in the northern half. Many of these counties face socioeconomic challenges such as high poverty and unemployment rates, but some ranked well on those indicators, showing that these conditions impact a broad range of individuals.



If your county was not identified in the assessments as more vulnerable to these conditions, does that mean there is no problem in your area? Definitely not. DHSS recognizes that all counties in Missouri are impacted by these issues, and this is supported by national data. For 2016 and 2017, Missouri's overdose death rate of 22.4 per 100,000 population exceeded the national rate (which includes Washington, D.C.) of 20.6, ranking Missouri at 21st among these jurisdictions. For this reason, the project team included data for all 115 counties, along with a section on data sources, in the report so that each jurisdiction can use the findings to better target services in their communities.

Missouri Bloodborne Infection Vulnerability Assessment Indicators: Counts and Rates

Bloodborne Infection Vulnerability Assessment Indicators																			
County	Individual Outcomes										Community Factors								
	Count: Drug OD Deaths by Residence County	Rate: Drug OD Deaths by Residence County	Count: Drug OD Deaths by County of Record	Rate: Drug OD Deaths by County of Record	Count: HIV, HBV, HCV	Rate: HIV, HBV, HCV	Count: HCV Among Ages 18 to 40	Rate: HCV Among Ages 18 to 40	Count: Opioid Misuse ER Visits	Rate: Opioid Misuse ER Visits	Count: IDU Among SUDT Recipients	Rate: IDU Among SUDT Recipients	Count: Drug-related Arrests	Rate: Drug-related Arrests	Lack of a High School Education	Median Income	Poverty	Unemployment	Uninsured
Adair	13	17.1	11	14.5	31	40.7	13	39.4	30	0.39	46	181.3	169	666.0	9.5	\$38,750	26.2	5.5	8.0
Andrew	7	13.4	7	13.4	34	65.1	11	81.1	24	0.46	0	0.0	110	626.6	8.7	\$56,658	9.0	4.2	7.0
Atchison		18.9		18.9	8	50.4		27.4	8	0.50	0	0.0	80	1,516.6	10.4	\$45,259	12.1	4.1	10.7
Audrain		3.9	6	7.7	39	50.2	46	202.2	47	0.60	33	128.7	196	764.4	15.3	\$44,056	16.7	7.4	11.4

However, as Andy likes to say – “That’s not all!” The CDC grant also required Missouri to develop a plan with recommendations for using the vulnerability assessments’ findings to better target services to reduce risk of overdoses and bloodborne infections spread through nonsterile drug injection. The DHSS team incorporated feedback from stakeholders at the six local meetings and also offered outreach calls to each county identified as more vulnerable to ask about the activities they have already implemented and the types of projects they might like to undertake. The resulting plan includes a long list of potential local activities grouped around various themes and describes several new projects underway at DHSS. BRDI has also developed two profiles for each Missouri county. One profile contains additional data on overdoses and bloodborne infections, while the other provides lists of available resources related to these two conditions. (As of the writing of this article, the profiles have not yet been published. BRDI has encountered some delays in finalizing them due to COVID-19. Hopefully they will be published before this issue of the newsletter is actually distributed.)

I would encourage you to visit <https://health.mo.gov/data/opioids/assessments.php> and check out these new resources if you have not yet had a chance to do so. Any feedback you have would be appreciated and can be sent to me at Becca.Mickels@health.mo.gov. BRDI is considering updating the assessments sometime in the next couple of years and wants to make sure the resources are meaningful and useful to our partners.

Thanks, BHCADD, for the opportunity to share this update on our collective hard work!



Data Updates

Nearly all of our MICAs and Profiles have been updated with the most recent data available. Just a reminder that while the hospital-based datasets aren’t being updated online, yet we do have data through 2017 available upon request. The same is true of 2018 BRFSS survey data. Just reach out and we’ll get you the info that you need!

MICA	Most Recent Data Year Available	MICA	Most Recent Data Year Available
Birth MICA	2018	Population MICA	2018
Cancer Incidence MICA	2016	Pregnancy MICA	2018
Chronic Disease Death MICA	2018	Preventable Hospitalization MICA	2015

MICA	Most Recent Data Year Available	MICA	Most Recent Data Year Available
Chronic Disease Emergency Room MICA	2015	Procedures MICA	2015
Chronic Disease Inpatient Hospitalization MICA	2015	WIC Prenatal MICA	2018
Death MICA	2018	WIC Postpartum MICA	2018
Emergency Room MICA	2015	WIC Linked Prenatal – Postpartum MICA	2018
Fertility and Pregnancy Rate MICA	2018	WIC Infant MICA	2018
Injury MICA	2015	WIC Child MICA	2018
Inpatient Hospitalizations MICA	2015		



Crisis Data- Population MICA

Population data is often an important source of data that comes into play for public health strategies during emergencies, such as the COVID-19 pandemic. Knowing not just how many people are at risk, but also the demographic details of the individuals such as age and race, are crucially important in planning and distributing resources. For public health officials in Missouri in need of population data, the [Population MICA](#) has a wealth of data available for use.

The Population MICA provides population data from 1999 through 2018. For that time period, you can see population counts for each year individually, or select multiple years to spot population trends. With Population MICA, you can choose to see the data on a statewide, regional, or county level. However, for the zip code and census tract selections, the available years are limited to census years of 2010 and 2000.

As we've discovered with COVID-19, knowing the demographic details of your population is just as important as the population number itself. For example, it is known [that COVID-19 is more dangerous to our senior population](#). An area who has mostly young people, like college campuses, will have different experiences dealing with COVID-19 than an area that has an abundance of senior citizens, such as retirement communities and nursing homes. The Population MICA

gives you the ability to break down the data by age groups with varying levels of granularity. As the screen capture shows, single year of age data is available. In addition, the Population MICA can also separate the data by other demographic categories, such as by race, gender, and ethnicity.

As you can see, the Population MICA is a very helpful tool in understanding the basic population demographics in your respective communities, not just in responding to the COVID-19 pandemic, but in planning or responding to other public health concerns, as well. Every area is faced with their own unique health challenges, and having timely, local data available helps make the response to those challenges more effective. We hope that you are able to put the Population MICA to good use, and if you have any questions please do not hesitate to contact the MOPHIMS team here at MODHSS.



Q & A

I'm interested in finding out what the capacity of my local hospital might be. Is there anywhere in the MOPHIMS system where I can access that sort of information?

Yes! Though a little bit outdated (look for 2018 data this summer!), the [Hospital Revenues Profile](#) provides revenue, expense, and other financial information in addition to some utilization statistics. The MOPHIMS team receives this data from the Missouri Hospital Association annually, and most hospitals in the state participate in the annual survey where much of the information featured is reported.

Information is sorted by county and then by facility. In this screen capture, you can see we've selected Cox Medical Center Branson, which is in Taney County. The most recent four years of data is available, so users can analyze trends from the recent past. In the *Balance Sheets* section, users can see that current assets at this facility seem to be fluctuating, but current liabilities appear to have decreased greatly.

Missouri Department of Health & Senior Services Home Profiles MICA EPHT Search Sign Up Login

Missouri Resident Hospital Revenues Profile [Print Profile](#)

Choose Your Profile Data

County: Hospital Name: [Submit](#)

County: Taney County

Balance Sheets

	2014	2015	2016	2017
Current Assets	61,218,446.00	71,519,846.00	60,028,911.00	73,288,119.00
Fixed Assets	96,446,284.00	102,375,481.00	101,090,488.00	96,897,180.00
Other Assets	38,220,480.00	29,955,566.00	35,080,250.00	38,506,013.00
Total Assets	195,885,210.00	203,850,893.00	196,199,649.00	208,691,312.00
Current Liabilities	31,882,865.00	29,121,791.00	14,795,496.00	13,975,561.00
Long Term Liabilities	71,228,844.00	69,251,504.00	67,306,681.00	65,742,337.00
Fund Balance	92,773,501.00	105,477,598.00	114,097,472.00	128,973,414.00
Total Liabilities and Fund Balance	195,885,210.00	203,850,893.00	196,199,649.00	208,691,312.00

Users might also be interested in the number of licensed beds in a facility, the occupation percentage, or the average length of stay for patients who are admitted. All of this information is available in the last section of the Profile, *Selected Utilization Statistics*. At Cox Regional Medical Center in Branson, there are over 150 licensed beds available, which are occupied roughly 50% of the time. The past several years have generated more than 6,500 discharges from this facility, with an average length of stay between four and five days.

Selected Utilization Statistics

	2014	2015	2016	2017
Licensed Beds	165.00	151.00	157.00	157.00
Inpatient Days	24,686.00	28,031.00	29,401.00	30,159.00
Discharges	5,840.00	6,540.00	6,657.00	6,548.00
Average Length of Stay	4.22	4.28	4.41	4.60
Occupancy	40.99	50.86	51.31	52.63

On March 30, 2012 Updated name from Skaggs Community Health Center to Skaggs Regional Medical Center.

How might you use this information in your public health practice?



Practice Exercise

During times of public health crisis, it is sometimes calming to reflect on some of the great strides made in population health in our recent past. [Birth MICA](#) is a treasure trove of data, with information spanning nearly 30 years (1990-2018). Let's celebrate some of the successes seen in health behaviors and trends of mommas and babies in Missouri.

1.
 - a. How many women reported smoking during pregnancy, statewide, in 1990? _____
 - b. What was the associated rate for this indicator? _____
 - c. How many women reporting smoking during pregnancy, statewide, in 2018? _____
 - d. What was the associated rate for the 2018 count? _____
 - e. Calculate the percent change in overall smoking rates during pregnancy for Missourians during this time interval. _____
 - f. Write a paragraph describing the trends in smoking during pregnancy for Missouri moms.

2.
 - a. Which Missouri county had the highest rate of low birth weight babies born in 2017-2018? _____
 - b. Which county had the lowest rate? _____
 - c. How have the rates for those counties each changed in the past decade?
 - d. Create a data visualization in MOPHIMS that shows geographical, time-sensitive, OR demographic trends related to low birth weight statistics.



About the MOPHIMS User Newsletter Group

The MOPHIMS 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 semi-annual basis. If you have ideas for content, please send them to Andrew.Hunter@health.mo.gov or Whitney.Coffey@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.

Past issues are available at <http://health.mo.gov/data/mica/MICA/newsletters.html>.

Contributors: Andy Hunter, Whitney Coffey, Jeremy Rowles, Teresia Owusu, James Owen, and Becca Mickels



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 email to MOPHIMSUserGroup@health.mo.gov with the subject line MOPHIMS 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 MOPHIMS 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 MOPHIMS User Group, please send an e-mail with Unsubscribe in the subject line to MOPHIMSUserGroup@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 MOPHIMS User Group.

Contact Information

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