The importance of good health and infrastructure to support it are more evident than ever. In this light, we take a moment to review the steady progress made in Missouri over the last several years to prevent and treat obesity.

COVID 19 Reinforces Need for Obesity Prevention and Treatment

COVID-19 has resulted in unprecedented health, social and economic changes around the world. During these times, priorities shift to containing the virus and curtailing its devastation. We continue our diligence on safety and health measures to assure continued decreases in COVID 19 incidence and recovery from its impact on all fronts.

Obesity may be one of the most important predictors of severe coronavirus illness based on emerging reports and studies from around the world. The impact of increased risk of complications due to obesity was also seen during the H1N1 influenza in 2009-2010. Dietz' points out that “although the effects of COVID-19 on patients with obesity have not yet been well described, the H1N1 influenza experience should serve as a caution for the care of patients with obesity and particularly patients with severe obesity.” He notes that the prevalence of adult obesity in 2017-2018 is significantly greater than 2009-2010. (See page 5 for Missouri adult obesity rates). He suggests that the proportion of patients with obesity and COVID-19 infections will increase compared with the H1N1 experience and will more likely have a severe course in such patients. This underscores the importance of vigilance, COVID-19 detection and testing, and aggressive therapy for patients with obesity and COVID-19 infections.

Partners Align Efforts for Prevention and Treatment of Childhood Obesity

Missouri partners continue to make impressive gains to advance their comprehensive approaches for children’s health and well-being. This newsletter details progress during the last year and opportunities for involvement to increase the proportion of children at a healthy weight. These efforts reflect the continued headway on statewide recommendations made in 2015 to the Missouri Services Commission (page 6).

Obesity remains one of the most common health problems for Missouri’s children and adults. Fortunately, rates are declining in children:

- Among 2- to 4-year-olds enrolled in WIC from 2010 to 2016, the rate of obesity dropped from 14.4% to 12.3%
- Among 10 to 17-year-old youth, the obesity rate dropped from 14% in 2016 to 12.5% in 2017-18, ranking Missouri 37 out of 51 for this age group among all states and the District of Columbia.

Alarmingly, Missouri’s adult obesity rate trend shows no improvement. The 2018 rate was 35%, up from 30.2% in 2014, and 11.3% in 1990. This results in an unenviable Missouri ranking of 9 out 51. Continued efforts to prevent and treat childhood obesity are warranted as evidence has shown that teens are highly likely to carry obesity into adulthood.


2 http://stateofobesity.org/states/mo/

Missouri Values Quality Child Care

In 2019, Governor Parson created the Child Care Working Group to support his priority for a future-ready workforce. This group hosted a public comment session and compiled and published recommendations on how to ensure safety and quality child care in Missouri. A well-coordinated, aligned and data-focused early childhood care and education system that ensures quality, access, and efficiency is an essential element of this vision. Investing in this system is a key to attracting new business and skilled workers.

Coaching services began in 2019 by Child Care Aware of Missouri, local public health and local extension professionals to assist childcare providers with integrating nutrition and physical activity standards into facilities’ practices. Currently, 36 child care providers have enrolled in the nutrition and physical activity coaching program, impacting more than 6,000 children.

In addition to the coaching program, DHSS launched the revised MOVE Smart program. This recognizes childcare providers who implement practices and policies that support physical activity for the children in their care. For more information contact Sarah Young: sarah.young@health.mo.gov

Other Child Care Provider Supports

- Licensing and Regulation oversees child care standards and licensing in Missouri https://health.mo.gov/safety/childcare/index.php
- Quarterly Healthy Child Care News https://health.mo.gov/safety/childcare/newsletters.php
- The Child and Adult Care Food Program (CACFP) provides reimbursement for nutritious meals and snacks served to children enrolled in child care facilities. CACFP also provides training and technical assistance on nutrition, food service operations, and program management. https://health.mo.gov/living/wellness/nutrition/foodprograms/cacfp/index.php
- Missouri Breastfeeding Friendly Child Care recognizes child care providers that provide support to their breastfeeding families and employees. More information on requirements: https://health.mo.gov/living/wellness/nutrition/breastfeedingfriendlychildcare/application.php
- MU Extension Family-Style Meals in Child Care 2019 This 2-hour, self-paced training course focuses on the knowledge and skills needed to make meals and snacks an enjoyable part of the day. Successful completion of the course awards two child care clock-hours. http://extension.missouri.edu/hes/familystylemeals.htm

On another note, collective efforts continue to build to address priority child care health and wellness practices and standards. The Missouri Department of Health and Senior Services (DHSS) and University of Missouri-Extension, with funding from a CDC Cooperative Agreement, forged a contract with the University of North Carolina. This partnership trains trainers of child care providers to increase the number of early childhood educators meeting nutrition and physical activity standards. DHSS, in partnership with the Missouri Council for Activity and Nutrition (MOCAN) Childcare Workgroup, is focusing on best approaches to embed nutrition and physical activity into state systems and increase the number of childcare facilities that adopt these standards.

School Health Makes Gains and Adds New Leadership

A priority for schools is reducing how often students are absent, experience behavioral problems, and achieve higher school-wide test scores and grades. Health is a key variable to achieving those outcomes. The Missouri Department of Elementary and Secondary Education (DESE) has worked hard this past year to equip schools with the necessary evidence-based strategies, tools, and training to implement coordinated actions that promote healthy behaviors and create a healthy school environment. DESE facilitates collaboration between the school, students, parents and community partners to help students stay healthy.

In June 2019, DESE Missouri Healthy Schools collaborated with the Missouri Society of Health and Physical Education (MOSHAPE) to develop a K-12 Model Curriculum Framework and Curriculum Units of Instruction aligned to national and state standards and health behavior outcomes. In collaboration with state partners more than 20 trainings have been conducted at the state, regional and local level during the 2019-20 school year, reaching more than 500 administrators, teachers, and other staff. Web-based resources have been developed for all school staff that include Opioid Education and Physical Activity in the Classroom (Brain energizers and Mindful Movement).

In December 2019, Sean Nevills was hired as the DESE Director of Health and Physical Education. In this new role he coordinates with the Office of Missouri Healthy Schools to plan and offer professional development and training and technical assistance to school districts around the state.

The goal of this work is to improve school climates and enhance Quality Health and Physical Education programming.

Nevills, who was previously with Springfield Public Schools, is working toward a doctorate in educational leadership and policy analysis at the University of Missouri-Columbia. He earned a bachelor’s degree in physical education and a master’s degree in sports management from Missouri State University.

For more information and resources contact:
Sean Nevills, Director
Health and Physical Education in Missouri
sean.nevills@dese.mo.gov
https://dese.mo.gov/college-career-readiness/curriculum/health-physical-education-school-wellness
Health Care Professionals Participate in Pilot Training Programs

Enhanced training opportunities to prepare the workforce to deliver obesity treatment services were piloted over the past two years. Children’s Mercy, in collaboration with Washington University, completed these efforts in July 2019, supported by funding from the Health Forward Foundation.

Collectively, the project reached approximately 5,000 medical, behavioral health and dietetic providers through statewide and KC regional recruitment efforts. A total of 146 health care professionals from various settings including safety net clinics and pediatric primary care groups completed trainings. While participation was primarily from the Kansas City area, there were attendees from across the state.

Outcomes for this multi-year pilot included:

- Developed curriculum and resources and delivered five 2-hour training sessions that reached 63 medical providers on obesity assessments and referrals for treatments.
- Completed seven presentations reaching approximately 300 medical providers at various meetings.
- Developed and delivered three 2-hour trainings to 60 registered dietitians to provide the medical nutrition therapy (MNT) component of obesity treatment in concert with the health care team.
- Developed and delivered two 2-day trainings to 23 participants that were primarily behavioral interventionists to provide family-based behavioral treatment (FBT).
- A health care advisory group was convened and provided input on best approaches for this training pilot. Recommendations on how to expand and continue these trainings for a statewide reach were compiled.

Contact Sarah Hampl, MD, shampl@cmh.edu for information about future training plans.

Providers Reported More Children with Obesity

Analysis of 2016 and 2017 Medicaid claims data shows improvement in reporting obesity diagnoses. This data serves as a baseline for evaluating the uptake of obesity treatment in future years. The 2016 data, from the year prior to the pilot project activity, revealed an under-diagnosis of the condition. Only 2.6 percent of all claims for children reported obesity, compared to an expected national rate of 18.5 percent.

<table>
<thead>
<tr>
<th>Missouri Medicaid Claims Data</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of unique children</td>
<td>519,361</td>
<td>551,119</td>
</tr>
<tr>
<td>% Claims w/Obesity Diagnosis</td>
<td>2.6%</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

### Obesity rates for different ages/race/ethnic groups

<table>
<thead>
<tr>
<th>Age / Race/Ethnic Group</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-4 years old</td>
<td>3.2%</td>
<td>2.3%</td>
</tr>
<tr>
<td>5-11 years old</td>
<td>4.3%</td>
<td>4.7%</td>
</tr>
<tr>
<td>12-19 years old</td>
<td>7.3%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Hispanic children</td>
<td>7.6%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Non-Hispanic children</td>
<td>5.2%</td>
<td>5.9%</td>
</tr>
<tr>
<td>African American children</td>
<td>6.1%</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

The 2017 data revealed that—while still underreported—the number of claims with an obesity or related complication was slightly higher compared to the prior year. The obesity rate is higher among older children and Hispanic children. The most common related diagnoses were hypertension, followed by disorders of glucose and lipid metabolism.

This data underscores the current challenge for medical providers to report a disease for which there is limited treatment options. It reinforces the need to enhance capacity to recognize the impact of this disease and assure viable, needed and reimbursable treatment options to address this health concern.

---

5 Sarah Hampl, Children’s Mercy and Jill Lucht, Center for Health Policy, University of Missouri-Columbia. 10/2019

Proposed Rules Pending for Treatment Coverage

The State’s Medicaid agency, the Mo HealthNet Division (MHD) promulgated and published rules to expand obesity treatment options in the Missouri Register on September 4, 2018. However, they were withdrawn in early 2019 to allow time for MHD to make system changes to accommodate expanded coverage. MHD anticipates refiling the proposed rules in 2020 with activation at the beginning of 2021.

The Medicaid budget growth has prompted a thorough review of factors contributing to that growth and steps to rein in further projected increases. Missouri partners continue to advocate for this rule to expand coverage for obesity treatment, given the short- and long-term health value and cost savings determined through MHD’s fiscal analysis.

CDC Awards Missouri Team 5-year Research Demonstration Project

Under the leadership of Washington University, a comprehensive proposal, “Packaging and Spreading Proven Pediatric Weight Management Interventions for Use by Low-Income Families” was one of five projects funded by the Centers for Disease Control (CDC) for April 2019 to 2024.

The Childhood Obesity Research Demonstration 3.0 (CORD) project will adapt, test, and package effective programs to reduce childhood obesity among children from lower-income families.7 In addition, CORD 3.0 projects will work towards programs that are sustainable and cost-effective in multiple settings.

The project builds on Dr. Denise Wilfley’s extensive research on family-based behavioral treatment (FBT) for obesity and Missouri’s pilot training project. The Missouri CORD project will focus on children and their families from both urban (Kansas City-Children’s Mercy) and rural (Joplin-Freeman Health System) areas for the first two years. Thereafter the emphasis will be on dissemination on a state and national basis.

CORD 3.0 has potential to reduce childhood obesity by increasing the availability of effective pediatric weight management interventions for millions of children from lower-income families.

---

7 https://www.cdc.gov/obesity/strategies/healthcare/cord3.html

While improvements are seen in children, alarmingly, Missouri’s adult obesity rate trend shows no improvement. The 2018 rate was 35% up from 30.2% in 2014 and 11.3% in 1990.
Focus on Treatment- Missouri Milestones 2015-2025

Policy Actions to Improve Children’s Health
Subcommittee’s Original Recommendations to Missouri Children’s Service Commission

1. Update child care licensing rules on feeding practices, nutrition, physical activity and screen time. Assure training and support services for childcare providers to meet new standards.

2. Establish an Office of Student Wellness to maintain expectations for health and physical education curricula. Modify school accreditation by including a voluntary health and wellness component. Provide support to schools to implement best practices and school wellness policies.

3. Reimburse licensed professionals with specialized training to provide family-centered evidence-based multicomponent weight reduction programs through Medicaid.

4. Establish Centers of Excellence to provide and improve access to evidence-based weight management services, build community-based capacity for treatment and prevention, and evolve prevention and treatment approaches.

5. Establish a commission to oversee implementation, study effectiveness and provide a forum for education and future actions.

Childhood Obesity Subcommittee Recommendations to MO Children Services Commission, 2015
Healthy Weight Advisory Committee Evolves Oversight

During 2019 MOCAN further delineated advisory functions related to the obesity prevention and treatment recommendations within the Healthy Weight Advisory Committee’s (HWAC). The long-term goal was created to improve collaborative actions by providing expertise and advice to advance and monitor sustainable, evidence-based strategies for increasing the number of children at a healthy weight in Missouri.

Obesity is a complex medical, social and environmental problem that requires this statewide collaboration with diverse representatives. Key functions of HWAC include:

- *Planning* to determine priorities, measurable goals, and implementation plans that are updated periodically.
- *Resource attainment* to align and build on existing resources and attain additional funds to achieve priority objectives.
- *Evaluation* to determine impact of actions implemented.
- *Communications* to assure MOCAN members and other interested parties are regularly updated concerning progress and opportunities.

All interested parties are welcome to join as members and participate in monthly meetings. The committee is chaired by Lisa Nelson, Freeman Health System, LCNelson@freemanhealth.com, and co-chaired by Angela Lima, Washington University, angeladlima@wustl.edu. To learn more, you can access the HWAC overview and plan online: https://extension2.missouri.edu/programs/mocan/mocan-hwac.

Groundwork Continues to Plan for Regional Centers

Regional centers to support obesity prevention and treatment at the community level were prioritized in the 2014 Subcommittee Report. To inform plans to create Regional Centers, HWAC members have interviewed key personnel from several of Missouri’s seven autism centers. These centers have been a significant source of support for health care providers serving families affected by autism and other neurodevelopmental disorders. They provide expert diagnostics, evidence-based clinical care, groundbreaking research, and compassionate support for families and training opportunities for health care providers throughout the state.

There are striking similarities between autism and obesity that reinforce these efforts, namely:

- Chronic and stigmatizing conditions
- Complex etiology
- Multi-faceted approach required for prevention and treatment service delivery, which cuts across care and community settings.
- Growing public awareness of unmet needs of children and families
- Effective behavioral treatments
- Family involvement is critical
- Early intervention as a best practice, but children are often not identified in a timely way
- Inadequate number of providers equipped to deliver evidence-based treatment
- Readiness for systems change through collaborative partnerships

Insights being gleaned from these interviews will help HWAC inform best approaches to plan for Regional Centers based at locations throughout the state with the capacity to support training, clinical care, research, and evaluation efforts for obesity prevention and treatment activities.
**Share the Story**

Considerable efforts have been invested to communicate statewide work around children with obesity in a consistent and informative manner. Coordinated communication improves understanding and support for obesity prevention and treatment.

In 2018, the Health Communications Research Center at University of Missouri-Columbia’s School of Journalism compiled a resource toolkit, a webinar on communication tactics with health care providers, and a session for communication tactics with policy makers.

In collaboration with UMKC School of Nursing and Health Studies faculty, additional research was done in 2019. Over 60% of Missouri legislators were surveyed to better understand their message preferences. These insights were shared at MOCAN’s January 2020 MOCAN meeting.

Those sharing this important work can access these resources on MOCAN’s website. Some samples are provided below.

[http://extension.missouri.edu/mocan/childhoodobesity/actions.htm](http://extension.missouri.edu/mocan/childhoodobesity/actions.htm)

**Posts for your social media sites**

- People living with severe obesity (defined as a **body mass index** (BMI) of 40 or above) can have multiple serious chronic diseases and underlying health conditions that can increase the risk of severe illness from COVID-19.
- If body mass indices were lowered by five percent, Missouri could save eight percent in health care costs.²
- According to the National Conference of State Legislators, taxpayers fund about half of the costs of obesity, around $60 billion/year, through Medicaid and Medicare.³
- Rural children are 25 percent more likely than their urban peers to be overweight.⁴
- Rural children are more likely to be bullied than urban children and being overweight is one of the leading factors for bullying.⁵
- While prevention is key, we cannot leave behind children who are already overweight. There are new, effective treatments for childhood obesity.
  - Family-based behavioral therapy and medical nutrition therapy have been found by the US Preventive Services Task Force to be effective.
  - MO HealthNet plans to start reimbursing for these treatments in 2021.
- Family-based treatment has the added benefit of improving health outcomes for adults as well as children.
- Forward-thinking states like Missouri can lead the charge on ensuring that we have a fit and ready military to answer the call of duty. Currently 72 percent of Missourians age 17-24 are ineligible for military service—their failure to meet fitness standards is a leading cause.⁶

---

6. [Https://0.tqn.com/z/g/usgovinfo/library/PDF/unable_to_serve.pdf](https://0.tqn.com/z/g/usgovinfo/library/PDF/unable_to_serve.pdf)