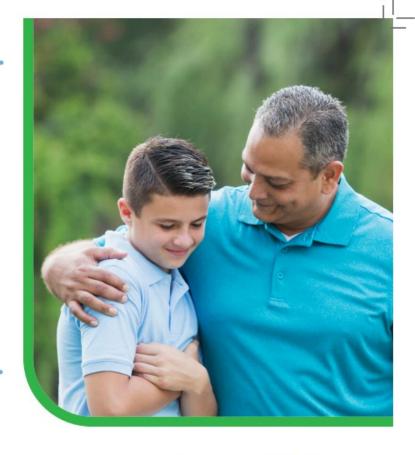
## Safe Storage: **Our Seatbelt** for the 21st Century

Shayla Sullivant, MD



EXPERTS EDITION





Are you ready for the teen years? Be ready with our new FREE parenting video series, specifically for caregivers raising teens.

#### **LEARN TIPS FOR:**

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Plus! Get a free safety toolkit mailed to you!\*

Warning! Steep

#### **Objectives:**

- Review the state of mental health for youth today
- Discuss how the Fab 5 can help us in difficult times
- Identify why exercise and protected time for sleep are beneficial
- Review how safe storage has saved lives
- Review initial outcomes of Prepped and Ready
- Share how Prepped and Ready: Experts Edition is available now for our community

JAMA Pediatrics | Original Investigation

Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents During COVID-19 A Meta-analysis

Nicole Racine, PhD, RPsych; Brae Anne McArthur, PhD, RPsych; Jessica E. Cooke, MSc; Rachel Eirich, BA; Jenney Zhu, BA; Sheri Madigan, PhD, RPsych

- Meta-analysis looking at global studies of depression and anxiety symptoms in youth during COVID-19
- One of four youth experience depression
- One of five youth experience anxiety
- Rates are double pre-pandemic levels
- Symptoms are higher in girls and later in the pandemic

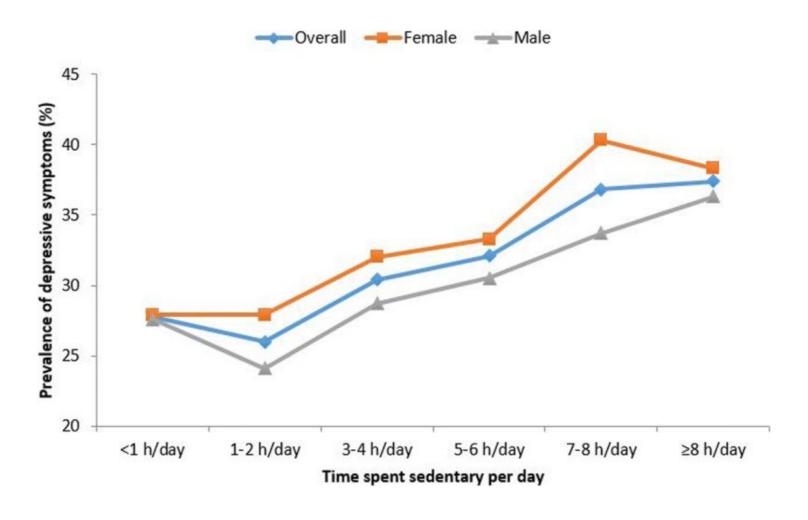






- 1 hour of physical activity
- 2 hours of screen time
- 3 servings of milk or yogurt
- 4 servings of water
- 5 servings of fruits and vegetables

# Spending >3 hours per day sedentary increased odds of depressive symptoms by 20% (Vancampfort et al, 2018)



# Exercise: effect on depression in adolescents

- Review and meta-analysis of 11 trials
- Exercise showed significant overall effect size on depression symptom reduction
- Group-based activity, light-to-moderate intensity
- Frequency: Three sessions per week, 6-12 weeks
- Can help both moderate and severe depression symptoms
- Need additional trials to clarify firmer clinical recommendations and firm up the dose-response relationship

(Carter, et al, 2016)







Health Advisory: Healthy Sleep for Children and Teens During a
Pandemic

#### **AASM** suggestions during pandemic:

- School age children need 9-12, Teens 8-10 hours
- Get enough sleep
- Set routine schedule
- Protect sleep time: minimize screens before bed, limit access during sleep time
- Ensure regular schedule for activities/exercise, preferring outdoor time
- Maintain regular meal times, promote healthy diet



#### The Wichita Cagle

POLITICS & GOVERNMENT

Kansas youth suicide increased by 50 percent in one year, report says

Johnson County's youth suicide rate fell 33% during the pandemic last year — what could be behind that

HEALTH

Why Is The Risk Of Youth Suicide Higher In Rural Areas?

March 15, 2015 · 5:15 PM ET Heard on All Things Considered

GUN VIOLENCE IN MISSOURI

A teen's death by suicide with her father's gun divides a small Missouri town

BY KAITLIN WASHBURN

UPDATED SEPTEMBER 21, 2021 3:10 PM



Health

The Latest Data Show **Youth Suicides Continue** To Rise In Missouri And Kansas

KCUR | By Kelsey Ryan Published February 27, 2019 at 3:05 PM CST







#### Missouri is facing a pediatric behavioral health crisis



**Percent** increase in suicide death rates for youth 10-24 years old, by state (Curtin, 2020)

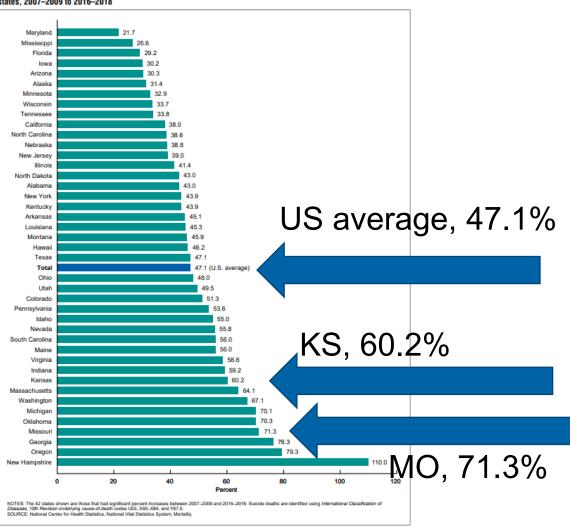


Figure 1. Percent increase in suicide death rates among persons aged 10–24 years: United States and selected states, 2007–2009 to 2016–2018

## What can we do to prevent youth suicides?

Means restriction is one of the most evidence-based interventions to prevent suicide deaths (Mann, 2020)





### Safe Storage









### Many crisis are short-lived

- Less than 10 minutes is the time between decision and action for 47% in a study of individuals who attempted suicide (Deisenhammer EA, et al, 2009)
- This tells us that impulsivity plays a critical role: if methods are not available, the attempt may not happen
- Limiting access to methods is vastly underutilized

#### Firearm Access and Suicides

- Greater than 80% of firearm suicides among youth involve a gun found at home (Grossman et al, 2005)
- Suicides with a firearm increased 60% among youth between 2007-2014
- Only 18% of youth who died by suicide with a firearm were getting mental health treatment when they died
- Approximately 60% of suicides were completed with a handgun (Fowler et al, 2017)

### First attempts are hugely important

(McKean AJS et al, 2019)

- Retrospective study in Rochester looked at 813 youth who presented with index (first) attempts
- 29/813 (3.6%) died by suicide during the f/u period
- 20/28 (71.4%) died on their first attempt before turning 25
- Males composed only 31.7% of the cohort but the majority of suicides were males: 23/29 (79.3%)
- The vast majority of index attempts (85%) were completed with a firearm
- Of attempters, 41.2% had no history of psychiatric diagnosis



#### **Mortality Rates by Method**

#### **Most lethal**

Firearm: 89.6%

Drowning: 56.4%

Suffocation/hanging:

52.7%

Poison by gas: 30.5%

#### **Least lethal**

**Jumping: 27.5%** 

Drug ingestion: 1.9%

Non-drug poisoning:

1.1%

Cut/pierce: 0.7%

(Conner A, Azrael D, Miller M., 2019)



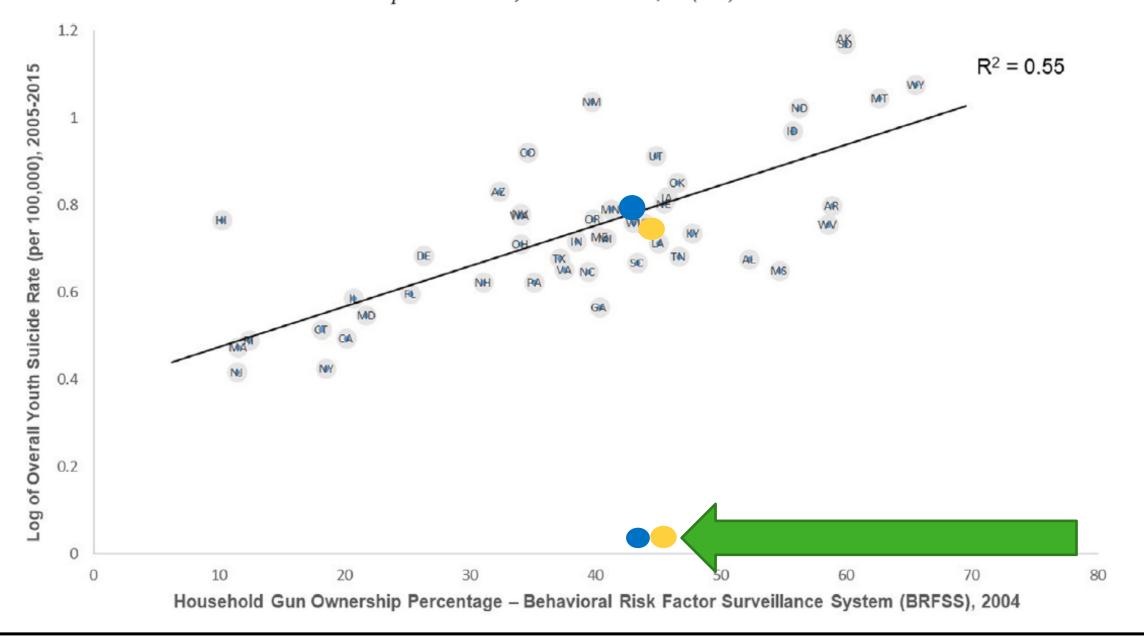


Figure 1. Relationship between household gun ownership in 2004 and log of youth suicide rate, 2005–2015.

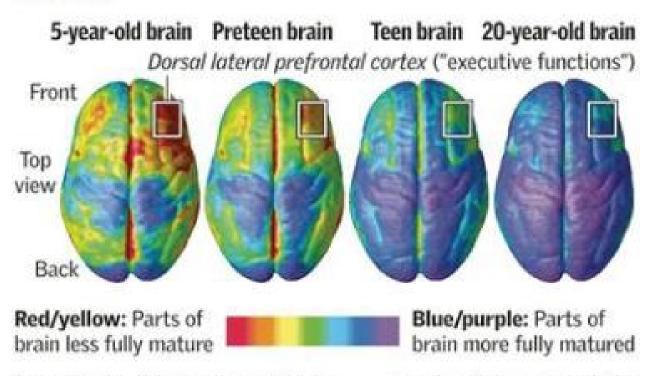
# Do families know to store firearms safely? (Scott et al, 2018)

- Families were asked about firearm storage patterns (n=3949, response rate 55%)
- Comparison between families:
  - Families without reported risk factors, compared to
  - Families where kids had depression, ADHD or another mental health condition
- Those with children who had risk factors were no more likely to store firearms safely

# Brain development continues into our mid-20's

#### Judgment last to develop

The area of the brain that controls "executive functions" — including weighing long-term consequences and controlling impulses — is among the last to fully mature. Brain development from childhood to adulthood:



Sources: National Institute of Mental Health; Paul Thompson, Ph.D., UCLA Laboratory of Neuro Imaging Thomas McKay | The Denver Post

Addressing firearm storage and adolescent brain development: low-hanging fruit?



Meeting parents in the midst of a crisis is not the best time to provide education, and it often feels too late in the process.

Prevention is needed.







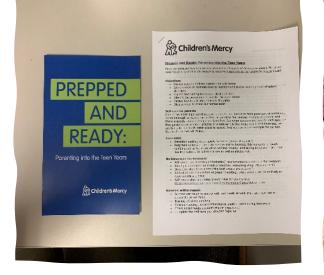
Prepped and Ready: Parenting into the Teen Years

Live, in-person presentations



### Safety Toolkit

- Lockable med storage box
- Four weekly med organizers
- Bag to dispose of old medications, dish soap
- And for firearm owners:
  - Cable gun lock
  - Locked gun box







# Participants in Prepped and Ready (2018-2019)

**N**=581 (80.9% female)

**Age**: 43% 18-44, 56% >=45 years

Race: 90% White

Education: 91% college graduate or higher

Setting: 15% urban, 79% suburban, 6% rural

Percentage reporting firearm ownership: 37.9%

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# Changes in Firearm Storage

At baseline 37.9% reported firearm ownership

The odds of storing in the safest manner (locked, unloaded, ammunition separately) increased 5.9 times

# Changes in Medication Storage:

# At baseline 96.6% reported unlocked medication

#### At final survey:

- 56.5% had disposed of medication
- 53.0% had locked up medication
- 41.5% had used medication organizers

### What do participants say?

I learned so much useful information on vaping and disposal of old meds. The presentations used wonderful lay person verbiage, making everything easy to understand.

I wish I had this information before even becoming a parent. I may have been able to prevent a suicide. I feel more prepared for my children's future.

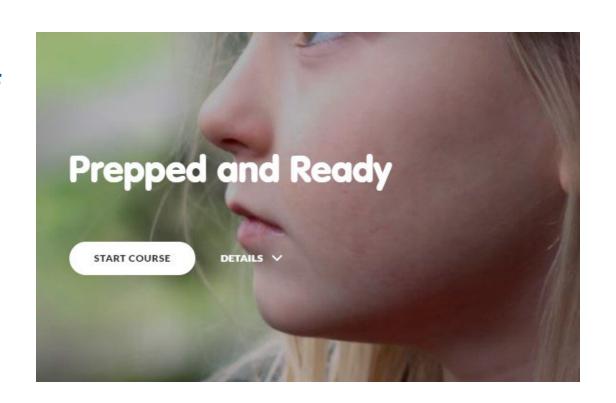
I feel like it will save kids lives and prevent the worst outcomes if you can get this information into the hands of all parents in our community.



With Covid, and the fear of Superspreader events, we turned to technology...

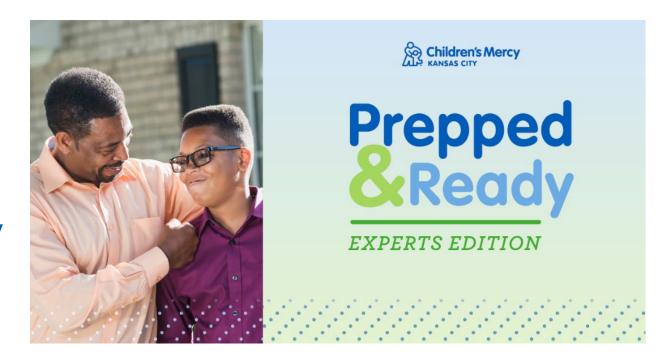
### Prepped and Ready: Experts Edition

- Free virtual videos
- Geared towards caregivers of teens
- 11 videos, 3-5 minutes each
- 45 minutes total
- Mailed toolkit after survey with research participation



#### Prepped and Ready: Experts Edition

- Goal: scale
- Reach a more diverse audience: people of color, males, people with less education, more firearm owners
- Available in Kansas & Missouri for 1,000 caregivers
- Participants mailed toolkit after survey with research participation, up to \$70 value
- Need flyers? Questions? Message us at preppedandready@cmh.edu



https://bit.ly/preppedandready

# Topics included in Prepped and Ready

- Prevention of ingestions
- Medication storage and disposal
- Eating disorders & Obesity
- Impulsivity and risk
- Firearm storage
- Asking tough questions with teens
- Speaking up



#### **Experts**

- Alvin Singh, MD Pulmonology
- Geoffrey Allen, MD Critical Care Physician and Critical Care Division Director
- Amy Beck, PhD Clinical Psychologist, Center for Children's Healthy Lifestyles & Nutrition
- Denise Dowd, MD, MPH ED Physician and Center for Childhood Safety Director
- Officer Bill Koehn Crime Prevention Officer
- Michelle Camerer, LCSW, LMSW Clinical Social Work Manager
- Shayla Sullivant, MD Child and Adolescent Psychiatrist



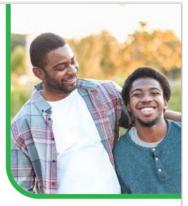
# Reaching caregivers in our region preppedandready@cmh.edu

We have a "partner toolkit" with suggested language so the info can be cut/paste easily into a newsletter or social media post

Connecting us with community leaders helps us make headway as they don't know us, but they do know and trust you!







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Video series available at cmkc.link/PreppedAndReady

\*One caregiver per household raising children under 18 years old s eligible to participate in this research study with a safety toolkit





Plus! Get a free safety toolkit mailed to you!\*





- Addressing vaping
- Preventing eating disorders

Prepped Ready

EXPERTS EDITION

Children's Mercy

- Handling tough questions
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**Prepped** & Ready **EXPERTS EDITION** 





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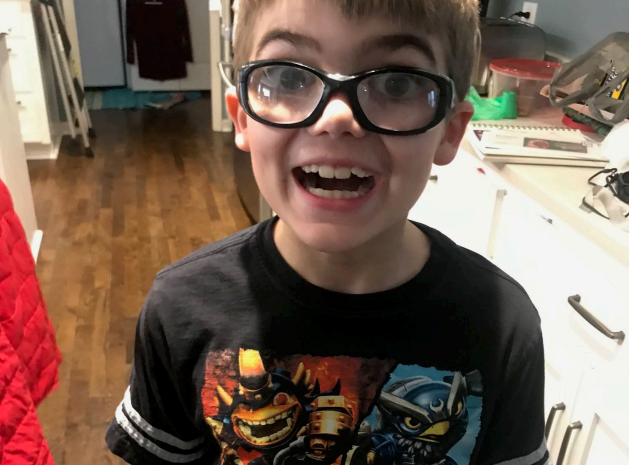
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Flyers: We are happy to mail you some! preppedandready@cmh.edu

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Do you know leaders who might be interested?

Please connect me to them!

preppedandready@cmh.edu



# Thank you! Questions?

#### References:

- Carter, T, Morres ID, Meade O, Callaghan P. The effect of exercise on depressive symptoms in adolescents: A systematic review and meta-analysis. J Am Acad Child Adolesc Psychiatry 2016;55(7):580-590.
   Keks N, Hope J, Keogh S. Switching and stopping antidepressants. *Aust Prescr*. 2016;39(3):76–83. doi:10.18773/austprescr.2016.039.
- Korczak DJ, Madigan S, Colasanto M. Children's Physical Activity and Depression: A Meta-analysis. *Pediatrics*. 2017;139(4):e20162266
- Vancampfort D, Stubbs B, Firth J, Van Damme T, Koyanagi A. Sedentary behavior and depressive symptoms among 67,077 adolescents aged 12-15 years from 30 low- and middle-income countries. *Int J Behav Nutr Phys Act*. 2018;15(1):73. Published 2018 Aug 8. doi:10.1186/s12966-018-0708-y

