

Increasing Advance Care Planning: A Follow-Up on Previous Quality Improvement Measures

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INTRODUCTION

We previously reported on mechanisms to address barriers to advance care planning (ACP) and access to advance directives (AD) within our health system. Over the past three years, two quality improvement projects were completed with aims of increasing discussions on ACP between resident physicians and their patients and to improve access to ADs in our electronic health record system. Prior to these projects, we found it cumbersome to determine if a patient had a scanned directive document on file and to extract the AD for use in end-of-life scenarios that required rapid retrieval. The data presented here reflects three years of follow-up since the quality improvement initiatives began.

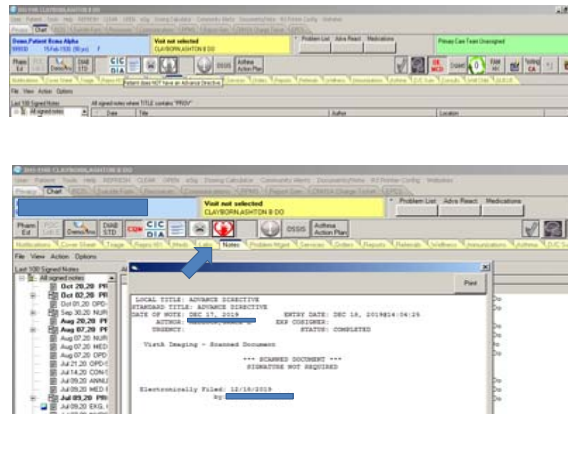
OBJECTIVES

The previous quality improvement projects were undertaken with the goal of increasing ACP discussions and improving ease-of-use of our electronic health record to quickly determine if a patient has an advance directive on file and hasten retrieval if the document existed. In addition, we hoped that the access icon created for this purpose will serve as a reminder for physicians to increase documentation of patients' wishes by encouraging advance care planning. Initial data indicated success; and this data reflects 3 years of follow up.

METHODS

- Initial quality improvement efforts included use of an educational video as a prompt for ACP discussions between physicians and their patients.
- The multi-dimensional project included a policy change to ensure that ADs were honored in all clinical settings within our health system.
- Next followed conceptualizing and programming an access icon in our electronic health record that secondarily served as a reminder to physicians to assist in ACP and composition of ADs when such documentation was not scanned into the patient's chart.
- Follow up data was collected on the number ACP discussions held by running a query for the code 99497 for each fiscal year in the electronic health record system.

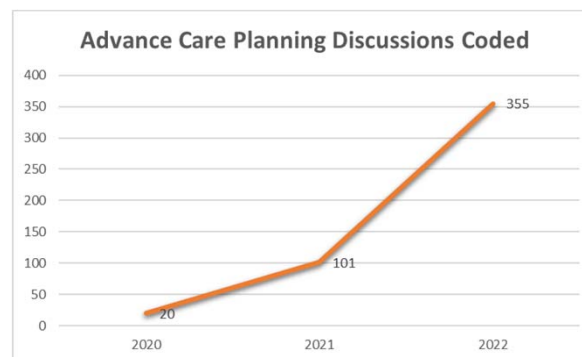
Previous Access Icon Initiative



- Prior to implementation of the access icon, users had to search through a list of scanned documents to determine if an AD was present
- Since the project, the icon illuminates red if an AD is scanned
- When clicked, the icon displays the date (within 1-2 days) the document was scanned, allowing the user to quickly search the scanned document list
- Lack of illumination (grey color) of the icon may also serve as a reminder to complete advance care planning

Doc ID	Doc Title	Doc Type	Doc Status	Doc Date	Doc Location
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Follow Up Data



CONCLUSIONS

- Efforts to increase the number of ACP discussions held were successful.
- There was a nearly 18-fold increase in the number of ACP discussions documented and coded over the three-year period.
- Limitations of the project include difficulty in extracting data from the electronic health record necessitating the query for the code 99497 (indicating documented ACP occurred); however, this also reflects dependence upon physician coding and documentation.

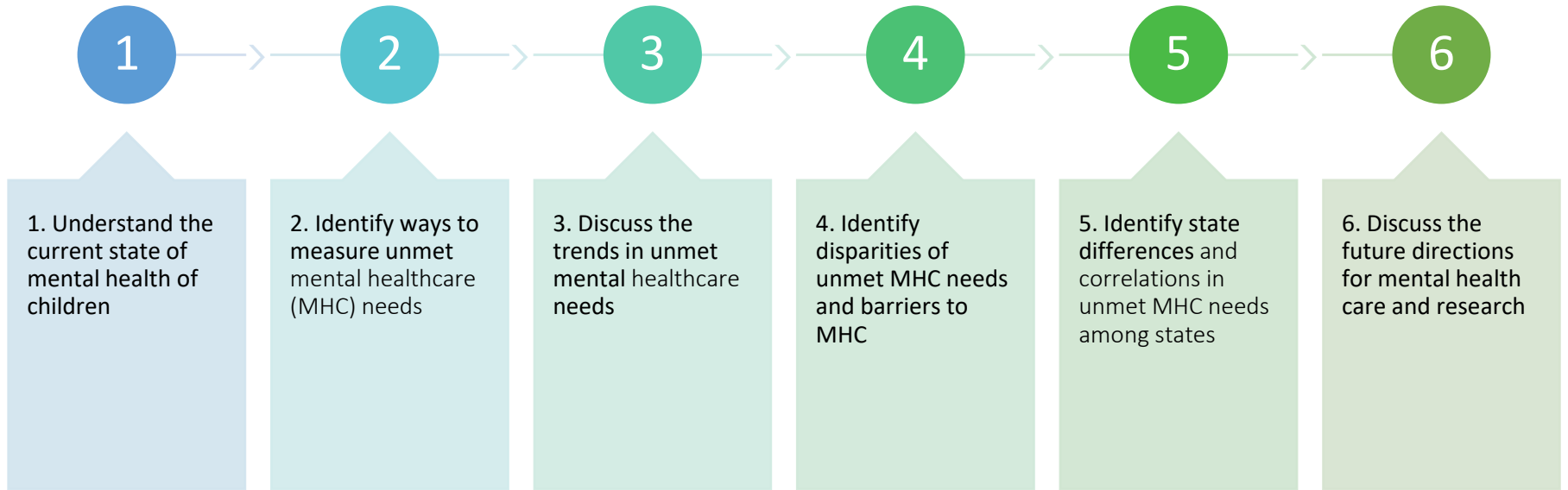
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Unmet Pediatric Mental Healthcare Needs

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Objectives





KITV 4 abc ISLAND NEWS
6:06 82°
CHILDREN'S GROUPS DECLARE NATIONAL EMERGENCY
MENTAL HEALTH ISSUES RISE DURING PANDEMIC

Child Mental Health Crisis

- In October 2021, the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association jointly declared a National State of Emergency in Children's Mental Health.

Rising Rates of Mental Health Disorders Among Children

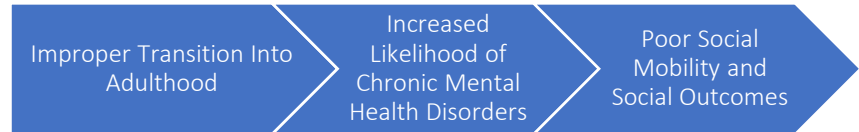
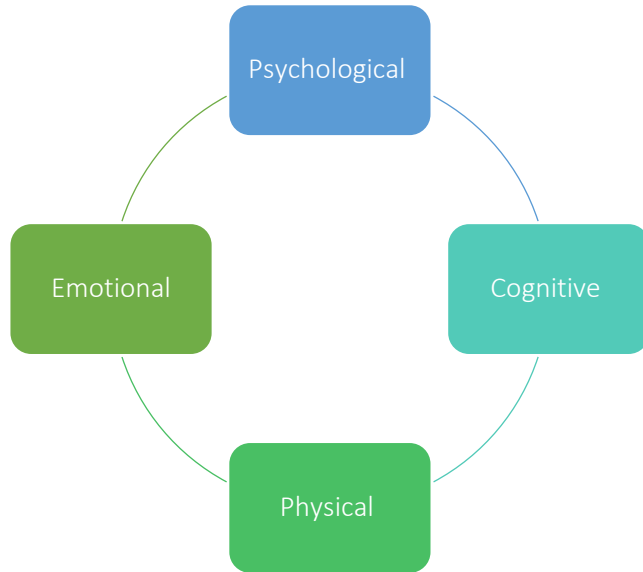
One in five children experience a mental health disorder each year



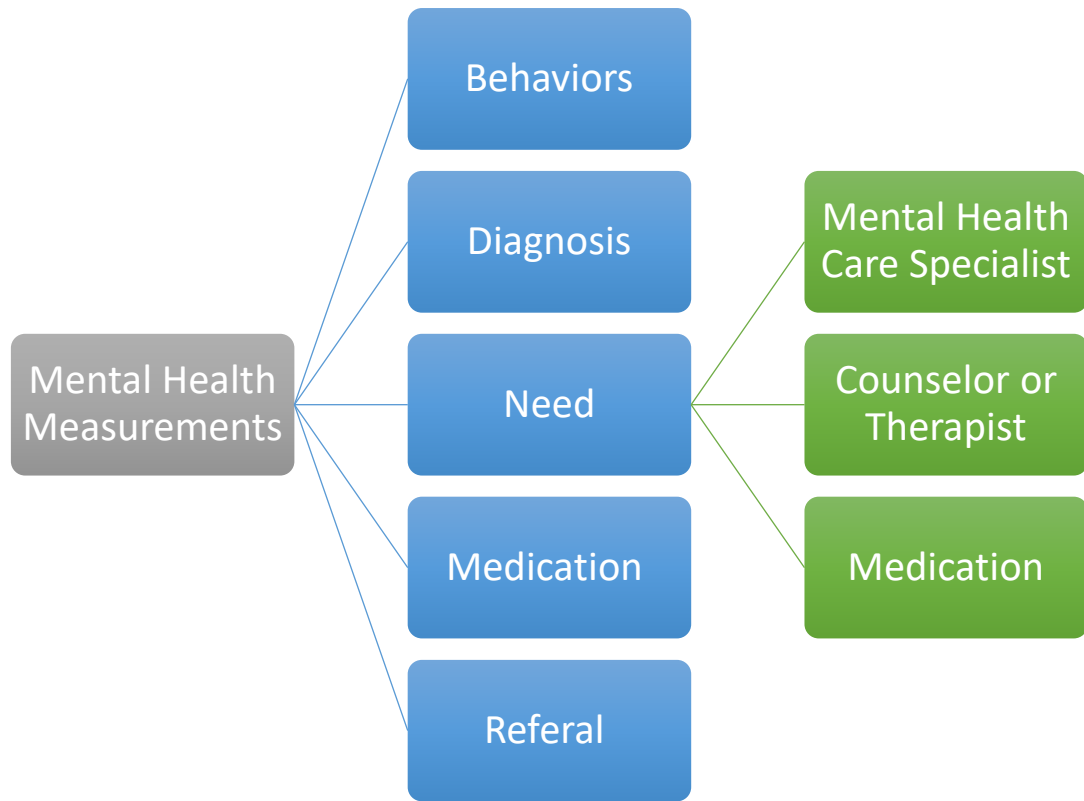
Two in five children will experience a mental health disorder by the age of 18



Effects of Childhood Mental Health Disorders



How is Mental Health Measured Nationally?



How to Measure Child Mental Healthcare Needs?

National Survey of Children's Health

Nationally representative survey of children aged 0-17 years who are noninstitutionalized with a primary caregiver completing the survey online or by mail.



Data Resource Center for
Child & Adolescent Health

A project of the Child and Adolescent Health Measurement Initiative

National Survey of Children's Health

C17 DURING THE PAST 12 MONTHS, has this child received any treatment or counseling from a mental health professional? *Mental health professionals include psychiatrists, psychologists, psychiatric nurses, and clinical social workers.*

- Yes
- No, but this child needed to see a mental health professional
- No, this child did not need to see a mental health professional → **SKIP to question C19**

C18 How difficult was it to get the mental health treatment or counseling that this child needed?

- Not difficult
- Somewhat difficult
- Very difficult
- It was not possible to obtain care

Methods

We determined the population estimates and plotted trends of unmet MHC needs from 2016–2020

- All Children
- Age
- Race/ethnicity
- Percent of Federal Poverty Guideline

We Design-based χ^2 tests to determine if there was a difference in the rate of children's unmet MHC needs between 2016–2019 and 2019–2020.

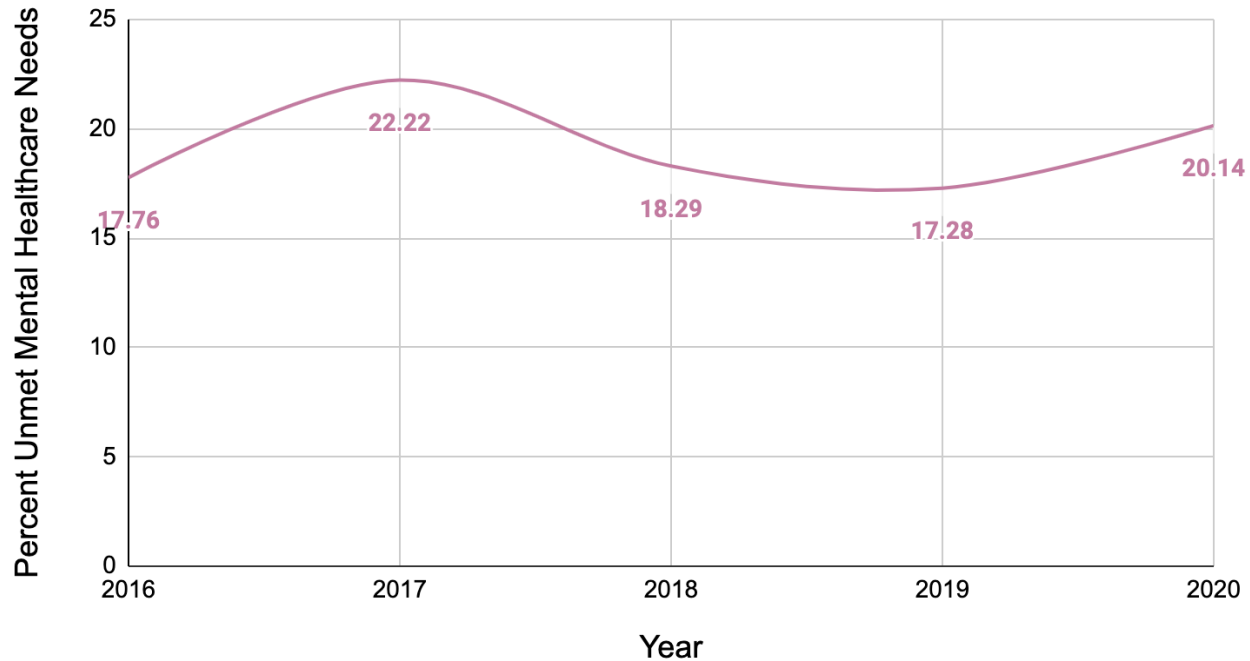
We estimated state-level rates of unmet MHC needs annually and the 5-year averages and percent change 2016-2019 and 2019-2020

- Assessed potential impact of the COVID-19 Pandemic

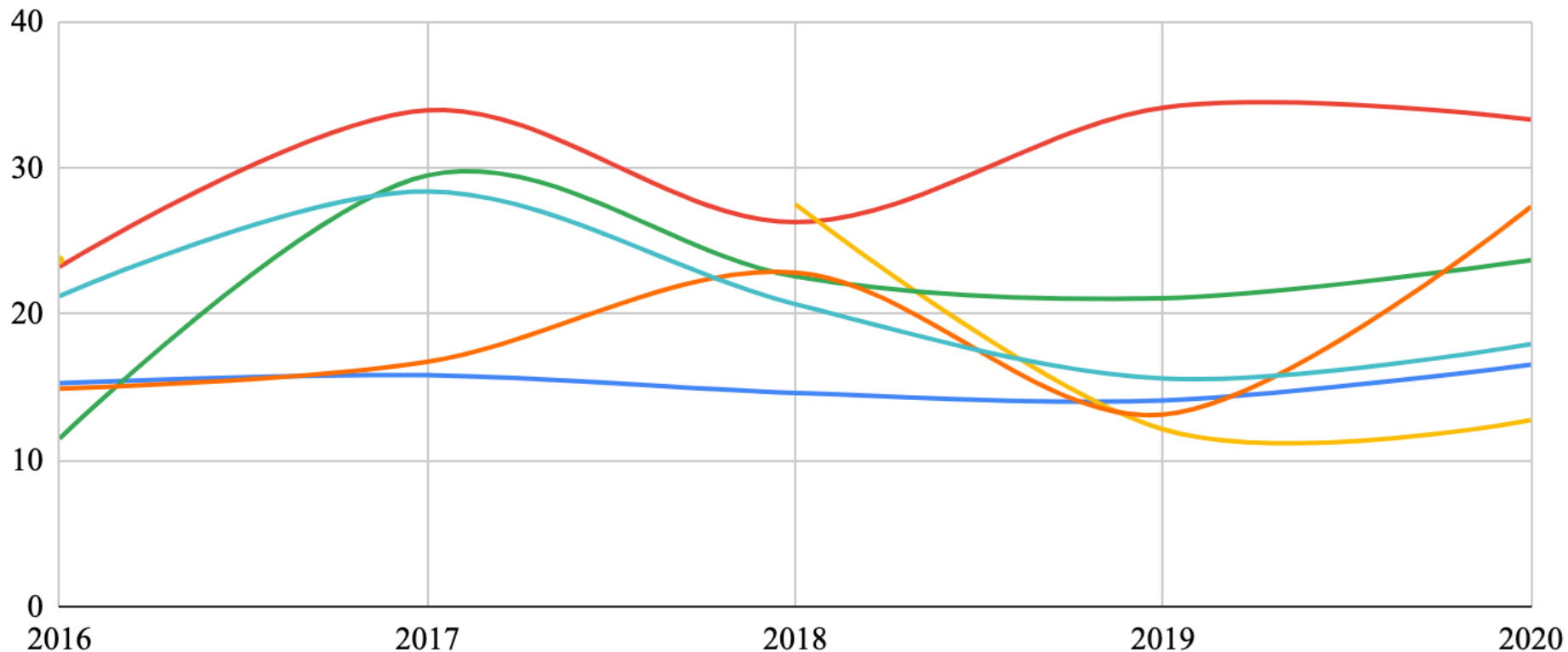
To assess disparities of unmet MHC needs we constructed logistic regression models to measure associations, via odds ratio, between children's unmet MHC by demographic factors.

The Trends in Unmet MHC needs

Five Year Trends in Child Unmet Mental Health Care Needs 2016-2020



Trends in Unmet Mental Healthcare Needs in the United States



— White, non-Hispanic — Black, non-Hispanic — American Indian or Alaska Native Non-Hispanic
— Asian, non-Hispanic — Multi-Race/Other Non-Hispanic — Hispanic

Mental Health Disparities among Black Children

- Black children were 4.7 times more likely to have unmet MHC needs than White children
- Black children had the highest unmet MHC needs each year with an average of **30%** having an unmet need.

Mental Health Disparities for Black Children Impact Mental Well-Being and Self-Identity

Systemic Racism

Intergenerational Trauma

Discrimination

Daily Microaggressions

Stigma

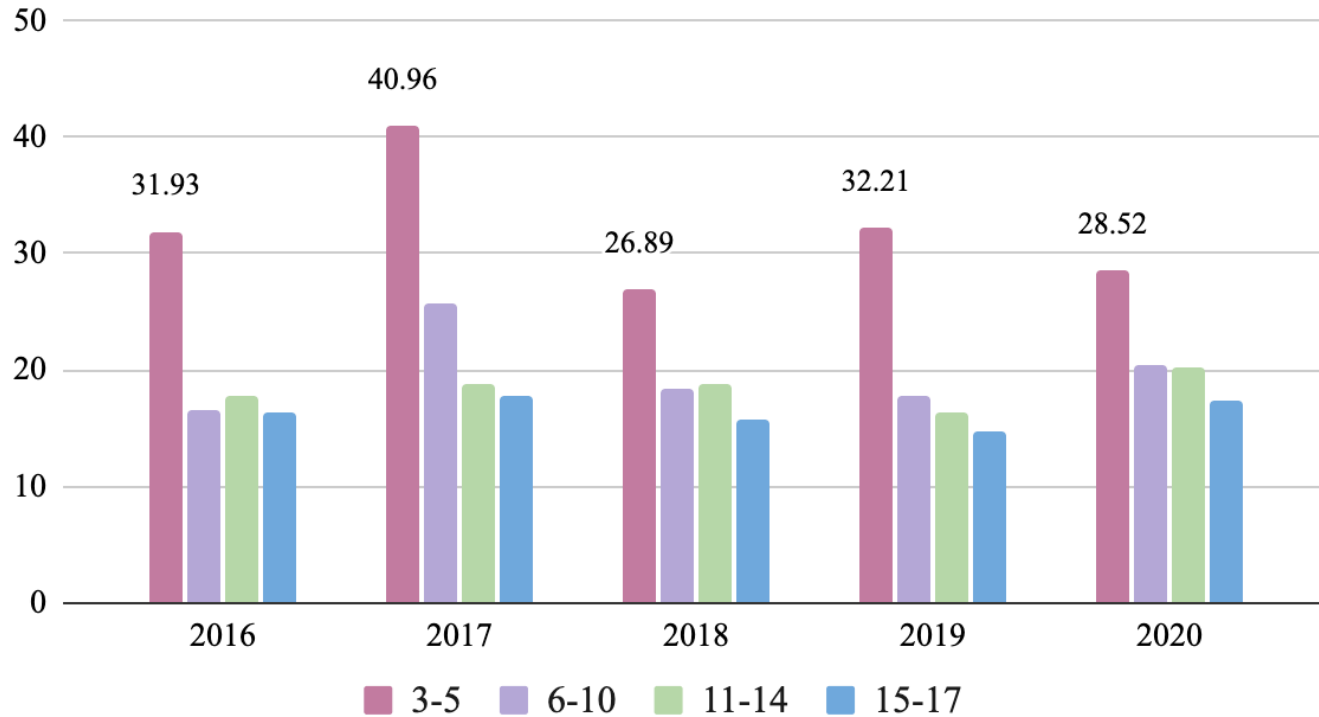
Additional
Drivers of
Unmet MHC
Needs for
Black Children

Mental Healthcare Stigma

General Mistrust of the
Healthcare System

Inability to Identify Mental
Health Resources

Unmet Mental Health Care Needs by Age Group



Mental Health Disparities among Early Childhood

- Children aged **3-5** were **2.6 times** more likely to have unmet MHC needs than children 6-10
- Children 3-5 had the highest unmet MHC needs each year with an average of 32% having an unmet need.

Increasing Age Groups Less Likely to have an Unmet Mental Health Need

Family Circumstance

- Transportation
- Socioeconomic status
- Childcare for other children within the home

Mental Health Provider Shortage

Developmental Attributes

- Communication Skills
 - Able to communicate needs
- Emotional Maturity
 - Better understanding of emotions
- Mobility and Independence
 - Increased accessibility

Urbanicity

We measured unmet MHC needs among children living in urban areas compared to children living in rural areas.

We found no statistically significant difference among children living in urban areas compared to rural areas.

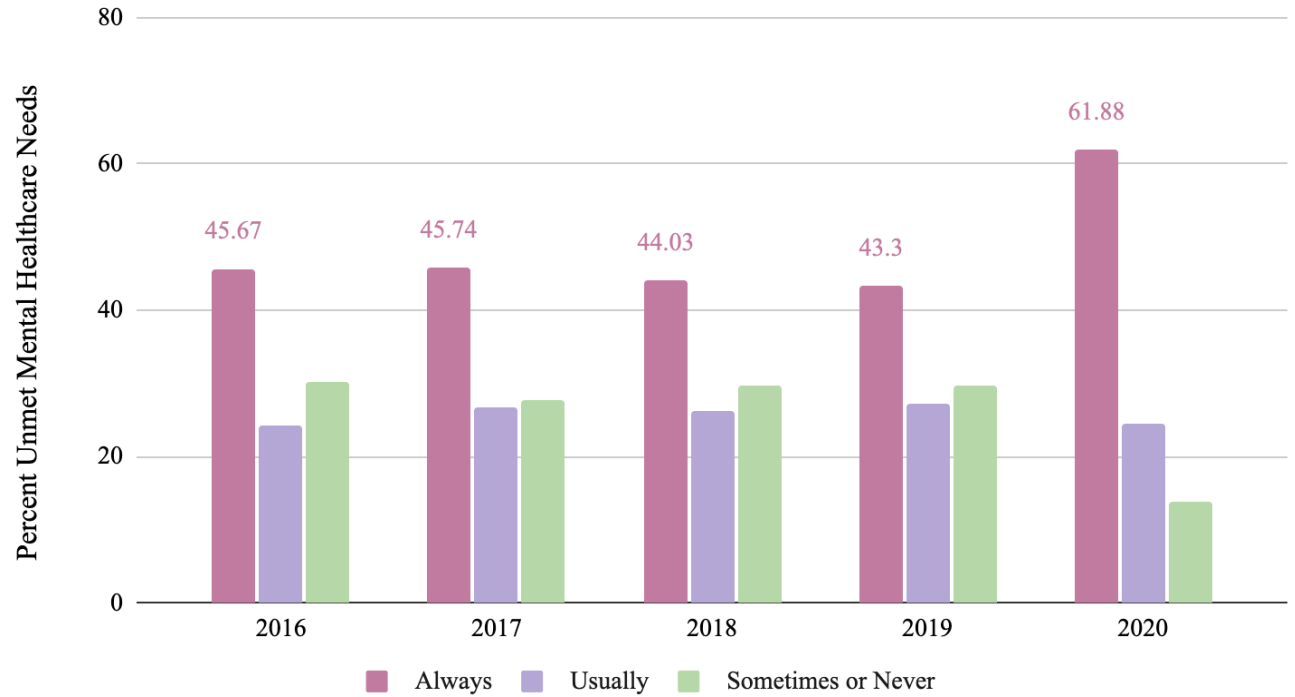
Federal Poverty level

Unmet Mental Health Care Needs by Federal Poverty Level

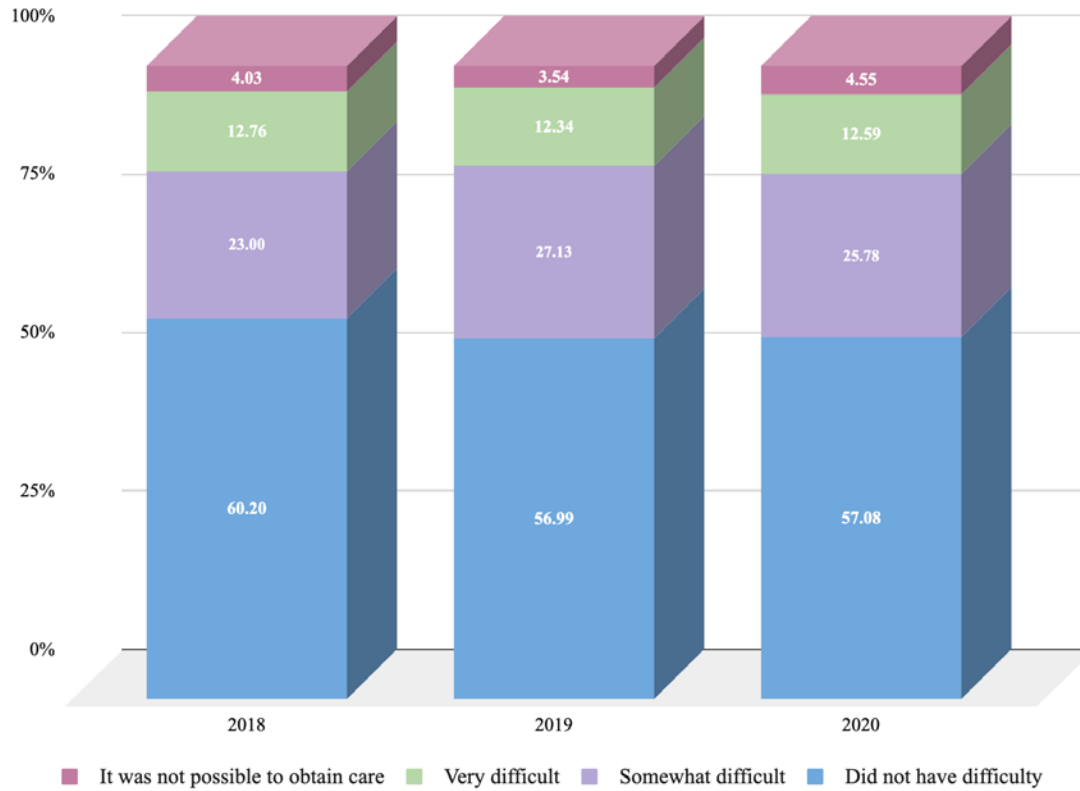


Insurance Coverage of Mental Healthcare Services

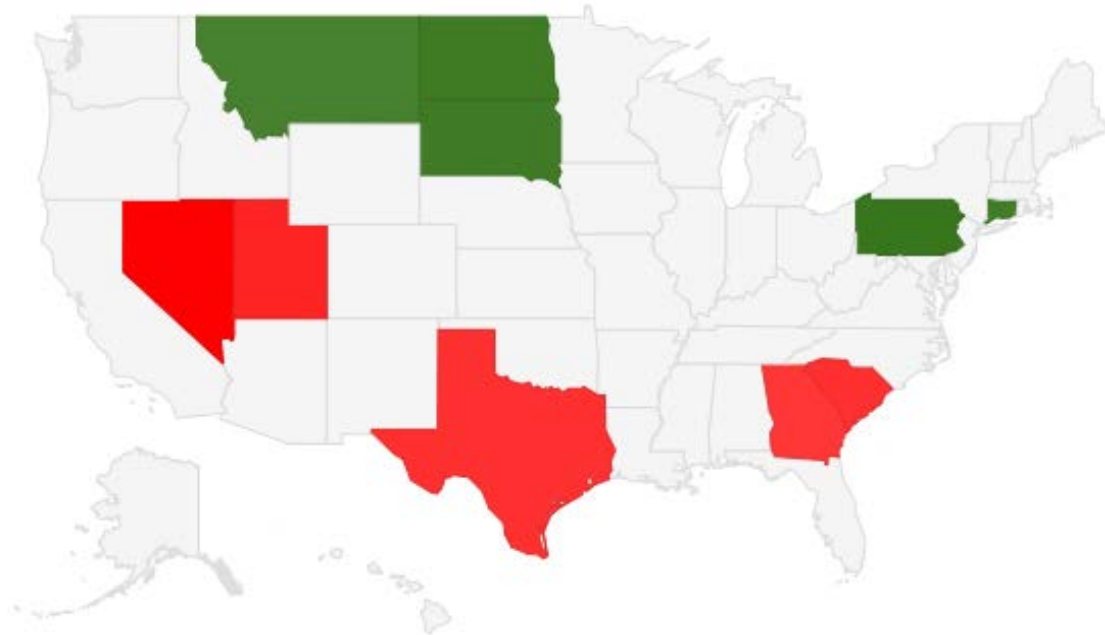
Insurance Coverage Among Children Receiving MHC



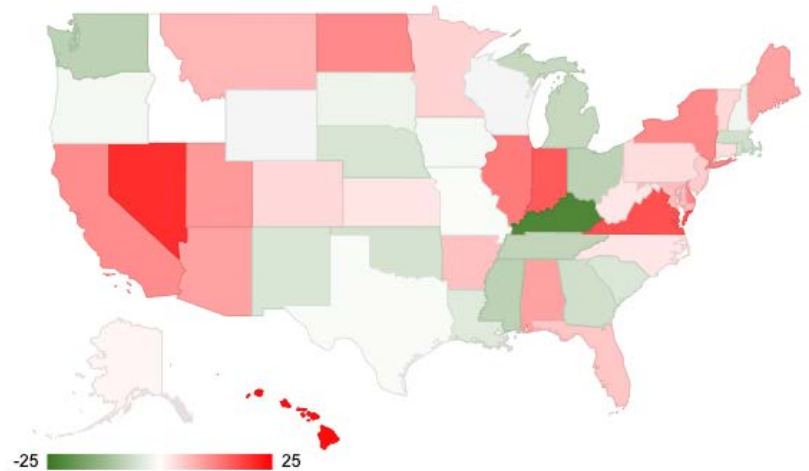
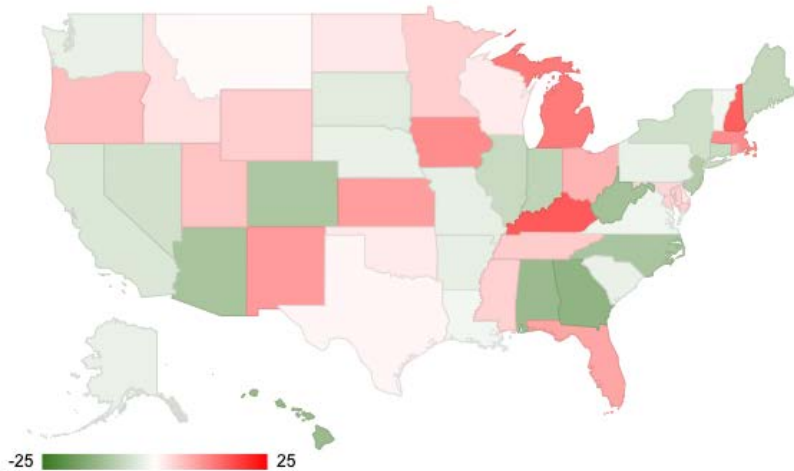
Difficulty Obtaining the Mental Health Care Services the Child Needed



States with Highest and Lowest Child Unmet MHC Needs 2016-2020



State Differences in Unmet MHC Needs



Limitations: Data Collection

Parent Reported Data

- Excludes children with caregiver unaware

Non-Institutionalized Children

- Children living in group-homes not included in the data

Limitations: Data Suppression of Racial Groups

- American Indian and Alaska Native
- Multi-racial
- Native Hawaii and Other Pacific Islander

Limitations: What are the Barriers?

Physical

- Transportation
- Accessibility of provider

Cultural

- Beliefs regarding mental health

Knowledge

- Understanding the help-seeking process
- Understanding the resources especially for infants and early childhood

Payment

- Lack of insurance or adequate insurance
- Socioeconomic status

Future Directions: Addressing the Child Mental Health Crisis

Improving access to MHC with medical technologies such as expanding telehealth

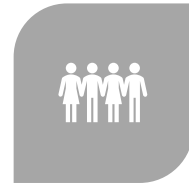
Policymakers, educators, and healthcare providers advocating and implementing evidence-based programs for MHC

Funding and improving surveillance measures, particularly for minority and low-income groups to allow for a more robust analysis of their MHC needs

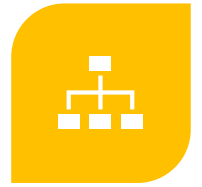
Social Emotional Learning



SELF-AWARENESS



SOCIAL
AWARENESS



SELF-
MANAGEMENT



RELATIONSHIP
SKILLS



RESPONSIBLE
DECISION MAKING

School- Based Health Centers (SBHC)

- Studies have shown that students frequently return for care with a MH provider
 - Familiar environment of a school-based program
 - Reduces transportation barriers
 - Increases accessibility

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Associations of Social Determinants of Health and Childhood Obesity: A cross-sectional analysis of the 2021 National Survey of Children's Health

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Contributing Authors: Covenant Elenwo, M.P.H., Amy Hendrix-Dicken, M.A., Lamaii Ali, M.D., Marianna Wetherill, Ph.D., and Micah Hartwell, Ph.D.



Background

- Childhood obesity is a growing health problem.
- Social determinants of health are known to influence overall health.
- Specifically, children of low socioeconomic status have been shown to be more likely to experience being overweight and having poor health outcomes.
- Childhood obesity can have profound effects on health into adulthood.

Objective

Use the National Survey of Children's Health (NSCH) 2021 data to determine current associations between childhood obesity and social determinants of health.



Methods

- Used the 2021 NSCH survey to extract data from questions relating to the SDOH domains.
 - During the past 12 months, did this child receive any kind of medical care?
 - During the past 12 months, was there a time when this child needed healthcare but it was not received?
 - Since this child was born, has it frequently been hard to cover basics on your family's income?
 - Has your household had difficulty with being able to afford food in the last 12 months?
 - To what extent do you agree with this statement? This child is safe in our neighborhood.
 - To what extent do you agree with this statement? This child is safe at school.
- Any parent or guardian whom answered the variable *BMI Class* in children aged 10-17 was included.
- Sociodemographic variables were extracted and used as controls.
- We constructed bivariate and multivariable logistic regression models to determine the associations of SDOH and childhood obesity via odds ratios.

Results

- Children identified as having obesity were more likely than non-obese children to experience SDOH in all domains.
- Children identified as having obesity were significantly more likely to experience food insecurity when compared to non-obese children (AOR = 1.39; 95% CI: 1.13-1.17).

Table 1. Prevalence and associations between a child having obesity and experiencing SDOH from 2021 National Survey of Children's Health.

BMI Classification	Yes n, (%)	Binary Model OR (95% CI)	Adjusted Model ^a AOR (95% CI)
During the past 12 months, did this child receive any kind of medical care?			
BMI < 95th percentile	12551 (69.62)	1 (Ref)	1 (Ref)
BMI >= 95th percentile	2122 (65.79)	0.84 (0.69-1.03)	1.09 (0.88-1.35)
During the past 12 months, was there a time when this child needed healthcare but it was not received?			
BMI < 95th percentile	739 (4.07)	1 (Ref)	1 (Ref)
BMI >= 95th percentile	195 (6.32)	1.59 (1.07-2.38)	1.41 (0.9-2.20)
Since this child was born, has it frequently been hard to cover the basics on your family's income?			
BMI < 95th percentile	1659 (11.26)	1 (Ref)	1 (Ref)
BMI >= 95th percentile	564 (17.46)	1.67 (1.32-2.10)	1.22 (0.94-1.57)
Has your household had difficulty with being able to afford food in the last 12 months?			
BMI < 95th percentile	3744 (26.27)	1 (Ref)	1 (Ref)
BMI >= 95th percentile	1172 (40.18)	1.88 (1.57-2.27)	1.39 (1.13-1.70)
To what extent do you agree with this statement? This child is safe in our neighborhood?			
BMI < 95th percentile	461 (3.9)	1 (Ref)	1 (Ref)
BMI >= 95th percentile	144 (6.14)	1.61 (1.01-2.58)	1.16 (0.73-1.85)
To what extent do you agree with this statement? This child is safe at school?			
BMI < 95th percentile	411 (2.37)	1 (Ref)	1 (Ref)
BMI >= 95th percentile	100 (2.58)	1.09 (0.72-1.66)	0.9 (0.57-1.41)

a. model controlled for race/ethnicity, household income (%FPL), parental education, and child sex. b. Ability to afford household basics answers were collapsed into binary variables of *Not difficult and Difficult*. c. Ability to afford food answers were collapsed into binary variables of *Food secure and Food insecure*. d. Neighborhood and school safety answers were both collapsed into binary variables as *Safe and Unsafe*.



Significance of Findings

- Early experience with food insecurity may be a driver of childhood obesity and associated with poor health outcomes.
- Addressing barriers to food security and increasing access to supplemental food programs is a critical step.
- Food pantries and food banks can play a significant role in providing supplemental nutrition to low-income families not qualifying for government assistance.

Conclusion

- Improving policies for programs such as SNAP and addressing lack of access to nutritious foods (i.e. food deserts) may help alleviate some food insecurity.
- Improving access to adequate amounts of nutritious foods for children and their families is critical.
- Using these approaches may help address childhood obesity and thus, decrease the risk of developing chronic disease(s) and poor long-term health outcomes.



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