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Ironman World Championship Medical Symposium

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# Disparities and Inequities in Youth Sports

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# Conflict of Interest / Disclosure

- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services discussed in this CME activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.



# Objectives

- Explore concepts of population health
- Review current state of access and equity in youth sport
- Examine common challenges
- Promote consideration of change-agent frameworks
- Caveat: I am not a DEI expert

# Health Equity

- Achieved when every person has the opportunity to attain his or her full health potential
- No one is disadvantaged from achieving this potential due to circumstances
  - Social inequities
  - Social determinants of health (SDOH)
- Health disparities persist—and in some cases widening

# Health Care Disparities

- Structural inequalities
  - Systemic disadvantages
  - Racism, sexism, classism
- Social determinants of health
  - Living, school and work environments and surrounding forces that influence daily living conditions
  - Unequal resource allocation that affect well-being and risk
  - May effect outcomes more than care provided

# Social Determinants of Health





# Social Determinants of Health

- If the bowl is cracked, dirty or leaking water, the fish will never be able to reach optimal health due to the conditions in which it lives.
- Patients who live in unsafe environments, lack access to transportation or do not have social support will likely have worse health outcomes.

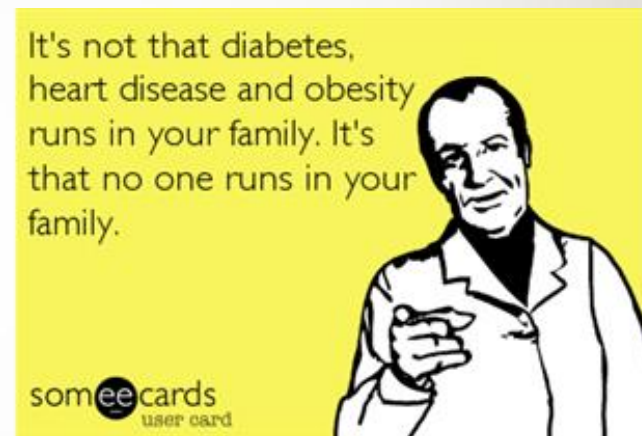
# Factors Influencing Health Disparities

- Social determinants account for 50% of the modifiable factors contributing to negative health outcomes
  - How a community looks (property neglect)
  - What residents are exposed to (advertising, violence)
  - Available resources (transportation, grocery stores)
- Availability and quality of medical services (10%)
- Behavioral factors
  - Diet, tobacco use, engagement in physical activity/sports



# Public Health Relevance

- Sports is **the** leading pathway for youth to engage in physical activity
  - Physical activity effects morbidity, mortality & QOL
- Obesity epidemic
  - TN: Highest combined rate of childhood overweight & obesity in US (37.7%)
  - National increase during pandemic
- Children's mental health national emergency declared (Oct 2021)



# Sports Impact Health and Quality of Life

- *“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization)*
- COVID-19 effected sports delivery & participation
- Some populations were unable to participate and reap the benefits of sports

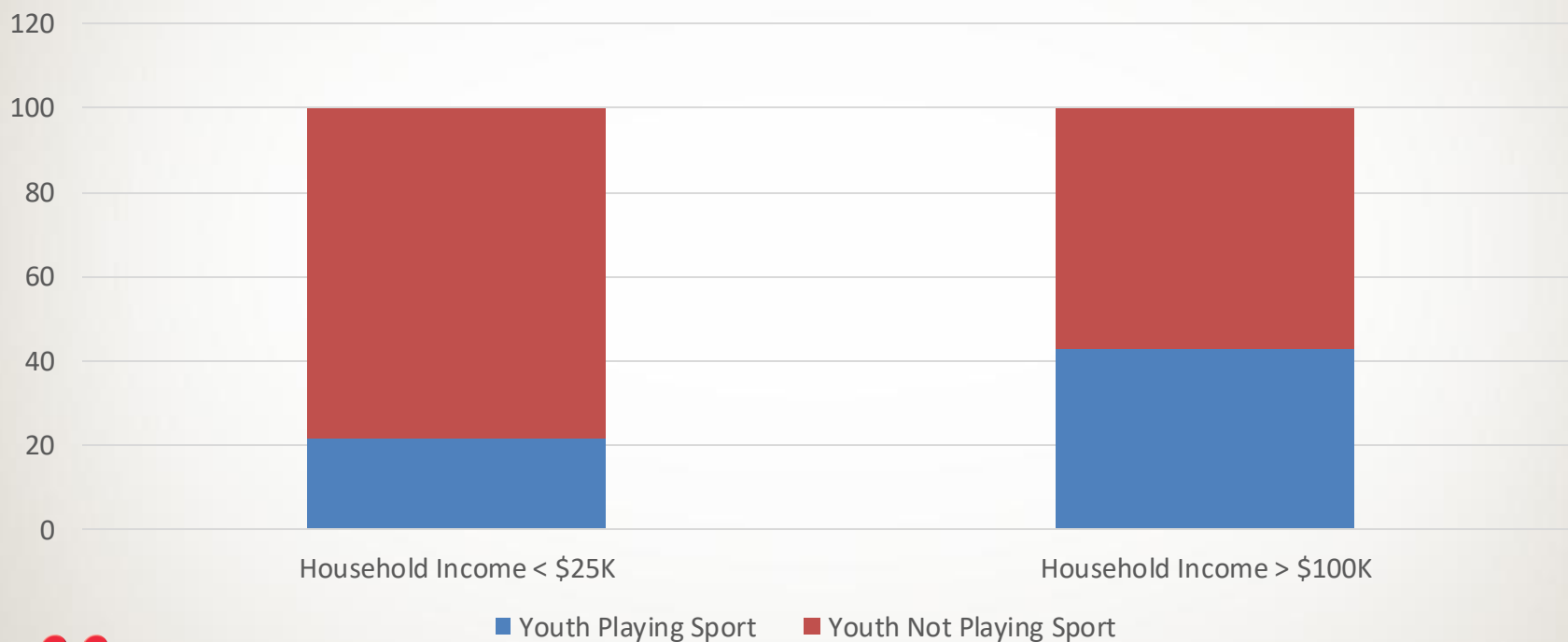


# Pre-Pandemic

- Children are twice as likely to live in poverty than the elderly, and far more likely to be uninsured.
- Ethnic minority children (specifically African American/Black and Hispanic children) less likely to participate in sports when compared to Caucasian/White, Non-Hispanic children

# Physical Divide

% of Youth Participating in Sport Based on Household Income



# COVID-19 Pandemic

- Native Americans, communities of color, and other high-risk and vulnerable populations the hardest hit
- Exposed the nation's systematic health and societal disparities
- Hard look at the communities being left behind by America's response

# VANDERBILT CHILD HEALTH POLL

- Aims to **understand the experiences** of parents nationally and in the state of Tennessee
- Explores parental concerns as a mechanism to **inform the public and policymakers**

## Sampling



Sampled to be representative of parents using data from US Census



Oversamples non-white parents to evaluate issues of equity



# Sports & Health Equity in COVID Era

	N	
I face barriers to utilizing telehealth	1063	34.6% ± 2.1
Household Income		
< \$25,000	300	55.4% ± 4.2
\$25,000-\$50,000	294	36.9% ± 4.2
\$50,000-\$75,000	175	32.4% ± 5.2
> \$75,000	294	28.4% ± 3.9

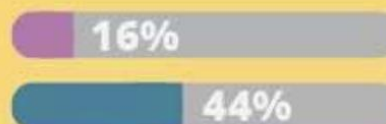
## SAFE TO PLAY? PARENTS' OPINIONS OF THE IMPACT OF COVID-19 ON THE SAFETY OF KIDS SPORTS

THE VANDERBILT CHILD HEALTH POLL ASKED A STATEWIDE SAMPLE OF TENNESSEE PARENTS ABOUT THEIR PERSPECTIVES ON THE SAFETY OF SPORTS DURING THE COVID-19 PANDEMIC



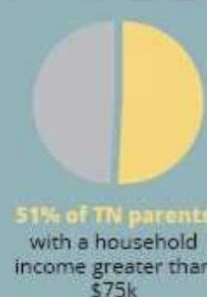
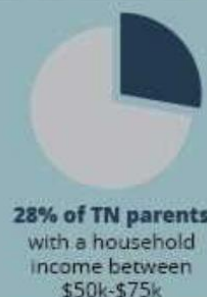
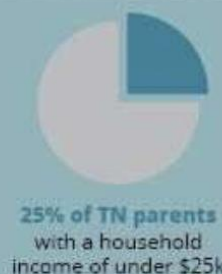
# 2 in 5

TN parents think it is safe for kids to participate in sports during the COVID-19 pandemic.



Only **16%** of Black parents think it's safe for kids to engage in sports vs. **44%** of White parents

Over half of parents in households with an income of \$75k or more think it is safe for their children to participate in sports during the COVID-19 pandemic



agree that it is safe for their children to participate in sports

\*responses for parents with income < \$75k are not statistically different

Nearly 30% of the parents who are concerned about their child's safety at school still believe it is safe to play sports.



## Metro Nashville schools won't play sports until further notice

RUSSELL VANNOZZI rvannozzi@mainstreetmediatn.com Aug 25, 2020 Updated Sep 1, 2020



SEE  
AN O  
COUN  
TAKE

### LOCAL SPORTS

## Shelby County Schools spring sports return to practice after canceled 2020 season



General News Meeting Agendas/Minutes News

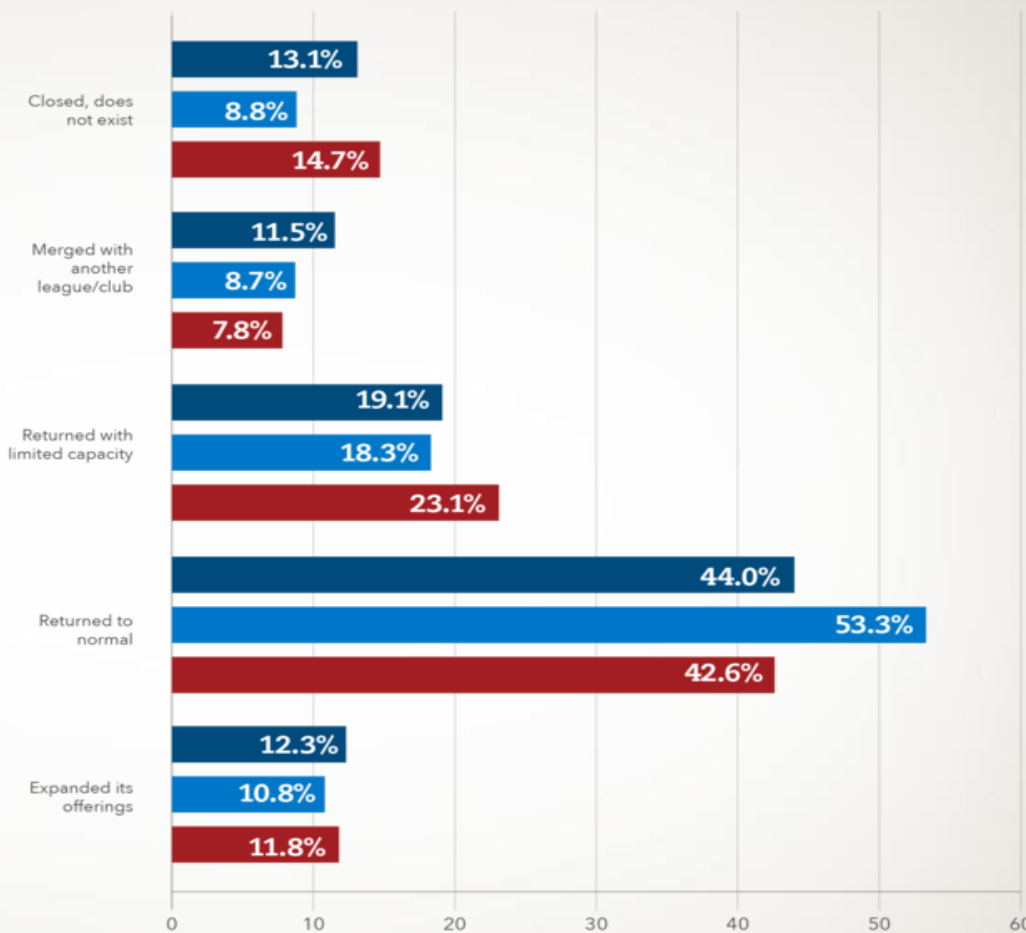
## TSSAA adopts COVID-19 regulations and fall sports contingency plans

July 22, 2020

Tennessee now has a roadmap for both high school football and girls' soccer in the fall.

## Pandemic Impact on Youth Sports Programs

Percentage of programs that have:



■ Community-based ■ School-based ■ Travel-based

Source: Aspen Institute/Utah State University parent survey, September 2021

Vanderbilt Sports Medicine





# COVID-19 IMPACTING WELLBEING OF U.S. FAMILIES WITH CHILDREN, POLL SHOWS

The Vanderbilt Child Health COVID-19 Poll, conducted in June 2020, surveyed parents of children under 18 about their experiences **since the COVID-19 pandemic began to spread in March**. Results showed:

## MENTAL & PHYSICAL HEALTH WORSENERD

for both parents & children, as reported by parents surveyed

Mental health worsened for more than:

**1 IN 4 PARENTS**

**1 IN 7 CHILDREN**

## WORSENERD MENTAL HEALTH

Parents **27%**

Children **14%**

## WORSENERD PHYSICAL HEALTH

Parents **18%**

Children **4%**

# COVID-19 IMPACTING WELLBEING OF U.S. FAMILIES WITH CHILDREN, POLL SHOWS

The Vanderbilt Child Health COVID-19 Poll, conducted in June 2020, surveyed parents of children under 18 about their experiences **since the COVID-19 pandemic began to spread in March**. Results showed:



**FOOD INSECURITY ROSE FROM 33% TO 36%**

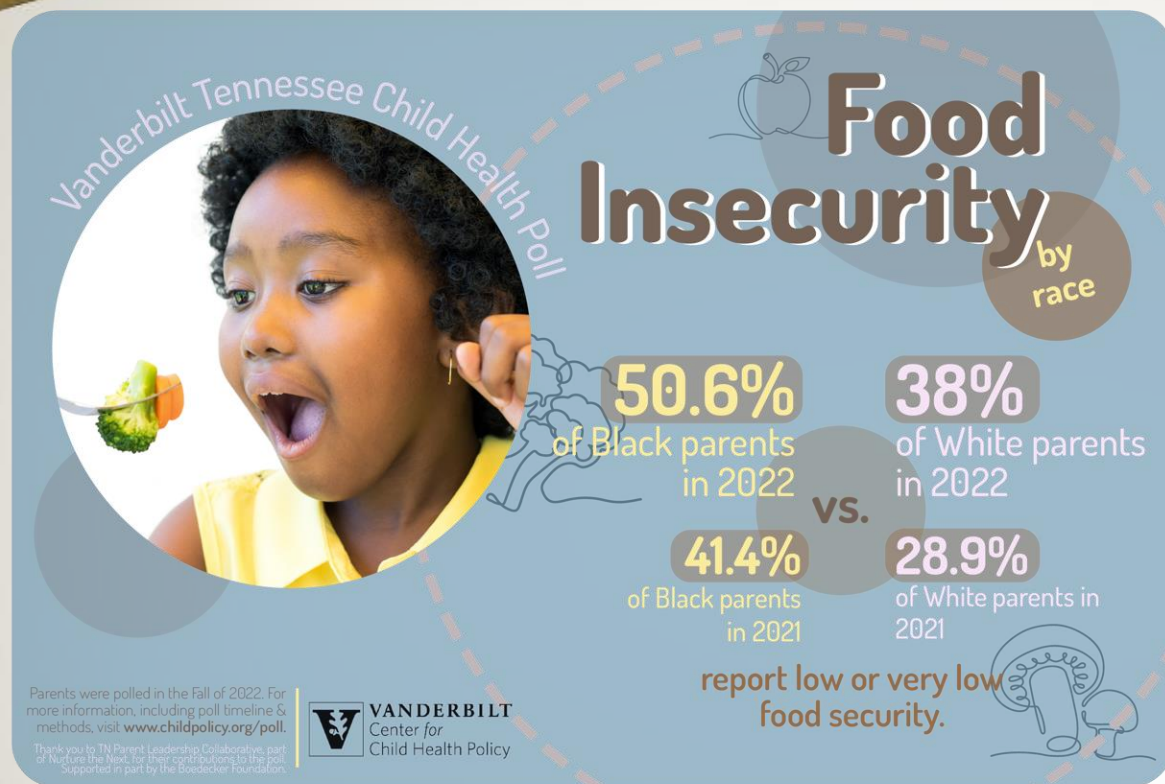
**MODERATE TO SEVERE FOOD INSECURITY\* ROSE FROM 6% TO 8%**

\*defined as sometimes or often not being able to afford enough to eat

Communities of color have been disproportionately impacted by the pandemic and face increased food insecurity. Black and Hispanic families fared worse than white families, with 11% and 18% reporting moderate to severe food insecurity, respectively, as compared to 4% of white families. Over one quarter (26%) of Spanish-speaking families reported moderate to severe food insecurity, as compared to 6% of English-speaking families.

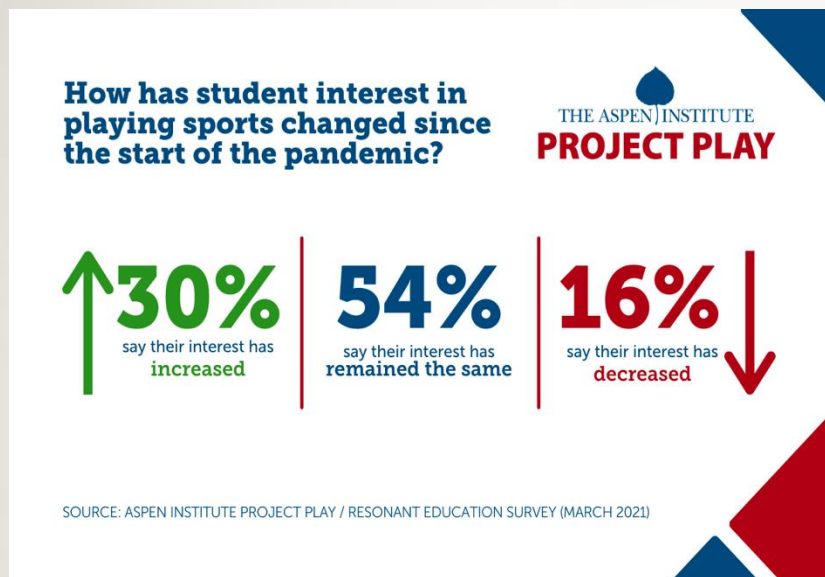
**24% OF PARENTS REPORTED A LOSS OF REGULAR CHILDCARE**





## FOOD SECURITY BY RACE

# Participation Fallout



## ‘This Is for the Next Generation’: Inside the Fight, at Stanford and Beyond, to Save Olympic Sports

At Stanford and other schools, athletes of discontinued NCAA sports teams are pushing back—and raising money to try to self-fund their programs in the process.

ROSS DELLENGER · FEB 12, 2021

- “Finances are causing some schools to cut sports or reduce the size of teams by holding tryouts in sports that previously embraced no-cut, unlimited participation.”
  - Karissa Niehoff, NFHS executive director.





# Continued Barriers to Youth Sports Participation

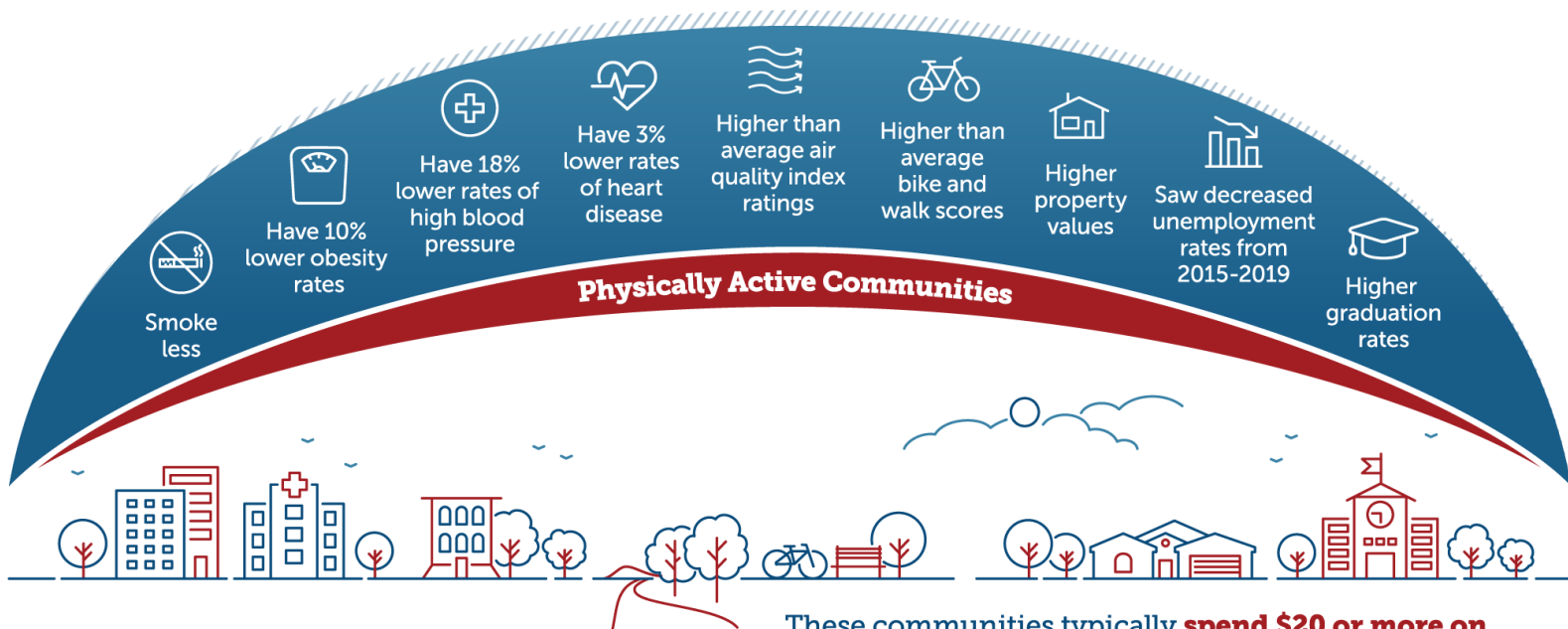
- Affordability
  - Ability to invest in a child's athletic access, development and future.
- Time constraints
  - While individuals may have equal time commitments, some are more pressing than others
- Familial support
  - Low SES girls reported lower levels of both instrumental and affective support from parents to play sports

# Continued Barriers to Youth Sports Participation

- School resources and accessibility to facilities
  - Those from lower SES attended schools with the lowest rates of varsity sports participation
  - Low-income schools are more likely to only have a single gym, offer less intramural activities, and have fewer exterior athletic facilities
  - The “built environment” (a neighborhood’s walkability, distance to other non-school sporting facilities, and other considerations such as safety) is associated with host of disparities in youth sport participation

## ACTIVE COMMUNITIES DO BETTER

What Research Shows on the Benefits to Residents



Learn more at [as.pn/sportsfacts](https://as.pn/sportsfacts)

These communities typically **spend \$20 or more on parks per resident** and are more likely to support low-cost physical activity and sport experiences for kids

# Community Efforts

- Build organizational capacity around health equity
  - Seek policy, systems, and environmental improvements where people live, learn, work & play
- Develop diverse and inclusive partnerships
  - Amplify unheard voices; seek diverse skills and expertise
  - Meaningfully engage the community
  - Include vulnerable populations affected by health inequities
- Identify and understand health inequities
  - Increase awareness of stakeholder issues
  - Collect data to ensure strategies account for the needs and barriers encountered
- Tackle chronic underfunding & fragmentation of programs for children

# Make Youth Sports More Equitable and Beneficial For All

- Sports can have profound, perhaps even life-changing effects for those who paradoxically face the greatest barriers to participation
- Implement more opportunities and funding for intramural sports and after-school sports programs
- Create more community-based sport programs that address social underpinnings and create a safe space for youth to see positive alternatives
- Increase education and training for coaches
  - Translational coaching
  - Mentors serve a vital role in fostering motivation towards health behavior changes in vulnerable youth
- Eliminate disparities in healthcare delivery
  - Equip all schools with athletic trainers, Safe Stars



Vanderbilt Tennessee Child Health Poll



# TN Child Mental Health

Parents were polled in the Fall of 2022

**~1 in 3**  
parents report a diagnosis  
of **any mental health**  
**condition** in 2022



14.3% report their child was  
diagnosed with **anxiety**

9.3% report their child was  
diagnosed with **depression**

parents were also concerned about **undiagnosed** conditions

Concerns about  
**undiagnosed anxiety**  
rose from 13.8% to 20.2%  
between 2019 and 2022

Concerns about  
**undiagnosed depression**  
rose from 11.8% to 13.7%  
between 2019 and 2022

Parents were polled in the Fall of 2022. For more information, including poll timeline & methods, visit [www.childpolicy.org/poll](http://www.childpolicy.org/poll).

Thank you to TN Parent Leadership Collaborative, part of Nurture the Next, for their contributions to the poll. Supported in part by the Boedecker Foundation.



VANDERBILT  
Center for  
Child Health Policy





# Sports Participation & Mental Health

- Children who play sports are less likely to go through symptoms of depression when compared to those who do not take part in sports.
  - Kids who play 2 or more sports show the greatest benefits.
- Encouraging kids to take part in sports might be an effective early intervention for children who are at risk.

# Adverse Childhood Experiences (ACEs)

- AAP recommends screening
  - Sexual and physical abuse, emotional neglect, parental substance misuse or incarceration, and living in a single-parent household
- More difficult for child to succeed in school, live a healthy life and contribute to society's future prosperity

# Youth Sports & ACEs

- Adolescents who experienced adverse events in childhood had better mental health in adulthood if they played sports in their youth.
  - Easterlin et al. *JAMA Pediatr.* 2019.
- Intervention at Risk
  - Children with ACE's tend to live in families associated with measures of lower income
    - Professionalism of youth sports may leave most needy behind

# Disparities in Access & Care

- "Pay to Play" model excludes many children, especially those from low-income households and communities of color
- High financial bar to access sport
  - Loss of school-based and local rec/affordable options
  - 63% of parents pay \$1200-\$6000/yr
- Schools in lower socio-economic areas have less access to athletic trainers
  - Effects Dx & Rx; Emergency Response
- Publicly insured and uninsured youth face delays in receiving care
  - Worse outcomes and longer recovery times for injuries like ACL tears, shoulder instability and concussions.
- Need to improve the cultural competence of athletic healthcare network to better serve diverse communities

# Positive Childhood Experiences (PCEs)

- “Safe, stable, nurturing relationships and environments” before adulthood (CDC)
  - Protective early in life against adult health risks
  - 4 broad categories
    - Stable and supportive relationships
    - Safe, equitable environments in which to live, learn and play
    - Civic and social engagement that promotes children’s sense that they matter to others
    - Opportunities for social and emotional development
- Positive parent-child relationships, social engagement in school, neighborhood social cohesion
- Independently associated w/ better physical & mental health at any age
  - Varies by ACE burden
- Adults with 5-6 PCEs compared to 0-2 PCEs had 75% less risk of both fair/poor overall health and risk of receiving any psychiatric dx

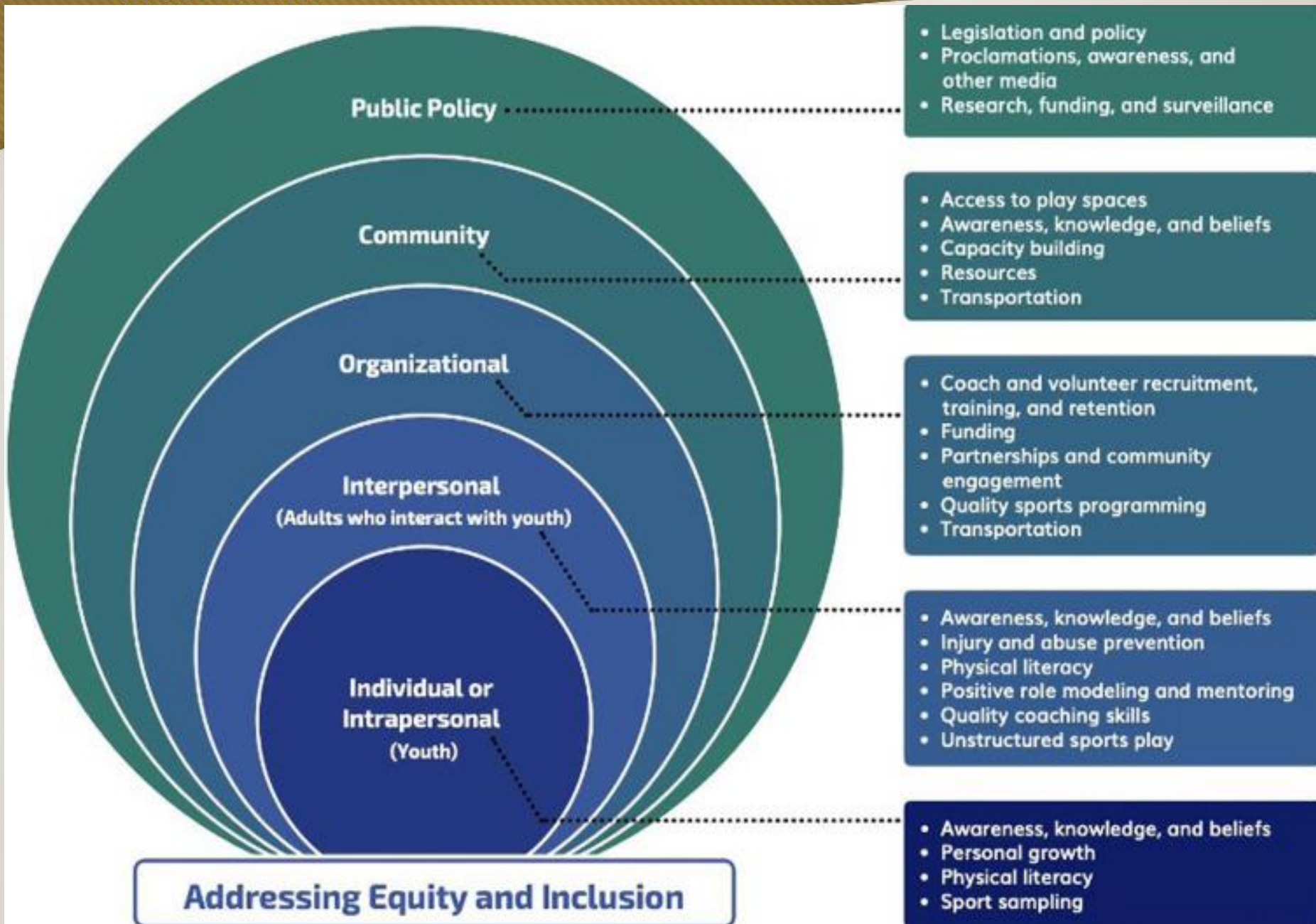
# Thrive, Not Survive

- Interventions that minimize ACEs and promote PCEs improve health across the life course
- PCE's equip children to face health challenges & counter ACEs
- Develop strong families
  - Parental resilience
- Develop social & emotional competence of children
  - The ability to talk with family about feelings.
  - The sense that family is supportive during difficult times.
  - The enjoyment of participation in community traditions.
  - Feeling a sense of belonging in school.
  - Feeling supported by friends.
  - Having at least two non-parent adults who genuinely cared.
  - Feeling safe and protected by an adult in the home.



# COVID-19 Hindsight

- Shined a light on distress in children and families that had been largely hidden.
- Uncovered existing limitations that have strained for years the ability of some parents to raise healthy children.
- Adolescents who did not participate in sports had lower levels of physical activity, greater anxiety and depression symptoms and lower quality of life
  - Returning to sports resulted in improved levels of all measures



# Take Home Points

- Consider the value of sport and its impact on global health for ALL youth when making future decisions; pandemic-related or not
  - Embrace chance to make long-lasting, positive, systematic change
- The well-being of children is shaped by factors and people outside their homes and doctors' offices. Those institutions need our support.
- Advocate for equitable access and safe sports participation

# Take Home Points

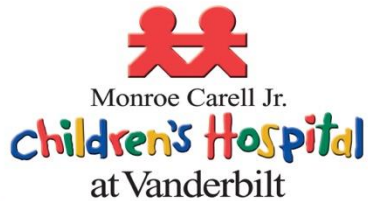
- As leaders who interface with children and families in schools, athletics and healthcare settings, it is important for us to understand context and ideally connect families to resources.
- Increased awareness and acknowledgement of these population health concepts position members of the athletic health care team to improve individual and community health outcomes



# #1 Adult *and* Children's Hospitals *in the* Southeast.



# Thank You



**Vanderbilt Youth Sports Health Center**  
In partnership with Vanderbilt Sports Medicine

