

**NCCOR**

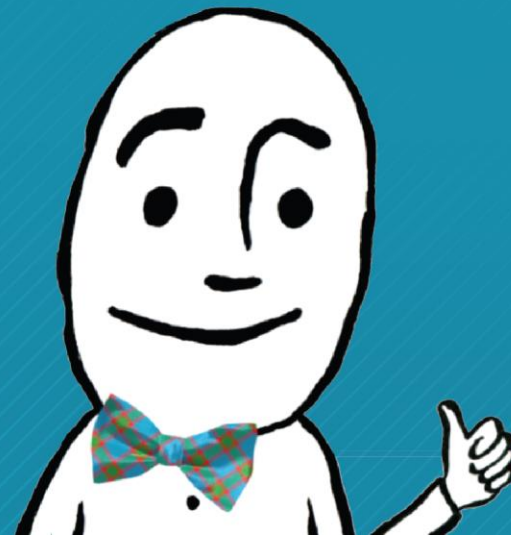
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**CONNECT  
& EXPLORE**

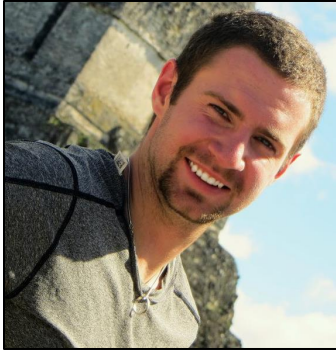


1. Overview of NCCOR's Measures Registry Resource Suite
2. Spotlight: NCCOR's Tools in Action: Featuring the Summer Physical Activity and Friendship Study
  - Tyler Prochnow
3. One on One
  - David Berrigan, NIH
  - Sarah Sliwa, CDC
4. NCCOR Announcements

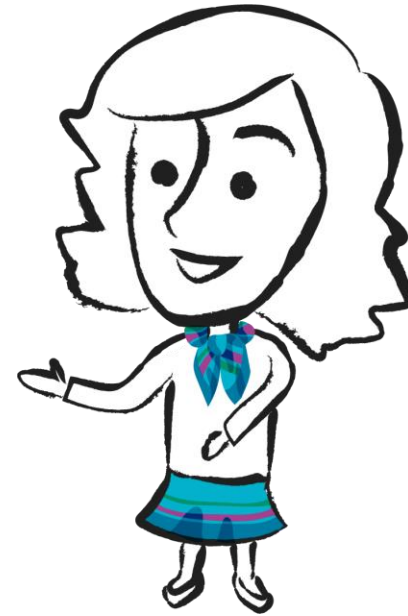
# TODAY'S PROGRAM



# Today's Conversation



**Tyler Prochnow**  
PhD Candidate at Baylor University



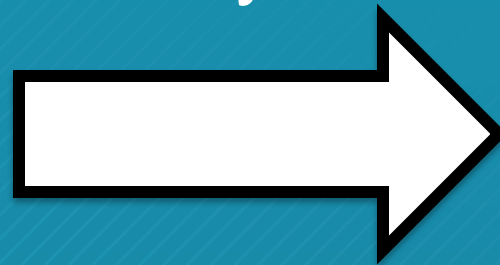
**David Berrigan,**  
**PhD, MPH**  
National Institutes of  
Health



**Sarah Sliwa,**  
**PhD, MS**  
Centers for Disease  
Control and Prevention

# Need technical assistance? Have a question for our speakers?

Type your question(s) in the chat box  
located on the right and a representative  
will respond shortly.



Join the conversation on social media

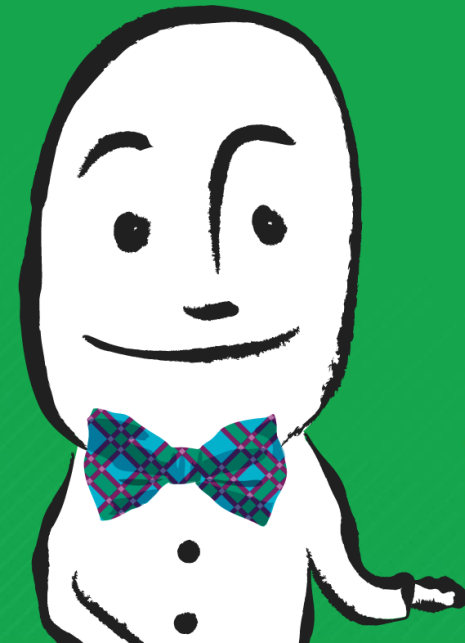
**#ConnectExplore**



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# INTERACTIVE POLL



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& EXPLORE

# NCCOR's Measures Registry Resource Suite

## Standard measures are needed for:



**Research and evaluation related to the causes of childhood obesity**



**Interventions to prevent and treat obesity in children**



**Programs and policies concerning individual and environmental determinants of childhood obesity**

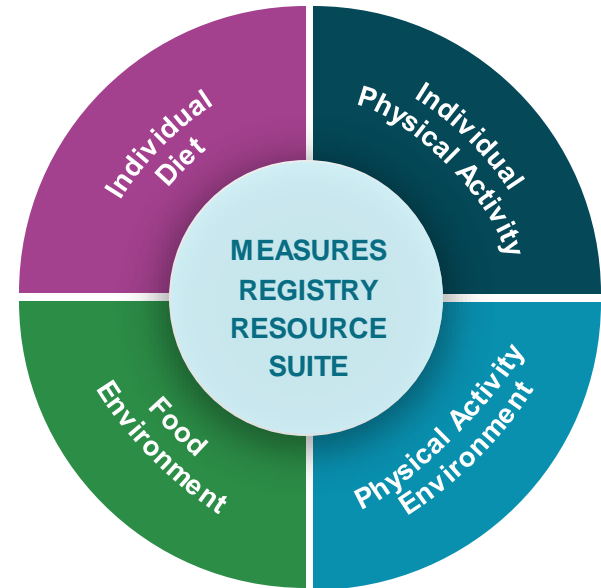


**Progress towards identification and implementation of evidence-based interventions, programs, and policies**



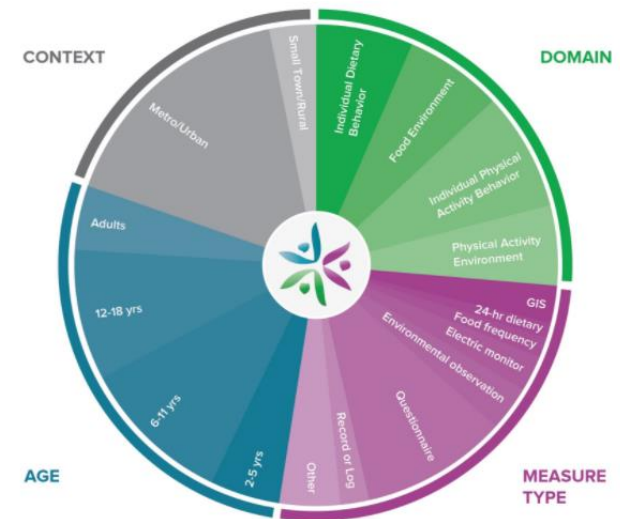
# Measures Registry Resource Suite

- Measures Registry
- Measures Registry User Guides
- Measures Registry Learning Modules



# Measures Registry

- Launched in 2011, the Measures Registry is a web-based portfolio of nearly 1,400 studies on more than 100 discrete measures related to diet and physical activity.
- Measures are categorized into four domains:
  - Individual Diet
  - Food Environment
  - Individual Physical Activity
  - Physical Activity Environment



# NCCOR.org/measures

**NCCOR**  
National Collaborative on Childhood Obesity Research

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**MEASURES REGISTRY**

**MEASURES REGISTRY USER GUIDES**

**REGISTRY OF STUDIES**

**SNAP-ED**

**YOUTH COMPENDIUM OF PHYSICAL ACTIVITIES**

## Measures Registry

The Measures Registry is a searchable database of diet and physical activity measures relevant to childhood obesity research. Its purpose is to standardize use of common measures and research methods across childhood obesity research at the individual, community, and population levels.

Measures are tools and methodologies used to assess individuals' diet, physical activity, and the environments in which these behaviors occur. Examples of measures include questionnaires, instruments, diaries, logs, electronic devices, direct observations of people or environments, protocols, and analytic techniques.

**SEARCH THE REGISTRY**


# Measures Registry User Guides

- Designed to:
  - Provide an overview of measurement
  - Describe general principles of measurement selection
  - Present case studies to walk users through the process of selecting appropriate measures
  - Direct researchers and practitioners to additional resources
- Cover the four domains of the Measures Registry



# NCCOR.org/mruserguides



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## Measures Registry User Guides

To help researchers choose the most appropriate measures for their work in childhood obesity, NCCOR has developed four Measure Registry User Guides. This project was funded through NCCOR's first strategic funding alliance with The JPB Foundation.

The Measures Registry User Guides are designed to:

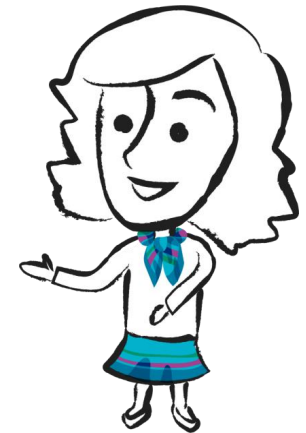
- Provide an overview of measurement
- Describe general principles of measurement selection
- Present case studies that walk researchers through the process of using the Measures Registry to select appropriate measures
- Direct researchers to additional resources and sources of useful information

Click the boxes below to access the User Guides.

[WHAT'S HAPPENING IN](#)

# Measures Registry Learning Modules

- 17 modules; 4 for each domain and an introductory module
- Each module takes 15 minutes or less
- Designed to
  - Introduce the domain
  - Highlight key topics
  - Demonstrate the process of choosing a measure via a case study
  - Test your knowledge with quiz questions following each module



# NCCOR.org/mrmodules

HOME > TOOLS > MEASURES REGISTRY LEARNING...

CATALOGUE OF SURVEILLANCE SYSTEMS

MEASURES REGISTRY

MEASURES REGISTRY USER GUIDES

REGISTRY OF STUDIES

SNAP-ED

YOUTH COMPENDIUM OF PHYSICAL ACTIVITIES

## WHAT'S HAPPENING IN NCCOR NEWS

NCCOR Celebrates 10 Years During National Childhood Obesity Awareness Month

NCCOR's Global Reach

NCCOR at the 10th Biennial Childhood Obesity Conference!

Childhood obesity rates decline among WIC-enrolled children

NCCOR at Nutrition 2019

## Measures Registry Learning Modules

The Measures Registry Learning Modules are designed to complement the Measures Registry and Measures Registry User Guides and assist researchers and practitioners with choosing the best measures across the four domains of the Measures Registry: individual diet, food environment, individual physical activity and physical activity environment. The Learning Modules include an introductory module that provides an overview of the module series, as well as four modules for each of the four domains. Each module domain also includes a glossary, additional resources, and an interactive case study. The Learning Modules are a great tool for users who are newer to research and evaluation in diet and physical activity, or individuals who need a refresher on key concepts. The modules were also designed with students and faculty in mind and include short quizzes to enhance classroom learning and understanding of key concepts.

Access each learning module below.



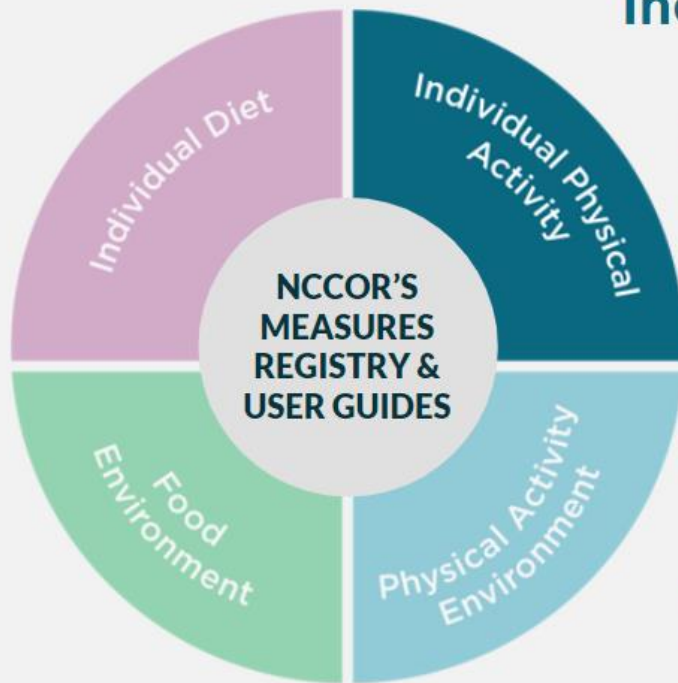
**Introduction to the Measures Registry User Guide Module Series**



**Individual Diet**

# Measures Registry Learning Modules: Individual Physical Activity

## Individual Physical Activity



1

**Module 1:** Introduction to the Individual Physical Activity Module Series

2

**Module 2:** Processing, scoring, and interpreting physical activity data

3

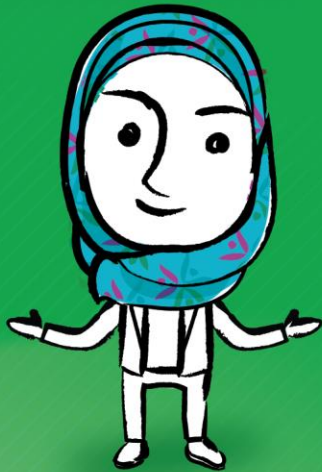
**Module 3:** Selecting and using activity monitors

4

**Module 4:** Case Study: Understanding walking behaviors and barriers to active travel to school



# SPOTLIGHT



# Summer Physical Activity and Friendships Study with Tyler Prochnow

# Summer PA and Friendships

- Decreased PA during summer
- Fewer structured opportunities
- Summer Care Programs (e.g. Boys & Girls Clubs)
  - Attended by more than 14.3 million each year
  - May fill gap
- Social influences?

# Social Influences on PA

- Selection – Choose friends based on PA
- Influence – Become more like friends over time
- Co-participation or Concurrent Play



# Research Questions

- How are friendships at a summer care program related to PA?
- How do these friendships change over time?
  - Does PA play a role in these changes?

# Research Questions

## Questions about the Adolescent

- Self-reported PA
- Skill Competency
- Team Sport Participation
- Demographics

## Social Network Questions

- Relation
- Location
- Frequency of play
- Activity
- Support

# Why you should use NCCOR's Measures Registry!

- So simple to use
- Everything in one place
- Quick scope of options

# What does it look like?



## Measures Registry

### Filter options

[clear filter]

#### Search

Contains

#### Domain

- Individual Dietary Behavior (26)
- Food Environment (7)
- Individual Physical Activity Behavior (152)
- Physical Activity Environment (16)

#### Measure Type

- GIS (0)
- 24-hour dietary recall (0)
- Food frequency (1)
- Electronic monitor (1)
- Environmental observation (3)
- Questionnaire (152)
- Record or log (3)
- Other (12)

#### Age

- 2 - 5 Years (24)
- 6 - 11 Years (152)
- 12 - 18 Years (85)
- Adults (10)

#### Context

- Metro/Urban (97)
- Small Town/Rural (9)

### Results

Showing 1-25 of 152 matching measures

[Show all](#)

[Next >](#)

Measure Name ▲	First Author	Year Published	Compare
<a href="#">3 Day Physical Activity Recall (3DPAR) Questionnaire for 8 to 13 Year Old Girls</a>	Farr JN	2011	<input type="checkbox"/>
<a href="#">Activity Questionnaire (GEMS GAQ)</a>	Story M	2003	<input type="checkbox"/>
<a href="#">Activity Questionnaire in 8 to 9 Year Olds (GEMS GAQ)</a>	Treuth MS	2003	<input type="checkbox"/>
<a href="#">Athletic Identity Questionnaire (AIQ) for 4th and 5th Graders</a>	Anderson CB	2008	<input type="checkbox"/>
<a href="#">Attitudes Toward Outdoor Play (ATOP) Scales for 9 to 13 Year Olds</a>	Beyer K	2015	<input type="checkbox"/>
<a href="#">Behavioural Lifestyle Changes Questionnaire for 9 to 17 Year Olds</a>	Carrillo-Bernate Y	2017	<input type="checkbox"/>
<a href="#">Bone Specific Physical Activity Questionnaire (BPAQ) for 8 to 13 Year Old Girls</a>	Farr JN	2011	<input type="checkbox"/>
<a href="#">Child and Adolescent Physical Activity and Nutrition Survey for 11 to 14 Year Olds</a>	Strugnell C	2011	<input type="checkbox"/>
<a href="#">Child and Adolescent Television Viewing and Ads Survey</a>	Ayala GX	2007	<input type="checkbox"/>
<a href="#">Children Participation Assessment Scale in Activities Outside of School-Parent Version (CPAS-P) for 6 to 12 Years Olds</a>	Amini M	2017	<input type="checkbox"/>
<a href="#">Children's Leisure Activities Study Survey (CLASS)</a>	Telford A	2004	<input type="checkbox"/>
<a href="#">Children's Leisure Activities Study Survey (CLASS) Questionnaire for Chinese 9-12 Year Olds</a>	Huang YJ	2009	<input type="checkbox"/>
<a href="#">Children's Physical Activity Questionnaire (cPAQ) for 9 and 10 Year Olds</a>	Nor Aini J	2013	<input type="checkbox"/>
<a href="#">Children's Physical Activity Questionnaire (cPAQ) for 9 to 10 Year Olds</a>	Nor Aini J	2013	<input type="checkbox"/>
<a href="#">Children's Travel Behaviours and Independent Mobility Questions for 4th to 6th Graders</a>	Larouche R	2017	<input type="checkbox"/>
<a href="#">Children's Travel to School Measure for 11 to 14 Year Olds</a>	Tetali S	2015	<input type="checkbox"/>
<a href="#">Commitment to Physical Activity Scale for Adolescents for Fifth to Seventh Graders</a>	Robbins LB	2017	<input type="checkbox"/>



# Comparing Measures

<a href="#">Home</a>	Comparing Measures		
<a href="#">Hide empty rows</a>	<a href="#">Attitudes Toward Outdoor Play (ATOP) Scales for 9 to 13 Year Olds</a> ▶	<a href="#">Knowledge, Attitudes, and Habits Questionnaire for 6 to 7 Year Olds</a> ▶	<a href="#">Motivation for Physical Activity</a> ▶
<b>Domain</b>			
Individual Dietary Behavior		✓	
Food Environment			
Individual Physical Activity Behavior	✓	✓	✓
Physical Activity Environment			
<b>Measure Type</b>			
GIS			
24-hour dietary recall or food frequency			
Electronic monitor			
Environmental observation			
Questionnaire	✓	✓	✓
Record or log			
Other			
<b>Available Info</b>			
Validity	✓	✓	✓
Reliability	✓	✓	✓
Instrument			
<b>Age</b>			
2 - 5 Years			
6 - 11 Years	✓	✓	✓
12 - 18 Years	✓		

# HBSC - PA



## Health Behavior in School-aged Children (HBSC) Questionnaire for 11 and 15 Year Olds

Abstract

At A Glance

Study Design

How To Use

Validity (0)

Reliability (6)

### Citation

Bobakova D, Hamrik Z, Badura P, Sigmundova D, Nalecz H, Kalman M. Test-retest reliability of selected physical activity and sedentary behaviour HBSC items in the Czech Republic, Slovakia and Poland. *Int J Public Health* 2015 Jan;60(1):59-67. Epub 2014 Dec 4.

### Abstract

**OBJECTIVES:** Better assessment of the reliability of the physical activity and sedentary behaviour items across countries in all WHO regions is highly needed. The aim of the study was to examine the test-retest reliability of selected physical activity and sedentary behaviour items of the HBSC questionnaire in Czech, Slovak and Polish adolescents.

**METHODS:** We obtained data from 693 Czech, Slovak and Polish (50.9% boys) primary school pupils, grades five (mean age = 11.08; SD = 0.45) and nine (mean age = 15.12; SD = 0.45), who participated in a test-retest study in 2013. We used the single measures of Intraclass Correlation Coefficients (ICC) and Cohen's Kappa statistic to estimate the test-retest reliability of all selected items within the sample and stratified by gender, age group and country.

**RESULTS:** Both physical activity items (VPA and MVPA) and most of the sedentary behaviour items showed moderate agreement (ICC 0.41-0.60) and a similarly moderate correlation (Cohen's Kappa 0.3-0.5) after dichotomization.

**CONCLUSIONS:** The physical activity and sedentary behaviour items of the HBSC questionnaire seem to be at the borderline of reliability to be used in adolescents.

### Full Text

The full text is available at <https://dx.doi.org/10.1007/s00038-014-0628-9>



# HBSC - PA



## Health Behavior in School-aged Children (HBSC) Questionnaire for 11 and 15 Year Olds

[Abstract](#)[At A Glance](#)[Study Design](#)[How To Use](#)[Validity \(0\)](#)[Reliability \(6\)](#)

### Domain(s)

Individual Physical Activity Behavior

### Measure Type

Questionnaire

### Measure Availability

Measure included in article

### Number of Items

5 Reported

### Study location

Metro/Urban

Olomouc, Pardubice, Kosice, Warsaw, Czech Republic, Slovakia, Poland

### Languages

Czech, Polish

### Information about Development of Measure

The Health Behavior in School-aged Children (HBSC) questionnaire's vigorous physical activity and moderate to vigorous physical activity items have been shown to be reliable in adolescent populations. But HBSC questions regarding sedentary behaviors, such as television watching and computer use have not been tested adequately in diverse child populations to know if they have acceptable reliability or acceptable validity. This study examines the test-retest reliability of selected physical activity and sedentary behavior items of the HBSC questionnaire in Eastern European adolescents.

### ▼ Individual Physical Activity Behavior Variables

#### Expenditure

Moderate Physical Activity

Vigorous Physical Activity

Sedentary Activity

#### Behavior

Sports/Recreation

Physical Education

Recess/Playtime/PA Breaks

Commute to Work/School

Screen Time

# HBSC - PA

## Health Behavior in School-aged Children (HBSC) Questionnaire for 11 and 15 Year Olds

Abstract

At A Glance

Study Design

How To Use

Validity (0)

Reliability (6)

Type of reliability	Construct/subscale assessed	Test/statistic used	Result
Test-retest	Health Behavior in School-aged Children questionnaire, moderate to vigorous physical activity items	Intraclass correlation coefficients (ICC), (95 % CI)	ICC = 0.52, (0.46-0.58), all ICC = 0.53, (0.45-0.61), boys ICC = 0.51 (0.41-0.59), girls ICC = 0.52, (0.43-0.60) 11 year olds ICC = 0.52 (0.42-0.60), 15 year olds
Test-retest	Health Behavior in School-aged Children questionnaire, vigorous physical activity items	Intraclass correlation coefficients (ICC), (95 % CI)	ICC = 0.55, (0.49-0.61), all ICC = 0.56, (0.48-0.64), boys ICC = 0.53, (0.44-0.61), girls ICC = 0.52, (0.44-0.60), 11 year olds ICC = 0.58, (0.50-0.66), 15 year olds
Test-retest	Health Behavior in School-aged Children questionnaire, TV use	Intraclass correlation coefficients (ICC), (95 % CI)	ICC = 0.51, (0.45-0.57), weekday, all ICC = 0.52, (0.46-0.58), weekend, all
Test-retest	Health Behavior in School-aged Children questionnaire, computer/internet use	Intraclass correlation coefficients (ICC), (95 % CI)	ICC = 0.61, (0.55-0.66), weekday, all ICC = 0.62, (0.56-0.67), weekend, all
Test-retest	Health Behavior in School-aged Children questionnaire, sitting time	Intraclass correlation coefficients (ICC), (95 % CI)	ICC = 0.55, (0.48-0.60), weekday, all ICC = 0.53, (0.47-0.59), weekend, all
Test-retest	Health Behavior in School-aged Children questionnaire, physical activity items	Cohen's Kappa (k)	k = 0.26 to 0.57, all p < 0.001

Measure last modified : 08/24/2018 4:16 PM

# Outcomes of the Study

- Cross-Sectional Results
- Longitudinal Results
- Network Perceptions
- Next steps

# Cross-Sectional Results

- Perceived Skill is spatially correlated
- Friendships are mutual and occur between same age and sex adolescents
- Self-reported PA was associated with more nominations received but less sent
- Similarity in PA increased the odds of connection in the larger program

# Longitudinal Results

- Over time adolescents formed friendships based on similarity in PA at larger program
- Smaller program saw opposite effects
- Evidence of friend turnover or change in friend groups due to new members or members leaving

# Network Perception Results



Adolescents perceive similar levels of PA for their friends



More physically competent and central adolescents were perceived as more active



# Next Steps

- Objectively measured activity levels
- Self-response Network Data



Network Canvas

BETA



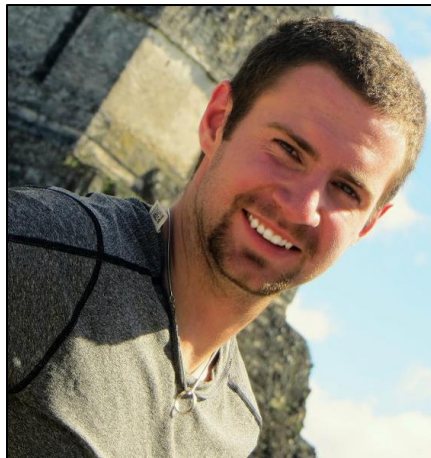
# Final Words

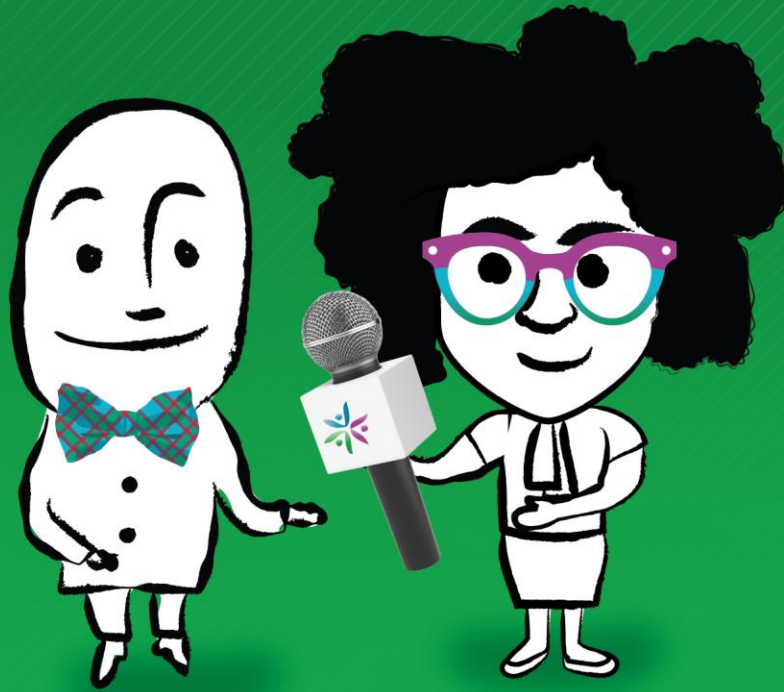
- Use the resources
- Take advantage of every opportunity
- Ask questions and reach out



# Questions

- Tyler\_prochnow1 @baylor.edu
- [Tprochnow.com](http://Tprochnow.com)





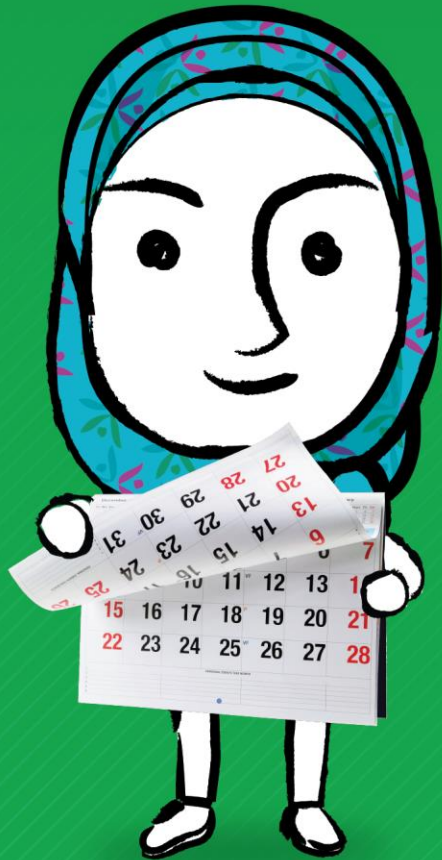
# ONE ON ONE

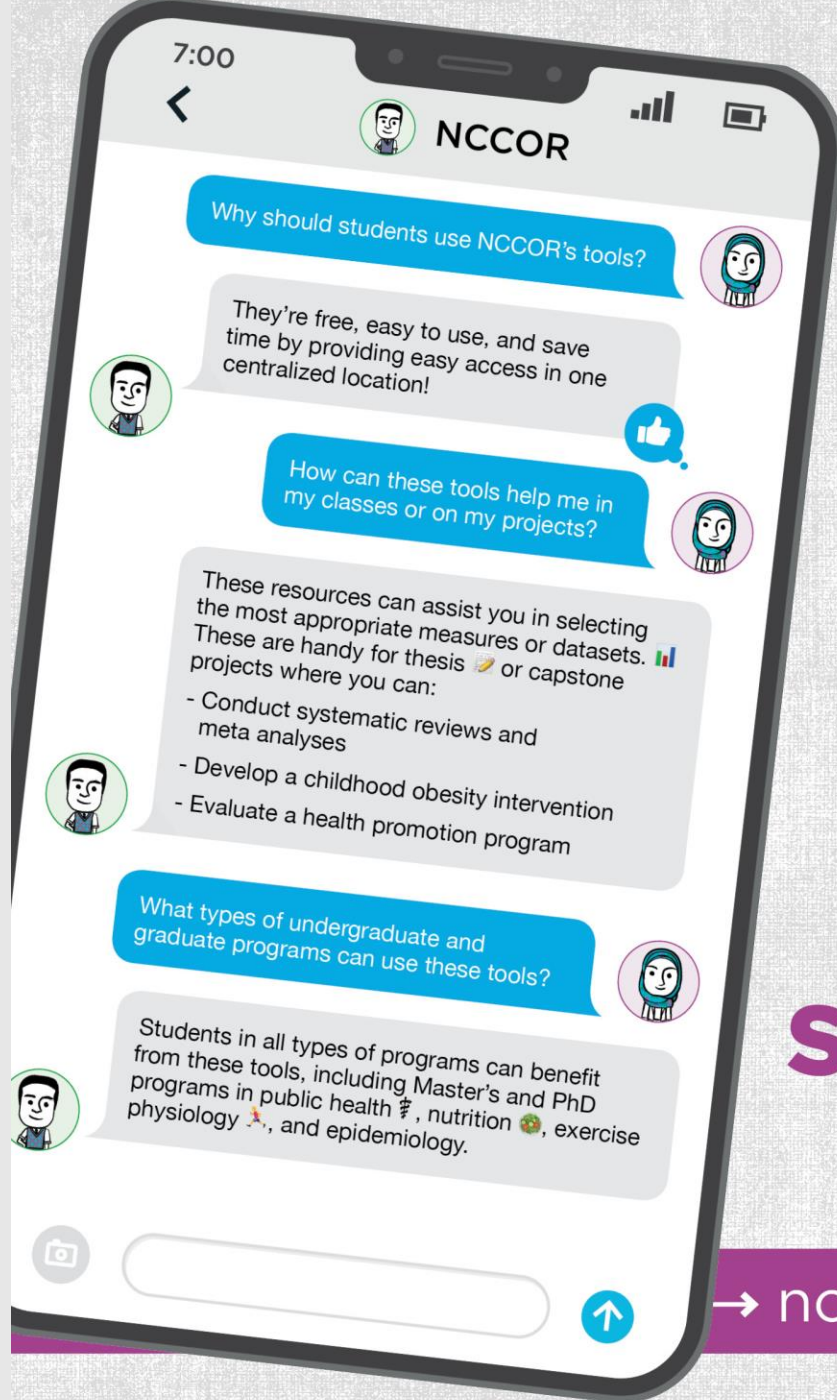
# QUESTIONS?

Please type your question(s) in the chat box located on the right.



# UPCOMING EVENTS





# Sign up for NCCOR Student Hub!

→ [nccor.org/e-newsletter](https://nccor.org/e-newsletter)

# Check out the new student hub webpage!

Funding Opportunities External Resources Events Contact

ABOUT PROJECTS TOOLS WEBINARS NEWS PUBLICATIONS RESOURCES **STUDENT HUB**

## THE NCCOR STUDENT HUB

Tools and resources for students studying diet and physical activity

Discover free tools and resources supported by CDC, NIH, USDA, and RWJF to help you with your coursework and research.

### ADDITIONAL RESOURCES

- Student Resources Guide
- Professor Factsheet
- Q&A for Public Health Students

### CHECK OUT THE NCCOR TOOLS

#### MEASURES REGISTRY RESOURCE SUITE

A suite of three tools: the Measures Registry, User Guides, and Learning Modules, that help users understand key measurement concepts and find appropriate measures for research and evaluation projects.

#### CATALOGUE OF SURVEILLANCE SYSTEMS

An easy to navigate, one-stop access to over 100 publicly available datasets relevant to childhood obesity research.

#### YOUTH COMPENDIUM OF PHYSICAL ACTIVITIES

A list of 796 common activities in which you participate and the estimated energy cost associate with each activity.

### WATCH THE WEBINARS

NCCOR has a **Connect & Explore webinar series** that connects you with leading experts in the field on a variety of public health topics.

[See all webinars](#)

### SIGN UP FOR THE STUDENT HUB

Our quarterly student e-newsletter connects you to free tools and resources that can support your schoolwork and research. Each newsletter will feature a case study of a student using one of the tools and will also share other childhood obesity events and resources.

Be sure to select **STUDENT** when signing up!

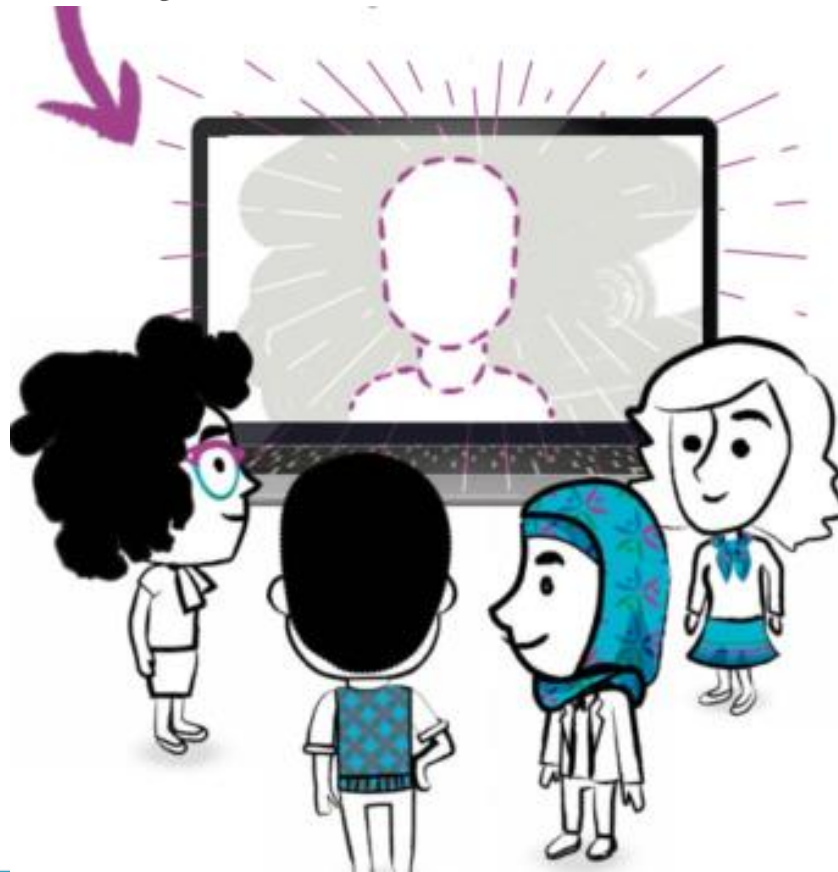
[Sign up for the e-newsletter](#)

**SIGN UP for our student newsletter!**  
nccor.org/te-newsletter



# Have you used any of NCCOR's tools?

- Let us know at [nccor@fhi360.org](mailto:nccor@fhi360.org) and we may feature you in our next webinar!



# Upcoming Events

- NCCOR will have a booth at SOPHE in Atlanta, GA March 17-20
- NCCOR presenting at SOPHE Student Workshop Wednesday, March 18, 11:15–12:45 p.m.

**STUDENT ACTIVITIES**  
Pre-registration required. Scan QR codes to register.

**Student Case Study Competition**  
Solve a real-world health issue using the competencies required for a school or community health educator.  
*Limited space available*  
Tuesday, 9:00AM - 5:00PM



**Student Workshop**  
Who's Who in Health Education: Learning How to Make the Best Out of Your Network  
Wednesday, 11:15AM - 12:45PM



**Student Social**  
Network with other students and young professionals.  
Food provided.  
Wednesday, 7:00PM - 8:30PM



**Resume Review**  
Bring a copy of your resume to get edits and advice from professionals in the field.  
*By appointment only*



# FURTHER QUESTIONS?

Other questions about NCCOR  
or upcoming activities?

Email the NCCOR Coordinating Center  
[nccor@fhi360.org](mailto:nccor@fhi360.org)

## WHAT'S HAPPENING IN **NCCOR NEWS**

NCCOR publishes chapter: Behavioral Design as an Emerging Theory for Dietary Behavior Change

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NCCOR is highlighting multidisciplinary partnerships to celebrate National Childhood Obesity Awareness Month 2018!

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Utility of the Youth Compendium of Physical Activities

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NCCOR to present at the Society for Prevention Research and the American College of Sports Medicine 2018 Annual Meetings

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NCCOR updates the Catalogue of Surveillance Systems and seeks recommendations for new systems

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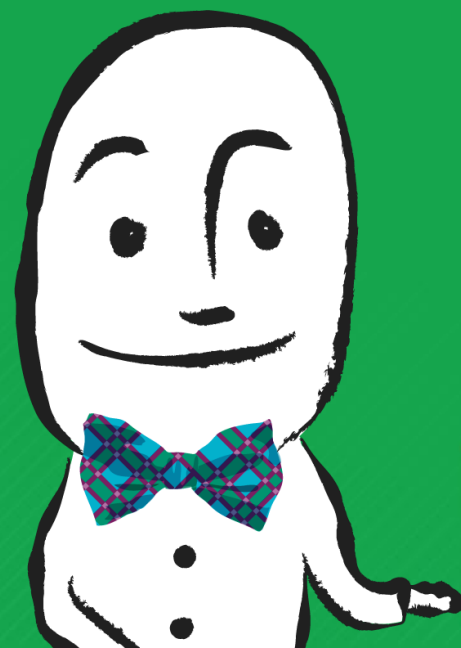
## Connect & Explore



## Upcoming Webinars

Mark your calendar for these upcoming Connect & Explore webinars!

THANK  
YOU!



NCCOR  
CONNECT  
& EXPLORE