NCCOR

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Investigating the Relationship Between Sleep and Childhood Obesity:

Integrating sleep into the National Collaborative on Childhood Obesity Research's (NCCOR) Catalogue of Surveillance Systems (CSS)

BACKGROUND

Research shows that sleep, along with diet and physical activity, plays a crucial role in childhood obesity.

- Few resources are available to allow researchers to comprehensively explore the interaction between these factors.

- Launched in 2011, the National Collaborative on Childhood Obesity Research (NCCOR)'s Catalogue of Surveillance Systems (CSS) was designed to help researchers compare over 100 systems relevant to childhood obesity, focusing on diet and physical activity. At the time, sleep was not a focus in the creation of the CSS.

OBJECTIVE

To expand the CSS to include sleep as a key variable, making it easier for researchers to identify datasets that support sleep and obesity research.

METHODS

- An NCCOR workgroup and expert panel of external sleep researchers were convened to incorporate sleep variables into the CSS.
  - 12 sleep-related variable categories to add to the CSS.
  - All 114 existing datasets were reviewed and, based on CSS criteria, additional datasets were identified by the panel for potential inclusion.

- There were two stages to data abstraction:
  - An expert panel member reviewed the datasets and abstracted information on these variables.
  - Workgroup members reviewed and provided feedback on the abstracted data; discrepancies were discussed and resolved as a group.

To be included in the CSS, systems need to:

✓ Have collected data within the last 10 years

✓ Provide publicly available raw data

✓ Be gathered in the United States

The 12 sleep-related variables added to the CSS include:

- Physical sleep environment
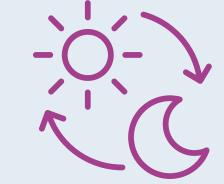- Sleep-disordered breathing
- Social sleep environment
- Sleep disturbances and quality
- Schedule-related sleep environment
- Sleep-related behaviors
- Sleep duration and quantity
- Sleep-related policies
- Sleep timing and regularity
- Sleep-related substance use
- Sleep continuity
- Sleep disorders

RESULTS

- The CSS now contains 118 datasets, 40 with sleep-related data.
  - Sleep-related data were identified in 36/114 existing datasets.
  - 4 new datasets were added to the CSS that contain sleep variables.

- Searches can be optimized using keywords, filter options, and other design features, including the ability to compare dataset variable contents. These features provide options for linkages and alignment with sleep and other obesity-relevant variables.

Following the addition of sleep variables in October 2023, the CSS has received
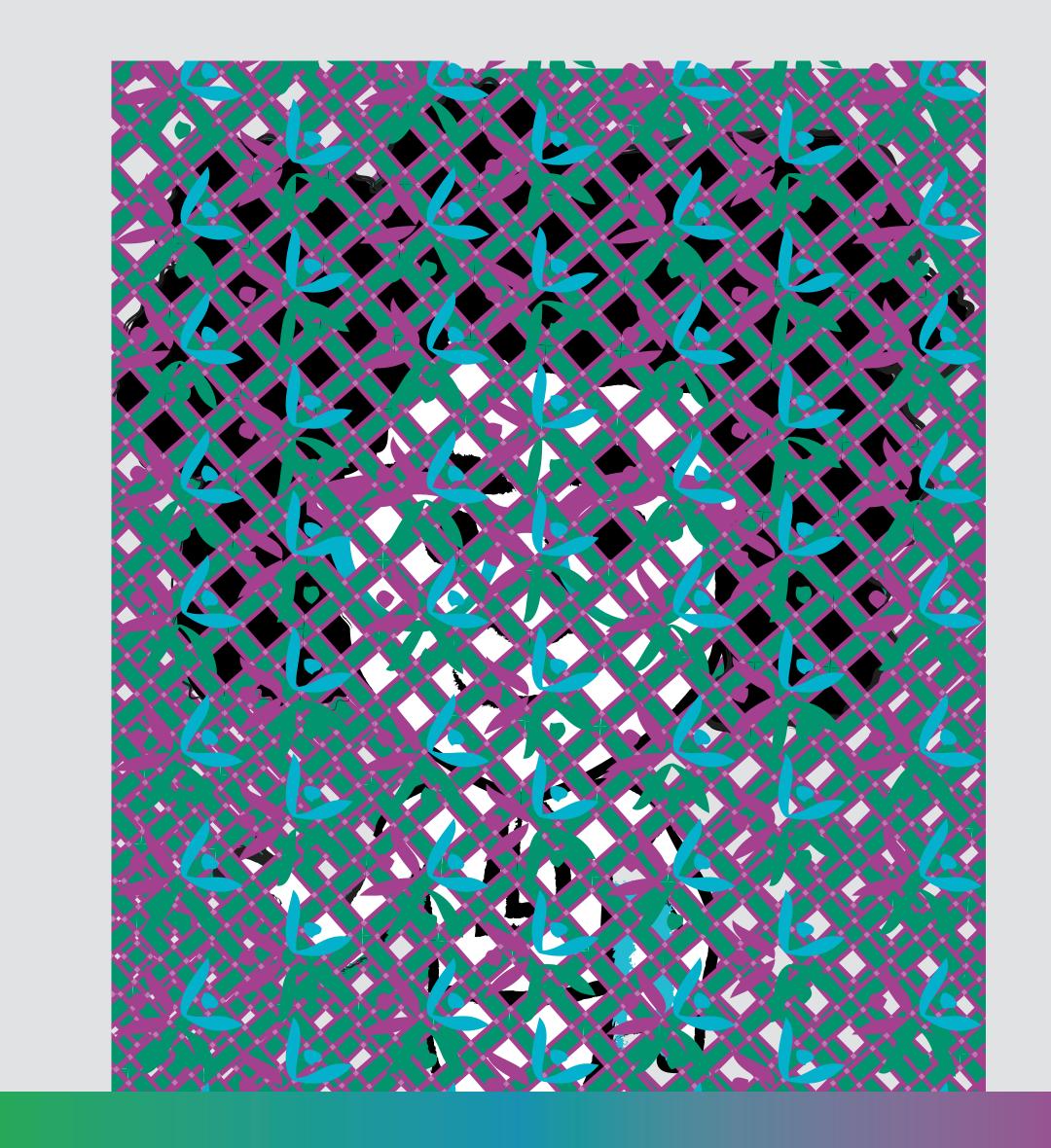
31,955 visitors

CONCLUSION

The CSS now allows users to identify datasets by sleep as a key variable, in addition to diet, physical activity, and weight.

Researchers can efficiently identify and explore the potential intersecting relationship of diet, physical activity, and sleep to support childhood obesity research.

About the Catalogue of Surveillance Systems:

» An online catalogue of publicly available datasets.

» Provides access to resources maintained by federal, state, academic, and private sector institutions that provide data related to health behaviors, outcomes, and determinants of obesity.

» Search and filter by key variables, age groups, racial/ethnic groups, and study design.