From Theory to Measurement: State measures of life course

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Presentation goals

- **Share** overview of the life course model and it’s relationship with social determinants of health
- **Share** process for development of Life Course Measures
- **Review** summary final indicators selected
- **Share** project resources
- **Answer** FAQs
Life course: Core ideas

• **Multiple determinants** of health—i.e. genetic, social, environmental, health systems, disease conditions, political/economic

• **Influence of time**—i.e. individual health changes over time, determinants vary over time, relationship between health and determinants depend on time
Life course: many models

- Medical Care
- Personal Behavior

Economic & Social Opportunities & Resources

- Policies to promote economic development, reduce poverty, and reduce racial segregation
- Policies to promote child and youth development and education, infancy through college
- Policies to promote healthier homes, neighborhoods, schools and workplaces

Living & Working Conditions in Homes & Communities

Source: P Braveman, Pediatrics, 2009
Life course: many models

Purpose of metrics project

Develop tools to help state MCH programs and their partners emphasize a life course health perspective throughout:

- **Assessment** of risks, capacity, & services
- **Planning** programs
- **Monitoring** and **evaluation** of outcomes
- **Engaging** and **educating** partners
When a final set of life course indicators exists, what will the impact be for the health of moms, kids, and families throughout your communities?

“Help state health departments...come out of their silos and think outside the box to better design programs and interventions that impact the life course trajectory for mothers, children, and families.”
Organizing Framework

Risk
- Experiences and exposures that indicate risk for future life course outcomes

Outcomes
- Outcomes that reflect or summarize an adverse life course trajectory.

Services
- Risk reduction and health promotion from services provided over time to MCH populations

Capacity
- Community and organizational capacity to address life course
<table>
<thead>
<tr>
<th>Domain</th>
<th>Perinatal/Infancy</th>
<th>Early Childhood</th>
<th>Childhood/School age</th>
<th>Adolescent</th>
<th>Young adult</th>
<th>Adult</th>
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Criteria: Data

1. **Data Availability**: Can the indicator be calculated in state and local public health agencies?

2. **Quality**: Accuracy and reliability including consistency of data quality and reporting across jurisdiction.

3. **Simplicity**: Level of complexity in both calculating and explaining the indicator.
Criteria: Life Course

1. **Implications for equity**: How well the indicator reflects and has implications for equity-related measures such as social, psychosocial, and environmental conditions, poverty, disparities, and racism.

2. **Public health impact**: Impact of a positive change in the indicator due to program or policy interventions.

3. **Ability to leverage resources or realignment**: How well the indicator reflects programs, services, and policies that expand beyond the traditional MCH focus?
Criteria: Life Course

4. **Improve the health and wellness of an individual and/or their children (intergenerational health):** How well the indicator reflects the time and trajectory components of the life course theory with an emphasis on indicators that address critical and transitional periods throughout life.

5. **Consistent with evidence base:** How well the indicator is connected to our current, scientific understanding of life course health.
Progress To Date

413 proposals (discussion/screening)

104 write ups (scoring/voting)

59

Life Course Indicators

Considered, not selected
Challenges

• Availability of data at a state and local level
• Availability of non-traditional MCH data
• Data quality, simplicity
• Overlap with other measures
• Issues/root causes highlighted by other measures
• Research is still in the early stages
www.amchp.org/lifecourseindicators

Life Course Indicators Online Tool

Explore the set of 56 life course indicators by Category, Data Source, or Domain (tabs) and click on the names to expand the section. Individual indicators are denoted by an ID number (e.g., LC-47) and include numerous details, such as a brief description, numerator, denominator, data source, similar measures in other indicator sets, and national comparison data, where appropriate. Throughout Fall 2013, AMCHP will continue to add PDF narratives for each indicator, which will include important notes on calculating the indicator as well as information on how the indicator aligns with the data and life course screening criteria.

Download a printer-friendly version of the list of indicators
Download an Excel spreadsheet to sort and explore the indicators on your own

Childhood Experiences

LC-1: Adverse Childhood Experiences Among Adults

Brief Description: Prevalence of adverse childhood experiences
Narrative: PDF not yet available. Please check back soon.
Numerator: Weighted number of adults ages 18 and older responding to the Behavioral Risk Factor Surveillance System (BRFSS) survey who report that they experienced 3 or more adverse childhood experiences (ACE)
Denominator: Number of adults 18 and older
Data Source: Behavioral Risk Factor Surveillance System (BRFSS)
Similar Measures in Other Indicator Sets: None
National Comparison:

(for notes on calculation, please view the narrative)
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- American Community Survey (ACS)
- Annual CDC Breastfeeding Report Card
- Behavioral Risk Factor Surveillance System (BRFSS)
- Bureau of Justice Statistics, National Prisoner Statistics Program
- CDC National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Atlas
- CMS - Annual Medicaid EPSDT Participation Report
- Council of State and Territorial Epidemiologists (CSTE) State Reportable Conditions Assessment (SRCA)
Life Course Indicator: Bullying

Introduction

Bullying can be defined as the repeated, systematic, and recurrent use of power and/or influence to hurt, intimidate, or control another individual. It can be physical, verbal, or psychological in nature. Bullying is a serious issue that can have significant short-term and long-term effects on the well-being of the victim and the perpetrator. It can lead to psychological distress, social isolation, and academic and social difficulties. It is important to identify and address bullying in order to promote healthy development and prevent negative outcomes.

Life Course Criteria

Indicator: Bullying

Basic Indicator Information

Name of Indicator: Bullying

Brief description: Percent of 9-12th graders who reported being bullied on school property or electronically bullied.

Indicator category: Discrimination and Segregation

Indicator domain: Risk/Outcome

Numerators: Number of 9th through 12th grade students (12-17 years) who reported having been bullied on school property or electronically during the past 12 months.

Denominator: 9th through 12th grade student population (12-17 years)

Potential modifications: Sex, race/ethnicity, grade level, self-reported academic performance in school

Data source: Youth Risk Behavior Surveillance System (YRBS)

Notes on calculation: Numerator is derived from the responses to two questions: During the past 12 months, have you ever been bullied on school property? During the past 12 months, have you ever been electronically bullied? (Count being bullied through e-mail, chat rooms, instant messaging, websites, or texting.) Respondents who answer yes to either question are included in the numerator. Results should take into account the appropriate survey weights to generate the final estimate.

Similar measures in other indicator sets: Healthy People 2020 focus area IV-35.
### Overlap between measures

<table>
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<tr>
<th>Title V measures</th>
<th>Preconception health indicators</th>
<th>Healthy People Objectives</th>
<th>CDC winnable battle</th>
<th>Chronic disease indicators</th>
<th>NQF</th>
<th>United Health Rankings</th>
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<td>Experiences of race-based discrimination or racism among women</td>
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<td>Perceived experiences of discrimination among children</td>
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<td>Perceived experiences of racial discrimination in healthcare among adults</td>
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<td>Racial residential segregation by community</td>
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<td>Capacity/Services</td>
<td>Human Papillomavirus (HPV) immunization</td>
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<td>Capacity to assess lead exposure</td>
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<td>States with P-20 longitudinal data sets</td>
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<td>Diabetes during pregnancy</td>
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<td>Stressors during pregnancy</td>
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<td>Voter registration</td>
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Indicator Resources:
www.amchp.org/lifecourseindicators

National Comparisons

‘Short List’ Indicators
<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
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<tbody>
<tr>
<td>Risk/Outcome</td>
<td>Adverse childhood experiences among children (NSCH)</td>
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<td>Experiences of race-based discrimination among pregnant women (PRAMS)</td>
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<td>Experiences of discrimination among children (NSCH)</td>
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<td>Households with a high level of concentrated disadvantage (ACS)</td>
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<td>Children living in households where smoking occurs inside the home (NSCH)</td>
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<td>Children or adults who are currently overweight or obese (NSCH, YRBSS, BRFSS, PRAMS)</td>
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<td>Depression among youth (YRBSS)</td>
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<td>Household food insecurity (USDA ERS)</td>
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<td>Preterm births (NVSS)</td>
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<td>Stressors during pregnancy (PRAMS)</td>
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<td>Incarceration Rate (BOJ, NPSP)</td>
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<td>Capacity/Services</td>
<td>Children who receive services in a medical home (NSCH)</td>
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<td>4th graders scoring proficient or above on math and reading (NAEP)</td>
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FAQs

- Where are the sentinel mortality indicators?
- Why isn’t low birth weight included?
- What do capacity indicators mean?
- Why aren’t their more resiliency measures?
- Are there targets associated with these indicators?