**FINAL SET – LIFE COURSE INDICATORS**

**Update:** In October 2018, AMCHP staff made a series of technical corrections and updates to components of the final life course indicators, including numerators and denominators, to further clarify their calculation and use. Updates to numerators and denominators were minimal and were mostly clarifications; the majority of the changes add information to the notes on calculation. These changes are now reflected in the online tool, excel spreadsheet, and printer-friendly versions. If you are concerned about how these changes may influence your calculation of the indicators, please contact AMCHP staff, who can supply you with the details of the specific changes.

| Identifier | Thematic Category | Indicator Name | Brief Description | Formula Numerator | Formula Denominator | Data Source |
| --- | --- | --- | --- | --- | --- | --- |
| LC-2 | Childhood Experiences | **Prevalence of Adverse Childhood Experiences Among Children** | Prevalence of adverse childhood experiences among children | Number of children whose parents responded to the NSCH that their children were exposed to adverse childhood experiences (9 questions related to ACEs) | Total number of children | National Survey of Children’s Health (NSCH) |
| LC-3 | Childhood Experiences | **Substantiated Child Maltreatment** | Substantiated child maltreatment including experience of physical abuse, neglect or deprivation of necessities, medical neglect, sexual abuse, psychological or emotional maltreatment | Number of children with reports of maltreatment types that include physical abuse, neglect or deprivation of necessities, medical neglect, sexual abuse, psychological or emotional maltreatment and the report is considered substantiated.  | Number of children under 17 years of age in the state. | National Child Abuse and Neglect Data System (NCANDS) |
| LC-4 | Community Health Policy | **Breastfeeding Support - Baby Friendly Hospitals** | Proportion of births occurring in baby friendly hospitals | Number of births at Baby-Friendly designated hospitals for a given year | Number of births in State for a given year | Annual CDC Breastfeeding Report Card |
| LC-5 | Community Health Policy | **Fluoridation** | Proportion of population served by community water systems that received optimally fluoridated water. | Population on community water systems that received optimally fluoridated drinking water in a calendar year.  | Population on community water systems in a calendar year | Water Fluoridation Reporting System |
| LC-6 | Community Wellbeing | **Concentrated Disadvantage** | Proportion of households with high level of concentrated disadvantage, calculated using 5 Census variables | Number of households at high level of concentrated disadvantage | Total number of households | American Community Survey (ACS) |
| LC-7A | Community Wellbeing | **Homelessness**  | Prevalence of homelessness among individuals. | Number of individuals experiencing homelessness in a given county | Total county population  | U.S. Department of Housing and Urban Development, Annual Assessment Report to Congress  |
| LC-7B | Community Wellbeing | **Homelessness**  | Prevalence of homelessness among families. | Number of families experiencing homelessness in a given county | Total number of families at county level | U.S. Department of Housing and Urban Development, Annual Assessment Report to Congress  |
| LC-8 | Community Wellbeing | **Homicide Rate** | Homicide rate | Total homicide-related deaths  | Total population | National Vital Statistics System (NVSS) Records |
| LC-9 | Community Wellbeing | **Household Food Insecurity** | Household Food Insecurity | Number of households experiencing food insecurity (household reports being unable to afford balanced meals, having to cut the size of meals because of too little money for food, or being hungry because of too little money for food.) | Number of households | United States Department of Agriculture (USDA) Economic Research Survey (ERS) |
| LC-10 | Community Wellbeing | **Poverty** | Percent of population living under the Federal Poverty Level | Number of families below the Federal Poverty Line or FPL (determined by US Thresholds)  | Total number of families | American Community Survey (ACS) |
| LC-11 | Community Wellbeing | **Small for Gestational Age** | Proportion of singleton live-born infants whose birth weight is at or below the 10th percentile for a given gestational age | Singleton live-born infants whose birth weight is at or below the 10th percentile for a given gestational age | Total number of singleton live births | National Vital Statistics System (NVSS) Records |
| LC-12 | Discrimination and Segregation | **Bullying** | Percent of 9-12th graders who reported being bullied on school property or electronically bullied | 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.  | 9th through 12th grade student population (12-17 years) | Youth Risk Behavior Surveillance System (YRBSS)  |
| LC-13 | Discrimination and Segregation | **Experiences of Race-Based Discrimination or Racism among Women** | Percent of women who experienced discrimination right before or during pregnancy. | Number of women who answer Yes to the question “During the 12 months before your new baby was born, did you feel emotionally upset (for example, angry, sad or frustrated) as a result of how you were treated based on your race?” | Total number of women who recently had a live birth | Pregnancy Risk Assessment Monitoring System (PRAMS) |
| LC-14 | Discrimination and Segregation | **Perceived Experiences of Discrimination Among Children** | Percent of children who experienced discrimination in the past year (parent report) | Number of children age 0-17 years who (somewhat or very) often experience racial discrimination in the past year, as reported by their parent | Total number of children 0-17 | National Survey of Children’s Health (NSCH) |
| LC-16 | Discrimination and Segregation | **Racial Residential Segregation, by Community**  | Differential distribution of individuals by race or other social or income factors (Dissimilarity Index). | Number of counties with dissimilarity index (DI) > .6 (very segregated) It is standard to view cities or other geographic areas with a DI under .3 as well integrated, those with a DI value between .3 and .6 as moderately segregated, and those with values above .6 as very segregated (10). See Notes for Calculation for formula | Total number of counties | American Community Survey (ACS) |
| LC-17 | Early Life Services | **Early Intervention** | Proportion of children aged 0-3 years who received EI services of all children aged 0-3 years | Children aged 0-3 years receiving EI services in a given state | All children aged 0-3 years | IDEA 618 Child Count |
| LC-18 | Early Life Services | **WIC Nutrition Services** | Proportion of children aged 2-5 years receiving WIC services compared to proportion of children <185% FPL | Children aged 2-5 years participating in the WIC program  | Total children aged 2-5 years whose income is below 185% FPL. | WIC program data |
| LC-19 | Early Life Services  | **Early Childhood Health Screening - EPSDT** | Percent of Medicaid-enrolled children who received at least one initial or periodic screen in past calendar year | Number of Medicaid enrollees ages 0-21 (enrolled for 90+ continuous days) receiving at least one initial or periodic screen | Total Medicaid-enrolled children ages 0-21 enrolled for 90+ continuous days | CMS - Annual Medicaid EPSDT Participation Report  |
| LC-20 | Economic Experiences | **High School Graduation Rate** | High school graduation rate (4 year cohort) as measured by the Adjusted Cohort Graduation Rate.  | Number of students who graduate in four years with a regular high school diploma  | Number of students who form the adjusted cohort for the graduating class | National Center for Education Statistics |
| LC-21 | Economic Experiences | **Mother's Education Level at Birth** | Percent of births by maternal education levels | Number of women delivering a live birth with <HS, HS, & some college | All live births | National Vital Statistics System (NVSS) Records |
| LC-22 | Economic Experiences | **Unemployment** | Prevalence of unemployment | Number of persons age 16 and older in the labor force who are unemployed (and actively seeking work)  | Number of persons age 16 and older | American Community Survey (ACS) |
| LC-23 | Family Wellbeing | **Adolescent Smoking** | Percent of adolescents who smoked cigarettes in the past 30 days | Total 9th-12th graders who smoked cigarettes ≥ 1 day during the past 30 days  | Total population of 9th – 12th graders | Youth Risk Behavior Surveillance System (YRBSS)  |
| LC-24 | Family Wellbeing | **Adolescent Use of Alcohol** | Percent of adolescents using alcohol during the past 30 days | Number of adolescents aged 12 to 17 years who reported use of alcohol during the past 30 days | Total NSDUH survey respondents Ages 12-17 | National Survey on Drug Use and Health (NSDUH), SAMHSA |
| LC-25 | Family Wellbeing | **Children with Special Health Care Needs** | Percent of children (0-17 years) with a special health care need | Children, ages 0-17 years with a special health care need | Children, ages 0-17 years | National Survey of Children’s Health (NSCH) |
| LC-26 | Family Wellbeing | **Diabetes** | Percent of adults with diagnosed diabetes | Total diabetes cases among adults ≥ 18 years  | Total adult population | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC-27 | Family Wellbeing | **Exclusive Breastfeeding at 3 Months** | Percent of children exclusively breastfed through 3 months | Estimate of the number of children exclusively breastfed through 3 months of age. | Number of individuals surveyed  | National Immunization Survey (NIS) |
| LC-28 | Family Wellbeing | **Exposure to Second Hand Smoke in the Home** | Percent of children living in a household where smoking occurs inside home | Number of children who live in a household with someone who smokes and smoking occurs inside home  | Children age 0-17 years | National Survey of Children’s Health (NSCH) |
| LC-29 | Family Wellbeing | **Hypertension** | Percent of adults with diagnosed hypertension | Total number of adults aged 18 and over who indicated a health professional told them they had high blood pressure | Total adult population 18 and over | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC-30 | Family Wellbeing | **Illicit Drug Use** | Prevalence of illicit drug use in the past month among population 12 years and older. | Reported illicit drug use in the past month for those 12 and older  | Total population aged 12 and older | National Survey on Drug Use and Health (NSDUH), SAMHSA |
| LC-32A | Family Wellbeing | **Obesity** | Percent of children who are currently overweight or obese | Number of children 10-17 who are currently overweight or obese, based on BMI for age (BMI-for-age):overweight OR obese (85th percentile or above) | Total children with height and weight data | National Survey of Children’s Health (NSCH) |
| LC-32B | Family Wellbeing | **Obesity** | Percent of adults who are currently overweight or obese | Number of adults currently overweight or obese based on BMI overweight OR obese (with a BMI of 25 or above) | Total adults with height and weight data in the above respective population or group | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC-33 | Family Wellbeing | **Physical Activity Among High School Students** | Proportion of high school students who are physically active for at least 60 minutes per day on five or more of the past seven days. | Number of high school students who report being active for at least 60 minutes per day on five or more of the past seven days. | All high school students. | Youth Risk Behavior Surveillance System (YRBSS)  |
| LC-34 | Health Care Access and Quality | **Cervical Cancer Screening** | The proportion of women who receive the appropriate evidence-based clinical preventive services (Pap Smear) for cervical cancer screening | Women ages 21-65 who received a pap smear within the last three years | Total women ages 21-65 | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC-35 | Health Care Access and Quality | **Children Receiving Age Appropriate Immunizations** | Percent of children ages 19-35 receiving age-appropriate immunizations according to the Advisory Committee for Immunization Practices (ACIP) guidelines and HP 2020 Goal. | Number of children surveyed who received ≥4 doses of DTaP/DT/DTP (Diphtheria/Tetanus/Acellular pertussis), ≥3 doses of poliovirus vaccine, ≥1 doses of measles-containing vaccine, full series of Hib (Haemophilus influenza - 3 or 4 doses, depending on product type), ≥3 doses of HepB (Hepatitis B), ≥1 dose of varicella vaccine, and >= 4 PCV (Pneumococcal) doses. 4:3:1:3:3:1:4 series | Number of children age 19-35 months | National Immunization Survey (NIS) |
| LC-36A | Health Care Access and Quality | **Human Papillomavirus (HPV) Immunization** | The proportion of adolescents ages 13-17 who receive the evidence-based clinical preventive service HPV vaccine | Adolescents aged 13-17 who received a complete series of HPV vaccine | Total population of adolescents aged 13-17 | National Immunization Survey-Teen (NIS-Teen) |
| LC-37 | Health Care Access and Quality | **Medical Home for Children** | Proportion of families who report their child received services in a medical home | Children ages 0-17 whose health care meets Medical Home criteria  | Children ages 0-17 years | National Survey of Children’s Health (NSCH) |
| LC-38 | Health Care Access and Quality  | **Asthma Emergency Department Utilization** | Proportion of persons on Medicaid with asthma having an asthma emergency department (ED) visit | Number of Medicaid beneficiaries with asthma having 1 or more ED visit for asthma during the measurement year.  | Number of Medicaid beneficiaries with asthma during the measurement year. | Medicaid Analytical eXtract (MAX) files |
| LC-39 | Health Care Access and Quality  | **Inability or Delay in Obtaining Necessary Medical Care or Dental Care**  | Percent of parents reporting their child was not able to obtain necessary medical care or dental care. | Number of survey respondents that report their child (ages 0-17) was not able to obtain or had a delay in obtaining necessary medical care or dental care. | Total child population ages 0-17 | National Survey of Children’s Health (NSCH) |
| LC-40 | Health Care Access and Quality  | **Medical Insurance for Adults** | The proportion of adults with medical insurance. | Number of adults 19 years and older with medical insurance | All adults 19 years and older | Kaiser State Health Facts |
| LC-41 | Health Care Access and Quality  | **Oral Health Preventive Visit for Children** | Percent of children who received a preventive dental visit in the past 12 months | Number of children ages 1-17 who received at least one preventative dental visit in the past 12 months / | Total child population ages 1-17 | National Survey of Children’s Health (NSCH) |
| LC-42 | Mental Health | **Depression Among Youth** | Percent 9th -12th graders who felt sad or hopeless almost every day for more than 2 weeks during the previous 12 months | Number of 9th -12th graders who felt sad or hopeless almost every day for more than two weeks during the previous 12 months  | Number of 9th -12th graders | Youth Risk Behavior Surveillance System (YRBSS)  |
| LC-43 | Mental Health | **Mental Health Among Adults** | Percent of adults with poor mental health | Weighted number of adults ages 18 and over responding to the BRFSS survey reporting that their mental health, which includes stress, depression, and problems with emotions, was “not good for ≥14 days out of the past 30 days | Weighted number of adults ages 18 and over responding to the BRFSS survey | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC-44 | Mental Health | **Postpartum Depression** | Percent of women who have recently given birth who reported experiencing postpartum depression following a live birth | Number of women who experienced self-reported postpartum depression following a live birth  | Total live births to recent mothers | Pregnancy Risk Assessment Monitoring System (PRAMS) |
| LC-45 | Mental Health | **Suicide** | Suicides per 100,000 population | Number of Suicides  | Total population | National Vital Statistics System (NVSS) Records |
| LC-48 | Organizational Measurement Capacity | **States with P-20 Longitudinal Data Sets** | States with P-20W longitudinal data systems. A P-20W is a data system where policies and standards are aligned to link student data for specified purposes across the education continuum, from early childhood through K12, postsecondary and the workforce. | Number of states, territories, and jurisdictions that completed 8 or more essential actions of fully functional P-20/workforce longitudinal data system (P for preschool).  | Total number of states, territories, and jurisdictions | The Data Quality Campaign (DQC)  |
| LC-49 | Reproductive Life Experiences | **Diabetes During Pregnancy** | Percent of adult women with diagnosed diabetes during pregnancy, only | Total women with diabetes only during pregnancy  | Total population of mothers | Pregnancy Risk Assessment Monitoring System (PRAMS) |
| LC-50 | Reproductive Life experiences | **Early Sexual Intercourse** | Initiation of sexual intercourse before age 13 years. | Number of 9th - 12th grade students who report initiating sexual intercourse before age 13 years | Number of 9th - 12th grade students | Youth Risk Behavior Surveillance System (YRBSS)  |
| LC-52 | Reproductive Life Experiences | **Postpartum Contraception** | Proportion of women using birth control postpartum | Respondents (women having a live birth) who reported that they or their husbands or partners were currently doing something to keep from getting pregnant | All respondents (women having a live birth) | Pregnancy Risk Assessment Monitoring System (PRAMS) |
| LC-53 | Reproductive Life Experiences | **Repeat Teen Birth** | Percent of teen births that are repeat teen births | Number of repeat live births to females 15-19 years (or other teenage group)  | Number of live births to females 15-19 years (or other teenage group) | National Vital Statistics System (NVSS) Records |
| LC-54 | Reproductive Life Experiences | **Teen Births** | Number of live births born to women aged 10-19 years per 1,000 women aged 10-19 years | Number of live births born to women aged 10-19 years | Number of women aged 10-19 years | National Vital Statistics System (NVSS) Records |
| LC-55 | Reproductive Life Experiences  | **Preterm Birth** | Percent of live births born < 37 weeks gestation | Number of live births born prior to 37 weeks gestation | Total number of live births | National Vital Statistics System (NVSS) Records |
| LC-57 | Social Capital | **4th Grade Proficiency** | Percent of 4th graders scoring proficient or above on math and reading | Number of 4th graders scoring proficient or above on math and reading  | Total enrolled 4th graders in public schools | National Assessment of Educational Progress (NAEP) |
| LC-58A | Social Capital | **Incarceration Rate**  | Prevalence of juveniles ages 13-17 male or female, detained in residential placement | Number of juveniles ages 13-17 male or female, detained in residential placement  | Total population of 13-17 year olds | National Center for Juvenile Justice, Office of Juvenile Justice and Delinquency |
| LC-58B | Social Capital | **Incarceration Rate**  | Prevalence of adults incarcerated | Number of adults age 18 or over imprisoned  | Total population of adults age 18 or over | Bureau of Justice Statistics, National Prisoner Statistics Program |
| LC-59 | Social Capital | **Voter Registration** | Voter registration | Number of adults registered to vote  | Total eligible population | Current Population Survey (CPS) |

**Indicators That Were Excluded from the Final Set**

These indicators are no longer included in the final set of indicators, with an explanation included for their removal. However, these indicators may still be feasible for use and calculation if data is available.

| Identifier | Thematic Category/ Indicator Name | Reason for Exclusion  | Brief Description | Formula Numerator | Formula Denominator | Data Source |
| --- | --- | --- | --- | --- | --- | --- |
| LC-1 | Risk/Outcome **Adverse Childhood Experiences Among Adults** | According to the BRFSS website, the last time states used the ACE optional module was in 2012. In 2013, 2014 and 2015, the module was not used by states. It was only used by 4 states in 2012 and 5 states in 2011. | Prevalence of adverse childhood experiences | 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) | Number of adults 18 and older | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC- 15 | Risk/Outcome **Perceived Experiences of Racial Discrimination in Healthcare among Adults** | The “Reactions to Race” optional module has not been used since 2014 and was not included in the 2015 or 2016 surveys. In 2014, the module was only included by 4 states.  | Percent of adults reporting racial discrimination in healthcare | Adults 18 and over reporting perceived racial discrimination in health care | Total adults 18 and over | Behavioral Risk Factor Surveillance System (BRFSS) |
| LC-31  | Risk/Outcome**Intimate Partner Violence, Injury, Physical or Sexual Abuse** | The “Intimate Partner Violence” optional module has not been used by a state since 2007. Other data sources have availability or quality issues. National Crime Victimization Survey from the Bureau of Justice Statistics only provides national estimates. The National Intimate Partner and Sexual Violence Survey (NISVS) gives state-level data but strongly cautions against comparing estimates across states. Raw data for NISVS are in a restricted access database which have specific requirements for obtaining them. The last data release was 2010-2012 data.  | Number of intimate partner victimizations per 1,000 persons age 12 and older | Number of persons aged 12 years or older who reported intimate partner violence | Number of persons aged 12 and older per 1,000 | Behavioral Risk Factor Surveillance System |
| LC-36B | Service/Capacity**Human Papillomavirus (HPV) Immunization** | This indicator was excluded due to lack of data availability. Our write up states: "The NHIS sample may be too small to provide State level data with acceptable precision for each State. Therefore, states should combine years to obtain selected estimates." There does not seem to be a state variable in the NHIS person file that would allow for identification of responses by state. | The proportion of young adults ages 18-26 who receive the evidence-based clinical preventive service HPV vaccine | 18-26 year olds (male and females) who received complete series HPV vaccine | Total 18-26 year old adults | National Health Interview Survey (NHIS) |
| LC-46 | Service/Capacity**Capacity to Assess Lead Exposure** | The purpose of this indicator is to get at state level capacity. It examines where there is still a gap with required reporting. The fact that it is a reportable condition should indicate a commitment to lead by the state. Where there have been high profile lead exposure cases, this is not the best indicator for this purpose, and has been removed from the list. | Capacity of states to assess lead exposure | State level: Yes or No to the question, does your state have an explicit requirement that blood lead test results be reported to the state health department; National level: Number of States / districts / territories with an explicit requirement that blood lead test results be reported to the state health department | State level: no denominator; National level: Number of states, districts and territories | Council of State and Territorial Epidemiologists (CSTE) State Reportable Conditions Assessment (SRCA) http://cste.site-ym.com/group/SRCAQueryRes |
| LC-47 | Service/Capacity**Data Capacity to Support Integrated Childhood Research** | This indicator is no longer available after the Title V block grant transformation. We are looking for other indicators that can be substituted to capture data capacity to support integrated childhood research. | Ability of state MCH programs to support integrated, population-based childhood research (i.e., research using linked program data). For state level, proportion of priority datasets to which the MCH program always has timely access (including for linkage) for program or policy planning purposes. For national level, proportion of states that have timely access to at least 5 priority datasets. | State level: Number of priority datasets (e.g. programs) the Title V agency always has timely access to for policy and program planning purposes (including for linkage). (score of 3= Yes, the MCH agency always has this ability). Priority programs are death certificates, Medicaid, WIC, newborn screening, hospital discharge, birth defects surveillance, PRAMS and YRBSS. National level: Number of states that always have timely access (score of 3) to at least 5 priority datasets. | State level: total number of priority datasets (N=8). National level: The number of states and the District of Columbia (jurisdictions) | Title V Information System (TVIS) - Health Systems Capacity Indicator #9A and #9B |
| LC-51 | Risk/Outcome**HIV Prevalence** | The data source, CDC Atlas, provides a prevalence estimate for those living with HIV but it is limited to adults and adolescents (13 and older). We can change the indicator to adolescent and adult HIV prevalence, but will be missing those under 13. Most of under 13 cases are due to perinatal transmission – this data is available. We could create an a and b measure, a) prevalence of HIV 13 and over, b) new diagnoses for children. Data is also reported this way on the Kaiser Family Foundation (Their data comes from CDC). | HIV rate (diagnosed cases) per 100,000 total population | Total diagnosed HIV cases in the population | Total population | CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) Atlas |
| LC-56 | Risk/Outcome**Stressors During Pregnancy** | The questions for stressors during pregnancy were previously on the core list of PRAMS questions but are now standard questions that can be added to state surveys. | Proportion of women reporting two or more stressors during pregnancy | Respondents (women having a live birth) who reported two or more stressors during most recent pregnancy | All respondents (women having a live birth) | Pregnancy Risk Assessment Monitoring System (PRAMS) |