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Adverse childhood experiences (ACEs) are costly in terms of poor health outcomes, poor academic performance, unemployment, and incarceration. Preventing and mitigating ACEs in the early years reduces costs over the long term in all of these systems.

ACEs can be mitigated and prevented by the promotion of safe, stable and nurturing relationships and environments through the following strategies: home visiting, parenting training, intimate partner violence prevention, social supports for parents, teen pregnancy prevention, mental illness and substance abuse treatment, high quality child care, and sufficient income support for families.<sup>i</sup>

The Colorado Children's Campaign makes the following recommendations to prevent and mitigate ACEs for Colorado children in the early years and, thereby, reduce the long-term costs of chronic disease:

### **1. Expand access to the Nurse-Family Partnership and other evidence-based home visiting programs**

**Colorado should increase funding to allow the Nurse-Family Partnership (NFP) and other evidence-based home visiting programs to, first, serve all families expecting their first child and living under 200 percent of the Federal Poverty Level and, second, expand access to at-risk second-time parents.**

- In 2015, NFP served 4,563 total families in Colorado, only 48 percent of first-time births to women enrolled in Medicaid.<sup>ii</sup>
- Colorado families who have participated in NFP have shown a nearly 50 percent reduction in domestic violence; a 90 percent immunization rate by the child's second birthday; a 21 percent reduction in women who smoked during pregnancy; and a 32 percent reduction in alcohol use during pregnancy.<sup>iii</sup>
- Studies that followed up with program participants 15 years later showed reduced criminal activity among mothers and their children, improved school readiness, fewer months spent on welfare, and reductions in child abuse and neglect.<sup>iv</sup>
- NFP provides home visits to low-income, first-time mothers. However, the long-term benefits of home visiting for children and families could positively impact all children and families living below 200 percent of the Federal Poverty Level, even those who are second-time parents. All of these long-term benefits translate into reduced need for more expensive health interventions and the cost savings associated with these prevention measures could be magnified by increasing the reach of evidence-based home visitation programs. For example, Oklahoma coordinates three home visiting programs in the state in order to reach the largest possible population of at-risk families, including expectant mothers who already have a child.<sup>v</sup>

### **2. Expand access to screening and services for developmental and behavioral concerns, ACEs, and maternal depression**

**a) Colorado should develop a statewide screening, referral and care coordination strategy and infrastructure and a statewide navigation system to connect caregivers, families and providers to referral and mental health resources. Specifically, ensuring that children who are screened for developmental delays, social-emotional delays, autism spectrum disorders, and other psychosocial risk factors are actually connected with services via a more effective process of moving from screening to services would save money downstream due to fewer missed opportunities to intervene early.**

- Mental, emotional, and behavioral disorders among youth cost \$247 billion annually in mental health and health services, lost productivity and crime.<sup>vi</sup>
- Fewer than half of all Colorado kids under age 6 received a developmental screening between 2011 and 2012.<sup>vii</sup> Nationally, when developmental screenings indicate a need for further evaluation, only half of families are referred for in-depth evaluation and fewer than 11 percent of children actually receive services.<sup>viii</sup>
- Nearly 20 percent of Colorado children under age 18 have experienced two or more ACEs.<sup>ix</sup> The ACEs study conducted by the CDC and Kaiser Permanente found that participants who experienced four or more ACEs were four to 12 times more likely to suffer from alcoholism, drug use or depression; two to four times more likely to smoke; and 1.4 to 1.6 times more likely to be obese. Heart disease, diabetes and sexually transmitted diseases were also more common among those who had experienced more adversity as a child.<sup>x</sup>
- Early screening, referral, and connection to prevention-oriented services can head off the long-term costs of early adversity, but very few children receive the screening and services they need.

- The redesign of the Medicaid program through the development of Phase II of the Accountable Care Collaborative provides an opportunity to design a system that offers incentives for developmental and behavioral health screenings and appropriate follow-up care, including referral and treatment. Developmental screening in the first three years of life and maternal depression screening should be key performance indicators in the new system and providers should be held accountable to the care provided to children in the most sensitive periods, including children in the foster care system.

**b) Colorado should maintain its current policy of allowing an annual maternal depression screening at a child’s visit and expand this policy to allow for maternal depression screenings as part of well-child visits at several intervals (Bright Futures, for example recommends at least three) during a child’s first year of life.**

- Maternal depression can occur at any time during pregnancy and up to one year postpartum. Children raised by clinically depressed mothers perform lower on cognitive, emotional, and behavioral assessments than children of non-depressed caregivers, and are at risk for later mental health problems, social adjustment difficulties, and difficulties in school.<sup>xi</sup>
- The US Preventive Services Task Force recommends screening for depression in pregnant and post-partum women stating that “the economic burden of depression is substantial for individuals as well as society.” The recommendation notes that even studies of the effect of screening plus “minimal additional intervention” have shown reductions in post-partum depression at follow-up.<sup>xii</sup>
- Bright Futures recommends maternal depression screening three times during the child’s first year, and since maternal depression screening is for the direct benefit of the child, state Medicaid agencies may allow such screenings to be claimed as part of the EPSDT benefit.<sup>xiii</sup> Other state Medicaid agencies, including Illinois, North Dakota and Virginia, allow and encourage providers to perform and bill for multiple maternal depression screenings during well-child visits during the first year of life, as a risk assessment for the child.<sup>xiv</sup>
- The current Colorado policy of reimbursing a single annual maternal depression screening on the child’s plan should be maintained, but Colorado should also reimburse providers for maternal depression screenings at additional points during a child’s first year of life, to avoid missing opportunities to address maternal depression early, saving costs across two generations of patients.

### **3. Invest in programs to prevent unintended pregnancies, especially among teens**

**Colorado should continue to fund the Colorado Family Planning Initiative and evidence-based sex education in schools and provide consistent access to the most effective methods of contraception. Expanding access to 12-months of contraceptive coverage at the initial request, rather than requiring monthly refills, has shown that this increases contraception use, fewer pregnancies, fewer abortions, and fewer costs.**

- While roughly half of pregnancies are unintended among the general population, 80 percent of pregnancies to women under the age of 19 are unintended.<sup>xv</sup>
- Largely due to a shortage of support and resources for teen parents and their children, only 40 percent of teen mothers finish high school,<sup>xvi</sup> and fewer than two percent finish college by age 30.<sup>xvii</sup> Women with a bachelor’s degree or higher in Colorado earn 77 percent more than women with a high school diploma or equivalent.<sup>xviii</sup>
- Children of teen mothers are 50 percent more likely to repeat a grade, are less likely to complete high school than the children of older mothers, and have lower performance on standardized tests.<sup>xix</sup>
- In 2014, the Colorado Department of Public Health and Environment’s family planning program spent an average of \$404 per patient for a family planning visit. The average Medicaid birth costs more than \$11,500 per woman.
- Policies should support consistent access to the most effective methods of birth control and to the methods that work best for each woman. For example, data show that providing access to additional months of contraceptive coverage is associated with increased continuation of use, fewer pregnancies and abortions, and lower costs.<sup>xx,xxi,xxii</sup>

### **4. Expand access to high quality child care and preschool**

**a) Colorado should increase access to child care subsidies and utilize tax credit strategies to help families afford quality child care. Specifically, expanding child care subsidy eligibility and increasing the scope of tax credits available to promote access to quality early learning increase access to quality early experiences that have been shown to reduce downstream health needs.**

- Social experiences in early childhood are linked to brain, cognitive and behavioral development, which are linked – through effects on educational attainment – to health outcomes including cardiovascular disease, hypertension, diabetes, obesity, smoking, drug use and depression. These conditions account for a major portion of preventable illness, disability and premature mortality in the United States.<sup>xxiii</sup>
- Employee absenteeism due to child care disruptions costs U.S. businesses \$3 billion annually.<sup>xxiv</sup>
- In 2014-15, about 30,000 Colorado children used child care subsidies through the Colorado Child Care Assistance Program (CCCAP) – only a fraction of the low-income children in the state. On average, only about one in six families who is income eligible currently receives the CCCAP subsidy.<sup>xxv</sup>
- Access to quality child care can help mitigate some of the adversity that low-income families face in participating in the workforce while at the same time promoting the school readiness of children at a sensitive point in their lives.

## b) Colorado should provide **universal access to quality preschool.**

- A 2014 study found “compelling biomedical evidence that participants in a high-quality early childhood program have significantly lower risks for cardiovascular disease and diabetes in adulthood.”<sup>xxvi</sup> The study found that these participants have better physical health in their mid-30s, “with significant markers indicating better future health.”<sup>xxvii</sup> Studies have also demonstrated that children in high-quality early childhood programs were 30 to 40 percent more likely to graduate from high school, and more education is associated with less smoking, more physical activity and longer life expectancy.<sup>xxviii</sup>
- Early childhood education can increase earnings in adulthood by 1.3 to 3.5 percent. These earnings gains alone are bigger than the costs of such programs.<sup>xxix</sup> If all families were able to enroll their children in preschool at the same rate as high-income families, enrollment would increase nationwide by about 13 percentage points and yield net present value of \$4.8 billion to \$16.1 billion per cohort from earnings gains alone after accounting for the cost of the program.<sup>xxx</sup>
- Less than half of Colorado three and four year olds were enrolled in preschool between 2011 and 2013. In 2014, the Colorado Preschool Program (CPP) only had capacity to serve 22 percent of four year olds and eight percent of three year olds in the state. The Colorado Department of Education estimates that in 2014-15, more than 11,400 four year olds qualified for CPP but had no program available to them.<sup>xxxi</sup>

<sup>i</sup> Centers for Disease Control. (2016). ACEs Can Be Prevented. [http://www.cdc.gov/violenceprevention/acestudy/about\\_ace.html](http://www.cdc.gov/violenceprevention/acestudy/about_ace.html).

<sup>ii</sup> Personal Communication from Invest in Kids.

<sup>iii</sup> Invest in Kids. (2014). Colorado Nurse-Family Partnership Fact Sheet.

<sup>iv</sup> Nurse-Family Partnership. (2013). Research trials and outcomes. Retrieved from [http://www.nursefamilypartnership.org/assets/PDF/Factsheets/NFP\\_Research\\_Outcomes.aspx](http://www.nursefamilypartnership.org/assets/PDF/Factsheets/NFP_Research_Outcomes.aspx).

<sup>v</sup> The Pew Center on the States. (2011). States and the New Federal Home Visiting Initiative: An Assessment from the Starting Line.

<sup>vi</sup> The National Research Council and the Institute of Medicine of the National Academies. (2009). Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. Washington, DC: National Academies Press.

<sup>vii</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2013). 2011-2012 National Survey of Children’s Health.

<sup>viii</sup> Kavanagh, J., et al. PolicyLab, The Children’s Hospital of Philadelphia. (2012). SERIES: An integrated approach to supporting child development. Retrieved from: [http://policylab.chop.edu/sites/default/files/pdf/publications/PolicyLab\\_EtoA\\_SERIES\\_Developmental\\_Screening\\_Summer\\_2012.pdf](http://policylab.chop.edu/sites/default/files/pdf/publications/PolicyLab_EtoA_SERIES_Developmental_Screening_Summer_2012.pdf).

<sup>ix</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2013). 2011-2012 National Survey of Children’s Health.

<sup>x</sup> Felitti, V.J., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine* 14(4), pp. 245-258.

<sup>xi</sup> Center on the Developing Child at Harvard University. (2009). Maternal Depression Can Undermine the Development of Young Children: Working Paper No. 8. [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu).

<sup>xii</sup> U.S. Preventive Services Task Force. (2016). Final Recommendation Statement, *Depression in Adults: Screening*. <http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/depression-in-adults-screening1>.

<sup>xiii</sup> Centers for Medicare & Medicaid Services. CMCS Informational Bulletin. Maternal Depression Screening and Treatment: A Critical Role for Medicaid in the Care of Mothers and Children. May 11, 2016.

<sup>xiv</sup> Ibid.

<sup>xv</sup> Centers for Disease Control. (2015). Unintended Pregnancy Prevention. <http://www.cdc.gov/reproductivehealth/unintendedpregnancy/>.

<sup>xvi</sup> The National Campaign to Prevent Teen and Unplanned Pregnancy and America’s Promise Alliance. (2010). Policy Brief: Preventing Teen Pregnancy is Critical to School Completion. [https://thenationalcampaign.org/sites/default/files/resource-primary-download/briefly\\_policybrief\\_school\\_completion.pdf](https://thenationalcampaign.org/sites/default/files/resource-primary-download/briefly_policybrief_school_completion.pdf).

<sup>xvii</sup> Perper, K., Peterson, K., Manlove, J. (2010). Diploma attainment among teen mothers. Washington, D.C.: Child Trends.

<sup>xviii</sup> Colorado Department of Public Health and Environment. “Education, Self-Sufficiency, and Economic Opportunity.” Retrieved from: [https://www.colorado.gov/pacific/sites/default/files/HPF\\_FP\\_UPEducation-Self-SufficiencyEconomic-Opportunity.pdf](https://www.colorado.gov/pacific/sites/default/files/HPF_FP_UPEducation-Self-SufficiencyEconomic-Opportunity.pdf).

<sup>xix</sup> The National Campaign to Prevent Teen and Unplanned Pregnancy and America’s Promise Alliance. (2010). Policy Brief: Preventing Teen Pregnancy is Critical to School Completion. [https://thenationalcampaign.org/sites/default/files/resource-primary-download/briefly\\_policybrief\\_school\\_completion.pdf](https://thenationalcampaign.org/sites/default/files/resource-primary-download/briefly_policybrief_school_completion.pdf).

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- <sup>xxv</sup> Michelle Webster and Andrew Ball, Child Care Funding in Colorado Has Fallen Behind by \$54 Million (Colorado Center on Law & Policy, March 26, 2014).
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